

FINAL

FACILITY WIDE GROUNDWATER MONITORING PROGRAM

ANNUAL REPORT FOR 2005,

RAVENNA TRAINING AND LOGISTICS SITE / RAVENNA ARMY AMMUNITION PLANT,
RAVENNA, OHIO

PREPARED FOR

US ARMY CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY
CONTRACT NO. W912QR-05-F-0031

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U.S. Army Corps of Engineers
Louisville, Kentucky
Contract No. W912QR-05-F-0031

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LIST OF ACRONYMS

ADR	Automatic Data Review
Amsl	above mean sea level
AOC	Area of Concern
BRACO	U.S. Army Base Realignment and Closure Office
DOD	Department of Defense
FCO	Field Change Order
FWGWMPP	Facility Wide Groundwater Monitoring Program Plan
FWGWMP	Facility Wide Groundwater Monitoring Program
FWSAP	Facility Wide Sampling and Analysis Plan
HMX	high melting point explosive (octogen)
IDW	Investigation Derived Waste
MCL	Maximum contaminant level
MS/MSD	Matrix spike/matrix spike duplicate
NGB	National Guard Bureau
ODA2	Open Demolition Area 2
OHARNG	Ohio Army National Guard
Ohio EPA	Ohio Environmental Protection Agency
PCB	polychlorinated biphenyl
PRG	Preliminary remediation goal
QA	quality assurance
QC	quality control
RDX	cyclotrimethylenetrinitramine (explosive)
REIMS	RVAAP Environmental Information Management System
RI	Remedial Investigation
RQL	Ramsdell Quarry Landfill
RTLS	Ravenna Training and Logistics Site
RVAAP	Ravenna Army Ammunition Plant
SRC	Site Related Contaminant
SVOC	semi-volatile organic compound
ug/L	microgram per liter
USACE	U.S. Army Corps of Engineers
USEPA	United States Environmental Protection Agency
VOC	Volatile organic compound

1.0 INTRODUCTION

1.1 SITE DESCRIPTION

Past Department of Defense (DOD) activities at the Ravenna Army Ammunition Plant (RVAAP) date back to 1940 and include the manufacturing, loading, handling and storage of military explosives and ammunition. Up until 1999, the RVAAP was identified as a 21,419-acre installation. The property boundary was resurveyed by the Ohio Army National Guard (OHARNG) over a two year period 2002 and 2003 and the actual total acreage of the property was found to be 21,683.289 acres. As of February 2006, a total of 20,403 acres of the former 21,683 acre RVAAP have been transferred to the United States Property and Fiscal Officer (USP&FO) for Ohio for use by the OHARNG as a military training site. The current RVAAP consists of 1,280 acres in several distinct parcels scattered throughout the confines of the OHARNG Ravenna Training and Logistics Site (RTLS). The RVAAP and the RTLS are collocated on contiguous parcels of property and the RTLS perimeter fence completely encloses the remaining parcels of the RVAAP. The RTLS is in northeastern Ohio within Portage and Trumbull Counties, approximately 4.8 kilometers (3 miles) east northeast of the city of Ravenna and approximately 1.6 kilometers (1 mile) northwest of the city of Newton Falls (Figure 1-1). The RVAAP portions of the property are solely located within Portage County. The RTLS (inclusive of the RVAAP) is a parcel of property approximately 17.7 kilometers (11 miles) long and 5.6 kilometers (3.5 miles) wide bounded by State Route 5, the Michael J. Kirwan Reservoir, and the CSX System Railroad on the south; Garret, McCormick, and Berry roads on the west; the Norfolk Southern Railroad on the north; and State Route 534 on the east (see Figures 1-1 and 1-2). The RTLS is surrounded by several communities: Windham on the north; Garrettsville 9.6 kilometers (6 miles) to the northwest; Newton Falls 1.6 kilometers (1 mile) to the southeast; Charlestown to the southwest; and Wayland 4.8 kilometers (3 miles) to the south. When the RVAAP was operational the RTLS did not exist and the entire 21,683-acre parcel was a government-owned, contractor-operated (GOCO) industrial facility. The RVAAP Installation Restoration Program (IRP) encompasses investigation and cleanup of past activities over the entire 21,683 acres of the former RVAAP and therefore references to the RVAAP in this document are considered to be inclusive of the historical extent of the RVAAP, which is inclusive of the combined acreages of the current RTLS and RVAAP, unless otherwise specifically stated.

1.2 PROJECT DESCRIPTION

In 2004 the U.S. Army and the Ohio EPA finalized the Facility Wide Groundwater Monitoring Program Plan (FWGWMPP) which details the requirements of the program. The plan specifies that during the initial period of performance,

groundwater from select wells (specified in the FWGWMPP) would be sampled for three consecutive quarters, after which, the monitoring period would be annual with the exception of Ramsdell Quarry Landfill (RQL) (3 wells) and Open Detonation Area 2 (ODA2) (2 wells). The RQL and ODA2 wells were only being sampled for the FWGWMP during the third (October) sampling event, since these wells were previously being monitored through other contracts and monitoring programs.

The objective of this project is to initiate the Facility Wide Groundwater Monitoring Program for an initial period of one (1) year. Details of the program design and requirements are contained in the *RVAAP Facility Wide Groundwater Monitoring Program Plan, Portage Environmental, September 2004*. This document contains the Sampling and Analysis, Site Safety and Health and Quality Assurance Project Plan addenda that pertain to the proposed work. Additional details pertaining to performance of field and laboratory activities are contained in the *RVAAP Facility Wide Sampling and Analysis Plan/Quality Assurance Project Plan (FWSAP)*, SAIC, March 2001. As detailed in the FWGWMPP, the initial monitoring program consists of the sampling of 41 wells specified in Table 4-1 of the FWGWMPP. Fourteen of these wells are "Background Wells", and the remainder are wells situated at various AOC's at RVAAP. The first sampling event for this project was conducted in April 2005, and the results are reported in "*Facility Wide Groundwater Monitoring Program, Report on the April 2005 Sampling Event, Ravenna Training and Logistics Site/Ravenna Army Ammunition Plant, Ravenna, Ohio*" (SpecPro, 2005a), dated August 2005. The second sampling event for this project was conducted in July 2005, and the results are reported in "*Facility Wide Groundwater Monitoring Program, Report on the July 2005 Sampling Event, Ravenna Training and Logistics Site/Ravenna Army Ammunition Plant, Ravenna, Ohio*" (SpecPro, 2005b), dated November 2005. This report presents the 2005 annual report for the FWGWMPP, as well as the results of the October 2005 (third) sampling event.

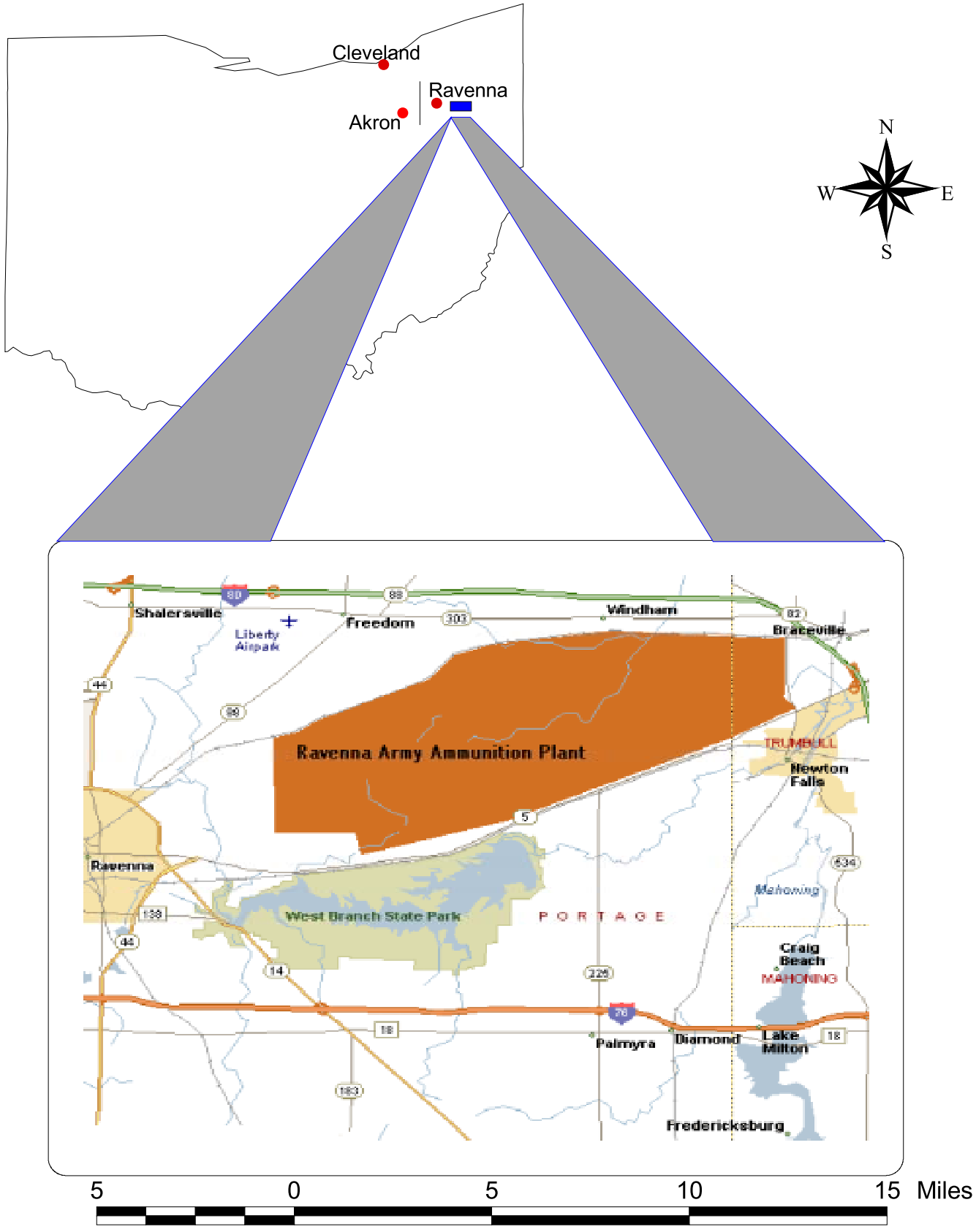
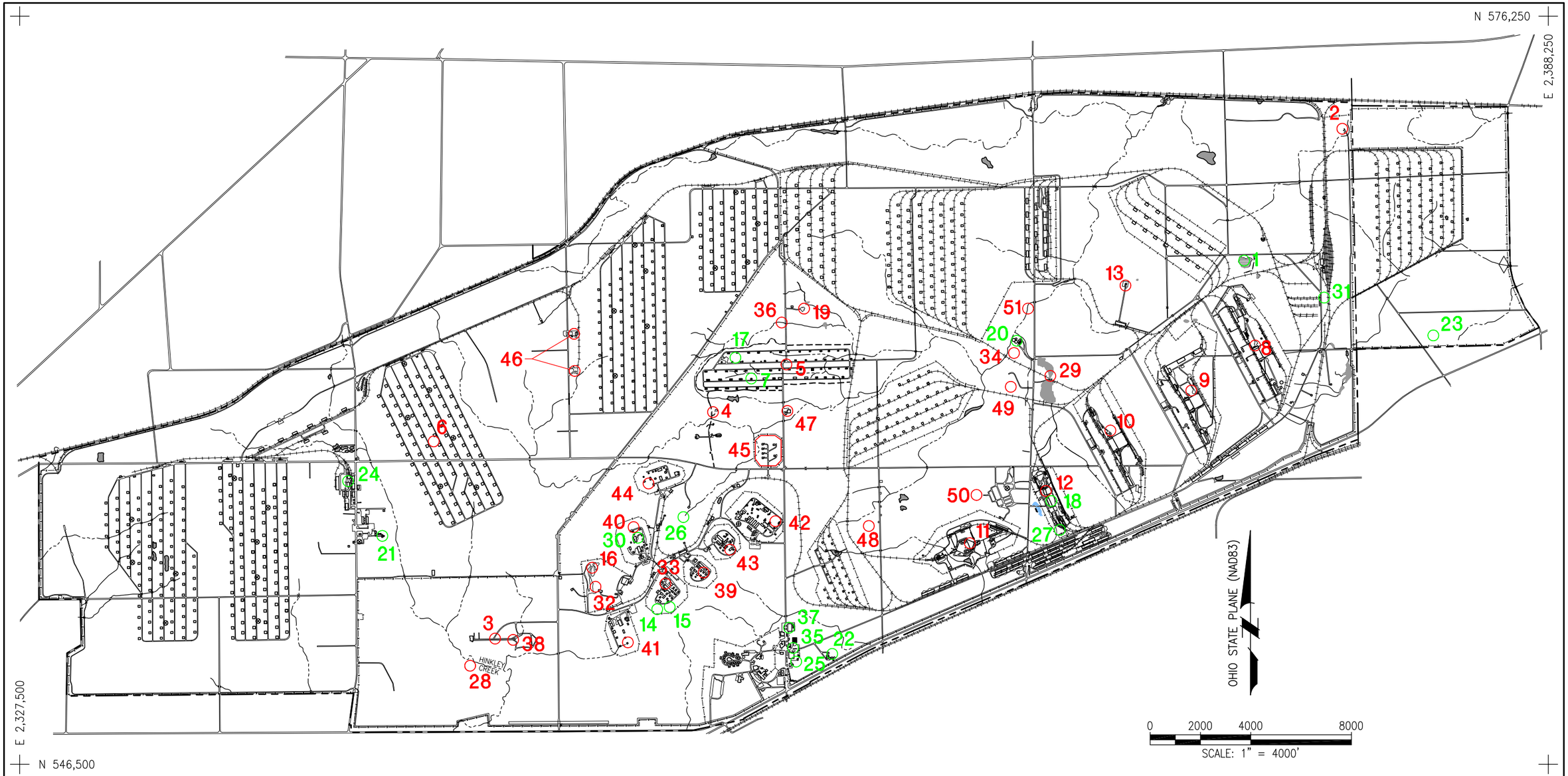


Figure 1-1 General location and Orientation of RTLS/RVAAP.



LEGEND OF SITES:

1 RAMSDELL QUARRY LANDFILL	13 BLDG 1200 AND DILUTION/SETTLING POND	25 BLDG 1034 MOTOR POOL WASTE OIL TANK	37 PESTICIDE STORAGE BUILDING T-4452	49 CENTRAL BURN PITS
2 **ERIE BURNING GROUNDS**	14 LOAD LINE 6, EVAPORATION UNIT	26 FUZE BOOSTER AREA SETTLING TANKS	38 NACA TEST AREA	50 ATLAS SCRAP YARD
3 DEMOLITION AREA #1	15 LOAD LINE 6, TREATMENT PLANT	27 BLDG 854-PCB STORAGE	39 LOAD LINE 5 / FUZE LINE 1	51 DUMP ALONG PARIS-WINDHAM ROAD
4 DEMOLITION AREA #2	16 QUARRY LANDFILL/FORMER FUZE & BOOSTER BURNING PITS	28 MUSTARD AGENT BURIAL SITE	40 LOAD LINE 7 / BOOSTER LINE 1	◯ CERCLA
5 WINKLEPECK BURNING GROUNDS	17 DEACTIVATION FURNACE	29 UPPER AND LOWER COBBS POND COMPLEX	41 LOAD LINE 8 / BOOSTER LINE 2	◯ RCRA
6 C BLOCK QUARRY	18 LOAD LINE 12 PINK WASTE WATER TREATMENT	30 LOAD LINE 7 PINK WASTEWATER TREATMENT PLANT	42 LOAD LINE 9 / DETONATOR LINE	◯ OTHER REGULATORY
7 BLDG 1601 HAZARDOUS WASTE STORAGE	19 LANDFILL NORTH OF WINKLEPECK BURNING GROUND	31 ORE PILE RETENTION POND	43 LOAD LINE 10 / PERCUSSION ELEMENT	
8 LOAD LINE 1 AND DILUTION/SETTLING POND	20 SAND CREEK SEWAGE TREATMENT PLANT	32 40 AND 60 MM FIRING RANGE	44 LOAD LINE 11 / ARTILLERY PRIMER	
9 LOAD LINE 2 AND DILUTION/SETTLING POND	21 DEPOT SEWAGE TREATMENT PLANT	33 FIRESTONE TEST FACILITY	45 WET STORAGE AREA	
10 LOAD LINE 3 AND DILUTION/SETTLING POND	22 GEORGE ROAD SEWAGE TREATMENT PLANT	34 SAND CREEK DISPOSAL ROAD LANDFILL	46 BUILDINGS F-15 AND F-16	
11 LOAD LINE 4 AND DILUTION/SETTLING POND	23 UNIT TRAINING SITE WASTE OIL TANK	35 1037 BUILDING-LAUNDRY WASTEWATER SUMP	47 BUILDING T-5301 DECONTAMINATION	
12 LOAD LINE 12 AND DILUTION/SETTLING POND	24 RESERVE UNIT MAINTENANCE AREA WASTE OIL TANK	36 PISTOL RANGE	48 ANCHOR TEST AREA	

US Army Corps of Engineers Louisville District

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

RAVENNA ARMY AMMUNITION PLANT
RAVENNA, OHIO
FACILITY MAP

DRAWN BY:	REV. NO./DATE:	CAD FILE:
R. BEELER	0 / 09-02-03	/03025/DWGS/S80RVAP1

Figure 1-2. RVAAP Installation Map

1.3 THIRD (OCTOBER) SAMPLING EVENT and ANNUAL REPORT SCOPE OF WORK

SpecPro, Inc. was contracted (Contract No. W912QR-05-0031) by the U.S. Army Corps of Engineers, Louisville District (USACE) to conduct the initial FWGWMPP monitoring. The following tasks were performed in accordance with specifications contained in the FWGWMPP, the FWSAP, and the Scope of Work written by the USACE in January 2005:

Task 1. Perform groundwater sampling of select wells (36) for three consecutive quarters including the requisite Investigation Derived Waste (IDW) characterization, reporting and disposal. The RQL (3 wells) and ODA2 wells (DET-3 and DET-4) were only sampled once in the fall of 2005;

Task 2. Perform select laboratory analyses and data validation for collected samples;

Task 3. Reduce quarterly data and preparation of individual sampling event reports; and,

Task 4. Prepare an annual report including the overall program review requirement.

The third sampling event consisted of the following subtasks:

- Measure groundwater levels and conduct monitoring well inspections at all groundwater monitoring wells at the facility,
- Collect and analyze groundwater samples from the 41 FWGWMP wells,
- Verify, validate, and reduce the laboratory analytical data produced for the event,
- Prepare and submit an Annual Report, which includes a report on the third sampling event.

1.4 ANNUAL REPORT REQUIREMENTS and REPORT PRESENTATION

This report presents the results of the third sampling event, which was performed in October 2005, and the FWGWMP 2005 Annual Report. The report is structured in the following way:

- Section 1.0 – Introduction
- Section 2.0 – Third (October 2005) Sampling Event
- Section 3.0 – Summary of New Monitoring Wells
- Section 4.0 – Summary of Annual FWGWMP Analytical Results
- Section 5.0 – FWGWMP Annual Assessments

- Section 6.0 – FWGWMP Annual Recommendations/Review
- Section 7.0 - References

The appendices contain the following items:

- Appendix A – Technical/Field Change Orders
- Appendix B – Field Log Book Sheets and Groundwater Monitoring Data Field Sheets
- Appendix C – Well Inspection Sheets
- Appendix D – Data Verification/Validation Reports for the Third Sampling Event
- Appendix E – Well Logs of Newly Installed Monitoring Wells
- Appendix F –Time-trend Graphs
- Appendix G – Laboratory Data Sheets (raw data from instrumentation is not present), including all Quality Control (QC) data and information for the Third Sampling Event.
- Appendix H – Investigation Derived Waste Report
- Appendix I – Maps of FWGWMP Study Areas

The FWGWMPP (section 5.1) lists the following requirements for sampling event reports:

- A summary table of the groundwater data. These items are found in Table 2-3, 2-4, 2-6, 2-7, and 2-8 of this report.

- Hard copy and 5dbf format electronic copy of the complete data set. The hard copy of the complete data set is presented in Appendix G. The electronic copy of the laboratory data will be submitted with the final report.

- Laboratory data sheets are presented in Appendix G (raw data from instrumentation is not present).

- QA/QC information is presented in Appendix G.

- Documentation regarding data verification/validation is presented in Appendix D.

- Documentation of any contamination detected in any of the wells is discussed in Section 2.2.3. Laboratory data sheets are presented in Appendix G.

- The groundwater flow map is presented in Plate 1.

- Statistical analyses were not performed on this data set. This is discussed in Section 5.1.

In accordance with the SOW, all laboratory data is being submitted in the USACE approved Automatic Data Review (ADR) format on a compact disk attached to the final report.

The following lists the information required for the annual report as detailed in Section 5.2 of the FWGWMPP, as well as where this information is presented in this report:

- A summary of the additional hydrogeological investigations that were conducted is presented in Section 3.0. Summary data for the newly installed wells is included in table 2-1. Drilling logs for these wells are presented in Appendix E.

- A summary of contamination detected in the newly installed monitoring wells is discussed in Section 3.0.

- Estimates of groundwater flow velocities and/or contamination migration rates, as well as an evaluation of the current groundwater flow direction(s) based on water level elevation data collected in October 2005 is discussed in Section 2.2.1.

- An evaluation of the trends of contamination detected in groundwater, as well as an assessment of the effectiveness of any groundwater remediation activities is presented in Section 5.0.

- The plots of concentration trends are presented in Appendix F, and are discussed in Section 4.0.

- The facility map is presented in Section 1.0. The monitoring well network map and groundwater flow map is presented in Section 2.1.1.

- The results of the monitoring well inspections are presented in Appendix C.

- A review of the overall effectiveness and applicability of the FWGWMP is presented in Section 6.0.

2.0 THIRD (OCTOBER) SAMPLING EVENT

2.1 THIRD SAMPLING EVENT ACTIVITIES

2.1.1 Groundwater Elevation Monitoring

In order to produce a meaningful groundwater potentiometric map, groundwater elevations were measured at 235 RVAAP monitoring wells the week of September 26, 2005. SpecPro, Inc. measured the 41 FWGWMP wells. SAIC, Inc. measured the remainder of the RVAAP monitoring wells. The locations of all monitoring wells at RVAAP are shown on Plate 1. Many of the monitoring wells are also shown on the FWGWMP study area maps included in Appendix I. Potentiometric data were not collected from nine wells: MW-1 through MW-5 at Ramsdell Quarry and wells OBG-1 through OBG-4 at Winklepeck Burning Grounds. Wells MW-1 through 5 at Ramsdell Quarry do not meet current well construction requirements for RVAAP, do not provide representative potentiometric data for the shallow groundwater zone at the AOC, and are scheduled for plugging and abandonment in 2006. Wells OBG-1 through OBG-4 are also scheduled to be plugged and abandoned in 2006 due to ongoing range construction within this AOC. Water levels were measured over a 72-hour period (September 27, 2005 through September 29, 2005) during which no rainfall was recorded and no rainfall was recorded during the 24 hours previous to the start of the field effort. Thus, the potentiometric data represent baseflow and dry season conditions. Water level measurements were collected in accordance with procedures in Section 4.3.3.1 of the RVAAP Facility-wide Sampling and Analysis Plan (USACE 2001).

Water level measurements were taken from the top of the inner casing to the top of the groundwater surface with electronic water level indicators. The depth to the bottom of the well from the top of the inner casing was also measured with the electronic water level indicator. All monitoring wells were inspected at the time of groundwater elevation measurements and the results are discussed in Section 2.2.2. Depth to water and depth to bottom measurements and groundwater elevations for the RVAAP wells are presented in Table 2-1. The results of the groundwater level monitoring are presented in Section 2.2.1.

A single facility-wide potentiometric map was prepared using the water-level measurements taken during the survey (Plate 1). Monitoring wells from which data were collected are screened within the uppermost groundwater zone; either at the water table or immediately below it. Previously, separate potentiometric maps were prepared for both the unconsolidated aquifer and the bedrock aquifer. Because of the widely separated and non-uniform spacing of the monitoring wells at the facility, the resulting potentiometric maps would occasionally present unrealistic situations, such as known dry areas of the facility as being several feet below the water table. In order to present a more realistic potentiometric map,

both bedrock and unconsolidated zone wells are included in the data set. Also, since the perennial streams and ponds at RVAAP are expressions of the water table, surface water elevations of these features were interpolated from topographic maps (the USACE 1997 base map for RVAAP, which was created using a 0.6-m (2-ft) topographic contour interval) and used to infer potentiometric elevations in areas that did not have sufficient well coverage. Topographic controls from the base map file were also used to guide placement of potentiometric contours.

Historical data suggests that groundwater in both the unconsolidated deposits and bedrock flow in an easterly direction. The unconsolidated aquifer, however, also shows numerous local flow variations that are influenced by topography and drainage patterns. The local variations in flow direction suggest that groundwater in the unconsolidated deposits are in direct hydraulic communication with surface water, and that surface water drainageways may also act as groundwater discharge locations. In addition, topographic ridges between surface water drainage features act as groundwater divides for groundwater found in the unconsolidated deposits (Portage Environmental, 2004).

Historical data suggests that groundwater flow in the bedrock aquifer is more uniform and not as affected by local surface topography. For much of the eastern half of the facility, the bedrock potentiometric surface is higher than the overlying unconsolidated potentiometric surface indicating an upward hydraulic potential. This suggests that there is a confining layer that separates the two aquifers. In the far eastern site area, the two potentiometric surfaces are approximately at the same elevation, suggesting that hydraulic communication between the two aquifers is occurring (Portage Environmental, 2004).

2.1.2 Groundwater Sampling

All FWGWMP wells were sampled for the third event between October 3 and 6, 2005. On October 11, 2005, the lab (STL, Inc.) reported that a refrigerator used to store the Volatile Organic Compound (VOC) samples collected on October 6 had failed and that those VOC samples had exceeded their holding temperatures. The following VOC samples had been collected on October 6:

- WBGmw-006 (regular sample taken)
- WBGmw-007 (regular, duplicate and split samples taken)
- WBGmw-09 (regular sample taken)
- LL11mw-002 (regular sample taken)
- LL11mw-007 (regular and Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples taken)
- DA2mw-107 (regular and MS/MSD samples taken)
- DA2mw-Det3 (regular sample taken)
- DA2mw-Det4 (regular sample taken)

- BKGmw-019 (regular, duplicate, and split samples taken)
- BKGmw-006 (regular sample taken)

The lab testing the split samples was instructed not to analyze the VOC samples collected on October 6. On October 13, SpecPro, Inc. re-sampled the affected wells for VOCs in the same manner as the original samples were collected, including splits, duplicates and MS/MSDs. The VOC samples collected on 10/13/2005 were then sent to the laboratories for VOC analyses. The Field Change Order (FCO#3) for this re-sampling event is presented in Appendix A.

All wells were sampled using Micropurge techniques in accordance with the specifications contained in the FWGWMPP and FWSAP. The wells were micropurged until certain groundwater parameters (temperature, specific conductivity, pH, and dissolved oxygen) had stabilized. The groundwater parameters were measured with a Horiba U-22 Flow Cell. Groundwater parameter measurements obtained during micropurging are presented Appendix B. Samples collected for metals analyses were filtered prior to shipping to the lab by passing the sample through a 0.45 micron filter.

Groundwater samples were collected with QED micropurge equipment. Equipment and sampling details are contained in Appendix B. Groundwater samples were collected in laboratory supplied containers and stored in iced coolers for shipment in accordance with FWSAP and FWGWMPP specifications.

2.1.3 Laboratory Analysis

Severn-Trent Laboratories, Inc. (STL) of North Canton, Ohio performed laboratory analyses on all regular, duplicate, and MS/MSD samples, with the exception of explosives, nitroguanidine, and nitrocellulose which were performed by STL of Sacramento, CA. A duplicate sample was collected from each of five wells: LL1mw-080, LL1mw-078, LL3mw-242, BKGmw-019, and WBGmw-007. A MS/MSD sample was collected from each of five wells: CBPmw-007, LL2mw-263, BKGmw-004, LL11mw-007, and DA2mw-107. All samples were picked up from the site and delivered to the laboratory in iced coolers by a STL courier under proper chain-of-custody procedures (Appendix G).

Laboratory analyses on all split samples were performed by GPL, LLC of Frederick, Maryland. Five split samples were collected for this sampling event: LL1mw-080, LL1mw-078, LL3mw-242, BKGmw-019, and WBGmw-007. All split samples were shipped in iced coolers via overnight delivery service under proper chain-of-custody procedures.

All groundwater samples were analyzed for Explosives, Propellants, Cyanide, Volatile Organic Compounds, Semi-Volatile Compounds (SVOCs), Target Analyte List Metals (filtered), Pesticides, and Polychlorinated Biphenyls (PCBs).

Additionally, the groundwater samples collected from the monitoring wells at Load Line 12 (LL12mw-153, -182, -183, and -186) were analyzed for Nitrate-Nitrite.

Laboratory results are summarized in Section 2.2.3. Laboratory data sheets are contained in Appendix G.

2.1.4 Data Verification/Validation

Data from STL was verified and validated in accordance with project specifications by an independent contractor, Valerie Mariola of Mariola's Data Validation Services, using the ADR program. Data from GPL, LLC was verified and validated in accordance with project specifications by Specpro, Inc. using the ADR program. Data validation/verification is summarized in Section 2.2.4. The Data Verification/Validation Summary Reports are presented in Appendix D.

2.1.5 Investigation Derived Waste (IDW)

Purge water was collected at each well location in 5-gallon buckets with locking lids and transferred to 55-gallon drums located behind Building 1036. Purge water drums were each designated for an AOC or for the background wells. No more than four gallons were purged from any well during a single sampling event. Instruments and equipment were decontaminated prior to purging the first well, then subsequently after purging and sampling each monitoring well. Decon fluids were collected in separate 55-gallon drums stored behind Building 1036. The IDW fluids were stored in 55-gallon drums behind Building 1036 until project completion and final disposal was in accordance with FWSAP requirements. The IDW report is presented in Appendix H.

2.2 THIRD SAMPLING EVENT RESULTS

2.2.1 Groundwater Elevation Monitoring

Groundwater elevations for the FWGWMPP monitoring wells were obtained in September 2005 as described in Section 2.1.1. The results of all RVAAP groundwater elevation monitoring, including the FWGWMP monitoring wells, are presented in Table 2-1. A facility-wide potentiometric map was prepared using the water-level measurements taken during the survey (Plate 1). Monitoring wells from which data were collected are screened within the uppermost groundwater zone; either at the water table or immediately below it. Both bedrock and unconsolidated zone wells are included in the data set. Perennial streams and ponds at RVAAP are expressions of the water table. The elevations of perennial ponds and streams were used to infer potentiometric elevations in areas that did

not have sufficient well coverage. Elevations of streams and ponds were estimated from the USACE 1997 base map for RVAAP, which was created using a 0.6-m (2-ft) topographic contour interval. Topographic controls from the base map file were also used to guide placement of potentiometric contours.

Because of the variability of monitoring well density, lack of well coverage in large areas of RVAAP, and differences in screened intervals, the facility-wide potentiometric map should be considered as general representation of groundwater flow patterns. The southeastern (e.g., Load Lines 1 through 4 area) and central (e.g., fuze and booster lines, Demolition Area 2, and Winklepeck Burning Grounds) portions of RVAAP have the highest density of monitoring wells. Therefore, the potentiometric surface configuration in these areas can be more accurately determined.

The facility-wide map illustrates that the potentiometric surface for the shallow groundwater zone is generally a subdued expression of the surface topography of the region. Overall measured groundwater flow patterns follow those of the major streams within RVAAP (e.g., Hinkley Creek, Eagle Creek, Sand Creek). Overall, groundwater potentiometric elevations decrease approximately 107 ft from west to east across RVAAP; with a maximum measured elevation of about 1137.82 ft above mean sea level (amsl) at well BCKmw-005 in the northwest portion of the facility and minimum measured elevation of about 930.20 ft amsl southeast of Load Line 1 (well LL1mw-065). At the watershed scale (e.g., Hinkley Creek, Sand Creek, and Eagle Creek), groundwater flow patterns are strongly influenced by topography and the drainage patterns of the major streams. The influence of surface topography on groundwater flow causes significant variations from the generalized east to west flow pattern across the site, which generally results in ground water flow being diverted to the north and south.

Significant perturbations from the general west to east groundwater flow configuration evident from the 2005 data include the following:

- An area of southerly flow towards the southwestern RVAAP boundary occurs coincident with the Hinkley Creek watershed (e.g., NACA Test Area and Demolition Area 1 vicinity). In previous potentiometric studies, this flow pattern was inferred from stream and topographic elevations; however, new wells installed in the area in 2004 provide reference points to better delineate influence of Hinkley Creek on shallow groundwater flow patterns.

- A substantial potentiometric high is evident in the vicinity of Fuze and Booster Quarry and Load Lines 5 through 10, which reflects topographic controls. This potentiometric high is bounded on the east by comparatively high flow gradients as inferred from topographic controls. Wells installed in 2004 in this portion of RVAAP provide substantially improved delineation

of the potentiometric high and gradients along Sand Creek to the north towards Load Line 11 and Demolition Area 2.

- Drainage patterns along Sand Creek and Eagle Creek in the northeast portion of RVAAP result in localized north-northeast flow directions in this portion of the facility. Lack of well control in this portion of RVAAP does not allow for detailed delineation of flow patterns.

- A potentiometric high is centered around Load Line 2, which was also evident in previous potentiometric measurements collected at these AOCs. South-southeasterly flow occurs from the potentiometric high toward the facility boundary.

- Southerly flow from the Load Line 4 vicinity, coincident with the unnamed tributary draining the AOC to the south, and the southernmost portion of Load Line 12 toward the southeastern facility boundary.

- A large area of comparatively low potentiometric gradient encompasses the Atlas Scrap Yard, northern portions of Load Line 12 and the Cobb's Pond vicinity. In this area, potentiometric gradients appear to be influenced by the abundant surface water features and relatively flat topography. The low gradients and possible geologic heterogeneities in the Load Line 12 area result in more uncertainty when interpreting the potentiometric surface in this portion of RVAAP. Using the 2005 data, groundwater flow from the majority of Load Line 12 appears to be towards Cobb's Pond to the north, while flow from the southernmost portion of the AOC is to the south-southeast.

- In the vicinity of the Erie Burning Grounds in the northeastern corner of RVAAP, interpretation of groundwater flow patterns is also subject to uncertainty due to a lack of well coverage outside of the AOC, the low topographic relief, and abundant wetland areas. The current data suggest groundwater flow is to the south off of the AOC and subsequently to the east-southeast consistent with the surface drainage within the unnamed tributary that exits RVAAP at outfall PF534.

- A groundwater divide running in a north-south direction approximately 6000 feet east of the western boundary of the RVAAP facility has been inferred from topographic and stream elevation data (Plate 1). Groundwater west of this divide flows in a westerly direction.

Table 2-1 Well Construction and Potentiometric Data (9/27-29/2005) for FWGWMP Annual Report

RTLS/RVAAP Area	Well ID	Ohio State Plane Easting	Ohio State Plane Northing	GL Elevation [a]	Total Drilled Depth [b]	TOC Elevation [a]	Depth to Water [c]	Potentio-metric Elevation Sept. 05 [a]	Well Head Type [d]	Monitoring Zone	Top of Screen (ft BGS)	Bottom of Screen (ft BGS)	Bottom of Inner Casing Plug or End Cap (ft BGS)	Stickup height (ft AGS)	Bottom of Inner Casing (BTOC)
Facility-Wide Background	BKGmw-004	2368852.97	569464.76	965.16	19.5	967.66	14.42	953.24	A	Unconsolidated	9.2	19.2	19.5	2.50	22.0
	BKGmw-005	2340835.86	562288.45	1149.44	19.0	1151.94	14.12	1137.82	A	Unconsolidated	8.2	18.2	18.5	2.50	21.0
	BKGmw-006	2358643.96	571910.47	1026.38	35.1	1028.88	23.22	1005.66	A	Bedrock	24.7	34.7	35.1	2.50	37.6
	BKGmw-008	2372741.08	569654.23	970.40	25.0	972.90	18.54	954.36	A	Bedrock	14.7	24.7	25.0	2.50	27.5
	BKGmw-010	2371372.86	565540.54	1003.80	22.0	1006.18	20.34	985.84	A	Bedrock	8.9	18.9	19.2	2.38	21.6
	BKGmw-012	2367795.23	563918.86	997.57	59.8	1000.07	11.67	988.40	A	Bedrock	38.6	59.6	59.8	2.50	62.3
	BKGmw-013	2361627.39	558269.16	986.59	25.5	989.09	12.83	976.26	A	Unconsolidated	15.2	25.2	25.5	2.50	28.0
	BKGmw-015	2361482.22	569339.87	1037.90	51.0	1040.40	50.97	989.43	A	Bedrock	30.1	50.1	50.4	2.50	52.9
	BKGmw-016	2342407.08	553983.50	1098.42	19.0	1100.92	7.19	1093.73	A	Unconsolidated	8.4	18.5	18.6	2.50	21.1
	BKGmw-017	2346115.35	562452.04	1132.80	34.8	1135.30	20.28	1115.02	A	Unconsolidated	23.2	33.3	33.6	2.50	36.1
	BKGmw-018	2354993.91	570873.35	1043.06	24.7	1045.56	16.23	1029.33	A	Bedrock	14.5	24.5	24.7	2.50	27.2
	BKGmw-019	2349882.14	559864.55	1108.24	34.0	1110.74	20.68	1090.06	A	Unconsolidated	23.0	33.0	33.2	2.50	35.7
	BKGmw-020	2357856.24	558756.24	1065.00	30.7	1067.50	11.58	1055.92	A	Bedrock	20.5	30.5	30.7	2.50	33.2
	BKGmw-021	2367622.95	571016.75	972.16	19.0	974.66	18.99	955.67	A	Unconsolidated	7.7	17.8	18.1	2.50	20.6
Load Line 1	LL1mw-063	2376841.36	563650.53	992.20	27.4	994.84	26.45	968.39	A	Bedrock	17.1	27.1	27.4	2.64	30.0
	LL1mw-064	2380286.97	563118.74	932.32	18.4	935.10	3.51	931.59	A	Unconsolidated	8.0	18.0	18.4	2.78	21.1
	LL1mw-065	2380452.00	560916.92	941.53	20.5	944.41	14.21	930.20	A	Unconsolidated	10.2	20.2	20.5	2.88	23.4
	LL1mw-067	2376545.30	565201.14	977.55	22.8	980.36	18.32	962.04	A	Bedrock	12.8	22.5	22.8	2.81	25.6
	LL1mw-078	2376275.85	564623.87	993.40	38.7	995.84	31.38	964.46	A	Bedrock	28.7	38.2	38.7	2.44	41.1
	LL1mw-079	2376228.31	563739.63	995.30	29.5	997.87	31.36	966.51	A	Bedrock	29.5	38.9	39.5	2.57	42.0
	LL1mw-080	2376845.07	562479.73	993.70	19.5	996.27	11.49	984.78	A	Bedrock	9.5	19.0	19.5	2.57	22.0
	LL1mw-081	2376672.66	563462.73	996.40	39.4	998.92	31.08	967.84	A	Bedrock	29.4	38.9	39.4	2.52	41.9
	LL1mw-082	2376977.38	562956.86	1003.70	39.0	1006.45	29.38	977.07	A	Bedrock	28.9	38.5	39.0	2.75	41.8
	LL1mw-083	2377074.80	563612.75	992.80	39.3	995.20	32.53	962.67	A	Bedrock	29.1	38.6	39.3	2.40	41.7
	LL1mw-084	2377316.02	563160.44	996.40	37.0	998.73	30.60	968.13	A	Bedrock	26.7	36.3	37.0	2.33	39.3
	LL1mw-085	2377246.94	562046.25	994.30	42.1	996.84	34.48	962.36	A	Bedrock	32.2	41.6	42.1	2.54	44.7
Load Line 2	LL2mw-059	2375453.00	558020.00	964.33	19.5	966.67	13.58	953.09	A	Bedrock	9.3	19.1	19.5	2.34	21.8
	LL2mw-060	2375978.00	558022.00	958.93	18.3	961.57	10.41	951.16	A	Bedrock	8.1	17.9	18.3	2.64	20.9
	LL2mw-261	2373317.81	561898.25	1009.55	22.5	1011.40	7.22	1004.18	A	Bedrock	9.8	19.8	20.0	1.85	21.9
	LL2mw-262	2373970.79	562219.87	1011.12	21.2	1012.62	10.99	1001.63	A	Bedrock	10.6	20.6	20.8	1.50	22.3
	LL2mw-263	2374289.51	561591.19	1009.42	22.2	1011.47	10.97	1000.50	A	Bedrock	10.8	20.8	21.0	2.05	23.0
	LL2mw-264	2374532.00	561173.60	1010.10	20.5	1011.88	8.82	1003.06	A	Bedrock	9.8	19.8	20.0	1.78	21.7
	LL2mw-265	2375594.06	557972.91	959.47	22.5	961.24	10.04	951.20	A	Bedrock	11.8	21.8	22.0	1.77	23.8
	LL2mw-266	2373744.03	561981.86	1014.09	20.5	1016.28	14.14	1002.14	A	Bedrock	9.8	19.8	20.0	2.19	22.2
	LL2mw-267	2373715.04	561393.22	1012.81	20.5	1014.81	10.28	1004.53	A	Bedrock	9.8	19.8	20.0	2.00	22.0
	LL2mw-268	2374157.30	560831.04	1015.47	28.8	1017.28	15.05	1002.23	A	Bedrock	17.3	27.3	27.5	1.81	29.3
	LL2mw-269	2374756.07	559484.12	1009.49	28.0	1011.62	19.85	991.77	A	Bedrock	17.1	27.1	27.3	2.13	29.4

Table 2-1 Well Construction and Potentiometric Data (9/27-29/2005) for FWGWMP Annual Report

RTLS/RVAAP Area	Well ID	Ohio State Plane Easting	Ohio State Plane Northing	GL Elevation [a]	Total Drilled Depth [b]	TOC Elevation [a]	Depth to Water [c]	Potentio-metric Elevation Sept. 05 [a]	Well Head Type [d]	Monitoring Zone	Top of Screen (ft BGS)	Bottom of Screen (ft BGS)	Bottom of Inner Casing Plug or End Cap (ft BGS)	Stickup height (ft AGS)	Bottom of Inner Casing (BTOC)
	LL2mw-270	2372858.41	562655.93	1009.93	20.5	1010.18	10.16	1000.02	A	Bedrock	9.8	19.8	20.0	0.25	20.3
Load Line 3	LL3mw-232	2369862.96	561365.91	998.59	37.8	1000.41	22.92	977.49	A	Bedrock	26.8	36.8	37.0	1.82	38.8
	LL3mw-233	2369934.52	560750.41	1002.47	31.1	1004.36	26.61	977.75	A	Bedrock	20.1	30.1	30.3	1.89	32.2
	LL3mw-234	2370297.47	560058.89	1004.47	20.5	1006.56	10.34	996.22	A	Bedrock	9.8	19.8	20.0	2.09	22.1
	LL3mw-235	2370642.47	559812.63	1008.05	21.2	1009.94	21.57	988.37	A	Bedrock	10.1	20.1	20.3	1.89	22.2
	LL3mw-236	2371178.58	559866.75	1008.94	25.5	1011.17	18.83	992.34	A	Bedrock	13.8	23.8	24.0	2.23	26.2
	LL3mw-237	2371475.00	559328.09	1003.57	23.9	1005.57	18.61	986.96	A	Bedrock	12.7	22.7	22.9	2.00	24.9
	LL3mw-238	2370625.34	559569.06	1004.75	20.7	1006.91	17.08	989.83	A	Bedrock	10.5	20.5	20.7	2.16	22.9
	LL3mw-239	2370895.01	559101.39	1001.70	35.7	1003.50	28.83	974.67	A	Bedrock	24.9	34.9	35.0	1.80	36.8
	LL3mw-240	2371309.57	558204.34	1005.60	35.5	1007.52	28.87	978.65	A	Bedrock	24.4	34.4	34.6	1.92	36.5
	LL3mw-241	2370332.80	559298.09	992.41	23.8	994.65	14.93	979.72	A	Bedrock	12.7	22.7	22.9	2.24	25.1
	LL3mw-242	2371993.30	557034.21	997.39	20.5	999.32	18.72	980.60	A	Bedrock	9.8	19.8	20.0	1.93	21.9
	LL3mw-243	2371532.61	556688.92	989.36	24.5	991.16	17.92	973.24	A	Bedrock	13.8	23.8	24.0	1.80	25.8
Load Line 4	LL4mw-193	2364237.44	554959.74	980.88	21.9	982.92	8.63	974.29	A	Unconsolidated	11.3	21.3	21.5	2.04	23.5
	LL4mw-194	2364584.76	555088.18	981.87	22.0	983.76	9.34	974.42	A	Unconsolidated	11.3	21.3	21.5	1.89	23.4
	LL4mw-195	2365198.84	555045.69	980.83	21.0	982.59	11.15	971.44	A	Unconsolidated	10.3	20.3	20.5	1.76	22.3
	LL4mw-196	2365297.28	555212.59	982.56	20.0	984.55	14.11	970.44	A	Unconsolidated	9.2	19.2	19.4	1.99	21.4
	LL4mw-197	2365385.95	555396.55	983.79	21.7	985.46	14.77	970.69	A	Unconsolidated	10.8	20.8	21.0	1.67	22.7
	LL4mw-198	2364991.12	555440.99	981.61	22.0	983.42	9.82	973.60	A	Unconsolidated	10.3	20.3	20.5	1.81	22.3
	LL4mw-199	2365421.66	554621.06	975.20	22.0	977.28	7.81	969.47	A	Unconsolidated	10.3	20.3	20.5	2.08	22.6
	LL4mw-200	2365904.12	554579.72	985.97	23.5	987.93	17.86	970.07	A	Unconsolidated	12.6	22.6	23.0	1.96	25.0
Load Line 5	LL5mw-001	2354625.07	554319.25	1125.00	24.0	1127.92	21.27	1106.65	A	Unconsolidated	14.0	24.0	24.0	2.92	26.9
	LL5mw-002	2354571.52	554604.01	1125.80	25.0	1128.68	22.05	1106.63	A	Unconsolidated	15.0	25.0	25.0	2.88	27.9
	LL5mw-003	2354964.47	554535.41	1124.70	21.0	1127.70	20.85	1106.85	A	Unconsolidated	11.0	21.0	21.0	3.00	24.0
	LL5mw-004	2355006.44	554073.73	1122.90	22.4	1125.81	19.17	1106.64	A	Unconsolidated	12.0	22.0	22.0	2.91	24.9
	LL5mw-005	2354422.02	554152.73	1126.50	27.8	1129.42	22.77	1106.65	A	Unconsolidated	17.0	27.0	27.0	2.92	29.9
	LL5mw-006	2354730.78	553984.82	1125.10	24.5	1128.00	21.33	1106.67	A	Unconsolidated	14.0	24.0	24.0	2.90	26.9
Load Line 6	LL6mw-001	2353153.23	554214.84	NA	18.0	1124.16	15.78	1108.38	F	Unconsolidated	7.0	17.0	17.0	0.00	17.0
	LL6mw-002	2353820.09	553589.88	NA	23.0	1129.36	22.21	1107.15	F	Unconsolidated	12.5	22.5	22.5	0.00	22.5
	LL6mw-003	2353048.68	553544.34	NA	23.4	1125.38	17.40	1107.98	A	Unconsolidated	12.5	22.5	22.5	3.35	25.9
	LL6mw-004	2353368.79	553431.82	NA	23.0	1125.39	18.09	1107.30	A	Unconsolidated	12.5	22.5	22.5	2.58	25.1
	LL6mw-005	2353194.52	553170.76	NA	19.9	1120.47	12.92	1107.55	A	Unconsolidated	9.5	19.5	19.5	2.96	22.5
	LL6mw-006	2352419.15	553165.28	NA	20.0	1124.37	15.88	1108.49	A	Unconsolidated	7.0	17.0	17.0	0.00	17.0
	LL6mw-007	2353354.89	552677.17	NA	20.0	1115.62	8.56	1107.06	F	Unconsolidated	9.5	19.5	19.5	0.00	19.5

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RTLS/RVAAP Area	Well ID	Ohio State Plane Easting	Ohio State Plane Northing	GL Elevation [a]	Total Drilled Depth [b]	TOC Elevation [a]	Depth to Water [c]	Potentio-metric Elevation Sept. 05 [a]	Well Head Type [d]	Monitoring Zone	Top of Screen (ft BGS)	Bottom of Screen (ft BGS)	Bottom of Inner Casing Plug or End Cap (ft BGS)	Stickup height (ft AGS)	Bottom of Inner Casing (BTOC)
Load Line 7	LL7mw-001	2352192.91	554925.77	1126.90	30.0	1129.64	21.49	1108.15	A	Unconsolidated	19.5	29.5	29.5	2.74	32.2
	LL7mw-002	2351918.23	555126.55	1126.70	26.5	1129.55	19.58	1109.97	A	Bedrock	15.0	25.0	25.0	2.85	27.8
	LL7mw-003	2352351.04	555417.04	1118.23	31.5	1120.84	12.39	1108.45	A	Bedrock	21.0	31.0	31.0	2.61	33.6
	LL7mw-004	2352035.20	555581.14	1123.30	29.5	1126.32	15.34	1110.98	A	Bedrock	19.5	29.5	29.5	3.02	32.5
	LL7mw-005	2351741.47	555581.80	1133.30	28.2	1135.87	21.56	1114.31	A	Bedrock	18.0	28.0	28.0	2.57	30.6
	LL7mw-006	2351879.92	555990.59	1120.70	28.0	1123.56	11.58	1111.98	A	Bedrock	17.5	27.5	27.5	2.86	30.4
Load Line 8	LL8mw-001	2351666.10	552607.06	1118.69	24.0	1121.46	13.15	1108.31	A	Unconsolidated	14.0	24.0	24.0	2.77	26.8
	LL8mw-002	2351010.33	552408.18	1121.67	30.4	1124.51	21.26	1103.25	A	Unconsolidated	20.0	30.0	30.0	2.84	32.8
	LL8mw-003	2351359.25	552231.14	1116.30	21.0	1119.05	15.26	1103.79	A	Unconsolidated	10.5	20.5	20.5	2.75	23.3
	LL8mw-004	2351261.83	551807.58	1112.73	20.5	1115.75	13.84	1101.91	A	Unconsolidated	10.0	20.0	20.0	3.02	23.0
	LL8mw-005	2351748.32	551522.48	1112.51	24.0	1115.73	15.88	1099.85	A	Unconsolidated	14.0	24.0	24.0	3.22	27.2
	LL8mw-006	2351483.58	551296.77	1114.33	24.2	1117.17	21.30	1095.87	A	Unconsolidated	14.0	24.0	24.0	2.84	26.8
Load Line 9	LL9mw-001	2355817.04	556125.81	NA	21.6	1134.62	17.03	1117.59	A	Bedrock	10.5	20.5	20.5	2.78	23.3
	LL9mw-002	2355907.76	556755.11	NA	21.0	1127.30	15.94	1111.36	A	Bedrock	10.0	20.0	20.0	2.42	22.4
	LL9mw-003	2356635.21	556445.31	NA	22.0	1135.76	12.48	1123.28	A	Bedrock	11.5	21.5	21.5	2.30	23.8
	LL9mw-004	2357338.76	556002.00	NA	33.0	1131.83	22.06	1109.77	A	Bedrock	22.0	32.0	32.0	2.91	34.9
	LL9mw-005	2356505.95	557063.36	NA	20.6	1130.93	18.09	1112.84	A	Bedrock	10.0	20.0	20.0	3.30	23.3
	LL9mw-006	2357446.67	556434.79	NA	26.8	1129.88	20.73	1109.15	A	Bedrock	16.0	26.0	26.0	2.90	28.9
	LL9mw-007	2357024.34	557000.56	NA	19.0	1119.99	10.98	1109.01	F	Bedrock	8.5	18.5	18.5	0.00	18.5
Load Line 10	LL10mw-001	2355272.22	555816.25	1130.00	28.0	1132.77	25.81	1106.96	A	Bedrock	17.0	27.0	27.0	2.77	29.8
	LL10mw-002	2355710.51	555523.36	1124.40	28.0	1127.13	18.79	1108.34	A	Bedrock	17.0	27.0	27.0	2.73	29.7
	LL10mw-003	2355389.92	555494.71	1127.40	26.4	1130.28	21.40	1108.88	A	Bedrock	16.0	26.0	26.0	2.88	28.9
	LL10mw-004	2355438.20	555236.59	1119.60	31.2	1122.39	14.80	1107.59	A	Bedrock	21.0	31.0	31.0	2.79	33.8
	LL10mw-005	2355943.55	555380.53	1122.90	27.0	1125.67	17.14	1108.53	A	Bedrock	16.5	26.5	26.5	2.77	29.3
	LL10mw-006	2355654.80	554995.25	1121.20	24.0	1123.83	13.30	1110.53	A	Unconsolidated	13.5	23.5	23.5	2.63	26.1
Load Line 11	L11mw-1	2352778.89	557505.03	1097.46	23.0	1100.16	11.27	1088.89	A	Unconsolidated	11.4	21.4	21.4	2.70	24.1
	L11mw-2	2353354.28	558310.52	1080.29	20.0	1080.00	3.01	1076.99	F	Unconsolidated	6.3	16.3	16.3	-0.29	16.0
	L11mw-3	2352737.87	557999.62	1088.45	17.0	1088.48	1.17	1087.31	F	Unconsolidated	5.9	15.9	15.9	0.03	15.9
	L11mw-4	2352737.24	558164.36	1084.60	17.0	1084.72	0.08	1084.64	F	Unconsolidated	6.1	16.1	16.1	0.12	16.2
	L11mw-5	2352847.56	558501.02	1079.60	17.0	1079.40	9.80	1069.60	F	Unconsolidated	6.2	16.2	16.2	-0.20	16.0
	L11mw-6	2352521.36	558263.28	1086.61	17.0	1086.50	6.53	1079.97	F	Unconsolidated	5.6	15.6	15.6	-0.11	15.5
	L11mw-7	2352094.81	558189.71	1079.22	23.0	1082.00	15.74	1066.26	A	Unconsolidated	12.4	22.4	22.4	2.78	25.2
	L11mw-8	2352388.60	557981.17	1087.90	17.0	1087.74	2.18	1085.56	F	Unconsolidated	5.6	15.6	15.6	-0.16	15.4
	L11mw-9	2352577.18	557901.18	1088.38	17.0	1088.28	1.34	1086.94	F	Unconsolidated	6.7	16.7	16.7	-0.10	16.6
	L11mw-10	2352039.00	557675.43	1080.22	22.0	1082.68	4.44	1078.24	A	Unconsolidated	10.9	20.9	20.9	2.46	23.4
Load Line 12	L12mw-088	2368667.75	556393.79	978.94	29.0	981.06	7.46	973.60	A	Unconsolidated	14.8	24.8	25.0	2.12	27.1
	L12mw-107	2368595.67	556759.02	978.03	33.0	980.15	10.69	969.46	A	Unconsolidated	20.7	30.7	31.0	2.12	33.1
	L12mw-113	2368223.73	558345.37	977.67	23.0	980.18	7.66	972.52	A	Unconsolidated	12.3	22.3	22.5	2.51	25.0
	L12mw-128	2368293.20	557371.54	976.21	34.0	978.24	10.73	967.51	A	Unconsolidated	21.1	31.1	31.3	2.03	33.3
	L12mw-153	2368138.87	557823.23	975.34	26.0	977.85	7.57	970.28	A	Unconsolidated	12.3	22.3	22.5	2.51	25.0

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RTLS/RVAAP Area	Well ID	Ohio State Plane Easting	Ohio State Plane Northing	GL Elevation [a]	Total Drilled Depth [b]	TOC Elevation [a]	Depth to Water [c]	Potentio-metric Elevation Sept. 05 [a]	Well Head Type [d]	Monitoring Zone	Top of Screen (ft BGS)	Bottom of Screen (ft BGS)	Bottom of Inner Casing Plug or End Cap (ft BGS)	Stickup height (ft AGS)	Bottom of Inner Casing (BTOC)
	L12mw-154	2368183.88	557754.56	977.00	29.0	979.06	9.98	969.08	A	Unconsolidated	16.4	26.4	26.6	2.06	28.7
	L12mw-182	2368853.20	555890.35	982.20	36.1	984.42	12.52	971.90	A	Unconsolidated	25.2	35.2	35.5	2.22	37.7
	L12mw-183	2369224.36	556068.15	980.59	36.0	982.98	13.91	969.07	A	Unconsolidated	23.3	33.3	33.6	2.39	36.0
	L12mw-184	2368997.48	556399.46	980.96	29.5	983.16	13.69	969.47	A	Unconsolidated	18.8	28.8	29.0	2.20	31.2
	L12mw-185	2368829.86	556946.75	979.09	24.0	981.31	10.33	970.98	A	Unconsolidated	10.8	20.8	21.0	2.22	23.2
	L12mw-186	2367912.39	559065.95	976.34	23.0	978.31	7.39	970.92	A	Unconsolidated	8.8	18.8	19.0	1.97	21.0
	L12mw-187	2368524.14	557633.10	977.90	29.0	979.94	11.32	968.62	A	Unconsolidated	17.2	27.2	27.4	2.04	29.4
	L12mw-188	2367908.82	558132.59	978.46	20.5	980.63	6.70	973.93	A	Unconsolidated	9.8	19.8	20.0	2.17	22.2
	L12mw-189	2367945.92	558569.27	976.17	18.5	978.04	6.07	971.97	A	Unconsolidated	7.5	17.5	17.7	1.87	19.6
	LL12mw-242	2368545.29	558020.51	978.40	26.3	981.20	11.45	969.75	A	Unconsolidated	15.5	25.5	25.5	2.80	28.3
	LL12mw-243	2368190.04	557376.32	978.10	24.0	980.79	10.37	970.42	A	Unconsolidated	13.0	23.0	23.0	2.69	25.7
	LL12mw-244	2368751.42	557377.17	978.10	30.0	980.65	11.92	968.73	A	Unconsolidated	19.5	29.5	29.5	2.55	32.1
	LL12mw-245	2368370.74	557044.55	977.50	29.0	980.04	8.84	971.20	A	Unconsolidated	18.0	28.0	28.0	2.54	30.5
	LL12mw-246	2369432.17	556658.89	982.00	32.0	984.83	17.79	967.04	A	Unconsolidated	21.5	31.5	31.5	2.83	34.3
Atlas Scrap Yard	ASYmw-001	2366260.85	558404.04	978.40	22.0	981.13	12.93	968.20	A	Unconsolidated/	11.0	21.0	21.0	2.73	23.7
	ASYmw-002	2366170.86	557887.86	982.00	20.0	985.24	15.50	969.74	A	Unconsolidated	10.0	19.5	19.5	3.24	22.7
	ASYmw-003	2366651.49	558015.94	979.70	21.5	982.21	14.02	968.19	A	Unconsolidated	11.0	21.0	21.0	2.51	23.5
	ASYmw-004	2367166.04	557640.81	977.10	27.8	979.66	11.28	968.38	A	Unconsolidated	17.0	27.0	27.0	2.56	29.6
	ASYmw-005	2367448.16	557783.01	977.60	25.0	979.80	10.73	969.07	A	Unconsolidated	14.0	24.0	24.0	2.20	26.2
	ASYmw-006	2366746.73	557257.72	980.20	27.0	983.01	14.70	968.31	A	Unconsolidated	16.0	26.0	26.0	2.81	28.8
	ASYmw-007	2366834.49	556818.08	981.40	28.0	984.16	14.35	969.81	A	Unconsolidated	16.0	26.0	26.0	2.76	28.8
	ASYmw-008	2367475.07	557087.66	976.20	26.0	978.85	7.39	971.46	A	Unconsolidated	15.0	25.0	25.0	2.65	27.7
	ASYmw-009	2366631.94	557603.68	979.90	22.0	982.70	13.89	968.81	A	Unconsolidated	11.5	21.5	21.5	2.80	24.3
	ASYmw-010	2366985.37	557270.61	978.20	28.0	981.05	12.79	968.26	A	Unconsolidated	17.0	27.0	27.0	2.85	29.8
Building 1200	B12mw-010	2371292.81	565827.43	1002.72	21.0	1005.92	19.97	985.95	A	Bedrock	10.0	20.0	20.0	3.20	23.2
	B12mw-011	2371416.15	565687.82	1003.76	24.7	1006.70	21.81	984.89	A	Bedrock	14.0	24.0	24.0	2.94	26.9
	B12mw-012	2371430.41	565828.01	1003.43	22.3	1006.32	21.57	984.75	A	Bedrock	12.0	22.0	22.0	2.89	24.9
C-Block Quarry	CBLmw-001	2343657.08	559403.12	1178.50	50.0	1181.08	43.50	1137.58	A	Bedrock	39.0	49.0	49.0	2.58	51.6
	CBLmw-002	2343845.22	559044.48	1172.50	45.3	1175.24	38.09	1137.15	A	Bedrock	34.5	44.5	44.5	2.74	47.2
	CBLmw-003	2343970.00	559695.52	1172.22	44.0	1175.06	36.68	1138.38	A	Bedrock	33.0	43.0	43.0	2.84	45.8
	CBLmw-004	2343688.76	559951.58	1172.08	45.0	1174.84	36.37	1138.47	A	Bedrock	34.0	44.0	44.0	2.76	46.8
Central Burn Pits	CBPmw-1	2367095.37	561616.01	972.71	32.3	975.84	14.08	961.76	A	Unconsolidated	21.8	31.8	31.8	3.13	34.9
	CBPmw-2	2367295.66	561865.83	967.33	30.0	970.04	10.23	959.81	A	Unconsolidated	19.5	29.5	29.5	2.71	32.2
	CBPmw-3	2366768.68	561944.14	972.04	25.0	974.67	13.61	961.06	A	Unconsolidated	14.5	24.5	24.5	2.63	27.1
	CBPmw-4	2366978.80	562123.80	968.58	27.5	971.13	11.78	959.35	A	Unconsolidated	17.0	27.0	27.0	2.55	29.5
	CBPmw-5	2366919.66	562311.88	968.83	25.0	971.59	13.01	958.58	A	Unconsolidated	14.5	24.5	24.5	2.76	27.3
	CBPmw-6	2367243.68	562311.87	965.01	23.0	967.64	8.45	959.19	A	Unconsolidated	12.5	22.5	22.5	2.63	25.1
	CBPmw-7	2366512.62	562006.41	973.47	30.0	976.37	17.55	958.82	A	Unconsolidated	19.5	29.5	29.5	2.90	32.4
	CBPmw-8	2366757.21	562668.84	970.57	25.5	973.19	16.95	956.24	A	Unconsolidated	15.0	25.0	25.0	2.62	27.6
Cobbs Pond	CPmw-1	2368948.81	560440.91	975.46	16.0	975.26	5.77	969.49	F	Unconsolidated	5.5	15.5	15.5	-0.20	15.3

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RTLS/RVAAP Area	Well ID	Ohio State Plane Easting	Ohio State Plane Northing	GL Elevation [a]	Total Drilled Depth [b]	TOC Elevation [a]	Depth to Water [c]	Potentio-metric Elevation Sept. 05 [a]	Well Head Type [d]	Monitoring Zone	Top of Screen (ft BGS)	Bottom of Screen (ft BGS)	Bottom of Inner Casing Plug or End Cap (ft BGS)	Stickup height (ft AGS)	Bottom of Inner Casing (BTOC)
	CPmw-2	2368239.23	560311.26	972.72	16.0	972.31	2.47	969.84	F	Unconsolidated	5.5	15.5	15.5	-0.41	15.1
	CPmw-3	2368796.49	560676.30	973.27	18.5	972.92	2.03	970.89	F	Unconsolidated	8.0	18.0	18.0	-0.35	17.6
	CPmw-4	2368674.31	561843.46	978.51	20.0	981.20	12.10	969.10	A	Unconsolidated	9.5	19.5	19.5	2.69	22.2
	CPmw-5	2367900.41	561846.78	970.71	40.0	973.58	12.10	961.48	A	Unconsolidated	29.5	39.5	39.5	2.87	42.4
	CPmw-6	2367727.13	562830.13	962.97	18.5	965.13	7.97	957.16	A	Unconsolidated	8.0	18.0	18.0	2.16	20.2
Demo. Area 2	DET-1	2354959.47	560820.03	1064.35	39.0	1065.85	19.84	1046.01	A	Unconsolidated	34.0	39.0	39.0	1.50	40.5
	DET-2	2355360.33	560664.71	1060.24	39.0	1061.24	29.27	1031.97	A	Unconsolidated	34.0	39.0	39.0	1.00	40.0
	DET-3	2355204.94	560456.10	1035.81	15.0	1036.81	5.73	1031.08	A	Unconsolidated	7.0	12.0	12.0	1.00	13.0
	DET-4	2355072.36	560454.22	1037.68	11.0	1038.68	7.31	1031.37	A	Unconsolidated	6.0	11.0	11.0	1.00	12.0
	DA2mw-104	2354773.79	561129.59	1070.82	27.0	1073.89	21.00	1052.89	A	Unconsolidated	16.3	26.3	26.5	3.07	29.6
	DA2mw-105	2354557.62	560572.58	1042.66	14.0	1045.34	3.33	1042.01	A	Unconsolidated	8.3	13.3	13.5	2.68	16.2
	DA2mw-106	2354848.85	560560.49	1041.19	16.0	1043.79	7.63	1036.16	A	Unconsolidated	8.3	15.3	15.5	2.60	18.1
	DA2mw-107	2354924.29	560480.05	1039.18	15.0	1041.63	8.88	1032.75	A	Unconsolidated	8.8	13.8	14.0	2.45	16.5
	DA2mw-108	2355604.43	560181.78	1029.92	15.0	1032.36	6.12	1026.24	A	Bedrock	9.3	14.3	14.5	2.44	16.9
	DA2mw-109	2354793.14	559897.89	1068.66	24.0	1071.29	16.48	1054.81	A	Unconsolidated	11.3	21.3	21.5	2.63	24.1
	DA2mw-110	2355195.91	559927.02	1061.39	20.0	1063.78	11.96	1051.82	A	Unconsolidated	9.3	19.3	19.5	2.39	21.9
	DA2mw-111	2354728.33	560222.94	1039.63	12.6	1042.12	7.24	1034.88	A	Bedrock	7.1	12.1	12.3	2.49	14.8
	DA2mw-112	2355018.98	560378.36	1034.87	15.0	1037.44	4.38	1033.06	A	Unconsolidated	8.8	13.8	14.0	2.57	16.6
	DA2mw-113	2355153.13	560394.81	1034.51	14.0	1037.11	8.15	1028.96	A	Unconsolidated	8.3	13.3	13.5	2.60	16.1
Erie Burning Grounds	EBGmw-123	2380049.21	571747.04	945.59	32.0	947.82	10.02	937.80	A	Unconsolidated	21.0	31.0	31.5	2.23	33.7
	EBGmw-124	2380030.24	571618.07	939.02	32.0	941.39	3.65	937.74	A	Unconsolidated	20.0	30.0	30.5	2.37	32.9
	EBGmw-125	2379679.20	571655.63	947.55	25.0	949.89	12.12	937.77	A	Unconsolidated	14.0	24.0	24.5	2.34	26.8
	EBGmw-126	2380307.31	572348.81	938.20	28.0	940.61	2.89	937.72	A	Unconsolidated	15.2	25.2	25.5	2.41	27.9
	EBGmw-127	2380172.16	571083.61	940.21	30.0	943.07	4.40	938.67	A	Unconsolidated	19.0	29.0	29.5	2.86	32.4
	EBGmw-128	2379892.79	570970.32	942.47	28.0	945.13	7.34	937.79	A	Unconsolidated	15.0	25.0	25.3	2.66	28.0
	EBGmw-129	2379240.52	572035.68	941.97	29.0	944.36	6.90	937.46	A	Unconsolidated	16.0	26.0	26.0	2.39	28.4
	EBGmw-130	2379220.69	570695.61	941.18	26.0	944.00	6.67	937.33	A	Unconsolidated	15.2	25.2	25.5	2.82	28.3
Fuze and Booster Quarry	FBQmw-166	2349584.33	553123.86	1104.87	16.0	1108.86	5.31	1103.55	A	Unconsolidated	5.5	15.5	15.5	3.99	19.5
	FBQmw-167	2349675.45	553556.12	1112.05	18.0	1115.90	5.20	1110.70	A	Unconsolidated	5.0	15.0	15.0	3.85	18.9
	FBQmw-168	2350066.87	553620.85	1131.27	19.5	1133.91	12.53	1121.38	A	Unconsolidated	9.0	19.0	19.0	2.64	21.6
	FBQmw-169	2349730.90	553681.21	1117.36	16.0	1120.58	6.30	1114.28	A	Unconsolidated	5.0	15.0	15.0	3.22	18.2
	FBQmw-170	2350102.41	553975.40	1139.67	30.5	1142.26	18.54	1123.72	A	Bedrock	20.0	30.0	30.0	2.59	32.6
	FBQmw-171	2350072.44	554230.93	1140.49	30.0	1143.55	19.25	1124.30	A	Bedrock	18.0	28.0	28.0	3.06	31.1
	FBQmw-172	2349907.37	554322.17	1145.71	33.0	1150.09	27.10	1122.99	A	Bedrock	20.0	30.0	30.0	4.38	34.4
	FBQmw-173	2350449.01	554491.35	1162.43	50.0	1165.94	42.08	1123.86	A	Bedrock	29.5	49.5	49.5	3.51	53.0
	FBQmw-174	2350289.81	554142.44	1135.78	22.5	1139.97	16.95	1123.02	A	Bedrock	12.0	22.0	22.0	4.19	26.2
	FBQmw-175	2350297.98	553989.24	1137.16	22.5	1140.73	17.77	1122.96	A	Bedrock	12.0	22.0	22.0	3.57	25.6
	FBQmw-176	2350219.45	553273.33	1129.57	21.5	1131.91	10.73	1121.18	A	Unconsolidated	11.0	21.0	21.0	2.34	23.3

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	FBQmw-177	2350112.18	553321.94	1125.73	22.5	1128.57	14.96	1113.61	A	Unconsolidated	12.0	22.0	22.0	2.84	24.8
Landfill North of Winklepeck	LNWmw-024	2358403.21	564825.89	1035.30	24.0	1038.00	13.87	1024.13	A	Unconsolidated	10.0	20.0	20.0	2.70	22.7
	LNWmw-025	2358417.06	565071.92	1027.20	19.0	1029.13	5.30	1023.83	A	Unconsolidated/	8.0	18.0	18.0	1.93	19.9
	LNWmw-026	2358952.24	564658.16	1025.00	24.0	1027.80	8.65	1019.15	A	Unconsolidated	13.0	23.0	23.0	2.80	25.8
	LNWmw-027	2358628.75	564517.41	1024.40	25.0	1027.13	7.62	1019.51	A	Bedrock	14.0	24.0	24.0	2.73	26.7
NACA Test Area	NTAmw-107	2345433.40	551697.29	1077.65	23.0	1080.30	13.12	1067.18	A	Unconsolidated	12.0	22.0	22.0	2.65	24.6
	NTAmw-108	2345781.60	551916.22	1083.22	23.0	1085.62	18.11	1067.51	A	Unconsolidated	12.0	22.0	22.0	2.40	24.4
	NTAmw-109	2345997.72	551293.25	1076.89	19.0	1079.84	12.38	1067.46	A	Unconsolidated	8.0	18.0	18.0	2.95	20.9
	NTAmw-110	2346438.94	551351.46	1080.03	28.0	1082.62	14.97	1067.65	A	Unconsolidated	17.0	27.0	27.0	2.59	29.6
	NTAmw-111	2346638.01	551538.60	1078.07	20.0	1080.94	3.81	1077.13	A	Unconsolidated	9.5	19.5	19.5	2.87	22.4
	NTAmw-112	2346889.48	551712.14	1075.36	23.9	1078.33	9.67	1068.66	A	Unconsolidated	13.9	23.9	23.9	2.97	26.9
	NTAmw-113	2347082.83	551488.52	1072.61	27.5	1075.68	7.77	1067.91	A	Unconsolidated	17.0	27.0	27.5	3.07	30.6
	NTAmw-114	2347301.57	551592.94	1075.61	20.0	1078.71	7.25	1071.46	A	Unconsolidated	9.5	19.5	19.5	3.10	22.6
	NTAmw-115	2347581.16	551791.78	1086.91	24.0	1089.65	15.80	1073.85	A	Unconsolidated	12.5	22.5	22.5	2.74	25.2
	NTAmw-116	2348196.39	551748.00	1091.68	22.0	1094.33	8.11	1086.22	A	Unconsolidated	10.0	20.0	20.0	2.65	22.6
	NTAmw-117	2347994.83	551584.57	1091.67	25.0	1094.54	15.87	1078.67	A	Unconsolidated	14.5	24.5	24.5	2.87	27.4
	NTAmw-118	2347609.41	551335.04	1078.86	22.5	1081.44	10.04	1071.40	A	Unconsolidated	12.0	22.0	22.0	2.58	24.6
Ramsdell Quarry	MW-1	2375594.93	566751.96	985.53	55.0	986.13	NA	NA	A	Bedrock	45.0	55.0	55.0	0.60	55.6
Landfill	MW-2	2376407.06	566257.86	982.74	45.0	981.90	NA	NA	A	Bedrock	35.0	45.0	45.0	-0.84	44.2
	MW-3	2376486.90	566750.38	973.55	45.0	975.54	NA	NA	A	Bedrock	35.0	45.0	45.0	1.99	47.0
	MW-4	2376105.60	566160.41	990.85	57.0	991.80	NA	NA	A	Bedrock	45.0	55.0	55.0	0.95	55.9
	MW-5	2376248.95	566840.25	976.14	43.0	977.38	NA	NA	A	Bedrock	33.0	43.0	43.0	1.24	44.2
	RQLmw-006	2375927.71	566091.26	993.52	42.1	995.39	34.24	961.15	A	Bedrock	19.4	39.4	39.6	1.87	41.4
	RQLmw-007	2375872.56	566544.36	963.86	18.7	965.91	5.96	959.95	A	Bedrock	6.0	16.0	16.2	2.05	18.2
	RQLmw-008	2376011.08	566327.94	963.82	18.7	966.08	6.02	960.06	A	Bedrock	6.0	16.0	16.2	2.26	18.5
	RQLmw-009	2376253.65	566351.20	962.60	18.8	964.58	4.74	959.84	A	Bedrock	5.9	15.9	16.4	1.98	18.4
	RQLmw-010	2376048.58	566857.39	980.04	35.4	982.14	25.45	956.69	A	Bedrock	12.5	32.5	33.0	2.10	35.1
	RQLmw-011	2376398.19	566819.66	974.60	35.4	976.57	32.38	944.19	A	Bedrock	12.4	32.4	32.6	1.97	34.6
	RQLmw-012	2376558.19	566551.95	975.12	30.5	977.65	22.63	955.02	A	Bedrock	19.8	29.8	30.0	2.53	32.5
	RQLmw-013	2376204.93	566928.09	978.04	34.4	980.71	25.76	954.95	A	Bedrock	23.7	33.7	33.9	2.67	36.6
	RQLmw-014	2376519.38	566941.29	970.83	29.4	973.49	20.76	952.73	A	Bedrock	18.6	28.6	28.9	2.66	31.6
	RQLmw-015	2375490.96	566560.90	989.19	40.1	991.26	31.15	960.11	A	Bedrock	29.2	39.2	39.5	2.07	41.6
	RQLmw-016	2375649.55	566177.68	994.02	39.5	996.60	34.45	962.15	A	Bedrock	28.5	38.5	39.0	2.58	41.6
	RQLmw-017	2376124.18	565931.38	988.69	30.5	991.23	29.73	961.50	A	Bedrock	19.8	29.8	30.0	2.54	32.5

Table 2-1 Well Construction and Potentiometric Data (9/27-29/2005) for FWGWMP Annual Report

RTLS/RVAAP Area	Well ID	Ohio State Plane Easting	Ohio State Plane Northing	GL Elevation [a]	Total Drilled Depth [b]	TOC Elevation [a]	Depth to Water [c]	Potentio-metric Elevation Sept. 05 [a]	Well Head Type [d]	Monitoring Zone	Top of Screen (ft BGS)	Bottom of Screen (ft BGS)	Bottom of Inner Casing Plug or End Cap (ft BGS)	Stickup height (ft AGS)	Bottom of Inner Casing (BTOC)
Winklepeck Burning Grounds	OBG-1	2358660.70	562447.16	1016.92	18.0	1017.42	3.43	1013.99	A	Unconsolidated	13.0	18.0	18.0	0.50	18.5
	OBG-2	2358795.76	562364.55	1013.17	19.0	1013.47	5.69	1007.78	A	Unconsolidated	14.0	19.0	19.0	0.30	19.3
	OBG-3	2358795.76	562297.23	1012.41	19.0	1012.91	4.41	1008.50	A	Unconsolidated	13.0	19.0	19.0	0.50	19.5
	OBG-4	2358712.98	562293.20	1013.23	18.2	1013.33	2.99	1010.34	A	Unconsolidated	13.0	18.2	18.2	0.10	18.3
	WBGmw-005	2357163.55	563037.18	1052.20	19.0	1054.70	6.84	1047.86	A	Unconsolidated	8.3	18.3	18.6	2.50	21.1
	WBGmw-006	2359087.79	563008.87	1012.16	19.0	1014.66	9.10	1005.56	A	Unconsolidated	7.6	17.6	17.9	2.50	20.4
	WBGmw-007	2360420.44	562479.87	998.09	24.0	1000.59	18.63	981.96	A	Unconsolidated	13.5	23.5	23.8	2.50	26.3
	WBGmw-008	2359700.57	562010.35	1005.71	18.5	1008.21	15.63	992.58	A	Unconsolidated	8.1	18.2	18.5	2.50	21.0
	WBGmw-009	2357159.20	561603.54	1045.03	24.0	1047.53	15.03	1032.50	A	Unconsolidated	11.4	21.4	21.5	2.50	24.0
	WBGmw-010	2356051.96	562893.20	1067.10	21.0	1069.85	9.00	1060.85	A	Unconsolidated	10.5	20.5	20.8	2.75	23.6
	WBGmw-011	2356187.29	562609.18	1069.70	22.0	1072.38	11.43	1060.95	A	Unconsolidated	11.0	21.0	21.3	2.68	24.0
	WBGmw-012	2354810.65	562240.90	1076.50	30.0	1079.11	18.94	1060.17	A	Unconsolidated	19.0	29.0	29.4	2.61	32.0
	WBGmw-013	2355223.25	561518.27	1069.10	22.0	1071.70	11.99	1059.71	A	Unconsolidated	11.0	21.0	21.3	2.60	23.9
	WBGmw-014	2360439.22	562061.26	994.10	23.0	996.78	17.30	979.48	A	Unconsolidated	12.0	22.0	22.3	2.68	25.0
	WBGmw-015	2359182.41	562340.12	1009.10	22.0	1011.60	17.70	993.90	A	Unconsolidated	11.0	21.0	21.3	2.50	23.8
	WBGmw-016	2360645.88	562709.13	994.90	24.0	997.03	18.52	978.51	A	Unconsolidated	13.0	23.0	23.3	2.13	25.4
	WBGmw-017	2359603.84	562913.24	1004.00	22.0	1006.62	10.12	996.50	A	Unconsolidated	11.0	21.0	21.3	2.62	23.9
Suspected Mustard Agent Burial Site	MBS-001	2345323.00	550759.50	1079.68	30.0	1082.20	18.01	1064.19	A	Unconsolidated	19	28.7	29	2.52	31.5
	MBS-002	2345322.30	550886.20	1080.50	30.0	1083.22	18.38	1064.84	A	Unconsolidated	18	27.3	28	2.72	30.7
	MBS-003	2345172.40	550922.80	1082.45	30.0	1084.45	19.28	1065.17	A	Unconsolidated	18.5	28.2	28.5	2.00	30.5
	MBS-004	2345134.20	550767.90	1079.55	26.0	1081.80	17.36	1064.44	A	Unconsolidatec	14.7	24.4	24.7	2.25	27.0

[a] elevations are in feet above mean sea level (amsl), data collected 9/27/05 through 9/29/05.

[b] total drilled well borehole depth relative to ground surface.

[c] Measurement relative to top of inner casing (TOC).

NA = Not available.

[d] A = above grade completion

F = flush-mount completion

2.2.2 Monitoring Well Inspection Results

All monitoring wells at RVAAP were inspected during the week of September 26, 2005. The well inspection sheets are presented in Appendix C, and the wells that had deficiencies noted are summarized in Table 2-2.

Inspection of the physical condition of all existing facility monitoring wells was conducted at the same time potentiometric surface measurements were collected. The well inspection survey consisted of the following elements:

- Following collection of water level measurements at each well, the total depth of each monitoring well was sounded using the water level indicator. These data allow a determination of the degree of siltation and comparison to constructed depths recorded on well construction logs.

- Visual examination of the condition of the above-ground components of each well was performed. The examination included the condition of access roads to the well, well identification tags or markings, protective casing condition, traffic guard posts, protective covers and locks, protective pads, weep holes, and watertight inner casing caps.

- Recording of well inspection data and any maintenance needs was done using a well inspection/maintenance checklist (see Appendix C).

The well inspections did not reveal irreparable damage to any specific monitoring wells. Significant maintenance repairs, such as replacement of protective casings, concrete pads, or traffic posts, were identified for wells noted on Table 2-2. Well LL9mw-007 at Load Line 9, was not fitted with a security lock because it was completed as a flush-mounted well. Light maintenance needs were identified for a number of monitoring wells, such as drilling of weep holes, clearing of weep holes, and excessive sediment accumulation requiring redevelopment. In addition, many wells were noted to have excessive vegetation growth in their vicinity, which may hinder locating and accessing the wells during any future sampling efforts. Well maintenance needs for each well are documented on the well inspection forms contained in Appendix C. Maintenance for the wells listed in Table 2-2, including CBPmw-006, will be performed in Summer 2006.

Table 2-2 Identified Significant Maintenance Issues/Needs from 2005 Facility-Wide Groundwater Monitoring Well Inspections

Functional Area	Well Identification	Maintenance Issue/Need
Load Line 1	LL1mw-078	Cracked protective pad.
	LL1mw-080	Frost heave/cracked protective pad.
Demolition Area 2	DET-1	Frost heave of protective pad.
	DET-4	Missing protective pad.
	DA2mw-109	Frost heave of protective pad. No inner cap.
	DA2mw-110	Frost heave of protective pad.
	DA2mw-111	Frost heave of protective pad.
Central Burn Pit	CBP-06	Buckled inner casing.
Background	BKGmw-017	Cracked protective pad, broken hinge on protective casing cover
	BKGmw-004	Broken hinge on protective casing cover.
Ramsdell Quarry	RQLmw-006	Frost heave of protective pad.
	RQLmw-007	Cracked protective pad.
	RQLmw-008	Cracked protective pad.
	RQLmw-009	Cracked protective pad.
Load Line 6	LL6mw-005	Frost heave of protective pad.
Load Line 9	LL9mw-003	Frost heave/cracked protective pad.
	LL9mw-007	Frost heave/cracked protective pad.
Load Line 11	LL11mw-009	Frost heave of protective pad.

2.2.3 Summary of Analytical Results

Summaries of laboratory analytical results are presented in Tables 2-3, 2-4, 2-6, 2-7, and 2-8. Compounds and elements that were detected are presented in bold numbers. Appendix G presents the Laboratory Data Sheets for all analyses performed, and also includes a summary of all detected compounds and elements. A brief summary of the detected compounds and elements are presented in the following sub-sections. The data presented in the tables are the validated and verified data. Data verification and validation are discussed in Section 2.2.4 and Appendix D. Data qualifiers have been added to the summary data presented in the following sections. Data qualifiers are defined in the appropriate data summary tables (Tables 2-3, 2-4, 2-6, 2-7, and 2-8).

2.2.3.1 Explosives and Propellants

Explosive and propellant compound analytical results, including nitrate-nitrites, are summarized in Table 2-3. The following compounds were detected at concentrations above reporting limits:

- 1,3,5-Trinitrobenzene – LL1mw-080 (2.7 micrograms per liter (ug/L)), LL1mw-083 (6.8 ug/L), LL2mw-059 (2.5 ug/L), LL3mw-238 (49 ug/L), RQLmw-008 (0.32 ug/L (PG)).

- 1, 3-Dinitrobenzene – LL1mw-080 (0.91 ug/L).

- 2,4,6-Trinitrotoluene – LL1mw-080 (2.2 ug/L), LL1mw-083 (6.8 ug/L), LL3mw-238 (110 ug/L).

- 2,4-Dinitrotoluene – LL1mw-080 (0.65 ug/L), LL1mw-083 (4.3 ug/L), LL2mw-059 (0.47 ug/L).

- 2,6-Dinitrotoluene – LL1mw-080 (0.68 ug/L), LL1mw-083 (1.8 ug/L)

- 2-amino-4,6-dinitrotoluene – LL1mw-080 (8.6 ug/L), LL1mw-083 (21 ug/L), LL2mw-059 (0.96 ug/L), LL3mw-238 (13 ug/L).

- 4-amino-2,6-dinitrotoluene – LL1mw-080 (11 ug/L), LL1mw-083 (23 ug/L), LL2mw-059 (0.91 ug/L), LL3mw-238 (41 ug/L).

- HMX – LL1mw-080 (9.5 ug/L), LL1mw-083 (0.44 ug/L (J)), LL3mw-238 (2.2 ug/L), DA2mw-DET4 (0.64 ug/L), WBGmw-006 (17 ug/L), WBGmw-009 (2.3 ug/L).

- RDX – LL1mw-078 (0.17 ug/L (PG)), LL1mw-080 (58 ug/L), LL1mw-083 (0.32 ug/L (J)), LL3mw-238 (8.2 ug/L), WBGmw-006 (65 ug/L), WBGmw-009 (9.9 ug/L).

Table 2-3 FWGWMP October 2005 Explosive and Propellant Analytical Results

Station ID				BKGmw-004	BKGmw-005	BKGmw-006	BKGmw-008	BKGmw-010	BKGmw-012
Sample ID		MCL	Region 9 PRGs	FWGBKGmw-004C-0094-GW	FWGBKGmw-005C-0095-GW	FWGBKGmw-006C-0096-GW	FWGBKGmw-008C-0097-GW	FWGBKGmw-010C-0098-GW	FWGBKGmw-012C-0099-GW
Date Collected				10/5/2005	10/5/2005	10/6/2005	10/5/2005	10/5/2005	10/3/2005
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,3,5-Trinitrobenzene	µg/L	NS	1100	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
1,3-Dinitrobenzene	µg/L	NS	3.6	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,4,6-Trinitrolouene	µg/L	NS	2.2	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,4-Dinitrotoluene	µg/L	NS	73	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,6-Dinitrotoluene	µg/L	NS	36	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	NS	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4-Amino-2,6-dinitrotoluene	µg/L	NS	NS	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4-Nitrotoluene	µg/L	NS	0.66	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
HMX	µg/L	NS	1800	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Nitrate-Nitrite	mg/L	10000	10000	NA	NA	NA	NA	NA	NA
Nitrobenzene	µg/L	NS	3.4	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Nitrocellulose	mg/L	NS	NS	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	**0.16 B**
Nitroguanidine	µg/L	NS	NS	20 U	20 U	20 U	20 U	20 U	20 U
RDX	µg/L	NS	0.61	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Tetryl	µg/L	NS	360	0.10 U	0.10 U	0.10 U	0.10 U	**0.079 J**	0.10 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

AA = cannot confirm due to interference on cyano column analysis

NA = Not analyzed

Bold = detected compounds

Table 2-3 FWGWMP October 2005 Explosive and Propellant Analytical Results

Station ID				BKGmw-013	BKGmw-015	BKGmw-016	BKGmw-017	BKGmw-018	BKGmw-019
Sample ID		MCL	Region 9 PRGs	FWGBKGmw-013C-0100-GW	FWGBKGmw-015C-0101-GW	FWGBKGmw-016C-0102-GW	FWGBKGmw-017C-0103-GW	FWGBKGmw-018C-0104-GW	FWGBKGmw-019C-0105-GW
Date Collected				10/5/2005	10/5/2005	10/4/2005	10/4/2005	10/5/2005	10/6/2005
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,3,5-Trinitrobenzene	µg/L	NS	1100	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
1,3-Dinitrobenzene	µg/L	NS	3.6	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,4,6-Trinitrolouene	µg/L	NS	2.2	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,4-Dinitrotoluene	µg/L	NS	73	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,6-Dinitrotoluene	µg/L	NS	36	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	NS	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4-Amino-2,6-dinitrotoluene	µg/L	NS	NS	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4-Nitrotoluene	µg/L	NS	0.66	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
HMX	µg/L	NS	1800	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Nitrate-Nitrite	mg/L	10000	10000	NA	NA	NA	NA	NA	NA
Nitrobenzene	µg/L	NS	3.4	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Nitrocellulose	mg/L	NS	NS	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Nitroguanidine	µg/L	NS	NS	20 U	20 U	20 U	20 U	20 U	20 U
RDX	µg/L	NS	0.61	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Tetryl	µg/L	NS	360	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

AA = cannot confirm due to interference on cyano column analysis

NA = Not analyzed

Bold = detected compounds

Table 2-3 FWGWMP October 2005 Explosive and Propellant Analytical Results

Station ID				BKGmw-020	BKGmw-021	LL1mw-078	LL1mw-080	LL1mw-083	LL2mw-059
Sample ID		MCL	Region 9 PRGs	FWGBKGmw-020C-0106-GW	FWGBKGmw-021C-0107-GW	FWGLL!mw-078C-0108-GW	FWGLL1mw-080C-0109-GW	FWGLL1mw-083C-0110-GW	FWGLL2mw-059C-0111-GW
Date Collected				10/4/2005	10/5/2005	10/5/2005	10/4/2005	10/4/2005	10/4/2005
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,3,5-Trinitrobenzene	µg/L	NS	1100	0.10 U	0.10 U	0.10 U	**2.7**	**6.8**	**2.5**
1,3-Dinitrobenzene	µg/L	NS	3.6	0.10 U	0.10 U	0.10 U	**0.91**	0.50 U	**0.089 J**
2,4,6-Trinitrolouene	µg/L	NS	2.2	0.10 U	0.10 U	0.10 U	**2.2**	**6.8**	0.10 U
2,4-Dinitrotoluene	µg/L	NS	73	0.10 U	0.10 U	0.10 U	**0.65**	**4.3**	**0.47**
2,6-Dinitrotoluene	µg/L	NS	36	0.10 U	0.10 U	0.10 U	**0.68**	**1.8**	0.10 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	NS	0.10 U	0.10 U	0.10 U	**8.6**	**21**	**0.96**
4-Amino-2,6-dinitrotoluene	µg/L	NS	NS	0.10 U	0.10 U	0.10 U	**11**	**23**	**0.91**
4-Nitrotoluene	µg/L	NS	0.66	0.50 U	0.50 U	0.50 U	2.5 U	2.5 U	0.50 U
HMX	µg/L	NS	1800	0.10 U	0.10 U	0.10 U	**9.5**	**0.44 J**	**0.067 J**
Nitrate-Nitrite	mg/L	10000	10000	NA	NA	NA	NA	NA	NA
Nitrobenzene	µg/L	NS	3.4	0.10 U	0.10 U	0.10 U	0.50 U	0.50 U	0.10 U
Nitrocellulose	mg/L	NS	NS	0.50 U	0.50 U	0.50 U	0.50 U	**0.21 B**	0.50 U
Nitroguanidine	µg/L	NS	NS	20 U	20 U	20 U	20 U	20 U	20 U
RDX	µg/L	NS	0.61	0.10 U	0.10 U	**0.17 PG**	**58**	**0.32 J**	0.10 U
Tetryl	µg/L	NS	360	0.10 U	0.10 U	0.10 U	0.50 U	0.50 U	0.10 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

AA = cannot confirm due to interference on cyano column analysis

NA = Not analyzed

Bold = detected compounds

Table 2-3 FWGWMP October 2005 Explosive and Propellant Analytical Results

Station ID				LL2mw-262	LL2mw-263	LL3mw-238	LL3mw-242	LL4mw-198	LL4mw-199
Sample ID		MCL	Region 9 PRGs	FWGLL2mw-262C-0112-GW	FWGLL2mw-263C-0113-GW	FWGLL3mw-238C-0114-GW	FWGLL3mw-242C-0115-GW	FWGLL4mw-198C-0116-GW	FWGLL4mw-199C-0117-GW
Date Collected				10/4/2005	10/4/2005	10/5/2005	10/4/2005	10/5/2005	10/5/2005
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,3,5-Trinitrobenzene	µg/L	NS	1100	0.10 U	0.10 U	**49**	0.10 U	0.10 U	0.10 U
1,3-Dinitrobenzene	µg/L	NS	3.6	0.10 U	0.10 U	1.0 U	0.10 U	0.10 U	0.10 U
2,4,6-Trinitrolouene	µg/L	NS	2.2	0.10 U	0.10 U	**110**	0.10 U	0.10 U	0.10 U
2,4-Dinitrotoluene	µg/L	NS	73	0.10 U	0.10 U	1.0 U	0.10 U	0.10 U	0.10 U
2,6-Dinitrotoluene	µg/L	NS	36	0.10 U	0.10 U	1.0 U	0.10 U	0.10 U	0.10 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	NS	0.10 U	0.10 U	**13**	0.10 U	0.10 U	0.10 U
4-Amino-2,6-dinitrotoluene	µg/L	NS	NS	0.10 U	0.10 U	**41**	0.10 U	0.10 U	0.10 U
4-Nitrotoluene	µg/L	NS	0.66	0.50 U	0.50 U	5.0 U	0.50 U	0.50 U	0.50 U
HMX	µg/L	NS	1800	0.10 U	0.10 U	**2.2**	0.10 U	0.10 U	0.10 U
Nitrate-Nitrite	mg/L	10000	10000	NA	NA	NA	NA	NA	NA
Nitrobenzene	µg/L	NS	3.4	0.10 U	0.10 U	1.0 U	0.10 U	0.10 U	0.10 U
Nitrocellulose	mg/L	NS	NS	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Nitroguanidine	µg/L	NS	NS	20 U	20 U	20 U	20 U	20 U	20 U
RDX	µg/L	NS	0.61	0.10 U	0.10 U	**8.2**	0.10 U	0.10 U	0.10 U
Tetryl	µg/L	NS	360	0.10 U	0.10 U	**1.5**	0.10 U	0.10 U	0.10 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

AA = cannot confirm due to interference on cyano column analysis

NA = Not analyzed

Bold = detected compounds

Table 2-3 FWGWMP October 2005 Explosive and Propellant Analytical Results

Station ID				LL11mw-002	LL11mw-007	LL12mw-153	LL12mw-182	LL12mw-183	LL12mw-186
Sample ID		MCL	Region 9 PRGs	FWGLL11mw-002C-0118-GW	FWGLL11mw-007C-0119-GW	FWGLL12mw-153C-0120-GW	FWGLL12mw-182C-0121-GW	FWGLL12mw-183C-0122-GW	FWGLL12mw-186C-0123-GW
Date Collected				10/6/2005	10/6/2005	10/4/2005	10/3/2005	10/3/2005	10/3/2005
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,3,5-Trinitrobenzene	µg/L	NS	1100	0.10 U	0.10 U	0.10 U	**0.031 J**	0.10 U	0.10 U
1,3-Dinitrobenzene	µg/L	NS	3.6	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,4,6-Trinitrolouene	µg/L	NS	2.2	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,4-Dinitrotoluene	µg/L	NS	73	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,6-Dinitrotoluene	µg/L	NS	36	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	NS	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4-Amino-2,6-dinitrotoluene	µg/L	NS	NS	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4-Nitrotoluene	µg/L	NS	0.66	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
HMX	µg/L	NS	1800	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Nitrate-Nitrite	mg/L	10000	10000	NA	NA	0.10 U	0.10 U	0.10 U	**0.03 B**
Nitrobenzene	µg/L	NS	3.4	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Nitrocellulose	mg/L	NS	NS	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	**0.14 B**
Nitroguanidine	µg/L	NS	NS	20 U	20 U	20 U	20 U	20 U	20 U
RDX	µg/L	NS	0.61	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Tetryl	µg/L	NS	360	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

AA = cannot confirm due to interference on cyano column analysis

NA = Not analyzed

Bold = detected compounds

Table 2-3 FWGWMP October 2005 Explosive and Propellant Analytical Results

Station ID				CBPmw-005	CBPmw-007	DET-3	DET-4	DA2mw-107	RQLmw-007
Sample ID		MCL	Region 9 PRGs	FWGCBPmw-005C-0124-GW	FWGCBPmw-007C-0125-GW	FWGDA2mw-DET3C-0127-GW	FWGDA2mw-DET4-0128-GW	FWGDA2mw-107C-0126-GW	FWGRQLmw-007C-0132-GW
Date Collected				10/3/2005	10/3/2005	10/6/2005	10/6/2005	10/6/2005	10/3/2005
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,3,5-Trinitrobenzene	µg/L	NS	1100	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
1,3-Dinitrobenzene	µg/L	NS	3.6	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,4,6-Trinitrolouene	µg/L	NS	2.2	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,4-Dinitrotoluene	µg/L	NS	73	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,6-Dinitrotoluene	µg/L	NS	36	0.10 U	**0.082 J**	0.10 U	0.10 U	0.10 U	0.10 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	NS	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4-Amino-2,6-dinitrotoluene	µg/L	NS	NS	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4-Nitrotoluene	µg/L	NS	0.66	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
HMX	µg/L	NS	1800	0.10 U	0.10 U	0.10 U	**0.64**	0.10 U	0.10 U
Nitrate-Nitrite	mg/L	10000	10000	NA	NA	NA	NA	NA	NA
Nitrobenzene	µg/L	NS	3.4	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Nitrocellulose	mg/L	NS	NS	**0.16 B**	0.50 U	0.50 U	0.50 U	0.50 U	**0.15 B**
Nitroguanidine	µg/L	NS	NS	20 U	20 U	20 U	20 U	20 U	20 U
RDX	µg/L	NS	0.61	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Tetryl	µg/L	NS	360	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

AA = cannot confirm due to interference on cyano column analysis

NA = Not analyzed

Bold = detected compounds

Table 2-3 FWGWMP October 2005 Explosive and Propellant Analytical Results

Station ID				RQLmw-008	RQLmw-009	WBGmw-006	WBGmw-007	WBGmw-009
Sample ID		MCL	Region 9 PRGs	FWGRQLmw-008C-0133-GW	FWGRQLmw-009C-0134-GW	FWGWBGmw-006C-0129-GW	FWGWBGmw-007C-0130-GW	FWGWBGmw-009C-0131-GW
Date Collected				10/3/2005	10/3/2005	10/6/2005	10/6/2005	10/6/2005
Sample Type				Grab	Grab	Grab	Grab	Grab
Analyte	Units							
1,3,5-Trinitrobenzene	µg/L	NS	1100	**0.32 PG**	0.10 U	0.50 U	0.10 U	0.10 U
1,3-Dinitrobenzene	µg/L	NS	3.6	0.10 U	0.10 U	0.50 U	0.10 U	0.10 U
2,4,6-Trinitrolouene	µg/L	NS	2.2	0.10 U	0.10 U	0.50 U	0.10 U	0.10 U
2,4-Dinitrotoluene	µg/L	NS	73	0.10 U	0.10 U	0.50 U	0.10 U	0.10 U
2,6-Dinitrotoluene	µg/L	NS	36	0.10 U	0.10 U	0.50 U	0.10 U	0.10 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	NS	0.10 U	0.10 U	0.50 U	0.10 U	0.10 U
4-Amino-2,6-dinitrotoluene	µg/L	NS	NS	0.10 U	0.10 U	0.50 U	0.10 U	0.10 U
4-Nitrotoluene	µg/L	NS	0.66	**0.096 J**	0.50 U	2.5 U	0.50 U	0.50 U
HMX	µg/L	NS	1800	0.10 U	0.10 U	**17**	0.10 U	**2.3**
Nitrate-Nitrite	mg/L	10000	10000	NA	NA	NA	NA	NA
Nitrobenzene	µg/L	NS	3.4	0.10 U	0.10 U	0.50 U	0.10 U	0.10 U
Nitrocellulose	mg/L	NS	NS	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Nitroguanidine	µg/L	NS	NS	**14 J**	20 U	20 U	20 U	20 U
RDX	µg/L	NS	0.61	0.10 U	0.10 U	**65**	0.10 U	**9.9**
Tetryl	µg/L	NS	360	**0.093 J**	0.10 U	0.50 U	0.10 U	0.10 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

AA = cannot confirm due to interference on cyano column analysis

NA = Not analyzed

Bold = detected compounds

2.2.3.2 Inorganic Elements

Inorganic elements analytical results are presented in Table 2-4. All inorganics analyzed for were detected in the samples except for beryllium, chromium (total), cyanide, lead, mercury, silver, and vanadium. The inorganic elements that were detected were compared to site wide background levels, and against elements that are considered as essential nutrients to determine if they are to be considered as Site Related Contaminants (SRCs). Calcium, magnesium, iron, potassium, and sodium were eliminated as potential SRCs because they are considered as essential nutrients. Background levels for inorganic elements are presented in Table 2-5. The inorganic elements detected were compared to the appropriate background criteria to determine if they were SRCs. Elements shown as detects in Table 2-4, but at levels below the reporting limit and with laboratory qualifiers, or with concentrations less than the appropriate background levels, were not considered as SRCs. These elements were antimony, cadmium, chromium (total), copper, thallium, and zinc. The elements that are considered as SRCs were further compared to the Public Drinking Water Standards for Ohio Maximum Contaminant Levels (MCL). The following inorganic elements were detected above the appropriate background levels:

- Aluminum – BKGmw-010 (82.2 ug/L (B)), LL1mw-083 (670 ug/L), LL11mw-007 (228 ug/L (E)), WBGmw-009 (274 ug/L). There is no MCL for aluminum.

- Arsenic
    - Bedrock Aquifer – LL2mw-263 (17 ug/L), RQLmw-007 (76.1 ug/L), RQLmw-008 (14.3 ug/L), and RQLmw-009 (19 ug/L).
    - Unconsolidated Aquifer – BKGmw-013 (11.7 ug/L), BKGmw-017 (18.6 ug/L), LL4mw-199 (12.7 ug/L), LL11mw-007 (7.1 ug/L (B)), LL12mw-153 (19 ug/L), LL12mw-182 (53 ug/L), LL12mw-183 (48.2 ug/L), CBPmw-005 (24.2 ug/L), DA2mw-DET3 (10.5 ug/L). The MCL for arsenic is 50 ug/L, and effective January 1, 2006 will be 10 ug/L.

- Barium
    - Bedrock Aquifer – BKGmw-012 (315 ug/L), BKGmw-015 (262 ug/L).
    - Unconsolidated Aquifer – LL4mw-199 (95.7 ug/L), and WBGmw-009 (89.6 ug/L). The MCL for barium is 2,000 ug/L.

- Cobalt was detected in BKGmw-006, LL1mw-083, LL2mw-059, LL2mw-263, LL12mw-186, RQLmw-007, RQLmw-008, and RQLmw-009 at concentrations less than 9.8 ug/L. The results for these samples were qualified with a "B" due to method blank contamination. Cobalt was detected in LL2mw-262 at a concentration of 23.5 ug/L. There is no MCL for cobalt.

- Manganese
    - Bedrock Aquifer – LL2mw-262 (1950 ug/L), RQLmw-007 (2900 ug/L (J)), RQLmw-008 (1390 ug/L (J)), RQLmw-009 (3010 ug/L (J))
    - Unconsolidated Aquifer – LL4mw-198 (1070 ug/L). There is no MCL for manganese.

- Nickel – LL4mw-198 (19 ug/L (B)). The MCL for nickel is 100 ug/L.

Table 2-4 FWGWMPP October 2005 Inorganics Analytical Results

Station ID				BKGmw-004	BKGmw-005	BKGmw-006	BKGmw-008
Sample ID		MCL	Region 9 PRG	FWGBKGmw-004C-0094-GF	FWGBKGmw-005C-0095-GF	FWGBKGmw-006C-0096-GF	FWGBKGmw-008C-0097-GF
Date Collected				10/5/2005	10/5/2005	10/6/2005	10/5/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Aluminum	µg/L	NS	36000	200 U	200 U	200 U	200 U
Antimony	µg/L	6	15	100 U	100 U	100 U	100 U
Arsenic	µg/L	50	0.045	10 U	10 U	10 U	10 U
Barium	µg/L	2000	2600	**22.3**	**14.1**	**13.8**	**4.7 B**
Beryllium	µg/L	4	NS	10 U	10 U	10 U	10 U
Cadmium	µg/L	5	NS	10 U	10 U	10 U	10 U
Calcium	µg/L	NS	NS	**21500**	**87400**	**78700**	**24200**
Chromium, total	µg/L	100	NS	20 U	20 U	**1.8 B, J**	20 U
Cobalt	µg/L	NS	730	20 U	20 U	**1.4 B**	20 U
Copper	µg/L	1300	1500	20 U	20 U	20 U	20 U
Cyanide	mg/L	200	730	0.01 U	0.01 U	0.01 U	0.01 U
Iron	µg/L	30	10000	1000 U	1000 U	**36.5 B**	1000 U
Lead	µg/L	15	NS	10 U	10 U	10 U	10 U
Magnesium	µg/L	NS	NS	**7240**	**18900**	**26700**	**9560**
Manganese	µg/L	50	880	**0.40 B**	**0.45 B**	**403 J**	**21.8 B**
Mercury	µg/L	2	11	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	100	730	20 U	20 U	20 U	20 U
Potassium	µg/L	NS	NS	**710 B**	**1170 B**	**1440 B**	**508 B**
Selenium	µg/L	50	180	10 U	10 U	10 U	10 U
Silver	µg/L	100	180	20 U	20 U	20 U	20 U
Sodium	µg/L	NS	NS	**13200**	**7880**	**35300**	**8540**
Thallium	µg/L	2	2.4	1.0 U	1.0 U	1.0 U	**0.029 B**
Vanadium	µg/L	NS	36	20 U	20 U	20 U	20 U
Zinc	µg/L	5000	11000	100 U	100 U	100 U	100 U

Qualifier Definitions:
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J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

Bold = detected compounds

NS = no standard

Effective January 1, 2006 the MCL for arsenic will be 10 ug/L.

Table 2-4 FWGWMPP October 2005 Inorganics Analytical Results

Station ID				BKGmw-010	BKGmw-012	BKGmw-013	BKGmw-015
Sample ID		MCL	Region 9 PRG	FWGBKGmw-010C-0098-GF	FWGBKGmw-012C-0099-GF	FWGBKGmw-013C-0100-GF	FWGBKGmw-015C-0101-GF
Date Collected				10/5/2005	10/3/2005	10/5/2005	10/5/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Aluminum	µg/L	NS	36000	**82.2 B**	200 U	200 U	200 U
Antimony	µg/L	6	15	**4.6 B**	100 U	100 U	100 U
Arsenic	µg/L	50	0.045	10 U	10 U	**11.7**	10 U
Barium	µg/L	2000	2600	**14.3**	**315**	**78.7**	**262**
Beryllium	µg/L	4	NS	10 U	10 U	10 U	10 U
Cadmium	µg/L	5	NS	10 U	10 U	10 U	10 U
Calcium	µg/L	NS	NS	**11400**	**34100**	**74500**	**30200**
Chromium, total	µg/L	100	NS	20 U	20 U	20 U	20 U
Cobalt	µg/L	NS	730	20 U	20 U	20 U	20 U
Copper	µg/L	1300	1500	20 U	20 U	20 U	20 U
Cyanide	mg/L	200	730	0.01 U	0.01 U	0.01 U	0.01 U
Iron	µg/L	30	10000	**36.6 B**	**341 B**	**998 B**	1000 U
Lead	µg/L	15	NS	10 U	10 U	10 U	10 U
Magnesium	µg/L	NS	NS	**13800**	**11000**	**25100**	**12900**
Manganese	µg/L	50	880	**40.4 B**	**52.6 B, J**	**394**	**9.4 B**
Mercury	µg/L	2	11	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	100	730	**10.7 B**	20 U	20 U	**3.4 B**
Potassium	µg/L	NS	NS	**754 B**	**5440**	**2030 B**	**5340**
Selenium	µg/L	50	180	10 U	10 U	10 U	10 U
Silver	µg/L	100	180	20 U	20 U	20 U	20 U
Sodium	µg/L	NS	NS	**3720**	**38900**	**11800**	**12400**
Thallium	µg/L	2	2.4	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	NS	36	20 U	20 U	20 U	20 U
Zinc	µg/L	5000	11000	100 U	100 U	100 U	100 U

Qualifier Definitions:
U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

Bold = detected compounds

NS = no standard

Effective January 1, 2006 the MCL for arsenic will be 10 ug/L.

Table 2-4 FWGWMPP October 2005 Inorganics Analytical Results

Station ID				BKGmw-016	BKGmw-017	BKGmw-018	BKGmw-019
Sample ID		MCL	Region 9 PRG	FWGBKGmw-016C-0102-GF	FWGBKGmw-017C-0103-GF	FWGBKGmw-018C-0104-GF	FWGBKGmw-019C-0105-GF
Date Collected				10/4/2005	10/4/2005	10/5/2005	10/6/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Aluminum	µg/L	NS	36000	200 U	200 U	200 U	200 U
Antimony	µg/L	6	15	100 U	100 U	100 U	100 U
Arsenic	µg/L	50	0.045	10 U	**18.6**	10 U	10 U
Barium	µg/L	2000	2600	**14.8**	**30.9**	**20.9**	**45**
Beryllium	µg/L	4	NS	10 U	10 U	10 U	10 U
Cadmium	µg/L	5	NS	10 U	10 U	10 U	10 U
Calcium	µg/L	NS	NS	**9450**	**102000**	**54000**	**110000**
Chromium, total	µg/L	100	NS	20 U	20 U	20 U	**1.8 B, J**
Cobalt	µg/L	NS	730	20 U	20 U	20 U	20 U
Copper	µg/L	1300	1500	20 U	20 U	20 U	20 U
Cyanide	mg/L	200	730	0.01 U	0.01 U	0.01 U	0.01 U
Iron	µg/L	30	10000	1000 U	**1410**	**106 B**	**78.8 B**
Lead	µg/L	15	NS	10 U	10 U	10 U	10 U
Magnesium	µg/L	NS	NS	**4760**	**43800**	**5730**	**31600**
Manganese	µg/L	50	880	**20 B**	**197**	**229**	**202 J**
Mercury	µg/L	2	11	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	100	730	**2.5 B**	20 U	20 U	20 U
Potassium	µg/L	NS	NS	**634 B**	**2490 B**	**1190 B**	**1440 B**
Selenium	µg/L	50	180	10 U	10 U	10 U	10 U
Silver	µg/L	100	180	20 U	20 U	20 U	20 U
Sodium	µg/L	NS	NS	**3620**	**21800**	**1930**	**9550**
Thallium	µg/L	2	2.4	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	NS	36	20 U	20 U	20 U	20 U
Zinc	µg/L	5000	11000	100 U	100 U	100 U	100 U

Qualifier Definitions:
U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

Bold = detected compounds

NS = no standard

Effective January 1, 2006 the MCL for arsenic will be 10 ug/L.

Table 2-4 FWGWMPP October 2005 Inorganics Analytical Results

Station ID				BKGmw-020	BKGmw-021	LL1mw-078	LL1mw-080
Sample ID		MCL	Region 9 PRG	FWGBKGmw-020C-0106-GF	FWGBKGmw-021C-0107-GF	FWGLL!mw-078C-0108-GF	FWGLL1mw-080C-0109-GF
Date Collected				10/4/2005	10/5/2005	10/5/2005	10/4/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Aluminum	µg/L	NS	36000	200 U	200 U	200 U	200 U
Antimony	µg/L	6	15	100 U	100 U	100 U	100 U
Arsenic	µg/L	50	0.045	10 U	10 U	10 U	10 U
Barium	µg/L	2000	2600	**135**	**38.9**	**8 B**	**17.9**
Beryllium	µg/L	4	NS	10 U	10 U	10 U	10 U
Cadmium	µg/L	5	NS	10 U	10 U	10 U	10 U
Calcium	µg/L	NS	NS	**47400**	**77400**	**57100**	**97000**
Chromium, total	µg/L	100	NS	20 U	20 U	20 U	20 U
Cobalt	µg/L	NS	730	20 U	20 U	20 U	20 U
Copper	µg/L	1300	1500	20 U	20 U	20 U	20 U
Cyanide	mg/L	200	730	0.01 U	0.01 U	0.01 U	0.01 U
Iron	µg/L	30	10000	**2550**	1000 U	1000 U	1000 U
Lead	µg/L	15	NS	10 U	10 U	10 U	10 U
Magnesium	µg/L	NS	NS	**15100**	**49400**	**8190**	**4660**
Manganese	µg/L	50	880	**695**	100 U	**1.9 B**	**860**
Mercury	µg/L	2	11	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	100	730	20 U	20 U	20 U	**3.3 B**
Potassium	µg/L	NS	NS	**2920 B**	**1070 B**	**2540 B**	**3450 B**
Selenium	µg/L	50	180	10 U	10 U	10 U	10 U
Silver	µg/L	100	180	20 U	20 U	20 U	20 U
Sodium	µg/L	NS	NS	**7630**	**10200**	**5260**	**2440**
Thallium	µg/L	2	2.4	1.0 U	1.0 U	**0.053 B**	**0.39 B**
Vanadium	µg/L	NS	36	20 U	20 U	20 U	20 U
Zinc	µg/L	5000	11000	100 U	100 U	100 U	100 U

Qualifier Definitions:
U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

Bold = detected compounds

NS = no standard

Effective January 1, 2006 the MCL for arsenic will be 10 ug/L.

Table 2-4 FWGWMPP October 2005 Inorganics Analytical Results

Station ID				LL1mw-083	LL2mw-059	LL2mw-262	LL2mw-263
Sample ID		MCL	Region 9 PRG	FWGLL1mw-083C-0110-GF	FWGLL2mw-059C-0111-GF	FWGLL2mw-262C-0112-GF	FWGLL2mw-263C-0113-GF
Date Collected				10/4/2005	10/4/2005	10/4/2005	10/4/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Aluminum	µg/L	NS	36000	**670**	200 U	200 U	200 U
Antimony	µg/L	6	15	100 U	100 U	100 U	100 U
Arsenic	µg/L	50	0.045	10 U	10 U	10 U	**17**
Barium	µg/L	2000	2600	**15**	**10.8**	**20.7**	**22.2**
Beryllium	µg/L	4	NS	10 U	10 U	10 U	10 U
Cadmium	µg/L	5	NS	**0.64 B**	10 U	10 U	10 U
Calcium	µg/L	NS	NS	**12600**	**22300**	**65000**	**31800**
Chromium, total	µg/L	100	NS	20 U	20 U	20 U	20 U
Cobalt	µg/L	NS	730	**9.8 B**	**2.9 B**	**23.5**	**2.3 B**
Copper	µg/L	1300	1500	**2.5 B**	20 U	20 U	20 U
Cyanide	mg/L	200	730	**0.0033 B**	0.01 U	0.01 U	0.01 U
Iron	µg/L	30	10000	**62.9 B**	**42.8 B**	**2180**	**4560**
Lead	µg/L	15	NS	10 U	10 U	10 U	10 U
Magnesium	µg/L	NS	NS	**3630**	**8070**	**38500**	**14400**
Manganese	µg/L	50	880	**352**	**339**	**1950**	**1200**
Mercury	µg/L	2	11	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	100	730	**26.5**	**5.1 B**	**25.8**	**4.8 B**
Potassium	µg/L	NS	NS	**2340 B**	**805 B**	**2560 B**	**810 B**
Selenium	µg/L	50	180	10 U	10 U	10 U	10 U
Silver	µg/L	100	180	20 U	20 U	20 U	20 U
Sodium	µg/L	NS	NS	**17000**	**5250**	**8590**	**4600**
Thallium	µg/L	2	2.4	**0.059 B**	**0.034 B**	1.0 U	1.0 U
Vanadium	µg/L	NS	36	20 U	20 U	20 U	20 U
Zinc	µg/L	5000	11000	**31.4 B**	100 U	100 U	100 U

Qualifier Definitions:
U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

Bold = detected compounds

NS = no standard

Effective January 1, 2006 the MCL for arsenic will be 10 ug/L.

Table 2-4 FWGWMPP October 2005 Inorganics Analytical Results

Station ID				LL3mw-238	LL3mw-242	LL4mw-198	LL4mw-199
Sample ID		MCL	Region 9 PRG	FWGLL3mw-238C-0114-GF	FWGLL3mw-242C-0115-GF	FWGLL4mw-198C-0116-GF	FWGLL4mw-199C-0117-GF
Date Collected				10/5/2005	10/4/2005	10/5/2005	10/5/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Aluminum	µg/L	NS	36000	200 U	200 U	200 U	200 U
Antimony	µg/L	6	15	100 U	100 U	100 U	100 U
Arsenic	µg/L	50	0.045	10 U	10 U	10 U	**12.7**
Barium	µg/L	2000	2600	**6.7 B**	**5.2 B**	**12.3**	**95.7**
Beryllium	µg/L	4	NS	10 U	10 U	10 U	10 U
Cadmium	µg/L	5	NS	10 U	10 U	10 U	10 U
Calcium	µg/L	NS	NS	**37800**	**17300**	**24800**	**77800**
Chromium, total	µg/L	100	NS	20 U	20 U	20 U	20 U
Cobalt	µg/L	NS	730	20 U	20 U	20 U	20 U
Copper	µg/L	1300	1500	20 U	20 U	20 U	20 U
Cyanide	mg/L	200	730	0.01 U	0.01 U	0.01 U	0.01 U
Iron	µg/L	30	10000	1000 U	1000 U	**4100**	**1190**
Lead	µg/L	15	NS	10 U	10 U	10 U	10 U
Magnesium	µg/L	NS	NS	**4080**	**7070**	**11500**	**21000**
Manganese	µg/L	50	880	**1.3 B**	**157**	**1070**	**457**
Mercury	µg/L	2	11	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	100	730	20 U	**5.2 B**	**19 B**	20 U
Potassium	µg/L	NS	NS	**2350 B**	**1180 B**	**1330 B**	**1440 B**
Selenium	µg/L	50	180	10 U	10 U	10 U	10 U
Silver	µg/L	100	180	20 U	20 U	20 U	20 U
Sodium	µg/L	NS	NS	**2190**	**12300**	**10900**	**9340**
Thallium	µg/L	2	2.4	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	NS	36	20 U	20 U	20 U	20 U
Zinc	µg/L	5000	11000	100 U	100 U	**56.7 B**	100 U

Qualifier Definitions:
U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

Bold = detected compounds

NS = no standard

Effective January 1, 2006 the MCL for arsenic will be 10 ug/L.

Table 2-4 FWGWMPP October 2005 Inorganics Analytical Results

Station ID				LL11mw-002	LL11mw-007	LL12mw-153	LL12mw-182
Sample ID		MCL	Region 9 PRG	FWGLL11mw-002C-0118-GF	FWGLL11mw-007C-0119-GF	FWGLL12mw-153C-0120-GF	FWGLL12mw-182C-0121-GF
Date Collected				10/6/2005	10/6/2005	10/4/2005	10/3/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Aluminum	µg/L	NS	36000	200 U	**228 E**	200 U	200 U
Antimony	µg/L	6	15	100 U	100 U	100 U	100 U
Arsenic	µg/L	50	0.045	10 U	**7.1 B**	**19**	**53**
Barium	µg/L	2000	2600	**29**	**34.7**	**75**	**76.3**
Beryllium	µg/L	4	NS	10 U	10 U	10 U	10 U
Cadmium	µg/L	5	NS	10 U	10 U	10 U	10 U
Calcium	µg/L	NS	NS	**94000**	**81800**	**134000**	**120000**
Chromium, total	µg/L	100	NS	**1.8 B, J**	20 U	20 U	20 U
Cobalt	µg/L	NS	730	20 U	20 U	20 U	20 U
Copper	µg/L	1300	1500	20 U	**2.0 B**	20 U	20 U
Cyanide	mg/L	200	730	0.01 U	0.01 U	0.01 U	0.01 U
Iron	µg/L	30	10000	1000 U	**1520**	**2520**	**1930**
Lead	µg/L	15	NS	10 U	10 U	10 U	10 U
Magnesium	µg/L	NS	NS	**30500**	**26800**	**73200**	**47900**
Manganese	µg/L	50	880	**611 J**	**166 J**	**175**	**72.9 B, J**
Mercury	µg/L	2	11	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	100	730	**1.7 B, J**	20 U	20 U	20 U
Potassium	µg/L	NS	NS	**1990 B**	**2000 B**	**2910 B**	**3720 B**
Selenium	µg/L	50	180	10 U	10 U	10 U	10 U
Silver	µg/L	100	180	20 U	20 U	20 U	20 U
Sodium	µg/L	NS	NS	**9640**	**9230**	**24300**	**16500**
Thallium	µg/L	2	2.4	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	NS	36	20 U	20 U	20 U	20 U
Zinc	µg/L	5000	11000	100 U	100 U	100 U	100 U

Qualifier Definitions:
U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

Bold = detected compounds

NS = no standard

Effective January 1, 2006 the MCL for arsenic will be 10 ug/L.

Table 2-4 FWGWMPP October 2005 Inorganics Analytical Results

Station ID				LL12mw-183	LL12mw-186	CBPmw-005	CBPmw-007
Sample ID		MCL	Region 9 PRG	FWGLL12mw-183C-0122-GF	FWGLL12mw-186C-0123-GF	FWGCBPmw-005C-0124-GF	FWGCBPmw-007C-0125-GF
Date Collected				10/3/2005	10/3/2005	10/3/2005	10/3/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Aluminum	µg/L	NS	36000	200 U	200 U	200 U	200 U
Antimony	µg/L	6	15	100 U	100 U	100 U	100 U
Arsenic	µg/L	50	0.045	**48.2**	10 U	**24.2**	**9.9 B**
Barium	µg/L	2000	2600	**76.3**	**44.1**	**32**	**13.3**
Beryllium	µg/L	4	NS	10 U	10 U	10 U	10 U
Cadmium	µg/L	5	NS	10 U	10 U	10 U	10 U
Calcium	µg/L	NS	NS	**120000**	**130000**	**78000**	**208000**
Chromium, total	µg/L	100	NS	20 U	20 U	20 U	20 U
Cobalt	µg/L	NS	730	20 U	**1.5 B**	20 U	20 U
Copper	µg/L	1300	1500	20 U	20 U	20 U	20 U
Cyanide	mg/L	200	730	0.01 U	0.01 U	0.01 U	0.01 U
Iron	µg/L	30	10000	**1930**	**326 B**	**1100**	**1270**
Lead	µg/L	15	NS	10 U	10 U	10 U	10 U
Magnesium	µg/L	NS	NS	**47900**	**55500**	**37600**	**108000**
Manganese	µg/L	50	880	**72.9 B, J**	**220 J**	**53.9 B, J**	**65.4 B, J**
Mercury	µg/L	2	11	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	100	730	20 U	20 U	20 U	**1.6 B**
Potassium	µg/L	NS	NS	**3720 B**	**1600 B**	**3150 B**	**6330 E**
Selenium	µg/L	50	180	10 U	10 U	10 U	10 U
Silver	µg/L	100	180	20 U	20 U	20 U	20 U
Sodium	µg/L	NS	NS	**16500**	**13400**	**26000**	**143000**
Thallium	µg/L	2	2.4	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	NS	36	20 U	20 U	20 U	20 U
Zinc	µg/L	5000	11000	100 U	**6.7 B**	100 U	100 U

Qualifier Definitions:
U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

Bold = detected compounds

NS = no standard

Effective January 1, 2006 the MCL for arsenic will be 10 ug/L.

Table 2-4 FWGWMPP October 2005 Inorganics Analytical Results

Station ID				DET-3	DET-4	DA2mw-107	RQLmw-007
Sample ID		MCL	Region 9 PRG	FWGDA2mw-DET3C-0127-GF	FWGDA2mw-DET4-0128-GF	FWGDA2mw-107C-0126-GF	FWGRQLmw-007C-0132-GF
Date Collected				10/6/2005	10/6/2005	10/6/2005	10/3/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Aluminum	µg/L	NS	36000	200 U	200 U	200 U	200 U
Antimony	µg/L	6	15	100 U	100 U	100 U	100 U
Arsenic	µg/L	50	0.045	**10.5**	10 U	**6.3 B**	**76.1**
Barium	µg/L	2000	2600	**47.2**	**41.7**	**34.2**	**53**
Beryllium	µg/L	4	NS	10 U	10 U	10 U	10 U
Cadmium	µg/L	5	NS	10 U	10 U	10 U	10 U
Calcium	µg/L	NS	NS	**84600**	**139000**	**86500**	**169000**
Chromium, total	µg/L	100	NS	20 U	**2.2 B, J**	**1.8 B, J**	20 U
Cobalt	µg/L	NS	730	20 U	20 U	20 U	**12.1 B**
Copper	µg/L	1300	1500	20 U	20 U	20 U	20 U
Cyanide	mg/L	200	730	0.01 U	0.01 U	0.01 U	0.01 U
Iron	µg/L	30	10000	**1640**	1000 U	**1460**	**16300**
Lead	µg/L	15	NS	10 U	10 U	10 U	10 U
Magnesium	µg/L	NS	NS	**30800**	**28000**	**28700**	**90400**
Manganese	µg/L	50	880	**247 J**	**1.4 B, J**	**193 J**	**2900 J**
Mercury	µg/L	2	11	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	100	730	20 U	20 U	20 U	**18.9 B**
Potassium	µg/L	NS	NS	**2030 B**	**1810 B**	**2060 B**	**12000**
Selenium	µg/L	50	180	10 U	10 U	10 U	10 U
Silver	µg/L	100	180	20 U	20 U	20 U	20 U
Sodium	µg/L	NS	NS	**11500**	5380	**9760**	**12100**
Thallium	µg/L	2	2.4	**0.024 B**	**0.039 B**	1.0 U	**0.039 B**
Vanadium	µg/L	NS	36	20 U	20 U	20 U	20 U
Zinc	µg/L	5000	11000	100 U	100 U	100 U	**10.6 B**

Qualifier Definitions:
U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

Bold = detected compounds

NS = no standard

Effective January 1, 2006 the MCL for arsenic will be 10 ug/L.

Table 2-4 FWGWMPP October 2005 Inorganics Analytical Results

Station ID				RQLmw-008	RQLmw-009	WBGmw-006	WBGmw-007
Sample ID		MCL	Region 9 PRG	FWGRQLmw-008C-0133-GF	FWGRQLmw-009C-0134-GF	FWGFBGmw-006C-0129-GF	FWGFBGmw-007C-0130-GF
Date Collected				10/3/2005	10/3/2005	10/6/2005	10/6/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Aluminum	µg/L	NS	36000	200 U	200 U	200 U	200 U
Antimony	µg/L	6	15	100 U	100 U	100 U	100 U
Arsenic	µg/L	50	0.045	**14.3**	**19**	10 U	10 U
Barium	µg/L	2000	2600	**160**	**69.3**	**26.2**	**39**
Beryllium	µg/L	4	NS	10 U	10 U	10 U	10 U
Cadmium	µg/L	5	NS	**0.58 B**	10 U	10 U	10 U
Calcium	µg/L	NS	NS	**77900**	**49500**	**66400**	**67300**
Chromium, total	µg/L	100	NS	20 U	20 U	**1.7 B, J**	**1.8 B, J**
Cobalt	µg/L	NS	730	**5.6 B**	**5.5 B**	20 U	20 U
Copper	µg/L	1300	1500	20 U	20 U	20 U	20 U
Cyanide	mg/L	200	730	0.01 U	0.01 U	0.01 U	0.01 U
Iron	µg/L	30	10000	**135000**	**16600**	1000 U	**355 B**
Lead	µg/L	15	NS	10 U	10 U	10 U	10 U
Magnesium	µg/L	NS	NS	**59100**	**55000**	**21900**	**18000**
Manganese	µg/L	50	880	**1390 J**	**3010 J**	**68.0 B, J**	**128 J**
Mercury	µg/L	2	11	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	100	730	**10.5 B**	**4.8 B**	20 U	20 U
Potassium	µg/L	NS	NS	**9150**	**8560**	**938 B**	**1350 B**
Selenium	µg/L	50	180	10 U	10 U	10 U	10 U
Silver	µg/L	100	180	20 U	20 U	20 U	20 U
Sodium	µg/L	NS	NS	**25600**	**2760**	**6120**	**5080**
Thallium	µg/L	2	2.4	1.0 U	**0.27 B**	**0.063 B**	1.0 U
Vanadium	µg/L	NS	36	20 U	20 U	20 U	20 U
Zinc	µg/L	5000	11000	**14.6 B**	100 U	100 U	100 U

Qualifier Definitions:
U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

Bold = detected compounds

NS = no standard

Effective January 1, 2006 the MCL for arsenic will be 10 ug/L.

Table 2-4 FWGWMPP October 2005 Inorganics Analytical Results

Station ID				WBGmw-009
Sample ID		MCL	Region 9 PRG	FWGFBGmw-009C-0131-GF
Date Collected				10/6/2005
Sample Type				Grab
Analyte	Units			
Aluminum	µg/L	NS	36000	**274**
Antimony	µg/L	6	15	100 U
Arsenic	µg/L	50	0.045	**21.3**
Barium	µg/L	2000	2600	**89.6**
Beryllium	µg/L	4	NS	10 U
Cadmium	µg/L	5	NS	10 U
Calcium	µg/L	NS	NS	**97600**
Chromium, total	µg/L	100	NS	20 U
Cobalt	µg/L	NS	730	20 U
Copper	µg/L	1300	1500	20 U
Cyanide	mg/L	200	730	0.01 U
Iron	µg/L	30	10000	**1060**
Lead	µg/L	15	NS	10 U
Magnesium	µg/L	NS	NS	**34500**
Manganese	µg/L	50	880	**210 J**
Mercury	µg/L	2	11	0.20 U
Nickel	µg/L	100	730	20 U
Potassium	µg/L	NS	NS	**1760 B**
Selenium	µg/L	50	180	10 U
Silver	µg/L	100	180	20 U
Sodium	µg/L	NS	NS	**14400**
Thallium	µg/L	2	2.4	1.0 U
Vanadium	µg/L	NS	36	20 U
Zinc	µg/L	5000	11000	100 U

Qualifier Definitions:
U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

Bold = detected compounds

NS = no standard

Effective January 1, 2006 the MCL for arsenic will be 10 ug/L.

Table 2-5 RVAAP Facility-wide Background Criteria, (SAIC, 2001b)

Media Units	Surface Soil mg/kg	Subsurface Soil mg/kg	Sediment mg/kg	Surface Water ug/L	Groundwater Bedrock Zone Filtered ug/L	Groundwater Bedrock Zone Unfiltered ug/L	Groundwater Unconsolidated Zone Filtered ug/L	Groundwater Unconsolidated Unfiltered ug/L
Analyte								
Cyanide	0	0	0	0	0	0	0	0
Aluminum	17700	19500	13900	3370	0	9410	0	0
Antimony	0.96	0.96	0	0	0	0	0	0
Arsenic	15.4	19.8	19.5	3.2	0	19.1	11.7	11.7
Barium	88.4	124	123	47.5	256	241	82.1	82.1
Beryllium	0.88	0.88	0.38	0	0	0	0	0
Cadmium	0	0	0	0	0	0	0	0
Calcium	15800	35500	5510	41400	53100	48200	115000	115000
Chromium	17.4	27.2	18.1	0	0	19.5	7.3	7.3
Cobalt	10.4	23.2	9.1	0	0	0	0	0
Copper	17.7	32.3	27.6	7.9	0	17	0	0
Iron	23100	35200	28200	2560	1430	21500	279	279
Lead	26.1	19.1	27.4	0	0	23	0	0
Magnesium	3030	8790	2760	10800	15000	13700	43300	43300
Manganese	1450	3030	1950	391	1340	1260	1020	1020
Mercury	0.036	0.044	0.059	0	0	0	0	0
Nickel	21.1	60.7	17.7	0	83.4	85.3	0	0
Potassium	927	3350	1950	3170	5770	6060	2890	2890
Selenium	104	105	107	0	0	0	0	0
Silver	0	0	0	0	0	0	0	0
Sodium	123	145	112	21300	51400	49700	45700	45700
Thallium	0	0.91	0.89	0	0	0	0	0
Vanadium	31.1	37.6	26.1	0	0	15.5	0	0
Zinc	61.8	93.3	532	42	52.3	193	60.9	60.9

2.2.3.3 Volatile Organic Compounds (VOCs)

VOC analytical results are summarized in Table 2-6. The following VOCs were detected at or above the reporting limits:

- Carbon disulfide – 1.6 ug/L at BGKmw-020.
- Acetone – 1.0 ug/L at BKGmw-006, BKGmw-008, and RQLmw-008. The results for these elements were all qualified with "J", indicating that the result is estimated and is less than the reporting limit.

2.2.3.4 Semivolatile Organic Compounds (SVOCs)

SVOC analytical results are summarized in Table 2-7. No SVOCs were at concentrations above the reporting limits, with the following exceptions:

- Bis (2-ethylhexyl) phthalate and di-n-Butyl phthalate was detected in every monitoring well (except for di-n-Butyl phthalate which was not detected in LL11mw-007), although every sample result for this compound was qualified with a "B" due to method blank contamination.
- Benzyl butyl phthalate was detected in BKGmw-012, BKGmw-017, BKGmw-020, LL1mw-078, LL1mw-080, LL1mw-083, LL2mw-262, LL2mw-263, LL12mw-153, LL12mw-182, LL12mw-183, LL12mw-186, CBPmw-007, and DA2mw-107 at concentrations up to 1.6 ug/L. All of the results for this compound detected above reporting limits was qualified with a "B" due to method blank contamination, except for LL1mw-078 (1.5 ug/L).
- At BKGmw-012, di-n-octyl-phthalate was detected at 1.8 ug/L.

2.2.3.5 Pesticides and Polychlorinated Biphenyls (PCBs)

Pesticides and PCBs analytical results are summarized in Table 2-8. The following pesticide compounds were detected above reporting limits:

- Gamma-BHC(Lindane) - WBGmw-006 (0.049 ug/L (PG)). The MCL for Gamma-BHC(Lindane) is 0.2 ug/L.
- Heptachlor epoxide – LL1mw-080 (2.8 ug/L), LL1mw-083 (4.6 ug/L), LL2mw-059 (0.46 ug/L (PG)), LL3mw-238 (13 ug/L), LL3mw-242 (0.038 ug/L), LL4mw-198 (0.069 ug/L), and LL12mw-186 (0.053 ug/L). The MCL for heptachlor epoxide is 0.2 ug/L.

PCBs were not detected at any monitoring well sampled for this event.

Table 2-6 FWGWMP October 2005 VOCs Analytical results

Station ID				BKGmw-004	BKGmw-005	BKGmw-006
Sample ID		MCL	Region 9 PRG	FWGBKGmw-004C-0094-GW	FWGBKGmw-005C-0095-GW	FWGBKGmw-006C-0146-GW
Date Collected				10/5/2005	10/5/2005	10/13/2005
Sample Type				Grab	Grab	Grab
Analyte	Units					
1,1,1-Trichloroethane	µg/L	NS	3200	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.43	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	NS	0.2	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	7	NS	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	NS	810	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	10 U	10 U	10 U
Acetone	µg/L	NS	5500	10 U	10 U	**1.0 J**
Benzene	µg/L	5	0.35	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	NS	1300	2.0 U	2.0 U	2.0 U
Styrene	µg/L	100	1600	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	NS	10000	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit.

J = Estimated result. Result less than Reporting Limit.

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

NS = no standard

Table 2-6 FWGWMP October 2005 VOCs Analytical results

Station ID				BKGmw-008	BKGmw-010	BKGmw-012
Sample ID		MCL	Region 9 PRG	FWGBKGmw-008C-0097-GW	FWGBKGmw-010C-0098-GW	FWGBKGmw-012C-0099-GW
Date Collected				10/5/2005	10/5/2005	10/3/2005
Sample Type				Grab	Grab	Grab
Analyte	Units					
1,1,1-Trichloroethane	µg/L	NS	3200	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.43	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	NS	0.2	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	7	NS	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	NS	810	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	10 U	10 U	10 U
Acetone	µg/L	NS	5500	**1.0 J**	10 U	10 U
Benzene	µg/L	5	0.35	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1.0 U	1.0 U	**0.59 J**
Carbon tetrachloride	µg/L	5	0.17	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	NS	1300	2.0 U	2.0 U	2.0 U
Styrene	µg/L	100	1600	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	NS	10000	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit.

J = Estimated result. Result less than Reporting Limit.

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

NS = no standard

Table 2-6 FWGWMP October 2005 VOCs Analytical results

Station ID				BKGmw-013	BKGmw-015	BKGmw-016
Sample ID		MCL	Region 9 PRG	FWGBKGmw-013C-0100-GW	FWGBKGmw-015C-0101-GW	FWGBKGmw-016C-0102-GW
Date Collected				10/5/2005	10/5/2005	10/4/2005
Sample Type				Grab	Grab	Grab
Analyte	Units					
1,1,1-Trichloroethane	µg/L	NS	3200	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.43	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	NS	0.2	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	7	NS	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	NS	810	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	10 U	10 U	10 U
Acetone	µg/L	NS	5500	10 U	10 U	10 U
Benzene	µg/L	5	0.35	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	NS	1300	2.0 U	2.0 U	2.0 U
Styrene	µg/L	100	1600	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	NS	10000	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit.

J = Estimated result. Result less than Reporting Limit.

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

NS = no standard

Table 2-6 FWGWMP October 2005 VOCs Analytical results

Station ID				BKGmw-017	BKGmw-018	BKGmw-019
Sample ID		MCL	Region 9 PRG	FWGBKGmw-017C-0103-GW	FWGBKGmw-018C-0104-GW	FWGBKGmw-019C-0147-GW
Date Collected				10/4/2005	10/5/2005	10/13/2005
Sample Type				Grab	Grab	Grab
Analyte	Units					
1,1,1-Trichloroethane	µg/L	NS	3200	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.43	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	NS	0.2	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	7	NS	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	NS	810	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	10 U	10 U	10 U
Acetone	µg/L	NS	5500	10 U	10 U	10 U
Benzene	µg/L	5	0.35	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	NS	1300	2.0 U	2.0 U	2.0 U
Styrene	µg/L	100	1600	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	NS	10000	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit.

J = Estimated result. Result less than Reporting Limit.

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

NS = no standard

Table 2-6 FWGWMP October 2005 VOCs Analytical results

Station ID				BKGmw-020	BKGmw-021	LL1mw-078
Sample ID		MCL	Region 9 PRG	FWGBKGmw-020C-0106-GW	FWGBKGmw-021C-0107-GW	FWGLL!mw-078C-0108-GW
Date Collected				10/4/2005	10/5/2005	10/5/2005
Sample Type				Grab	Grab	Grab
Analyte	Units					
1,1,1-Trichloroethane	µg/L	NS	3200	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.43	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	NS	0.2	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	7	NS	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	NS	810	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	10 U	10 U	10 U
Acetone	µg/L	NS	5500	10 U	10 U	10 U
Benzene	µg/L	5	0.35	**0.23 J**	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	**1.6**	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	NS	1300	2.0 U	2.0 U	2.0 U
Styrene	µg/L	100	1600	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	NS	10000	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit.

J = Estimated result. Result less than Reporting Limit.

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

NS = no standard

Table 2-6 FWGWMP October 2005 VOCs Analytical results

Station ID				LL1mw-080	LL1mw-083	LL2mw-059
Sample ID		MCL	Region 9 PRG	FWGLL1mw-080C-0109-GW	FWGLL1mw-083C-0110-GW	FWGLL2mw-059C-0111-GW
Date Collected				10/4/2005	10/4/2005	10/4/2005
Sample Type				Grab	Grab	Grab
Analyte	Units					
1,1,1-Trichloroethane	µg/L	NS	3200	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.43	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	NS	0.2	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	7	NS	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	NS	810	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	10 U	10 U	10 U
Acetone	µg/L	NS	5500	10 U	10 U	10 U
Benzene	µg/L	5	0.35	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	**0.18 J**	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	NS	1300	2.0 U	2.0 U	2.0 U
Styrene	µg/L	100	1600	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	NS	10000	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit.

J = Estimated result. Result less than Reporting Limit.

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

NS = no standard

Table 2-6 FWGWMP October 2005 VOCs Analytical results

Station ID				LL2mw-262	LL2mw-263	LL3mw-238
Sample ID		MCL	Region 9 PRG	FWGLL2mw-262C-0112-GW	FWGLL2mw-263C-0113-GW	FWGLL3mw-238C-0114-GW
Date Collected				10/4/2005	10/4/2005	10/5/2005
Sample Type				Grab	Grab	Grab
Analyte	Units					
1,1,1-Trichloroethane	µg/L	NS	3200	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.43	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	NS	0.2	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	7	NS	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	NS	810	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	10 U	10 U	10 U
Acetone	µg/L	NS	5500	10 U	10 U	10 U
Benzene	µg/L	5	0.35	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	NS	1300	2.0 U	2.0 U	2.0 U
Styrene	µg/L	100	1600	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	NS	10000	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit.

J = Estimated result. Result less than Reporting Limit.

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

NS = no standard

Table 2-6 FWGWMP October 2005 VOCs Analytical results

Station ID				LL3mw-242	LL4mw-198	LL4mw-199
Sample ID		MCL	Region 9 PRG	FWGLL3mw-242C-0115-GW	FWGLL4mw-198C-0116-GW	FWGLL4mw-199C-0117-GW
Date Collected				10/4/2005	10/5/2005	10/5/2005
Sample Type				Grab	Grab	Grab
Analyte	Units					
1,1,1-Trichloroethane	µg/L	NS	3200	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.43	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	NS	0.2	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	7	NS	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	NS	810	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	10 U	10 U	10 U
Acetone	µg/L	NS	5500	10 U	10 U	10 U
Benzene	µg/L	5	0.35	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	NS	1300	2.0 U	2.0 U	2.0 U
Styrene	µg/L	100	1600	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	NS	10000	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit.

J = Estimated result. Result less than Reporting Limit.

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

NS = no standard

Table 2-6 FWGWMP October 2005 VOCs Analytical results

Station ID				LL11mw-002	LL11mw-007	LL12mw-153
Sample ID		MCL	Region 9 PRG	FWGLL11mw-002C-0152-GW	FWGLL11mw-007C-0153-GW	FWGLL12mw-153C-0120-GW
Date Collected				10/13/2005	10/13/2005	10/4/2005
Sample Type				Grab	Grab	Grab
Analyte	Units					
1,1,1-Trichloroethane	µg/L	NS	3200	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.43	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	NS	0.2	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	7	NS	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	NS	810	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	10 U	10 U	10 U
Acetone	µg/L	NS	5500	10 U	10 U	10 U
Benzene	µg/L	5	0.35	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	1.0 U	**0.15 J**	1.0 U
Dibromochloromethane	µg/L	NS	0.13	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	NS	1300	2.0 U	2.0 U	2.0 U
Styrene	µg/L	100	1600	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	NS	10000	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit.

J = Estimated result. Result less than Reporting Limit.

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

NS = no standard

Table 2-6 FWGWMP October 2005 VOCs Analytical results

Station ID				LL12mw-182	LL12mw-183	LL12mw-186
Sample ID		MCL	Region 9 PRG	FWGLL12mw-182C-0121-GW	FWGLL12mw-183C-0122-GW	FWGLL12mw-186C-0123-GW
Date Collected				10/3/2005	10/3/2005	10/3/2005
Sample Type				Grab	Grab	Grab
Analyte	Units					
1,1,1-Trichloroethane	µg/L	NS	3200	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.43	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	NS	0.2	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	7	NS	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	NS	810	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	10 U	10 U	10 U
Acetone	µg/L	NS	5500	**0.93 J**	10 U	10 U
Benzene	µg/L	5	0.35	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	1.0 U	**0.17 J**	**0.15 J**
Dibromochloromethane	µg/L	NS	0.13	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	NS	1300	2.0 U	2.0 U	2.0 U
Styrene	µg/L	100	1600	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	NS	10000	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit.

J = Estimated result. Result less than Reporting Limit.

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

NS = no standard

Table 2-6 FWGWMP October 2005 VOCs Analytical results

Station ID				CBPmw-005	CBPmw-007	DET-3
Sample ID		MCL	Region 9 PRG	FWGCBPmw-005C-0124-GW	FWGCBPmw-007C-0125-GW	FWGDA2mw-DET3C-0150-GW
Date Collected				10/3/2005	10/3/2005	10/13/2005
Sample Type				Grab	Grab	Grab
Analyte	Units					
1,1,1-Trichloroethane	µg/L	NS	3200	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.43	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	NS	0.2	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	7	NS	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	NS	810	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	10 U	10 U	10 U
Acetone	µg/L	NS	5500	10 U	10 U	10 U
Benzene	µg/L	5	0.35	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	**0.62 J**	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	NS	1300	2.0 U	2.0 U	2.0 U
Styrene	µg/L	100	1600	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	NS	10000	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit.

J = Estimated result. Result less than Reporting Limit.

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

NS = no standard

Table 2-6 FWGWMP October 2005 VOCs Analytical results

Station ID				DET-4	DA2mw-107	RQLmw-007
Sample ID		MCL	Region 9 PRG	FWGDA2mw-DET4-0151-GW	FWGDA2mw-107C-0149-GW	FWGRQLmw-007C-0132-GW
Date Collected				10/13/2005	10/13/2005	10/3/2005
Sample Type				Grab	Grab	Grab
Analyte	Units					
1,1,1-Trichloroethane	µg/L	NS	3200	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.43	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	NS	0.2	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	7	NS	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	NS	810	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	1.0 U	1.0 U	**0.38 J**
1,2-Dichloropropane	µg/L	5	0.16	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	10 U	10 U	10 U
Acetone	µg/L	NS	5500	10 U	10 U	10 U
Benzene	µg/L	5	0.35	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	**0.16 J**	**0.18 J**	1.0 U
Dibromochloromethane	µg/L	NS	0.13	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	NS	1300	2.0 U	2.0 U	2.0 U
Styrene	µg/L	100	1600	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	NS	10000	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit.

J = Estimated result. Result less than Reporting Limit.

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

NS = no standard

Table 2-6 FWGWMP October 2005 VOCs Analytical results

Station ID				RQLmw-008	RQLmw-009	WBGmw-006
Sample ID		MCL	Region 9 PRG	FWGRQLmw-008C-0133-GW	FWGRQLmw-009C-0134-GW	FWGWBGmw-006C-0154-GW
Date Collected				10/3/2005	10/3/2005	10/13/2005
Sample Type				Grab	Grab	Grab
Analyte	Units					
1,1,1-Trichloroethane	µg/L	NS	3200	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.43	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	NS	0.2	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	7	NS	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	NS	810	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	1.0 U	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	10 U	10 U	10 U
2-Hexanone	µg/L	NS	NS	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	10 U	10 U	10 U
Acetone	µg/L	NS	5500	**1.0 J**	10 U	10 U
Benzene	µg/L	5	0.35	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	1.0 U	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	NS	1300	2.0 U	2.0 U	2.0 U
Styrene	µg/L	100	1600	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	720	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	NS	10000	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U	1.0 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit.

J = Estimated result. Result less than Reporting Limit.

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

NS = no standard

Table 2-6 FWGWMP October 2005 VOCs Analytical results

Station ID				WBGmw-007	WBGmw-009
Sample ID		MCL	Region 9 PRG	FWGWBGmw-007C-0155-GW	FWGWBGmw-009C-0157-GW
Date Collected				10/13/2005	10/13/2005
Sample Type				Grab	Grab
Analyte	Units				
1,1,1-Trichloroethane	µg/L	NS	3200	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.43	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	NS	0.2	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	7	NS	1.0 U	1.0 U
1,1-Dichloroethene (total)	µg/L	NS	810	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	0.12	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	0.16	1.0 U	1.0 U
2-Butanone	µg/L	NS	7000	10 U	10 U
2-Hexanone	µg/L	NS	NS	10 U	10 U
4-Methyl-2-pentanone	µg/L	NS	NS	10 U	10 U
Acetone	µg/L	NS	5500	10 U	10 U
Benzene	µg/L	5	0.35	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U
Bromodichloromethane	µg/L	NS	0.18	1.0 U	1.0 U
Bromoform	µg/L	NS	8.5	1.0 U	1.0 U
Bromomethane	µg/L	NS	8.7	1.0 U	1.0 U
Carbon disulfide	µg/L	NS	1000	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	0.17	1.0 U	1.0 U
Chlorobenzene	µg/L	NS	110	1.0 U	1.0 U
Chloroethane	µg/L	NS	4.6	1.0 U	1.0 U
Chloroform	µg/L	NS	0.17	1.0 U	1.0 U
Chloromethane	µg/L	NS	160	1.0 U	1.0 U
Dibromochloromethane	µg/L	NS	0.13	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1300	1.0 U	1.0 U
Methylene chloride	µg/L	NS	1300	2.0 U	2.0 U
Styrene	µg/L	100	1600	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.1	1.0 U	1.0 U
Toluene	µg/L	1000	720	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.028	1.0 U	1.0 U
Vinyl chloride	µg/L	2	0.02	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U
Xylenes (total)	µg/L	NS	10000	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	NS	0.4	1.0 U	1.0 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit.

J = Estimated result. Result less than Reporting Limit.

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

NS = no standard

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				BKGmw-004	BKGmw-005	BKGmw-006	BKGmw-008
Sample ID		MCL	Region 9 PRG	FWGBKGmw-004C-0094-GW	FWGBKGmw-005C-0095-GW	FWGBKGmw-006C-0096-GW	FWGBKGmw-008C-0097-GW
Date Collected				10/5/2005	10/5/2005	10/6/2005	10/5/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
1,2,4-Trichlorobenzene	µg/L	NS	7.2	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromochloromethane	µg/L	NS	0.0056	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	1.0 U	1.0 U	1.0 U	1.0 U
2,2-Oxybis(1-Chloropropane)	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Diclorophenol	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
2-Nitroaniline	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
2-Methylphenol	µg/L	NS	1800	1.0 U	1.0 U	1.0 U	1.0 U
3-3'-Dichlorobenzidine	µg/L	NS	0.15	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4,6-dinitro-2-methyl phenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-chloro-3-methylphenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
Acenaphthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Acenaphthylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Anthracene	µg/L	NS	1800	0.2 U	0.2 U	0.2 U	0.2 U
Benz(a)anthracene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.2 U	0.2 U	0.2 U	0.2 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				BKGmw-004	BKGmw-005	BKGmw-006	BKGmw-008
Sample ID		MCL	Region 9 PRG	FWGBKGmw-004C-0094-GW	FWGBKGmw-005C-0095-GW	FWGBKGmw-006C-0096-GW	FWGBKGmw-008C-0097-GW
Date Collected				10/5/2005	10/5/2005	10/6/2005	10/5/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Benzo(b)fluoranthene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(g,h,i)perylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.2 U	0.2 U	0.2 U	0.2 U
Benzoic Acid	µg/L	NS	150000	10 U	10 U	10 U	10 U
Benzyl Butyl Phthalate	µg/L	NS	7300	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	0.2 U	0.2 U	0.2 U	0.2 U
Dibenz(a,h)Anthracene	µg/L	NS	0.0093	0.2 U	0.2 U	0.2 U	0.2 U
Dibenzofuran	µg/L	NS	12	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl Phthalate	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
Dimethyl Phthalate	µg/L	NS	360000	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Fluorene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobenzene	µg/L	1	0.042	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobutadiene	µg/L	NS	0.86	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-c,d)Pyrene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Isophorone	µg/L	NS	71	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.2 U	0.2 U	0.2 U	0.2 U
Nitrobenzene	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Phenol	µg/L	NS	11000	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
bis(2-chloroethoxy) methane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-chloroethyl) ether	µg/L	NS	0.001	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-ethylhexyl) phthalate	µg/L	NS	4.8	**1.6 B**	**1.7 B**	**2.4 B**	**2.5 B**
di-n-Butyl Phthalate	µg/L	NS	NS	**1.4 B**	**1.4 B**	**1.5 B**	**1.7 B**
di-n-Octyl Phthalate	µg/L	NS	1500	1.0 U	1.0 U	1.0 U	1.0 U
n-Nitrosodi-n-Propylamine	µg/L	NS	9600	1.0 U	1.0 U	1.0 U	1.0 U
n-Nitrosodiphenylamine	µg/L	NS	14	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				BKGmw-010	BKGmw-012	BKGmw-013	BKGmw-015
Sample ID		MCL	Region 9 PRG	FWGBKGmw-010C-0098-GW	FWGBKGmw-012C-0099-GW	FWGBKGmw-013C-0100-GW	FWGBKGmw-015C-0101-GW
Date Collected				10/5/2005	10/3/2005	10/5/2005	10/5/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
1,2,4-Trichlorobenzene	µg/L	NS	7.2	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromochloromethane	µg/L	NS	0.0056	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	1.0 U	1.0 U	1.0 U	1.0 U
2,2-Oxybis(1-Chloropropane)	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Diclorophenol	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
2-Nitroaniline	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
2-Methylphenol	µg/L	NS	1800	1.0 U	1.0 U	1.0 U	1.0 U
3-3'-Dichlorobenzidine	µg/L	NS	0.15	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4,6-dinitro-2-methyl phenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-chloro-3-methylphenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
Acenaphthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Acenaphthylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Anthracene	µg/L	NS	1800	0.2 U	0.2 U	0.2 U	0.2 U
Benz(a)anthracene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.2 U	0.2 U	0.2 U	0.2 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				BKGmw-010	BKGmw-012	BKGmw-013	BKGmw-015
Sample ID		MCL	Region 9 PRG	FWGBKGmw-010C-0098-GW	FWGBKGmw-012C-0099-GW	FWGBKGmw-013C-0100-GW	FWGBKGmw-015C-0101-GW
Date Collected				10/5/2005	10/3/2005	10/5/2005	10/5/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Benzo(b)fluoranthene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(g,h,i)perylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.2 U	0.2 U	0.2 U	0.2 U
Benzoic Acid	µg/L	NS	150000	**5.4 J**	10 U	10 U	10 U
Benzyl Butyl Phthalate	µg/L	NS	7300	1.0 U	**1.6 B**	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	0.2 U	0.2 U	0.2 U	0.2 U
Dibenz(a,h)Anthracene	µg/L	NS	0.0093	0.2 U	0.2 U	0.2 U	0.2 U
Dibenzofuran	µg/L	NS	12	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl Phthalate	µg/L	NS	NS	1.0 U		1.0 U	1.0 U
Dimethyl Phthalate	µg/L	NS	360000	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Fluorene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobenzene	µg/L	1	0.042	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobutadiene	µg/L	NS	0.86	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-c,d)Pyrene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Isophorone	µg/L	NS	71	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.2 U	0.2 U	0.2 U	0.2 U
Nitrobenzene	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Phenol	µg/L	NS	11000	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
bis(2-chloroethoxy) methane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-chloroethyl) ether	µg/L	NS	0.001	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-ethylhexyl) phthalate	µg/L	NS	4.8	**1.3 B**	**14 B**	**3.8 B**	**1.9 B**
di-n-Butyl Phthalate	µg/L	NS	NS	**1.4 B**	**1.4 B**	**1.4 B**	**1.4 B**
di-n-Octyl Phthalate	µg/L	NS	1500	1.0 U	**1.8**	1.0 U	1.0 U
n-Nitrosodi-n-Propylamine	µg/L	NS	9600	1.0 U	1.0 U	1.0 U	1.0 U
n-Nitrosodiphenylamine	µg/L	NS	14	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				BKGmw-016	BKGmw-017	BKGmw-018	BKGmw-019
Sample ID		MCL	Region 9 PRG	FWGBKGmw-016C-0102-GW	FWGBKGmw-017C-0103-GW	FWGBKGmw-018C-0104-GW	FWGBKGmw-019C-0105-GW
Date Collected				10/4/2005	10/4/2005	10/5/2005	10/6/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
1,2,4-Trichlorobenzene	µg/L	NS	7.2	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromochloromethane	µg/L	NS	0.0056	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	1.0 U	1.0 U	1.0 U	1.0 U
2,2-Oxybis(1-Chloropropane)	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Diclorophenol	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
2-Nitroaniline	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
2-Methylphenol	µg/L	NS	1800	1.0 U	1.0 U	1.0 U	1.0 U
3-3'-Dichlorobenzidine	µg/L	NS	0.15	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4,6-dinitro-2-methyl phenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-chloro-3-methylphenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
Acenaphthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Acenaphthylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Anthracene	µg/L	NS	1800	0.2 U	0.2 U	0.2 U	0.2 U
Benz(a)anthracene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.2 U	0.2 U	0.2 U	0.2 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				BKGmw-016	BKGmw-017	BKGmw-018	BKGmw-019
Sample ID		MCL	Region 9 PRG	FWGBKGmw-016C-0102-GW	FWGBKGmw-017C-0103-GW	FWGBKGmw-018C-0104-GW	FWGBKGmw-019C-0105-GW
Date Collected				10/4/2005	10/4/2005	10/5/2005	10/6/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Benzo(b)fluoranthene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(g,h,i)perylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.2 U	0.2 U	0.2 U	0.2 U
Benzoic Acid	µg/L	NS	150000	10 U	10 U	**5.3 J**	10 U
Benzyl Butyl Phthalate	µg/L	NS	7300	1.0 U	**1.6 B**	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	0.2 U	0.2 U	0.2 U	0.2 U
Dibenz(a,h)Anthracene	µg/L	NS	0.0093	0.2 U	0.2 U	0.2 U	0.2 U
Dibenzofuran	µg/L	NS	12	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl Phthalate	µg/L	NS	NS	**0.52 J**	**0.44 J**	1.0 U	1.0 U
Dimethyl Phthalate	µg/L	NS	360000	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Fluorene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobenzene	µg/L	1	0.042	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobutadiene	µg/L	NS	0.86	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-c,d)Pyrene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Isophorone	µg/L	NS	71	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.2 U	0.2 U	0.2 U	0.2 U
Nitrobenzene	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Phenol	µg/L	NS	11000	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
bis(2-chloroethoxy) methane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-chloroethyl) ether	µg/L	NS	0.001	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-ethylhexyl) phthalate	µg/L	NS	4.8	**2.8 B**	**22 B**	**1.7 B**	**1.7 B**
di-n-Butyl Phthalate	µg/L	NS	NS	**1.8 B**	**1.7 B**	**1.4 B**	**1.4 B**
di-n-Octyl Phthalate	µg/L	NS	1500	1.0 U	**1.6**	1.0 U	1.0 U
n-Nitrosodi-n-Propylamine	µg/L	NS	9600	1.0 U	1.0 U	1.0 U	1.0 U
n-Nitrosodiphenylamine	µg/L	NS	14	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				BKGmw-020	BKGmw-021	LL1mw-078	LL1mw-080
Sample ID		MCL	Region 9 PRG	FWGBKGmw-020C-0106-GW	FWGBKGmw-021C-0107-GW	FWGLL!mw-078C-0108-GW	FWGLL1mw-080C-0109-GW
Date Collected				10/4/2005	10/5/2005	10/5/2005	10/4/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
1,2,4-Trichlorobenzene	µg/L	NS	7.2	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromochloromethane	µg/L	NS	0.0056	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	1.0 U	1.0 U	1.0 U	1.0 U
2,2-Oxybis(1-Chloropropane)	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Diclorophenol	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
2-Nitroaniline	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
2-Methylphenol	µg/L	NS	1800	1.0 U	1.0 U	1.0 U	1.0 U
3-3'-Dichlorobenzidine	µg/L	NS	0.15	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4,6-dinitro-2-methyl phenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-chloro-3-methylphenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
Acenaphthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Acenaphthylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Anthracene	µg/L	NS	1800	0.2 U	0.2 U	0.2 U	0.2 U
Benz(a)anthracene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.2 U	0.2 U	0.2 U	0.2 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				BKGmw-020	BKGmw-021	LL1mw-078	LL1mw-080
Sample ID		MCL	Region 9 PRG	FWGBKGmw-020C-0106-GW	FWGBKGmw-021C-0107-GW	FWGLL!mw-078C-0108-GW	FWGLL1mw-080C-0109-GW
Date Collected				10/4/2005	10/5/2005	10/5/2005	10/4/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Benzo(b)fluoranthene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(g,h,i)perylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.2 U	0.2 U	0.2 U	0.2 U
Benzoic Acid	µg/L	NS	150000	**5.5 J**	10 U	10 U	10 U
Benzyl Butyl Phthalate	µg/L	NS	7300	**1.5 B**	1.0 U	**1.5**	**1.5 B**
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	0.2 U	0.2 U	0.2 U	0.2 U
Dibenz(a,h)Anthracene	µg/L	NS	0.0093	0.2 U	0.2 U	0.2 U	0.2 U
Dibenzofuran	µg/L	NS	12	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl Phthalate	µg/L	NS	NS	**0.75 J**	1.0 U	1.0 U	**0.45 J**
Dimethyl Phthalate	µg/L	NS	360000	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Fluorene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobenzene	µg/L	1	0.042	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobutadiene	µg/L	NS	0.86	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-c,d)Pyrene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Isophorone	µg/L	NS	71	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.2 U	0.2 U	0.2 U	0.2 U
Nitrobenzene	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Phenol	µg/L	NS	11000	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
bis(2-chloroethoxy) methane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-chloroethyl) ether	µg/L	NS	0.001	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-ethylhexyl) phthalate	µg/L	NS	4.8	**7.7 B**	**2.0 B**	**2.8 B**	**10 B**
di-n-Butyl Phthalate	µg/L	NS	NS	**1.9 B**	**2.1 B**	**1.5 B**	**1.6 B**
di-n-Octyl Phthalate	µg/L	NS	1500	1.0 U	1.0 U	1.0 U	1.0 U
n-Nitrosodi-n-Propylamine	µg/L	NS	9600	1.0 U	1.0 U	1.0 U	1.0 U
n-Nitrosodiphenylamine	µg/L	NS	14	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				LL1mw-083	LL2mw-059	LL2mw-262	LL2mw-263
Sample ID		MCL	Region 9 PRG	FWGLL1mw-083C-0110-GW	FWGLL2mw-059C-0111-GW	FWGLL2mw-262C-0112-GW	FWGLL2mw-263C-0113-GW
Date Collected				10/4/2005	10/4/2005	10/4/2005	10/4/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
1,2,4-Trichlorobenzene	µg/L	NS	7.2	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromochloromethane	µg/L	NS	0.0056	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	1.0 U	1.0 U	1.0 U	1.0 U
2,2-Oxybis(1-Chloropropane)	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Diclorophenol	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	**3.1 J**	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	**2.4 J**	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
2-Nitroaniline	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
2-Methylphenol	µg/L	NS	1800	1.0 U	1.0 U	1.0 U	1.0 U
3-3'-Dichlorobenzidine	µg/L	NS	0.15	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4,6-dinitro-2-methyl phenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-chloro-3-methylphenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
Acenaphthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Acenaphthylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Anthracene	µg/L	NS	1800	0.2 U	0.2 U	0.2 U	0.2 U
Benz(a)anthracene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.2 U	0.2 U	0.2 U	0.2 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				LL1mw-083	LL2mw-059	LL2mw-262	LL2mw-263
Sample ID		MCL	Region 9 PRG	FWGLL1mw-083C-0110-GW	FWGLL2mw-059C-0111-GW	FWGLL2mw-262C-0112-GW	FWGLL2mw-263C-0113-GW
Date Collected				10/4/2005	10/4/2005	10/4/2005	10/4/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Benzo(b)fluoranthene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(g,h,i)perylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.2 U	0.2 U	0.2 U	0.2 U
Benzoic Acid	µg/L	NS	150000	10 U	10 U	10 U	10 U
Benzyl Butyl Phthalate	µg/L	NS	7300	**1.5 B**	1.0 U	**1.5 B**	**1.5 B**
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	0.2 U	0.2 U	0.2 U	0.2 U
Dibenz(a,h)Anthracene	µg/L	NS	0.0093	0.2 U	0.2 U	0.2 U	0.2 U
Dibenzofuran	µg/L	NS	12	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl Phthalate	µg/L	NS	NS	1.0 U	1.0 U	**0.60 J**	1.0 U
Dimethyl Phthalate	µg/L	NS	360000	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Fluorene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobenzene	µg/L	1	0.042	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobutadiene	µg/L	NS	0.86	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-c,d)Pyrene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Isophorone	µg/L	NS	71	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.2 U	0.2 U	0.2 U	0.2 U
Nitrobenzene	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Phenol	µg/L	NS	11000	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
bis(2-chloroethoxy) methane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-chloroethyl) ether	µg/L	NS	0.001	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-ethylhexyl) phthalate	µg/L	NS	4.8	**2.3 B**	**4.1 B**	**2.7 B**	**2.6 B**
di-n-Butyl Phthalate	µg/L	NS	NS	**1.5 B**	**1.5 B**	**1.8 B**	**1.7 B**
di-n-Octyl Phthalate	µg/L	NS	1500	**1.5**	1.0 U	1.0 U	1.0 U
n-Nitrosodi-n-Propylamine	µg/L	NS	9600	1.0 U	1.0 U	1.0 U	1.0 U
n-Nitrosodiphenylamine	µg/L	NS	14	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				LL3mw-238	LL3mw-242	LL4mw-198	LL4mw-199
Sample ID		MCL	Region 9 PRG	FWGLL3mw-238C-0114-GW	FWGLL3mw-242C-0115-GW	FWGLL4mw-198C-0116-GW	FWGLL4mw-199C-0117-GW
Date Collected				10/5/2005	10/4/2005	10/5/2005	10/5/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
1,2,4-Trichlorobenzene	µg/L	NS	7.2	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromochloromethane	µg/L	NS	0.0056	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	1.0 U	1.0 U	1.0 U	1.0 U
2,2-Oxybis(1-Chloropropane)	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Diclorophenol	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	**1.8 J**	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
2-Nitroaniline	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
2-Methylphenol	µg/L	NS	1800	1.0 U	1.0 U	1.0 U	1.0 U
3-3'-Dichlorobenzidine	µg/L	NS	0.15	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4,6-dinitro-2-methyl phenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-chloro-3-methylphenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
Acenaphthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Acenaphthylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Anthracene	µg/L	NS	1800	0.2 U	0.2 U	0.2 U	0.2 U
Benz(a)anthracene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.2 U	0.2 U	0.2 U	0.2 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				LL3mw-238	LL3mw-242	LL4mw-198	LL4mw-199
Sample ID		MCL	Region 9 PRG	FWGLL3mw-238C-0114-GW	FWGLL3mw-242C-0115-GW	FWGLL4mw-198C-0116-GW	FWGLL4mw-199C-0117-GW
Date Collected				10/5/2005	10/4/2005	10/5/2005	10/5/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Benzo(b)fluoranthene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(g,h,i)perylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.2 U	0.2 U	0.2 U	0.2 U
Benzoic Acid	µg/L	NS	150000	10 U	10 U	**5.5 J**	10 U
Benzyl Butyl Phthalate	µg/L	NS	7300	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	0.2 U	0.2 U	0.2 U	0.2 U
Dibenz(a,h)Anthracene	µg/L	NS	0.0093	0.2 U	0.2 U	0.2 U	0.2 U
Dibenzofuran	µg/L	NS	12	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl Phthalate	µg/L	NS	NS	1.0 U	**0.58 J**	1.0 U	1.0 U
Dimethyl Phthalate	µg/L	NS	360000	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Fluorene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobenzene	µg/L	1	0.042	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobutadiene	µg/L	NS	0.86	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-c,d)Pyrene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Isophorone	µg/L	NS	71	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.2 U	0.2 U	0.2 U	0.2 U
Nitrobenzene	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Phenol	µg/L	NS	11000	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
bis(2-chloroethoxy) methane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-chloroethyl) ether	µg/L	NS	0.001	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-ethylhexyl) phthalate	µg/L	NS	4.8	**21 B**	**2.1 B**	**1.8 B**	**2.0 B**
di-n-Butyl Phthalate	µg/L	NS	NS	**1.4 B**	**1.9 B**	**1.4 B**	**1.4 B**
di-n-Octyl Phthalate	µg/L	NS	1500	1.0 U	1.0 U	1.0 U	1.0 U
n-Nitrosodi-n-Propylamine	µg/L	NS	9600	1.0 U	1.0 U	1.0 U	1.0 U
n-Nitrosodiphenylamine	µg/L	NS	14	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				LL11mw-002	LL11mw-007	LL12mw-153	LL12mw-182
Sample ID		MCL	Region 9 PRG	FWGLL11mw-002C-0118-GW	FWGLL11mw-007C-0119-GW	FWGLL12mw-153C-0120-GW	FWGLL12mw-182C-0121-GW
Date Collected				10/6/2005	10/6/2005	10/4/2005	10/3/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
1,2,4-Trichlorobenzene	µg/L	NS	7.2	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromochloromethane	µg/L	NS	0.0056	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	1.0 U	1.0 U	1.0 U	1.0 U
2,2-Oxybis(1-Chloropropane)	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Diclorophenol	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
2-Nitroaniline	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
2-Methylphenol	µg/L	NS	1800	1.0 U	1.0 U	1.0 U	1.0 U
3-3'-Dichlorobenzidine	µg/L	NS	0.15	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4,6-dinitro-2-methyl phenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-chloro-3-methylphenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
Acenaphthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Acenaphthylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Anthracene	µg/L	NS	1800	0.2 U	0.2 U	0.2 U	0.2 U
Benz(a)anthracene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.2 U	0.2 U	0.2 U	0.2 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				LL11mw-002	LL11mw-007	LL12mw-153	LL12mw-182
Sample ID		MCL	Region 9 PRG	FWGLL11mw-002C-0118-GW	FWGLL11mw-007C-0119-GW	FWGLL12mw-153C-0120-GW	FWGLL12mw-182C-0121-GW
Date Collected				10/6/2005	10/6/2005	10/4/2005	10/3/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Benzo(b)fluoranthene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(g,h,i)perylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.2 U	0.2 U	0.2 U	0.2 U
Benzoic Acid	µg/L	NS	150000	10 U	10 U	10 U	10 U
Benzyl Butyl Phthalate	µg/L	NS	7300	1.0 U	1.0 U	**1.6 B**	**1.5 B**
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	0.2 U	0.2 U	0.2 U	0.2 U
Dibenz(a,h)Anthracene	µg/L	NS	0.0093	0.2 U	0.2 U	0.2 U	0.2 U
Dibenzofuran	µg/L	NS	12	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl Phthalate	µg/L	NS	NS	1.0 U	1.0 U	**0.74 J**	1.0 U
Dimethyl Phthalate	µg/L	NS	360000	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Fluorene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobenzene	µg/L	1	0.042	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobutadiene	µg/L	NS	0.86	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-c,d)Pyrene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Isophorone	µg/L	NS	71	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.2 U	0.2 U	0.2 U	0.2 U
Nitrobenzene	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Phenol	µg/L	NS	11000	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
bis(2-chloroethoxy) methane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-chloroethyl) ether	µg/L	NS	0.001	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-ethylhexyl) phthalate	µg/L	NS	4.8	**2.4 B**	**1.6 B**	**3.1 B**	**4.1 B**
di-n-Butyl Phthalate	µg/L	NS	NS	**1.5 B**	1.0 U	**2.5 B**	**1.6 B**
di-n-Octyl Phthalate	µg/L	NS	1500	1.0 U	1.0 U	1.0 U	1.0 U
n-Nitrosodi-n-Propylamine	µg/L	NS	9600	1.0 U	1.0 U	1.0 U	1.0 U
n-Nitrosodiphenylamine	µg/L	NS	14	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				LL12mw-183	LL12mw-186	CBPmw-005	CBPmw-007
Sample ID		MCL	Region 9 PRG	FWGLL12mw-183C-0122-GW	FWGLL12mw-186C-0123-GW	FWGCBPmw-005C-0124-GW	FWGCBPmw-007C-0125-GW
Date Collected				10/3/2005	10/3/2005	10/3/2005	10/3/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
1,2,4-Trichlorobenzene	µg/L	NS	7.2	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromochloromethane	µg/L	NS	0.0056	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	1.0 U	1.0 U	1.0 U	1.0 U
2,2-Oxybis(1-Chloropropane)	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Diclorophenol	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
2-Nitroaniline	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
2-Methylphenol	µg/L	NS	1800	1.0 U	1.0 U	1.0 U	1.0 U
3-3'-Dichlorobenzidine	µg/L	NS	0.15	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4,6-dinitro-2-methyl phenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-chloro-3-methylphenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
Acenaphthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Acenaphthylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Anthracene	µg/L	NS	1800	0.2 U	0.2 U	0.2 U	0.2 U
Benz(a)anthracene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.2 U	0.2 U	0.2 U	0.2 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				LL12mw-183	LL12mw-186	CBPmw-005	CBPmw-007
Sample ID		MCL	Region 9 PRG	FWGLL12mw-183C-0122-GW	FWGLL12mw-186C-0123-GW	FWGCBPmw-005C-0124-GW	FWGCBPmw-007C-0125-GW
Date Collected				10/3/2005	10/3/2005	10/3/2005	10/3/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Benzo(b)fluoranthene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(g,h,i)perylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.2 U	0.2 U	0.2 U	0.2 U
Benzoic Acid	µg/L	NS	150000	10 U	10 U	**5.4 J**	10 U
Benzyl Butyl Phthalate	µg/L	NS	7300	**1.6 B**	**1.6 B**	1.0 U	**1.5 B**
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	0.2 U	0.2 U	0.2 U	0.2 U
Dibenz(a,h)Anthracene	µg/L	NS	0.0093	0.2 U	0.2 U	0.2 U	0.2 U
Dibenzofuran	µg/L	NS	12	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl Phthalate	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
Dimethyl Phthalate	µg/L	NS	360000	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Fluorene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobenzene	µg/L	1	0.042	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobutadiene	µg/L	NS	0.86	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-c,d)Pyrene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Isophorone	µg/L	NS	71	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.2 U	0.2 U	0.2 U	0.2 U
Nitrobenzene	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Phenol	µg/L	NS	11000	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
bis(2-chloroethoxy) methane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-chloroethyl) ether	µg/L	NS	0.001	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-ethylhexyl) phthalate	µg/L	NS	4.8	**4.0 B**	**4.0 B**	**2.8 B**	**6.0 B**
di-n-Butyl Phthalate	µg/L	NS	NS	**2.0 B**	**1.5 B**	**1.5 B**	**1.5 B**
di-n-Octyl Phthalate	µg/L	NS	1500	**1.5**	**2.1**	1.0 U	1.0 U
n-Nitrosodi-n-Propylamine	µg/L	NS	9600	1.0 U	1.0 U	1.0 U	1.0 U
n-Nitrosodiphenylamine	µg/L	NS	14	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				DET-3	DET-4	DA2mw-107	RQLmw-007
Sample ID		MCL	Region 9 PRG	FWGDA2mw-DET3C-0127-GW	FWGDA2mw-DET4-0128-GW	FWGDA2mw-107C-0126-GW	FWGRQLmw-007C-0132-GW
Date Collected				10/6/2005	10/6/2005	10/6/2005	10/3/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
1,2,4-Trichlorobenzene	µg/L	NS	7.2	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromochloromethane	µg/L	NS	0.0056	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	1.0 U	1.0 U	1.0 U	1.0 U
2,2-Oxybis(1-Chloropropane)	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Diclorophenol	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
2-Nitroaniline	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
2-Methylphenol	µg/L	NS	1800	1.0 U	1.0 U	1.0 U	1.0 U
3-3'-Dichlorobenzidine	µg/L	NS	0.15	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4,6-dinitro-2-methyl phenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-chloro-3-methylphenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
Acenaphthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Acenaphthylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Anthracene	µg/L	NS	1800	0.2 U	0.2 U	0.2 U	0.2 U
Benz(a)anthracene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.2 U	0.2 U	0.2 U	0.2 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				DET-3	DET-4	DA2mw-107	RQLmw-007
Sample ID		MCL	Region 9 PRG	FWGDA2mw-DET3C-0127-GW	FWGDA2mw-DET4-0128-GW	FWGDA2mw-107C-0126-GW	FWGRQLmw-007C-0132-GW
Date Collected				10/6/2005	10/6/2005	10/6/2005	10/3/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Benzo(b)fluoranthene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(g,h,i)perylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.2 U	0.2 U	0.2 U	0.2 U
Benzoic Acid	µg/L	NS	150000	10 U	**5.3 J**	**5.2 J**	10 U
Benzyl Butyl Phthalate	µg/L	NS	7300	1.0 U	1.0 U	**1.5**	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	0.2 U	0.2 U	0.2 U	0.2 U
Dibenz(a,h)Anthracene	µg/L	NS	0.0093	0.2 U	0.2 U	0.2 U	0.2 U
Dibenzofuran	µg/L	NS	12	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl Phthalate	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
Dimethyl Phthalate	µg/L	NS	360000	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Fluorene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobenzene	µg/L	1	0.042	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobutadiene	µg/L	NS	0.86	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-c,d)Pyrene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Isophorone	µg/L	NS	71	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.2 U	0.2 U	0.2 U	0.2 U
Nitrobenzene	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Phenol	µg/L	NS	11000	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
bis(2-chloroethoxy) methane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-chloroethyl) ether	µg/L	NS	0.001	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-ethylhexyl) phthalate	µg/L	NS	4.8	**2.7 B**	**2.1 B**	**3.5 B**	**8.2 B**
di-n-Butyl Phthalate	µg/L	NS	NS	**1.4 B**	**1.4 B**	**1.4 B**	**1.7 B**
di-n-Octyl Phthalate	µg/L	NS	1500	1.0 U	1.0 U	1.0 U	1.0 U
n-Nitrosodi-n-Propylamine	µg/L	NS	9600	1.0 U	1.0 U	1.0 U	1.0 U
n-Nitrosodiphenylamine	µg/L	NS	14	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				RQLmw-008	RQLmw-009	WBGmw-006	WBGmw-007
Sample ID		MCL	Region 9 PRG	FWGRQLmw-008C-0133-GW	FWGRQLmw-009C-0134-GW	FWGWBGmw-006C-0129-GW	FWGWBGmw-007C-0130-GW
Date Collected				10/3/2005	10/3/2005	10/6/2005	10/6/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
1,2,4-Trichlorobenzene	µg/L	NS	7.2	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromochloromethane	µg/L	NS	0.0056	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	1.0 U	1.0 U	1.0 U	1.0 U
2,2-Oxybis(1-Chloropropane)	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Diclorophenol	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	NS	490	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorophenol	µg/L	NS	30	1.0 U	1.0 U	1.0 U	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
2-Nitroaniline	µg/L	NS	110	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
2-Methylphenol	µg/L	NS	1800	1.0 U	1.0 U	1.0 U	1.0 U
3-3'-Dichlorobenzidine	µg/L	NS	0.15	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4,6-dinitro-2-methyl phenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	µg/L	NS	150	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitroaniline	µg/L	NS	3.2	2.0 U	2.0 U	2.0 U	2.0 U
4-Nitrophenol	µg/L	NS	NS	5.0 U	5.0 U	5.0 U	5.0 U
4-chloro-3-methylphenol	µg/L	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U
Acenaphthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Acenaphthylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Anthracene	µg/L	NS	1800	0.2 U	0.2 U	0.2 U	0.2 U
Benz(a)anthracene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.2 U	0.2 U	0.2 U	0.2 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				RQLmw-008	RQLmw-009	WBGmw-006	WBGmw-007
Sample ID		MCL	Region 9 PRG	FWGRQLmw-008C-0133-GW	FWGRQLmw-009C-0134-GW	FWGWBGmw-006C-0129-GW	FWGWBGmw-007C-0130-GW
Date Collected				10/3/2005	10/3/2005	10/6/2005	10/6/2005
Sample Type				Grab	Grab	Grab	Grab
Analyte	Units						
Benzo(b)fluoranthene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(g,h,i)perylene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.2 U	0.2 U	0.2 U	0.2 U
Benzoic Acid	µg/L	NS	150000	10 U	10 U	10 U	10 U
Benzyl Butyl Phthalate	µg/L	NS	7300	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
Carbazole	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Chrysene	µg/L	NS	9.2	0.2 U	0.2 U	0.2 U	0.2 U
Dibenz(a,h)Anthracene	µg/L	NS	0.0093	0.2 U	0.2 U	0.2 U	0.2 U
Dibenzofuran	µg/L	NS	12	1.0 U	1.0 U	1.0 U	1.0 U
Diethyl Phthalate	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
Dimethyl Phthalate	µg/L	NS	360000	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Fluorene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobenzene	µg/L	1	0.042	0.2 U	0.2 U	0.2 U	0.2 U
Hexachlorobutadiene	µg/L	NS	0.86	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	10 U	10 U	10 U	10 U
Hexachloroethane	µg/L	NS	4.8	1.0 U	1.0 U	1.0 U	1.0 U
Indeno(1,2,3-c,d)Pyrene	µg/L	NS	0.092	0.2 U	0.2 U	0.2 U	0.2 U
Isophorone	µg/L	NS	71	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	NS	6.2	0.2 U	0.2 U	0.2 U	0.2 U
Nitrobenzene	µg/L	NS	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Pentachlorophenol	µg/L	1	0.56	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
Phenol	µg/L	NS	11000	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	µg/L	NS	NS	0.2 U	0.2 U	0.2 U	0.2 U
bis(2-chloroethoxy) methane	µg/L	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-chloroethyl) ether	µg/L	NS	0.001	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-ethylhexyl) phthalate	µg/L	NS	4.8	**4.7 B**	**4.0 B**	**2.4 B**	**2.2 B**
di-n-Butyl Phthalate	µg/L	NS	NS	**1.4 B**	**1.5 B**	**1.4 B**	**1.6 B**
di-n-Octyl Phthalate	µg/L	NS	1500	1.0 U	1.0 U	1.0 U	1.0 U
n-Nitrosodi-n-Propylamine	µg/L	NS	9600	1.0 U	1.0 U	1.0 U	1.0 U
n-Nitrosodiphenylamine	µg/L	NS	14	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				WBGmw-009
Sample ID		MCL	Region 9 PRG	FWGWBGmw-009C-0131-GW
Date Collected				10/6/2005
Sample Type				Grab
Analyte	Units			
1,2,4-Trichlorobenzene	µg/L	NS	7.2	1.0 U
1,2-Dichlorobenzene	µg/L	NS	370	1.0 U
1,2-Dibromochloromethane	µg/L	NS	0.0056	1.0 U
1,3-Dichlorobenzene	µg/L	NS	180	1.0 U
1,4-Dichlorobenzene	µg/L	NS	0.5	1.0 U
2,2-Oxybis(1-Chloropropane)	µg/L	NS	NS	1.0 U
2,4,5-Trichlorophenol	µg/L	NS	3600	5.0 U
2,4,6-Trichlorophenol	µg/L	NS	3.6	5.0 U
2,4-Diclorophenol	µg/L	NS	110	2.0 U
2,4-Dimethylphenol	µg/L	NS	730	2.0 U
2,4-Dinitrophenol	µg/L	NS	73	5.0 U
2,4-Dinitrotoluene	µg/L	NS	73	5.0 U
2,6-Dinitrotoluene	µg/L	NS	36	5.0 U
2-Chloronaphthalene	µg/L	NS	490	1.0 U
2-Chlorophenol	µg/L	NS	30	1.0 U
2-Methylnaphthalene	µg/L	NS	NS	0.2 U
2-Nitroaniline	µg/L	NS	110	2.0 U
2-Nitrophenol	µg/L	NS	NS	2.0 U
2-Methylphenol	µg/L	NS	1800	1.0 U
3-3'-Dichlorobenzidine	µg/L	NS	0.15	5.0 U
3-Nitroaniline	µg/L	NS	3.2	2.0 U
4,6-dinitro-2-methyl phenol	µg/L	NS	NS	5.0 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	2.0 U
4-Chloroaniline	µg/L	NS	150	2.0 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	2.0 U
4-Nitroaniline	µg/L	NS	3.2	2.0 U
4-Nitrophenol	µg/L	NS	NS	5.0 U
4-chloro-3-methylphenol	µg/L	NS	NS	2.0 U
Acenaphthene	µg/L	NS	NS	0.2 U
Acenaphthylene	µg/L	NS	NS	0.2 U
Anthracene	µg/L	NS	1800	0.2 U
Benz(a)anthracene	µg/L	NS	0.092	0.2 U
Benzo(a)pyrene	µg/L	0.2	0.0092	0.2 U

Table 2-7 FWGWMP October 2005 SVOCs Analytical Results

Station ID				WBGmw-009
Sample ID		MCL	Region 9 PRG	FWGWBGmw-009C-0131-GW
Date Collected				10/6/2005
Sample Type				Grab
Analyte	Units			
Benzo(b)fluoranthene	µg/L	NS	0.092	0.2 U
Benzo(g,h,i)perylene	µg/L	NS	NS	0.2 U
Benzo(k)fluoranthene	µg/L	NS	0.92	0.2 U
Benzoic Acid	µg/L	NS	150000	10 U
Benzyl Butyl Phthalate	µg/L	NS	7300	**1.5**
Bromochloromethane	µg/L	NS	NS	1.0 U
Carbazole	µg/L	NS	3.4	1.0 U
Chrysene	µg/L	NS	9.2	0.2 U
Dibenz(a,h)Anthracene	µg/L	NS	0.0093	0.2 U
Dibenzofuran	µg/L	NS	12	1.0 U
Diethyl Phthalate	µg/L	NS	NS	1.0 U
Dimethyl Phthalate	µg/L	NS	360000	1.0 U
Fluoranthene	µg/L	NS	NS	0.2 U
Fluorene	µg/L	NS	NS	0.2 U
Hexachlorobenzene	µg/L	1	0.042	0.2 U
Hexachlorobutadiene	µg/L	NS	0.86	1.0 U
Hexachlorocyclopentadiene	µg/L	50	220	10 U
Hexachloroethane	µg/L	NS	4.8	1.0 U
Indeno(1,2,3-c,d)Pyrene	µg/L	NS	0.092	0.2 U
Isophorone	µg/L	NS	71	1.0 U
Naphthalene	µg/L	NS	6.2	0.2 U
Nitrobenzene	µg/L	NS	3.4	1.0 U
Pentachlorophenol	µg/L	1	0.56	5.0 U
Phenanthrene	µg/L	NS	NS	0.2 U
Phenol	µg/L	NS	11000	1.0 U
Pyrene	µg/L	NS	NS	0.2 U
bis(2-chloroethoxy) methane	µg/L	NS	NS	1.0 U
bis(2-chloroethyl) ether	µg/L	NS	0.001	1.0 U
bis(2-ethylhexyl) phthalate	µg/L	NS	4.8	**1.6 B**
di-n-Butyl Phthalate	µg/L	NS	NS	**1.4 B**
di-n-Octyl Phthalate	µg/L	NS	1500	1.0 U
n-Nitrosodi-n-Propylamine	µg/L	NS	9600	1.0 U
n-Nitrosodiphenylamine	µg/L	NS	14	1.0 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis (original and confirmation) and the difference between the two is > 40%.

Bold = detected compound

R = Rejected data

NS = no standard

Table 2-8 FWGWMP October 2005 Pesticides and PCBs Analytical Results

Station ID				BKGmw-004	BKGmw-005	BKGmw-006	BKGmw-008	BKGmw-010
Sample ID		MCL	Region 9 PRG	FWGBKGmw-004C-0094-GW	FWGBKGmw-005C-0095-GW	FWGBKGmw-006C-0096-GW	FWGBKGmw-008C-0097-GW	FWGBKGmw-010C-0098-GW
Date Collected				10/5/2005	10/5/2005	10/6/2005	10/5/2005	10/5/2005
Sample Type				Grab	Grab	Grab	Grab	Grab
Analyte	Units							
4,4'-DDD	µg/L	NS	0.28	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4,4'-DDE	µg/L	NS	0.2	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4,4'-DDT	µg/L	NS	0.2	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Aldrin	µg/L	NS	0.003	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Alpha-BHC	µg/L	NS	0.011	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Alpha-Chlordane	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Beta-BHC	µg/L	NS	0.032	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Delta-BHA	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Dieldrin	µg/L	NS	0.0023	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan I	µg/L	NS	0.022	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan II	µg/L	NS	0.022	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan sulfate	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin	µg/L	2	11	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin aldehyde	µg/L	NS	11	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin ketone	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Gamma-BHC(Lindane)	µg/L	0.2	0.052	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Gamma-Chlordane	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Heptachlor	µg/L	0.4	0.015	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Heptachlor epoxide	µg/L	0.2	0.0074	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Methoxychlor	µg/L	40	180	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Toxaphene	µg/L	3	0.061	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
PCB-1016	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1221	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1232	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1242	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1248	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1254	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1260	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-8 FWGWMP October 2005 Pesticides and PCBs Analytical Results

Station ID				BKGmw-012	BKGmw-013	BKGmw-015	BKGmw-016	BKGmw-017
Sample ID		MCL	Region 9 PRG	FWGBKGmw-012C-0099-GW	FWGBKGmw-013C-0100-GW	FWGBKGmw-015C-0101-GW	FWGBKGmw-016C-0102-GW	FWGBKGmw-017C-0103-GW
Date Collected				10/3/2005	10/5/2005	10/5/2005	10/4/2005	10/4/2005
Sample Type				Grab	Grab	Grab	Grab	Grab
Analyte	Units							
4,4'-DDD	µg/L	NS	0.28	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4,4'-DDE	µg/L	NS	0.2	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4,4'-DDT	µg/L	NS	0.2	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Aldrin	µg/L	NS	0.003	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Alpha-BHC	µg/L	NS	0.011	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Alpha-Chlordane	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Beta-BHC	µg/L	NS	0.032	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Delta-BHA	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Dieldrin	µg/L	NS	0.0023	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan I	µg/L	NS	0.022	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan II	µg/L	NS	0.022	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan sulfate	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin	µg/L	2	11	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin aldehyde	µg/L	NS	11	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin ketone	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Gamma-BHC(Lindane)	µg/L	0.2	0.052	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Gamma-Chlordane	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Heptachlor	µg/L	0.4	0.015	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Heptachlor epoxide	µg/L	0.2	0.0074	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Methoxychlor	µg/L	40	180	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Toxaphene	µg/L	3	0.061	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
PCB-1016	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1221	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1232	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1242	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1248	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1254	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1260	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-8 FWGWMP October 2005 Pesticides and PCBs Analytical Results

Station ID				BKGmw-018	BKGmw-019	BKGmw-020	BKGmw-021	LL1mw-078
Sample ID		MCL	Region 9 PRG	FWGBKGmw-018C-0104-GW	FWGBKGmw-019C-0105-GW	FWGBKGmw-020C-0106-GW	FWGBKGmw-021C-0107-GW	FWGLL!mw-078C-0108-GW
Date Collected				10/5/2005	10/6/2005	10/4/2005	10/5/2005	10/5/2005
Sample Type				Grab	Grab	Grab	Grab	Grab
Analyte	Units							
4,4'-DDD	µg/L	NS	0.28	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4,4'-DDE	µg/L	NS	0.2	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4,4'-DDT	µg/L	NS	0.2	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Aldrin	µg/L	NS	0.003	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Alpha-BHC	µg/L	NS	0.011	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Alpha-Chlordane	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Beta-BHC	µg/L	NS	0.032	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Delta-BHA	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Dieldrin	µg/L	NS	0.0023	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan I	µg/L	NS	0.022	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan II	µg/L	NS	0.022	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan sulfate	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin	µg/L	2	11	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin aldehyde	µg/L	NS	11	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin ketone	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Gamma-BHC(Lindane)	µg/L	0.2	0.052	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Gamma-Chlordane	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Heptachlor	µg/L	0.4	0.015	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Heptachlor epoxide	µg/L	0.2	0.0074	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Methoxychlor	µg/L	40	180	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Toxaphene	µg/L	3	0.061	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
PCB-1016	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1221	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1232	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1242	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1248	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1254	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1260	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-8 FWGWMP October 2005 Pesticides and PCBs Analytical Results

Station ID				LL1mw-080	LL1mw-083	LL2mw-059	LL2mw-262	LL2mw-263
Sample ID		MCL	Region 9 PRG	FWGLL1mw-080C-0109-GW	FWGLL1mw-083C-0110-GW	FWGLL2mw-059C-0111-GW	FWGLL2mw-262C-0112-GW	FWGLL2mw-263C-0113-GW
Date Collected				10/4/2005	10/4/2005	10/4/2005	10/4/2005	10/4/2005
Sample Type				Grab	Grab	Grab	Grab	Grab
Analyte	Units							
4,4'-DDD	µg/L	NS	0.28	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
4,4'-DDE	µg/L	NS	0.2	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
4,4'-DDT	µg/L	NS	0.2	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
Aldrin	µg/L	NS	0.003	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
Alpha-BHC	µg/L	NS	0.011	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
Alpha-Chlordane	µg/L	NS	NS	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
Beta-BHC	µg/L	NS	0.032	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
Delta-BHA	µg/L	NS	NS	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
Dieldrin	µg/L	NS	0.0023	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
Endosulfan I	µg/L	NS	0.022	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
Endosulfan II	µg/L	NS	0.022	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
Endosulfan sulfate	µg/L	NS	NS	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
Endrin	µg/L	2	11	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
Endrin aldehyde	µg/L	NS	11	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
Endrin ketone	µg/L	NS	NS	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
Gamma-BHC(Lindane)	µg/L	0.2	0.052	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
Gamma-Chlordane	µg/L	NS	NS	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
Heptachlor	µg/L	0.4	0.015	0.15 U	0.30 U	0.030 U	0.030 U	0.030 U
Heptachlor epoxide	µg/L	0.2	0.0074	**2.8**	**4.6**	**0.46 PG**	0.030 U	0.030 U
Methoxychlor	µg/L	40	180	0.50 U	1.0 U	0.10 U	0.10 U	0.10 U
Toxaphene	µg/L	3	0.061	10 U	20 U	2.0 U	2.0 U	2.0 U
PCB-1016	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1221	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1232	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1242	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1248	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1254	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1260	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-8 FWGWMP October 2005 Pesticides and PCBs Analytical Results

Station ID				LL3mw-238	LL3mw-242	LL4mw-198	LL4mw-199	LL11mw-002
Sample ID		MCL	Region 9 PRG	FWGLL3mw-238C-0114-GW	FWGLL3mw-242C-0115-GW	FWGLL4mw-198C-0116-GW	FWGLL4mw-199C-0117-GW	FWGLL11mw-002C-0118-GW
Date Collected				10/5/2005	10/4/2005	10/5/2005	10/5/2005	10/6/2005
Sample Type				Grab	Grab	Grab	Grab	Grab
Analyte	Units							
4,4'-DDD	µg/L	NS	0.28	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
4,4'-DDE	µg/L	NS	0.2	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
4,4'-DDT	µg/L	NS	0.2	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
Aldrin	µg/L	NS	0.003	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
Alpha-BHC	µg/L	NS	0.011	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
Alpha-Chlordane	µg/L	NS	NS	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
Beta-BHC	µg/L	NS	0.032	0.60 U	0.030 U	0.030 U	0.030 U	0.029 J
Delta-BHA	µg/L	NS	NS	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
Dieldrin	µg/L	NS	0.0023	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan I	µg/L	NS	0.022	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan II	µg/L	NS	0.022	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan sulfate	µg/L	NS	NS	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin	µg/L	2	11	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin aldehyde	µg/L	NS	11	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin ketone	µg/L	NS	NS	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
Gamma-BHC(Lindane)	µg/L	0.2	0.052	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
Gamma-Chlordane	µg/L	NS	NS	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
Heptachlor	µg/L	0.4	0.015	0.60 U	0.030 U	0.030 U	0.030 U	0.030 U
Heptachlor epoxide	µg/L	0.2	0.0074	**13**	**0.038**	**0.069**	**0.022 J**	0.030 U
Methoxychlor	µg/L	40	180	2.0 U	0.10 U	0.10 U	0.10 U	0.10 U
Toxaphene	µg/L	3	0.061	40 U	2.0 U	2.0 U	2.0 U	2.0 U
PCB-1016	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1221	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1232	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1242	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1248	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1254	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1260	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-8 FWGWMP October 2005 Pesticides and PCBs Analytical Results

Station ID				LL11mw-007	LL12mw-153	LL12mw-182	LL12mw-183	LL12mw-186
Sample ID		MCL	Region 9 PRG	FWGLL11mw-007C-0119-GW	FWGLL12mw-153C-0120-GW	FWGLL12mw-182C-0121-GW	FWGLL12mw-183C-0122-GW	FWGLL12mw-186C-0123-GW
Date Collected				10/6/2005	10/4/2005	10/3/2005	10/3/2005	10/3/2005
Sample Type				Grab	Grab	Grab	Grab	Grab
Analyte	Units							
4,4'-DDD	µg/L	NS	0.28	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4,4'-DDE	µg/L	NS	0.2	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4,4'-DDT	µg/L	NS	0.2	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Aldrin	µg/L	NS	0.003	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Alpha-BHC	µg/L	NS	0.011	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Alpha-Chlordane	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Beta-BHC	µg/L	NS	0.032	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Delta-BHA	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Dieldrin	µg/L	NS	0.0023	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan I	µg/L	NS	0.022	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan II	µg/L	NS	0.022	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan sulfate	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin	µg/L	2	11	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin aldehyde	µg/L	NS	11	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin ketone	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Gamma-BHC(Lindane)	µg/L	0.2	0.052	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Gamma-Chlordane	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Heptachlor	µg/L	0.4	0.015	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Heptachlor epoxide	µg/L	0.2	0.0074	0.030 U	0.030 U	0.030 U	0.030 U	**0.053**
Methoxychlor	µg/L	40	180	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Toxaphene	µg/L	3	0.061	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
PCB-1016	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1221	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1232	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1242	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1248	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1254	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1260	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-8 FWGWMP October 2005 Pesticides and PCBs Analytical Results

Station ID				CBPmw-005	CBPmw-007	DET-3	DET-4	DA2mw-107
Sample ID		MCL	Region 9 PRG	FWGCBPmw-005C-0124-GW	FWGCBPmw-007C-0125-GW	FWGDA2mw-DET3C-0127-GW	FWGDA2mw-DET4-0128-GW	FWGDA2mw-107C-0126-GW
Date Collected				10/3/2005	10/3/2005	10/6/2005	10/6/2005	10/6/2005
Sample Type				Grab	Grab	Grab	Grab	Grab
Analyte	Units							
4,4'-DDD	µg/L	NS	0.28	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4,4'-DDE	µg/L	NS	0.2	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4,4'-DDT	µg/L	NS	0.2	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Aldrin	µg/L	NS	0.003	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Alpha-BHC	µg/L	NS	0.011	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Alpha-Chlordane	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Beta-BHC	µg/L	NS	0.032	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Delta-BHA	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Dieldrin	µg/L	NS	0.0023	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan I	µg/L	NS	0.022	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan II	µg/L	NS	0.022	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan sulfate	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin	µg/L	2	11	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin aldehyde	µg/L	NS	11	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin ketone	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Gamma-BHC(Lindane)	µg/L	0.2	0.052	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Gamma-Chlordane	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Heptachlor	µg/L	0.4	0.015	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Heptachlor epoxide	µg/L	0.2	0.0074	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Methoxychlor	µg/L	40	180	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Toxaphene	µg/L	3	0.061	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
PCB-1016	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1221	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1232	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1242	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1248	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1254	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1260	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-8 FWGWMP October 2005 Pesticides and PCBs Analytical Results

Station ID				RQLmw-007	RQLmw-008	RQLmw-009	WBGmw-006	WBGmw-007
Sample ID		MCL	Region 9 PRG	FWGRQLmw-007C-0132-GW	FWGRQLmw-008C-0133-GW	FWGRQLmw-009C-0134-GW	FWGWBGmw-006C-0129-GW	FWGWBGmw-007C-0130-GW
Date Collected				10/3/2005	10/3/2005	10/3/2005	10/6/2005	10/6/2005
Sample Type				Grab	Grab	Grab	Grab	Grab
Analyte	Units							
4,4'-DDD	µg/L	NS	0.28	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4,4'-DDE	µg/L	NS	0.2	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4,4'-DDT	µg/L	NS	0.2	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Aldrin	µg/L	NS	0.003	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Alpha-BHC	µg/L	NS	0.011	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Alpha-Chlordane	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Beta-BHC	µg/L	NS	0.032	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Delta-BHA	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Dieldrin	µg/L	NS	0.0023	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan I	µg/L	NS	0.022	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan II	µg/L	NS	0.022	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endosulfan sulfate	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin	µg/L	2	11	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin aldehyde	µg/L	NS	11	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Endrin ketone	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Gamma-BHC(Lindane)	µg/L	0.2	0.052	0.030 U	0.030 U	0.030 U	**0.049 PG**	0.030 U
Gamma-Chlordane	µg/L	NS	NS	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Heptachlor	µg/L	0.4	0.015	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Heptachlor epoxide	µg/L	0.2	0.0074	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Methoxychlor	µg/L	40	180	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Toxaphene	µg/L	3	0.061	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
PCB-1016	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1221	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1232	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1242	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1248	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1254	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB-1260	µg/L	0.5	0.034	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2-8 FWGWMP October 2005 Pesticides and PCBs Analytical Results

Station ID				WBGmw-009
Sample ID		MCL	Region 9 PRG	FWGWBGmw-009C-0131-GW
Date Collected				10/6/2005
Sample Type				Grab
Analyte	Units			
4,4'-DDD	µg/L	NS	0.28	0.030 U
4,4'-DDE	µg/L	NS	0.2	0.030 U
4,4'-DDT	µg/L	NS	0.2	0.030 U
Aldrin	µg/L	NS	0.003	0.030 U
Alpha-BHC	µg/L	NS	0.011	0.030 U
Alpha-Chlordane	µg/L	NS	NS	0.030 U
Beta-BHC	µg/L	NS	0.032	0.030 U
Delta-BHA	µg/L	NS	NS	0.030 U
Dieldrin	µg/L	NS	0.0023	0.030 U
Endosulfan I	µg/L	NS	0.022	0.030 U
Endosulfan II	µg/L	NS	0.022	0.030 U
Endosulfan sulfate	µg/L	NS	NS	0.030 U
Endrin	µg/L	2	11	0.030 U
Endrin aldehyde	µg/L	NS	11	0.030 U
Endrin ketone	µg/L	NS	NS	0.030 U
Gamma-BHC(Lindane)	µg/L	0.2	0.052	0.030 U
Gamma-Chlordane	µg/L	NS	NS	0.030 U
Heptachlor	µg/L	0.4	0.015	0.030 U
Heptachlor epoxide	µg/L	0.2	0.0074	0.030 U
Methoxychlor	µg/L	40	180	0.10 U
Toxaphene	µg/L	3	0.061	2.0 U
PCB-1016	µg/L	0.5	0.034	1.0 U
PCB-1221	µg/L	0.5	0.034	1.0 U
PCB-1232	µg/L	0.5	0.034	1.0 U
PCB-1242	µg/L	0.5	0.034	1.0 U
PCB-1248	µg/L	0.5	0.034	1.0 U
PCB-1254	µg/L	0.5	0.034	1.0 U
PCB-1260	µg/L	0.5	0.034	1.0 U

Qualifier Definitions:

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

J = Estimated result. Result less than Reporting Limit

B= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E = Estimated result. Result concentration exceeds calibration range.

PG = Reported amount is the higher number of the two analysis

(original and d is greater than 40%.

Bold = detected compound

NS = no standard

2.2.4 Data Verification/Validation

All data received from STL was verified and validated. The verification/validation reports for the data are presented in Appendix D. The data was validated using the ADR software and a data validator. The ADR program is a software package which checks laboratory data for certain quality control chemical requirements that are based on Louisville COE Chemistry guidelines. The software is very specific in how it operates to accept or reject each datum point. Rejection of data by the ADR program does not necessarily mean that the data is unacceptable. Initially, the ADR program rejected a number of laboratory results based on the programmed criteria. However, most of these rejections were resolved by the data validator and in fact the data was acceptable in accordance by the validation standards of the Louisville COE Chemistry guidelines.

Forty-one wells were sampled during a five day sampling event. During this event, seven trip blanks were submitted for volatile analysis and transported to the lab with the associated vials for volatile analysis. Five trip blanks were sent to STL and two trip blanks were sent to GPL. Five field duplicates were collected on two separate days in order to assess the quality and consistency of sample collection. Project requirements of 10% field duplicates were met for this sampling event. In addition, five laboratory splits were collected and analyzed on two days of sampling in order to assess the quality and consistency of the laboratory analysis. Project requirements of 10% laboratory splits were met for this sampling event. Due to a laboratory problem described in Section 2.1.2, the VOC samples collected on 10/6/2005 were discarded and the affected wells were resampled for VOCs, including split and duplicate samples, on 10/13/2005.

Laboratory analyses were performed in analytical batches in order to maximize efficiency and group quality control requirements. Method blanks, laboratory control samples, and laboratory control duplicates were analyzed at a frequency of 1:20 (5%) samples, or in each analytical batch whichever was greater. Sufficient volume was provided to the laboratory in order to assess matrix spike analysis on project samples at a frequency of 1:10 (10%) samples. Matrix spike/matrix spike duplicate analysis was performed by the laboratory as batch quality control at a frequency of 1:10 (10%).

Field quality control and laboratory quality control results were evaluated as part of the verification and validation assessment provided in Appendix D. Project requirements were met for the frequency and quality of these samples. Samples have been appropriately identified as trip blanks, field duplicates, and splits in the ADR software, and evaluation of these samples was performed by the validator as well as the ADR software.

3.0 SUMMARY OF NEWLY INSTALLED MONITORING WELLS

This section presents a summary of the monitoring wells installed and sampled as part of other investigations that have been conducted since the development of the FWGWMP in 2004. These newly installed monitoring wells are not part of the FWGWMP program. Summary data for the newly installed monitoring wells is included in Table 2-1. The newly installed monitoring wells are described and a summary of analytical results for constituents detected in the wells is presented in this section. Well logs and construction diagrams for these wells are presented in Appendix E.

3.1 FUZE AND BOOSTER QUARRY

Twelve new monitoring wells were installed as a part of the Phase I/Phase II Remedial Investigation (RI) to monitor shallow groundwater at Fuze & Booster Quarry Landfill/Ponds in October and November 2003. Monitoring wells FBQmw-166, 167, 168, 169, and 177 were installed in unconsolidated deposits to depths of between 16 and 22.5 feet below ground surface. Monitoring wells FBQmw-170, 171, 172, 173, 174, and 175 were installed in bedrock to depths of between 22.5 and 50 feet below ground surface. FBQmw-176 was screened in both unconsolidated deposits and bedrock to a depth of 21.5 feet below ground surface. A summary of the contamination detected in these wells is presented in the sections below. Complete details on this project are presented in *Phase I/Phase II Remedial Investigation of the Fuze and Booster Quarry Landfill/Ponds (RVAAP-16)*, (SAIC/SpecPro, Inc., 2005).

Unconsolidated Sediments

Explosives/propellants were detected in five of the six monitoring wells screened in the unconsolidated sediments. The following explosives/propellants were detected:

- 2-Amino-4.6-dinitrotoluene - detected in FBQmw-168 (0.23 ug/L).
- 4-amino-2,6-dinitrotoluene detected in FBQmw-168 (0.33 ug/L).
- Nitrocellulose was detected FBQmw-167, 168, 169, 176, and 177 (0.23 – 0.35 ug/L).

The SRC metals detected in all six unconsolidated monitoring wells were copper and lead. Cobalt (2.6 – 13.7 ug/L) and manganese (32.4 – 6770 ug/L) were detected in four of the samples, aluminum (20.7 – 42.7 ug/L) and nickel (3.2 – 17.8 ug/L) in three, silver (1.1 and 1.1 ug/L) in two, and cadmium (1.3 ug/L) in one. FBQmw-169 had the most SRC metals at the maximum concentration detected in groundwater sampled from the unconsolidated sediments.

The SVOCs, caprolactum (3 of 6 samples ranging from 14 to 36 ug/L), and bis(2-ethylhexyl) phthalate (6 of 6 samples ranging from 1.3 to 3.5 ug/L), were

detected in the monitoring well samples. The following VOCs were detected in groundwater samples collected from the unconsolidated sediments:

- 1,1,1-Trichloethane was detected at FBQmw-167 (5.8 ug/L).
- 1,1-Dichlorethene was detected at FBQmw-167 and FBQmw-169 (2.5 – 4.2 ug/L).
- Acetone was detected at FBQmw-167, 168, and 169 (5.6 – 6.2 ug/L).
- Carbon disulfide was detected at FBQmw-177 (0.97 ug/L).
- Methylene chloride was detected in all six monitoring wells (5 – 6.6 ug/L).

Pesticides or PCBs were not detected in groundwater samples collected from the unconsolidated sediments.

Bedrock

Six explosive/propellant compounds were detected in the monitoring wells screened in bedrock. These compounds are as follows:

- 2,4,6-Trinitotoluene was detected at FBQmw-173 and -174 (1.9 – 18 ug/L).
- 2,4-Dinotrotoluene was detected in FBQmw-174 (0.31 ug/L).
- 2-Amino-4.6-dinitrotoluene was detected at FBQmw-173 and -174 (2.9 – 28 ug/L).
- 4-Amino-2.6-dinitrotoluene was detected at FBQmw-173 and -174 (2.7 – 28 ug/L).
- Nitrobenzene was detected at FBQmw-173 (0.17 ug/L).
- Nitrocellulose was detected in five of the six wells screened in bedrock (0.18 – 0.32 ug/L), the highest concentration measured was at FBQmw-175. Nitrocellulose was not detected in FBQmw-166.

Aluminum (21.4 – 67.8 ug/L) and nickel (2.2 – 255 ug/L) was detected in all six bedrock-screened monitoring wells. Copper (2.6 – 5.1 ug/L) was detected in four of the wells, cobalt (3.8 – 9.3 ug/L) and manganese (15 – 4150 ug/L) in three of the samples, chromium (0.61 – 0.64 ug/L) in two of the samples, and antimony (2.3 ug/L), hexavalent chromium (0.01 ug/L), and lead (1.8 ug/L) in one of the samples. FBQmw-173 had the most SRC metals detected (aluminum, cobalt, copper, lead, manganese, and nickel).

The SVOCs, caprolactum (6 of 6 samples ranging from 31 to 320 ug/L), bis(2-ethylhexyl) phthalate (6 of 6 samples ranging from 1.5 to 4.2 ug/L), benzyl butyl phthalate (2 of 6 samples ranging from 2.6 to 14 ug/L), and di-n-butyl phthalate (3 of 6 samples ranging from 2.3 to 3.3 ug/L) were detected in the bedrock monitoring well samples. The following VOCs were detected in groundwater samples collected from the bedrock:

- Acetone was detected in five of six samples ranging from 5.3 to 6.8 ug/L; the highest concentration measured was at FBQmw-174.
- Methylene chloride was detected all six monitoring wells ranging from 5.1 to 7.5 ug/L, with the highest concentration measured at FBQmw-172.
- Trichloroethene was detected at FBQmw-170 (12 ug/L) and FBQmw-171 (7.1 ug/L).

Pesticides or PCBs were not detected in groundwater samples collected from the bedrock.

The monitoring well with the greatest number of SRCs was the upgradient well at the AOC, FBQmw-173. The monitoring wells with the lowest number of SRCs are the downgradient wells, FBQmw-166, 177, and 176.

3.2 ERIE BURNING GROUNDS

Eight monitoring wells (EBGmw-123 through 130) were installed at the Erie Burning Grounds for the Phase II RI in 2004. Explosive compounds were not detected in the groundwater samples collected from these wells.

Fifteen inorganic SRCs were detected in at least one of the eight monitoring wells. Antimony (3.3 ug/L), lead (0.34 ug/L) and vanadium (1.4 ug/L) were detected in one of the eight wells sampled. Copper (1.1 to 6.8 ug/L) was detected in two of the wells, and zinc (4.6 to 139 ug/L) was detected in four of the wells. Cobalt (0.54 to 4.0 ug/L) was detected in five of the wells. Arsenic (2.2 – 28.6 ug/L), barium (25.9 – 244 ug/L), calcium (48,100 – 92,000 ug/L), iron (234 – 8,570 ug/L), magnesium (7,280 – 16,900 ug/L), manganese (72.4 – 521 ug/L), nickel (0.35 – 5.0 ug/L), potassium (955 – 4,920 ug/L), and sodium (3,440 – 10,700 ug/L) were detected in all eight of the wells. The well with the most metals detected above background criteria was EBGmw-126, located just outside the AOC boundary on the northeast corner. EBGmw-130, located outside the AOC boundary on the southwest corner, had the greatest number of metals detected (six) but only three concentrations exceeded background (cobalt, copper, and nickel), all of which have background values set to zero. Inorganics were detected above background criteria as often in wells located outside the AOC boundary to the northeast and southwest corners of EBG, as well as in wells located in the center of known surface soil and sediment contamination. Maximum concentrations ranged from 2 to 3 times background when background criteria were above zero.

The pesticide, 4,4-DDT (0.04 ug/L), and SVOC, bis(2-ethylhexyl)phthalate (2.8 ug/L), were detected in one of the wells, and the SVOC, di-n-butyl phthalate (4.2 – 7.8 ug/L), was detected in two of the wells. The VOC, carbon disulfide (0.32 – 4.9 ug/L), was detected in samples from six of the monitoring wells.

Complete details on this investigation are presented in *Phase II Remedial Investigation for Erie Burning Grounds (RVAAP-02) at the Ravenna Army Ammunition Plant, Ravenna, Ohio,* (SAIC, 2005a).

3.3 RAMSDELL QUARRY LANDFILL (RQLmw-12 through 17)

A Phase I RI was performed by SAIC in 2004. Six additional monitoring wells (RQLmw-12 through 17) were installed and sampled at the AOC for this investigation. Explosives, propellants, pesticides, PCBs, or SVOCs were not detected in the groundwater samples collected for the RI. Twelve metals were identified as SRCs, including:

- aluminum, detected in 3 wells, ranging from 788 to 6130 ug/L
- antimony, detected in one well at 0.58 ug/L
- arsenic, detected in four wells, ranging from 0.95 to 6.8 ug/L
- beryllium, detected in four wells, ranging from 0.076 to 0.57 ug/L
- cadmium, detected in two wells, at 0.48 and 0.7 ug/L
- cobalt, detected in six wells, ranging from 6.7 to 70 ug/L
- copper, detected in three wells, ranging from 2 to 3.4 ug/L
- lead, detected in two wells at 0.51 ug/L and 1.3 ug/L
- manganese, detected in six wells, ranging from 266 to 6170 ug/L
- nickel, detected in six wells, ranging from 16.4 to 360 ug/L
- vanadium, detected in one well at 1.6 ug/L, and
- zinc, detected in six wells, ranging from 8.2 to 312 ug/L.

Groundwater sampled from RQL-13 had the highest number of analytes detected (16) followed by RQL-12 (15). The sites with the fewest analytes detected were RQL-14 and -15 (11).

Carbon disulfide was detected in all six Phase I RI wells. Previous sampling from wells located closer to the landfill and the distribution characteristics of this VOC in both upgradient and downgradient wells do not indicate that Ramsdell Quarry is a source; rather the presence may potentially be an analytical artifact. (SAIC, 2005b).

3.4 14 AOC

MKM Engineers, Inc. investigated 14 AOCs in 2004 and 2005 as part of the 14 AOC Investigation project. Sixty-two monitoring wells were installed and sampled at 10 of the AOCs for this project. The *Preliminary Draft Report for the Characterization of 14 Ravenna Army Ammunition Plant Areas of Concern*, (MKM Engineers, Inc., 2005) presents the results of this project. The results of the groundwater investigations for this project are summarized in the following subsections. The results of the laboratory analyses were compared to sitewide

background values and USEPA Region IX tap water Preliminary Remediation Goals (PRGs).

3.4.1 Atlas Scrap Yard

Ten monitoring wells (ASYmw-001 through -010) were installed and sampled. Seventeen metals and one SVOC were detected above background and/or PRG screening values:

- barium, detected in one well at 89 ug/L
- cadmium, detected in four wells, ranging from 0.25 to 0.32 ug/L
- calcium, detected in ten wells, ranging from 82000 to 200000 ug/L
- cobalt, detected in six wells, ranging from 1.8 to 5.0 ug/L detected in two wells, at 1.8 and 5.0 ug/L
- copper, detected in two wells, each at 3.3 ug/L
- iron, detected in five wells, ranging from 320 to 2300 ug/L
- magnesium, detected in eleven wells, ranging from 18000 to 78000 ug/L
- manganese, detected in one well at 880 ug/L
- nickel, detected in four wells, ranging from 1.7 to 12 ug/L
- selenium, detected in four wells, ranging from 3.0 to 6.6 ug/L
- sodium, detected in two wells, at 46000 and 87000 ug/L
- zinc, detected in one well at 93 ug/L
- antimony, detected in two wells, at 2.8 and 3.0 ug/L
- vanadium, detected in six wells, ranging from 8.2 to 312 ug/L
- arsenic, detected in seven wells, ranging from 0.86 to 40 ug/L
- hexavalent chromium, detected in six wells, ranging from 2.4 to 8.7 ug/L, and
- bis(2-ethylhexyl)phthalate, detected in one well at 58 ug/L.

Pesticides, PCBs, VOCs, explosives and propellants were below Region IX PRGs, and/or laboratory detection limits.

3.4.2 Load Line 10

Six monitoring wells (LL10mw-001 through -006) were installed and sampled. Seven metals, one VOC and one SVOC were detected above background and/or PRG screening values:

- cadmium, detected in one well at 0.41 ug/L
- calcium, detected in five wells, ranging from 62000 to 71000 ug/L
- chromium, detected in one well at 3.2 ug/L
- magnesium, detected in three wells, ranging from 19000 to 23000 ug/L
- antimony, detected in one well at 4.4 ug/L

- thallium, detected in one well at 1.5 ug/L
- carbon tetrachloride, detected in two wells, at 1.2 and 1.6 ug/L
- phenanthrene, detected in one well at 0.18 ug/L.

Pesticides, PCBs, explosives, and propellants were below Region IX PRGs, and/or laboratory detection limits.

3.4.3 Load Line 8

Six monitoring wells (LL8mw-001 through -006) were installed and sampled. Fifteen metals were detected above background and/or PRG screening values:

- cadmium, detected in one well at 0.25 ug/L
- calcium, detected in three wells, ranging from 60000 to 130000 ug/L
- cobalt, detected in one well at 1.2 ug/L
- copper, detected in one well at 2.4 ug/L
- iron, detected in three wells, ranging from 760 to 3000 ug/L
- magnesium, detected in three wells, ranging from 20000 to 48000 ug/L
- manganese, detected in one well at 1800 ug/L
- nickel, detected in three wells, ranging from 1.6 to 2.7 ug/L
- potassium, detected in four wells, ranging from 3700 to 5900 ug/L
- selenium, detected in one well at 3.4 ug/L
- vanadium, detected in two wells, at 1.1 and 1.9 ug/L
- zinc, detected in one well at 73 ug/L
- antimony, detected in three wells, ranging from 3.7 to 6.8 ug/L
- arsenic, detected in three wells, ranging from 1.9 to 3.5 ug/L and
- thallium, detected in one well at 2.2 ug/L.

Pesticides, PCBs, VOCs, SVOCs, explosives, propellants, and nitrates were below Region IX PRGs, and/or laboratory detection limits.

3.4.4 Load Line 7

Six monitoring wells (LL7mw-001 through -006) were installed and sampled. Nine metals were detected above background and/or PRG screening values:

- cadmium, detected in three wells, ranging from 0.25 to 0.36 ug/L
- chromium, detected in one well at 1.4 ug/L
- cobalt, detected in seven wells, ranging from 2.2 to 21 ug/L
- iron, detected in six wells, ranging from 5000 to 20000 ug/L
- manganese, detected in four wells, ranging from 1500 to 2000 ug/L
- silver, detected in one well at 0.93 ug/L
- vanadium, detected in one well at 1.4 ug/L

- arsenic, detected in two wells, at 0.91 and 1.1 ug/L, and
- mercury, detected in three wells, ranging from 0.16 to 0.4 ug/L.

Pesticides, PCBs, VOCs, SVOCs, explosives and propellants were below Region IX PRGs, and/or laboratory detection limits.

3.4.5 Load Line 5

Six monitoring wells (LL5mw-001 through -006) were installed and sampled. Twelve metals were detected above background and/or PRG screening values:

- calcium, detected in seven wells, ranging from 58000 to 10000 ug/L
- cobalt, detected in two wells, at 0.86 and 2.0 ug/L
- copper, detected in two wells, at 2.7 and 2.8 ug/L
- magnesium, detected in seven wells, ranging from 21000 to 31000 ug/L
- manganese, detected in seven wells, ranging from 1.7 to 2000 ug/L
- nickel, detected in three wells, ranging from 1.9 to 2.2 ug/L
- potassium, detected in four wells, ranging from 480 to 5400 ug/L
- selenium, detected in one well at 3.3 ug/L
- vanadium, detected in one well at 1.0 ug/L
- antimony, detected in three wells, ranging from 3.3 to 4.1 ug/L
- arsenic, detected in one well at 2.3 ug/L and
- lead, detected in one well at 1.2 ug/L

Pesticides, PCBs, VOCs, SVOCs, explosives and propellants were below Region IX PRGs, and/or laboratory detection limits.

3.4.6 NACA Test Area

Twelve monitoring wells (NTAmw-007 through -018) were installed and sampled. Thirteen metals, six SVOCs, and one propellant were detected above screening criteria in the groundwater samples collected:

- barium, detected in six wells, ranging from 92 to 130 ug/L
- beryllium, detected in one well at 0.38 ug/L
- cadmium, detected in two wells, at 0.29 and 0.32 ug/L
- calcium, detected in one well at 130000 ug/L
- chromium, detected in two wells, at 12 and 83 ug/L
- cobalt, detected in four wells, ranging from 0.85 to 6.0 ug/L
- copper, detected in five wells, ranging from 2.2 to 17 ug/L
- iron, detected in seven wells, ranging from 220 to 15000 ug/L
- nickel, detected in four wells, ranging from 2.3 to 62 ug/L
- potassium, detected in three wells, ranging from 6400 to 14000 ug/L

- silver, detected in one well at 0.97 ug/L
- vanadium, detected in one well at 12 ug/L
- antimony, detected in six wells, ranging from 2.5 to 7.6 ug/L
- arsenic, detected in eight wells, ranging from 0.54 to 18 ug/L
- lead, detected in six wells, ranging from 7.9 to 12 ug/L
- mercury, detected in one well at 0.4 ug/L
- benzo(a)pyrene, detected in one well at 0.12 ug/L
- benzo(b)fluoranthene, detected in one well at 0.1 ug/L
- benzo(g,h,i)perylene, detected in one well at 0.25 ug/L
- bis(2-ethylhexyl)phthalate, detected in one well at 6.1 ug/L
- dibenzo(a,h)perylene, detected in one well at 0.24 ug/L
- indeno(1,2,3-cd)pyrene, detected in one well at 0.21 ug/L
- nitrocellulose, detected in two wells, at 130 and 140 ug/L.

3.4.7 Building 1200

Three monitoring wells (B12mw-010 through -012) were installed and sampled. Thirteen metals were detected above background and/or PRG screening values:

- cadmium, detected in one well at 0.25 ug/L
- calcium, detected in one well at 56000 ug/L
- chromium, detected in one well at 4.8 ug/L
- cobalt, detected in two wells, at 1.4 and 9.4 ug/L
- copper, detected in one well at 2.7 ug/L
- iron, detected in one well at 4400 ug/L
- magnesium, detected in one well at 37000 ug/L
- manganese, detected in one well at 1100 ug/L
- selenium, detected in one well at 3.7 ug/L
- vanadium, detected in one well at 3.7 ug/L
- zinc, detected in one well at 110 ug/L
- arsenic, and detected in one well at 2.2 ug/L
- lead, detected in one well at 2.7 ug/L.

Pesticides, PCBs, VOCs, SVOCs, explosives and propellants were below Region IX PRGs, and/or laboratory detection limits.

3.4.8 C-Block Quarry

Four monitoring wells (CBLmw-001 through -004) were installed and sampled. Three metals and five SVOCs were detected above background and/or PRG screening values:

- cobalt, detected in three wells, ranging from 1.3 to 2.6 ug/L
- copper, detected in four wells, ranging from 2.2 to 11 ug/L

- hexavalent chromium detected in four wells, ranging from 5.2 to 77 ug/L
- benzo(a)anthracene, detected in one well at 0.16 ug/L
- benzo(b)fluoranthene, detected in one well at 0.13 ug/L
- benzo(a)pyrene, detected in one well at 0.13 ug/L
- bis(2-ethylhexyl)phthalate, detected in two wells, at 31 and 400 ug/L and
- indeno(1,2,3-cd)pyrene), detected in one well at 0.14 ug/L.

Pesticides, PCBs, VOCs, explosives and propellants were below Region IX PRGs, and/or laboratory detection limits.

3.4.9 Load Line 12

Five monitoring wells (LL12mw-242 through -246) were installed and sampled. Additionally, 14 existing monitoring wells were also sampled. Constituents were detected above screening criteria in all groundwater samples. Two explosive constituents (RDX at 1.5 ug/L and 2,4,6-trinitrotoluene at 3 ug/L) were detected at LL12mw-243. Nitrate was detected at LL12mw-185 (16000ug/L) and at LL12mw-187 (20000 ug/L). Only one SVOC (bis(2-ethylhexyl)phthalate) was detected above screening levels for this sampling event at LL12mw-187 (59 ug/L). Manganese was detected at LL12mw-113 (1400 ug/L), LL12mw-185 (1700 ug/L), and LL12mw-187 (1800 ug/L). Pesticides, PCBs, and VOCs, were below Region IX PRGs, and/or laboratory detection limits.

3.4.10 Landfill North of Winklepeck

Four monitoring wells (LNWmw-024 through -027) were installed and sampled. Thirteen metals and one SVOC were detected above background and/or PRG screening values:

- barium, detected in two wells, at 97 and 110 ug/L
- cadmium, detected in one well at 0.26 ug/L
- calcium, detected in two wells, at 63000 and 85000 ug/L
- cobalt, detected in one well at 0.81 ug/L
- iron, detected in two wells, at 380and 3400 ug/L
- magnesium, detected in two wells, at 18000 and 32000 ug/L
- manganese, detected in one well at 990 ug/L
- nickel, detected in two wells, at 1.4 and 3.6 ug/L
- potassium, detected in three wells, ranging from 3600 to 3900 ug/L
- vanadium, detected in two wells, at 1.6 and 3.6 ug/L
- arsenic, detected in two wells, at 1.5 and6.5 ug/L
- lead, detected in two wells, at 1.1 and 1.6 ug/L

- thallium, detected in one well at 2.0 ug/L, and
- bis(2-ethylhexyl)phthalate, detected in one well at 15 ug/L.

Pesticides, PCBs, VOCs, explosives and propellants were below Region IX PRGs, and/or laboratory detection limits.

3.5 SUSPECTED MUSTARD AGENT BURIAL AOC

Four monitoring wells (MBSmw-001 through 004) were installed at the Suspected Mustard Agent Burial Site (RVAAP-28) in November 2004. The monitoring wells were all installed in unconsolidated deposits to depths of between 26 and 30 ft below ground surface. All wells were tested for mustard agent breakdown products; thiodiglycol, 1,4-oxathine, and 1,4-dithiane. The downgradient well (MBSmw-001) was also analyzed for explosives, propellants, TAL metals, cyanide, VOCs, SVOCs, pesticides and PCBs. No mustard agent breakdown products, or other contamination, were detected in samples collected in December 2004 from these wells. Details for this investigation are presented in *Report on the Groundwater Monitoring Well Installation and Groundwater Sampling at the Suspected Mustard Agent Burial Area of Concern, Ravenna Army Ammunition Plant, Ravenna, Ohio*, (SpecPro, Inc., 2005c).

4.0 SUMMARY OF ANNUAL FWGWMP ANALYTICAL RESULTS

4.1 INTRODUCTION

A summary of the constituents detected above background levels or above reporting limits at each of the FWGWMP wells during the 2005 study is discussed in the following subsections. Time-trend plots are presented in Appendix F. The time trend plots were created only from data collected for the FWGWMP sampling and from data previously collected for other investigations and stored in the RVAAP Environmental Information Management System (REIMS) database (SAIC/REIMS, 2005). For graphing purposes, non-detected compounds and elements were plotted at half of their reporting limits.

A summary of the constituents detected above background levels or above reporting limits at each of the FWGWMP wells during the 2005 study is discussed in the following subsections. Time-trend plots are presented in Appendix F. The time trend plots were created only from data collected for the FWGWMP sampling and from data previously collected for other investigations and stored in the RVAAP Environmental Information Management System (REIMS) database (SAIC/REIMS, 2005). For graphing purposes, non-detected compounds and elements were plotted at half of their reporting limits.

The primary Chemicals of Potential Concern at the facility are as follows:

- Dinitrotoluene-2,4
- Dinitrotoluene-2,6
- Trinitrotoluene-2,4,6
- RDX
- Composition B (RDX + TNT)
- HMX
- Nitrocellulose
- Nitroglycerine
- Nitroguanidine
- Aluminum
- Arsenic
- Barium
- Cadmium
- Chromium
- Lead
- Mercury
- Selenium
- Silver
- Zinc

Other Chemicals of Potential Concern at the facility include:

- 1,3,5-trinitrobenzene
- 1,3-Dinitrobenzene
- Nitrobenzene
- o-Nitrotoluene
- n-nitrotoluene
- p-Nitrotoluene
- Manganese
- VOCs
- SVOCs
- PCBs

4.2 BACKGROUND WELLS

4.2.1 BKGmw-004

Aluminum was detected above the reporting limit (200 ug/L) in July 2005 at a concentration of 644 ug/L. All other measurements were below the reporting limit.

4.2.2 BKGmw-012

Barium was detected above background levels during the October 2005 sampling event. Di-n-octyl phthalate was detected above reporting limits during the October 2005 sampling event.

4.2.3 BKGmw-013

Barium was only detected above the background level of 82.1 ug/L during the April 2005 sampling event.

4.2.4 BKGmw-015

Barium was detected above the background level of 256 ug/L during the April and October 2005 sampling events. The following compounds were only detected above reporting limits during the July 2005 sampling event: PCB 1242, PCB 1260, 4,4-DDT, dieldrin, toxaphene, and endrin aldehyde.

4.2.5 BKGmw-017

Arsenic was detected above reporting limits during all three FWGWMP sampling events. Increasing arsenic concentrations were detected throughout the year.

4.2.6 BKGmw-020

Carbon disulfide was detected only during the October 2005 sampling event at a concentration of 1.6 ug/L.

4.3 LOAD LINE 1

4.3.1 LL1mw-078

RDX was detected above the reporting limit only during the October 2005 sampling event. 4,4-DDT was detected above the reporting limit only during the September 1999 (7.3 ug/L) and July 2005 (0.066 ug/L) sampling events.

4.3.2 LL1mw-080

The following explosive and propellant compounds were detected at LL1mw-080: 1,3,5-trinitrobenzene, 1,3-dinitrobenzene, 2,4,6-trinitrotoluene, 2,4-dinitrotoluene, 2,6-dinitrotoluene, 2-amino-4,6-dinitrotoluene, 4-amino-2,6-dinitrotoluene, HMX, and RDX. Each of these concentrations increased throughout the year at LL1mw-080. Toluene was only detected in April 2005 at a concentration of 5 ug/L. Heptachlor epoxide was detected for the April 2005 (0.6 ug/L) and October 2005 (2.8 ug/L) sampling events. The MCL for heptachlor epoxide is 0.2 ug/L.

4.3.3 LL1mw-083

The following explosive and propellant compounds were detected at LL1mw-083: 1,3,5-trinitrobenzene, 1,3-dinitrobenzene, 2,4,6-trinitrotoluene, 2,4-dinitrotoluene, 2,6-dinitrotoluene, 2-amino-4,6-dinitrotoluene, 4-amino-2,6-dinitrotoluene, HMX, and RDX. Toluene was only detected in April 2005 at a concentration of 11 ug/L. Heptachlor epoxide was detected only for the October 2005 (4.6 ug/L) sampling event. The MCL for heptachlor epoxide is 0.2 ug/L. Alpha chlordane was only detected for the July 2005 (0.086 ug/L) sampling event. Aluminum was detected above background levels during sampling events in October 2000, April 2005, July 2005, and October 2005.

4.4 LOAD LINE 2

4.4.1 LL2mw-059

The following explosive and propellant compounds were detected at LL2mw-059: 1,3,5-trinitrobenzene, 2,4-dinitrotoluene, 2-amino-4,6-dinitrotoluene, and 4-amino-2,6-dinitrotoluene. Heptachlor epoxide was detected for the April 2005

(0.097 ug/L) and October 2005 (0.46 ug/L) sampling event. The MCL for heptachlor epoxide is 0.2 ug/L. Alpha chlordane was only detected for the April 2005 (0.16 ug/L) sampling event.

4.4.2 LL2mw-262

Cobalt was detected above reporting limits for the October 2005 (23.5 ug/L) sampling event. Manganese (1950 ug/L) was detected above background levels (Background = 1340 ug/L) during the October 2005 sampling event.

4.4.3 LL2mw-263

Arsenic was detected for all sampling events, but at concentrations below the MCL of 50 ug/L. Effective January 1, 2006 the MCL for arsenic will be 10 ug/L.

4.5 LOAD LINE 3

4.5.1 LL3mw-238

The following explosive and propellant compounds were detected at LL3mw-238: 1,3,5-trinitrobenzene, 2,4,6-trinitrotoluene, 2,4-dinitrotoluene, 2,6-dinitrotoluene, 2-amino-4,6-dinitrotoluene, 4-amino-2,6-dinitrotoluene, HMX, and RDX. The following pesticides were detected at LL3mw-238: 4,4-DDE, Delta-BHC, endosulfan I, and heptachlor epoxide. Heptachlor epoxide was detected above the MCL of 0.2 ug/L for the April 2005 (9.3 ug/L) and October 2005 (13 ug/L) sampling events.

4.5.2 LL3mw-242

Heptachlor epoxide was detected only for the October sampling event at a concentration of 0.038 ug/L. The MCL for this compound is 0.2 ug/L.

4.6 LOAD LINE 4

4.6.1 LL4mw-198

Manganese was detected during the October 2005 sampling event at a concentration of 1070 ug/L, which is above the background level of 1020 ug/L. Nickel was detected during all sampling events in the range of 19 to 25 ug/L. The MCL for nickel is 100 ug/L. Zinc was detected above background levels (60.9 ug/L) during the April and July 2005 sampling events at concentrations of 68.8 and 87 ug/L respectively. Heptachlor epoxide was detected only for the October sampling event at a concentration of 0.038 ug/L. The MCL for this compound is 0.2 ug/L.

4.6.2 LL4mw-199

Arsenic was detected above the background level (11.7 ug/L) during the July and October 2005 sampling events at concentrations of 13.9 and 12.7 ug/L respectively. The MCL for arsenic is 50 ug/L, and effective January 1, 2006 will be 10 ug/L. Barium was detected above the background level of 82.1 ug/L during all 2005 sampling events at concentrations ranging from 91.1 to 95.7 ug/L.

4.7 LOAD LINE 11

4.7.1 LL11mw-002

Heptachlor was detected only for the April sampling event at a concentration of 0.087 ug/L. The MCL for this compound is 0.4 ug/L.

4.7.2 LL11mw-007

Arsenic was detected above the background level (11.7 ug/L) during the April and July 2005 sampling events at concentrations of 18 and 18.1 ug/L respectively. The MCL for arsenic is 50 ug/L, and effective January 1, 2006 will be 10 ug/L. Barium was detected above the background level of 82.1 ug/L during the April and July 2005 sampling events at concentrations ranging from 85 to 86.7 ug/L. Aluminum was detected above the reporting limit only for the October 2005 sampling event at a concentration of 228 ug/L.

4.8 LOAD LINE 12

4.8.1 LL12mw-153

Arsenic was detected above the background level (11.7 ug/L) for all sampling events at concentrations ranging from 12 and 24 ug/L. The MCL for arsenic is 50 ug/L, and effective January 1, 2006 will be 10 ug/L. 4,4-DDT was detected at a concentration of 0.051 ug/L for both the April and July 2005 sampling events. Heptachlor was detected only for the April sampling event at a concentration of 0.17 ug/L. The MCL for this compound is 0.4 ug/L.

4.8.2 LL12mw-182

Arsenic was detected above the background level (11.7 ug/L) for all sampling events at concentrations ranging from 21 and 53 ug/L. The MCL for arsenic is 50 ug/L, and effective January 1, 2006 will be 10 ug/L. Barium was detected above the background level of 82.1 ug/L during all sampling events except the October 2005 sampling event at concentrations ranging from 87.8 to 115 ug/L. Phenol

was detected only for the April 2005 sampling event at a concentration of 6.8 ug/L.

4.8.3 LL12mw-183

Arsenic was detected above the background level (11.7 ug/L) for all sampling events at concentrations ranging from 17 and 48.2 ug/L. The MCL for arsenic is 50 ug/L, and effective January 1, 2006 will be 10 ug/L.

4.8.4 LL12mw-186

The pesticide 4,4-DDT was detected at a concentration of 0.087 ug/L for the July 2005 sampling event. Heptachlor epoxide was detected only for the October sampling event at a concentration of 0.053 ug/L. The MCL for this compound is 0.2 ug/L.

4.9 CENTRAL BURN PITS

4.9.1 CBPmw-005

Arsenic was detected above the background level (11.7 ug/L) for all sampling events at concentrations ranging from 16.4 and 24.2 ug/L. The MCL for arsenic is 50 ug/L, and effective January 1, 2006 will be 10 ug/L. Heptachlor was detected only for the July sampling event at a concentration of 0.085 ug/L. The MCL for this compound is 0.4 ug/L.

4.9.2 CBPmw-007

Arsenic was detected above the background level (11.7 ug/L) for only the April 2005 sampling events at concentration of 25.1 ug/L. The MCL for arsenic is 50 ug/L, and effective January 1, 2006 will be 10 ug/L.

4.10 RAMSDELL QUARRY

4.10.1 RQLmw-007

Arsenic was detected for all sampling events at concentrations ranging from 8.9 to 76.1 ug/L. The MCL for arsenic is 50 ug/L, and effective January 1, 2006 will be 10 ug/L. Manganese was detected above the background level of 1020 ug/L for all sampling events at concentrations ranging from 1180 to 4570 ug/L.

4.10.2 RQLmw-008

The explosive 1,3,5-trinitrobenzene was detected only for the October 2005 sampling event at a concentration of 0.32 ug/L. Arsenic was detected for all sampling events at concentrations ranging from 14.3 to 59 ug/L. The MCL for arsenic is 50 ug/L, and effective January 1, 2006 will be 10 ug/L. Manganese was detected above the background level of 1340 ug/L for several sampling events in 1998 and 1999, and for the October 2005 sampling event.

4.10.3 RQLmw-009

Manganese was detected above the background level of 1340 ug/L for several sampling events in 1998 and 1999, and for the October 2005 sampling event.

4.11 WINKLEPECK BURNING GROUNDS

4.11.1 WBGmw-006

The explosives HMX and RDX were detected for all sampling events. HMX was detected at concentrations ranging from 11 to 17 ug/L, and RDX was detected at concentrations ranging from 32 to 74 ug/L. The SVOCs fluoranthene, fluorene, hexachlorobenzene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, pyrene, and di-n-octyl phthalate were all detected for only the April 2005 sampling event. The pesticide gamma-BHC (Lindane) was detected for the April and October sampling events at concentrations of 0.038 and 0.049 respectively.

4.11.2 WBGmw-007

Aluminum was detected only for the July 2005 sampling event at a concentration of 797 ug/L.

4.11.3 WBGmw-009

The explosives HMX and RDX were detected for all sampling events. HMX was detected at concentrations ranging from 0.5 to 2.3 ug/L, and RDX was detected at concentrations ranging from 1.1 to 13 ug/L. Aluminum was detected above the reporting limit only for the July 2005 sampling event at a concentration of 274 ug/L. Barium was detected above the background level (82.1 ug/L) only for the October 2005 sampling event at a concentration of 89.6 ug/L.

5.0 FWGWMP ANNUAL ASSESSMENTS

5.1 EVALUATION OF CONTAMINANT TRENDS IN GROUNDWATER

The majority of FWGWMP monitoring wells have been sampled only four times; an initial sampling after installation, and the three sampling events for 2005. The contaminant trends in groundwater cannot be fully evaluated based on the limited data obtained for these wells to date. According to Ohio EPA guidelines, at least eight sampling events are required to perform a meaningful statistical analysis of the data. There may be some trends developing as is shown on the time-trend plots (Appendix F) and discussed in Section 4.0, but additional data is needed to further evaluate these trends for significance. Table 5-1 presents a summary of the constituents that were detected during the 2005 sampling events. In Table 5-1, the organic constituents detected above reporting limits are depicted by a shaded box. Inorganic constituents that were detected, but are below facility wide background levels are in italics. Inorganic constituents detected above facility wide background levels are in bold. A recommendation for further data collection is discussed in Section 6.2.

5.2 ASSESSMENT OF GROUNDWATER REMEDIAL ACTION EFFECTIVENESS

Groundwater remedial actions have not been performed to date at RVAAP and therefore will not be discussed in this report.

Table 5-1 Summary of Constituents Detected in 2005

Area	Well Number	Monitoring Zone	Compound or Element Detected	April 2005 Level (ug/L)	July 2005 Level (ug/L)	October 2005 Level (ug/L)	MCL (ug/L)	Region 9 PRG (ug/L)	RVAAP Facility-wide Background for Inorganic Constituents (filtered)(ug/L)
Background Wells	BKGmw-004	Unconsolidated	aluminum	200 U	**644**	200 U	NS	36000	0
			barium	*20.1*	*23.6*	*22.3*	2000	2600	82.1
			cadmium	0.42 B	10 U	10 U	5	NS	0
			calcium	*20400*	*22600*	*21500*	NS	NS	115000
			chromium, total	2.0 B	20 U	20 U	100	NS	7.3
			magnesium	*6350*	*7160*	*7240*	NS	NS	43300
			manganese	100 U	0.99 B,J	0.4 B	50	880	1020
			mercury	0.038 B	0.2 U	0.2 U	2	11	0
			potassium	*673*	*739 B,J*	*710 B*	NS	NS	2890
			bis(2-ethylhexyl)phthalate	1.3 B	3.8 B	1.6 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.0 U	1.4 B	NS	NS	*
			sodium	*12000*	*17200*	*13200*	NS	NS	45700
			heptachlor epoxide	0.022 J	0.03 U	0.03 U	0.2	0.0074	*
			methoxychlor	0.086 J,B	0.1 U	0.1 U	40	180	*
			nitrocellulose	0.1 U	0.17 B	0.1 U	NS	NS	*
	BKGmw-005	Unconsolidated	nitrocellulose	0.5 U	0.23 B,J	0.5 U	NS	NS	*
			barium	*13.8*	*14.2*	*14.1*	2000	2600	82.1
			beryllium	10 U	0.45 B	10 U	4	NS	0
			calcium	*83800*	*92700*	*87400*	NS	NS	115000
			magnesium	*21500*	*19100*	*18900*	NS	NS	43300
			manganese	100 U	100 U	0.45 B	50	880	1020
			potassium	*308 B*	*703 B,J*	*1170 B*	NS	NS	2890
			sodium	*2950*	*7670*	*7880*	NS	NS	45700
			bis(2-ethylhexyl)phthalate	1.0 U	6.0 B	1.7 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	0.43 J	1.4 B	NS	NS	*
			methoxychlor	0.036 J,B	0.1 U	0.1 U	40	180	*
	BKGmw-006	Bedrock	nitrocellulose	0.5 U	0.16 B,J	0.5 U	NS	NS	*
			barium	*13*	*25*	*13.8*	2000	2600	256
			beryllium	10 U	0.32 B	10 U	4	NS	0
			calcium	*64400*	*70700*	*78700*	NS	NS	115000
			iron	66.8 B	1000 U	36.5 B	30	10000	1430
			magnesium	**18900**	**20100**	**26700**	NS	NS	15000
			manganese	*146*	85.4 B	*403 J*	50	880	1340
			mercury	0.039 B,J	0.2 U	0.2 U	2	11	0
			nickel	20 U	2.0 B	20 U	100	730	83.4
			potassium	*1700 B*	*3070 B,J*	*1440 B*	NS	NS	5770

Table 5-1 Summary of Constituents Detected in 2005

Area	Well Number	Monitoring Zone	Compound or Element Detected	April 2005 Level (ug/L)	July 2005 Level (ug/L)	October 2005 Level (ug/L)	MCL (ug/L)	Region 9 PRG (ug/L)	RVAAP Facility-wide Background for Inorganic Constituents (filtered)(ug/L)
Background Wells	BKGmw-006	Bedrock	sodium	*28800*	*31700*	*35300*	NS	NS	51400
			acetone	1.0 U	1.0 U	1.0 J	NS	5500	*
			bis(2-ethylhexyl)phthalate	0.72 J,B	2.0 B	2.4 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	0.71 J	1.5 B	NS	NS	*
			methoxychlor	0.035 J,B	0.1 U	0.1 U	40	180	*
	BKGmw-008	Bedrock	nitrocellulose	0.5 U	0.12 B	0.5 U	NS	NS	*
			antimony	8.0 B	100 U	100 U	6	15	0
			barium	5.3 B	5.5 B	4.7 B	2000	2600	256
			calcium	*29900*	*30200*	*24200*	NS	NS	115000
			magnesium	*11700*	*11600*	*9560*	NS	NS	15000
			manganese	100 U	100 U	21.8 B	50	880	1340
			mercury	0.034 B	0.2 U	0.2 U	2	11	0
			potassium	*414 B*	*499 B,J*	*508 B*	NS	NS	5770
			sodium	*9400*	*9810*	*8540*	NS	NS	51400
			thallium	1.0 U	1.0 U	0.029 B	2	2	0
			acetone	1.0 U	1.0 J	1.0 U	NS	5500	*
			bis(2-ethylhexyl)phthalate	1.2 B	15 B	2.5 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.0 U	1.7 B	NS	NS	*
			methoxychlor	0.045 J,B	0.1 U	0.1 U	40	180	*
	BKGmw-010	Bedrock	nitrocellulose	0.12 B	0.5 U	0.5 U	NS	NS	*
			tetryl	0.1 U	0.1 U	0.079 J	NS	360	*
			aluminum	140 B	85.3 B	82.2 B	NS	36000	0
			barium	*18*	*10.2*	*14.3*	2000	2600	256
			calcium	*11900*	*12100 J*	*11400*	NS	NS	115000
			magnesium	**15000**	*13600*	*13800*	NS	NS	15000
			manganese	*918*	69.8 B	40.4 B	50	880	1340
			nickel	*82.6*	16.9 B	10.7 B	100	730	83.4
			potassium	*600 B*	*783 B,J*	*754 B*	NS	NS	5770
			sodium	*3870*	*4080*	*3720*	NS	NS	51400
			zinc	100 U	7.3 B	100 U	5000	11000	52.3
			toluene	0.25 J	1.0 U	1.0 U	1000	720	*
			benzoic acid	NT	NT	5.4 B	NS	150000	*
			bis(2-ethylhexyl)phthalate	1.6 B	20 B	1.3 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	0.76 J	1.4 B	NS	NS	*
			methoxychlor	0.042 J,B	0.1 U	0.1 U	40	180	*

Table 5-1 Summary of Constituents Detected in 2005

Area	Well Number	Monitoring Zone	Compound or Element Detected	April 2005 Level (ug/L)	July 2005 Level (ug/L)	October 2005 Level (ug/L)	MCL (ug/L)	Region 9 PRG (ug/L)	RVAAP Facility-wide Background for Inorganic Constituents (filtered)(ug/L)
Background Wells	BKGmw-012	Bedrock	barium	*187*	*227*	**315**	2000	2600	256
			cadmium	0.31 B	10 U	10 U	5	NS	0
			calcium	*19500*	*22600*	*34100*	NS	NS	115000
			magnesium	*6780*	*7160*	*11000*	NS	NS	15000
			manganese	**1905 B**	0.99 B,J	52.6 B,J	50	880	1340
			mercury	0.03 B	0.2 U	0.2 U	2	11	0
			potassium	*4710*	*3870 B,J*	*5440*	NS	NS	5770
			sodium	**56900**	*46000*	*38900*	NS	NS	51400
			nitrocellulose	0.5 U	0.12 B,J	0.16 B	NS	NS	*
			tetryl	0.089 J	0.1 U	0.1 U	NS	360	*
			benzyl butyl phthalate	1.0 U	1.0 U	1.6 B	NS	7300	*
			diethyl phthalate	1.0 U	0.47 J,B	1.0 U	NS	NS	*
			bis(2-ethylhexyl)phthalate	1.5 B	16 B	14 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	0.76 J	1.4 B	NS	NS	*
			di-n-octyl phthalate	1.0 U	1.0 U	1.8	NS	1500	*
			carbon disulfide	1.0 U	1.0 U	0.59 J	NS	1000	*
			toluene	0.22 J	1.0 U	1.0 U	1000	720	*
			heptachlor	0.0076 J	0.03 U	0.03 U	0.4	0.015	*
			methoxychlor	0.041 J,B	0.1 U	0.1 U	40	180	*
	BKGmw-013	Unconsolidated	nitrocellulose	0.5 U	0.24 B,J	0.5 U	NS	NS	*
			arsenic	*10.2*	8.4 B	**11.7**	50**	0	11.7
			barium	**83.6**	*75.9*	*78.7*	2000	2600	82.1
			beryllium	10 U	0.3 B	10 U	4	NS	0
			calcium	*73900*	*69700*	*74500*	NS	NS	115000
			iron	712 B	844 B	998 B	30	10000	279
			magnesium	*24200*	*22900*	*25100*	NS	NS	43300
			manganese	*388*	*380*	*394*	50	880	1020
			mercury	0.03 B,J	0.2 U	0.2 U	2	11	0
			potassium	*2310 B*	*1590 B,J*	*2030 B*	NS	NS	5770
			sodium	*11800*	*10900*	*11800*	NS	NS	51400
			benzyl butyl phthalate	1.0 U	0.41 J,B	1.0 U	NS	7300	*
			diethyl phthalate	1.0 U	0.64 J	1.0 U	NS	NS	*
			bis(2-ethylhexyl)phthalate	1.0 U	3.3 B	3.8 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	0.59 J	1.4 B	NS	NS	*
			di-n-octyl phthalate	1.0 U	0.77 J	1.0 U	NS	1500	*
			methoxychlor	0.032 J,B	0.1 U	0.1 U	40	180	*

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Area	Well Number	Monitoring Zone	Compound or Element Detected	April 2005 Level (ug/L)	July 2005 Level (ug/L)	October 2005 Level (ug/L)	MCL (ug/L)	Region 9 PRG (ug/L)	RVAAP Facility-wide Background for Inorganic Constituents (filtered)(ug/L)
Background Wells	BKGmw-015	Bedrock	nitrocellulose	0.5 U	0.13 B,J	0.5 U	NS	NS	*
			barium	**259**	*244*	**262**	2000	2600	256
			calcium	*29000*	*28700*	*30200*	NS	NS	115000
			magnesium	*11800*	*11600*	*12900*	NS	NS	15000
			manganese	60.1 B	45.7 B	9.4 B	50	880	1340
			nickel	20 U	1.7 B	304 B	100	730	83.4
			potassium	*5360*	*4580 B,J*	*5340*	NS	NS	5770
			sodium	*12400*	*11900*	*12400*	NS	NS	51400
			thallium	1.0 U	0.036 B	1.0 U	2	2	0
			vanadium	0.82 B	20 U	20 U	NS	36	0
			zinc	100 U	29.8 B	100 U	5000	11000	52.3
			benzyl butyl phthalate	1.0 U	0.42 J,B	1.0 U	NS	7300	*
			diethyl phthalate	1.0 U	0.78 J	1.0 U	NS	NS	*
			bis(2-ethylhexyl)phthalate	0.88 J,B	2.7 B	1.9 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	0.91 J	1.4 B	NS	NS	*
			methoxychlor	0.066 J,B	0.1 U	0.1 U	40	180	*
			endosulfan sulfate	0.03 U	0.023 J	0.03 U	NS	NS	*
			PCB 1242	1.0 U	9	1.0 U	0.5	0.034	*
			PCB 1260	1.0 U	6.7	1.0 U	0.5	0.034	*
			4,4-DDT	0.03 U	0.038	0.03 U	NS	0.2	*
			heptachlor	0.03 U	0.0094 J	0.03 U	0.4	0.015	*
			dieldrin	0.03 U	0.053	0.03 U	NS	0.0023	*
			toxaphene	2.0 U	5.3	2.0 U	3	0.061	*
			endrin aldehyde	0.03 U	0.037	0.03 U	NS	11	*
	BKGmw-016	Unconsolidated	nitrocellulose	0.5 U	0.18 B,J	0.5 U	NS	NS	*
			aluminum	29.8 B	200 U	200 U	NS	36000	0
			barium	*13.4*	*13.2*	*14.8*	2000	2600	82.1
			beryllium	10 U	0.3 B	10 U	4	NS	0
			calcium	*9260*	*8490*	*9450*	NS	NS	115000
			chromium, total	2.4 B	20 U	20 U	100	NS	7.3
			magnesium	*4200*	*3880*	*4760*	NS	NS	15000
			manganese	11.1 B	22.6 B	20 B	50	880	1340
			nickel	4.3 B	2.9 B	2.5 B	100	730	83.4
			potassium	*672 B*	*682 B,J*	*634 B*	NS	NS	5770
			silver	0.78 B	20 U	20 U	100	180	0
			sodium	*2670*	*2550*	*3620*	NS	NS	51400
			zinc	100 U	7.9 B	100 U	5000	11000	60.9

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Background Wells	BKGmw-016		benzyl butyl phthalate	1.0 U	0.33 J,B	1.0 U	NS	7300	*
			diethyl phthalate	1.0 U	1.0 U	0.52 J	NS	NS	*
			bis(2-ethylhexyl)phthalate	0.62 J,B	2.7 B	2.8 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.0 U	1.8 B	NS	NS	*
			methoxychlor	0.059 J,B	0.1 U	0.1 U	40	180	*
	BKGmw-017	Unconsolidated	arsenic	**12.7**	**14.7**	**18.6**	50**	0	11.7
			barium	*50*	*30.7*	*30.9*	2000	2600	82.1
			calcium	*10300*	*105000*	*10200*	NS	NS	115000
			iron	755 B	707 B	1410	30	10000	279
			magnesium	**53900**	**43300**	**43800**	NS	NS	15000
			manganese	*202*	*208*	*197*	50	880	1340
			potassium	*4520 B*	*1990 B,J*	*2490 B*	NS	NS	5770
			sodium	*23800*	*21800*	*21800*	NS	NS	51400
			benzyl butyl phthalate	1.0 U	1.0 U	1.6 B	NS	7300	*
			diethyl phthalate	1.0 U	1.0 U	0.44 J	NS	NS	*
			bis(2-ethylhexyl)phthalate	7.2 B	2.5 B	22 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.0 U	1.7 B	NS	NS	*
			di-n-octyl phthalate	1.2	1.0 U	1.6	NS	1500	*
			methoxychlor	0.041 J,B	0.1 U	0.1 U	40	180	*
			1,3,5-trinitrobenzene	0.015 J	0.1 U	0.1 U			
	BKGmw-018	Bedrock	nitrocellulose	0.5 U	0.15 B,J	0.5 U	NS	NS	*
			barium	*15.4*	*21.5*	*20.9*	2000	2600	256
			calcium	*35800*	*61100*	*54000*	NS	NS	115000
			iron	1000 U	1000 U	106 B	30	10000	1430
			magnesium	*3750*	*6080*	*5730*	NS	NS	15000
			manganese	100 U	*119*	*229*	50	880	1340
			mercury	0.066 B,J	0.2 U	0.2 U	2	11	0
			potassium	*1070 B*	*854 B,J*	*1190 B*	NS	NS	5770
			sodium	*2140*	*1370*	*1930*	NS	NS	51400
			benzoic acid	NT	NT	5.3 J	NS	150000	*
			bis(2-ethylhexyl)phthalate	1.0 U	1.6 B	1.7 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.0 U	1.4 B	NS	NS	*
			methoxychlor	0.062 J,B	0.1 U	0.1 U	40	180	*
	BKGmw-019	Unconsolidated	nitrocellulose	0.5 U	0.14 B,J	0.5 U	NS	NS	*
			barium	*39.5*	*40*	*45*	2000	2600	82.1
			calcium	*11100*	*114000*	*110000*	NS	NS	115000
			iron	50.3 B	1000 U	78.8 B	30	10000	279

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Area	Well Number	Monitoring Zone	Compound or Element Detected	April 2005 Level (ug/L)	July 2005 Level (ug/L)	October 2005 Level (ug/L)	MCL (ug/L)	Region 9 PRG (ug/L)	RVAAP Facility-wide Background for Inorganic Constituents (filtered)(ug/L)
Background Wells	BKGmw-019		magnesium	*31400*	*32600*	*31600*	NS	NS	15000
			manganese	61.8 B	*118*	*202 J*	50	880	1340
			potassium	*1780 B*	*1330 B,J*	*1440 B*	NS	NS	5770
			sodium	*7990*	*9860*	*9550*	NS	NS	51400
			benzyl butyl phthalate	1.0 U	0.35 B,J	1.0 U	NS	7300	*
			bis(2-ethylhexyl)phthalate	1.0 U	8.3 B	1.7 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.0 U	1.4 B	NS	NS	*
			methoxychlor	0.042 J,B	0.1 U	0.1 U	40	180	*
	BKGmw-020	Bedrock	1,3,5-trinitrobenzene	0.62 J	0.1 U	0.1 U			
			nitrocellulose	0.5 U	0.16 B	0.5 U	NS	NS	*
			tetryl	0.07 J	0.1 U	0.1 U			
			barium	*164*	*141*	*135*	2000	2600	256
			calcium	*50900*	*49900*	*47400*	NS	NS	115000
			iron	**2060**	**2550 J**	**2550**	30	10000	1430
			magnesium	**15400**	**15100**	**15100**	NS	NS	15000
			manganese	*599*	*693 J*	*695*	50	880	1340
			mercury	0.044 B	0.2 U	0.2 U	2	11	0
			potassium	*3230 B*	*2390 B,J*	*2920 B*	NS	NS	5770
			sodium	*8460*	*7720*	*7630*	NS	NS	51400
			benzene	1.0 U	1.0 U	0.23 J	5	0.35	*
			carbon disulfide	1.0 U	1.0 U	1.6	NS	1000	*
			benzoic acid	NT	NT	5.5 J	NS	150000	*
			benzyl butyl phthalate	1.0 U	1.0 U	1.5 B	NS	7300	*
			diethyl phthalate	1.2	1.0 U	0.75 J	NS	NS	*
			bis(2-ethylhexyl)phthalate	1.1 B	6.4 B	7.7 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.0 U	1.9 B	NS	NS	*
			methoxychlor	0.039 J,B	0.1 U	0.1 U	40	180	*
	BKGmw-021	Unconsolidated	barium	*27.2*	*39.1*	*38.9*	2000	2600	82.1
			calcium	*80900*	*84900*	*77400*	NS	NS	115000
			magnesium	**50500**	**46200**	**49400**	NS	NS	15000
			manganese	100 U	0.89 B,J	100 U	50	880	1340
			potassium	*679 B*	*927 B,J*	*1070 B*	NS	NS	5770
			sodium	*16000*	*12600*	*10200*	NS	NS	51400
			bis(2-ethylhexyl)phthalate	1.1 B	4.2 B	2.0 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.0 U	2.1 B	NS	NS	*
			methoxychlor	0.053 J,B	0.1 U	0.1 U	40	180	*

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Load Line 1	LL1mw-078	Bedrock	RDX	0.1 U	0.1 U	0.17 PG	NS	0.61	*
			1,3-dinitrobenzene	0.05 J	0.1 U	0.1 U	NS	3.6	*
			nitrocellulose	0.5 U	0.14 B,J	0.5 U	NS	NS	*
			barium	27.2	7.3 B	8 B	2000	2600	256
			cadmium	0.3 B	10 U	10 U	5	NS	0
			calcium	*55000*	*53400*	*57100*	NS	NS	115000
			cobalt	1.1 B	20 U	20 U	NS	730	0
			magnesium	*7380*	*7190*	*8190*	NS	NS	15000
			manganese	1.2 B	1.5 B	1.9 B	50	880	1340
			potassium	*2550 B*	*2000 B,J*	*2540 B*	NS	NS	5770
			sodium	*5450*	*5110*	*5260*	NS	NS	51400
			thallium	0.059 B	0.066 B	0.053 B	2	2	0
			vanadium	0.8 B	20 U	20 U	NS	36	0
			benzyl butyl phthalate	1.0 U	0.4 J,B	1.5	NS	7300	*
			diethyl phthalate	0.46 J	0.46 J	1.0 U	NS	NS	*
			bis(2-ethylhexyl)phthalate	1.2 B	2.7 B	2.8 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	0.45 J,B	1.5 B	NS	NS	*
			methoxychlor	0.062 J,B	0.1 U	0.1 U	40	180	*
			4,4-DDT	0.03 U	0.097 PG	0.03 U	NS	0.2	*
	LL1mw-080	Bedrock	RDX	5.3	39	58	NS	0.61	*
			HMX	1	5	9.5	NS	1800	*
			1,3,5-trinitrobenzene	0.61	0.9	2.7	NS	1100	*
			1,3-dinitrobenzene	0.019 J	0.046 J	0.91	NS	3.6	*
			2,4,6-trinitrotoluene	0.26	0.42	2.2	NS	2.2	*
			2,4-dinitrotoluene	0.1 U	0.087 J	0.65	NS	73	*
			2,6-dinitrotoluene	0.1 U	0.097 J	0.68	NS	36	*
			2-amino-4,6-dinitrotoluene	1.6	4.3	8.6	NS	NS	*
			4-amino-2,6-dinitrotoluene	3.1	6.3	11	NS	NS	*
			nitrocellulose	0.5 U	0.17 B,J	0.5 U	NS	NS	*
			barium	3.3 B	*12.4*	*17.9*	2000	2600	256
			calcium	*32100*	*114000*	*97000*	NS	NS	115000
			magnesium	*2230*	*4900*	*4660*	NS	NS	15000
			manganese	100 U	79.7 B	*860*	50	880	1340
			nickel	20 U	20 U	3.3 B	100	730	83.4
			potassium	*1400 B*	*1720 B,J*	*3450 B*	NS	NS	5770
			sodium	*1220*	*1530*	*2440*	NS	NS	51400
			thallium	1.0 U	0.046 B	0.39 B	2	2	0
			toluene	5	1.0 U	1.0 U	1000	720	*

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Area	Well Number	Monitoring Zone	Compound or Element Detected	April 2005 Level (ug/L)	July 2005 Level (ug/L)	October 2005 Level (ug/L)	MCL (ug/L)	Region 9 PRG (ug/L)	RVAAP Facility-wide Background for Inorganic Constituents (filtered)(ug/L)
Load Line 1	LL1mw-080		benzyl butyl phthalate	1.0 U	0.41 J,B	1.5 B	NS	7300	*
			diethyl phthalate	1.0 U	1.0 U	0.45 J	NS	NS	*
			bis(2-ethylhexyl)phthalate	1.4 B	4.6 B	10 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.4 B	1.6 B	NS	NS	*
			di-n-octyl phthalate	1.0 U	0.81 J	1.0 U	NS	1500	*
			beta-BHC	0.029 J	0.03 U	0.03 U	NS	0.032	*
			heptachlor epoxide	0.6	0.03 U	2.8	0.2	0.0074	*
			methoxychlor	0.040 J,B	0.1 U	0.1 U	40	180	*
	LL1mw-083	Bedrock	RDX	0.1 U	0.36 AA	0.32 J	NS	0.61	*
			HMX	0.1 U	0.1 U	0.44 J	NS	1800	*
			1,3,5-trinitrobenzene	5.6	7.2	6.8	NS	1100	*
			1,3-dinitrobenzene	0.24 J	0.23	0.5 U	NS	3.6	*
			2,4,6-trinitrotoluene	5.7	7.7	6.8	NS	2.2	*
			2,4-dinitrotoluene	2.4	3.5	4.3	NS	73	*
			2,6-dinitrotoluene	1.2	1.5 J	1.8	NS	36	*
			2-amino-4,6-dinitrotoluene	16	22	21	NS	NS	*
			4-amino-2,6-dinitrotoluene	24	30	23	NS	NS	*
			aluminum	**623**	**733**	**670**	NS	36000	0
			barium	*15.4*	*15.4*	*15*	2000	2600	256
			beryllium	10 U	0.44 B	10 U	4	NS	0
			cadmium	0.38 B	10 U	0.64 B	5	NS	0
			calcium	*15400*	*14200*	*12600*	NS	NS	115000
			cobalt	5.6 B	7.2 B	9.8 B	NS	730	0
			copper	20 U	20 U	2.5 B	1300	1500	0
			cyanide	0.01 mg/L U	0.01 mg/L U	0.0033 mg/L B	200 mg/L	730 mg/L	*
			iron	1000 U	1000 U	**62.9 B**	30	10000	1430
			magnesium	*4090*	*4090*	*3630*	NS	NS	15000
			manganese	*364*	*391*	*352*	50	880	1340
			nickel	*20.7*	*23*	*26.5*	100	730	83.4
			potassium	*2830 B*	*2030 B,J*	*2340 B*	NS	NS	5770
			sodium	*14900*	*15400*	*17000*	NS	NS	51400
			thallium	0.042 B	0.047 B	0.059 B	2	2	0
			zinc	26.9 B	35.4 B	31.4 B	5000	11000	52.3
			nitrocellulose	0.5 U	0.2 B,J	0.21 B	NS	NS	*
			toluene	11	1.0 U	1.0 U	1000	720	*
			2,4-dinitrotoluene	1.7 J	2.2 J	3.1 J	NS	73	*
			2,6-dinitrotoluene	1.4 J	1.0 U	2.4 J	NS	36	*
			benzyl butyl phthalate	1.0 U	0.33 J,B	1.5 B	NS	7300	*
Load Line 1	LL1mw-083		bis(2-ethylhexyl)phthalate	1.3	3.3 B	2.3 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	0.82 J,B	1.5 B	NS	NS	*
			di-n-octyl phthalate	1.0 U	1.0 U	1.5	NS	1500	*
			heptachlor epoxide	0.03 U	0.03 U	4.6	0.2	0.0074	*
			Beta-BHC	0.03 U	0.086	0.03 U	NS	0.032	*
Load Line 2	LL2mw-059	Bedrock	1,3,5-trinitrobenzene	0.47	2.2	2.5	NS	1100	*
			1,3-dinitrobenzene	0.1 U	0.077 J	0.089 J	NS	3.6	*
			2,4,6-trinitrotoluene	0.1 U	0.057 J	0.1 U	NS	2.2	*
			2,4-dinitrotoluene	0.04 J	0.47	0.47	NS	73	*
			2-amino-4,6-dinitrotoluene	0.17	0.91	0.96	NS	NS	*

Table 5-1 Summary of Constituents Detected in 2005

Area	Well Number	Monitoring Zone	Compound or Element Detected	April 2005 Level (ug/L)	July 2005 Level (ug/L)	October 2005 Level (ug/L)	MCL (ug/L)	Region 9 PRG (ug/L)	RVAAP Facility-wide Background for Inorganic Constituents (filtered)(ug/L)
			4-amino-2,6-dinitrotoluene	0.16	0.87	0.91	NS	NS	*
			HMX	0.1 U	0.062 J	0.067 J	NS	1800	*
			nitrocellulose	0.5 U	0.15 B,J	0.5 U	NS	NS	*
			barium	*14.9*	*15.9*	*10.8*	2000	2600	256
			calcium	*59500*	*26900*	*22300*	NS	NS	115000
			cobalt	20 U	3.2 B	2.9 B	NS	730	0
			iron	1000 U	1000 U	42.8 B	30	10000	1430
			magnesium	*9400*	*7380*	*8070*	NS	NS	15000
			manganese	3.7 B	*281*	*339*	50	880	1340
			mercury	0.037 B	0.2 U	0.2 U	2	11	0
			nickel	20 U	3.1 B	5.1 B	100	730	83.4
			potassium	*660 B*	*624 B,J*	*805 B*	NS	NS	5770
			sodium	*11500*	*5180*	*5250*	NS	NS	51400
			thallium	1.0 U	1.0 U	0.034 B	2	2	0
			zinc	14.5 B	6.7 B	100 U	5000	11000	52.3
			toluene	0.21 J	1.0 U	1.0 U	1000	720	*
			2,4-dinitrotoluene	5.0 U	0.63 J	5.0 U	NS	73	*
			benzyl butyl phthalate	1.0 U	0.35 J,B	1.0 U	NS	7300	*
			bis(2-ethylhexyl)phthalate	4.5 B	4.0 B	4.1 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.0 U	1.5 B	NS	NS	*
			methoxychlor	0.042 J,B	0.1 U	0.1 U	40	180	*
			heptachlor	0.020 J	0.03 U	0.03 U	0.4	0.015	*
			heptachlor epoxide	0.097	0.03 U	0.46 PG	0.2	0.0074	*
			alpha chlordane	0.16	0.03 U	0.03 U	NS	NS	*
	LL2mw-262	Bedrock	nitrocellulose	0.5 U	0.17 B,J	0.5 U	NS	NS	*
			barium	*12.8*	*14.4*	*20.7*	2000	2600	256
			beryllium	10 U	0.32 B	10 U	4	NS	0
			calcium	*37900*	*42000*	*65000*	NS	NS	115000

Table 5-1 Summary of Constituents Detected in 2005

Area	Well Number	Monitoring Zone	Compound or Element Detected	April 2005 Level (ug/L)	July 2005 Level (ug/L)	October 2005 Level (ug/L)	MCL (ug/L)	Region 9 PRG (ug/L)	RVAAP Facility-wide Background for Inorganic Constituents (filtered)(ug/L)
Load Line 2	LL2mw-262		cobalt	20 U	2.4 B	23.5	NS	730	0
			magnesium	**28200**	**30900**	**38500**	NS	NS	15000
			manganese	*216*	*284*	**1950**	50	880	1340
			nickel	11.2 B	14.5 B	*25.8*	100	730	83.4
			potassium	*1780 B*	*1760 B,J*	*2560 B*	NS	NS	5770
			sodium	*9240*	*8950*	*8590*	NS	NS	51400
			benzyl butyl phthalate	1.0 U	1.0 U	1.5 B	NS	7300	*
			diethyl phthalate	1.0 U	1.0 U	0.6 J	NS	NS	*
			bis(2-ethylhexyl)phthalate	1.0 U	1.8 B	2.7 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	0.47 J	1.8 B	NS	NS	*
			di-n-octyl phthalate	1.0 U	0.74 J	1.0 U	NS	1500	*
			methoxychlor	0.033 J,B	0.1 U	0.1 U	40	180	*
	LL2mw-263	Bedrock	arsenic	**11.8**	**15.7**	**17**	50**	0	0
			barium	*15.3*	*18.4*	*22.2*	2000	2600	256
			calcium	*25900*	*29400*	*31800*	NS	NS	115000
			cobalt	2.5 B	2.7 B	2.3 B	NS	730	0
			iron	**4150**	**4340 J**	**4560**	30	10000	1430
			magnesium	*11200*	*12600*	*14400*	NS	NS	15000
			manganese	*1130*	*1280 J*	*1200*	50	880	1340
			nickel	5.6 B	3.5 B	4.8 B	100	730	83.4
			potassium	*564 B*	*642 B,J*	*810 B*	NS	NS	5770
			sodium	*4270*	*4180*	*4600*	NS	NS	51400
			benzyl butyl phthalate	1.0 U	1.0 U	1.5 B	NS	7300	*
			bis(2-ethylhexyl)phthalate	1.2 B	11 B	2.6 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.0 U	1.7 B	NS	NS	*
			methoxychlor	0.025 J,B	0.1 U	0.1 U	40	180	*
Load Line 3	LL3mw-238	Bedrock	RDX	0.1 U	9.1	8.2	NS	0.61	*
			HMX	0.1 U	1.5	2.2	NS	1800	*
			1,3,5-trinitrobenzene	38	65	49	NS	1100	*
			2,4,6-trinitrotoluene	89	130	110	NS	2.2	*
			2,4-dinitrotoluene	0.1	0.19	1.0 U	NS	73	*
			2,6-dinitrotoluene	0.74	0.92	1.0 U	NS	36	*
			2-amino-4,6-dinitrotoluene	13	8.8	13	NS	NS	*
			4-amino-2,6-dinitrotoluene	27	26	41	NS	NS	*
			4-nitrotoluene	0.5 U	0.28 J, PG	5.0 U	NS	0.66	*
			nitrocellulose	0.5 U	0.13 B,J	0.5 U	NS	NS	*
			tetryl	0.1 U	0.1 U	1.5	NS	360	*
			barium	5.3 B	4.4 B	6.7 B	2000	2600	256

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Load Line 3	LL3mw-238		calcium	*37000*	*30500 J*	*37800*	NS	NS	115000
			magnesium	*4080*	*5640*	*4080*	NS	NS	15000
			manganese	100 U	0.52 B	1.3 B	50	880	1340
			potassium	*1830 B*	*1540 B,J*	*2350 B*	NS	NS	5770
			sodium	*1940*	*1140*	*2190*	NS	NS	51400
			toluene	0.22 J	1.0 U	1.0 U	1000	720	*
			2,6-dinitrotoluene	5.0 U	5.0 U	1.8 J	NS	36	*
			diethyl phthalate	1.0 U	0.54 J,B	1.0 U	NS	NS	*
			bis(2-ethylhexyl)phthalate	1.2 B	11 B	2.6 B	NS	4.8	*
			Beta-BHC	0.14 J	0.28	0.6 U	NS	0.032	*
			4,4-DDE	0.03 U	0.035	0.6 U	NS	0.2	*
			delta-BHA	0.03 U	0.046	0.6 U	NS	NS	*
			endosulfan I	0.03 U	0.035	0.6 U	NS	0.022	*
			heptachlor epoxide	9.3	0.03 U	13	0.2	0.0074	*
	LL3mw-242	Bedrock	1,3,5-trinitrobenzene	0.028 J	0.1 U	0.1 U	NS	1100	*
			2,4,6-trinitrotoluene	0.079 J	0.025 J	0.1 U	NS	2.2	*
			nitrocellulose	0.5 U	0.13 B,J	0.5 U	NS	NS	*
			aluminum	24.8 B	200 U	200 U	NS	36000	0
			barium	7.8 B	9.5 B	5.2 B	2000	2600	256
			calcium	*10900*	*15100 J*	*17300*	NS	NS	115000
			iron	88.5 B	1000 U	1000 U	30	10000	1430
			magnesium	*5520*	*6370*	*7070*	NS	NS	15000
			manganese	5.7 B	*314*	*157*	50	880	1340
			nickel	6.1 B	16.3 B	5.2 B	100	730	83.4
			potassium	*820 B*	*901 B,J*	*1180 B*	NS	NS	5770
			selenium	10 U	3.0 B	10 U	50	180	0
			sodium	*8030*	*10900*	*12300*	NS	NS	51400
			zinc	100 U	12.3 B	100 U	5000	11000	52.3
			toluene	0.26 J	1.0 U	1.0 U	1000	720	*
			diethyl phthalate	1.0 U	1.0 U	0.58 J	NS	NS	*
			bis(2-ethylhexyl)phthalate	0.53 J,B	3.8 B	2.1 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.0 U	1.9 B	NS	NS	*
			methoxychlor	0.043 J,B	0.1 U	0.1 U	40	180	*
			heptachlor epoxide	0.051	0.03 U	0.038	0.2	0.0074	*

Table 5-1 Summary of Constituents Detected in 2005

Area	Well Number	Monitoring Zone	Compound or Element Detected	April 2005 Level (ug/L)	July 2005 Level (ug/L)	October 2005 Level (ug/L)	MCL (ug/L)	Region 9 PRG (ug/L)	RVAAP Facility-wide Background for Inorganic Constituents (filtered)(ug/L)
Load Line 4	LL4mw-198	Unconsolidated	barium	9.8 B	9.4 B	*12.3*	2000	2600	82.1
			calcium	*23000*	*26200*	*24800*	NS	NS	115000
			iron	**2700**	**2770 J**	**4100**	30	10000	279
			magnesium	*10200*	*11500*	*11500*	NS	NS	43300
			manganese	*929*	*828 J*	***1070***	50	880	1020
			mercury	0.05 B	0.2 U	0.2 U	2	11	0
			nickel	***20.3***	***24.4***	19 B	100	730	0
			potassium	*1350 B*	*1070 B,J*	*1330 B*	NS	NS	2890
			sodium	*9420*	*9880*	*10900*	NS	NS	45700
			zinc	68.8 B	87.0 B,J	56.7 B	5000	11000	60.9
			bis(2-ethylhexyl)phthalate	1.2 B	4.8 B	1.4 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.0 U	1.4 B	NS	NS	*
			methoxychlor	0.034 J,B	0.1 U	0.1 U	40	180	*
			heptachlor epoxide	0.0065 J	0.03 U	0.069	0.2	0.0074	*
	LL4mw-199	Unconsolidated	nitrocellulose	0.5 U	0.12 B	0.5 U	NS	NS	*
			arsenic	*11.5*	**13.9**	**12.7**	50**	0	11.7
			barium	**91.1**	**95.1**	**95.7**	2000	2600	82.1
			calcium	*75800*	*76700*	*77800*	NS	NS	115000
			iron	***1060***	***1570 J***	***1190***	30	10000	279
			magnesium	*20100*	*20200*	*21000*	NS	NS	43300
			manganese	*424*	*323 J*	*457*	50	880	1020
			potassium	*1440 B*	*1160 B,J*	*1440 B*	NS	NS	2890
			sodium	*9180*	*9300*	*9340*	NS	NS	45700
			bis(2-ethylhexyl)phthalate	0.95 J,B	2.8 B	2.0 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.0 U	1.4 B	NS	NS	*
			heptachlor epoxide	0.03 U	0.03 U	0.022 J	0.2	0.0074	*
			methoxychlor	0.067 J,B	0.1 U	0.1 U	40	180	*
Load Line 11	LL11mw-002	Unconsolidated	nitrocellulose	0.12 B	0.5 U	0.5 U	NS	NS	*
			barium	*26.3*	*30.9*	*29*	2000	2600	82.1
			cadmium	0.32 B	10 U	10 U	5	NS	0
			calcium	*94300*	*92700*	*94000*	NS	NS	115000
			magnesium	*29200*	*30100*	*30500*	NS	NS	43300
			manganese	*259*	*394 J*	*611 J*	50	880	1020
			mercury	0.035 B	0.2 U	0.2 U	2	11	0
			potassium	*1420 B*	*2060 B,J*	*1990 B*	NS	NS	2890
			sodium	*8100*	*12300*	*9640*	NS	NS	45700
			zinc	16.9 B	8.4 B,J	100 U	5000	11000	60.9
			bis(2-ethylhexyl)phthalate	3.1 B	3.1 B	2.4 B	NS	4.8	*

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Load Line 11	LL11mw-002		di-n-butyl phthalate	1.0 U	0.56 J	1.5 B	NS	NS	*
			Beta-BHC	0.03 U	0.029 J	0.03 U	NS	0.032	*
			methoxychlor	0.040 J,B	0.1 U	0.1 U	40	180	*
			heptachlor	0.087	0.03 U	0.03 U	0.4	0.015	*
	LL11mw-007	Unconsolidated	nitrocellulose	0.12 B	0.5 U	0.5 U	NS	NS	*
			arsenic	**18**	**18.1**	7.1 B	50**	0	11.7
			barium	**85**	**86.8**	*34.7*	2000	2600	82.1
			calcium	*91400*	*92200*	*81800*	NS	NS	115000
			iron	926 B	995 B,J	**1520**	30	10000	279
			magnesium	*32100*	*32300*	*26800*	NS	NS	43300
			manganese	*225*	*196 J*	*166 J*	50	880	1020
			mercury	0.078 B	0.2 U	0.2 U	2	11	0
			potassium	*1600 B*	*1390 B,J*	*2000 B*	NS	NS	2890
			sodium	*13000*	*14700*	*9230*	NS	NS	45700
			zinc	100 U	6.8 B,J	100 U	5000	11000	60.9
			chloromethane	1.0 U	1.0 U	0.15 J	NS	160	*
			bis(2-ethylhexyl)phthalate	1.6 B	2.4 B	1.6 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	0.41 J	1.0 U	NS	NS	*
			Beta-BHC	0.03 U	0.016 J	0.03 U	NS	0.032	*
			methoxychlor	0.035 J,B	0.1 U	0.1 U	40	180	*
Load Line 12	LL12mw-153	Unconsolidated	1,3-dinitrobenzene	0.032 J	0.1 U	0.1 U	NS	3.6	*
			arsenic	**24**	**17.8**	**19**	50**	0	11.7
			barium	*81.5*	*77.9*	*75*	2000	2600	82.1
			calcium	**139000**	**135000 J**	**134000**	NS	NS	115000
			cobalt	1.0 B	20 U	20 U	NS	730	0
			iron	**4350**	**3170**	**2520**	30	10000	279
			magnesium	**74800**	**72200**	**73200**	NS	NS	43300
			manganese	*188*	*180*	*175*	50	880	1020
			potassium	***4540 B***	*2150 B,J*	***2910 B***	NS	NS	2890
			sodium	*25200*	*24600*	*24300*	NS	NS	45700
			toluene	0.51 J	1.0 U	1.0 U	1000	720	*
			benzyl butyl phthalate	1.0 U	1.0 U	1.6 B	NS	7300	*
			diethyl phthalate	1.0 U	0.66 J,B	0.74 J	NS	NS	*
			bis(2-ethylhexyl)phthalate	1.1 B	4.7 B	3.1 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	0.69 J,B	2.5 B	NS	NS	*
			methoxychlor	0.033 J,B	0.1 U	0.1 U	40	180	*
			4,4-DDT	0.051	0.051	0.03 U	NS	0.2	*
			heptachlor	0.17	0.03 U	0.03 U	0.4	0.015	*

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Area	Well Number	Monitoring Zone	Compound or Element Detected	April 2005 Level (ug/L)	July 2005 Level (ug/L)	October 2005 Level (ug/L)	MCL (ug/L)	Region 9 PRG (ug/L)	RVAAP Facility-wide Background for Inorganic Constituents (filtered)(ug/L)
Load Line 12	LL12mw-182	Unconsolidated	1,3,5-trinitrobenzene	0.061 J	0.1 U	0.1 U	NS	1100	*
			arsenic	**25.6**	**38.7**	**53**	50**	0	11.7
			barium	**115**	**87.8**	*76.3*	2000	2600	82.1
			calcium	*88700*	*89300 J*	**120000**	NS	NS	115000
			iron	1000 U	694 B	**1930**	30	10000	279
			magnesium	**58900**	**68700**	**47900**	NS	NS	43300
			manganese	*23.4*	54.2 B	72.9 B,J	50	880	1020
			mercury	0.065 B	0.2 U	0.2 U	2	11	0
			nickel	3.0 B	20 U	20 U	100	730	0
			potassium	**7720**	**4030 B,J**	**3720 B**	NS	NS	2890
			sodium	*27000*	*27100*	*16500*	NS	NS	45700
			2-butanone	0.56 J	10 U	10 U	NS	7000	*
			acetone	4.5 J	10 U	0.93 J	NS	5500	*
			toluene	0.27 J	1.0 U	1.0 U	1000	720	*
			benzyl butyl phthalate	1.0 U	1.0 U	1.5 B	NS	7300	*
			diethyl phthalate	0.39 J	0.66 J,B	1.0 U	NS	NS	*
			phenol	6.8	1.0 U	1.0 U	NS	11000	*
			bis(2-ethylhexyl)phthalate	1.6 B	5.3 B	4.1 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	0.75 J,B	1.6 B	NS	NS	*
			4,4-DDT	0.062	0.03 U	0.03 U	NS	0.2	*
			methoxychlor	0.042 J,B	0.1 U	0.1 U	40	180	*
	LL12mw-183	Unconsolidated	1,3,5-trinitrobenzene	0.017 J	0.035 J	0.1 U	NS	1100	*
			nitrate-nitrite	0.06 B	0.03 B	0.1 U	10000	1000	*
			arsenic	**28.8**	**41.7**	**48.2**	50**	0	11.7
			barium	*60.8*	*76.4*	*76.3*	2000	2600	82.1
			calcium	*93900*	**11500 J**	**120000**	NS	NS	115000
			iron	**1010**	**1420**	**1930**	30	10000	279
			magnesium	*41000*	**45200**	**47900**	NS	NS	43300
			manganese	59.2 B	70.7 B	72.9 B,J	50	880	1020
			potassium	**11200**	**3250 B,J**	**3720 B**	NS	NS	2890
			selenium	10 U	3.2 B	10 U	50	180	0
			sodium	*24100*	*16800*	*16500*	NS	NS	45700
			4-methyl-2-pentanone	0.35 J	10 U	10 U	NS	NS	*
			chloromethane	1.0 U	1.0 U	0.17 J	NS	160	*
			toluene	0.26 J	1.0 U	1.0 U	1000	720	*
			benzyl butyl phthalate	1.0 U	1.0 U	1.6 B	NS	7300	*
			bis(2-ethylhexyl)phthalate	1.2 B	4.7 B	4.0 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	0.39 J,B	2.0 B	NS	NS	*

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Load Line 12	LL12mw-183		di-n-octyl phthalate	1.0 U	0.41 J,B	1.5	NS	1500	*
			4,4-DDT	0.022 PG	0.03 U	0.03 U	NS	0.2	*
			methoxychlor	0.036 J,B	0.1 U	0.1 U	40	180	*
	LL12mw-186	Unconsolidated	4-nitrotoluene	0.057 J	0.5 U	0.5 U	NS	0.66	*
			nitrocellulose	0.5 U	0.5 U	0.14 B	NS	NS	*
			nitrate-nitrite	0.6	0.1 U	0.03 B	10000	1000	*
			arsenic	3.9 B	8.4 B	10 U	50**	0	11.7
			barium	*46*	*57.5*	*48.2*	2000	2600	82.1
			calcium	**146000**	**146000**	**130000**	NS	NS	115000
			cobalt	1.4 B	20 U	1.5 B	NS	730	0
			iron	839 B	***2210 J***	326 B	30	10000	279
			magnesium	**66900**	**68400**	**55500**	NS	NS	43300
			manganese	*350*	*352 J*	*220 J*	50	880	1020
			potassium	*2040 B*	*1550 B,J,E*	*1600 B*	NS	NS	2890
			sodium	*15900*	*16700*	*13400*	NS	NS	45700
			zinc	100 U	6.8 B,J	6.7 B	5000	11000	60.9
			chloromethane	1.0 U	1.0 U	0.15 J	NS	160	*
			benzyl butyl phthalate	1.0 U	1.0 U	1.6 B	NS	7300	*
			diethyl phthalate	1.0 U	0.6 J,B	1.0 U	NS	NS	*
			bis(2-ethylhexyl)phthalate	1.1 B	2.6 B	4.0 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	0.39 J,B	2.0 B	NS	NS	*
			di-n-octyl phthalate	1.0 U	0.41 J,B	1.5	NS	1500	*
			4,4-DDT	0.03 U	0.087 PG	0.03 U	NS	0.2	*
			methoxychlor	0.026 J,B	0.1 U	0.1 U	40	180	*
			heptachlor epoxide	0.03 U	0.03 U	0.053	0.2	0.0074	*
Central Burn Pits	CBPmw-005	Unconsolidated	nitrocellulose	0.5 U	0.5 U	0.16 B	NS	NS	*
			arsenic	**18.4**	**16.4**	**24.2**	50**	0	11.7
			barium	*36.1*	*38.3*	*32*	2000	2600	82.1
			calcium	*73700*	*77000 J*	*78000*	NS	NS	115000
			iron	893 B	936 B	**1100**	30	10000	279
			magnesium	*34800*	*34800*	*37600*	NS	NS	43300
			manganese	53.3 B	52 B	53.9 B,J	50	880	1020
			potassium	**5250**	**3050 B,J**	**3150 B**	NS	NS	2890
			sodium	*29000*	*24900*	*26000*	NS	NS	45700
			carbon disulfide	1.0 U	1.0 U	0.62 J	NS	1000	*
			benzoic acid	NT	NT	5.4 J	NS	150000	*
			bis(2-ethylhexyl)phthalate	1.0 U	3.4 B	2.8 B	NS	4.8	*

Table 5-1 Summary of Constituents Detected in 2005

Area	Well Number	Monitoring Zone	Compound or Element Detected	April 2005 Level (ug/L)	July 2005 Level (ug/L)	October 2005 Level (ug/L)	MCL (ug/L)	Region 9 PRG (ug/L)	RVAAP Facility-wide Background for Inorganic Constituents (filtered)(ug/L)
Central Burn Pits	CBPmw-005		di-n-butyl phthalate	1.0 U	1.0 U	1.5 B	NS	NS	*
			methoxychlor	0.06 J,B	0.1 U	0.1 U	40	180	*
			heptachlor	0.03 U	0.085 PG,J	0.03 U	0.4	0.015	*
	CBPmw-007	Unconsolidated	1,3-dinitrobenzene	0.025 J	0.1 U	0.1 U	NS	3.6	*
			2,6-dinitrotoluene	0.1 U	0.1 U	0.082 J	NS	36	*
			arsenic	**25.1**	8.6 B	9.9 B	50**	0	11.7
			barium	*10.5*	*12.6*	*13.3*	2000	2600	82.1
			calcium	**240000**	**178000 J**	**208000**	NS	NS	115000
			cobalt	2.7 B	20 U	20 U	NS	730	0
			iron	**2300**	624 B	**1270**	30	10000	279
			magnesium	**125000**	**91800**	**108000**	NS	NS	43300
			manganese	*186*	*101*	65.4 B,J	50	880	1020
			mercury	0.041 B	0.2 U	0.2 U	2	11	0
			potassium	**5700**	**5030 J**	**6330 E**	NS	NS	2890
			sodium	**103000**	**132000**	**143000**	NS	NS	45700
			benzyl butyl phthalate	1.0 U	1.0 U	1.5 B	NS	7300	*
			diethyl phthalate	1.0 U	0.59 J,B	1.0 U	NS	NS	*
			bis(2-ethylhexyl)phthalate	1.9 B	2.3 B	6.0 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	0.89 J,B	1.5 B	NS	NS	*
			toluene	0.2 J	1.0 U	1.0 U	1000	720	*
			Beta-BHC	0.03 U	0.021 J	0.03 U	NS	0.032	*
			methoxychlor	0.041 J,B	0.1 U	0.1 U	40	180	*
Demolition Area 2	DA2mw-107	Unconsolidated	nitrocellulose	0.19 B,J	0.12 B,J	0.5 U	NS	NS	*
			arsenic	3.9 B	7.0 B	6.3 B	50**	0	11.7
			barium	*30.6*	*31.6*	*34.2*	2000	2600	82.1
			calcium	*88100*	*82000*	*86500*	NS	NS	115000
			chromium, total	20 U	20 U	1.8 B,J	100	NS	7.3
			copper	27.2	20 U	20 U	1300	1500	0
			iron	**1040**	**1320 J**	**1460**	30	10000	279
			magnesium	*29300*	*26800*	*28700*	NS	NS	43300
			manganese	*354*	*192 J*	*193 J*	50	880	1020
			potassium	*1710 B*	*1570 B,J*	*2060 B*	NS	NS	2890
			selenium	10 U	2.4 B	10 U	50	180	0
			sodium	*9620*	*9470*	*9760*	NS	NS	45700
			chloromethane	1.0 U	1.0 U	0.18 J	NS	160	*
			benzoic acid	NT	NT	5.2 J	NS	150000	*

Table 5-1 Summary of Constituents Detected in 2005

Area	Well Number	Monitoring Zone	Compound or Element Detected	April 2005 Level (ug/L)	July 2005 Level (ug/L)	October 2005 Level (ug/L)	MCL (ug/L)	Region 9 PRG (ug/L)	RVAAP Facility-wide Background for Inorganic Constituents (filtered)(ug/L)
Demolition Area 2	DA2mw-107		benzyl butyl phthalate	1.0 U	1.0 U	1.5	NS	7300	*
			bis(2-ethylhexyl)phthalate	1.2 B	2.7 B	3.5 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.0 U	1.4 B	NS	NS	*
			methoxychlor	0.037 J,B	0.1 U	0.1 U	40	180	*
	DA2mw-DET3	Unconsolidated	arsenic	NT	NT	*10.5*	50**	0	11.7
			barium	NT	NT	*47.2*	2000	2600	82.1
			calcium	NT	NT	*84600*	NS	NS	115000
			iron	NT	NT	**1640**	30	10000	279
			magnesium	NT	NT	*30800*	NS	NS	43300
			manganese	NT	NT	*247 J*	50	880	1020
			potassium	NT	NT	*2030 B*	NS	NS	2890
			sodium	NT	NT	*11500*	NS	NS	45700
			thallium	NT	NT	0.024 B	2	2	0
			bis(2-ethylhexyl)phthalate	NT	NT	2.7 B	NS	4.8	*
			di-n-butyl phthalate	NT	NT	1.4 B	NS	NS	*
	DA2mw-DET4		HMX	NT	NT	0.64	NS	1800	*
			barium	NT	NT	*41.7*	2000	2600	82.1
			calcium	NT	NT	**139000**	NS	NS	115000
			chromium, total	NT	NT	2.2 B,J	100	NS	7.3
			magnesium	NT	NT	*28000*	NS	NS	43300
			manganese	NT	NT	1.4 B,J	50	880	1020
			potassium	NT	NT	*1810 B*	NS	NS	2890
			sodium	NT	NT	*5380*	NS	NS	45700
			thallium	NT	NT	0.039 B	2	2	0
			chloromethane	NT	NT	0.16 J	NS	160	*
			benzoic acid	NT	NT	5.2 J	NS	150000	*
			bis(2-ethylhexyl)phthalate	NT	NT	2.1 B	NS	4.8	*
			di-n-butyl phthalate	NT	NT	1.4 B	NS	NS	*
Ramsdell Quarry	RQLmw-007	Bedrock	nitrocellulose	NT	NT	0.15 B	NS	NS	*
			arsenic	NT	NT	**76.1**	50**	0	0
			barium	NT	NT	*53*	2000	2600	256
			calcium	NT	NT	**169000**	NS	NS	53100
			cobalt	NT	NT	12.1 B	NS	730	0
			iron	NT	NT	**16300**	30	10000	1430
			magnesium	NT	NT	**90400**	NS	NS	15000
			manganese	NT	NT	**2900 J**	50	880	1340

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Area	Well Number	Monitoring Zone	Compound or Element Detected	April 2005 Level (ug/L)	July 2005 Level (ug/L)	October 2005 Level (ug/L)	MCL (ug/L)	Region 9 PRG (ug/L)	RVAAP Facility-wide Background for Inorganic Constituents (filtered)(ug/L)
Ramsdell Quarry	RQLmw-007		nickel	NT	NT	18.9 B	100	730	83.4
			potassium	NT	NT	**12000**	NS	NS	5770
			sodium	NT	NT	*12100*	NS	NS	51400
			thallium	NT	NT	0.039 B	2	2	0
			zinc	NT	NT	10.6 B	5000	11000	52.3
			1,2-dichloroethane	NT	NT	0.38 J	5	0.12	*
			bis(2-ethylhexyl)phthalate	NT	NT	8.2 B	NS	4.8	*
			di-n-butyl phthalate	NT	NT	1.7 B	NS	NS	*
	RQLmw-008	Bedrock	1,3,5-trinitrobenzene	NT	NT	0.32 PG	NS	1100	*
			4-nitrotoluene	NT	NT	0.096 J	NS	0.66	*
			nitroguanidine	NT	NT	14 J	NS	3600	*
			tetryl	NT	NT	0.093 J	NS	360	*
			arsenic	NT	NT	**14.3**	50**	0	0
			barium	NT	NT	*160*	2000	2600	256
			cadmium	NT	NT	0.58 B	5	NS	0
			calcium	NT	NT	*77900*	NS	NS	53100
			cobalt	NT	NT	5.6 B	NS	730	0
			iron	NT	NT	**135000**	30	10000	1430
			magnesium	NT	NT	**59100**	NS	NS	15000
			manganese	NT	NT	**1390 J**	50	880	1340
			nickel	NT	NT	10.5 B	100	730	83.4
			potassium	NT	NT	**9150**	NS	NS	5770
			sodium	NT	NT	*25600*	NS	NS	51400
			zinc	NT	NT	14.6 B	5000	11000	52.3
			acetone	NT	NT	1.0 J	NS	5500	*
			bis(2-ethylhexyl)phthalate	NT	NT	4.7 B	NS	4.8	*
			di-n-butyl phthalate	NT	NT	1.4 B	NS	NS	*
	RQLmw-009	Bedrock	arsenic	NT	NT	**19**	50**	0	0
			barium	NT	NT	*69.3*	2000	2600	256
			calcium	NT	NT	*49500*	NS	NS	53100
			cobalt	NT	NT	5.5 B	NS	730	0
			iron	NT	NT	**16600**	30	10000	1430
			magnesium	NT	NT	**55000**	NS	NS	15000
			manganese	NT	NT	**3010 J**	50	880	1340
			nickel	NT	NT	4.8 B	100	730	83.4
			potassium	NT	NT	**8560**	NS	NS	5770
			sodium	NT	NT	*2760*	NS	NS	51400
Ramsdell Quarry	RQLmw-007		thallium	NT	NT	0.27 B	2	2	0
			zinc	NT	NT	100 U	5000	11000	52.3
			bis(2-ethylhexyl)phthalate	NT	NT	4.0 B	NS	4.8	*
			di-n-butyl phthalate	NT	NT	1.5 B	NS	NS	*

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Winklepeck Burning Ground	WBGmw-006	Unconsolidated	HMX	15	18	17	NS	1800	*
			RDX	74	73	65	NS	0.61	*
			barium	*20*	*24.8*	*26.2*	2000	2600	256
			cadmium	0.31 B	10 U	10 U	5	NS	0
			calcium	*66300*	*65300 J*	*66400*	NS	NS	53100
			chromium, total	20 U	20 U	1.7 B,J	100	NS	7.3
			magnesium	**21500**	**21100**	**21900**	NS	NS	15000
			manganese	34.8 B	52.8 B	68.0 B,J	50	880	1340
			potassium	*851 B*	*820 B,J*	*938 B*	NS	NS	5770
			sodium	*6190*	*6190*	*6120*	NS	NS	51400
			thallium	1.0 U	1.0 U	0.063 B	2	2	0
			1,2,4-Trichlorobenzene	0.45 J	1.0 U	1.0 U	NS	7.2	*
			1,2-Dichlorobenzene	0.42 J	1.0 U	1.0 U	NS	370	*
			1,3-Dichlorobenzene	0.44 J	1.0 U	1.0 U	NS	180	*
			1,4-Dichlorobenzene	0.48 J	1.0 U	1.0 U	NS	0.5	*
			2,2-Oxybis(1-Chloropropane)	0.45 J	1.0 U	1.0 U	NS	NS	*
			2,6-Dinitrotoluene	1.3 J	5.0 U	5.0 U	NS	36	*
			2-Chloronaphthalene	0.43 J	1.0 U	1.0 U	NS	490	*
			2-Methylnaphthalene	0.49	0.2 U	0.2 U	NS	NS	*
			4-Bromophenyl phenyl ether	0.49 J	2.0 U	2.0 U	NS	NS	*
			4-Chlorophenyl phenyl ether	0.47 J	2.0 U	2.0 U	NS	NS	*
			Acenaphthene	0.46	0.2 U	0.2 U	NS	NS	*
			Acenaphthylene	0.45	0.2 U	0.2 U	NS	NS	*
			Anthracene	0.53	0.2 U	0.2 U	NS	1800	*
			Benz(a)anthracene	0.54	0.2 U	0.2 U	NS	0.092	*
			Benzo(a)pyrene	0.5	0.2 U	0.2 U	0.2	0.0092	*
			Benzo(b)fluoranthene	0.5	0.2 U	0.2 U	NS	0.092	*
			Benzo(g,h,i)perylene	0.45	0.2 U	0.2 U	NS	NS	*
			Benzo(k)fluoranthene	0.49	0.2 U	0.2 U	NS	0.92	*
			Benzyl Butyl Phthalate	0.51 J	1.0 U	1.0 U	NS	7300	*
			Carbazole	0.49 J	1.0 U	1.0 U	NS	3.4	*

Table 5-1 Summary of Constituents Detected in 2005

Area	Well Number	Monitoring Zone	Compound or Element Detected	April 2005 Level (ug/L)	July 2005 Level (ug/L)	October 2005 Level (ug/L)	MCL (ug/L)	Region 9 PRG (ug/L)	RVAAP Facility-wide Background for Inorganic Constituents (filtered)(ug/L)
Winklepeck Burning Ground	WBGmw-006		Chrysene	0.53	0.2 U	0.2 U	NS	9.2	*
			Dibenz(a,h)Anthracene	0.47	0.2 U	0.2 U	NS	0.0093	*
			Dibenzofuran	0.48 J	1.0 U	1.0 U	NS	12	*
			Diethyl Phthalate	0.56 J	1.0 U	0.71 J,B	NS	NS	*
			Dimethyl Phthalate	0.5 J	1.0 U	1.0 U	NS	360000	*
			Fluoranthene	0.51	0.2 U	0.2 U	NS	NS	*
			Fluorene	0.5	0.2 U	0.2 U	NS	NS	*
			Hexachlorobenzene	0.51	0.2 U	0.2 U	1	0.042	*
			Hexachlorobutadiene	0.46 J	1.0 U	1.0 U	NS	0.86	*
			Hexachloroethane	0.45 J	1.0 U	1.0 U	NS	4.8	*
			Indeno(1,2,3-c,d)Pyrene	0.47	0.2 U	0.2 U	NS	0.092	*
			Isophorone	0.42 J	1.0 U	1.0 U	NS	71	*
			Naphthalene	0.43	0.2 U	0.2 U	NS	6.2	*
			Nitrobenzene	0.49 J	1.0 U	1.0 U	NS	3.4	*
			Phenanthrene	0.54	0.2 U	0.2 U	NS	NS	*
			Pyrene	0.56	0.2 U	0.2 U	NS	NS	*
			bis(2-chloroethoxy) methane	0.41 J	1.0 U	1.0 U	NS	NS	*
			bis(2-chloroethyl) ether	0.45 J	1.0 U	1.0 U	NS	0.001	*
			bis(2-ethylhexyl)phthalate	0.89 J,B	2.7 B	2.4 B	NS	4.8	*
			di-n-Butyl Phthalate	0.7 J	0.97 J,B	1.4 B	NS	NS	*
			di-n-Octyl Phthalate	1.4	1.0 U	1.0 U	NS	1500	*
			n-Nitrosodi-n-Propylamine	0.41 J	1.0 U	1.0 U	NS	9600	*
			n-Nitrosodiphenylamine	0.58 J	1.0 U	1.0 U	NS	14	*
			methoxychlor	0.033 J,B	0.1 U	0.1 U	40	180	*
			gamma-BHC (Lindane)	0.038 PG	0.03 U	0.049	0.2	0.052	*
	WBGmw-007	Unconsolidated	nitrocellulose	0.12 B,J	0.5 U	0.5 U	NS	NS	*
			aluminum	200 U	**797**	200 U	NS	36000	0
			arsenic	10 U	4.8 B	10 U	50**	0	11.7
			barium	*20.8*	*39.4*	*39*	2000	2600	256
			calcium	*68400*	*67100*	*67300*	NS	NS	53100
			iron	82.1 B	286 B,J	355 B	30	10000	279
			magnesium	**15300**	**17000**	**18000**	NS	NS	15000
			manganese	42.2 B	*125 J*	*128 J*	50	880	1340
			potassium	*1200 B*	*1130 B,J,E*	*1760 B*	NS	NS	5770
			selenium	10 U	2.7 B	10 U	50	180	0
			sodium	*3620*	*4740*	*5080*	NS	NS	51400

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Winklepeck Burning Ground	WBGmw-006		bis(2-ethylhexyl)phthalate	1.0 U	3.6 B	2.2 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.0 U	1.6 B	NS	NS	*
			methoxychlor	0.026 J,B	0.1 U	0.1 U	40	180	*
	WBGmw-009	Unconsolidated	HMX	0.8	1.8 J	2.3	NS	1800	*
			RDX	3.4	13	9.9	NS	0.61	*
			nitrocellulose	0.15 B,J	0.5 U	0.5 U	NS	NS	*
			aluminum	32.7 B	200 U	**274**	NS	36000	0
			arsenic	100 U	10 U	**21.3**	50**	0	11.7
			barium	9.2 B	*11.2*	*89.6*	2000	2600	256
			calcium	*41900*	*81700*	*97600*	NS	NS	53100
			iron	545 B	123 B,J	**1060**	30	10000	279
			magnesium	*12800*	**25000**	**34500**	NS	NS	15000
			manganese	72.4 B	99.6 B,J	*210 J*	50	880	1340
			potassium	*458 B*	*818 B,J*	*1760 B*	NS	NS	5770
			selenium	10 U	2.4 B	10 U	50	180	0
			sodium	*3980*	*4230*	*14400*	NS	NS	51400
			benzyl butyl phthalate	1.0 U	1.0 U	1.5	NS	7300	*
			bis(2-ethylhexyl)phthalate	0.61 J,B	1.1 B	1.6 B	NS	4.8	*
			di-n-butyl phthalate	1.0 U	1.0 U	1.4 B	NS	NS	*
			methoxychlor	0.035 J,B	0.1 U	0.1 U	40	180	*

Notes:
NS = no standard NT = not tested
All inorganics are filtered, all organics are not filtered
B for organic compounds = Method blank contamination. The associated method blank contains the target analyte at a reportable leve
B for inorganic compounds = constituent was detected at a concentration between the method detection limit and the reporting limi
J for organic compounds = Estimated result. Result less than reporting limit
J for inorganic compounds = method blank contamination. The associated method blank contains the target analyte at a reportable leve
U = constituent was analyzed for but not detected at or above the reporting limi
** MCL for arsenic is 10 ug/L as of January 1, 2006
PG = Reported amount is the higher number of the two analyses (original and confirmation) and the difference between the two is > 40%
E = Estimated result. Result concentration exceeds calibration range
AA = cannot confirm due to interference on cyano column analysis
Bold = inorganic constituent detected above facility wide background levels
Italics = inorganic constituent detected below facility wide background levels
Shaded boxes indicate organic constituent detected above reporting limi
* There are no background levels for organic constituents

6.0 FWGWMP ANNUAL RECOMMENDATIONS/REVIEW

6.1 ASSESSMENT OF PROGRAM EFFECTIVENESS

Since eight sampling events are required to perform statistical analyses and most of the FWGWMP wells have not been sampled eight times, additional sampling events are needed. As stated in Section 4.2 (Sampling Frequency) of the FWGWMPP, the FWGWMP wells will be sampled for three consecutive quarters during the initial monitoring period (2005), then annually afterwards. More frequent sampling is needed to build the data base for the FWGWMP wells in a timely manner.

It was apparent after the first sampling event in April 2005 that producing a groundwater potentiometric map based on groundwater elevations measured solely from the FWGWMP wells would not result in a meaningful map. It was recognized by the USACE and Ohio EPA that to produce a meaningful groundwater potentiometric map that all of the RVAAP wells would need to be measured. This was performed by SpecPro and SAIC in September 2005.

The program effectiveness as a whole will be addressed in a later annual report once statistical analyses of laboratory data can be performed on a majority of the FWGWMP monitoring wells.

6.2 ADDITIONS TO THE FWGWMP

It is recommended to sample the FWGWMP wells for four consecutive quarters in 2006 in order to build the data base of eight sampling events required for statistical analysis of the laboratory results.

It is also recommended that all RVAAP monitoring wells be measured for groundwater elevation annually in order to produce a meaningful groundwater potentiometric map. This map can then be used to assist with the evaluation of contaminant trends in conjunction with the statistical analysis of the analytical results.

6.3 DELETIONS TO THE FWGWMP

No deletions to the FWGWMP are recommended at this time.

7.0 REFERENCES

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SAIC, 2005a, *Phase II Remedial Investigation Report for Erie Burning Grounds (RVAAP-02) at the Ravenna Army Ammunition Plant, Ravenna, Ohio.*

SAIC, 2005b, *Phase I Remedial Investigation Report for Ramsdell Quarry Landfill at the Ravenna Army Ammunition Plant, Ravenna, Ohio.*

SpecPro, Inc., 2005a, *Facility Wide Groundwater Monitoring Program Report on the April 2005 Sampling Event, Ravenna Training and Logistics Site / Ravenna Army Ammunition Plant, Ravenna, Ohio.*

SpecPro, Inc., 2005b, *Facility Wide Groundwater Monitoring Program Report on the July 2005 Sampling Event, Ravenna Training and Logistics Site / Ravenna Army Ammunition Plant, Ravenna, Ohio.*

SpecPro, Inc., 2005c, *Report on the Groundwater Monitoring Well Installation and Groundwater Sampling at the Suspected Mustard Agent Burial Area of Concern, Ravenna Army Ammunition Plant, Ravenna, Ohio.*

APPENDIX A

FIELD AND TECHNICAL CHANGE ORDERS

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TECHNICAL CHANGE NOTIFICATION FORM

Completion of this form does not authorize the performance of out-of-scope work.

Delivery Order Title: Ravenna AAP Groundwater -FFP Change No. 001

Delivery Order No.: W912QR-05-F-0031

Date: 06/01/05

Submitted by: Chantelle Carroll

Delivery Order Manager: Chantelle Carroll

Contract Representative: John David Baugher

Description of Technical Change.

Original SOW:
Under Section 5.1 Sampling Event Reports in Section 5.0 Review, Revision, and Reporting Requirements, in the Facility-Wide Monitoring Program Plan, dated September 2004, it was specified that a hard copy of the complete data packages from the laboratory would be supplied in the Appendices of each report.

Requested Change to SOW:
SpecPro is requesting not to print the entire data package from the laboratory which includes the full laboratory analysis with equipment chromatographs and all ADR formatted analytical presented data. Instead of the full data package, only the analytical report data package will be printed in the appendixes. Each analytical data sample report includes an executive summary of detections, an analytical methods summary page, sample summary page, results for each sample (e.g. regular samples, trip blanks, duplicate samples, matrix spike and matrix spike duplicates), chain of custody receipts, and cooler receipt forms. The complete data package will only be submitted in electronic CD format for the ADR reporting methods and in PDF for Section A2 which is not ADR compatible at this time.

Potential Impacts.

Cost:
No cost impact to this delivery order W912QR-05-F-0031.

Disposition:

USACE COR: P.L. Zorko 6/3/05 Program Manager: Chantelle Carroll

OH EPA Representative: Todd R. Fisher 06/02/05

Distribution:	USACE COR	Paul Zorko
	OH EPA COR	Todd Fisher
	Program Manager	Chantelle Carroll
	Contract Number	W912QR-04-P-0040

Post-it® Fax Note 7671	Date 6/02/05	# of pages ▶ 3
To CHANTELLE CARROLL	From T. Fisher	
Co./Dept.	Co. OHIO EPA	
Phone #	Phone # 330 963 1148	
Fax # 330-358-1745	Fax #	

TECHNICAL CHANGE NOTIFICATION FORM

Completion of this form does not authorize the performance of out-of-scope work.

Delivery Order Title: Ravenna AAP Groundwater FFP Change No. 002

Delivery Order No.: W912QR-05-F-0031

Date: 02 June 2005

Submitted by: Paul Zorko, CELRL-ED-E-E

Delivery Order Manager: Chantelle Carroll

Contract Representative: John David Baugher

Description of Technical Change.

Original SOW: The RVAAP Facility Wide Sampling and Analysis Plan, Sec 4.3.4 recommends well development be completed at least 14 days prior to sampling.

Requested Change to SOW: As stated in Sec 40304, the 14 day requirement is unsubstantiated by scientific data as should be used as a rule of thumb to allow for well materials to achieve chemical equilibrium with the aquifer. While the 14 day period may be more appropriate for new well construction, the wells in question were installed anywhere from 1 to 7 years ago. Currently there are monitoring wells included in the 2005 program that contain varying amounts of accumulated silt that needs to be removed prior to the next sampling event (July 2005). This technical change proposes to reduce the 14 day time period between redevelopment and sampling to 5 days.

Potential Impacts.

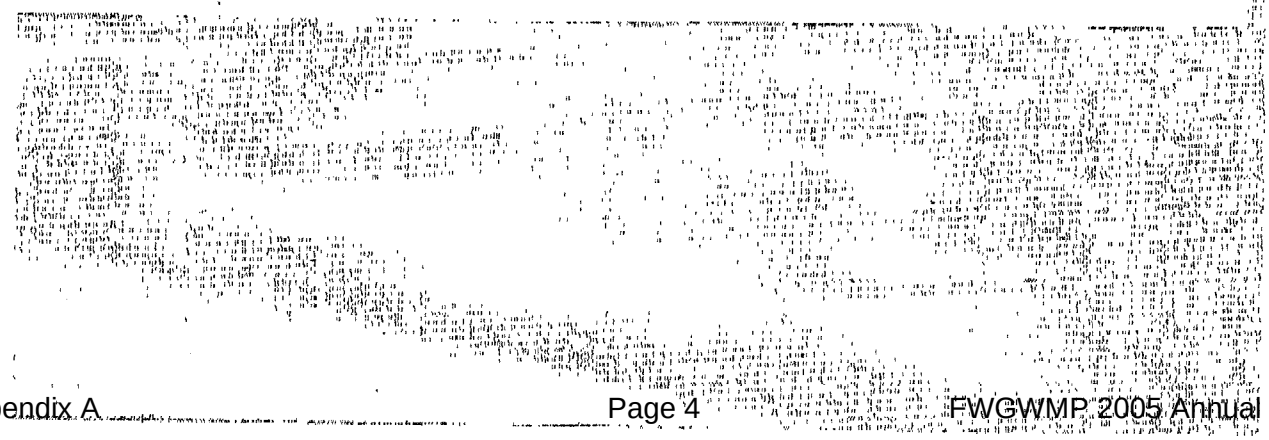
Cost: None

Disposition:

Contract Representative: _____ Program Manager: Chantelle Carroll

USACE COR: Paul Zorko 02JUN05 OH EPA: Todd Fisher 06/02/05

Distribution: Contract Representative : _____
USACE COR : Paul Zorko, CELRL-ED-E-E
OH EPA PM: Todd Fisher, Ohio EPA, NEDO DERR
Program Manager: Chantelle Carroll, SpecPro
Contract Number : WQ912QR-04-P-0040



TECHNICAL CHANGE NOTIFICATION FORM

Completion of this form does not authorize the performance of out-of-scope work.

Delivery Order Title: Ravenna AAP Groundwater -FFP Change No. 003

Delivery Order No.: W912QR-05-F-0031

Date: 07/28/05

Submitted by: Chantelle Carroll

Delivery Order Manager: Chantelle Carroll

Contract Representative: John David Baugher

Description of Technical Change.

Original SOW:
Under Section 4.1.2 Field Quality Control Sampling Procedures in Section 4.0 Field Activities, in the Facility-Wide Groundwater Monitoring Program Plan, dated September 2004, it was specified that 10% of the total numbers of field samples taken would be run for MS/MSD requirements for the QA/QC.

Requested Change to SOW:
SpecPro in error only sampled 5% of the total number of field samples for the MS/MSD requirements for the April Event. The Facility-Wide Sampling and Analysis Plan, under the Quality Assurance Plan section 8.3.2.2.3 states only 1 in 20 samples or 5% are required to be sampled for MS/MSD instead of the 10% requested to be sampled under the Facility-Wide Groundwater Monitoring Program Plan, dated September 2004. Ten percent of total number of samples will be run for MS/MSD for all future events.

Potential Impacts.

Cost:
No cost impact to this delivery order W912QR-05-F-0031.

Disposition:

USACE COR: _____ Program Manager: _____ 7-28-05

OH EPA Representative: _____

Distribution:

USACE COR	John Jent
OH EPA	Todd Fisher
Program Manager	Chantelle Carroll
Contract Number	W912QR-04-P-0040

FCO No. 1

FIELD CHANGE ORDER

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

Date: 4-12-05 Type of Change: Field Priority: _____

Requestor Identification:

Name: Chantelle Carroll Organization: SpecPro Inc Phone: 330-358-1753

Title: Program Manager Signature: Chantelle Carroll

LUMW-078
-082
-083

Baseline Affected: ___ Cost X Scope ___ Milestones X Method of Accomplishment

Description of Change: Turbidity readings were not obtained on three groundwater samples collected on 4-1-05 (LUMW-078, LUMW-082, LUMW-083). Water quality meters used with sampling equipment on 4-1-05 did not have the capability of measuring turbidity. We propose to measure turbidity on representative samples collected from each monitoring well. The samples will be collected in clean mason jars once each well has been micro-purged. The jars will be transported back to the office, agitated, and the turbidity readings taken with a Horiba U-10 water quality mete. Proper water quality meters should be available to the sampling crews on 4-18-05 am at which time turbidity readings will be obtained according to project specs.

Justification: Turbidity measurements are not used to determine if groundwater has stabilized during purging. Valid turbidity readings will still be obtained.

Impact of Not Implementing Request: Sampling activities will be stopped until proper equipment arrives.

Participants Affected by Implementing Request: COE, contractor (SpecPro)

Cost Estimate: $ none Estimator Signature: _____

Phone: _____ Date: _____

Previous FCO Affected ___ Yes X No

Client Approval: P.L. Zeh Title: _____

Date: 01 Jun 05

Time From Initiation to Action: _____

06/02/05

FCO NO. 2

FIELD CHANGE ORDER

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

Date: 4-13-05 Type of Change: field Priority: _____

Requestor Identification:

Name: Chantelle Carroll Organization: Spec Pro Phone: 330-358-1753

Title: Program Manager Signature: Chantelle Carroll

Baseline Affected: ____ Cost ____ Scope ____ Milestones X Method of Accomplishment

Description of Change: obstruction in well CBP-06, unable to sample, ~~changing~~ cc ~~include~~ substitute well to CBP-05 in ~~the~~ order of sampling area coverage - selection of well was done by COE and EPA and contractor

Justification: not complete sampling of Facility-wide groundwater

Impact of Not Implementing Request: not able to take sample

Participants Affected by Implementing Request: COE, Army,

Cost Estimate: $ none Estimator Signature: Chantelle Carroll

Phone: _____ Date: _____

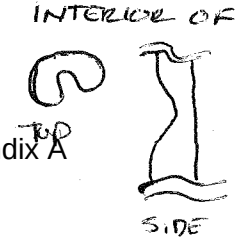
Previous FCO Affected _____ Yes _____ No

Client Approval: Todd R Fisher / P. Zorko Title: Proj. Coordinator

Date: 04/13/05 USACE TECHMGR

Time From Initiation to Action: 8:45 AM

INSPECTED WELL CBP-06. NO WEEP HOLE PRESENT, PRO COVER WATER FILLED. INTERIOR OF PVC HAS BEEN DEFORMED (SUSPECT FREEZE DAMAGE). CAN MEASURE DTW & POTENTIALLY SAMPLE WITH PERISTALTIC PUMP BUT CANNOT INSERT STD. SAMPLE PRO PUMP. INFORMED MKM TO DRILL WEEP HOLE. SUGGESTED SAMPLING CBP-05 INSTEAD (BETTER DOWNGRADIENT CHOICE).



P. Zorko
12 APR 05

FCO NO. 3 **FIELD CHANGE ORDER**

PROJECT NAME: *Facility-Wide Groundwater Monitoring Program*

Date: 10-12-05 Type of Change: FIELD Priority: _____

Requestor Identification:

Name: Chantelle Carroll Organization: SpecPro Phone: 330-358-1753

Title: Program Manager Signature: _____

Baseline Affected: ____Cost ____ Scope ____ Milestones _X_ Method of Accomplishment

Description of Change: SpecPro was notified on 10-11-05 by STL that a cooler containing all of the VOC samples taken on 10-6-05 malfunctioned and all samples in that cooler reached a temperature of greater than 15° C. Therefore all of these samples should be rejected. The following ten wells with 14 samples taken were affected for regular, duplicate, split, and MS/MSD: WBG-06 (reg), WBG-07 (reg, dup, split) WBG-09 (reg), DA2-Det3 (reg), DA2-Det4 (reg), DA2-107 (reg, MS/MSD), LL11-02 (reg), LL11-07 (reg, MS/MSD), BKG-06 (reg), and BKG-19 (reg, dup, split). GPL was notified immediately to not proceed with original VOC analysis. Each of these above mentioned wells will be re-sampled on either October 13th or October 14th for only VOCs, depending on equipment availability by STL and GPL.

Justification: Since the cooler malfunctioned and all VOC samples taken on 10-6-05 reached a temperature of greater than 15° C, all of these samples should be rejected.

Impact of Not Implementing Request: If resampling did not occur, a possible data gap might happen.

Participants Affected by Implementing Request: SpecPro, STL, and GPL

Cost Estimate: $ NONE Estimator Signature: _____

Phone: _____ Date: _____

Previous FCO Affected _____ Yes _X_ No

USACE COR Approval: _____ Date: 10-12-05

OH EPA _____ Date: 10-13-05

Program Manager _____ Date: 10-12-05

APPENDIX B

FIELD LOG BOOK SHEETS
and
GROUNDWATER COMPREHENSIVE WATER MEASUREMENTS

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TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/5/05 Su M Tu (W) Th F Sa PAGE____ OF ____

Task Team Members:

AMY HEIDENREICH

Narrative (include time and location):

8:19 ARRIVE @ WELL # BKG-004

14.48 DEPTH TO WATER

22.52 DEPTH TO BOTTOM (SOFT) +0.12 = 22.64

8:42 BEGAN PURGING WELL

8:53 BEGAN FULL SUITE & MS/MSD SAMPLE OF SAMPLE I.D. FWGBKGMW-004C-0094-GW & FWGBKGMW-004C-0094-GF & EXP, PROP, TAL METALS, CN, SVOC, PCB, PEST, VOC

9:44 ~~0.44~~ CLEANED EQUIPMENT & SITE

9:53 ~~8 am~~ LEFT SITE

Daily Weather Conditions: A.M. Cool, Calm, Sunny 51°

P.M. ____

Recorded By Amy Heidenreich QA Checked By [signature]

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: RKG-004 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to water
10/5/05	9:40	INITIAL	0	5.92	13.39	178	7.86	642	14.52
	9:44	0.25	0.25	5.74	13.19	181	7.06	814	14.50
	9:46	0.25	0.50	5.61	13.10	186	7.00	951	14.55
	9:48	0.25	0.75	5.57	13.05	190	7.01	999+	14.56
	9:50	0.25	1.00	5.52	12.99	193	6.99	999+	14.55

RECORDED BY: Amy Heidrich 10/5/05
(Signature and Date)

QA CHECK BY: Chantelle Carroll 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/5/05 Su M Tu W Th F Sa PAGE____ OF ____

Task Team Members:

AMY HENDERICK

Narrative (include time and location):

13:30 ARRIVE @ WELL # BKG-005
14.05 DEPTH TO WATER
21.09 DEPTH TO BOTTOM (SOFT) +0.12 = 21.21
13:46 BEGAN PURGING WELL
14:00 BEGAN FULL SUITE SAMPLING
of SAMPLE I.D. FWGBKGMW-005C-0005-GW &
FWGBKGMW-005C-0005-DF: EXP, PROP,
TAL METALS, CN, SVOC, PCB, PEST, VOC
14:24 CLEANED EQUIPMENT & SITE
14:32 LEFT SITE

Daily Weather Conditions: A.M. _____

P.M. SUNNY 79, MILD BREEZE

Recorded By Amy Henderick QA Checked By

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: BKG-005 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10/5/05	13:46	INITIAL	0	6.50	16.84	504	~~6.~~ 10/5/05 5.18	407	14.22
	13:49	0.25	0.25	6.39	16.22	492	2.97	416	14.23
	13:51	0.25	0.50	6.38	15.61	489	2.31	432	14.20
	13:53	0.25	0.75	6.38	15.33	489	2.46	651	14.19
	13:55	0.25	1.00	6.38	15.23	488	2.41	695	14.20
	13:57	0.25	1.25	6.40	15.10	488	2.20	734	14.19

RECORDED BY: Amy Uhdiwich 10/5/05
(Signature and Date)

QA CHECK BY: Charlotte Carroll 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/10/05 Su M Tu W Th F Sa PAGE_____ OF _____

Task Team Members:

AMY HEIDENREICH

Narrative (include time and location):

13:36 ARRIVE @ WELL BKG-006
23.21 DEPTH TO WATER
38.08 DEPTH TO BOTTOM (SOFT)
13:56 BEGAN PURGING WELL
14:15 BEGAN FULL SUITE SAMPLING OF SAMPLE I.D. FWGBKGMW-006C-0096-GW & FWGBKGMW-006C-0096-GF: EXP, PROP, TAL METALS, CN, SVOC, PCB, PEST, VOC
14:57 CLEANED EQUIPMENT & SITE
15:06 LEFT & SITE

*COLOR OF WATER WAS A RUSTY RED/ORANGE

Daily Weather Conditions: A.M. _____

P.M. SUNNY, 81° SLIGHT BREEZE

Recorded By Amy Heidenreich QA Checked By [signature]

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: BKG-006 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to water
10/6/05	13:50	INITIAL	0	6.28	14.80	630	7.96	-10.0	23.51
	14:00	0.25	0.25	6.25	14.37	600	2.67	999+	23.53
	14:02	0.25	0.50	6.24	13.62	590	2.43	999+	23.50
	14:04	0.25	0.75	6.24	13.05	593	1.89	999+	23.47
	14:06	0.25	1.00	6.24	12.81	593	1.93	999+	23.49
	14:08	0.25	1.25	6.24	12.69	592	1.98	999+	23.45
	14:10	0.25	1.50	6.24	12.65	593	1.91	999+	23.49

RECORDED BY: Amy Hudziak 10/6/05
(Signature and Date)

QA CHECK BY: [signature] 10-11-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/13/05 Su M Tu W (Th) F Sa PAGE____ OF ____

Task Team Members:

Al Brillinger

Narrative (include time and location):

15:50 Arrive BKGmw-006

Sample # FWGBKGmw-006C-0146-GW (VOCs)

depth to water = 23.19'

depth to bottom = 37.49 + 0.12 = 37.61 hard

16:00 begin purging (Sample Pro equip) (dark red silty water)

16:20 begin sampling

16:22 end sampling

decon

16:30 lv well

* resampling VOCs due to lab error

Daily Weather Conditions: A.M. _____

P.M. cloudy 66°

Recorded By Al Brillinger QA Checked By Thaddeus Carroll

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: BKGmw-006 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-13-05	16:02	0.125	0.125	6.75	13.20	0.618 S/cm	5.06 g/L	>999	23.40
	16:04	0.125	0.25	6.59	12.28	0.625	2.09	>999	23.41
	16:06	0.125	0.375	6.47	11.79	0.603	1.16	>999	23.42
	16:08	0.125	0.50	6.45	11.50	0.585	1.25	>999	23.42
	16:10	0.125	0.625	6.45	11.42	0.578	1.49	>999	23.42
	16:12	0.125	0.75	6.47	11.36	0.571	1.62	7999	23.43
	16:14	0.125	0.875	6.54	11.33	0.566	1.71	>999	23.44
	16:16	0.125	1.0	6.59	11.32	0.565	1.75	>999	23.43
	16:18	0.125	1.125	6.60	11.30	0.563	1.75	>999	23.44

RECORDED BY: Al Bullinger 10-13-05
(Signature and Date)

QA CHECK BY: [signature] 10-17-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/5/05 Su M Tu (W) Th F Sa PAGE____ OF ____

Task Team Members:

Amy Heidenreich

Narrative (include time and location):

11:54 ARRIVE @ Well # BKG-008
18.60 DEPTH TO WATER
27.69 DEPTH TO BOTTOM (SOFT) +0.12 = 27.81
12:12 BEGAN PURGING WELL
12:25 BEGAN FULL SUITE SAMPLE OF SAMPLE I.D. FWGBKGMW-008C-0097-GW & FWGBKGMW-008C-0097-GF: EXP, PROP, TAL METALS, CN, SVOC, PCB, PEST, VOC
12:49 CLEANED EQUIPMENT & SITE
12:57 LEFT SITE

Daily Weather Conditions: A.M. SUNNY, calm 70°

P.M. ____

Recorded By Amy Heidenreich QA Checked By [signature]

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: BKG-008 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10/5/05	12:12	INITIAL	0	6.01	15.29	225	7.47	780	18.69
	12:14	0.25	0.25	5.80	14.89	223	6.26	735	18.78
	12:16	0.25	0.50	5.74	14.22	214	6.18	737	18.80
	12:18	0.25	0.75	5.67	14.01	206	6.13	686	18.83
	12:20	0.25	1.00	5.64	13.89	208	6.08	498	18.84

RECORDED BY: Amy Hardwick 10/5/05
(Signature and Date)

QA CHECK BY: Chantelle Carroll 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-05-05 Su M Tu (W) Th F Sa PAGE 1 OF 1

Task Team Members:

Al Brillinger

Narrative (include time and location):

12:55 Arrive BKGm-010

Sample # FWGBKGmw-010C-0098-GW

(expl; prop., pest; PCB, cyanide, VOC, SVOC)

Sample # FWGBKGmw-010C-0098-GF (TAL metals)

depth to water = 16.49

depth to bottom = 21.96 +0.12 = 22.08

13:10 begin purging

13:25 begin sampling

13:50 finish sampling

decon

14:07 lv site

Daily Weather Conditions: A.M. _____

P.M. Sunny 80°

Recorded By Al Brillinger QA Checked By Charlie Arnold

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: BKGmw-010

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-05-05	13:12	0.125	0.125	5.08	15.54	0.200 s/cm	9.84	149	16.55
	13:14	0.125	0.25	4.30	14.70	0.185	8.94	137	16.85
	[illegible]	0.125	0.375	4.11	14.03	0.178	8.67	140	16.94
	13:18	0.125	0.50	4.09	13.95	0.176	8.52	130	17.05
	13:20	0.125	0.625	4.09	13.93	0.176	8.53	124	17.10

RECORDED BY: A. Bullington 10-05-05
(Signature and Date)

QA CHECK BY: Chantal Carroll 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-3-05 Su (M) Tu W Th F Sa PAGE 1 OF 1

Task Team Members:

Ryan Wilkinson

Narrative (include time and location):

1124 Arrive @ well # BKG-012

12.19 Depth to water

62.26 ~~62.08~~ 1063 Depth to Bottom

1140 Begin Purging well

1152 Begin full suite sampling of Explos, Propell, PCB/Pest, SVOC, VOC & TAL Metals (ryan) FWGBKGMW-012C-0099-GW,

1230 Clean up & Recon

1240 Left Site

Flow Rate 280 ml/min Pressure 40 PS

Visual Parameters Turb yes Color Grey Odor yes

Bottom type Soft

Daily Weather Conditions: A.M. 80° Humid no wind

P.M.

Recorded By Ryan Wilkinson QA Checked By Chandler Cornell

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: BKG 012

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10-3-05	1142	0.07	0.07	7.5	25.7	0.0	10.6	178	12.35 ft
	1144	0.15	0.22	7.8	13.1	366	12.3	758	13.02
	1146	0.15	0.37	7.8	12.5	343	1.2	496	13.21
	1148	0.15	0.52	7.6	12.6	342	0.0	430	13.40
	1150	0.15	0.67	7.5	12.6	342	0.0	421	13.55

RECORDED BY: [signature] 10-3-05
(Signature and Date)

QA CHECK BY: [signature] 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-05-05 Su M Tu (W) Th F Sa PAGE 1 OF 1

Task Team Members:

Ryan Wilkinson

Narrative (include time and location):

1432 Arrive @ well # BKG 013

12.70 Depth to water

28.05 ~~27.87~~ Depth to Bottom

1458 Begin Purging well

1512 Begin Full Suite Sampling of-

FWGBKG013C-0100 GW, Explos, Pest/PCB, SVOC, VOC, TAL metal Propell, Cyanide

1535 Clean up & Decon

1540 Left Site

Flow Rate 400 Pressure 40.145

Visual Parameters Turb YES color brown/grey odor NO

Bottom type Soft

Daily Weather Conditions: A.M. PM 80s Sunny Light Breeze

P.M. AM

Recorded By Ryan Wilkinson QA Checked By Chandler Arnold

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: BKL-013

PAGE 1 OF 6

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW (Depth to Water)
10505	1502	0.44	0.44	6.8	16.0	440	2.0	786	12.85
↓	1504	0.22	0.66	6.9	14.6	460	0.7	629	12.85
	1506	0.22	0.88	7.0	13.6	472	0.0	532	12.85
	1508	0.22	1.10	7.0	13.0	475	0.0	373	12.85
✓	1510	0.22	1.32	6.9	12.9	476	0.0	333	12.85

RECORDED BY: [signature] 10-5-05
(Signature and Date)

QA CHECK BY: [signature] 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/05/05 Su M Tu (W) Th F Sa PAGE 1 OF 1

Task Team Members:

Al Brillinger

Narrative (include time and location):

8:25 Arrive @ BKGmw-015

Sample # FWGBKGmw-015c-0101-GW

(expl: prop., VOC, SVOC, cyanide, pest & PCB)

Sample # FWGBKGmw-015C-0101-GF (TAL metals)

Depth to water: 50.12

Depth to bottom: 52.97 + 0.12 = 53.09

8:45 begin purging

9:15 begin sampling

12:15 finish sampling

decon

12:30 lv site

Daily Weather Conditions: A.M. Sunny 50-60°-80°

P.M.

Recorded By Al Brillinger QA Checked By

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: BKGmw-015

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-05-05	8:48	0.125	0.125	6.42	12.08	0.256 S/cm	2.54	164	50.65
	8:52	0.25	0.375	6.23	11.81	0.253	1.50	152	50.75
	8:54	0.125	0.5	6.16	11.76	0.252	1.04	138	50.90
	8:56	0.125	0.625	6.14	11.67	0.255	0.66	136	51.10
	8:58	0.125	0.75	6.11	11.61	0.255	0.27	153	51.36
	9:00	0.125	0.875	6.12	11.65	0.253	0.12	142	51.50
	9:02	0.125	1.0	6.13	11.65	0.253	0.02	142	51.71
	9:04	0.125	1.125	6.18	11.64	0.252	0.00	140	no reading*
	9:06	0.125	1.250	6.30	11.65	0.253	0.02	140	no reading.
		* water level below top of sample pro-							
		water level probe won't go past top of pump							

RECORDED BY: Al Bullock 10-05-05
(Signature and Date)

QA CHECK BY: Chantel Carroll 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/4/05 Su M (Tu) W Th F Sa PAGE____ OF ____

Task Team Members:

Amy Heidenreich

Narrative (include time and location):

14:19 ARRIVE @ Well # BKG-016
7.34 Depth to Water
21.29 Depth to BOTTOM (SOFT) + 0.12 = 21.41
14:32 BEGAN PURGING WELL
14:46 BEGAN FULL SUITE SAMPLE OF SAMPLE I.D. FWGBKGMW-0116C-0102 GW; FWGBKGMW-0116C-0102-GF: EXP, PROP, TAL METALS, CN, SVOC, PCB, PEST, VOC
15:16 CLEANED EQUIPMENT & SITE
15:27 LEFT SITE

Daily Weather Conditions: A.M. ~

P.M. SUNNY, CALM 79°

Recorded By Amy Heidenreich QA Checked By

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: BKG-014 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10/4/05	14:32	INITIAL	0	5.27	20.16	103	2.91	442	7.52
	14:35	0.25	0.25	4.92	19.14	104	0.43	409	7.49
	14:37	0.25	0.50	4.89	18.93	102	0.24	368	7.53
	14:39	0.25	0.75	4.87	18.78	102	0.04	314	7.51
	14:41	0.25	1.00	4.87	18.79	100	0.00	329	7.54
▼	14:43	0.25	1.25	4.86	18.68	99	0.00	268	7.55

RECORDED BY: Amy Uendrich 10/4/05
(Signature and Date)

QA CHECK BY: Claudia Canada 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-4-05 Su M Tu W Th F Sa PAGE 1 OF 1

Task Team Members:

Ryan Wilkinson

Narrative (include time and location):

1420 Arrive @ well # ~~BKGMW~~ BKGMW-017 10-4-05

19.89 Depth to water

36.08 ~~35.90~~ 10-6-05 Depth to Bottom

14.40 Begin purging well

14.54 Begin Full suite Sampling of FWG BKGMW-017C-0103-GW

1517 Clean up & Decon

1526 Left Site

Flow Rate 440 ml/min Pressure 40

Visual parameters Turb yes Color Brown/Grey Odor yes

Bottom type soft

Daily Weather Conditions: ~~AM~~ PM 80° Hot clear No wind

~~PM~~ AM

Recorded By [signature] QA Checked By [signature]

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: BKG mw-017

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Water Depth to Bottom
10-4-05	1442	0.24	0.24	6.5	15.1	572	2.4	over	20.12
	1444	0.24	0.48	6.7	13.5	634	0.1	over	20.24
	1446	0.24	0.72	6.8	12.9	658	0.0	over	20.25
	1448	0.24	0.96	6.8	12.6	664	0.0	983	20.29
	1450	0.24	1.20	6.8	12.4	668	0.0	736	20.31

RECORDED BY: [signature] 10-4-05
(Signature and Date)

QA CHECK BY: Chandra Canall 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/5/05 Su M Tu (W) Th F Sa PAGE____ OF ____

Task Team Members:

Amy Heidenreich

Narrative (include time and location):

11:42 ARRIVE @ Well # BKG-018
16.34 Depth to Water
27.36 Depth to Bottom (60FT) + 0.12 = 27.48
15:01 BEGAN PURGING WELL
15:15 BEGAN FULL SUITE SAMPLING of
SAMPLE I.D. fwGBKGmw-018c-0104-GW:
fwGBKGmw-018c-0104 GF: EXP, PROP,
TAL METALS, CN, SVOC, PCB, PEST, VOC
15:40 CLEANED SITE & EQUIPMENT
15:50 LEFT SITE

Daily Weather Conditions: A.M. _____

P.M. 80° SUNNY, MILD BREEZE

Recorded By Amy Heidenreich QA Checked By Chandler Campbell

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: BKG-018 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10/5/05	15:01	INITIAL	0	6.00	16.01	292	5.93	145	16.55
	15:04	0.25	0.25	5.77	16.03	291	4.39	105	16.53
	15:06	0.25	0.50	5.73	15.75	291	3.67	122	16.54
	15:08	0.25	0.75	5.70	15.52	290	3.71	123	16.58
	15:10	0.25	1.00	5.69	15.44	290	3.53	110	16.56

RECORDED BY: Amy Hludnick 10/5/05
(Signature and Date)

QA CHECK BY: Chandle Carroll 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-6-05 Su M Tu W Th F Sa PAGE 1 OF 1

Task Team Members:

Ryan Wilkinson

Narrative (include time and location):

0830 Arrive @ Well # BKG-19 RW

20.55 Depth to Water

35.83 ~~35.65~~ RW 10-6-05 Depth to Bottom

0855 Begin Purging Well

0905 Begin Full Suite Sampling of Exolos, Propell, PCB/Pest, TAL metal Cyanide, SVOC, & VOCs

FWGBKG mw-019C-0105 GW

RW 10-4-05 FWGBKG mw-019C-0138 GW

For Sample split and Duplicate

1025 Clean up & Decon

1035 Leave Site

Flow Rate 420 Pressure SD 155

Visual Parameters Turb yes Color Brown Odor no

Bottom Type Soft

Daily Weather Conditions: A.M. 70° Sunny no Breeze

P.M.

Recorded By [signature] QA Checked By [signature]

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: BKG-019

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10/6/05	0856	0.11	0.11	7.3	11.4	663	0.5	over	20.86
"	0858	0.22	0.33	7.1	11.2	656	0.0	over	20.86
"	0900	0.22	0.55	7.1	11.0	655	0.0	over	20.86
"	0902	0.22	0.77	7.1	10.8	652	0.0	over	20.86
"	0904	0.22	0.99	7.0	10.8	655	0.0	over	20.86

RECORDED BY: [signature] 10-6-05
(Signature and Date)

QA CHECK BY: [signature] 10-12-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-13-05 Su M Tu W (Th) F Sa PAGE____ OF ____

Task Team Members:

Al Brillinger

Narrative (include time and location):

8:10 Arrive BKGmw-019

Sample # FWGBKGmw-019C-0147-GW (VOCs) (+duplicate)

FWGBKGmw-019C-0148-GW (VOCs) (split)

AB ~~20.82~~ depth to water = 20.82'

depth to bottom = 35.68 + 0.12 = 35.80 (soft-silty tip)

8:25 begin purging (Sample Pro equip)

8:55 AB 8:45 begin sampling

8:58 end sampling

decon

9:10 lv well

* resampling VOCs due to lab error

Daily Weather Conditions: A.M. cloudy 55°

P.M. ____

Recorded By Al Brillinger QA Checked By [signature]

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: BKGmw-019 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-13-05	8:28	0.125	0.125	7.02	11.69	0.95 s/c	6.88 g/L	629	21.06
	8:30	0.125	0.25	6.92	11.37	0.94	7.52	578	21.06
	8:32	0.125	0.375	6.84	11.19	0.93	7.27	483	21.07
	8:34	0.125	0.50	6.80	11.08	0.92	6.93	404	21.08
	8:36	0.125	0.625	6.89	11.02	0.91	6.52	365	21.08
	8:38	0.125	0.75	6.95	10.99	0.80	6.75	340	21.08
	8:40	0.125	0.875	7.02	10.92	0.586	5.95	318	21.08
	8:42	0.125	1.0	7.05	10.92	0.583	5.75	288	21.09
	8:44	0.125	1.125	7.04	10.90	0.582	5.69	306	21.09

RECORDED BY: Al Bullington 10-13-05
(Signature and Date)

QA CHECK BY: Charlie Carroll 10-17-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/4/05 Su M (Tu) W Th F Sa PAGE____ OF ____

Task Team Members:

Amy Heidenreich

Narrative (include time and location):

13:04 ARRIVE @ WELL # BKG-020
11.55 Depth to Water
33.59 Depth to Bottom (SOFT) +0.12 = 33.71
13:23 BEGAN PURGING WELL
13:35 BEGAN FULL SUITE SAMPLE OF
SAMPLE I.D FWGBKmw-020c-01006-GF &
FWGBKGmw-020c-01006 GW: EXP, PROP, TAL
METALS, CN, SVOC, PCB, PEST, VOC
14:00 CLEANED EQUIPMENT & SITE
14:05 LEFT SITE
* DIESEL BOBCAT STARTED UP & MOVED
AROUND SAMPLING AREA 13:38 - 13:41.

Daily Weather Conditions: A.M. ~

P.M. SUNNY, NO WIND 79°

Recorded By Amy Heidenreich QA Checked By Chandler Carroll

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: BKG-020 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS
10/4/05	13:23	INITIAL	0	6.53	16.94	360	4.75	327	Depth to water 11.64
	13:26	0.25	0.25	6.48	15.55	365	1.59	358	11.89
	13:28	0.25	0.50	6.46	14.47	366	0.54	291	12.14
	13:30	0.25	0.75	6.45	14.04	361	0.00	275	12.29
	13:32	0.25	1.00	6.44	13.83	363	0.00	275	12.34

RECORDED BY: Amy Hudnick 10/4/05
(Signature and Date)

QA CHECK BY: [signature] 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/5/05 Su M Tu (W) Th F Sa PAGE____ OF ____

Task Team Members:

Amy Heidenreich

Narrative (include time and location):

9:55 ARRIVE @ WELL # RKG-021

19.25 DEPTH TO WATER

21.62 DEPTH TO BOTTOM (SOFT) +0.12=21.74

10:13 BEGAN PURGING WELL

10:27 BEGAN FULL SUITE SAMPLE OF SAMPLE I.D. # FWGRKGMW-021C-0107-(GW) &

FWGRKGMW-021C-0107-(GF: EXP PROP TAL METALS, CN, SVOC, PCB, PEST, VOC

11:41 CLEANED EQUIPMENT & SITE

11:50 LEFT SITE

Daily Weather Conditions: A.M. Sunny, Calm 60°

P.M. ____

Recorded By Amy Heidenreich QA Checked By [signature]

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: BKG-021 PAGE ____ OF ____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10/5/05	10:13	INITIAL	0	6.41	14.88	556	8.41	182	19.48
10:14	10/5/05 ~~10:16~~	0.25	0.25	6.33	14.43	560	6.82	138	19.76
	10:18	0.10	0.35	6.27	14.10	554	6.45	270	TOP of Pump
	10:20	0.10	0.45	6.24	14.66	555	6.45	988	TOP OF PUMP
	10:22	0.10	0.55	6.27	14.62	557	6.55	745	TOP OF PUMP

RECORDED BY: Amy Heidenreich 10/5/05
(Signature and Date)

QA CHECK BY: Charlotte Carroll 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-5-05 Su M Tu (W) Th F Sa PAGE 1 OF 1

Task Team Members:

Ryan Wilkinson

Narrative (include time and location):

0835 Arrive @ well # LL1-078

31.40 Depth to water

41.37 ~~41.19~~ Depth to Bottom

0905 Begin Purging well

0917 Begin Full suite Sampling of

FWGLL1MW-078C-0108-GW, Explos, Propell, PCB/Pest SVOC, VOC, cyanide, & TAL metals

1015 Clean up & Decon

1025 Left Site

Flow Rate 200 ml/min Pressure 40 lbs

visual Parameters Turb yes Color Brown odor NO

Bottom type soft

Daily Weather Conditions: A.M. 65 °F Sunny NO Wind

P.M.

Recorded By [signature] QA Checked By Charlotte Cannell

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: LL1-078

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS OTW
10505	0910	0.11	0.11	6.0	11.9	287	8.0	857	31.45
↓	0912	0.11	0.22	6.0	11.9	287	8.0	830	31.50
↓	0914	0.11	0.33	6.0	11.9	287	7.9	844	31.50
↓	0916	0.11	0.44	6.0	11.9	287	8.0	802	31.50

RECORDED BY: [signature] 10-5-05
(Signature and Date)

QA CHECK BY: [signature] 10-5-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-4-05 Su M (Tu) W Th F Sa PAGE 1 OF 1

Task Team Members:

Ryan Wilkinson

Narrative (include time and location):

0826 Arrive @ well # LL1-080

1213 Depth to water

22.45 ~~22.27~~ Depth to Bottom

0844 Begin Purging well

0856 Begin Full suite sampling of FWG LL1mw-080C-0109 gw for Regular Sample, split and Duplicate.

1015 Clean up & Decon

1025 Left Site

Duplicate Sample # FWG LL1mw-080C-0135-gw

Flow Rate 440 ml/min Pressure

Measured Parameters Turb Yes Color Brown odor no

Bottom Type soft

Daily Weather Conditions: A.M. 65°F Foggy

P.M.

Recorded By [signature] QA Checked By [signature]

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: LL1-080 PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW (Depth to water)
10-4-05	0848	0.12	0.12	6.6	15.8	199	6.4	127	13.14
	0850	0.24	0.36	6.6	15.8	197	6.0	104	13.30
	0854	0.24	0.60	6.5	15.8	196	5.9	87	13.35
	0854	0.24	0.84	6.4	15.9	197	5.8	65	13.45

RECORDED BY: [signature] 10-4-05
(Signature and Date)

QA CHECK BY: [signature] 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-4-05 Su M (Tu) W Th F Sa PAGE 1 OF 1

Task Team Members:

Ryan Wilkinson

Narrative (include time and location):

1146 ~~1043~~ RWW 10-4-05 Arrive @ well # ~~LL1-078~~ RWW 10-4-05 LL1-083

32.85 Depth to water

41.67 ~~41.49~~ RWW 10-6-05 Depth to Bottom

1206 Begin Purging well

1220 Begin Full Suite Sampling of

FWGLL1mw ~~[illegible]~~ 083C-0110-GW RWW 10-4-05 for

Regular Sample, split and Duplicate ~~FWGLL1mw~~

reg - FWGLL1mw-083C-0110-gw ~~-0785~~ ~~-0110~~ 10-4-05 ~~-0137~~

dup - FWGLL1mw-083C-0137-gw

RWW 10-4-05 1340 Clean up & Decon

RWW 1348 Left Site

Flow Rate 400 ml/min Pressure 40 lbs

Visual Parameters Turb yes color Brown odor NO

Bottom Type Soft

Daily Weather Conditions: A.M. 75°F Sunny Clear Hot

P.M.

Recorded By [signature] QA Checked By [signature]

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: LL1-083 PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-4-05	1210	0.106	0.212	4.6	14.4	212	1.9	<5.0 Flow	33.25
↓	1212	0.212	0.424	4.5	14.1	208	1.7	<5.0 Flow	33.26
	1214	0.212	0.636	4.4	14.0	210	1.4	<5.0 Flow	33.28
	1216	0.212	0.848	4.4	13.7	207	1.1	<5.0 Flow	33.30
	1218	0.212	1.06	4.4	13.6	205	1.0	888	33.30

RECORDED BY: [signature] 10-4-05
(Signature and Date)

QA CHECK BY: [signature] 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/04/05 Su M (Tu) W Th F Sa PAGE 1 OF 1

Task Team Members:

Al Brillinger

Narrative (include time and location):

14:05 Arrive LL2mw-059

Sample # FWGLL2mw-059C-0111-GW

(pest ÷ PCB, expl ÷ prop, VOC, SVOC, cyanide)

Sample # FWGLL2mw-059-0111-GF (TAL metals)

depth to water = 13.60

depth to bottom = 21.88 + 0.12 = 22.00

14:17 begin purging

~~begin sampling~~ AB 10-4-05

15:00 begin sampling

15:30 finish sampling

decon

~~lv site~~ AB 10-4-05

15:40 lv site

Daily Weather Conditions: A.M. AB

P.M. sunny 80°

Recorded By Al Brillinger QA Checked By Chandelle Carroll

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

10-4-05

WELL NUMBER AND LOCATION: LL2mw-059

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-4-05	14:21	0.25	0.25	5.20	16.14	0.186 S/cm	1.28 g/L	365	14.18
	14:25	0.25	0.50	5.08	15.37	0.183	0.89	425	14.38
	14:29	0.25	0.75	5.00	15.03	0.180	0.52	447	14.63
	14:33	0.25	1.0	5.62	14.90	0.180	0.41	396	14.62
	14:37	0.25	1.25	5.93	14.76	0.177	0.60	365	14.70
	14:41	0.25	1.50	5.87	14.75	0.175	0.85	343	14.75
	14:45	0.25	1.75	5.85	14.71	0.170	1.03	345	14.80
	14:49	0.25	2.00	5.95	14.68	0.170	1.14	332	14:80
	14:53	0.25	2.25	5.84	14.61	0.168	1.20	308	14.80
	14:55	0.125	2.375	5.89	14.63	0.167	1.22	305	14.80

RECORDED BY: Al Bullinger 10-4-05
(Signature and Date)

QA CHECK BY: Chad McCarroll 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/04/05 Su M (Tu) W Th F Sa PAGE 1 OF 1

Task Team Members:

Al Brillinger

Narrative (include time and location):

10:21 Arrive LL2mw-262

Sample # FWGLL2mw-262C-0112-GW

(expl: prop., VOC, SVOC, cyanide, pest: PCB)

Sample # FWGLL2mw-262C-0112-GF (TAL metals)

Depth to water = 10.74

Depth to bottom = 22.61 +0.12 = 22.73 (hard bottom)

10:35 begin purging

11:10 begin sampling

11:35 finish sampling

decon

11:50 lv site

Daily Weather Conditions: A.M. Sunny 67°-75°

P.M.

Recorded By Al Brillinger QA Checked By Chantelle Carroll

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: LL2mw-262 PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW Depth to Water
10-04-05	10:45	0.25	0.25	6.01	15.49	0.597 S/cm	0.60 g/L	236	11.05
	10:49	0.25	0.50	5.89	15.30	0.597	0.07	160	11.10
	10:53	0.25	0.75	6.11	15.29	0.594	0.06	128	11.18
	10:56	0.25	1.00	6.21	15.31	0.592	0.07	105	11.18
	10:59	0.25	1.25	6.23	15.36	0.601	0.08	110	1020
	11:02	0.25	1.50	6.23	15.35	0.607	0.13	91	10.22

RECORDED BY: Al Brellinger (Signature and Date)

QA CHECK BY: Charles McCarrell 10-6-05 (Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/04/05 Su M (Tu) W Th F Sa PAGE 1 OF 1

Task Team Members:

Al Brillinger

Narrative (include time and location):

08:35 Arrive LL2mw-263

Sample # FWGLL2mw-263C-0113-GW

(prop; expl., VOC, SVOC, pest; PCB, cyanide)

Sample # FWGLL2mw-263C-0113-GF (TAL metals)

(MS/MSD)

Depth to water = 10.54

Depth to bottom = 22.66 + 0.12 = 22.78 (silt@ bottom)

08:45 begin purging

09:20

AB 10-4-05 ~~09:20~~ begin sampling

10:10 finish sampling

decon

10:20 lv site

Daily Weather Conditions: A.M. foggy 55°

P.M.

Recorded By Al Brillinger QA Checked By Chantelle Carnell

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: LL2mw-263 PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW Depth to water
10-4-05	8:55	0.5	0.5	6.28	14.37	0.237 s/cm	0.57 g/L	545	10.60
	9:00	0.25	0.75	6.20	14.31	0.236	0.00	392	10.62
	9:05	0.25	1.00	6.81	14.27	0.239	0.00	252	10.68
	9:10	0.25	1.25	6.80	14.25	0.241	0.00	188	10.64
	9:15	.25	1.50	6.79	14.26	0.242	0.00	174	

RECORDED BY: Al Bullinger 10-4-05
(Signature and Date)

QA CHECK BY: Chandra Carroll 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-05-05 Su M Tu (W) Th F Sa PAGE 1 OF 1

Task Team Members:

Al Brillinger

Narrative (include time and location):

14:35 Arrive LL3mw-238

Sample # FWGLL3mw-238C-0114-GW

(expl. & prop., VOC, SVOC, cyanide, pest. & PCB)

Sample # FWGLL3mw-238C-0114-GF (TAL metals)

depth to water = 16.69'

depth to bottom = 23.31 + 0.12 = 23.43

14:50 begin purging

15:05 begin sampling

15:35 finish sampling

decon

15:50 lv site

Daily Weather Conditions: A.M. _____

P.M. Sunny 80°

Recorded By Al Brillinger QA Checked By Chantelle Arnold

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: LL3mw-238

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-5-05	14:51	0.125	0.125	6.22	17.85	0.210 S/cm	7.24 g/L	>999	16.95
	14:53	0.125	0.25	5.87	16.66	0.199	6.72	>999	17.08
	14:55	0.125	0.375	5.81	16.32	0.198	6.58	>999	17.25
	14:57	0.125	0.50	5.86	16.04	0.196	6.54	>999	17.35
	14:59	0.125	0.625	5.89	16.00	0.196	6.54	>999	

RECORDED BY: Al Bullingi 10-5-05
(Signature and Date)

QA CHECK BY: Claudia Canull 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/4/05 Su M (Tu) W Th F Sa PAGE____ OF ____

Task Team Members:

AMY HEIDENREICH

Narrative (include time and location):

8:22 ARRIVE @ WELL # LL3-242
18.61 Depth to water
22.83 Depth to Bottom (soft) + 0.12 = 22.95
8:55 BEGAN PURGING WELL
9:11 BEGAN FULL SUITE & SPLIT SAMPLE OF SAMPLE ID FWGLL3MW-242C-0115-GW & FWGLL3MW-242C-0115-GF & DUPLICATE FWGLL3MW-242C-0136-GW : EXP, PROP, TAL METALS, CN, SVOC, PCB, PEST, VOC
10:42 CLEANED EQUIPMENT & SITE
10:54 LEFT SITE

Daily Weather Conditions: A.M. FOGGY 54°

P.M. ____

Recorded By Amy Heidenreich QA Checked By [signature]

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: LL3-242 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10/4/05	9:55	INITIAL	0	6.47	13.87	202	4.98	250	18.61
	9:58	0.25	0.25	5.85	13.57	198	3.48	251	18.70
	9:01	0.25	0.50	5.44	13.39	197	3.30	190	18.84
	9:04	0.25	0.75	5.32	13.25	191	3.31	128	18.94
▼	9:07	0.25	1.00	5.24	13.20	187	3.61	81	18.98

RECORDED BY: Amy Hudemesh 10/4/05
(Signature and Date)

QA CHECK BY: Charles Carroll 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-5-05 Su M Tu (W) Th F Sa PAGE 1 OF 1

Task Team Members:

Ryan Wilkinson

Chantelle Carroll

Narrative (include time and location):

1300 Arrive C well # LL4 - 198

Depth to water 9.98

Depth to Bottom ~~21.58~~ 2 mw 10-06-05 (50ft) 21.76

1308 Begin Purging well

1321 Begin Full Suite Sampling of

FWGLL4mw-198d-0116gw for explos, propell, SVOC, VOC, PCB/Pest, TAL metals, cyanide

1400 Clean up & Decon

1410 Left Site

Flow Rate 400ml/min Pressure 30 psi

Visual Parameters Turb - yes Color - grey brown Odor - no

Bottom type (50ft)

Daily Weather Conditions: A.M.

P.M. Sunny, Warm, little to no breeze

Recorded By Chantelle Carroll QA Checked By Amy Hudnick

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: WL4-198

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS
10-5-05	1313	0.55	0.55	6.2	15.6	270	0	>999	10.56
↓	1315	0.22	0.77	6.0	15.3	256	0	>999	10.60
↓	1317	0.22	0.99	6.0	15.1	256	0	>999	10.62
↓	1319	0.22	1.21	5.9	14.9	256	0	>999	10.68

RECORDED BY: [signature] 10-5-05
(Signature and Date)

QA CHECK BY: [signature]
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-5-05 Su M Tu (W) Th F Sa PAGE 1 OF 1

Task Team Members:

Ryan Wilkinson

Narrative (include time and location):

10:46 Arrive @ well # LL4-~~[illegible]~~ 199 10-5-05

8.01 Depth to water

23.37 ~~23.19~~ 10-6-05 Depth to Bottom

10:59 Begin Purging Well

11:09 Begin Full Suite Sampling of

FW GLL4 ~~[illegible]~~ 10-5-05 W-199c ~~[illegible]~~ 10-5-05 -0117-GW

11:35 Clean up & Decon

11:43 Left Site

Flow Rate ~~440~~ 300 10-5-05 Pressure ~~40~~ 30 lbs 10-5-05

Visual Parameters Turb yes Color Brown yes odor yes

Bottom type Soft

Daily Weather Conditions: A.M. 75° Humid Sunny Nowind

P.M.

Recorded By [signature] QA Checked By [signature]

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: LL4 - ~~Orig~~ 10-5-05 199

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS D.T. Water
10-5-05	1100	0.08	0.08	6.7	14.7	437	4.1	729	9.15
↓	1102	0.16	0.24	6.7	14.4	465	1.0	647	9.65
	1104	0.16	0.40	7.0	14.1	476	0.0	563	10.50
	1106	0.16	0.56	7.0	14.0	479	0.0	588	10.81
↓	1108	0.16	0.72	7.0	13.9	481	0.0	621	11.30

Started Pressure to 30 psi 300 ml/min

RECORDED BY: _____ 10-5-05
(Signature and Date)

QA CHECK BY: _____ 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-5-05 Su M Tu W (Th) F Sa PAGE 1 OF 1

Task Team Members:

Ryan Wilkinson

Narrative (include time and location):

1259 Arrive @ well # LL11-02

3.57 Depth to water

16.49 ~~16.31~~ Depth to Bottom

1310 Begin Purging well

1321 Begin full suite* Sampling of FWGLL11mw-002-0118 GW ÷ FWGLL11MW-002-0118-GF

1315 Clean up & Decon

1355 Leave Site

ND* explosives ÷ propellants, TAL metals, VOCs, SVOCs, cyanide pesticides and PCBs

Flow Rate 200 ml/min Pressure 20 lbs

Used parameters Turb. yes color Grey odor no

Bottom type Hard

Well pumped dry on last Sample Bottle

Daily Weather Conditions: A.M. _____

P.M. Hot 80° Light Breeze

Recorded By Ryan Wilkinson QA Checked By A Bulling.

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: LL11 MW002

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS
10-6-05	1311	0.05	0.05	7.3	18.1	608	2.4	813	3.70
	1313	0.10	0.15	7.2	17.6	614	0.8	625	4.90
	1315	0.10	0.25	7.2	15.4	613	0.0	625	6.30
	1317	0.10	0.35	7.2	15.8	609	0.0	609	6.68
↓	1319	0.10	0.45	7.2	16.0	606	0.0	807	6.85

Adjusted pressure to 35 lbs

Adjusted to 20 lbs 200 ml/min

RECORDED BY: [signature] 10-6-05
(Signature and Date)

QA CHECK BY: [signature] 10-11-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/13/05 Su M Tu W (Th) F Sa PAGE____ OF ____

Task Team Members:

Al Brillinger

Narrative (include time and location):

13:30 Arrive LL11mw-002

Sample # FWGLL11mw-002C-052-GW (VOCS)

depth to water = 2.66'

depth to bottom = 16.39 +0.12 = 16.51

13:38 begin purging (Sample Pro equip)

13:55 begin sampling

13:57 end sampling

decon

14:10 lv well

* resampling vocs due to lab error

Daily Weather Conditions: A.M. _____

P.M. partly sunny 65°

Recorded By Al Brillinger QA Checked By

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: LL11 mw-002 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-13-05	13:40	0.125	0.125	7.25	15.24	0.499 s/cm	9.91 g/L	>999	3.10
	13:42	0.125	0.250	7.05	14.73	0.503	2.80	>999	3.70
	13:44	0.125	0.375	6.94	14.66	0.501	2.16	>999	4.40
	13:46	0.125	0.50	6.87	14.76	0.501	1.86	>999	4.90
	13:48	0.125	0.625	6.90	14.87	0.501	1.73	935	4.91
	13:50	0.125	0.75	7.01	14.97	0.499	1.70	919	4.93
	13:52	0.125	0.875	7.03	15.01	0.498	1.75	890	
							1		

RECORDED BY: Al Bullinger 10-13-05
(Signature and Date)

QA CHECK BY: Chantelle Carroll 10-17-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-6-05 Su M Tu W Th F Sa PAGE 1 OF 1

Task Team Members:

Ryan Wilkinson

Narrative (include time and location):

1053 Arrive @ well # LL11-07

15.12 Depth to water

25.38 ~~25.20~~ 10-6-05 Depth to Bottom

11.08 Begin Purging well

1123 Begin full suite sampling of Explos, Propell, PCB/Pest, SVOC, Cyanide, TAL metals, and VOC

FW 6LL 11mw-007C-0119-GW

Sampling includes MS/MSD

1210 Cleanup & Pecon

1219 Leave site

Flow Rate 440 ml/min Pressure 50 lbs

Visual Parameters Turb. yes Color white odor NO

Bottom type Soft

Daily Weather Conditions: A.M. 75° Sunny Light Breeze

P.M.

Recorded By [signature] QA Checked By [signature]

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: LL11-07

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10-6-05	1110	0.24	0.24	7.3	14.2	571	0.0	430	15.50
	1112	0.24	0.48	7.2	13.7	579	0.0	369	15.50
	1114	0.24	0.72	7.2	13.5	600	0.0	374	15.67
	1116	0.24	0.96	7.3	13.3	630	0.0	371	15.68
	1118	0.24	1.20	7.2	13.2	670	0.0	310	15.69
	1120	0.24	1.44	7.2	13.0	710	0.0	302	15.78
	1122	0.24	1.68	7.2	12.9	713	0.0	283	15.83

RECORDED BY: _____ 10-6-05
(Signature and Date)

QA CHECK BY: _____ 10-12-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/13/05 Su M Tu W (Th) F Sa PAGE____ OF ____

Task Team Members:

Al Brillinger

Narrative (include time and location):

14:15 Arrive LL11mw-007

Sample # FWGLL11mw-007C-0153-GW (MS/MSD)
(VOCs)

depth to water = 14.80

depth to bottom = 25.26 + 0.12 = 25.38

14:24 begin purging (Sample Pro equip)

14:40 begin sampling

14:42 end sampling

decon

15:00 lv well

* resampling VOCs due to lab error

well needs a cap

Daily Weather Conditions: A.M. _____

P.M. cloudy 65°

Recorded By Al Brillinger QA Checked By

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: LL11mw-007 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-13-05	14:26	0.125	0.125	7.19	13.74	0.504 s/cm	2.46 g/L	729	15.20
	14:28	0.125	0.250	7.02	13.17	0.504	0.78	564	15.42
	14:30	0.125	0.375	6.88	12.95	0.503	0.23	431	15.49
	14:32	0.125	0.50	6.92	12.76	0.503	0.00	363	15.55
	14:34	0.125	0.625	7.04	12.66	0.503	0.00	350	15.56
	14:36	0.125	0.75	7.15	12.63	0.504	0.00	321	15.58
	14:38	0.125	0.875	7.18	12.61	0.505	0.00	284	15.58

RECORDED BY: Al Bullinger 10-13-05
(Signature and Date)

QA CHECK BY: [signature] 10-17-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/4/05 Su M (Tu) W Th F Sa PAGE____ OF ____

Task Team Members:

AMY HEIDENREICH

Narrative (include time and location):

1130 ARRIVE @ WELL # LL12-153
7.71 DEPTH TO WATER
25.34 DEPTH TO BOTTOM (SOFT) + 0.12 = 25.46
11:19 BEGAN PURGING WELL
11:35 BEGAN FULL SUITE SAMPLING OF SAMPLE I.D. FWGLL12MW-153C-0120-GW & FWGLL12MW-153C-0120-GF: EXP, PROP, TAL METALS, CN, SVOC, NITRATE, PCB, PEST, VOC
12:01 CLEANED SITE & EQUIPMENT
12:10 LEFT SITE

Daily Weather Conditions: A.M. SUNNY, CALM 60°

P.M. ____

Recorded By Amy Heidenreich QA Checked By Charlie Carroll

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: LL2-153 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10/4/05	11:19	INITIAL	0	6.19	15.53	942	3.22	700	7.72
	11:24	0.25	0.25	6.25	15.33	955	1.19	305	8.59
	11:26	0.25	0.50	6.30	15.00	954	1.22	231	9.13
	11:28	0.25	0.75	6.35	14.90	954	1.96	210	9.72
	11:30	0.25	1.00	6.41	14.78	953	2.03	190	10.19
▼	11:32	0.25	1.25	6.46	14.81	953	2.20	197	10.88

RECORDED BY: Amy Heidrich 10/4/05
(Signature and Date)

QA CHECK BY: Chantelle Canell 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/03/05 Su (M) Tu W Th F Sa PAGE____ OF ____

Task Team Members:

Al Brillinger

Narrative (include time and location):

11:40 Arrive @ LL12mw-182

Sample # ~~FWGLL12mw-182C-GW~~ AB FWGLL12mw-182C-0121-GW

(expl & prop., VOCs, SVOCs, cyanide, nitrates, pest. & PCBs)

sample # FWGLL12mw-182C-0121-GF (metals

Depth to water = 12.51'

Depth to bottom = 38.12 + 0.12 = 38.24'

setup sampling equip (Sample Pro set)

11:55 begin purging

12:30 begin sampling

13:05 finish sampling

decon

13:15 lv site

Daily Weather Conditions: A.M. Sunny 70°

P.M.

Recorded By Al Brillinger QA Checked By [signature]

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: LL12 mw - 182

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW Depth to water
10/3/05	12:05	0.50	0.50	7.00	15.25	1.85 S/cm	0.20 g/L	847	13.35'
	12:10	0.25	0.75	6.86	15.17	1.79	0.00	440	14.20'
	12:15	0.25	1.00	7.13	14.93	1.77	0.00	315	14.35
	12:20	0.25	1.25	7.20	14.96	1.75	0.00	217	14.63
	12:25	0.25	1.50	7.24	14.98	1.74	0.00	172	14.85

RECORDED BY: Al Billings 10-3-05
(Signature and Date)

QA CHECK BY: Chandra Cavell 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/03/05 Su (M) Tu W Th F Sa PAGE____ OF ____
Task Team Members:

Al Brillinger

Narrative (include time and location):

10:00 Arrive @ LL12mw-183

Sample # FWGLL12 mw-183C-0122-GW

(pest., PCB's, VOCs, SVOCs, explosives + propellants, cyanide) + nitrate AB 10-3-05

FWGLL12 mw-183C-0123-GF (metals) D122 AB

Depth to water = 13.89'

Depth to bottom = 36.25 + 0.12 = 36.37 AB

(need to fish out tubing)

- setup sampling equip: Horiba U-22 (4023014), SamplePro pump (10964)

MP-10 (MP-10-1826) controller, compressor QED 21444

10:25 begin purging

10:52 begin sampling

11:25 finish sampling

AB for 11:30 decon - lv for LL12-182

Daily Weather Conditions: A.M. Sunny 60°

P.M. ____

Recorded By Al Brillinger QA Checked By Brandi Carroll

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: LL12mw-183

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS water level (DTW)
10/3/05	10:30	0.25	0.25	6.89	13.74	1.75 ~~AB~~ s/cm	1.01 g/L	101	14.95
	10:35	0.25	0.50	6.89	13.40	1.72	0.01	99.1	15.70
	10:40	0.25	0.75	7.07	13.29	1.72	0.00	97.0	16.43
	10:45	0.25	1.0	7.15	13.08	1.72	0.00	101.0	16.9
	10:50	0.25	1.25	7.15	13.13	1.72	0.00	117.0	16.9

RECORDED BY: Al Billinger 10-3-05
(Signature and Date)

QA CHECK BY: Charlie Carroll 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-3-05 Su (M) Tu W Th F Sa PAGE 1 OF 1

Task Team Members:

Ryan Wilkinson

Narrative (include time and location):

0948 Arrive @ Well # L.L 12 MW-186

6.65 Depth to water

~~11.95~~ 12.11 Depth to Bottom

1024 Begin Purging well

1032 Begin full suite Sampling of Sample of Sample FWLL 12MW-186C-0122-LW

1100 Clean up & Decon

1110 Left Site

Flow Rate 160ml/min Pressure 30 PSI

Visual Parameters Turbidity - Yes Color - Grey Odor - NO

Bottom type Soft

Daily Weather Conditions: A.M. 70° Hazy No Wind

P.M.

Recorded By [signature] QA Checked By [signature]

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: LL12-186

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10-3-05	1024	0.04	0.04	6.9	14.8	1.16 mS/cm	0.0	-5.0	8.50ft
↓	1026	0.08	0.12	6.9	14.9	1.14	0.0	-5.0	8.50
↓	1028	0.08	0.20	6.9	14.8	1.13	0.0	78.1	9.44
↓	1030	0.08	0.28	6.9	14.9	1.12	0.0	76.2	9.50

RECORDED BY: [signature] 10-3-05
(Signature and Date)

QA CHECK BY: Charlie Canada 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/3/05 Su (M) Tu W Th F Sa PAGE____ OF ____

Task Team Members:

AMY HEIDENREICH

Narrative (include time and location):

11:25 ARRIVE @ WELL # CBP-05

13.05 Depth to WATER

27.82 Depth to Bottom +0.12 = 27.94 (SOFT)

11:45 BEGAN PURGING WELL

12:00 BEGAN FULL SUITE ~~MS AND MSD~~ alt 10/3/05

SAMPLING OF SAMPLE I.D. fwgCBPmw-005c-0124-GW

& fwgCBPmw-005c-0124-GF : EXP, PROP, CN, SVOC,

TAL METALS, CN, ~~SVOC~~ alt 10/3/05, PCB, PEST, VOC

12:28 CLEANED SITE & EQUIPMENT

12:36 LEFT SITE

Daily Weather Conditions: A.M. 60° Sunny 11:25

P.M. _____

Recorded By Amy Heidenreich QA Checked By Chandler Cantrell

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: CBP-005 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10/3/05	11:46	INITIAL	0	7.07	15.21	781	3:11 ~~999 purge~~	999+	13.38
	11:49	0.25	0.25	6.69	14.05	769	0.12	999+	~~13.~~ 13.39
	11:52	0.25	~~0.50~~ 0.50	6.56	13.45	762	0.00	999+	13.32
	11:54	0.25	0.75	6.53	13.41	759	0.01	999+	13.29
	11:56	0.25	1.00	6.52	13.30	751	0.00	999+	13.25

RECORDED BY: Amy Hardwick 10/3/05
(Signature and Date)

QA CHECK BY: Chandler Carroll 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/3/05 Su (M) Tu W Th F Sa PAGE____ OF ____

Task Team Members:

Amy Heidenreich

Narrative (include time and location):

9:43 ARRIVE @ WELL # ~~CBP-007~~ 10/3/05 CBP-007

17.67 ~~10:10~~ 10/3/05 Depth to water 17.67

32.32 Depth to BOTTOM 32.32 +0.12 = 32.44 (SOFT)

10:10 BEGAN PURGING 10/3/05 WELL

10:26 BEGAN FULL SUITE SAMPLING of SAMPLE I.D. FWGCBPmw-007C-0125-GW : FWGCBPmw-007C-0125-Gf : EXP, PROP, TAL METALS, CN, ~~NITRATE~~ 10/3/05, SVOC, PCB, PEST, VOC.

11:17 CLEANED SITE & EQUIPMENT

11:23 LEFT SITE

* 10:26 BEGAN FULL SUITE : MS/MSD SAMPLING of SAMPLE I.D. FWGCBPmw-007C-0125-GW : FWGCBPmw-007C-Gf : EXP, PROP, TAL Metals, CN, SVOC, PCB, PEST, VOC

Daily Weather Conditions: A.M. 61° Sunny w/ few Clouds 9:43

P.M. ____

Recorded By Amy Heidenreich QA Checked By Chandler Carroll

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: CBP-007 PAGE _____ OF _____

DATE	TIME	* GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10/3/05	10:10	INITIAL 0	0	7.06	12.73	217	2.43	533	18.24
	10:13	0.25	0.25	6.71	12.22	213	0.26	652	18.70
	10:15	0.25	0.50	6.57	12.10	206	0.00	999	19.21
	10:17	0.25	0.75	6.49	12.13	202	0.00	999	19.85
	10:19	0.25	1.00	6.46	12.09	199	0.00	628	20.32
	10:21	0.25	1.25	6.46	12.19	198	0.00	596	20.87
	10:23	0.25	1.50	6.47	12.16	198	0.00	573	21.34

RECORDED BY: Amy Hendricks 10/3/05
(Signature and Date)

QA CHECK BY: Charlie Arnold 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/18/05 Su M Tu W (Th) F Sa PAGE 1 OF 1

Task Team Members:

Amy Heidenreich

Narrative (include time and location):

10:22 ARRIVE @ Well # WBG-06
8.87 DEPTH TO WATER
20.33 DEPTH TO BOTTOM (SOFT)
10:37 BEGAN PURGING WELL
10:50 BEGAN FULL SUITE SAMPLING OF
SAMPLE I.D. FWGWBGMW-0016C-0129-GW;
FWGWBGMW-0016C-0129-GF: EXP, PROP,
TAL METALS, CN, SVOC, PCB, PEST, VOC
11:17 CLEANED SITE & EQUIPMENT
11:24 LEFT SITE

Daily Weather Conditions: A.M. SUNNY, CALM 61°

P.M.

Recorded By Amy Heidenreich QA Checked By Al Billings

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: WBG-006

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10/6/05	10:37	INITIAL	0	6.83	15.79	397	3.10	526	9.01
	10:39	0.25	0.25	6.72	15.59	397	1.36	402	9.04
	10:41	0.25	0.50	6.69	15.27	396	0.40	373	9.02
	10:43	0.25	0.75	6.69	15.05	394	0.30	355	9.07
	10:45	0.25	1.00	6.68	15.10	391	0.27	348	9.04
	10:47	0.25	1.25	6.68	15.02	391	0.15	342	9.10

RECORDED BY: Amy Henderson 10/6/05
(Signature and Date)

QA CHECK BY: [signature] 10-11-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-13-05 Su M Tu W (Th) F Sa PAGE____ OF ____

Task Team Members:

Al Brillinger

Narrative (include time and location):

9:57 Arrive WBG-006

Sample # FWGWBGmw-006C-0154-GW (VOCs)

depth to water = 8.17'

depth to bottom 20.22 + 0.12 = 20.34 (soft)

10:06 begin purging (Sample Pro equip)

10:25 begin sampling

10:27 end sampling

decon

10:41 lv well

* resampling vocs due to lab error

Daily Weather Conditions: A.M. sunny 60°

P.M. ____

Recorded By Al Brillinger QA Checked By Charlotte Carroll

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: WBG-006 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-13-05	10:08	0.125	0.125	7.31	14.99	0.360 s/cm	2.36 g/L	398	8.36
	10:10	0.125	0.250	7.26	14.53	0.359	1.13	589	8.40
	10:12	0.125	0.375	7.32	14.30	0.359	4.52	538	8.60
	10:14	0.125	0.50	7.29	14.18	0.357	5.05	507	8.60
	10:16	0.125	0.625	7.35	14.10	0.356	4.59	486	8.62
	10:18	0.125	0.75	7.34	14.05	0.355	4.02	453	8.65
	10:20	0.125	0.875	7.35	14.03	0.356	3.78	322	8.65
	10:22	0.125	1.0	7.35	14.04	0.355	3.80	359	8.66

RECORDED BY: _____
(Signature and Date)

QA CHECK BY: [signature] 10-17-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/6/05 Su M Tu W (Th) F Sa PAGE 1 OF 1

Task Team Members:

AMY HEIDENREICH

Narrative (include time and location):

8:27 ARRIVE @ WELL WRG-07
18.59 DEPTH TO WATER
26.38 DEPTH TO BOTTOM (HARD)
8:40 BEGAN PURGING WELL
8:52 BEGAN FULL SUITE SAMPLING & SPLIT SAMPLE OF SAMPLE I.D. FWGWRGMW-007C-0130-GW & FWGWRGMW-007C-0130-GF & DUPLICATE FWGWRGMW-007C-0139-GW & FWGWRGMW-007C-0139-GF: EXP, PROP, TAL METALS, CN, SVOC, PCB, PEST, VOC
10:13 CLEANED EQUIPMENT & SITE
10:20 LEFT SITE @ 10:20

Daily Weather Conditions: A.M. SUNNY, CALM 59°

P.M.

Recorded By Amy Heidenreich QA Checked By AE Bullinger

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: WBG-007

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS
10/6/05	8:40	INITIAL	0	6.84	13.09	368	4.80	999+	Depth to water 18.63
	8:43	0.25	0.25	6.77	12.68	369	0.79	999+	18.65
	8:45	0.25	0.50	6.70	12.53	370	0.00	999+	18.63
	8:47	0.25	0.75	6.69	12.46	370	0.00	999+	18.65
	8:49	0.25	1.00	6.67	12.44	370	0.00	999+	18.67

RECORDED BY: Ann Heidenreich 10/6/05
(Signature and Date)

QA CHECK BY: Al Bullington 10-11-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/13/05 Su M Tu W (Th) F Sa PAGE____ OF ____

Task Team Members:

Al Brillinger

Narrative (include time and location):

9:15 Arrive WBGmw-007

Sample # FWGWBGmw-007C-0155-GW (VOCs) + duplicate

FWGWBGmw-007C-0156-GW (VOCs) (split)

depth to water 18.53'

depth to bottom = 26.37 +0.12 = 26.49

9:28 begin purging (Sample Pro equip)

9:40 begin sampling

9:44 end sampling

decon

9:53 lv well

* resampling VOCs due to lab error

Daily Weather Conditions: A.M. partly cloudy 60° calm

P.M. ____

Recorded By Al Brillinger QA Checked By [signature]

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: WBGmw-007 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-13-05	9:30	0.125	0.125	7.27	13.20	0.347 s/cm	1.92	7999	18.58
	9:32	0.125	0.25	7.16	12.82	0.341	0.44	>999	
	9:34	0.125	0.375	7.16	12.73	0.339	0.00	7999	
	9:36	0.125	0.50	7.21	12.70	0.339	0.00	7999	18.60
	9:38	0.125	0.625	7.22	12.72	0.338	0.00	>999	18.60

RECORDED BY: [signature] 10-13-05
(Signature and Date)

QA CHECK BY: [signature] 10-17-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/6/05 Su M Tu W Th F Sa PAGE 1 OF 1

Task Team Members:

AMY HEIDENREICH

Narrative (include time and location):

11:29 ARRIVE @ WELL WBG-09
15.05 DEPTH TO WATER
24.64 DEPTH TO BOTTOM (SOFT)
11:44 BEGAN PURGING WELL
11:57 BEGAN FULL SUITE SAMPLING OF SAMPLE I.D. FWGWBGMW-009C-0131-GW & FWGWBGMW-009C-0131-GF: EXP, PROP, TAL METALS, CN, SVOC, PCB, PEST, VOC
12:21 CLEANED EQUIPMENT & SITE
12:30 LEFT SITE

Daily Weather Conditions: A.M. Sunny, Slight Breeze 65°

P.M.

Recorded By Amy Heidenreich QA Checked By Al Brillinger

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: WBG-009

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10/6/05	11:44	INITIAL	0	6.04	16.95	256	4.93	161	15.25
	11:46	0.25	0.25	5.80	16.71	248	2.94	152	15.37
	11:48	0.25	0.50	5.68	16.36	238	2.45	147	15.55
	11:50	0.25	0.75	5.65	16.21	236	2.41	145	15.71
	11:52	0.25	1.00	5.63	16.07	238	2.47	141	15.88

RECORDED BY: Amy Hiedrich 10/6/05
(Signature and Date)

QA CHECK BY: Al Brilling 10-11-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-13-05 Su M Tu W (Th) F Sa PAGE____ OF ____

Task Team Members:

Al Brillinger

Narrative (include time and location):

10:45 Arrive WBGmw-009

Sample # FWGWBGmw-009C-0157-GW (VOCs)

depth to water = 14.75'

depth to bottom = 24.24 + 0.12 = 24.36'

10:58 begin purging (SamplePro equip)

11:16 begin sampling

11:18 end sampling

decon

11:28 lv well

* resampling VOCs due to lab error

Daily Weather Conditions: A.M. cloudy 60°

P.M. ____

Recorded By Al Brillinger QA Checked By Chandler Crouch

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: WBGmw-009 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-13-05	11:00	0.125	0.125	6.13	15.10	0.180 s/cm	3.51	74	15.19
	11:02	0.125	0.250	6.07	15.08	0.171	3.51	81	15.30
	11:04	0.125	0.375	6.16	15.03	0.210	2.72	199	15.30
	11:06	0.125	0.50	6.30	14.95	0.249	2.34	181	15.30
	11:08	0.125	0.625	6.40	14.87	0.274	2.10	67	15.30
	11:10	0.125	0.750	6.45	14.78	0.290	2.11	78	15.32
	11:12	0.125	0.875	6.49	14.70	0.297	2.03	78	15.32
	11:14	0.125	1.0	6.50	14.70	0.299	2.01	73	15.3

RECORDED BY: Al Brillinger 10-13-05
(Signature and Date)

QA CHECK BY: [signature] 10-17-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-06-05 Su M Tu W (Th) F Sa PAGE 1 OF 1

Task Team Members:

Al Brillinger

Narrative (include time and location):

8:30 Arrive Demolition Area 2 Det-3

Sample # FWGDA2mw-Det3C-0127-GW

(expl + prop., VOC, SVOC, cyanide, pest + PCB)

Sample # FWGDA2mw-Det3C-0127-GF (TAL metals)

depth to water = 9.70

depth to bottom = 16.00 + 0.12 = 16.12

8:45 begin purging

9:05 begin sampling

9:35 end sampling

decon

9:45 move to Det-4

Daily Weather Conditions: A.M. sunny 50-60

P.M.

Recorded By Al Brillinger QA Checked By Chantelle Carroll

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: DA2 Det3

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-06-05	8:48	0.125	0.125	6.85	14.44	0.563 s/cm	2.74	299	9.85
	8:50	0.125	0.25	6.61	14.37	0.560	1.03	265	9.79
	8:52	0.125	0.375	6.59	14.33	0.555	0.21	221	9.84
	8:54	0.125	0.50	6.84	14.31	0.559	0.02	198	9.85
	8:56	0.125	0.625	7.01	14.31	0.554	0.00	190	9.85
	8:58	0.125	0.75	7.10	14.30	0.554	0.00	183	9.85
	9:00	0.125	0.875	7.10	14.29	0.554	0.00	180	9.85

RECORDED BY: A. Bullinger 10-6-05
(Signature and Date)

QA CHECK BY: Chandler Carroll 10-12-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/13/05 Su M Tu W (Th) F Sa PAGE____ OF ____

Task Team Members:

Al Brillinger

Narrative (include time and location):

11:42 Arrive DA2-Det 3

Sample # ~~FWGDA2-Det3C~~ AB 10-13-05 - GW (VOCs)

FWGDA2mw-Det3C-0150-GW

depth to water = 9.62'

depth to bottom = 16.00 + 0.12 = 16.12'

11:53 begin purging (SamplePro equip)

12:10 begin sampling

12:11 end sampling

decon

12:20 IV well

* resampling VOCs due to lab error

Daily Weather Conditions: A.M. Cloudy 60°

P.M. ____

Recorded By AE Brillinger QA Checked By [signature]

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: DA2-Det 3 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-13-05	11:55	0.125	0.125	7.08	15.16	0.497 S/cm	4.02	119	9.78
	11:57	0.125	0.250	7.02	14.75	0.498	1.30	89	9.81
	11:59	0.125	0.375	7.01	14.61	0.497	0.65	61	9.82
	12:01	0.125	0.50	7.01	14.51	0.496	0.37	48	9.83
	12:03	0.125	0.625	7.05	14.46	0.496	0.19	34	9.83
	12:05	0.125	0.75	7.10	14.46	0.497	0.00	30	9.83
	12:07	0.125	0.875	7.11	14.45	0.496	0.00	27	9.83

RECORDED BY: Al Bullinger 10-13-05
(Signature and Date)

QA CHECK BY: [signature] 10-17-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-05-05 Su M Tu (W) Th F Sa PAGE____ OF ____
Task Team Members:

Al Brillinger

Narrative (include time and location):

16:15 Arrive Demo Area 2 Det-4
initial water level (after removing dedicated bailer full of water) = 14.55
depth to bottom = 14.66 + 0.12 = 14.78'
removed 1 full bailer + 3 partial bailers (each < 1/4 full)
prep for sampling tomorrow (purge)

16:30 W site

Daily Weather Conditions: A.M. _____
P.M. sunny 80°

Recorded By Al Brillinger QA Checked By

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: _____ PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS
					10-12-05				
					N/A	See prior pg			

RECORDED BY: _____
(Signature and Date)

QA CHECK BY: _____ 10-12-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-06-05 Su M Tu W (Th) F Sa PAGE_____ OF _____

Task Team Members:

Al Brillinger

Narrative (include time and location): AB 10-6-05

9:45 Arrive @ Det-34 (Demo Area 2)

Sample # FWGDA2mw-Det4C-0128-GW

(pest: PCB, expl. & prop., VOC, SVOC, cyanide)

Sample # FWGDA2mw-Det4C-0128-GF (TAL metals)

- well was bailed dry yesterday

- well parameters - first bail from well

pH = 6.73 DO = 4.79

temp = 17.65 cond = 0.709 s/cm

turbidity = 156

depth to water = 12.90

10:15 begin sampling w/ dedicated bailer

collected VOCs, cyanide & 1/2 of amber (AB ~~bailer~~). < 2" of water in bailer - will let well recover... move to DA2107

10:26-12:13 recharge 12:13-12:22 remove ~ 1.5 liters

12:22-13:30 recharge 13:30-13:45 remove ~ 1.25 liters

13:45-15:25 sample *

15:30 lv site

Daily Weather Conditions: A.M. sunny 60°

P.M. _____

Recorded By Al Brillinger QA Checked By Charlie Carroll

* filled 5 amber 1-liter bottles
3 40-ml vials
1 250 ml poly

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: _____ PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS
						@ 10-12-05			
						N/A see prior pg			

RECORDED BY: _____
(Signature and Date)

QA CHECK BY: Chantelle Carroll 10-12-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/12/05 Su M Tu W Th F Sa PAGE____ OF ____

Task Team Members:

Al Brillinger

Narrative (include time and location):

14:15 Arrived @ DA2mw-Det4 to purge well

- removed ~ 1.5 bailers (dedicated bailer) until well was bailed dry

14:25 lv site

Daily Weather Conditions: A.M. _____

P.M. Cloudy ~ 60-65°

Recorded By Al Brillinger QA Checked By

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: DA2 - DET4

PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS

N/A

RECORDED BY: [signature] 10-12-05
(Signature and Date)

QA CHECK BY: [signature] 10-17-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/13/05 Su M Tu W (Th) F Sa PAGE____ OF ____

Task Team Members:

Al Brillinger

Narrative (include time and location):

Arrive DA2-Det 4

12:20 Sample # FWGDA2mw-Det4C-0151-GW (VOCs)

depth to water = * below top of bailer - probe can't be lowered past bailer

depth to bottom = 13.80 + 0.12 = 13.92'

well purged by bailing dry on 10-12-05

12:25 begin sampling by dedicated bailer

12:27 end sampling

decon

12:35 AB lv well site

* resampling VOCs due to lab error

pH = 6.72, cond. = 0.590 s/cm, TURB = 25 NTU DO = 5.27 g/L

Temp = 16.88°C

Daily Weather Conditions: A.M. ____

P.M. cloudy 60°

Recorded By Al Brillinger. QA Checked By

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: DA2mw - Det 4

PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS
		N/A			ABB				

RECORDED BY: Al Bulleri 10-13-05
(Signature and Date)

QA CHECK BY: [signature] 10-17-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/06/05 Su M Tu W (Th) F Sa PAGE 1 OF 1

Task Team Members:

Al Brillinger

Narrative (include time and location):

10:30 Arrive DA2mw-107

Sample # FWGDA2mw-107C-0126-GW (MS/MSD)

(pest: PCBs, expl: prop., voc, svoc, cyanide)

Sample # FWGDA2mw-107C-0126-GF (TAL metals)

depth to water = 9.24

depth to bottom = 16.82 + 0.12 = 16.94'

10:45 begin purging

AB 10.6.05 ~~10:45~~ 11:10 begin sampling

12:00 finish sampling

decon

12:10 lv DA2-107

Daily Weather Conditions: A.M. Sunny 65-70°

P.M.

Recorded By Al Brillinger QA Checked By Chandler Carroll

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: DA2-107

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-6-05	10:48	0.125	0.125	7.21	17.42	0.503 s/cm	1.35 g/L	>999	9.78
	10:50	0.125	0.25 ~~0.125~~ AB	6.84	17.07	0.502	0.40	447	9.90
	10:52	0.125	0.375	6.74	16.94	0.499	0.08	267	9.97
	10:54	0.125	0.5	6.75	16.93	0.499	0.00	201	10.05
	10:56	0.125	0.625	6.96	16.91	0.505	0.00	162	10.05
	10:58	0.125	0.75	7.16	16.91	0.504	0.00	161	10.05
	11:00	0.125	0.875	7.21	16.91	0.511	0.00	148	10.07
	11:02	0.125	1.0	7.22	16.88	0.510	0.00	146	10.09

RECORDED BY: Al Bullinger 10-6-05
(Signature and Date)

QA CHECK BY: Chandler Carroll 10-12-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-13-05 Su M Tu W (Th) F Sa PAGE____ OF ____

Task Team Members:

Al Brillinger

Narrative (include time and location):

12:40 Arrive DA2mw-107

Sample # FWGDA2mw-107C-0149-GW (MS/MSD) (VOCs)

depth to water 8.96'

depth to bottom 16.82 + 0.12 = 16.94 (hard)

AB 12:50 ~~18:48~~ begin purging (SamplePro equip)

13:05 begin sampling

13:07 end sampling

decon

13:20 lv well site

* resampling VOCs due to lab error

Daily Weather Conditions: A.M. _____

P.M. cloudy 60°

Recorded By Al Brillinger QA Checked By

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: DA2mw-107 PAGE _____ OF _____

DATE	TIME AB	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-13-05	12:52 ~~12:50~~	0.125	0.125	7.12	16.60	0.447 s/cm	5.65 g/L	922	9.35
	12:54	0.125	0.250	7.10	16.32	0.447	2.28	487	9.50
	12:56	0.125	0.375	7.08	16.29	0.441	1.77	212	9.65
	12:58	0.125	0.50	7.08	16.29	0.444	1.50	123	9.68
	13:00	0.125	0.625	7.11	16.29	0.443	1.60	68	9.70
	13:02	0.125	0.750	7.11	16.29	0.445	1.54	55	9.71

RECORDED BY: _____ (Signature and Date)

QA CHECK BY: Claudia Carroll 10-17-05 (Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/3/05 Su M Tu W Th F Sa PAGE____ OF ____

Task Team Members:

AMY HEIDENREICH

Narrative (include time and location):

14:05 ARRIVE @ Well # RQL-007
6.21 Depth to Water
18.55 Depth to Bottom (HARD) +0.12 = 18.67
14:32 BEGAN PURGING WELL
15:04 BEGAN FULL SUITE SAMPLING OF SAMPLE I.D. FWGRQLMW-007C-0132-GW & FWGRQL-007-0132-GF: EXP, PROP, CN, TAL METALS, CN, SVOC, PCB, PEST, VOC

15:28 CLEANED EQUIPMENT & SITE
15:35 LEFT SITE

Daily Weather Conditions: A.M. 14:05 81° Partly Cloudy

P.M. _____

Recorded By Amy Heidenreich QA Checked By Charlotte Carroll

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: RQL-007 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10/3/05	14:41	INITIAL	0	6.21	22.50	693	5.87	442	6.24
	14:43	0.25	0.25	6.26	19.95	711	6.06	368	6.34
	14:45	0.25	0.50	6.27	19.05	718	6.36	327	6.28
	14:47	0.25	0.75	6.23	18.66	755	5.33	243	6.30
	14:49	0.25	1.00	6.20	18.57	782	4.23	218	6.33
	14:51	0.25	1.25	6.20	18.49	850	3.13	210	6.39
	14:53	0.25	1.50	6.20	18.41	907	2.91	199	6.32
	14:55	0.25	1.75	6.21	18.41	945	2.25	196	6.41
	14:57	0.25	2.00	6.22	18.32	975	1.95	after purge 198	6.33
	14:59	0.25	2.25	6.23	18.28	125	2.04	~~+20~~ 200 10/3/05	6.40
	15:01	0.25	2.50	6.25	18.22	127	1.89	196	6.35

RECORDED BY: Amy Henderson 10/3/05
(Signature and Date)

QA CHECK BY: Charlie Cardl 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10-3-05 Su (M) Tu W Th F Sa PAGE 1 OF 1

Task Team Members:

Ryan Wilkinson

Narrative (include time and location):

1400 Arrive @ well # RQLmw-008

6.22 Depth to water

~~15.82~~ 19.0 Depth to Bottom

1432 Begin Purging well

1446 Begin Full Suite Sampling of FWGRQLmw-008C-0133 (GW) (Explos, propell, PCB/Pest, SVOC, VOC, cyanide, & TAL metals)

1510 Clean up & Decon

1518 Left Site

Flow Rate 440 ml/min Pressure 40 ~~14.5~~

Visual Parameters Turb slight Color NO odor NO

Bottom type Soft

Daily Weather Conditions: ~~A.M.~~ PM 85° Hot Humid NO wind

~~P.M.~~ AM

Recorded By [signature] QA Checked By Charlie Carroll

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: RQL-008

PAGE 1 OF 1

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS Depth to Water
10-3-05	1436	0.12	0.12	6.4	18.2	890	0.6	43	6.43
	1438	0.24	0.36	6.4	17.9	905	0.0	20	6.44
	1440	0.24	0.60	6.4	17.6	909	0.0	14	6.44
	1442	0.24	0.84	6.3	17.4	919	0.0	30	6.44

RECORDED BY: [signature] 10-3-05
(Signature and Date)

QA CHECK BY: [signature] 10-6-05
(Signature and Date)

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

Date (mm/dd/yy): 10/03/05 Su (M) Tu W Th F Sa PAGE____ OF ____

Task Team Members:

Al Brillinger

Narrative (include time and location):

14:00 Arrive BQLmw-009

Sample # FWGRQLmw-009C-0134-GW

expl ; prop., VOC, SVOC, cyanide, PCB ; pest.

Sample # FWGRQLmw-009C-0134-GF (metals)

Depth to water 5.06'

Depth to bottom = 18.78 + 0.12 = 18.90'

set up Sample Pro sampling equip

14:25 begin purging

14:55 begin sampling

15:15 finish sampling

decon

15:30 lv site

Daily Weather Conditions: A.M. _____

P.M. sunny - partly sunny 80°

Recorded By Al Brillinger QA Checked By Charles Carroll

WELL PURGE RECORD

PROJECT NAME: Facility-Wide Groundwater Monitoring Program

WELL NUMBER AND LOCATION: RQLmw-009 PAGE _____ OF _____

DATE	TIME	GALLONS REMOVED	TOTAL GALLONS REMOVED	pH (Standard Units)	TEMP (C)	SPECIFIC CONDUCTIVITY (µMHOS/CM)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTU)	COMMENTS DTW
10-03-05	14:30	0.25	0.25	6.53	19.36	0.518 s/cm	0.50	73	5.75'
	14:35	0.25	0.50	6.71	19.41	0.500	0.82	59	5.73'
	14:40	0.25	0.75	6.74	19.31	0.517	1.11	54	5.74'
	14:45	0.25	1.00	6.67	18.90	0.547	1.13	53	5.65
	14:50	0.25	1.25	6.69	18.95	0.561	1.15	54	

RECORDED BY: A. Brillinger 10-3-05
(Signature and Date)

QA CHECK BY: Chantelle Carroll 10-6-05
(Signature and Date)

COMPREHENSIVE WATER LEVEL MEASUREMENTS

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

WELL NUMBER	DATE	TIME	DEPTH TO WATER*	INSTRUMENT	SERIAL NO.	REMARKS DTB	
BKG-20	9-27-05	8:00	11.58	Herron dipper-T	05767	33.18+0.12=33.30	hard
LL11-002		8:15	3.01			16.38+0.12	hard
LL11-007		8:25	15.74			25.25+0.12=25.37	hard
BKG-016		9:35	7.19			21.14+0.12=21.36	hard
BKG-005		9:45	14.12			20.91+0.12=21.03	soft
BKG-017		9:55	20.28			35.96+0.12=36.08	hard
BKG-019		10:10	20.68			35.70+0.12=35.82 need to fish tubing	soft-some sed.
BKG-018		10:30	16.23		AG 27.5	27.51+0.12=27.63 need to fish tubing	hard
BKG-006		10:45	23.22			37.49+0.12=37.61	hard
BKG-015		10:55	50.97			52.98+0.12=53.10 need to fish tubing	hard
BKG-021		11:10	18.99			21.32+0.12=21.44	hard
BKG-004		11:20	14.42			22.19+0.12=22.31	hard
BKG-008		11:30	18.54			27.32+0.12=27.44 need to fish tubing	hard
RQL-007		11:40	5.96			18.56+0.12=18.68	hard
RQL-008		11:50	6.02			18.60+0.12=18.72	hard
RQL-009		12:00	4.74			18.77+0.12=18.89	hard

*All measurements from top of casing.

RECORDED BY: Al Bullen 9-27-05
(Signature and Date)

QA CHECK BY: Chandler Carroll 10-4-05
(Signature and Date)

COMPREHENSIVE WATER LEVEL MEASUREMENTS

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

WELL NUMBER	DATE	TIME	DEPTH TO WATER*	INSTRUMENT	SERIAL NO.	REMARKS DTB
~~LL3~~ LL2 mw-263	9-27-05	12:20	10.97	Herron dipper-T	05767	22.64+0.12=22.76 hard
LL2mw-262		12:30	10.99		/	22.62+0.12=22.74 hard
LL2mw-059		12:40	13.58			21.88+0.12=22.00 hard
LL3mw-242		12:50	8.72			22.47+0.12=22.59 hard
LL3mw-238		13:00	17.08			23.31+0.12=23.43 hard
LL4mw-198		14:00	9.82			21.65+0.12=21.77 soft
LL4mw-199		14:10	7.81			23.25+0.12=23.37 hard
LL12mw-182		14:20	12.52			38.13+0.12=38.25 hard
LL12mw-183		14:30	13.91			36.25+0.12=36.37 need to fish tubing hard
LL12mw-153		14:45	7.57			25.04+0.12=25.16 hard
LL12mw-186		14:50	7.39			20.99+0.12=21.11 hard
CBPmw-005		15:00	13.01			27.41+0.12=27.53 hard
CBPmw-007		15:10	17.55			31.77+0.12=31.89 firm-some sed.
CBPmw-006		15:20	8.45			24.98+0.12=25.10 hard
BKGmw-012		15:30	11.67			62.15+0.12=62.27 wasps! hard
BKGmw-013		15:45	12.83			27.95+0.12=28.07 hard

*All measurements from top of casing.

RECORDED BY: A Bulling 9-27-05
(Signature and Date)

QA CHECK BY: Chantelle Carroll 10-14-05
(Signature and Date)

COMPREHENSIVE WATER LEVEL MEASUREMENTS

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

WELL NUMBER	DATE	TIME	DEPTH TO WATER*	INSTRUMENT	SERIAL NO.	REMARKS DTB	
WBGmw-006	9-27-05	15:55	9.10	Herron dipper-T	05767	20.23 + 0.12 = 20.35	firm-some sed.
WBGmw-007		16:05	18.63	↓	↓	26.37 + 0.12 = 26.49	hard
WBGmw-009		16:15	5.03	↓	↓	24.25 + 0.12 = 24.37	hard
DET-3	9-28-05	10:15	9.62	Herron dipper-T	05769	16.00 + 0.12 = 16.12	hard
DET-4		10:20	10.79	↓	↓	13.80 + 0.12 = 13.92	hard
DA2-107		10:30	8.88	↓	↓	16.82 + 0.12 = 16.94	hard
				N/A			
				ABB			

*All measurements from top of casing.

RECORDED BY: Al Bullington 9-28-05
(Signature and Date)

QA CHECK BY: Chandelle Cavell 10-14-05
(Signature and Date)

COMPREHENSIVE WATER LEVEL MEASUREMENTS

PROJECT NAME: RVAAP Facility-Wide Groundwater Monitoring Program

WELL NUMBER	DATE	TIME	DEPTH TO WATER*	INSTRUMENT	SERIAL NO.	REMARKS
	N/A					

*All measurements from top of casing.

RECORDED BY: Al Bullington AB 9-28-05
(Signature and Date)

QA CHECK BY: _____
(Signature and Date)

Test Well Water Level Tape

Appendix B

Well Construction and Potentiometric Data for Calendar Year ~~2001~~ 2005 RVAAP Facility-Wide Water Level Measurements and Well Inspections

RVAAP Area	Well ID	Depth to Water[c]	Well Head Type[d]	Monitoring Zone	TOTAL DEPTH BTOC	Notes
Facility-Wide Background	BKGmw-004	—	A	Unconsolidated	22.00	
	BKGmw-005	—	A	Unconsolidated	21.50	
	BKGmw-006	—	A	Bedrock	37.60	
	BKGmw-008	—	A	Bedrock	27.50	
9/27/05 →	BKGmw-010	20.34'	A	Bedrock	24.38	
	BKGmw-012	—	A	Bedrock	62.30	
	BKGmw-013	—	A	Unconsolidated	28.00	
	BKGmw-015	—	A	Bedrock	53.50	
	BKGmw-016	—	A	Unconsolidated	21.50	
	BKGmw-017	—	A	Unconsolidated	37.30	
	BKGmw-018	—	A	Bedrock	27.20	
	BKGmw-019	—	A	Unconsolidated	36.50	
	BKGmw-020	—	A	Bedrock	33.20	
	BKGmw-021	—	A	Unconsolidated	21.50	
Martha & Amanda ✓ Load Line 1 9/27/05	LL1mw-063	26.45'	A	Bedrock	30.04	
9/27/05	LL1mw-064	3.51'	A	Unconsolidated	21.13	
9/27/05	LL1mw-065	14.21'	A	Unconsolidated	23.38	
9/27/05	LL1mw-067	18.32'	A	Bedrock	25.61	
9/27/05	LL1mw-078	31.38'	A	Bedrock	41.14	tubing @ bottom
9/27/05	LL1mw-079	31.36'	A	Bedrock	32.03	
9/27/05	LL1mw-080	11.49'	A	Bedrock	22.04	
9/27/05	LL1mw-081	31.88'	A	Bedrock	41.87	
9/27/05	LL1mw-082	29.38'	A	Bedrock	41.77	
9/27/05	LL1mw-083	32.53'	A	Bedrock	41.70	
9/27/05	LL1mw-084	30.60'	A	Bedrock	39.29	
9/27/05	LL1mw-085	34.48'	A	Bedrock	44.68	34.48ft.
~~9/27/05 MP~~						

HEATHER & KELLY USED:
tape # 15284
0.03'

AMANDA & MARTHA USED:
tape # (Red) 15287 → 0.03'
(Yellow) 15286 → 0.02'

M Clough 9/29/05

Well Construction and Potentiometric Data for Calendar Year ~~2001~~ 2005 RVAAP Facility-Wide Water Level Measurements and Well Inspections

RVAAP Area	Well ID	Depth to Water[c]	Well Head Type[d]	Monitoring Zone	TOTAL DEPTH BTOC
✓ Load Line 2 9/27/05	LL2mw-059	—	A	Bedrock	21.84
	LL2mw-060	18.41'	A	Bedrock	20.94
	LL2mw-261	7.22'	A	Bedrock	24.35
	LL2mw-262	—	A	Bedrock	22.70
	LL2mw-263	—	A	Bedrock	24.25
	LL2mw-264	8.82'	A	Bedrock	22.28
	LL2mw-265	10.04'	A	Bedrock	24.27
	LL2mw-266	14.14'	A	Bedrock	22.69
	LL2mw-267	10.28	A	Bedrock	22.50
	LL2mw-268	15.85'	A	Bedrock	30.56
	LL2mw-269	19.85'	A	Bedrock	30.13
↓	LL2mw-270	10.16'	A	Bedrock	20.75
✓ Load Line 3 9/27/05	LL3mw-232	22.92'	A	Bedrock	39.62
	LL3mw-233	26.61'	A	Bedrock	32.99
	LL3mw-234	18.34'	A	Bedrock	22.59
	LL3mw-235	21.57'	A	Bedrock	23.09
	LL3mw-236	18.83'	A	Bedrock	27.73
	LL3mw-237	18.61'	A	Bedrock	25.90
	LL3mw-238	—	A	Bedrock	22.86
↓	LL3mw-239	28.83'	A	Bedrock	37.45
9/28/05	LL3mw-240	28.87	A	Bedrock	37.42
9/27/05	LL3mw-241	14.93'	A	Bedrock	26.04
9/27/05	LL3mw-242	—	A	Bedrock	22.43
9/28/05	LL3mw-243	17.92'	A	Bedrock	26.30

M Clough 9/29/05

RVAAP Area	Well ID	Depth to Water[c]	Well Head Type[d]	Monitoring Zone	TOTAL DEPTH BTOC
Load Line 4 9/28/05	LL4mw-193	8.63'	A	Unconsolidated	23.94
9/28/05	LL4mw-194	9.34'	A	Unconsolidated	23.89
9/28/05	LL4mw-195	11.15'	A	Unconsolidated	22.76
9/28/05	LL4mw-196	14.11'	A	Unconsolidated	21.99
9/28/05	LL4mw-197	14.77'	A	Unconsolidated	23.37
—	LL4mw-198	—	A	Unconsolidated	23.81
—	LL4mw-199	—	A	Unconsolidated	24.08
9/28/05	LL4mw-200	17.86'	A	Unconsolidated	25.46
Load Line 5	LL5mw-001	—	A		26.92
	LL5mw-002	—	A		27.88
	LL5mw-003	—	A		24.00
	LL5mw-004	—	A		24.91
	LL5mw-005	—	A		29.92
	LL5mw-006	—	A		26.90
Load Line 6	LL6mw-001	—		Unconsolidated	#VALUE!
	LL6mw-002	—		Unconsolidated	#VALUE!
	LL6mw-003	—			#VALUE!
	LL6mw-004	—			#VALUE!
	LL6mw-005	—			#VALUE!
	LL6mw-006	—			#VALUE!
9/29/05	LL6mw-007	8.56'			#VALUE!
Load Line 7	LL7mw-001	—	A		32.24
	LL7mw-002	—	A		27.85
	LL7mw-003	—	A		33.61
	LL7mw-004	—	A		32.52
	LL7mw-005	—	A		30.57
	LL7mw-006	—	A		30.36

M Clough 9/29/05

Well Construction and Potentiometric Data for Calendar Year ~~2001~~ 2005 RVAAP Facility-Wide Water Level Measurements and Well Inspections

RVAAP Area	Well ID	Depth to Water[c]	Well Head Type[d]	Monitoring Zone	TOTAL DEPTH BTOC
Load Line 4	LL4mw-193	—	A	Unconsolidated	23.94
	LL4mw-194	—	A	Unconsolidated	23.89
	LL4mw-195	—	A	Unconsolidated	22.76
	LL4mw-196	—	A	Unconsolidated	21.99
	LL4mw-197	—	A	Unconsolidated	23.37
	LL4mw-198	—	A	Unconsolidated	23.81
	LL4mw-199	—	A	Unconsolidated	24.08
	LL4mw-200	—	A	Unconsolidated	25.46
Load Line 5 #15284	LL5mw-001	21.27'	A		26.92
9/28/05 #15284	LL5mw-002	22.05'	A		27.88
9/28/05 #15284	LL5mw-003	20.85	A		24.00
9/28/05 #15284	LL5mw-004	19.17'	A		24.91
9/29/05 #15284	LL5mw-005	22.77	A		29.92
9/28/05 #15284	LL5mw-006	21.33'	A		26.90
Load Line 6 #15284	LL6mw-001	15.78'		Unconsolidated	#VALUE!
9/28/05 #15284	LL6mw-002	22.21'		Unconsolidated	#VALUE!
#15284	LL6mw-003	17.40'			#VALUE!
#15284	LL6mw-004	18.09'			#VALUE!
#15284	LL6mw-005	12.92'			#VALUE!
#15284	LL6mw-006	15.88			#VALUE!
	LL6mw-007	—			#VALUE! - CANT FIND
Load Line 7 #15284	LL7mw-001	21.49'	A		32.24
9/29/05	LL7mw-002	19.58	A		27.85
	LL7mw-003	12.39'	A		33.61
	LL7mw-004	15.34'	A		32.52
	LL7mw-005	21.56'	A		30.57
	LL7mw-006	11.58'	A		30.36

DA42 (6)

DA42 (6)

03-6

09/29/05

Well Construction and Potentiometric Data for Calendar Year ~~2001~~ 2005 RVAAP Facility-Wide Water Level Measurements and Well Inspections

RVAAP Area	Well ID	Depth to Water[c]	Well Head Type[d]	Monitoring Zone	TOTAL DEPTH BTOC
Load Line 8 # 15284	LL8mw-001	13.15'	A		26.77
9/29/05 # 15284	LL8mw-002	21.20'	A		32.84
# 15284	LL8mw-003	15.20'	A		23.25
# 15284	LL8mw-004	13.84'	A		23.02
# 15284	LL8mw-005	15.88'	A		27.22
# 15284	LL8mw-006	21.36	A		26.84
Load Line 9 # 15284	LL9mw-001	17.03			#VALUE!
9/29/05 # 15284	LL9mw-002	15.94'		Bedrock	#VALUE!
# 15284	LL9mw-003	12.48'			#VALUE!
# 15284	LL9mw-004	22.46'		Bedrock	#VALUE!
# 15284	LL9mw-005	18.09'			#VALUE!
# 15284	LL9mw-006	20.73			#VALUE!
# 15284	LL9mw-007	10.98'			#VALUE!
Load Line 10 # 15284	LL10mw-001	25.91	A		29.77
9/29/05 # 15284	LL10mw-002	18.79'	A		29.73
15284	LL10mw-003	21.40'	A		28.88
15284	LL10mw-004	14.86	A		33.79
15284	LL10mw-005	17.14	A		29.27
15284	LL10mw-006	13.30	A		26.13
Load Line 11 # 15284	L11mw-1	[redacted]	A 11.27	Unconsolidated	25.70
	L11mw-2		F	Unconsolidated	19.71
9/29/05	L11mw-3	1.17	F	Unconsolidated	17.03
	L11mw-4	0.68	F	Unconsolidated	17.12
	L11mw-5	9.80	F	Unconsolidated	16.80
	L11mw-6	6.53	F	Unconsolidated	16.89
	L11mw-7		A	Unconsolidated	25.78
9/29/05	L11mw-8	2.19	F	Unconsolidated	16.84
	L11mw-9	1.34'	F	Unconsolidated	16.90
	L11mw-10	4.44'	A	Unconsolidated	24.46

DAY 2 (6)

DAY 2 (7)

DAY 2 (6)

09/29/05

Well Construction and Potentiometric Data for Calendar Year ~~2001~~ 2005 RVAAP Facility-Wide Water Level Measurements and Well Inspections

RVAAP Area	Well ID	Depth to Water[c]	Well Head Type[d]	Monitoring Zone	TOTAL DEPTH BTOC
Load Line 12 9/28/05	L12mw-088	7.46'	A	Unconsolidated	31.12
9/28/05	L12mw-107	10.69'	A	Unconsolidated	35.12
9/28/05	L12mw-113	7.66'	A	Unconsolidated	25.51
9/28/05	L12mw-128	10.73'	A	Unconsolidated	36.03
—	L12mw-153	—	A	Unconsolidated	28.51
9/28/05	L12mw-154	9.98'	A	Unconsolidated	31.06
—	L12mw-182	—	A	Unconsolidated	38.32
—	L12mw-183	—	A	Unconsolidated	38.39
9/28/05	L12mw-184	13.69'	A	Unconsolidated	31.70
9/28/05	L12mw-185	10.33'	A	Unconsolidated	26.22
—	L12mw-186	—	A	Unconsolidated	24.97
9/28/05	L12mw-187	11.32'	A	Unconsolidated	31.04
9/28/05	L12mw-188	6.70'	A	Unconsolidated	22.67
9/28/05	L12mw-189	6.87'	A	Unconsolidated	20.37
9/28/05	LL12mw-242	11.45'	A	Unconsolidated	28.30
9/28/05	LL12mw-243	10.37'	A	Unconsolidated	25.69
9/28/05	LL12mw-244	11.92'	A	Unconsolidated	32.05
9/28/05	LL12mw-245	8.84'	A	Unconsolidated	30.54
9/28/05	LL12mw-246	17.79'	A	Unconsolidated	34.33
Atlas Scrap Yard 9/28/05	ASYmw-001	12.93'	A		23.73
9/28/05	ASYmw-002	15.50'	A		22.74
9/28/05	ASYmw-003	14.02'	A		23.51
9/28/05	ASYmw-004	11.28'	A		29.56
9/28/05	ASYmw-005	10.73'	A		26.20
9/28/05	ASYmw-006	14.70	A		28.81
9/28/05	ASYmw-007	14.35'	A		28.76
9/28/05	ASYmw-008	7.34'	A		27.65
9/28/05	ASYmw-009	13.89'	A		24.30
9/28/05	ASYmw-010	12.79'	A		29.85

M Clough 9/29/05

Vell Construction and Potentiometric Data for Calendar Year ~~2001~~ 2005 RVAAP Facility-Wide Water Level Measurements and Well Inspections

RVAAP Area	Well ID	Depth to Water[c]	Well Head Type[d]	Monitoring Zone	TOTAL DEPTH BTOC
Building 1200 9/27/05	B12mw-010	19.97'	A		23.20
	B12mw-011	21.81'	A		26.94
	B12mw-012	21.57'	A		24.89
C-Block Quarry	CBLmw-001	—	A		51.58
	CBLmw-002	—	A		47.24
	CBLmw-003	—	A		45.84
	CBLmw-004	—	A		46.76
Central Burn Pits	CBPmw-1	14.08'	A	Unconsolidated	35.38
9/29/05	CBPmw-2	18.23'	A	Unconsolidated	32.71
	CBPmw-3	13.61'	A	Unconsolidated	27.63
	CBPmw-4	11.78'	A	Unconsolidated	30.05
	CBPmw-5	—	A	Unconsolidated	27.76
	CBPmw-6	—	A	Unconsolidated	25.63
	CBPmw-7	—	A	Unconsolidated	32.90
9/28/05	CBPmw-8	16.95'	A	Unconsolidated	28.12
Cobbs Pond	CPmw-1	—	F	Unconsolidated	15.80
	CPmw-2	—	F	Unconsolidated	15.59
	CPmw-3	—	F	Unconsolidated	18.15
9/27/05	CPmw-4	12.10'	A	Unconsolidated	22.69
	CPmw-5	12.10'	A	Unconsolidated	42.87
	CPmw-6	7.97'	A	Unconsolidated	20.66

M Clough 9/29/05

Well Construction and Potentiometric Data for Calendar Year ~~2001~~ 2005 RVAAP Facility-Wide Water Level Measurements and Well Inspections

RVAAP Area	Well ID	Depth to Water[c]	Well Head Type[d]	Monitoring Zone	TOTAL DEPTH BTOC
Building 1200	B12mw-010	—	A		23.20
	B12mw-011	—	A		26.94
	B12mw-012	—	A		24.89
C-Block Quarry # 15284	CBLmw-001	43.50'	A		51.58
# 15284 9/29/05	CBLmw-002	38.09'	A		47.24
# 15284 ↓	CBLmw-003	36.68'	A		45.84
# 15284 ↓	CBLmw-004	36.37'	A		46.76
Central Burn Pits	CBPmw-1	—	A	Unconsolidated	35.38
	CBPmw-2	—	A	Unconsolidated	32.71
	CBPmw-3	—	A	Unconsolidated	27.63
	CBPmw-4	—	A	Unconsolidated	30.05
	CBPmw-5	—	A	Unconsolidated	27.76
	CBPmw-6	—	A	Unconsolidated	25.63
	CBPmw-7	—	A	Unconsolidated	32.90
	CBPmw-8	—	A	Unconsolidated	28.12
Cobbs Pond # 15284	CPmw-1	5.77'	F	Unconsolidated	15.80
9/29/05 ↓ ↓	CPmw-2	2.47'	F	Unconsolidated	15.59
	CPmw-3	2.03'	F	Unconsolidated	18.15
	CPmw-4	—	A	Unconsolidated	22.69
	CPmw-5	—	A	Unconsolidated	42.87
	CPmw-6	—	A	Unconsolidated	20.66

DAY 2 (2)

09/29/05

Well Construction and Potentiometric Data for Calendar Year ~~2001~~ 2005 RVAAP Facility-Wide Water Level Measurements and Well Inspections

RVAAP Area	Well ID	(BTOC) Depth to Water[c]	Well Head Type[d]	Monitoring Zone	TOTAL DEPTH BTOC
Demo. Area 2 #15284	DET-1	23.96	A	Unconsolidated	#VALUE!
9/27/05 #15284	DET-2	32.69'	A	Unconsolidated	#VALUE!
—	DET-3	X	A	Unconsolidated	#VALUE!
—	DET-4	X	A	Unconsolidated	#VALUE!
#15284	DA2mw-104	21.00'	A	Unconsolidated	33.07
#15284	DA2mw-105	3.33	A	Unconsolidated	16.68
#15284	DA2mw-106	7.63'	A	Unconsolidated	18.60
—	DA2mw-107	X	A	Unconsolidated	17.45
#15284	DA2mw-108	6.12'	A	Bedrock	17.44
#15284	DA2mw-109	16.48'	A	Unconsolidated	26.63
#15284	DA2mw-110	11.90'	A	Unconsolidated	22.39
#15284	DA2mw-111	7.24	A	Bedrock	15.09
#15284	DA2mw-112	4.38	A	Unconsolidated	17.57
#15284	DA2mw-113	8.15'	A	Unconsolidated	16.60
#15284 9/27/05 Erie Burning Grounds	EBGmw-123	10.02	A	Unconsolidated	34.23
#15284 9/27/05	EBGmw-124	3.65'	A	Unconsolidated	34.37
#15284 9/27/05	EBGmw-125	12.12'	A	Unconsolidated	27.34
#15284 9/27/05	EBGmw-126	2.89'	A	Unconsolidated	30.41
#15284 9/27/05	EBGmw-127	4.4'	A	Unconsolidated	32.86
#15284 9/27/05	EBGmw-128	7.34'	A	Unconsolidated	30.66
#15284 9/27/05	EBGmw-129	6.9'	A	Unconsolidated	31.39
#15284 9/27/05	EBGmw-130	6.67'	A	Unconsolidated	28.82

NOTES

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DAY 1
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Well Construction and Potentiometric Data for Calendar Year ~~2001~~ 2005 RVAAP Facility-Wide Water Level Measurements and Well Inspections

RVAAP Area	Well ID	Depth to Water[c]	Well Head Type[d]	Monitoring Zone	TOTAL DEPTH BTOC
Fuze and Booster					
Quarry 9/29/05	FBQmw-166	5.31'	A	Unconsolidated	19.99
9/29/05	FBQmw-167	5.20'	A	Unconsolidated	21.85
9/29/05	FBQmw-168	12.53'	A	Unconsolidated	22.14
9/29/05	FBQmw-169	6.30'	A	Unconsolidated	19.22
9/29/05	FBQmw-170	18.54'	A	Bedrock	33.09
9/29/05	FBQmw-171	19.25'	A	Bedrock	33.06
9/29/05	FBQmw-172	27.10'	A	Bedrock	37.38
9/29/05	FBQmw-173	42.08'	A	Bedrock	53.51
9/29/05	FBQmw-174	16.95'	A	Bedrock	26.69
9/29/05	FBQmw-175	17.77'	A	Bedrock	26.07
~~9/29/05~~ 9/29/05	FBQmw-176	18.73'	A	Unconsolidated	23.84
~~9/29/05~~ 9/29/05	FBQmw-177	14.96'	A	Unconsolidated	25.34
Landfill North of					
Winklepeck	LNWmw-024	–	A		22.70
	LNWmw-025	–	A		19.93
	LNWmw-026	–	A		25.80
	LNWmw-027	–	A		26.73
NACA Test Area	NTAmw-107	–	A		24.65
	NTAmw-108	–	A		24.40
	NTAmw-109	–	A		20.95
	NTAmw-110	–	A		29.59
	NTAmw-111	–	A		22.37
	NTAmw-112	–	A		26.87
	NTAmw-113	–	A		30.57
	NTAmw-114	–	A		22.60
	NTAmw-115	–	A		25.24
	NTAmw-116	–	A		22.65
	NTAmw-117	–	A		27.37
	NTAmw-118	–	A		24.58

M Clough 9/29/05

Well Construction and Potentiometric Data for Calendar Year ~~2001~~ 2005 RVAAP Facility-Wide Water Level Measurements and Well Inspections

RVAAP Area	Well ID	Depth to Water[c]	Well Head Type[d]	Monitoring Zone	TOTAL DEPTH BTOC
Fuze and Booster Quarry	FBQmw-166	—	A	Unconsolidated	19.99
	FBQmw-167	—	A	Unconsolidated	21.85
	FBQmw-168	—	A	Unconsolidated	22.14
	FBQmw-169	—	A	Unconsolidated	19.22
	FBQmw-170	—	A	Bedrock	33.09
	FBQmw-171	—	A	Bedrock	33.06
	FBQmw-172	—	A	Bedrock	37.38
	FBQmw-173	—	A	Bedrock	53.51
	FBQmw-174	—	A	Bedrock	26.69
	FBQmw-175	—	A	Bedrock	26.07
	FBQmw-176	—	A	Unconsolidated	23.84
	FBQmw-177	—	A	Unconsolidated	25.34
Landfill North of Winklepeck #15284	LNWmw-024	13.87'	A		22.70
9/27/05 #15284	LNWmw-025	5.38'	A		19.93
#15284	LNWmw-026	8.65	A		25.80
#15284	LNWmw-027	7.62'	A		26.73
NACA Test Area #15284	NTAmw-107	13.12'	A		24.65
9/28/05 #15284	NTAmw-108	18.11'	A		24.40
#15284	NTAmw-109	[redacted]	A 12.38		20.95
#15284	NTAmw-110	14.97'	A		29.59
#15284	NTAmw-111	3.81	A		22.37
#15284	NTAmw-112	9.67'	A		26.87
#15284	NTAmw-113	7.77'	A		30.57
#15284	NTAmw-114	7.25	A		22.60
#15284	NTAmw-115	15.80'	A		25.24
#15284	NTAmw-116	8.11'	A		22.65
#15284	NTAmw-117	15.87'	A		27.37
#15284	NTAmw-118	10.04	A		24.58

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DAY 2 (12)

09/29/05

Well Construction and Potentiometric Data for Calendar Year ~~2001~~ 2005 RVAAP Facility-Wide Water Level Measurements and Well Inspections

RVAAP Area	Well ID	Depth to Water[c]	Well Head Type[d]	Monitoring Zone	TOTAL DEPTH BTOC
Ramsdell Quarry #15284	MW-1	27.97'	A	Bedrock	54.86
Quarry — 9/27/05	MW-2	NA	A	Bedrock	43.76
—	MW-3	NA	A	Bedrock	48.85
#15284	MW-4	31.94'	A	Bedrock	57.93
#15284	MW-5	22.03	A	Bedrock	42.00
#15284	RQLmw-006	34.24'	A	Bedrock	43.95
—	RQLmw-007	X	A	Bedrock	20.71
—	RQLmw-008	X	A	Bedrock	20.96
—	RQLmw-009	X	A	Bedrock	20.82
#15284	RQLmw-010	25.45	A	Bedrock	37.46
#15284	RQLmw-011	32.32'	A	Bedrock	37.33
#15284	RQLmw-012	22.63'	A	Bedrock	33.03
#15284	RQLmw-013	25.76'	A	Bedrock	37.07
#15284	RQLmw-014	20.76'	A	Bedrock	32.06
#15284	RQLmw-015	31.15'	A	Bedrock	42.17
#15284	RQLmw-016	34.45'	A	Bedrock	42.08
#15284	RQLmw-017	29.73'	A	Bedrock	33.04

NOTES:

ABANDONED - FOUND HOLE & BENTONITE

ABANDONED - HOLE & BENTONITE

K/H

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09/29/05

Well Construction and Potentiometric Data for Calendar Year ~~2001~~ 2005 RVAAP Facility-Wide Water Level Measurements and Well Inspections

RVAAP Area	Well ID	Depth to Water[c]	Well Head Type[d]	Monitoring Zone	TOTAL DEPTH BTOC
Winklepeck Burning Grounds 9/27/05	OBG-1	X	A	Unconsolidated	#VALUE!
#15284	OBG-2	7.31'	A	Unconsolidated	#VALUE!
	OBG-3	X	A	Unconsolidated	#VALUE!
	OBG-4	X	A	Unconsolidated	#VALUE!
#15284	WBGmw-005	6.84	A	Unconsolidated	21.50
	WBGmw-006	X	A	Unconsolidated	21.50
	WBGmw-007	X	A	Unconsolidated	26.50
#15284	WBGmw-008	15.63	A	Unconsolidated	21.00
	WBGmw-009	X	A	Unconsolidated	26.50
#15284	WBGmw-010	9.00'	A	Unconsolidated	23.75
#15284	WBGmw-011	11.43'	A	Unconsolidated	24.68
#15284	WBGmw-012	18.94'	A	Unconsolidated	32.61
#15284	WBGmw-013	11.99'	A	Unconsolidated	24.60
#15284	WBGmw-014	17.30	A	Unconsolidated	25.68
#15284	WBGmw-015	17.70	A	Unconsolidated	24.50
#15284	WBGmw-016	18.52'	A	Unconsolidated	26.13
#15284 ✓	WBGmw-017	10.12	A	Unconsolidated	24.62
Suspected Mustard Agent Burial Site	MBS-001	—	A	Unconsolidated	30.95
	MBS-002	—	A	Unconsolidated	30.67
	MBS-003	—	A	Unconsolidated	30.67
	MBS-004	—	A	Unconsolidated	27.10

NOTES:
- — METAL LIQUID DRUMS/ CANS @ EACH WELL. ALL FLUSH MOUNT!!!
- — OBG-2 MISSING COVER.

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09/29/05

APPENDIX C

WELL INSPECTION SHEETS

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Facility-Wide Background

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: BKGmw-004 Location/Functional Area: Background Well

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 21.67 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[x]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[x]	[ ]	V. slight rust
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[x]	[ ]	
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[x]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[x]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[x]	
Does the well have a flush-mount box?	[ ]	[ ]	[x]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[x]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[x]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad.				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	
Does the lock secure the well?	[ ]	[x]	[ ]	Pro casing lid hinge broken
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point:				22.19 + 0.12 = 22.31
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[x]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9-27-05 Inspected by: Al Brilling
M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: BKGmw-005 Location/Functional Area: Background well

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 20.74 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[X]	[ ]	[ ]	Slight rust
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass plate in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 20.91 + 0.12 = 21.03				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05 Inspected by: Al Brillingi

M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: BKGmw-006 Location/Functional Area: Background Well

Casing Type: _____ Steel _____ Stainless Steel x PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 37.18 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[x]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[x]	[ ]	V. Slight rust
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[x]	[ ]	
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[x]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[x]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[x]	
Does the well have a flush-mount box?	[ ]	[ ]	[x]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[x]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[x]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	
Does the lock secure the well?	[x]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point:				37.49 + 0.12 = 37.61
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[x]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9-27-05 Inspected by: Al Bullinger
M Clough 9/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: BKGmw-08 Location/Functional Area: Background well

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 27.20 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[x]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[x]	[ ]	V. slight rust
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[x]	[ ]	
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[x]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[x]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[x]	
Does the well have a flush-mount box?	[ ]	[ ]	[x]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[x]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[x]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: 09 brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	
Does the lock secure the well?	[x]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point:	27.32 + 0.12 = 27.44			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[x]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9-27-05 Inspected by: A. Bulling

M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: BKGMW-010

Location/Functional Area: FW BKGD.

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 21.31 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	a little
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate on concrete pad & marked on top				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	slip cap cracked
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	21.99' + ~~0.03'~~ 0.02' AP = ~~22.02'~~ 22.01' AP			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: Amanda L. Pufidio
M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: BKGmw-012 Location/Functional Area: Background Well

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 21 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 62.10 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[ ]	[X]	[ ]	one side vulnerable
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[X]	[ ]	[ ]	partial clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 62.15 + 0.12 = 62.27				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05 Inspected by: Al Brillingi

M Clough 9/22/05

Wasps! Killed nest 9-27-05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: BKGmw-013 Location/Functional Area: Background Well

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: AB Screened ~~Above ground~~ 9-27-05 Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 27.67 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[X]	[ ]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 27.95 + 0.12 = 28.07				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05 Inspected by: QD Bullenger
M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: BKGmw-015

Location/Functional Area: Background Well

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 20 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 52.60 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[ ]	[X]	[ ]	
Are any of the posts damaged or degraded?	[X]	[ ]	[ ]	slight rust
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[X]	[ ]	[ ]	Conc. repair around well casing cracked
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[Y]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[Y]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[Y]	[ ]	[ ]	
Measured depth of the well from measurement point: 52.98 + 0.12 = 53.10				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05 Inspected by: [signature] 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: BKGmw-016 Location/Functional Area: Background Well

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 20.95 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[x]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[x]	[ ]	[ ]	slight rust
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[x]	[ ]	
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[x]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[x]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[x]	
Does the well have a flush-mount box?	[ ]	[ ]	[x]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[x]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[x]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: Brass plate in concrete pad				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	
Does the lock secure the well?	[x]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point: 21.14 + 0.12 = 21.36				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[x]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05 Inspected by: A. Brillinger
M. Clough 9/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: BKGmw-017

Location/Functional Area: Background well

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 35.78 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[ ]	[X]	[ ]	back side vulnerable
Are any of the posts damaged or degraded?	[Y]	[ ]	[ ]	slight rust
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[Y]	[ ]	[ ]	slight spalling of surface
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass plate in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[ ]	[X]	[ ]	hinge of pro casing broken
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[Y]	[ ]	[ ]	
Measured depth of the well from measurement point: 35.96 + 0.12 = 36.08				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05 Inspected by: A. Brillinger, M. Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: BKGmw-018

Location/Functional Area: Background Well

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 27.00 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[x]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[x]	[ ]	[ ]	slight rust
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[x]	[ ]	
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[x]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[x]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[x]	
Does the well have a flush-mount box?	[ ]	[ ]	[x]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[x]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[x]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	
Does the lock secure the well?	[x]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point: 27.51 + 0.12 = 27.63				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[x]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05

Inspected by: Al Brillinger
M Clough 11/2/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: BKGmw-019

Location/Functional Area: Background well

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Aboveground

Reported Constructed Depth: 35.54 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[x]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[x]	[ ]	
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[x]	[ ]	
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[x]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[x]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[x]	
Does the well have a flush-mount box?	[ ]	[ ]	[x]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[x]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[x]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: brass plate in ~~Cong~~ AB concrete pab				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	
Does the lock secure the well?	[x]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point: 35.70 + 0.12 = 35.82				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[x]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05

Inspected by: Al Brillinger
M Clough 11 Dec 2005

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: BKGmw-020

Location/Functional Area: _____

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 33.00 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[X]	[ ]	[ ]	slight rust
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[X]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[ ]	
Does the well have a flush-mount box?	[ ]	[ ]	[ ]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[ ]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[ ]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass plate in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	~~slip cap~~ AB
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 33.18 + 0.12 = 33.30				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05

Inspected by: [signature] [signature] 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: BKGmw-021

Location/Functional Area: Background well

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 20.27 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[ ]	[X]	[ ]	backside vulnerable
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	V. slight rust
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 21.32 + 0.12 = 21.44				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05

Inspected by: Al Brillinger
M Clough 9/27/05

Load Line 1

DTW = 26.45'

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL/MW-063 ~~LLMW063AP~~ Location/Functional Area: LL1

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 29.74 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[ ]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	some clearing needed
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[ ]	[✓]	[ ]	not readable
Describe labeling: not clearly marked				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	30.08' + 0.02' = 30.10'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: Amanda Rafferty, Shaw Env/Inf

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL1MW-064 ~~LLMW064~~ AP Location/Functional Area: LL1

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 20.80 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	very overgrown!
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[ ]	[✓]	[ ]	needs remarked
Describe labeling: needs marking				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 20.90' + 0.02' = 20.92'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda N Porfidio
G Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL1MW-065 ~~LLMW065~~ AP Location/Functional Area: LL1

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 23.08 ft BGS or ~~BTOC~~ (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	some
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	needs remarking
Describe labeling: painted on top - very faint				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	notched mark
Measured depth of the well from measurement point:	23.08' + 0.02' = 23.10			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	~~hard~~ a little soft			

Inspection Date: 9/27/05 Inspected by: Amanda M Pufahl
M Clough 9/27/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LLIMW-067 ~~LLMW067~~ AP Location/Functional Area: LLI

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 25.34 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: ~~3~~ 4 AP				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	needs a little clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painting on top				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	notched
Measured depth of the well from measurement point: 25.70' + 0.02' = 25.72'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda [signature] [signature] 9/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL1MW-078 ~~LLMW078 AP~~ Location/Functional Area: LL1

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 40.64 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[✓]	[ ]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Brass-plate on top				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 41.09' + 0.02' = 41.11'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/22/05 Inspected by: Amanda Portidio

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL1MW-079 ~~LLMW79~~ AP

Location/Functional Area: LL1

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 41.50 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	~~[✓]~~ AP	[✓]	[ ]	not visible?
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Brass plate on top				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 41.72' + 0.02' = 41.74'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda N Porfidio
M Clough 9/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL1MW-080 ~~LL1MW80~~ ANP

Location/Functional Area: Load Line 1

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 21.54 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[✓]	[ ]	[ ]	frost heave
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Brass-plate on top				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	Eaten protective cover
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 22.38' + 0.02' = 22.40'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda N Porfidio
M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL1MW-081 ~~LL1MW081~~ AP

Location/Functional Area: LL1

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 9.5 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 41.37 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				Tree across road to well.
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	overgrown
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Brass plate on top				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 41.81' + 0.02' = 41.83'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda N Porfidio
G Clough 9/27/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL1MW-082 ~~LLMW82 AP~~ Location/Functional Area: Load Line 1

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.6 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 41.20 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Brass plate on top				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 41.40' + 0.02' = 41.42'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda N Porfidio
[signature] 11/2/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL1MW-083 ~~LLMW083~~ AD Location/Functional Area: LL1

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: ~~41.02~~ 9.6 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 41.02 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Brass plate on top				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 41.41' + 0.02' = 41.43'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda N Porfidio
G Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LLIMW-084 ~~LLMW084~~ AP

Location/Functional Area: LLI

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 9.6 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 38.61 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	AP [✓]	[ ]	[✓]	
Does the well have a flush-mount box?	AP [✓]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[✓] AP	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Brass plate on top				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 38.88' + 0.02' = 38.90'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda M Rafidio
M Clough 9/27/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: ~~LLMW85~~ AP LLIMW-085 Location/Functional Area: LL1

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.5 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 44.18 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	rusted slightly
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	no
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Brass-plate on top				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 45.04' + 0.02' = 45.06'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda A Parfidio
M Clough 9/20/05

Load Line 2

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL2mw-059 Location/Functional Area: Load Line 2

Casing Type: _____ Steel _____ Stainless Steel x PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.8 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 21.48 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[X]	[ ]	[ ]	partial clearing needed
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: inside top cover of protective casing				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 21.88 + 0.12 = 22.00				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05 Inspected by: [signature] M Clouzet 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL2MW-260 Location/Functional Area: LL2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 9.9 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 20.58 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	sand leaking out?
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[ ]	[✓]	[ ]	needs exterior marking
Describe labeling: ~~none~~ interior lid w marker				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	slip cap
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 13.04' + 0.02' = 13.06'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): soft				

Inspection Date: 9/27/05 Inspected by: Amanda N Parfidio
G Clough 9/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL2MW261 Location/Functional Area: LLZ

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 21.65 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	a little clearing needed
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on cement pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 22.45' + 0.02' = 22.47'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda M Padilla
A Clough 11/2/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL2mw-262

Location/Functional Area: Load Line 2

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 22.12 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[x]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[x]	[ ]	
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[x]	[ ]	
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[x]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[x]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[x]	
Does the well have a flush-mount box?	[ ]	[ ]	[x]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[x]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[x]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	
Does the lock secure the well?	[x]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point: 22.62 + 0.12 = 22.74				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[x]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05

Inspected by: Al Bullinger
M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL'2 ~~LL3~~mw-263 AB 9-27-05

Location/Functional Area: AB 9/27/05 Load Line X 2

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 22.85 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 22.64 + 0.12 = 22.76				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05 Inspected by: AB Bullock
M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL2MW264 Location/Functional Area: LL2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 21.53 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	needs a lot of clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass-button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 22.37' + 0.02' = 22.39'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda M Parfitt
M Clough 11/2/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL2MW265 Location/Functional Area: LL2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 23.59 ft BGS or BTOC (circle one)

INSPECTION ITEMS	**YES**	**NO**	**N/A**	**COMMENTS**
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	light clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 24.41' + 0.02' = 24.43'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda V Portillo
A Clark 11/20/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL2MW266 Location/Functional Area: LL2

Casing Type: ____ Steel ____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 21.99 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	needs some clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	22.69' + 0.02' = 22.71'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: Amanda M. Pochiro
M Clarke 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL2MW-267 Location/Functional Area: LL2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 21.80 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	needs clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass-button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 21.18' + 0.02' = 22.20'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): soft				

Inspection Date: 9/27/05 Inspected by: Amanda Porfidio
M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL2MW-26B

Location/Functional Area: LL2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 29.12 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	one is crooked
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	needs a lot of clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on cement pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 29.88' + 0.02' = 29.90'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda J Porfidio

[signature] 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL2MW069 AP ~~LLMW069~~

Location/Functional Area: LL2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 29.23 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	some light clearing needed
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate on cement pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: ~~13.29~~ AP 30.29 + 0.02' = 30.31'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda M Porfidio
M Clough 11/2/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL2MW270 Location/Functional Area: LL2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 20.05 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 22.39' + 0.02' = 22.41'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda M Porfido
M Clough 9/27/05

Load Line 3

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL3MW-232 Location/Functional Area: LL3

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 38.62 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	some clearing needed
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass-button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 39.83' + 0.02' = 39.85'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): mostly hard / some silt				

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[signature] 11/2/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL3MW-233 Location/Functional Area: LL3

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 32.02 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 32.24' + 0.02' = 32.26'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): very soft				

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RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL3MW-234 Location/Functional Area: LL3

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 21.89 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on cement pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	wasp nest/no wasps
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 22.64' + 0.02' = 22.66'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

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RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL3MW-~~236~~ 235 AP Location/Functional Area: LL3

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 22.03 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	a little clearing needed
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on cement pad / on well cap				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 22.96' + 0.02' = 22.98'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

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[signature] 9/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL3MW-236 Location/Functional Area: LL3

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 26.00 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	a little clearing needed
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	26.59' + 0.02'			= 26.61'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

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RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL3MW-237 Location/Functional Area: LL3

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 24.73 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid & brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 25.53' + 0.02' = 25.55'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda Parfitt

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL3mw-238 Location/Functional Area: Load Line 3

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 22.68 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 23.31 + 0.12 = 23.43				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05 Inspected by: Al Bullinger / M Clough 9-27-05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL3MW-239 Location/Functional Area: LL3

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 9.6 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 36.22 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	maybe a little needed
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	37.63' + 0.02' = 37.65'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: Amanda M Porfidio
M Clough 11/28/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL3MW-240 Location/Functional Area: LL3

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 24.63 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[✓]	[ ]	[ ]	leaning post
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass-button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	36.79' + 0.02'			= 36.81'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	some silt, mostly hard			

Inspection Date: 9/28/05 Inspected by: Amanda N Porfidio
M Clough 9/28/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL3MW-241 Location/Functional Area: LL3

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 24.95 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[✓] SAP	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: button on concrete slab				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 21.74' + 0.02' = 21.76'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): soft				

Inspection Date: 9/27/05 Inspected by: Amanda N Rufidio
M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL3mw-242 Location/Functional Area: Load Line 3

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 21.73 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 22.47 + 0.12 = 22.59				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05 Inspected by: [signature] [signature] 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL3MW-243 Location/Functional Area: Load Line 3

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 25.64 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 26.34' + 0.02' = 26.36'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/26/05 Inspected by: Amanda Porfidio

Load Line 4

DTW = 8.63

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL4MW-193 Location/Functional Area: LL4

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 23.36 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	needs weephole
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	needs some clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 24.33' + 0.02' = 24.35'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: Amanda Purdy
M Clough 10/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL4MW-194 Location/Functional Area: LL4

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 23.21 ft BGS or BTOC (circle one)

INSPECTION ITEMS	**YES**	**NO**	**N/A**	**COMMENTS**
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass-button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	23.82' + 0.02' = 23.84'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	semi-hard			

Inspection Date: 9/14/05 Inspected by: Amanda Pajunen
A Clarke 9/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL4MW-195 Location/Functional Area: LL4

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 22.08 ft BGS or BTOC (circle one)

INSPECTION ITEMS	**YES**	**NO**	**N/A**	**COMMENTS**
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	22.89' + 0.02' = 22.91'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: Amanda J. Pajdzio
M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL4MW-196 Location/Functional Area: LL4

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 21.18 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[✓]	[ ]	[ ]	one is crooked
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	needs some clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass-button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 21.80' + 0.02' = 21.82'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: Amanda N Porfidio
G Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL4MW-197 Location/Functional Area: LL4

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 22.47 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[✓]	[ ]	[ ]	one is crooked
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	needs clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 22.59' + 0.02' = 22.61'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: Amanda N Porfidio
M Clough 9/28/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: L-4mw-198

Location/Functional Area: Load Line 4

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 22.11 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[X]	[ ]	[ ]	access to well-heavy brush
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 21.65 + 0.12 = 21.77				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): Soft				

Inspection Date: 9-27-05

Inspected by: Al Bullinger
M Clanger 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL4mw-199

Location/Functional Area: Load Line 4

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 22.38 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[X]	[ ]	[ ]	partial clearing needed
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 23.25 + 0.12 = 23.37				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05

Inspected by: [signature] [signature] 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL4 MW-200 Location/Functional Area: LL4

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 24.56 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 25.29' + 0.02' = 25.31'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: Amanda J Parkin 11/22/05

Load Line 5

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL5-MW0001 Location/Functional Area: LOAD LINE #5

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 26.92 ft BGS or (TOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			dial on cap is cracked
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			black mark
Measured depth of the well from measurement point:				27.00' + 0.03' = 27.03'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/28/05 Inspected by: KM

QA APrifidio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL5-MW0002 Location/Functional Area: LOAD LINE 5

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 27.88 ft BGS or ~~BTOC~~ (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	NOTCH IN PVC
Measured depth of the well from measurement point: 27.48' + 0.03' = 27.51'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): HARD				

Inspection Date: 9/28/05 Inspected by: [signature]

OK A Panfilio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LLS-MW003 Location/Functional Area: LOAD LINE 5

Casing Type: ____ Steel ____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 24.00 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			black mark
Measured depth of the well from measurement point: 23.93' + 0.03' = 23.96'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc): HARD				

Inspection Date: 9/28/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: 115-MW004

Location/Functional Area: LOADLINE #5

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 24.91 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point: 25.38' + 0.03' = 25.41'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): Soft				

Inspection Date: 9/28/05 Inspected by: [signature]

DA A. Portidio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CLS-MW005 Location/Functional Area: LOAD LINE 5

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 29.92 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			blackmark
Measured depth of the well from measurement point:				29.70' + 0.03' = 29.73'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):				HARD

Inspection Date: 9/28/05 Inspected by: [signature]

QA A Parfidio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: 125-MW0016 Location/Functional Area: LOAD LINE 5

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 26.90 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	b) black mark
Measured depth of the well from measurement point:	27.10' + 0.03' = 27.13'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: KM

RA Arbuckle 10/3/06

Load Line 6

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL6-MW0001 Location/Functional Area: LOAD LINE 6

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: FLUSH MOUNT

Reported Constructed Depth: 17.00 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[ ]	[ ]	[✓]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Is steel protective casing installed?	[ ]	[ ]	[✓]	
Does the protective casing have a weep hole?	[ ]	[ ]	[✓]	
Does vegetation around the well need clearing?	[ ]	[ ]	[✓]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[✓]	[ ]	[ ]	
Does the well have a flush-mount box?	[✓]	[ ]	[ ]	
Is the traffic cover cracked or broken?	[ ]	[✓]	[ ]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: guard posts marked w/paint				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	NONE
Measured depth of the well from measurement point:	17.56' + 0.03' = 17.59'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: [signature]

[signature] 10/12/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LLG-MW002 Location/Functional Area: LOAD LINE 6

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 22.50 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on guard posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:				24.46' + 0.03' = 24.49'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/28/05 Inspected by: K. M

OA A. Rafidi 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LLO-MW0003 Location/Functional Area: LOAD LINE 6

Casing Type: ____ Steel ____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 25.85 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Painted on guard posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	blackmark
Measured depth of the well from measurement point:	25.71' + 0.03 = 25.74'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: K. M

QA A. Pulido 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL6-MW004

Location/Functional Area: LOAD LINE #~~4~~ 6 9/24/05

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 25.08 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on guard posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point: 24.50' + 0.03' = 24.53'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: [signature]

QA [signature] 10/2/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL6-MW005 Location/Functional Area: LOAD LINE 6

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 22.46 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[✓]	[ ]	[ ]	PAD LIFTING OFF GROUND
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Painted on pro-casing				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	blackmark
Measured depth of the well from measurement point:				22.35' + 0.03' = 22.38'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				Soft

Inspection Date: 9/28/05 Inspected by: K. M

QA a Reflective 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL6-MW006 Location/Functional Area: LOAD LINE 6

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: FLUSH MOUNT

Reported Constructed Depth: 17.00 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[ ]	[ ]	[✓]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Is steel protective casing installed?	[ ]	[ ]	[✓]	
Does the protective casing have a weep hole?	[ ]	[ ]	[✓]	
Does vegetation around the well need clearing?	[ ]	[ ]	[✓]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[✓]	[ ]	[ ]	
Does the well have a flush-mount box?	[✓]	[ ]	[ ]	
Is the traffic cover cracked or broken?	[ ]	[✓]	[ ]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Identification:				
Is the well labeled with the correct number?	[ ]	[✓]	[ ]	
Describe labeling: NONE - needs marking AP				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	WATER INSIDE PRO-CASING
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	NONE
Measured depth of the well from measurement point: 17.78' + 0.03' = 17.81'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): HARD				

Inspection Date: 9/28/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL6MW-007 Location/Functional Area: LL6

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Flushmount

Reported Constructed Depth: 19.50 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[ ]	[ ]	[✓]	
Does the protective casing have a weep hole?	[ ]	[ ]	[✓]	
Does vegetation around the well need clearing?	[ ]	[ ]	[✓]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[✓]	[ ]	[ ]	
Does the well have a flush-mount box?	[✓]	[ ]	[ ]	
Is the traffic cover cracked or broken?	[ ]	[✓]	[ ]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: yellow parts painted				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	water inside pro-casing
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	
Measured depth of the well from measurement point: 19.27' + 0.03' = 19.30'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[ ]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/29/05 Inspected by: [signature] 9/22/05

Load Line 7

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL7-MW0001 Location/Functional Area: LOAD LINE 7

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 32.24 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	33.05' + 0.03' = 33.08'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: KM

DA Addition 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL7-MW0002 Location/Functional Area: LOAD LINE 7

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 27.85 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			black mark
Measured depth of the well from measurement point:				27.22' + 0.03' = 27.25'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/29/05 Inspected by: K. W

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL7-MW003 Location/Functional Area: LOAD LINE 7

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 33.61 ft BGS or ~~BTOC~~ (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	measured from N
Measured depth of the well from measurement point:	33.51' + 0.03' = ~~measured from N~~ 33.54			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: [signature]

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL7-MW 004 Location/Functional Area: LOAD LINE 7

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 32.52 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	32.19' + 0.03' = 32.22'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: [signature]

on [illegible] 10/2/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: UT-MW005 Location/Functional Area: LOAD LINE 7

Casing Type: ____ Steel ____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 30.57 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			black mark
Measured depth of the well from measurement point:	30.32' + 0.03' = 30.35'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: [signature]

10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL7-MW006 Location/Functional Area: LOAD LINE 7

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 30.36 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	NONE MEASURED FROM N
Measured depth of the well from measurement point:	30.30' + 0.03' HT ~~MEASURED FROM N~~ = 30.33'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: KCL

Load Line 8

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL8-MW001

Location/Functional Area: LOAD LINE 8

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 26.77 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	27.53' + 0.03' = 27.56'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL8 mw0002 Location/Functional Area: LOAD LINE 8

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 32.84 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	32.57' + 0.03' = 32.60'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: K. M

QA KPulido 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL8-MW0003

Location/Functional Area: LOAD LINE 8

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 23.25 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:				23.00' + 0.03' = 23.03'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/28/05 Inspected by: K. M

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RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL8-MW0004

Location/Functional Area: LOAD LINE 8

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 23.02 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:				22.66' + 0.03' = 22.69'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[ ]	[ ]	
Description of well bottom conditions (soft, hard, etc):				soft

Inspection Date: 9/28/05 Inspected by: KM

QA Reviewed 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL8-MW005 Location/Functional Area: LOAD LINE 8

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 27.22 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:				27.16' + 0.03 = 27.19'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/28/05 Inspected by: KM

QA Review 12/2/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: U8-MW006 Location/Functional Area: LOAD LINE 8

Casing Type: ____ Steel ____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 26.84 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	blackmark
Measured depth of the well from measurement point:				27.03' + 0.03' = 27.06'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/28/05 Inspected by: K. M

DA Applicable 10/3/05

Load Line 9

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL9-MW0001 Location/Functional Area: LOAD LINE #9

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVEGROUND

Reported Constructed Depth: 23.28 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	no grout or sand inside pro-casing
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Painted on guard posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	red mark
Measured depth of the well from measurement point:				23.30 + 0.03' = 23.33'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/28/05 Inspected by: K M

QA reviewed 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LG-MW002 Location/Functional Area: LOAD LINE 9

Casing Type: ____ Steel ____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 22.42 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: painted on guard post				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			red mark
Measured depth of the well from measurement point:				22.71' + 0.03' = 22.74'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/28/05 Inspected by: K M

QA Reviewed 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL9-MW0003 Location/Functional Area: LOAD LINE 9

Casing Type: ____ Steel ____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 23.80 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?	✓			frost heaving - out of ground 6-8"
Is a concrete pad installed?		✓		
Is the pad cracked or deteriorated? Frost heaving?	✓			
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: painted on posts				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			red mark
Measured depth of the well from measurement point:	24.17' + 0.03' = 24.20'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: K. W

QA Reviewed 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL9-MW004 Location/Functional Area: LOAD LINE 9

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 34.91 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on guard posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	red mark
Measured depth of the well from measurement point: 34.64' + 0.03 = 34.67'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL9-MW0005

Location/Functional Area: LOAD LINE 9

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVEGROUND

Reported Constructed Depth: 23.34 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[✓]	[ ]	[ ]	small cracks in pad
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on guard posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	red mark
Measured depth of the well from measurement point:				23.47' + 0.03' = 23.50'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/28/05 Inspected by: K. W

QA Approved 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL9-MW006 Location/Functional Area: LOADLINE 9

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 28.90 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	tall brush/thorns
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on guard post				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	red mark
Measured depth of the well from measurement point:				28.77' + 0.03' = 28.80'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/28/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LG-MW0007 Location/Functional Area: LOAD LINE 9

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: FLUSH MOUNT

Reported Constructed Depth: 185¢ ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[ ]	[ ]	[✓]	
Are any of the posts damaged or degraded?	[ ]	[ ]	[✓]	
Is a concrete pad installed?	[ ]	[ ]	[✓]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Is steel protective casing installed?	[ ]	[ ]	[✓]	
Does the protective casing have a weep hole?	[ ]	[ ]	[✓]	
Does vegetation around the well need clearing?	[ ]	[ ]	[✓]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[✓]	[ ]	[ ]	
Does the well have a flush-mount box?	[✓]	[ ]	[ ]	
Is the traffic cover cracked or broken?	[ ]	[✓]	[ ]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[✓]	[ ]	[ ]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on guard posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[ ]	[✓]	[ ]	LOCK MISSING
Does the lock secure the well?	[ ]	[ ]	[✓]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	NONE
Measured depth of the well from measurement point:	18.10' + 0.03' = 18.13'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: [signature]

QA Approved 10/3/05

Load Line 10

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LLTD-MW001 Location/Functional Area: LOAD LINE 10

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 29.77 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			black mark
Measured depth of the well from measurement point:				29.54' + 0.03 = 29.57'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/28/05 Inspected by: [signature]

QA Reviewed 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL10-MW002 Location/Functional Area: LOAD LINE 10

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 29.73 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	measured from N
Measured depth of the well from measurement point:	29.73' + 0.03' ~~measured from N~~ = 29.76'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	HARD			

Inspection Date: 9/28/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LLAP-MW0003 Location/Functional Area: LOAD LINE 10

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 28.88 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	blackmark
Measured depth of the well from measurement point:	28.48' + 0.03' = 28.51'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/08 Inspected by: K. [illegible]

QA [illegible] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LLIΦ MWΦΦ4 Location/Functional Area: LOAD LINE 10

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 33.79 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	mark (black)
Measured depth of the well from measurement point:				33.45' + 0.03' = 33.48'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				HARD

Inspection Date: 9/28/05 Inspected by: [signature]

QA Reviewed

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL10-MW0005 Location/Functional Area: LOADLINE 10

Casing Type: ____ Steel ____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 29.27 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	29.19' + 0.03 = 29.22'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: [signature]

OK A Bufalino 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL10-MW0006 Location/Functional Area: LOAD LINE 10

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVEGROUND

Reported Constructed Depth: 26.13 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			Black mark
Measured depth of the well from measurement point:	26.48' + 0.03' = 26.51'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: [signature]

QA Review 10/3/05

Load Line 11

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL11-MW1 Location/Functional Area: LOADLINE 11

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 24.07 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on guard posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	blackmark
Measured depth of the well from measurement point:				21.47' + 0.03 = 21.50'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				Soft

Inspection Date: 9/29/05 Inspected by: KM

QA a Padilla 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LLmw-002

Location/Functional Area: Load Line 11

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Flush mount

Reported Constructed Depth: 16.01 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: _____				
Are the posts positioned to prevent collision damage to the well?	[ ]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[ ]	[ ]	
Is a concrete pad installed?	[ ]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[ ]	[ ]	
Is steel protective casing installed?	[ ]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[ ]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[X]	[ ]	[ ]	
Does the well have a flush-mount box?	[X]	[ ]	[ ]	
Is the traffic cover cracked or broken?	[ ]	[X]	[ ]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: painted on guard post				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point:	16.38 + 0.12 = 16.50			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9-27-05

Inspected by: Al Brillinger
M Clough 11/24/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL11-MW3 Location/Functional Area: LOAD LINE 11

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: FLUSH MT

Reported Constructed Depth: 15.93 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[ ]	[ ]	[✓]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Is steel protective casing installed?	[ ]	[ ]	[✓]	
Does the protective casing have a weep hole?	[ ]	[ ]	[✓]	
Does vegetation around the well need clearing?	[ ]	[ ]	[✓]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[✓]	[ ]	[ ]	
Does the well have a flush-mount box?	[✓]	[ ]	[ ]	
Is the traffic cover cracked or broken?	[ ]	[✓]	[ ]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Painted on posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	Measured from N
Measured depth of the well from measurement point:	16.02' BM, ~~measured from N~~ +0.03' = 16.05'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: KW

DA Baldino 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL-11-MW4 Location/Functional Area: LOAD LINE 11

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: FLUSH MOUNT

Reported Constructed Depth: 16.17 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[ ]	[ ]	[✓]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Is steel protective casing installed?	[ ]	[ ]	[✓]	
Does the protective casing have a weep hole?	[ ]	[ ]	[✓]	
Does vegetation around the well need clearing?	[ ]	[ ]	[✓]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[✓]	[ ]	[ ]	
Does the well have a flush-mount box?	[✓]	[ ]	[ ]	
Is the traffic cover cracked or broken?	[ ]	[✓]	[ ]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	
Measured depth of the well from measurement point:	16.13' ~~Measured from N~~ + 0.03' = 16.16'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: KVR

QA Review 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL11-MW5 Location/Functional Area: LOADLINE 11

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: FLUSH MT.

Reported Constructed Depth: 15.97 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[ ]	[ ]	[✓]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Is steel protective casing installed?	[ ]	[ ]	[✓]	
Does the protective casing have a weep hole?	[ ]	[ ]	[✓]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	tall brush 5'
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[✓]	[ ]	[ ]	
Does the well have a flush-mount box?	[✓]	[ ]	[ ]	
Is the traffic cover cracked or broken?	[ ]	[✓]	[ ]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	16.35' + 0.03' = 16.38'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: K. [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL11-MW60

Location/Functional Area: LOAD LINE 11

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: FLUSH MT.

Reported Constructed Depth: 15.44 ft BGS or BTOC (circle one)

INSPECTION ITEMS	**YES**	**NO**	**N/A**	**COMMENTS**
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[ ]	[ ]	[✓]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Is steel protective casing installed?	[ ]	[ ]	[✓]	
Does the protective casing have a weep hole?	[ ]	[ ]	[✓]	
Does vegetation around the well need clearing?	[ ]	[ ]	[✓]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[✓]	[ ]	[ ]	
Does the well have a flush-mount box?	[✓]	[ ]	[ ]	
Is the traffic cover cracked or broken?	[ ]	[✓]	[ ]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on guard posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	measured from N
Measured depth of the well from measurement point:	15.68' ~~Measured from N~~ +0.03' = 15.71'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: K M

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RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: ~~LLM~~ AB LL1mw-007

Location/Functional Area: LOAD LINE 11

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 25.13 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[x]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[x]	[ ]	
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[x]	[ ]	
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[x]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[x]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[ ]	
Does the well have a flush-mount box?	[ ]	[ ]	[ ]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[ ]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[ ]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: painted on guard post				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	
Does the lock secure the well?	[x]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[x]	[ ]	
Measured depth of the well from measurement point:				25.25 + 0.12 = 25.37
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[x]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9-27-05 Inspected by: AL Brillinger

* needs more sand between protective casing & inner casing (wasp nest) (~ 2-2.5')

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL11-MW8 Location/Functional Area: LOAD LINE 11

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: FLUSH MOUNT

Reported Constructed Depth: 15.39 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[ ]	[ ]	[✓]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Is steel protective casing installed?	[ ]	[ ]	[✓]	
Does the protective casing have a weep hole?	[ ]	[ ]	[✓]	
Does vegetation around the well need clearing?	[ ]	[ ]	[✓]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[✓]	[ ]	[ ]	
Does the well have a flush-mount box?	[✓]	[ ]	[ ]	
Is the traffic cover cracked or broken?	[ ]	[✓]	[ ]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on guard posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	measured from N
Measured depth of the well from measurement point:	15.67' fm ~~measured from N~~ +0.03 = 15.70'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: [signature]

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RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL11 MW9 Location/Functional Area: LOAD LINE 11

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: FLUSH MT.

Reported Constructed Depth: 16.55 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[ ]	[✓]	
Is a concrete pad installed?	[ ]	[ ]	[✓]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Is steel protective casing installed?	[ ]	[ ]	[✓]	
Does the protective casing have a weep hole?	[ ]	[ ]	[✓]	
Does vegetation around the well need clearing?	[ ]	[ ]	[✓]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[✓]	[ ]	[ ]	
Does the well have a flush-mount box?	[✓]	[ ]	[ ]	
Is the traffic cover cracked or broken?	[✓]	[ ]	[ ]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	frost heaving - not stable on groun
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on guard post				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	not on PVC when opened, laying inside procasing
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	measured FROM N
Measured depth of the well from measurement point:	16.74' + 0.03 ~~measured from N~~ = 16.77'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: KW

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RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL-MW10 Location/Functional Area: LOAD LINE 11

Casing Type: ____ Steel ____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 23.31 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: painted on guard posts				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			black mark
Measured depth of the well from measurement point: 23.39' + 0.03' = 23.42'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/29/05 Inspected by: [signature]

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Load Line 12

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12MW-086 Location/Functional Area: LL12

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 26.92 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button & paint on casing				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	notch
Measured depth of the well from measurement point:	27.21' + 0.02' = 27.23'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: Amanda M Parfitt 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL/ZMW-107 Location/Functional Area: LL12

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 32.82 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on casing / brass-button concement pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	notched
Measured depth of the well from measurement point:	33.66' + 0.02' = 33.68'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: Amanda M Parkhurst
M Clarke ARCADIS

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12MW-113 Location/Functional Area: LL12

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 24.81 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: button on cement pad; painted on casing				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	notch
Measured depth of the well from measurement point:	20.50' + 0.02' = 20.52'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	soft			

Inspection Date: 9/28/05 Inspected by: Amanda Pafidis
M Clenga 11/2/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12MW-128 Location/Functional Area: LL12

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 33.13 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	light clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on casing; brass button on cement pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 34.13' + 0.02' = 34.15'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: Amanda Perfetto
M Clarke 11/2/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12mw-153

Location/Functional Area: Load Line 12

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 24.81 ft BGS or BTOC (circle one)

INSPECTION ITEMS	**YES**	**NO**	**N/A**	**COMMENTS**
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad, protective casing numbered				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 25.04 + 0.12 = 25.16				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05 Inspected by: AL Bullinger / Al Clonga 11/8/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12MW-154 Location/Functional Area: LL12

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 28.41 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	a lot of vegetation
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling:	brass button on concrete pad / paint on casing			
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	notched
Measured depth of the well from measurement point:	28.61' + 0.02' = 28.63'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: Amanda M Parfitt
M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: L-12mw-182 Location/Functional Area: Load Line 12

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 37.42 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 38.13 + 0.12 = 38.25				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05 Inspected by: [signature]
M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12mw-183

Location/Functional Area: Load Line 12

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 35.69 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	V. slight rust
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad, outer casing numbered				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point:	36.25 + 0.12 = 36.37			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9-27-05

Inspected by: Al Bulling
M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12MW-184 Location/Functional Area: LL12

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 31.00 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on casing / brass button on cement pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 31.04' + 0.02' = 31.06'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: Amanda N Porfidio
M Clough 9/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12MW-185 Location/Functional Area: LL12

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 23.02 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: stenciled on casing / brass-button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	notch
Measured depth of the well from measurement point: 23.25' + 0.02' = 23.27'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/26/05 Inspected by: [signature] [signature] 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12mw-186 Location/Functional Area: Load Line 12

Casing Type: ____ Steel ____ Stainless Steel x PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 20.77 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[x]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[x]	[ ]	V. slight rust
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[x]	[ ]	
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[x]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[x]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[x]	
Does the well have a flush-mount box?	[ ]	[ ]	[x]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[x]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[x]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad, outer casing labelled.				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	
Does the lock secure the well?	[x]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point:	20.99 + 0.12 = 21.11			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[x]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9-27-05 Inspected by: AL Bulenza M Clenza w/ Weston

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12MW-187 Location/Functional Area: LL12

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 29.24 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	light clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass-button on cement pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[ ]	[✓]	[ ]	cover broken
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 29.60' + 0.02' = 29.62'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: Amanda Porfidio
M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12MW-188 Location/Functional Area: LL12

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 21.97 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on casing; ~~bullet~~ AP button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 22.23' + 0.02' = 22.25'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: Amanda N Porfidio
M Clough 11/2/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12MW-~~243~~ 189 AP Location/Functional Area: LL12

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 19.37 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: ~~3~~ 4 AP				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on cement pad; paint on casing				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 19.75' + 0.02' = 19.77'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: Amanda J Pufidio
G Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12MW-242 Location/Functional Area: LL12

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 28.30 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:	needs sand			
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate on top				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	removable
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	29.37' + 0.02' = 29.39'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: Amanda J Parfidio
M Clough Nicholas

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12MW-243 Location/Functional Area: LL12

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 25.69 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass-plate on casing				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	removable
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	~~notch~~ black mark
Measured depth of the well from measurement point: 25.72' + 0.02' = 25.74'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: Amanda N Porfidio
M Clough 11/2/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12MW-244 Location/Functional Area: LL12

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 32.05 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	removable
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 31.64' + 0.02' = 31.66'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): soft, silty or filter pack @ bottom				

Inspection Date: 9/28/05 Inspected by: Amanda N Porfidio
M Clough 9/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12MW-245 Location/Functional Area: LL12

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 30.54 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	light clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate on top of lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	30.29' + 0.02' = 30.31'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: Amanda K Burdine, A Clodgo 11/2/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LL12MW-246 Location/Functional Area: LL12

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 34.33 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate on top				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	removable
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 34.91' + 0.02' = 34.93'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: Amanita J Porfidio
G Clough 11/22/05

Atlas Scrap Yard

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: ASYMW-001 Location/Functional Area: Atlas Scrap Yard

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 23.73 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	removables
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	AP ~~brass plate on lid~~ 23.08 + 0.02' = 23.10'			
Thickness of sediment accumulation (reported depth-present measurement):	~~23~~			
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: Amanda N Parfidio
M Clay 10/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: ASYMW-002

Location/Functional Area: Atlas Scrap Yard

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened

Monitor Interval Length: 9.5 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 22.74 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	removable
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 22.91' + 0.02' = 22.93'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: Amanda M Barfidio
M Clough 9/28/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: ASYMW-003 Location/Functional Area: Atlas

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 23.51 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	23.44' + 0.02' = 23.46'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/24/05 Inspected by: Amanda L Rafferty
M Clanton 9/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: ASYMW-004 Location/Functional Area: Atlas

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 29.56 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 29.76' + 0.02' = 29.78'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: Amanda N Porfidio

M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: ASYMW-005 Location/Functional Area: Atlas Scrap Yard

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 26.20 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[~~✓~~ AP]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	removable
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	27.13' + 0.02' = 27.15'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/26/05 Inspected by: Amanda M Pinkston Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: ASY MW-006 Location/Functional Area: Atlas Scrap Yard

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 28.81 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	removable
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:				28.84' + 0.02' = 28.86'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/28/05 Inspected by: Amanda M Parfrey
A Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: ASYMW-007 Location/Functional Area: Atlas Scrap Yard

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 28.96 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	removable
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	needs mark
Measured depth of the well from measurement point: 29.85' + 0.02' = 29.87'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: Amanda N Porfidio

[signature] 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: ASYMW-008 Location/Functional Area: Atlas Scrap Yard

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 27.65 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate on top of lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	27.56' + 0.02' = 27.58'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: Amanda M Porfidio

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: ASYMW-009 Location/Functional Area: Atlas Scrap Yard

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 24.30 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate on top				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	removable
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 24.52' + 0.02' = 24.54'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: Amanda N Porfidio
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RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: ASYMW-010 Location/Functional Area: Atlas Scrap Yard

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 29.85 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	31.09' + 0.02' = 31.11'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/26/05 Inspected by: Amanda M Parfitt

Building 1200

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: B12MW-010 Location/Functional Area: Bldg 1200

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 23.20 ft BGS or ~~BTOC~~ (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	needs a lot of weeds removed
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate on top of removable lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	removable
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	22.81' + ~~0.83~~ 0.02' = ~~22.84'~~ 22.83' AP			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: Amanda Perfetto
M Clarke 9/27/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: B12MW-011 Location/Functional Area: BLDG 1200

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 26.94 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brassplate on removable lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	removable/not permanently attached
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	not very good marking
Measured depth of the well from measurement point:	26.72' + ~~0.03~~ 0.02' ~~26.75~~ = 26.74' AP			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: Amanda Ardito & Claire Hardos

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: B12MW-012 Location/Functional Area: BLDG 1200

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 24.89 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	~light clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass plate on removable lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	removable lid
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	24.80' + ~~0.03'~~ 0.02' = ~~24.83'~~ 24.82' AP			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: Amanda J Bufidio
M Clough [illegible]

C-Block Quarry

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CBL-MW0001

Location/Functional Area: C-BLOCK QUARRY

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 51.58 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	49.94' + 0.03' = 49.97'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	soft			

Inspection Date: 9/28/05 Inspected by: [signature]

QA A Portidio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CBL-MW002 Location/Functional Area: C-BLOCK QUARRY

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 47.24 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:				47.33' + 0.03' = 47.36'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				HARD

Inspection Date: 9/28/05 Inspected by: K. M

QA A Pulido 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CBLmw-003

Location/Functional Area: C-BLOCK QUARRY

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened ~~ABOVE GROUND~~

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above Ground

Reported Constructed Depth: 45.84 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point: 45.17' + 0.03 = 45.20'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): soft				

Inspection Date: 9/27/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CBLmw-004 Location/Functional Area: C-BLOCK QUARRY

Casing Type: ____ Steel ____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 46.76 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	46.99' + 0.03 = 47.02'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: K. M

QA R Papadeo 10/3/05

Central Burn Pits

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CBPMW-1 Location/Functional Area: Central Burn Pits

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 34.88 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	some clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: eastern yellow post/black paint stencil				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:				32.75' + 0.02' = 32.77'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/27/05 Inspected by: Amanda V. Pafulio

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CBPMW-2 Location/Functional Area: CBP

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 32.21 ft BGS or BTOC (circle one)

INSPECTION ITEMS	**YES**	**NO**	**N/A**	**COMMENTS**
Well-head Completion:				needs sand
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on yellow post / black stencil				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[ ]	[✓]	[ ]	no protective cover
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	32.10' + 0.02' = 32.12'			
Thickness of sediment accumulation (reported depth-present measurement):				✓
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	semi-hard; some silt			

Inspection Date: 9/26/05 Inspected by: Amanda M Pinkerton
A Clarke 11/1/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CBPMW-3

Location/Functional Area: Central Burn Pits

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 27.13 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: ~~southeast~~ northeast yellow guard post / black painted stencil				
Security:				
Does the well have a cap or lid?	[ ]	[ ]	[ ]	
Does the well have a weatherproof lock?	[ ]	[ ]	[ ]	
Does the lock secure the well?	[ ]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[ ]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 30.20 + 0.02' = 30.22'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda N. Perfidio

M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CBPMW-4 Location/Functional Area: Central Burn Pits

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 29.55 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: on yellow guard posts in black paint stencil				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 29.75 + 0.02' = 29.77'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/24/05 Inspected by: Amanda K Pavlidis
A Clanza 10/20/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CBPmw-005

Location/Functional Area: Central Burn Pit

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 27.26 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[x]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[x]	[ ]	
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[x]	[ ]	
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[x]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[x]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[x]	
Does the well have a flush-mount box?	[ ]	[ ]	[x]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[x]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[x]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: guard post labelled				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	
Does the lock secure the well?	[x]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point: 27.41 + 0.12 = 27.53				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[x]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: ~~9-27-05~~ AB 9-27-05

Inspected by: [signature] [signature] 9/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CBPmw-006 Location/Functional Area: Central Burn Pit

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 25.13 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[x]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[x]	[ ]	
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[x]	[ ]	
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[x]	[ ]	[ ]	
Does vegetation around the well need clearing?	[x]	[ ]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[x]	
Does the well have a flush-mount box?	[ ]	[ ]	[x]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[x]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[x]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: guard post labelled				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	
Does the lock secure the well?	[x]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point: 24.98 + 0.12 = 25.10				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[x]	[ ]	[ ]	casing buckled ≈ 2.5' down
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05 Inspected by: [signature] M Clough 11/28/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CBPmw-007

Location/Functional Area: Central Burn Pit

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 32.40 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[x]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[x]	[ ]	
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[x]	[ ]	
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[x]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[x]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[x]	
Does the well have a flush-mount box?	[ ]	[ ]	[x]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[x]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[x]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: guard post labelled				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	
Does the lock secure the well?	[x]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point: 31.77 + 0.12 = 31.89				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[x]	[ ]	
Description of well bottom conditions (soft, hard, etc): soft / firm				

Inspection Date: 9-27-05

Inspected by: [signature] M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CBPMW-8 Location/Functional Area: CBP

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 27.62 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				*needs sand*
Above-ground completion:				
Number of guard posts at well: 4 #3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[✓]	[ ]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: painted on posts/black stencil				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 27.91'+0.02'=27.93'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: Amanda M Rebadia
A Clarke 11/2/05

Cobbs Pond

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CP-MW1 Location/Functional Area: Cobb's Pond

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: FLUSH MT.

Reported Constructed Depth: 15.30 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[ ]	[ ]	[✓]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Is steel protective casing installed?	[ ]	[ ]	[✓]	
Does the protective casing have a weep hole?	[ ]	[ ]	[✓]	
Does vegetation around the well need clearing?	[ ]	[ ]	[✓]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[✓]	[ ]	[ ]	
Does the well have a flush-mount box?	[✓]	[ ]	[ ]	
Is the traffic cover cracked or broken?	[ ]	[✓]	[ ]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Painted on guard posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[ ]	[✓]	[ ]	
Does the lock secure the well?	[ ]	[ ]	[✓]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	measured from N
Measured depth of the well from measurement point:	14.70'	~~measured from N~~		+0.03 = 14.73'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: _____

OA A Pulido 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CP-MW2 Location/Functional Area: COBB'S POND

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: FLUSHMOUNT

Reported Constructed Depth: 15.09 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[ ]	[ ]	[✓]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Is steel protective casing installed?	[ ]	[ ]	[✓]	
Does the protective casing have a weep hole?	[ ]	[ ]	[✓]	
Does vegetation around the well need clearing?	[ ]	[ ]	[✓]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[✓]	[ ]	[ ]	
Does the well have a flush-mount box?	[✓]	[ ]	[ ]	
Is the traffic cover cracked or broken?	[ ]	[✓]	[ ]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Paint on guard posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[ ]	[✓]	[ ]	
Does the lock secure the well?	[ ]	[ ]	[✓]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	measured from N
Measured depth of the well from measurement point:	14.98' (measured from N) +0.03' = 15.01'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: K. M

OK A Porfidio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CP-MW3 Location/Functional Area: COBB'S POND

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: FLUSH MOUNT

Reported Constructed Depth: 17.65 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?			✓	
Is the pad cracked or deteriorated? Frost heaving?			✓	
Is steel protective casing installed?			✓	
Does the protective casing have a weep hole?			✓	
Does vegetation around the well need clearing?			✓	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	✓			
Does the well have a flush-mount box?	✓			
Is the traffic cover cracked or broken?		✓		
Is the concrete apron cracked or deteriorated? Frost heaving?		✓		
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: painted on guard posts				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?		✓		
Does the lock secure the well?			✓	
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?		✓		measured from N
Measured depth of the well from measurement point:	17.68' measured from N +0.03' = 17.71'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: _____

QA APerfidio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CPMW-4 Location/Functional Area: Cobb's Pond

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 22.19 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[ ]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[ ]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: on yellow guard post				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 22.55' ~~+ 0.03' = 22.58'~~ AP + 0.02' = 22.57'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: Amanda J Porfidio
G Clanger [illegible]

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CPMW-5 Location/Functional Area: Cobb's Pond

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Aboveground

Reported Constructed Depth: 42.37 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	yes, a lot of vegetation
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: on yellow guard posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	43.19' + ~~0.03'~~ 0.02 AP = ~~43.22'~~ 43.21' AP			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: Amanda Rapidio

QA M Clough 11/21/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: CPMW-6 Location/Functional Area: Cobb's Pond

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 20.16 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: on yellow guard posts				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	20.64' + ~~0.03'~~ 0.02' AP = ~~20.47'~~ 20.66' AP			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: Amanda M Porfidio
G Clough 9/1/05

Open Demolition Area #2

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: DET-1 Location/Functional Area: DEMO AREA #2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 5 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 40.50 ft BGS or ~~BTOC~~ (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	PAD NOT SET - MOVES WHEN STEPPED ON
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[ ]	[✓]	[ ]	
Describe labeling: NONE				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	38.48' + 0.03' = 38.51'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: [signature]

QA A Portfolio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: DET-2 Location/Functional Area: DEMO AREA-2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 5 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 40.00 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[ ]	[✓]	[ ]	
Describe labeling: NONE - needs labeling up				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point: 42.54' + 0.03' = 42.57'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[✓]	[ ]	[ ]	Bailer & rope
Description of well bottom conditions (soft, hard, etc): Soft				

Inspection Date: 9/27/05 Inspected by: K. [signature]

QA A Porfidio 10/3/05

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RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: DET-3

Location/Functional Area: Open Demolition Area 2

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 5 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 13.00 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[x]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[x]	[ ]	
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[x]	[ ]	
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[x]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[x]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[x]	
Does the well have a flush-mount box?	[ ]	[ ]	[x]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[x]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[x]	
Identification:				
Is the well labeled with the correct number?	[ ]	[x]	[ ]	
Describe labeling: No labelling				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	
Does the lock secure the well?	[x]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point: 16.00 + 0.12 = 16.12				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[x]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-28-05

Inspected by: Al Brillinger

M Clough 11/28/05

* dedicated bailer in well

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RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: DET-4 Location/Functional Area: Open Demolition Area 2

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 5 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 12.00 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[X]	[ ]	[ ]	slight rust
Is a concrete pad installed?	[ ]	[X]	[ ]	torn plastic around pro casing
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[ ]	[X]	[ ]	
Describe labeling: no labeling				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 13.80 + 0.12 = 13.92				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-28-05 Inspected by: Al Bulling
M Clough Alzaga

* dedicated bailer in well

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: DA2-MW104 Location/Functional Area: DEMO AREA 2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 29.37 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag in pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	29.21' + 0.03' = 29.24'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	soft			

Inspection Date: 9/27/05 Inspected by: K. W. M. Clough 11/2/05

QA A Parfitt 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: DA2-MW0005 Location/Functional Area: DEMO AREA 2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 5 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 15.98 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			SAND FLOWING OUT OF HOLE
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on pad				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			black mark
Measured depth of the well from measurement point:				10.21' + 0.03 = 10.24'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):				HARD

Inspection Date: 9/27/05 Inspected by: K. [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: DA2-MW106 Location/Functional Area: DEMO AREA 2

Casing Type: ____ Steel ____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 7 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 17.90 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on pad				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			black notch
Measured depth of the well from measurement point:				16.80' + 0.03' = 16.83'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/27/05 Inspected by: K M

QA A Porfidio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: DA2-107

Location/Functional Area: Open Demolition Area 2

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 5 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 16.25 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[x]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[x]	[ ]	
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[x]	[ ]	
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[x]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[x]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[x]	
Does the well have a flush-mount box?	[ ]	[ ]	[x]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[x]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[x]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	Keyhole cover missing
Does the lock secure the well?	[x]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point: 16.82 + 0.12 = 16.94				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[x]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-28-05

Inspected by: Al Brilling
M Clough 11/21/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: DA2-MW108 Location/Functional Area: DEMO AREA # 2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 5 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 16.74 ft BGS or (TOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on pad				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			black mark
Measured depth of the well from measurement point:				17.16' + 0.03' = 17.19'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/27/05 Inspected by: [signature]

QA APulido 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: DA2-MW1089 Location/Functional Area: DEMO AREA #2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 23.93 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?	✓			pad lifted off ground
Is steel protective casing installed?		✓		
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on pad				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?		✓		MISSING CAP
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			black mark
Measured depth of the well from measurement point:	24.30' + 0.03' = 24.33'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):	soft			

Inspection Date: 9/27/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: DA2-MW116 Location/Functional Area: DEMO AREA #2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 21.69 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[✓]	[MAY]	[ ]	pad lifted off ground
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Brass tag in pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:				22.34' + 0.03' = 22.37'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/27/05 Inspected by: K. M

QA Reviewed 12/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: DA2-MW111 Location/Functional Area: DEMO AREA #2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 5 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 14.59 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	pad lifted off ground
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Brass tag in pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	14.76' + 0.03 = 14.79'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: K. M

QA [illegible] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: DA2-MW112

Location/Functional Area: DEMO AREA #2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened

Monitor Interval Length: 5 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 16.37 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag in pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[ ]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point: 17.04 + 0.03' = 17.07'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: KM

QA A Porfidio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: PA2-MW113 Location/Functional Area: DEMO AREA #2

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 5 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 15.90 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	SAND FLOWING FROM HOLE
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:				110.28' + 0.03' = 110.31'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/27/05 Inspected by: K. [signature]

QA A Bufalino 10/3/05

Erie Burning Grounds

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: EBG-MW123

Location/Functional Area: ERIE BURNING GROUNDS

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 33.23 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	tall grass
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Brass tag				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	BLACK MARK
Measured depth of the well from measurement point:	34.74' + 0.03' = 34.77'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	soft			

Inspection Date: 9/27/2005 Inspected by: K. M

QA A Pulfidio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: EBG-MW124

Location/Functional Area: ERIE BURNING GROUNDS

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 32.37 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	tall brush 6-8'
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	32.73' + 0.03' = 32.76'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	Soft			

Inspection Date: 9/27/2005 Inspected by: [signature]

QA a Porfidio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: EDG-MW125 Location/Functional Area: ERIE BURNING GROUNDS

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 26.34 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	tall shrub 6-8'
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	27.45' + 0.03' = 27.48'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	soft			

Inspection Date: 9/27/2005 Inspected by: K. M

QA A Pufidio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: EBG-MW126

Location/Functional Area: ERIE BURNING GROUNDS

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 27.58 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	GROUT UP TO PVC RISER
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	TALL GRASS ONLY
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: BRASS TAG				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	BLACK MARK
Measured depth of the well from measurement point:	27.91' + 0.03' = 27.94'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	soft			

Inspection Date: 9/27/2005 Inspected by: K. M

QA A Pufidio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: EBG-MW127

Location/Functional Area: ERIE BURNING GROUNDS

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 31.86 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: BRASS TAG				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	BLACK MARK
Measured depth of the well from measurement point: 32.83' + 0.03' = 32.86'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): soft				

Inspection Date: 9/27/2005 Inspected by: [signature]

QA APerfidio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: EBG-MW128

Location/Functional Area: FIRE BURNING GROUNDS

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 27.66 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:				28.20' + 0.03' = 28.23'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/27/2005 Inspected by: R. M

OA Rpt file 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: EBG-MW129

Location/Functional Area: ERIE BURNING GROUNDS

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 28.39 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:				31.01' + 0.03 = 31.04'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				soft

Inspection Date: 9/27/2005 Inspected by: KM

QA Review 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: EBG-MW130

Location/Functional Area: ERIE BURNING GROUNDS

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 27.99 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?		✓		
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			black mark
Measured depth of the well from measurement point:	28.38' + 0.03' = 28.41'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: K. M

QA Approved 10/3/05

Fuze and Booster Quarry

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: FBQMW-166 Location/Functional Area: FBQ

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 19.49 ft BGS or ~~BTOC~~ (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 19.73' + 0.02' = 19.75'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/29/05 Inspected by: Amanda M Pohrdie 10/6/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: FBQMW-167 Location/Functional Area: FBQ

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 18.85 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	needs clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass-button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 19.00' + 0.02' = 19.02'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/29/05 Inspected by: Amanda N. Porfidio
G Clayton [illegible]

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: FBQMW-168 Location/Functional Area: FBQ

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 21.64 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	light clearing
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 41.29' + 0.02' = 41.31'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): semi-hard				

Inspection Date: 9/29/05 Inspected by: Amanda M Porfidio

[signature] 9/29/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: FBQMW-169 Location/Functional Area: FBQ

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 18.22 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	needs cleaning
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass-button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	18.10 + 0.02' = 18.12'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: Amanda M Porfirio 9/29/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: FBQMW-170 Location/Functional Area: FBQ

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 32.59 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass-button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 32.71' + 0.02' = 32.73'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/29/05 Inspected by: Amanda Parfidies
G Clough 9/29/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: FBQMW-171 Location/Functional Area: FBQ

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 31.06 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	31.42' + 0.02' = 31.44'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: Amanda N. Pacifico

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: FBQMW-172 Location/Functional Area: FBQ

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 34.38 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	34.41' + 0.02' = 34.43'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	soft			

Inspection Date: 9/29/05 Inspected by: Amanda M Pufahl

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: FBQMW-173 Location/Functional Area: FBQ

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 20 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 53.01 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	51.65' + 0.02' = 51.67'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: Amanda Rafidio

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: FBQMW-174 Location/Functional Area: FBQ

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 26.19 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on top of concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	22.82' + 0.02' = 22.84'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	semi-hard			

Inspection Date: 9/29/05 Inspected by: Amanda Pochatko
A Clough 11/21/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: FBQMW-175 Location/Functional Area: FBQ

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 25.57 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass-button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	25.80' + 0.02' = 25.82'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/29/05 Inspected by: Amanda Porfirio
M Clarke 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: FBQMW-176 Location/Functional Area: FBQ

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 23.34 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass-button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 24.13' + 0.02' = 24.15'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): semi-hard/soft				

Inspection Date: 9/29/05 Inspected by: Amanda J Porfidio
M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: FBQMW-177 Location/Functional Area: FBQ

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above-ground

Reported Constructed Depth: 24.84 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass button on concrete pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	24.93' + 0.02' = 24.95'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	soft			

Inspection Date: 9/29/05 Inspected by: Amanda L Rochelle 9/29/05

Landfill North of Winklepeck

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LNW-MW024

Location/Functional Area: LANDFILL - NORTH OF WINKLEPECK

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 22.70 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	blackmark
Measured depth of the well from measurement point:	22.52 + 0.03' = 22.55'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LNW-MW025 Location/Functional Area: LANDFILL - NORTH OF WINKLEPECK

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 19.93 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[ ]	[✓]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	20.34' + 0.03' = 20.37'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: KM

QA RPorfido 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LNW MW026 Location/Functional Area: LANDFILL-NORTH OF WINKLEPEEK

Casing Type: ____ Steel ____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened ~~ABOVEGROUND~~ Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 25.80 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point:	26.00' + 0.03' = 26.03'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: LNW-MW027

Location/Functional Area: LANDFILL NORTH OF WINKLEPECK

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 26.73 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	
Measured depth of the well from measurement point: 26.88' + 0.03' = ~~26.8 HA~~ ~~HA 92~~ 26.91'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: K-W

QA A Porfidio 10/3/05

NACA Test Area

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: NTA-MW107

Location/Functional Area: NACA TEST AREA

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 24.65 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	blackmark
Measured depth of the well from measurement point:	24.37' + 0.03' = 24.40'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: K. M

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: NTA-MW108 Location/Functional Area: NACA TEST AREA

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 24.40 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			black mark
Measured depth of the well from measurement point:				24.52' + 0.03' = 24.55'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/28/05 Inspected by: [signature]

QA RPrindle 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: NAA-MW1069 Location/Functional Area: NACA TEST AREA

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVEGROUND

Reported Constructed Depth: 20.95 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	21.88' + 0.03' = 21.91'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[ ]	[ ]	
Description of well bottom conditions (soft, hard, etc):				

Inspection Date: 9/28/05 Inspected by: K. M

QA A Bufalino 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: NTA-MW110

Location/Functional Area: NACA TEST AREA

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 29.59 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag wrapped around pro casing with wire				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			black mark
Measured depth of the well from measurement point:				29.77' + 0.13' = 29.90'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/28/05 Inspected by: _____

QA KPapidis 10/6/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: NTA-MW111

Location/Functional Area: NACA TEST AREA

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 22.37 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	tall saw grass 6'
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	22.07' + 0.03' = 22.10'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: NTA-MW112

Location/Functional Area: NACA TEST AREA

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 26.87 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?		✓		MEASURED FROM N
Measured depth of the well from measurement point:	26.63'			~~MEASURED FROM AT~~ HA + 0.03' = 26.66'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: [signature]

QA Reviewer 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: NTA MW113

Location/Functional Area: Naca Test area

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 30.07 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	29.60' + 0.03' = 29.63'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	Soft			

Inspection Date: 9/28/05 Inspected by: [signature]

QA [signature] 10/2/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: NTA-MW114 Location/Functional Area: NACA TEST AREA

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 22.60 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[ ]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	22.80' + 0.13' = 22.93'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: NTA-MW415 Location/Functional Area: NACA TEST AREA

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 25.24 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	MEASURED FROM N
Measured depth of the well from measurement point:	25.26'			~~Measured from N~~ +0.03' = 25.29'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: NTA MW-116 Location/Functional Area: NACA TEST AREA

Casing Type: ____ Steel ____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 22.65 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tagon lid				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:				22.54' + 0.03' = 22.57'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/28/05 Inspected by: K. M

QA R Porfido 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: NTA.MW117 Location/Functional Area: NASA TEST AREA

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 27.37 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?		✓		MEASURED FROM N
Measured depth of the well from measurement point: 27.50' ~~measured from N~~ +0.03' = 27.53'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/28/05 Inspected by: _____

QA [illegible] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: NTA-MW118 Location/Functional Area: NACA TEST AREA

Casing Type: ____ Steel ____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 24.58 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on lid				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			black mark
Measured depth of the well from measurement point:	24.72' + 0.03 = 24.75'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/28/05 Inspected by: K M

QA A Porfidio 10/3/05

Ramsdell Quarry

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: RQL-MW006 Location/Functional Area: RAMSDELL

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 20 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 41.27 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[✓]	[ ]	[ ]	pad heaved up, not cracked
Is steel protective casing installed?	[✓]	[ ]	[ ]	square casing
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	RQL-MW6
Describe labeling: brass tag				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	41.98' + 0.03' = 42.01'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/2005 Inspected by: KM

QA [illegible] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: RQLMW-007

Location/Functional Area: Ramsdell Quarry

Casing Type: _____ Steel _____ Stainless Steel x PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 18.00 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 0				
Are the posts positioned to prevent collision damage to the well?	[ ]	[x]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[ ]	[x]	
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[x]	[ ]	[ ]	Conc. around pro casing cracked
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[x]	[ ]	
Does vegetation around the well need clearing?	[ ]	[x]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[x]	
Does the well have a flush-mount box?	[ ]	[ ]	[x]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[x]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[x]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	
Does the lock secure the well?	[x]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point: 18.56 + 0.12 = 18.68				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[x]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05

Inspected by: [signature] [signature] 9/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: RQ mw-009

Location/Functional Area: Ramsdell Quarry

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 18.26 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 0				
Are the posts positioned to prevent collision damage to the well?	[ ]	[X]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[ ]	[X]	
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[X]	[ ]	[ ]	Conc. seal around pro casing cracked / broken
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[X]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brasstag in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 18.60 + 0.12 = 18.72				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05

Inspected by: [signature]

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: RQLmw-009

Location/Functional Area: Ramsdell Quarry

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 17.88 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 0				
Are the posts positioned to prevent collision damage to the well?	[ ]	[x]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[ ]	[x]	
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[x]	[ ]	[ ]	Conc. seal around pro casing cracked/broken
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[x]	[ ]	
Does vegetation around the well need clearing?	[ ]	[x]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[x]	
Does the well have a flush-mount box?	[ ]	[ ]	[x]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[x]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[x]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	
Does the lock secure the well?	[x]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point: 18.77 + 0.12 = 18.89				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[x]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05

Inspected by: [signature]
M Clough [signature]

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: RGL-MW016

Location/Functional Area: RAMSDELL

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 20 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 34.56 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 2				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	ON 1 SIDE ONLY
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	measured from N
Measured depth of the well from measurement point:	35.27' + 0.03' ~~measured from N~~ = 35.30'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	SLIGHTLY SOFT			

Inspection Date: 9/27/05 Inspected by: J.K.

QA KPorfido 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: RGL-MW011

Location/Functional Area: RAMSDELL

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 20 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 34.37 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	square casing
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	black mark
Measured depth of the well from measurement point:	35.30' + 0.03' = 35.33'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: K. W

QA R Porfidio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: RGL-MW-012 Location/Functional Area: RAMSDELL

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 32.33 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	
Measured depth of the well from measurement point: ~~32.63~~				Measured from N 32.61' + 0.03' = 32.64'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[ ]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: RQL-MW013

Location/Functional Area: RAMSDELL

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 36.37 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	measured from N
Measured depth of the well from measurement point:	36.41' + 0.03' ~~measured from N~~ = 36.44'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: RAL-MW004 Location/Functional Area: RAMSDELL

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 31.23 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: Brass tag				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	MEASURED FROM N
Measured depth of the well from measurement point:	31.71'	~~Measured from N~~ +0.03' = 31.74'		
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	soft			

Inspection Date: 9/27/05 Inspected by: KM

QA APulido 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: RQL-MW115 Location/Functional Area: RAMSDELL

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: _____ ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 41.24 ft BGS or BTOC (circle one)

INSPECTION ITEMS	**YES**	**NO**	**N/A**	**COMMENTS**
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[ ]	[✓]	[ ]	marked RQL-MW115
Describe labeling: Brass tag				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	MEASURED FROM N
Measured depth of the well from measurement point:	41.97' + 0.03' = ~~(measured from N)~~ 42.00'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: K. M

QA Review 10/3/06

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: RQL-mw0116 Location/Functional Area: RAMSDELL

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 41.08 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[ ]	[✓]	[ ]	marked RQL-mw0116
Describe labeling: brass tag				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	measured from N
Measured depth of the well from measurement point:	41.64' TOC ~~measured from N~~ +0.03' = 41.67'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/2005 Inspected by: R. W

QA A Rupido 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: RQL-MW017

Location/Functional Area: RAMSDELL

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 32.32 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[ ]	[✓]	[ ]	MEASURED FROM N
Measured depth of the well from measurement point:	32.93 + 0.03 = ~~Measured from N~~ 32.96'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): soft				

Inspection Date: 9/27/2005 Inspected by: K. [illegible]

QA Approved 10/3/05

Winklepeck Burning Grounds

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: WBG-MW005

Location/Functional Area: WINKLEPECK

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVEGROUND

Reported Constructed Depth: 20.80 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[ ]	[✓]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	005
Describe labeling: brass tag on pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	PVC slip cap
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	blackmark
Measured depth of the well from measurement point:	21.11' + 0.03' = 21.14'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: K. M

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: WBGmw-006

Location/Functional Area: Winklepeck Burning Ground

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 20.08 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	V. Slight rust
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	Keyhole cover missing
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 20.23 + 0.12 = 20.35				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05 Inspected by: A Brilling

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: WBamw-007

Location/Functional Area: Winklepeck Burning Ground

Casing Type: _____ Steel _____ Stainless Steel _x_ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 26.00 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[x]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[x]	[ ]	
Is a concrete pad installed?	[x]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[x]	[ ]	
Is steel protective casing installed?	[x]	[ ]	[ ]	
Does the protective casing have a weep hole?	[x]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[x]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[x]	
Does the well have a flush-mount box?	[ ]	[ ]	[x]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[x]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[x]	
Identification:				
Is the well labeled with the correct number?	[x]	[ ]	[ ]	
Describe labeling: brass tag in concrete pad				
Security:				
Does the well have a cap or lid?	[x]	[ ]	[ ]	
Does the well have a weatherproof lock?	[x]	[ ]	[ ]	
Does the lock secure the well?	[x]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[x]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[x]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[x]	[ ]	
Is a measurement point marked at the top of the well casing?	[x]	[ ]	[ ]	
Measured depth of the well from measurement point: 26.37 + 0.12 = 26.49				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[x]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05 Inspected by: A Bullington M Clough (Wed 05)

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: WBG-MW008 Location/Functional Area: WINKLEPECK

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 20.66 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on pad				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			black mark
Measured depth of the well from measurement point:				20.82' + 0.03' = 20.85'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):				hard

Inspection Date: 9/27/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: WBGmw-009 Location/Functional Area: Winklepeck Burning Ground

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 23.92 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 3				
Are the posts positioned to prevent collision damage to the well?	[ ]	[Y]	[ ]	1 side vulnerable
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass plate in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 24.25 + 0.12 = 24.37				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05 Inspected by: A. Brilling

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: WBG-MW010

Location/Functional Area: WINKLEPECK

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 23.25 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	notch in PVC
Measured depth of the well from measurement point: 23.36' + 0.03' = 23.39'				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9/27/05 Inspected by: [signature]

QA [signature] 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: WBG MW011

Location/Functional Area: WINKLEPECK

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVEGROUND

Reported Constructed Depth: 23.68 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	tall brush ~ 6'
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag in pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	NOTCH IN PVC
Measured depth of the well from measurement point:	23.83' + 0.03' = 23.86'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	soft			

Inspection Date: 9/27/05 Inspected by: K. M

QA O Porfidio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: WBG-MW0012 Location/Functional Area: WINKLEPECK

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 31.61 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	tall brush/thorns 6'
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	notch in PVC
Measured depth of the well from measurement point:	31.60' + 0.03' = 31.63'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	BGM HARD			

Inspection Date: 9/27/05 Inspected by: K. M

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RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: WBG-MW0913

Location/Functional Area: WINKLEPECK

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 23.60 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	✓			
Are any of the posts damaged or degraded?		✓		
Is a concrete pad installed?	✓			
Is the pad cracked or deteriorated? Frost heaving?		✓		
Is steel protective casing installed?	✓			
Does the protective casing have a weep hole?	✓			
Does vegetation around the well need clearing?		✓		
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?			✓	
Does the well have a flush-mount box?			✓	
Is the traffic cover cracked or broken?			✓	
Is the concrete apron cracked or deteriorated? Frost heaving?			✓	
Identification:				
Is the well labeled with the correct number?	✓			
Describe labeling: brass tag on pad				
Security:				
Does the well have a cap or lid?	✓			
Does the well have a weatherproof lock?	✓			
Does the lock secure the well?	✓			
Does the inner casing have a water-tight cap?	✓			
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)		✓		
Is the well casing loose (at the surface)?		✓		
Is a measurement point marked at the top of the well casing?	✓			NOTCH IN PVC
Measured depth of the well from measurement point:				24.11' + 0.03' = 24.14'
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?		✓		
Description of well bottom conditions (soft, hard, etc):				soft

Inspection Date: 9/27/05 Inspected by: K. M

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RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: WBG-MW014

Location/Functional Area: WINKLEPECK

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 24.68 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag in pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	notch in PVC
Measured depth of the well from measurement point:	24.99' + 0.03' = 25.02'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: K. W

QA A Porfidio 10/3/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: WBG-MW615

Location/Functional Area: WINKLEPECK

Casing Type: _____ Steel _____ Stainless Steel _____ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 23.50 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag in pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	notch in pvc
Measured depth of the well from measurement point:	23.51' + 0.03" = 23.54'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: K. M

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RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: WBG-MW016

Location/Functional Area: WINKLEPECK

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVEGROUND

Reported Constructed Depth: 25.13 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[✓]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag on pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	notch in PVC
Measured depth of the well from measurement point:	25.20' + 0.03' = 25.23'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: K. W

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RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: WBG-MW017 Location/Functional Area: WINKLEPECK

Casing Type: _____ Steel _____ Stainless Steel ✓ PVC

Screened/Open-Hole Well Type: screened Monitor Interval Length: 10 ft

Flush-mount/Above-ground Completion: ABOVE GROUND

Reported Constructed Depth: 23.62 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[✓]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[✓]	[ ]	
Is a concrete pad installed?	[✓]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[✓]	[ ]	
Is steel protective casing installed?	[✓]	[ ]	[ ]	
Does the protective casing have a weep hole?	[✓]	[ ]	[ ]	
Does vegetation around the well need clearing?	[✓]	[ ]	[ ]	tall brush 6-7'
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[✓]	
Does the well have a flush-mount box?	[ ]	[ ]	[✓]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[✓]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[✓]	
Identification:				
Is the well labeled with the correct number?	[✓]	[ ]	[ ]	
Describe labeling: brass tag in pad				
Security:				
Does the well have a cap or lid?	[✓]	[ ]	[ ]	
Does the well have a weatherproof lock?	[✓]	[ ]	[ ]	
Does the lock secure the well?	[✓]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[✓]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[✓]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[✓]	[ ]	
Is a measurement point marked at the top of the well casing?	[✓]	[ ]	[ ]	notch in PVC
Measured depth of the well from measurement point:	23.71' + 0.03' = 23.74'			
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[✓]	[ ]	
Description of well bottom conditions (soft, hard, etc):	hard			

Inspection Date: 9/27/05 Inspected by: K. Lr

DA RPufidio 10/2/06

Suspected Mustard Agent Burial Site

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: MBSmw-001

Location/Functional Area: Suspected mustard Agent Burial Site

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 9.7 ft

Flush-mount/Above-ground Completion: Aboveground

Reported Constructed Depth: 31.22 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				9:10 18.01 DTW
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: Brass plate in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point:				30.92 + 0.12 = 31.04
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc):				soft - silty probe tip

Inspection Date: 9-27-05 Inspected by: A Bullinger M Clayton

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: MBSmw-002

Location/Functional Area: Suspected Mustard Agent Burial Site

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 9.3 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 30.02 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:				DTW 18.38 9:15
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass plate in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point:				30.35 + 0.12 = 30.47
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc):				soft - silty probe tip

Inspection Date: 9-27-05 Inspected by: Al Bullinger

M Clough 10/5/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: MBSmw-003

Location/Functional Area: Suspected Mustard Agent Burial Site

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 9.7 ft

Flush-mount/Above-ground Completion: Above ground

Reported Constructed Depth: 30.20 ft BGS or BTOC (circle one)

INSPECTION ITEMS	YES	NO	N/A	COMMENTS
Well-head Completion:			8:50	DTW= 19.28
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[ ]	
Does the well have a flush-mount box?	[ ]	[ ]	[ ]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[ ]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[ ]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass plate in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point: 30.66+0.12= 30.78				
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc): hard				

Inspection Date: 9-27-05

Inspected by: Al Bullington
M Clough 11/22/05

RAVENNA ARMY AMMUNITION PLANT
WELL INSPECTION CHECKLIST

WELL INFORMATION

Well Number: MBSmw-004

Location/Functional Area: Suspected Mustard Agent Burial Site

Casing Type: _____ Steel _____ Stainless Steel X PVC

Screened/Open-Hole Well Type: Screened

Monitor Interval Length: 9.7 ft

Flush-mount/Above-ground Completion: Aboveground

Reported Constructed Depth: 26.65 ft BGS or (BTOC) (circle one)

INSPECTION ITEMS	**YES**	**NO**	**N/A**	**COMMENTS**
Well-head Completion:				9:00 DTW 17.36
Above-ground completion:				
Number of guard posts at well: 4				
Are the posts positioned to prevent collision damage to the well?	[X]	[ ]	[ ]	
Are any of the posts damaged or degraded?	[ ]	[X]	[ ]	
Is a concrete pad installed?	[X]	[ ]	[ ]	
Is the pad cracked or deteriorated? Frost heaving?	[ ]	[X]	[ ]	
Is steel protective casing installed?	[X]	[ ]	[ ]	
Does the protective casing have a weep hole?	[X]	[ ]	[ ]	
Does vegetation around the well need clearing?	[ ]	[X]	[ ]	
Flush-mount completion:				
Is the traffic cover securely bolted to the flush-mount box?	[ ]	[ ]	[X]	
Does the well have a flush-mount box?	[ ]	[ ]	[X]	
Is the traffic cover cracked or broken?	[ ]	[ ]	[X]	
Is the concrete apron cracked or deteriorated? Frost heaving?	[ ]	[ ]	[X]	
Identification:				
Is the well labeled with the correct number?	[X]	[ ]	[ ]	
Describe labeling: brass plate in concrete pad				
Security:				
Does the well have a cap or lid?	[X]	[ ]	[ ]	
Does the well have a weatherproof lock?	[X]	[ ]	[ ]	
Does the lock secure the well?	[X]	[ ]	[ ]	
Does the inner casing have a water-tight cap?	[X]	[ ]	[ ]	
Down-hole Condition:				
Is the well casing bent, corroded, or broken (at the surface?)	[ ]	[X]	[ ]	
Is the well casing loose (at the surface)?	[ ]	[X]	[ ]	
Is a measurement point marked at the top of the well casing?	[X]	[ ]	[ ]	
Measured depth of the well from measurement point:				26.56 + 0.12 = 26.68
Thickness of sediment accumulation (reported depth-present measurement):				
Are there any obstructions in the well?	[ ]	[X]	[ ]	
Description of well bottom conditions (soft, hard, etc):				hard - some silt

Inspection Date: 9-27-05 Inspected by: Al Bullington

APPENDIX D

DATA VERIFICATION/VALIDATION REPORTS

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DATA VERIFICATION /VALIDATION REPORT
PROJECT: RVAAP Facility Wide Ground Water Monitoring Program

SDG: A5J040187

The following samples were received at STL North Canton on 10/04/2005 by laboratory transit in acceptable condition for the analysis specified below.

Sample Date	Sample ID	QC	VOC	SVOC	EXP	Metals	Pest	PCB	CN
10/03/05	FWGRQLmw-009C-0134-GW		X	X	X		X	X	X
10/03/05	FWGRQLmw-009C-0134-GF					X			
10/03/05	FWGBKGmw-012C-0099-GW		X	X	X		X	X	X
10/03/05	FWGBKGmw-012C-0099-GF					X			
10/03/05	FWGRQLmw-007C-0132-GW		X	X	X		X	X	X
10/03/05	FWGRQLmw-007C-0132-GF					X			
10/03/05	FWGLL12mw-186C-0123-GW		X	X	X		X	X	X
10/03/05	FWGLL12mw-186C-0123-GF					X			
10/03/05	FWGCBPmw-005C-0124-GW		X	X	X		X	X	X
10/03/05	FWGCBPmw-005C-0124-GF					X			
10/03/05	FWGRQLmw-008C-0133-GW		X	X	X		X	X	X
10/03/05	FWGRQLmw-008C-0133-GF					X			
10/03/05	FWGLL12mw-182C-0121-GW		X	X	X		X	X	X
10/03/05	FWGLL12mw-182C-0121-GF					X			
10/03/05	FWGLL12mw-183C-0122-GW		X	X	X		X	X	X
10/03/05	FWGLL12mw-183C-0122-GF					X			
10/03/05	FWGCBPmw-007C-0125-GW		X	X	X		X	X	X
10/03/05	FWGCBPmw-007C-0125-GF					X			
10/03/05	FWGW-tb-0140-GW		X						

VOLATILES (EPA 8260B)
The following were reviewed and found acceptable:

- Holding times, preservation, sample handling
- Tuning criteria
- Initial Calibration Criteria including SPCC and CCC compounds
- ICV 2nd source and MRL criteria
- CCV criteria
- Internal standard area counts and retention times
- RRT and ion abundance criteria for all quantified compounds
- Manual integration consistent with LCG guidance documents
- Surrogate recoveries
- LCS/LCSD percent recoveries and RPD values
- MS/MSD percent recoveries and RPD values
- The method blank was free from contamination
- The trip blank was free from contamination
- Field Duplicate RPD values

SEMI-VOLATILES (EPA 8270C)
The following were reviewed and found acceptable:

- Holding times, preservation, sample handling
- Tuning criteria
- Initial Calibration Criteria including SPCC and CCC compounds

- ICV 2nd source and MRL criteria
- CCV criteria
- Internal standard area counts and retention times
- Surrogate percent recoveries
- RRT and ion abundance criteria for all quantified compounds
- Manual integration consistent with LCG guidance documents
- LCS/LCSD percent recoveries and RPD value
- MS/MSD percent recoveries and RPD values

LCS analysis was only calculated for the standard CLP 11 semi-volatile organic compounds. Raw data shows that all relevant contaminants of concern were spiked into the LCS samples.

The method blank contained diethyl phthalate (0.41 ug/L J), di-n-butyl phthalate (1.7 ug/L), butyl benzyl phthalate (1.6 ug/L), and bis(2-ethylhexyl)phthalate (3.0 ug/L). All associated samples in this analytical batch which had concentrations of these compounds within five times the value of this method blank, were qualified (B) found in blank.

PESTICIDES (EPA 8081A)
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Instrument performance, Breakdown criteria
- Initial Calibration Criteria
- ICV 2nd source and MRL criteria
- CCV criteria
- LCS percent recoveries
- MS/MSD percent recoveries
- The method blank was free from contamination

Low surrogate percent recovery (0%) was reported in the LCS for both tetrachloro-m-xylene and decachlorbiphenyl. Surrogate recovery was also outside of control limits for sample FWGBKGmw-012C-0099-GW (31%), and FWGLL12mw-186C-0123-GW (9.4%). The entire analytical batch was re-extracted and re-analyzed. Acceptable surrogate recovery was reported for all samples in the re-analysis, however, this re-analysis was performed outside of the holding time.

Most of the initial results agreed with the re-analyzed samples. Heptachlor epoxide was detected in sample FWGLL12mw-186C-0123-GW in the original sample. The re-analysis did not report heptachlor epoxide since the compound was not confirmed on both columns. However, in the primary column heptachlor epoxide was detected at a concentration of 0.057 ug/L which is consistent with the analysis performed within holding time. This value has been reported as a positive value with an estimated flag (J) since the analysis within holding time had unacceptable surrogate recovery, and the unconfirmed secondary analysis was performed outside of holding time.

Elevated RPD values were reported for the MS/MSD performed on sample FWGCBPmw-007C-125-GW during the re-extraction of this analytical batch. RPD values ranged from 40-42% RPD. Since all samples had undetectable levels of these compounds, no data was qualified based on elevated RPD values.

PCBs (EPA 8082)
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- ICV 2nd source and MRL criteria
- CCV criteria
- Surrogate percent recoveries
- Confirmation of positive values using second column

- LCS/LCSD percent recoveries and RPD values
- MS/MSD percent recoveries and RPD values
- The method blank was free from contamination

EXPLOSIVES and Nitroguanidine (EPA 8330)
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- MRL criteria
- Confirmation of positive values using second column
- Surrogate recoveries
- LCS/LCSD percent recoveries and RPD values
- MS/MSD percent recoveries and RPD values
- The method blank was free from contamination
- The filter blank was free from contamination

Due to high solid content, samples FWGRQLmw-007C-0132-GW, FWGLL12mw-186C-0123-GW, FWGCBPmw-005C-0124-GW, and FWGRQLmw-008C-0133-GW were filtered prior to analysis. A filter blank was prepared and analyzed with this analytical batch. No contamination was noted on the filter blank.

Positive results for 1,3,5-trinitrobenzene in sample FWGRQLmw-008C-0133-GW have been qualified estimated (J) due to a greater than 40%D between the primary and confirmation column.

METALS (EPA 6010B, 6020, 7470A)
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- ICV 2nd source and MRL criteria
- ICB criteria
- CCV and CCB criteria
- Interference check compounds (ICSA) criteria
- LCS percent recoveries
- MS percent recoveries
- Sample duplicate criteria
- Post digestion spike criteria

Manganese was detected in the method blank at a concentration of 540 ug/L which is less than ½ the reporting limit of 10,000 ug/L. Positive values reported at concentrations less than 2700 ug/L have been qualified (B) found in blank.

MS analysis performed on sample FWGCBPmw-007c-0125-GF had values for calcium which could not be calculated due to concentration of analyte initially in the sample relative to the concentration of spiking solution. No data was qualified based on this.

Elevated MS percent recovery was reported for silver (127%). Post digestion MS analysis performed on this analyte was acceptable. The sample spiked had undetectable levels of silver, therefore no data was qualified based on this.

Serial dilutions performed on sample FWGCBPmw-007C-0125-GW had % difference values of 11% for potassium. Positive results for this sample have been qualified estimated (J).

GENERAL CHEMISTRY

Cyanide

The following were reviewed and found acceptable:

- Holding times, preservation, sample handling
- Initial Calibration Criteria
- Initial Calibration Blank
- CCV, CCB criteria
- LCS percent recoveries
- MS/MSD percent recoveries and RPD values
- The method blank was free from contamination

Nitrate-Nitrite

The following were reviewed and found acceptable:

- Holding times, preservation, sample handling
- Initial Calibration Criteria
- Initial Calibration Blank
- CCV, CCB criteria
- LCS percent recoveries
- MS/MSD percent recoveries and RPD values
- The method blank was free from contamination

Nitrocellulose

The following were reviewed and found acceptable:

- Holding times, preservation, sample handling
- Initial Calibration Criteria
- Initial Calibration Blank
- CCV, CCB criteria
- LCS percent recoveries
- MS/MSD percent recoveries and RPD values
- The Method blank was free from contamination

DATA VERIFICATION /VALIDATION REPORT
PROJECT: RVAAP Facility Wide Ground Water Monitoring Program

SDG: A5J050103

The following samples were received at STL North Canton on 10/5/2005 by laboratory transit in acceptable condition for the analysis specified below.

Sample Date	Sample ID	QC	VOC	SVOC	EXP	Metals	Pest	PCB	CN
10/04/05	FWGLL2mw-059C-0111-GW		X	X	X		X	X	X
10/04/05	FWGLL2mw-059C-0111-GF					X			
10/04/05	FWGLL1mw-080C-0109-GW	OR-1	X	X	X		X	X	X
10/04/05	FWGLL1mw-080C-0109-GF	OR-2				X			
10/04/05	FWGLL2mw-080C-0135-GW	FD-1	X	X	X		X	X	X
10/04/05	FWGLL2mw-080C-0135-GF	FD-2				X			
10/04/05	FWGLL2mw-083C-0110-GW	OR-3	X	X	X		X	X	X
10/04/05	FWGLL2mw-083C-0110-GF	OR-4				X			
10/04/05	FWGLL1mw-083C-0137-GW	FD-3	X	X	X		X	X	X
10/04/05	FWGLL1mw-083C-0137-GF	FD-4				X			
10/04/05	FWGLL3mw-242C-0115-GW	OR-5	X	X	X		X	X	X
10/04/05	FWGLL3mw-242C-0115-GF	OR-6				X			
10/04/05	FWGLL2mw-242C-0136-GW	FD-5	X	X	X		X	X	X
10/04/05	FWGLL2mw-242C-0136-GF	FD-6				X			
10/04/05	FWGLL2mw-153C-0120-GW		X	X	X		X	X	X
10/04/05	FWGLL2mw-153C-0120-GF					X			
10/04/05	FWGLL2mw-262C-0112-GW		X	X	X		X	X	X
10/04/05	FWGLL2mw-262C-0112-GF					X			
10/04/05	FWGLL2mw-263C-0113-GW		X	X	X		X	X	X
10/04/05	FWGLL2mw-262C-0113-GF					X			
10/04/05	FWGLL2mw-017C-0103-GW		X	X	X		X	X	X
10/04/05	FWGLL2mw-017C-0113-GF					X			
10/04/05	FWGLL2mw-020C-0106-GW		X	X	X		X	X	X
10/04/05	FWGLL2mw-020C-0106-GF					X			
10/04/05	FWGW-tb-0141-GW	TB	X						

VOLATILES (EPA 8260B)
The following were reviewed and found acceptable:

- Holding times, preservation, sample handling
- Tuning criteria
- Initial Calibration Criteria including SPCC and CCC compounds
- ICV 2nd source and MRL criteria
- CCV criteria
- Internal standard area counts and retention times
- RRT and ion abundance criteria for all quantified compounds
- Manual integration consistent with LCG guidance documents
- Surrogate recoveries
- LCS/LCSD percent recoveries and RPD values
- MS/MSD percent recoveries and RPD values
- Field Duplicate RPD values

Methylene chloride was detected in the trip blank (0.79 ug/L). All associated samples had undetectable levels of this compound, therefore, no data was qualified based on this.

Methylene chloride was detected in the method blank (0.32 ug/L J). This compound was only detected in the trip blank and not in any associated samples. The trip blank value has been qualified B – found in blank. No other sample data was qualified.

SEMI-VOLATILES (EPA 8270C)
The following were reviewed and found acceptable:

- Holding times, preservation, sample handling
- Tuning criteria
- Initial Calibration Criteria including SPCC and CCC compounds
- ICV 2nd source and MRL criteria
- CCV criteria
- Surrogate percent recoveries
- RRT and ion abundance criteria for all quantified compounds
- Manual integration consistent with LCG guidance documents
- LCS/LCSD percent recoveries and RPD value
- MS/MSD percent recoveries and RPD values

Internal standard areas were outside of acceptable limits of 50 – 200% of the 12 hour standard for the MS performed on sample FWGLL2mw-263C-0113-GW. All six Internal standard area counts were out at values ranging from 39.8 – 47.1%. Internal standard area counts were acceptable in all other samples. No data was qualified based on this.

Di-n-butyl phthalate (1.6 ug/L), butyl benzyl phthalate (1.6 ug/L), bis(2-ethylhexyl)phthalate (3.2 ug/L) were detected in the method blank. Associated samples with concentrations less than 5 times the value found in the blank have been qualified (B) found in blank.

LCS analysis was only calculated for the standard CLP 11 semi-volatile organic compounds. Raw data shows that all relevant contaminants of concern were spiked into the LCS samples.

PESTICIDES (EPA 8081A)
The following were reviewed and found acceptable:

- Holding times, preservation, sample handling
- Instrument performance, Breakdown criteria
- Initial Calibration Criteria
- ICV 2nd source and MRL criteria
- CCV criteria
- LCS percent recoveries
- MS/MSD percent recoveries
- The method blank was free from contamination

Confirmation of compounds is required on a second column per the methodology. Results for heptachlor epoxide in sample FWGLL2mw-059C-0111-GW did not confirm within 40% between the primary and secondard column. Results have been qualified estimated (J) for the specified compounds.

Dilution was necessary for analysis of sample FWGLL1mw-080C-0109-GW, FWGLL2mw-080C-0135-GW, FWGLL2MW-083C-0110-GW, and FWGLL1MW-083C-0137-GW due to the concentration of heptachlor epoxide in these samples. This dilution resulted in elevated reporting limits for all compounds and surrogate recoveries which are out of range due to the dilution necessary for analysis. No data was qualified based on this.

Elevated RPD values were reported for the MS/MSD performed on sample FWGCBPmw-007C-125-GW during the re-extraction of this analytical batch. RPD values ranged from 40-42% RPD. Since all

samples had undetectable levels of these compounds, no data was qualified based on elevated RPD values.

PCBs (EPA 8082)
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- ICV 2nd source and MRL criteria
- CCV criteria
- Surrogate percent recoveries
- Confirmation of positive values using second column
- LCS percent recoveries
- MS/MSD percent recoveries and RPD values
- The method blank was free from contamination

EXPLOSIVES and Nitroguanidine (EPA 8330)
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- MRL criteria
- Confirmation of positive values using second column
- Surrogate recoveries
- LCS/LCSD percent recoveries and RPD values
- MS/MSD percent recoveries and RPD values
- The method blank was free from contamination
- The filter blank was free from contamination

Dilutions were necessary for analysis of samples FWGLL1mw-080C-0109-GW, FWGLL2mw-080C-0135-GW, FWGLL2MW-083C-0110-GW, and FWGLL1MW-083C-0137-GW due to the concentration of explosives in these samples. This dilution resulted in elevated reporting limits for all compounds

METALS (EPA 6010B, 6020, 7470A)
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- ICV 2nd source and MRL criteria
- ICB criteria
- CCV and CCB criteria
- Interference check compounds (ICSA) criteria
- LCS percent recoveries
- MS percent recoveries
- Sample duplicate criteria
- Serial Dilution criteria
- Post digestion spike criteria

MS analysis performed on sample FWGLL2mw-263c-0113-GF had values for iron which could not be calculated due to concentration of analyte initially in the sample relative to the concentration of spiking solution. No data was qualified based on this.

GENERAL CHEMISTRY
Cyanide
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria

- Initial Calibration Blank
- CCV, CCB criteria
- LCS percent recoveries
- MS/MSD percent recoveries and RPD values
- The method blank was free from contamination

Nitrate-Nitrite
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- Initial Calibration Blank
- CCV, CCB criteria
- LCS percent recoveries
- MS/MSD percent recoveries and RPD values
- The method blank was free from contamination

Nitrocellulose
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- Initial Calibration Blank
- CCV, CCB criteria
- LCS percent recoveries
- MS/MSD percent recoveries
- The Method blank was free from contamination

An elevated RPD value (29%) was reported for the MS/MSD performed on sample FWGLL2mw-263C-0113-GW. All associated samples in this analytical batch had undetectable levels of nitrocellulose, therefore, no data was qualified based on this.

DATA VERIFICATION /VALIDATION REPORT
PROJECT: RVAAP Facility Wide Ground Water Monitoring Program

SDG: A5J060101

The following samples were received at STL North Canton on 10/5/2005 by laboratory transit in acceptable condition for the analysis specified below.

Sample Date	Sample ID	QC	VOC	SVOC	EXP	Metals	Pest	PCB	CN
10/05/05	FWGLL3mw-238C-0114-GW		X	X	X		X	X	X
10/05/05	FWGLL3mw-238C-0114-GF					X			
10/05/05	FWGLL4mw-198C-0116-GW		X	X	X		X	X	X
10/05/05	FWGLL4mw-198C-0116-GF					X			
10/05/05	FWGLL4mw-199C-0117-GW		X	X	X		X	X	X
10/05/05	FWGLL4mw-199C-0117-GF					X			
10/05/05	FWGLL1mw-078C-0108-GW		X	X	X		X	X	X
10/05/05	FWGLL1mw-078C-0108-GF					X			
10/05/05	FWGBKGmw-013C-0100-GW		X	X	X		X	X	X
10/05/05	FWGBKGmw-013C-0100-GF					X			
10/05/05	FWGBKGmw-015C-0101-GW		X	X	X		X	X	X
10/05/05	FWGBKGmw-015C-0101-GF					X			
10/05/05	FWGBKGmw-010C-0098-GW		X	X	X		X	X	X
10/05/05	FWGBKGmw-010C-0098-GF					X			
10/05/05	FWGBKGmw-021C-0107-GW		X	X	X		X	X	X
10/05/05	FWGBKGmw-021C-0107-GF					X			
10/05/05	FWGBKGmw-004C-0094-GW		X	X	X		X	X	X
10/05/05	FWGBKGmw-004C-0094-GF					X			
10/05/05	FWGBKGmw-008C-0097-GW		X	X	X		X	X	X
10/05/05	FWGBKGmw-008C-0097-GF					X			
10/05/05	FWGBKGmw-005C-0095-GW		X	X	X		X	X	X
10/05/05	FWGBKGmw-005C-0095-GF					X			
10/05/05	FWGBKGmw-018C-0104-GW		X	X	X		X	X	X
10/05/05	FWGBKGmw-018C-0104-GF					X			
10/05/05	FWGW-tb-0143-GW	TB	X						

VOLATILES (EPA 8260B)
The following were reviewed and found acceptable:

- Holding times, preservation, sample handling
- Tuning criteria
- Initial Calibration Criteria including SPCC and CCC compounds
- ICV 2nd source and MRL criteria
- CCV criteria
- Internal standard area counts and retention times
- RRT and ion abundance criteria for all quantified compounds
- Manual integration consistent with LCG guidance documents
- Surrogate recoveries
- LCS/LCSD percent recoveries and RPD values
- MS/MSD percent recoveries and RPD values

Methylene chloride was detected in the trip blank (0.51 ug/L). All associated samples had undetectable levels of this compound, therefore, no data was qualified based on this.

Methylene chloride was detected in the method blank (0.32 ug/L J). This compound was only detected in the trip blank and not in any associated samples. The trip blank value has been qualified B – found in blank. No other sample data was qualified.

SEMI-VOLATILES (EPA 8270C)
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Tuning criteria
- Initial Calibration Criteria including SPCC and CCC compounds
- ICV 2nd source and MRL criteria
- CCV criteria
- Internal standard area counts and retention times
- Surrogate percent recoveries
- RRT and ion abundance criteria for all quantified compounds
- Manual integration consistent with LCG guidance documents
- LCS percent recoveries
- MS/MSD percent recoveries and RPD values

Low MS percent recovery was reported for 1,4-dichlorobenzene (27%) in the MS/MSD performed on sample FWGBKGmw-004C-0094-GW. Since all other QC criteria was met for these samples, no data was qualified based on this.

Di-n-butyl phthalate (1.5 ug/L) and bis(2-ethylhexyl)phthalate (1.6 ug/L) were detected in the method blank. Associated samples with concentrations less than 5 times the value found in the blank have been qualified (B) found in blank.

LCS analysis was only calculated for the standard CLP 11 semi-volatile organic compounds. Raw data shows that all relevant contaminants of concern were spiked into the LCS samples.

PESTICIDES (EPA 8081A)
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Instrument performance, Breakdown criteria
- Initial Calibration Criteria
- ICV 2nd source and MRL criteria
- CCV criteria
- Second column confirmation of positive values
- LCS percent recoveries
- MS/MSD percent recoveries and RPD values
- The method blank was free from contamination

Dilution was necessary for analysis of sample FWGLL3mw-238C-0114-GW due to the concentration of heptachlor epoxide in the sample. This dilution resulted in elevated reporting limits for all compounds and surrogate recoveries which are out of range due to the dilution necessary for analysis. No data was qualified based on this.

Elevated surrogate recovery was reported for tetrachloro-m-xylene (175%) in sample FWGLL4mw-199C-0117-GW. All positive results in this sample have been qualified estimated (J) due to this elevated surrogate recovery.

PCBs (EPA 8082)
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria

- ICV 2nd source and MRL criteria
- CCV criteria
- Surrogate percent recoveries
- Confirmation of positive values using second column
- LCS percent recoveries
- MS/MSD percent recoveries and RPD values
- The method blank was free from contamination

EXPLOSIVES and Nitroguanidine (EPA 8330)
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- MRL criteria
- Confirmation of positive values using second column
- Surrogate recoveries
- LCS/LCSD percent recoveries and RPD values
- MS/MSD percent recoveries and RPD values
- The method blank was free from contamination
- The filter blank was free from contamination

Due to high solid content, samples FWGLL3mw-238C-0114-GW, FWGLL4mw-198C-0116-GW, FWGLL4 mw-199C-0117-GW, FWGLL1mw-078C-0108-GW, and FWGBKGmw-005C-0095-GW were filtered prior to analysis. A filter blank was prepared and analyzed with this analytical batch. No contamination was noted on the filter blank.

Positive values reported for explosives have been confirmed on two columns. In one sample, results for RDX have been qualified (P) due to a greater than 40% D between the original column and the second confirmation column.

Dilutions were necessary for analysis of sample FWGLL3mw-238C-0114-GW due to the concentration of explosives in this sample. This dilution resulted in elevated reporting limits for all compounds

METALS (EPA 6010B, 6020, 7470A)
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- ICV 2nd source and MRL criteria
- ICB criteria
- CCV and CCB criteria
- Interference check compounds (ICSA) criteria
- MS percent recoveries
- Sample duplicate criteria
- Serial Dilution criteria
- Post digestion spike criteria

Elevated LCS percent recovery was reported for Silver (121%). All samples had undetectable levels of Silver, therefore no data was qualified based on this.

GENERAL CHEMISTRY
Cyanide
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- Initial Calibration Blank

- CCV, CCB criteria
- LCS percent recoveries
- MS/MSD percent recoveries
- The method blank was free from contamination

An elevated RPD value (30%) was reported for the MS/MSD performed on sample FWGBKGmw-004C-0094-GW. All associated samples in this analytical batch had undetectable levels of cyanide, therefore, no data was qualified based on this.

Nitrocellulose
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- Initial Calibration Blank
- CCV, CCB criteria
- LCS percent recoveries
- MS/MSD percent recoveries
- The Method blank was free from contamination

An elevated RPD value (29%) was reported for the MS/MSD performed on a batch QC sample. All associated samples in this analytical batch had undetectable levels of nitrocellulose, therefore, no data was qualified based on this.

DATA VERIFICATION /VALIDATION REPORT
PROJECT: RVAAP Facility Wide Ground Water Monitoring Program

SDG: A5J070109

The following samples were received at STL North Canton on 10/7/2005 by laboratory transit in acceptable condition for the analysis specified below.

Sample Date	Sample ID	QC	VOC	SVOC	EXP	Metals	Pest	PCB	CN
10/6/05	FWFDA2mw-DET4C-0128-GW			X	X		X	X	X
10/6/05	FWFDA2mw-DET4C-0128-GF					X			
10/6/05	FWGBKGmw-019C-0138-GW	FD-3		X	X		X	X	X
10/6/05	FWGBKGmw-019C-0138-GF	FD-4				X			
10/6/05	FWGBKGmw-019C-0105-GW	OR-3		X	X		X	X	X
10/6/05	FWGBKGmw-019C-0105-GF	OR-4				X			
10/6/05	FWGLL11mw-007C-0119-GW			X	X		X	X	X
10/6/05	FWGLL11mw-007C-0119-GF					X			
10/6/05	FWGDA2mw-DET3-0127-GW			X	X		X	X	X
10/6/05	FWGDA2mw-DET3-0127-GF					X			
10/6/05	FWGDA2mw-107C-0126-GW			X	X		X	X	X
10/6/05	FWGDA2mw-107C-0126-GF					X			
10/6/05	FWGWBGmw-006C-0129-GW			X	X		X	X	X
10/6/05	FWGWBGmw-006C-0129-GF					X			
10/6/05	FWGWBGmw-007C-0139-GW	FD-1		X	X		X	X	X
10/6/05	FWGWBGmw-007C-0139-GF	FD-2				X			
10/6/05	FWGWBGmw-007C-0130-GW	OR-1		X	X		X	X	X
10/6/05	FWGWBGmw-007C-0130-GF	OR-2				X			
10/6/05	FWGWBGmw-009C-0131-GW			X	X		X	X	X
10/6/05	FWGWBGmw-009C-0131-GF					X			
10/6/05	FWGLL11mw-002C-0118-GW			X	X		X	X	X
10/6/05	FWGLL11mw-002C-0118-GF					X			
10/6/05	FWGBKGmw-006C-0096-GW			X	X		X	X	X
10/6/05	FWGBKGmw-006C-0096-GF					X			

VOLATILES (EPA 8260B)
Due to equipment malfunction at the laboratory, the sample vials collected for VOC analysis were not held at 4 degrees from the time of sample receipt to the time of analysis. The VOC vials collected on 10/6/2005 were discarded and additional VOC vials were collected on 10/13/2005 as replacement. The results of these samples were evaluated under a separate sample delivery group.

SEMI-VOLATILES (EPA 8270C)
The following were reviewed and found acceptable:

- Holding times, preservation, sample handling
- Tuning criteria
- Initial Calibration Criteria including SPCC and CCC compounds
- ICV 2nd source and MRL criteria
- CCV criteria
- Internal standard area counts and retention times
- Surrogate percent recoveries
- RRT and ion abundance criteria for all quantified compounds
- Manual integration consistent with LCG guidance documents

- LCS percent recoveries
- MS/MSD percent recoveries and RPD values

Low surrogate reovery of 2,4,6-tribromophenol was reported in samples FWFDA2mw-DET4C-0128-GW and FWGLL11mw-007C-0119-GW. Since all other 5 semi-volatile surrogates were acceptable, no data was qualified based on this.

Low MS percent recovery was reported for 1,4-dichlorobenzene (27%) in the MS/MSD performed on a batch QC sample. Since all other QC criteria was met for these samples, no data was qualified based on this.

Di-n-butyl phthalate (1.5 ug/L, and 1.5 ug/L) and bis(2-ethylhexyl)phthalate (1.6 ug/L, and 7.6 ug/L) were detected in the two method blanks. Associated samples with concentrations less than 5 times the value found in the blank have been qualified (B) found in blank.

LCS analysis was only calculated for the standard CLP 11 semi-volatile organic compounds. Raw data shows that all relevant contaminants of concern were spiked into the LCS samples.

PESTICIDES (EPA 8081A)
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Instrument performance, Breakdown criteria
- Initial Calibration Criteria
- ICV 2nd source and MRL criteria
- CCV criteria
- Surrogate percent recoveries
- Second column confirmation of positive values
- LCS percent recoveries
- MS/MSD percent recoveries and RPD values
- The method blank was free from contamination

Positive values reported for pesticides have been confirmed on two columns. In one sample, FWGWBGmw-006C-0129-GW, results have been qualified (P) due to a greater than 40% D between the original column and the second confirmation column.

PCBs (EPA 8082)
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- ICV 2nd source and MRL criteria
- CCV criteria
- Surrogate percent recoveries
- Confirmation of positive values using second column
- LCS percent recoveries
- MS/MSD percent recoveries and RPD values
- The method blank was free from contamination

EXPLOSIVES and Nitroguanidine (EPA 8330)
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- MRL criteria
- Confirmation of positive values using second column
- Surrogate recoveries

- LCS/LCSD percent recoveries and RPD values
- MS/MSD percent recoveries and RPD values
- The method blank was free from contamination
- The filter blank was free from contamination

Due to high solid content, samples FWGLL11mw-002C-0118-GW, and FWGBKGmw-006C-0096-GW were filtered prior to analysis. A filter blank was prepared and analyzed with this analytical batch. No contamination was noted on the filter blank.

Dilutions were necessary for analysis of sample FWGWBGmw-006C-0129-GW due to the concentration of explosives in this sample. This dilution resulted in elevated reporting limits for all compounds

METALS (EPA 6010B, 6020, 7470A)
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- ICV 2nd source and MRL criteria
- ICB criteria
- CCV and CCB criteria
- Interference check compounds (ICSA) criteria
- MS percent recoveries
- Sample duplicate criteria
- Serial Dilution criteria
- Post digestion spike criteria

Manganese (1.3 ug/L), Nickel (5.9 ug/L), and Chromium (2.2 ug/L) were detected in the method blank at a concentrations less than ½ the reporting limit of 100, 20, and 20 ug/L respectively. Positive values reported at concentrations less than five times the value found in the method blank have been qualified (B) found in blank.

Serial dilutions performed in this analytical batch had % difference values of 30.1% for aluminum. Positive results for this sample have been qualified estimated (J).

GENERAL CHEMISTRY
Cyanide
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- Initial Calibration Blank
- CCV, CCB criteria
- LCS percent recoveries
- MS/MSD percent recoveries
- The method blank was free from contamination

An elevated RPD value (30%) was reported for the MS/MSD performed on batch QC sample. All associated samples in this analytical batch had undetectable levels of cyanide, therefore, no data was qualified based on this.

Nitrocellulose
The following were reviewed and found acceptable:
- Holding times, preservation, sample handling
- Initial Calibration Criteria
- Initial Calibration Blank
- CCV, CCB criteria

- LCS percent recoveries
- MS/MSD percent recoveries
- The Method blank was free from contamination

An elevated RPD value (21%) was reported for the MS/MSD performed on a sample FWGDA2mw-107C-0126-GW. All associated samples in this analytical batch had undetectable levels of nitrocellulose, therefore, no data was qualified based on this.

DATA VERIFICATION /VALIDATION REPORT
PROJECT: RVAAP Facility Wide Ground Water Monitoring Program

SDG: A5J140308

The following samples were received at STL North Canton on 10/13/2005 by laboratory transit in acceptable condition for the analysis specified below.

Sample Date	Sample ID	QC	VOC
10/6/05	FWGBKGmw-006C-0146-GW		X
10/6/05	FWGBKGmw-019C-0147-GW	OR-1	X
10/6/05	FWGBKGmw-019C-0148-GW	FD-1	X
10/6/05	FWGDA2mw-107C-0149-GW		X
10/6/05	FWGDA2mw-DET3C-0150-GW		X
10/6/05	FWGDA2mw-DET4C-0151-GW		X
10/6/05	FWGLL11mw-002C-0152-GW		X
10/6/05	FWGLL11mw-007C-0153-GW		X
10/6/05	FWGWBGmw-006C-0154-GW		X
10/6/05	FWGWBGmw-007C-0155-GW	OR-2	X
10/6/05	FWGWBGmw-007C-0156-GW	FD-2	X
10/6/05	FWGWBGmw-009C-0157-GW		X
10/6/05	FWGW-TB-0159-GW		X

VOLATILES (EPA 8260B)
The following were reviewed and found acceptable:

- Holding times, preservation, sample handling
- Tuning criteria
- Initial Calibration Criteria including SPCC and CCC compounds
- ICV 2nd source and MRL criteria
- CCV criteria
- Internal standard area counts and retention times
- RRT and ion abundance criteria for all quantified compounds
- Manual integration consistent with LCG guidance documents
- Surrogate recoveries
- LCS/LCSD percent recoveries and RPD values
- MS/MSD percent recoveries and RPD values
- Field Duplicate RPD values
- The method blank was free from contamination

Methylene chloride was detected in the trip blank (1.1 ug/L). This compound was only detected in the trip blank and not in any associated samples. No sample data was qualified based on this.

APPENDIX E

WELL LOGS and CONSTRUCTION DIAGRAMS

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HTRW DRILLING LOG

DISTRICT: **Louisville**

HOLE NUMBER: **FBQ-166**

1. COMPANY NAME: **SpecPro, Inc.**

2. DRILL SUBCONTRACTOR: Tol Test

SHEET 1 OF 1

3. PROJECT: **Fuze & Booster/RVAAP** MW-71

4. LOCATION: **Fuze & Booster Quarry Landfill/Pond**

5. NAME OF DRILLER: Neil Witkof Wiktor

6. MANUFACTURERS DESIGNATION OF DRILL: CME-75

7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME-75 Auger Rig 10.25" O.D. / 6.25" I.D.

8. HOLE LOCATION: FBQ-166

9. SURFACE ELEVATION:

10. DATE STARTED: 10/8/03

11. DATE COMPLETED: 10/8/03

12. OVERBURDEN THICKNESS: 16'

15. DEPTH GROUNDWATER ENCOUNTERED: 5.5' (est. in SS) (10/8/03)

13. DEPTH DRILLED INTO ROCK: N/A

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 0.7' bgs / 46 hr 5 min

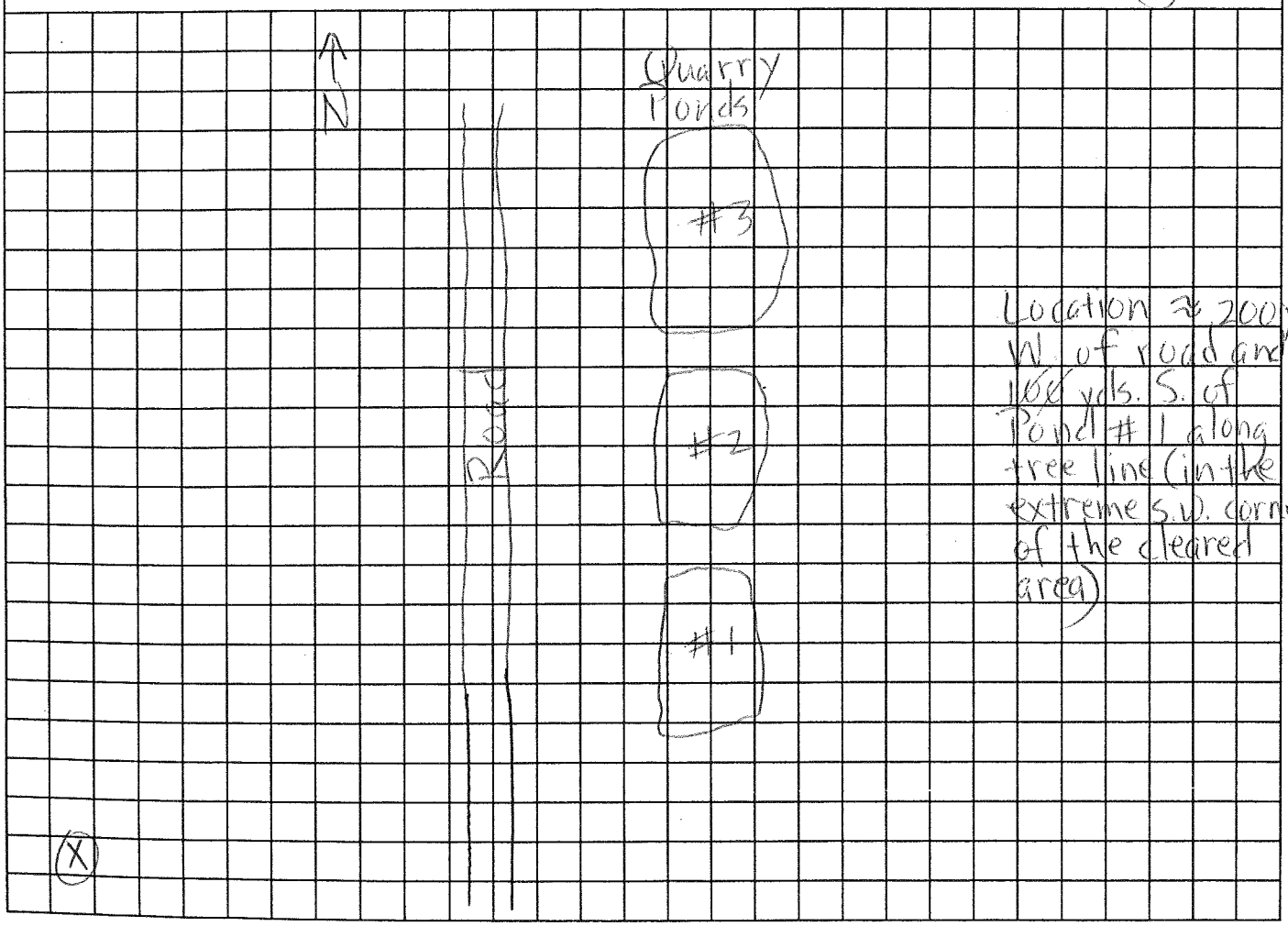
14. TOTAL DEPTH OF HOLE: 16' bgs

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES			
20. SAMPLES FOR CHEMICAL ANALYSIS: NA	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE: Mon. well constructed	BACKFILLED ✓	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: M.T. Deering		

LOCATION SKETCH/COMMENTS

SCALE: Not to scale



HTRW DRILLING LOG

HOLE NUMBER: FBQ-166

PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | SHEET 1 OF 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS ©	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1	Med-dk brn silty Topsoil to 6"; @ 6", change to yel brn clayey silt (ML) tr 1+1 fn ~~med~~ cse grv, dry, dense MFD	∅ PPM	FBQ-166 (ST-1)		Push Shelby tube from ∅-2' bgs
	2	Clayey silt A/A (as above), dry	∅	FBQ-166 (ST-2)		Push Shelby tube from 2-4' bgs
	3					
	4	Yel brn silty Clay (CL) tr-1+1 fn-med grav, damp-moist to d 5'3"; change yel brn clayey silt, tr grv, damp-moist, dense to 5'6"; change to yel brn clayey v.fn.-fn Sand, wet-sat., loose	∅			Blow Counts: 5-6-7-9 Recov.: 19"
	5					
↓	6	Yel brn grading to olv brn sandy Clay, sat., soft, plastic	∅	FBQ-166 (ST-3)		Push Shelby tube from 6-8' bgs
	7					
	8	Olv brn ~~Sandy~~ Clay ~~Clayey Sand A/A, grading from yel brn to olv~~ brn, sat., firm ~~soft~~ plastic MFD	∅			Blow Counts: 4-5-5-6 Recov.: 13"
	9					
	10					

17

HTRW DRILLING LOG

HOLE NUMBER FBQ-166

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering/Ronda Bailey

SHEET 2 OF 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11	Clay A/A (CL)	ϕ PPM			Blow Counts: 7-4-6-8 Recov.: 16"
	12	Clay A/A, slightly ~~more~~ less firm, sat.	ϕ			Blow Counts: 7-6-6-7 Recov.: 18"
	13					
	14	Clay A/A, firm, Saturated.	ϕ			Blow Counts: 2-3-5-4 Recov.: 18"
	15					
	16					
	17					
	18					
	19					
	20					

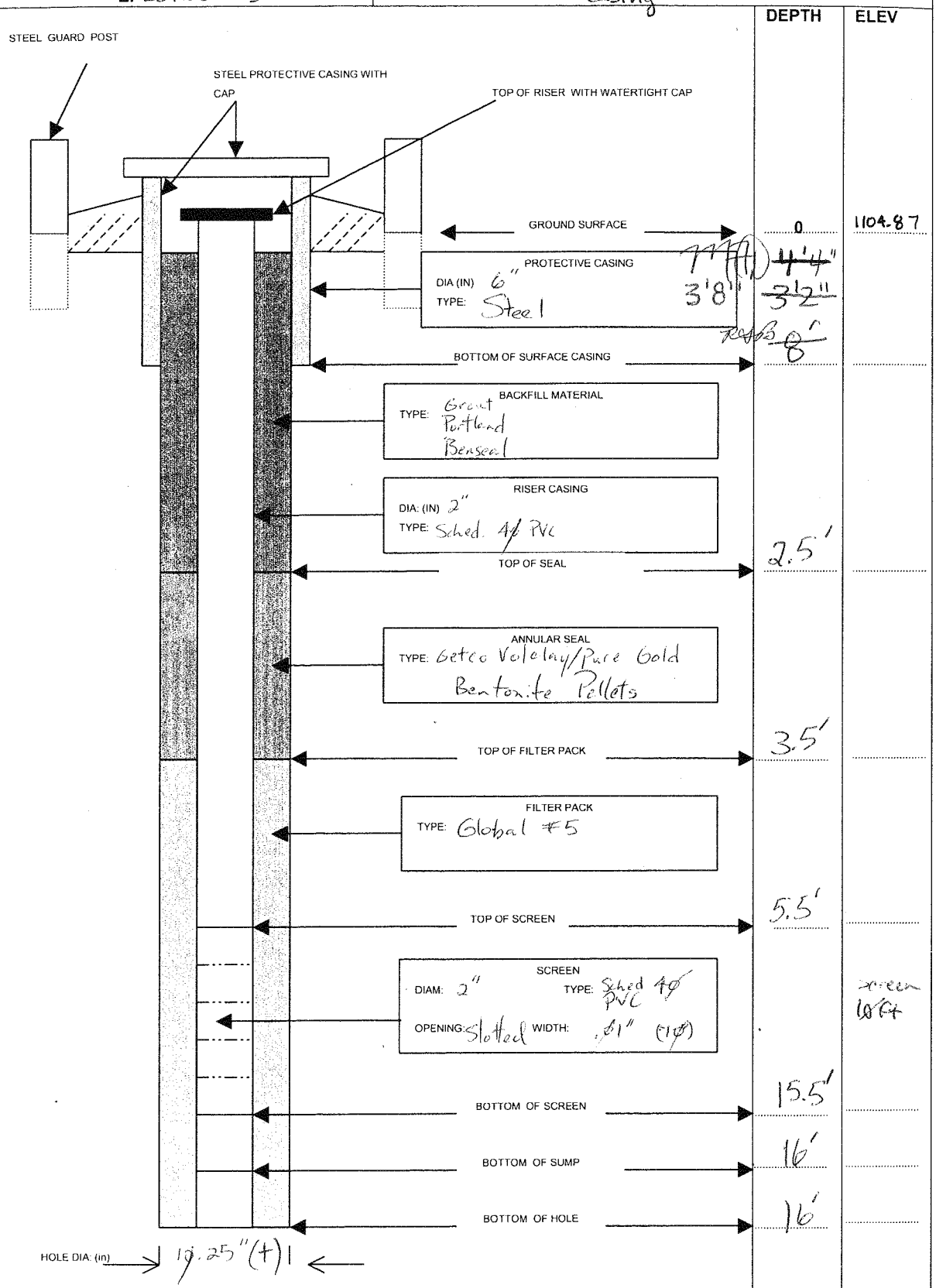
10-05-03

MONITORING WELL CONSTRUCTION DIAGRAM

10-8-03 10-8-03

PROJECT NAME: Phase I/II Fuze & Booster Quary Landfill/Pond **DELIVERY ORDER NO:** 0012

WELL NUMBER: FBQ-16	**BEGIN:** 10:30	**END:** 11:30
COORDINATES: N: 553123.42 E: 2349586.23	**REFERENCE POINT:** Top Inner Casing	**ELEVATION:** 1108.86 ft.



HTRW DRILLING LOG

DISTRICT: **Louisville**

HOLE NUMBER: **FBQ-167**

1. COMPANY NAME: **SpecPro, Inc.**

2. DRILL SUBCONTRACTOR: Tol Test

SHEET 1 OF 1

3. PROJECT: **Fuze & Booster/RVAAP**

4. LOCATION: **Fuze & Booster Quarry Landfill/Pond**

5. NAME OF DRILLER: Tony Brister

6. MANUFACTURERS DESIGNATION OF DRILL: CME-550

7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME-550 ATV Aug Rig (10.25" O.D. / 6.25" I.D.)

8. HOLE LOCATION: FBQ-167

9. SURFACE ELEVATION:

10. DATE STARTED: 10/15/03

11. DATE COMPLETED: 10/15/03

12. OVERBURDEN THICKNESS: 22'

15. DEPTH GROUNDWATER ENCOUNTERED: 5' bgs/SS/10-15-03

13. DEPTH DRILLED INTO ROCK: N/A

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: +0.7 ags/44 hr 30 min

14. TOTAL DEPTH OF HOLE: 22' bgs (M.W. to 15' bgs)

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

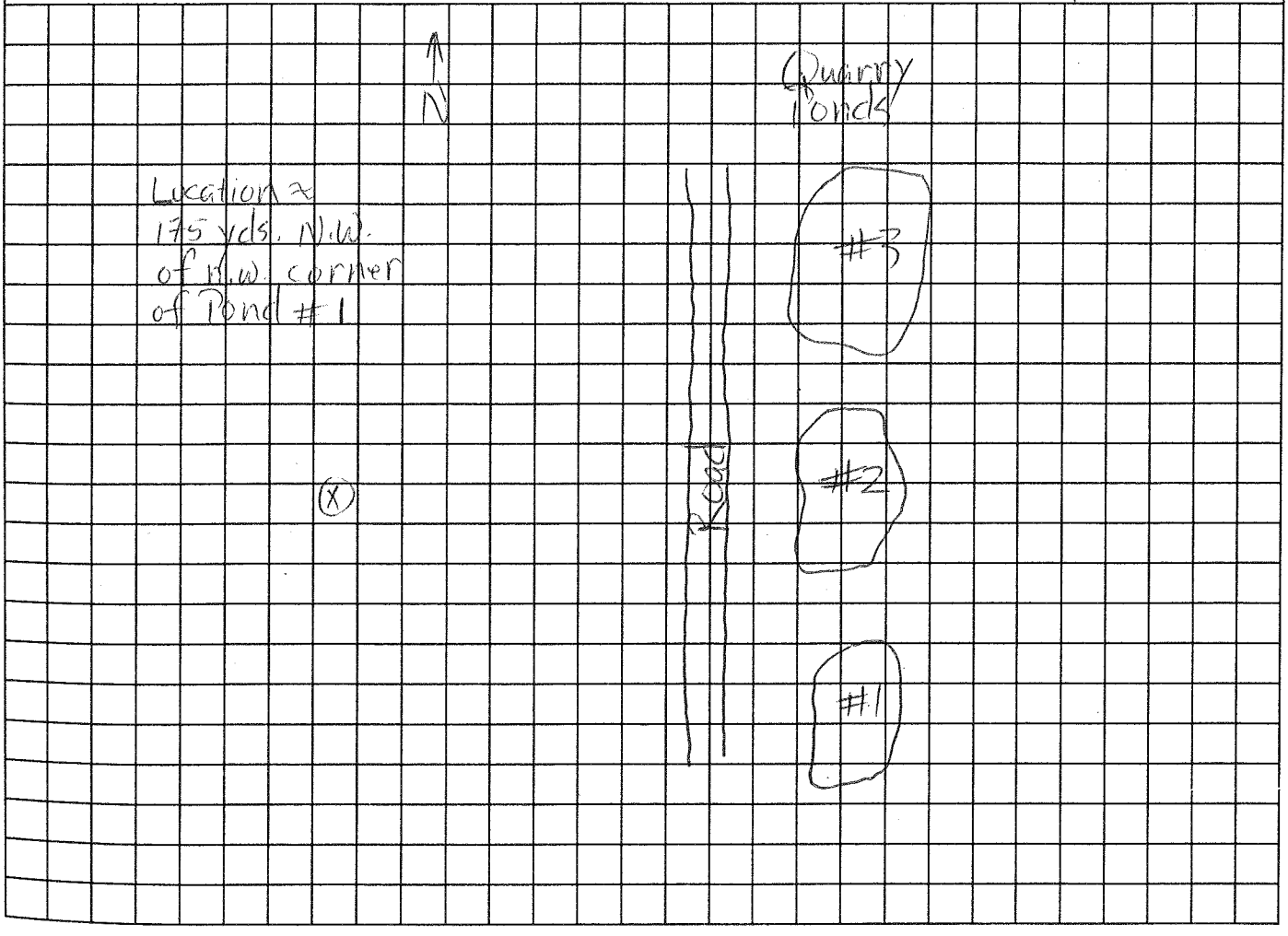
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
N/A						

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
Mon. Well Constructed	✓			T.F. Deering

LOCATION SKETCH/COMMENTS

SCALE: Not to Scale



HTRW DRILLING LOG

HOLE NUMBER: FBQ-167

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering

SHEET 1 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS ©	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Med brn silty Topsoil, tr-ltl fn-cse grv, moist-wet, loose-dense to ≈ 6-9"; change to gry brn clayey Silt (ML) damp, dense	Ø TTM	FBQ-167 ST-1		Push Shelby tube: Ø-2' bgs Recov: 24"
	1					
	2	Yel brn med-cse Sand (SW) w/some fn grv, grading to med Sand, grading to fn Sand, grading to v. fn Sand, below grv (≈2.5' bgs) clayey throughout, loose-dense, wet-saturated	Ø			Blow Counts: 4-2-5-7 Recov.: 19"
	3					
↓	4	Yel brn silty Clay (CL) grading to Yel brn Clay, saturated, (grading soft to med. stiff) to stiff to v. stiff	Ø			Blow Counts: 3-5-7-7 Recov.: 19"
	5					
	6	Yel brn Clay A/A (as above)	Ø	FBQ-167 ST-2		Push Shelby tube: 6-8' bgs
	7					
	8	Yel brn Clay A/A, (by 8.5' bgs) grading to Yel brn Silty Clay grading to Yel brn Sandy Clay (by 9.5' bgs), saturated throughout, med. stiff to stiff to v. stiff	Ø			Blow Counts: 2-4-2-2 Recov.: 15"
	9					
	10					

HTRW DRILLING LOG

HOLE NUMBER FBQ-167

PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | SHEET 2 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11	Olv brn Clay (CL) tr fn-med sand, tr fn grv, saturated, stiff-v.stiff	Ø TPM			Blow Counts: 3-4-4-4 Recov.: 18"
	12	Dk olv brn Clay A/A to 13.8' bgs; change to tan Sand (med.), saturated	Ø			Blow Counts: 1-2-3-5 Recov.: 12"
	13					
	14	Tan Sand (SW) A/A to 15.75' bgs; change to tan SS, med gr, saturated	Ø			Blow Counts: 3-8-12-20 Recov.: 11"
	15					
	16	Tan Sand (med-cse) fn-med gr, saturated	Ø			Blow Counts: 8-4-4-10 Recov.: 15" (May be slough, to some degree, from above)
	17					
	18	Tan Sand (med-cse) and Gravel (fn-med) (GP) saturated (likely possible weathered bedrock)	Ø			Blow Counts: 3-4-6-4 Recov: 12"
	19					
	20					

HTRW DRILLING LOG

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering

HOLE NUMBER FBQ-167

SHEET 3 OF 3

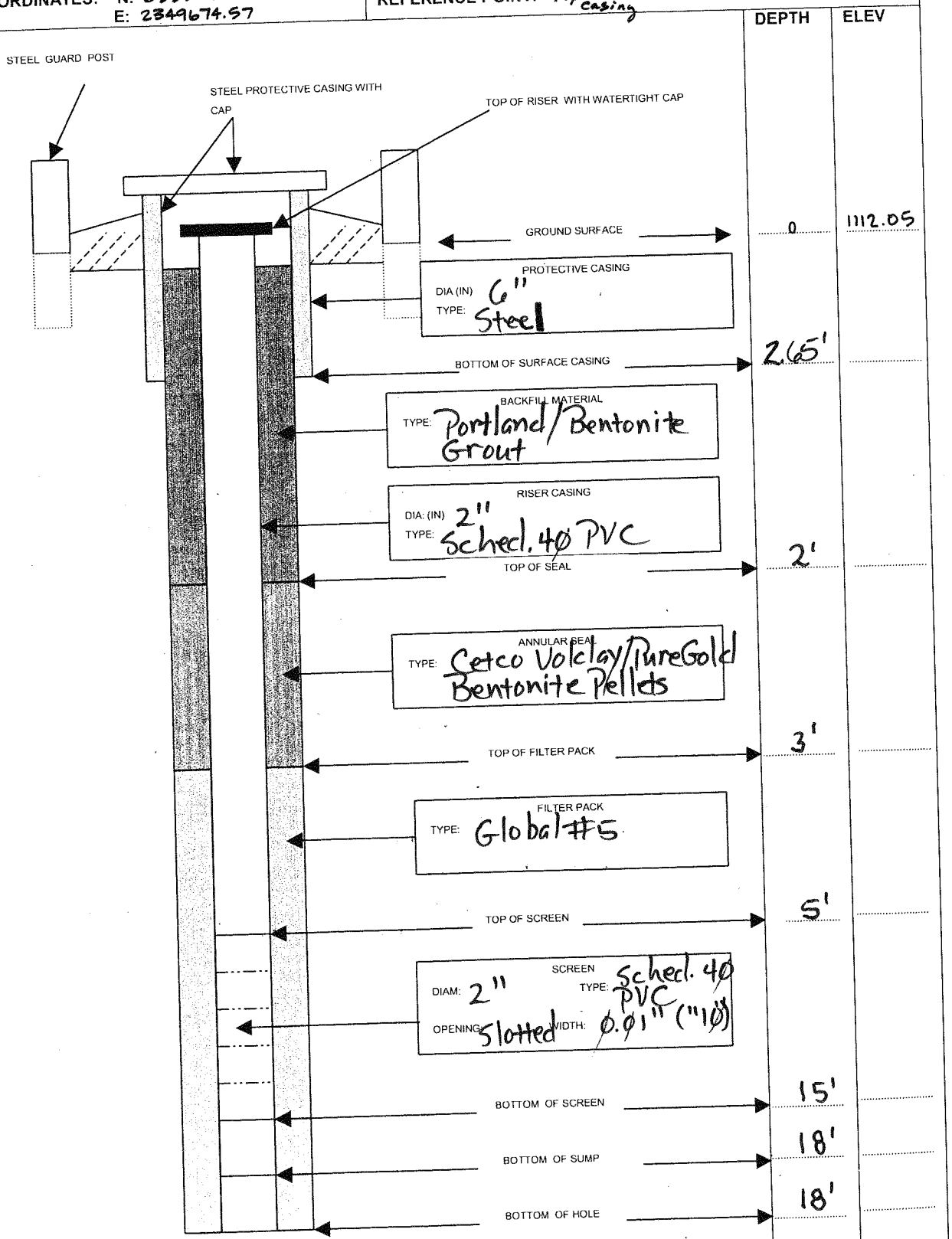
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	21	Tan Sand and Gravel, A/A (GP) saturated, some ~~black~~ (organic) thin, black layers (~~likely~~ possible weathered bedrock fragments)	∅ PPM			Blow Counts: 3-4-18-22 Recov.: 12"
	22		∅			
	T.D.					
	23					
	24					
	25					
	26					
	27					
	28					
	29					

12-5-03

MONITORING WELL CONSTRUCTION DIAGRAM

PROJECT NAME: Phase I/II Fuze & Booster Quary Landfill/Pond **DELIVERY ORDER NO:** 0012

WELL NUMBER: FBQ-167	**BEGIN:** 10-16-03/0830	**END:** 10-16-03/0950
COORDINATES: N: 553554.09 E: 2349674.57	**REFERENCE POINT:** Top Inner Casing	**ELEVATION:** 1115.90 ft.



HTRW DRILLING LOG

DISTRICT: Louisville

HOLE NUMBER: FBQ-168

1. COMPANY NAME: SpecPro, Inc.

2. DRILL SUBCONTRACTOR: Tol Test

SHEET 1 OF 1

3. PROJECT: Fuze & Booster/RVAAP

4. LOCATION: Fuze & Booster Quarry Landfill/Pond

5. NAME OF DRILLER: Neil Witkop Wiktor

6. MANUFACTURERS DESIGNATION OF DRILL: CME-75

7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME-75 Auger Rig 6.25" ID / 10.25" OD

8. HOLE LOCATION: FBQ-168

9. SURFACE ELEVATION:

10. DATE STARTED: 10/7/03

11. DATE COMPLETED: 10/7/03

12. OVERBURDEN THICKNESS: 17'

15. DEPTH GROUNDWATER ENCOUNTERED: ~~8.21'~~ 12' bgs (from SS) (10/7/03)

13. DEPTH DRILLED INTO ROCK: + + 2.5' MTL

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: ~~8.21'~~ (SS) / 24 hr 30 min

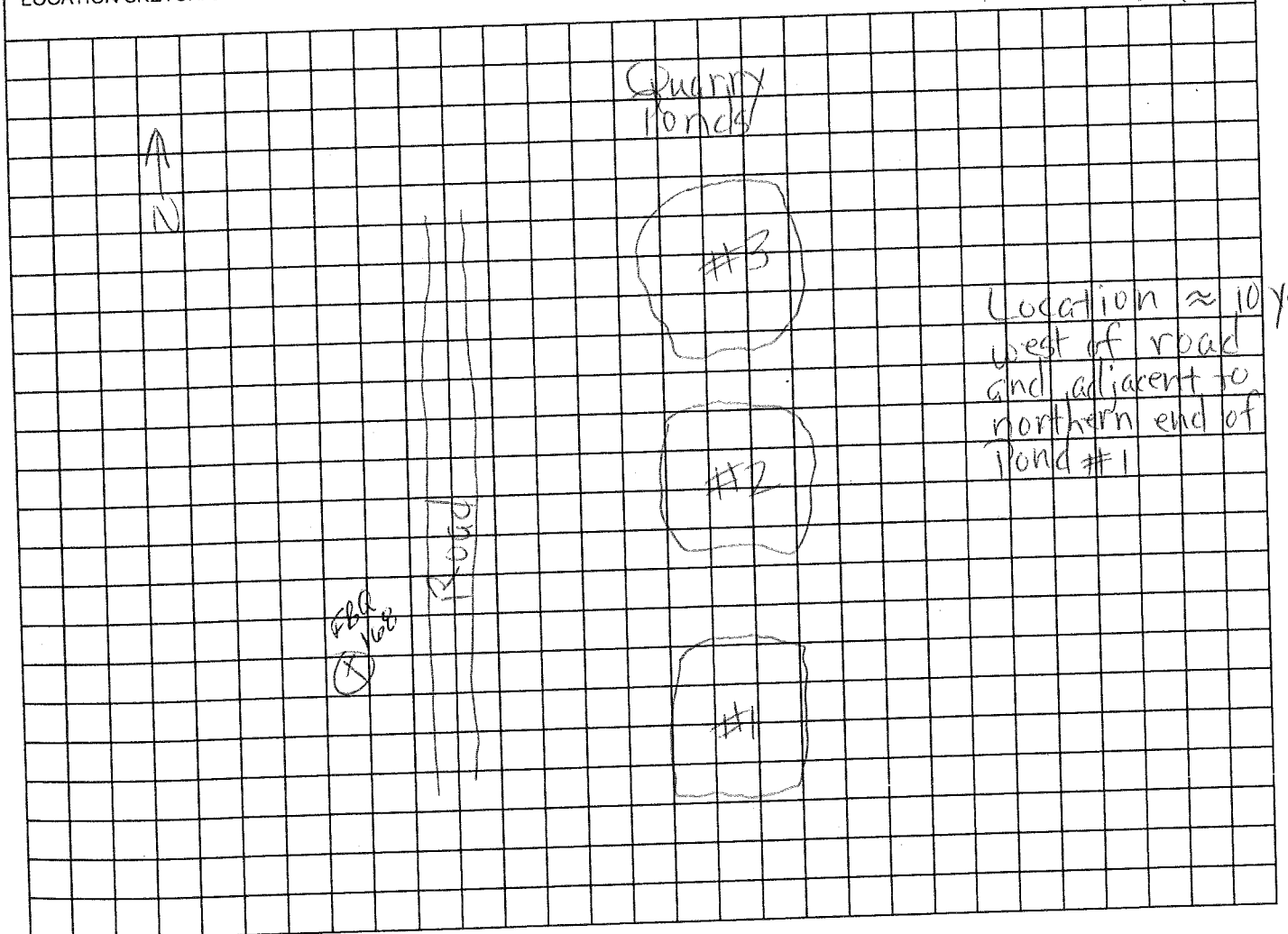
14. TOTAL DEPTH OF HOLE: 19.5' bgs

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): ~~8.21' MTL~~

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: N/A			
20. SAMPLES FOR CHEMICAL ANALYSIS: N/A	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE: Construction of monwell	BACKFILLED ✓	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: M.T. Delving		

LOCATION SKETCH/COMMENTS

SCALE: Not to Scale



HTRW DRILLING LOG

HOLE NUMBER: FBQ-168

PROJECT: Fuze & Booster/RVAAP | INSPECTOR: Mark Deering | SHEET 1 OF 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS ©	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Med brn silty Topsoil, damp; change @ (est.) 6" bgs to Yel brn clayey Silt (ML) lt fn-~~med~~ csd grv, dry-damp, dense	ϕ PPM			Push Shelby tube 0-2' bgs Recov.: 12"
	2	Yel brn Silt A/A, damp (as above)	ϕ			
	3					
	4	Yel brn Silt A/A, dry-damp	ϕ			Push Shelby tube 2-4' bgs Recov.: 24" ~~4-7-9-10~~ MPL
	5					
	6	Yel brn sdy Silt grading to yel brn v. fn.-~~clayey~~ fn. silty Sand, tr fn-~~med~~ csd grv, dry-damp	ϕ			~~10-10-13~~ MPL Blow Counts: 4-7-9-10 Recov.: 18"
	8	Yel brn silty Sand (SM) A/A	ϕ			Blow Counts: 10-10-13-14 Recov.: 13"
	9					
	10					

HTRW DRILLING LOG

HOLE NUMBER FBQ-168

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering

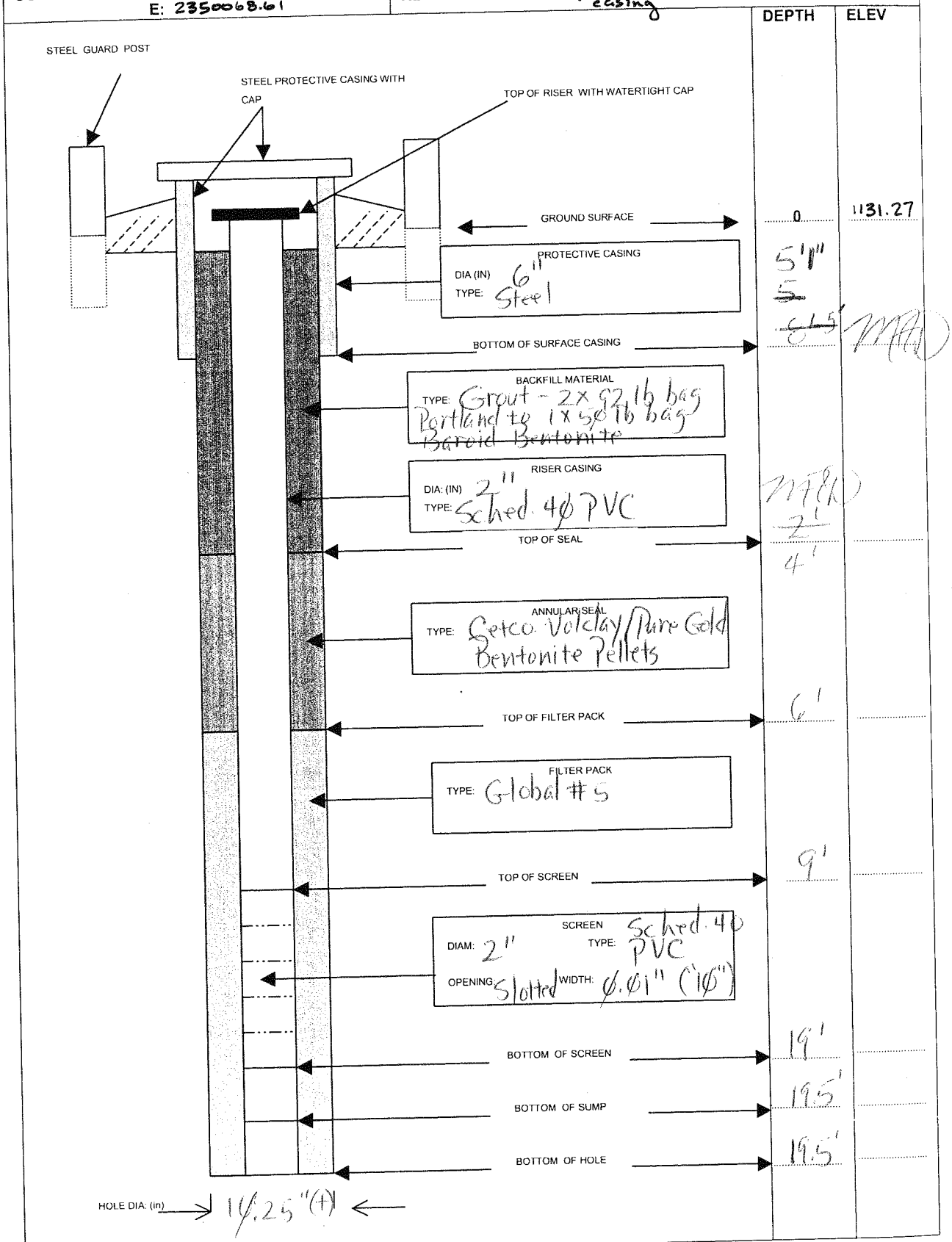
SHEET 2 OF 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11	Yel brn med Sand (SW) ltl-some fn-cse grv, damp, loose	Ø PPM			Blow Counts: 1Ø-7-7-C Recov: 14"
	12	grading to dk red Yel brn, med Sand A/A, wet-sat (12'± bgs?)	Ø			Blow Counts: 1Ø-1Ø-15-15 Recov.: 13"
	13					
	14	(dk red) Sand A/A grading back to yel brn, sat, loose grading to dense	Ø			Attempted Shelby tube @ 14' bgs - crushed tube Blow Counts: None (due Shelby attempt - SS pushed i.e.)
	15					
	16	Yel brn, med Sand, sat, med dense	Ø			Blow Counts: 27-50/4 Recov.. 9"
	17					
	18	Sand A/A (Note: no SS sample -- description based on cuttings)	Ø			Blow Counts: 50/Ø Recov.. Ø" (Poss bdrk @ ± 17' bgs?)
	19					
	20					

MONITORING WELL CONSTRUCTION DIAGRAM

PROJECT NAME: Phase I/II Fuze & Booster Quary Landfill/Pond **DELIVERY ORDER NO:** 0012

WELL NUMBER: FBQ-168	**BEGIN:** 10/7/03@15:30	**END:** 10/7/03@16:45
COORDINATES: N: 553620.36 E: 2350068.61	**REFERENCE POINT:** top inner casing	**ELEVATION:** 1133.91 ft.



HTRW DRILLING LOG

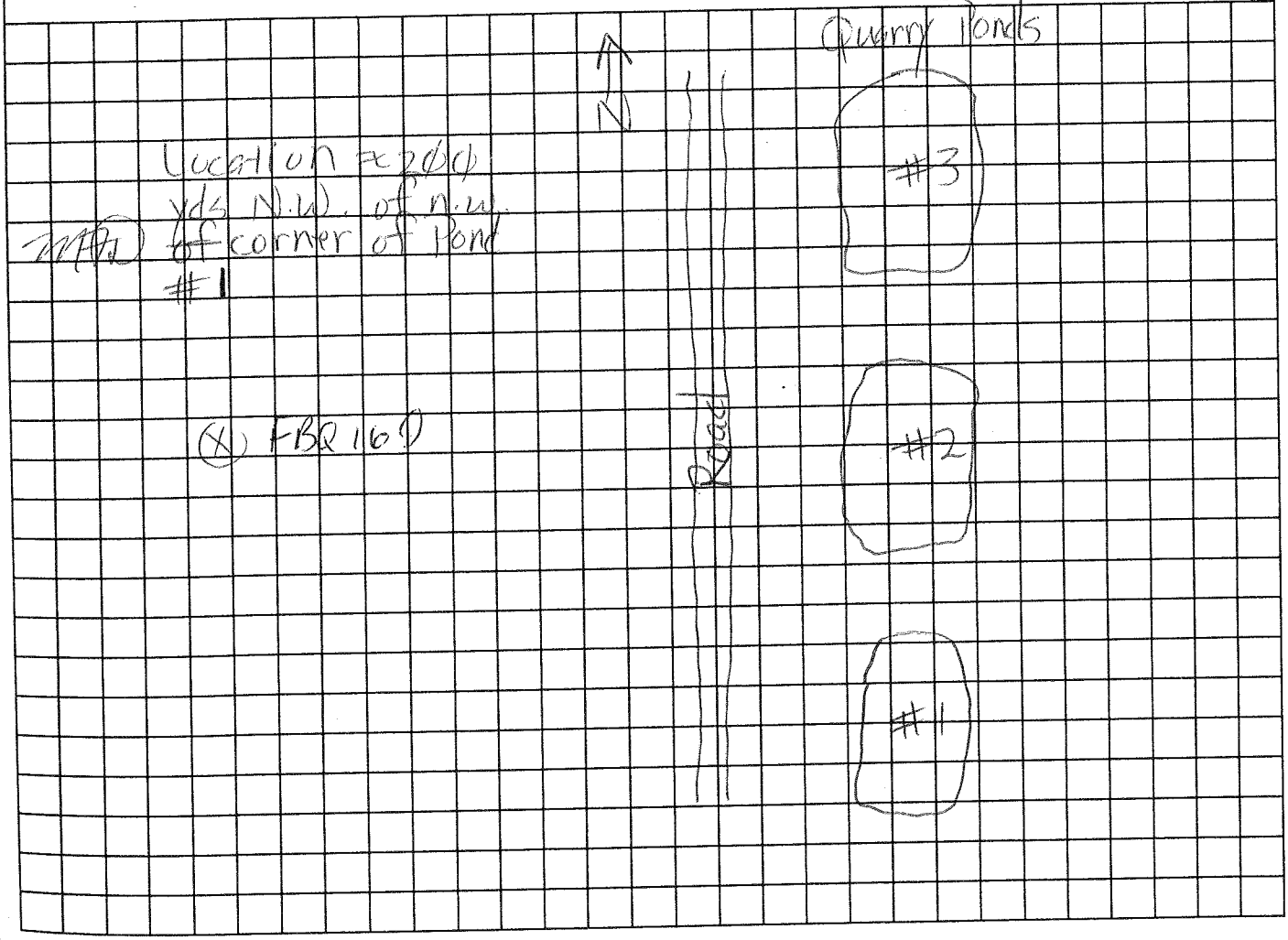
1. COMPANY NAME: **SpecPro, Inc.**	2. DRILL SUBCONTRACTOR: Tol Test	SHEET 1 OF 1
DISTRICT: **Louisville**		HOLE NUMBER **FBQ-169**

3. PROJECT: **Fuze & Booster/RVAAP**	4. LOCATION: **Fuze & Booster Quarry Landfill/Pond** MRP
5. NAME OF DRILLER: Tony Brister	6. MANUFACTURERS DESIGNATION OF DRILL: CME-75550
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME-550 Auger Rig 10.25" ID / 6.25" (ID)	8. HOLE LOCATION: FBQ-169
	9. SURFACE ELEVATION:
10. DATE STARTED: 10/13/03	11. DATE COMPLETED: 10/13/03
12. OVERBURDEN THICKNESS: 15'	15. DEPTH GROUNDWATER ENCOUNTERED: ≈5' bgs/SS. on 10-13-03 per
13. DEPTH DRILLED INTO ROCK: 1'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 14' bgs/96 hr 45 min
14. TOTAL DEPTH OF HOLE: 16' bgs	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES			
20. SAMPLES FOR CHEMICAL ANALYSIS: N/A	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE: Mon. well constructed	BACKFILLED ✓	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: T.M. Deering		

LOCATION SKETCH/COMMENTS

SCALE: Not to Scale



HTRW DRILLING LOG

HOLE NUMBER: FBQ-169

PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | SHEET 1 OF 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Med-dk brn silty Topsoil, tr fn grv, clamp to ≈ 6" bgs; change to yel brn clayey Silt (ML), tr-1+1 grv, dry-clamp	0 PPM			Push Shelby tube: 0-2' bgs; 20" recov.
	2	Olv brn clayey Silt, tr fn grv, clam, dense, dry (2-4' bgs)	0			Blow Counts: 4-5-8-8 Recov.: 16"
	4	Med brn fn clayey (SC) moist-wet Sand, 1/1 to 7'; change to med brn clayey Silt, tr grv, moist-wet, dense (ML), v. dense (4-6' bgs)	0			Blow Counts: 44-4-5 Recovery: 19" (4-6' bgs)
	6	(as above) 7' Silt A/A to ~~7~~ bgs; then fn Sand, tr-1+1 clay, tr grv, wet-sat. loose @ ~~7~~ bgs (6-8' bgs)	0			Blow Counts: 8-10-12-10 Recovery: 18" (6-8' bgs)
	8					
	10					

HTRW DRILLING LOG

HOLE NUMBER FBQ-169

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering

SHEET 2 OF 2

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11	MFD Yel brn ~~clay~~ silty Clay to Clay (CL) saturated, soft, plastic (8-10' bgs)	Ø PPM (CH)			Blow Counts 2-2-2-3 Recov.: 16" (8-10' bgs)
	12	Dk yel brn-med brn sdy (slightly) Clay (CL), sat., soft, plastic				Blow Counts: 2-2-3-3 Recov.: 20"
		Clay A/A grading to more sdy (sat. stiff) fn grv	Ø		MFD	Push Shelby tube: ~~12-14'~~ 10-12' bgs; no recov. - saturated
	13					Blow Counts: 4-6-6-7 Recov.: 12" (12-14' bgs)
	14	Med-dk brn Grv (fn-cse), Ss frags, tr-ltl clay and sand (GC), tr ~~Si~~ silt, saturated, loose to 15' bgs; change to tan Ss, weathered, med hard, saturated	Ø			Blow Counts: 2-4-10-12 Recovery: 12"
	15	MFD	Ø			
	16					
	T.D.					
	17					
	18					
	19					
	20					

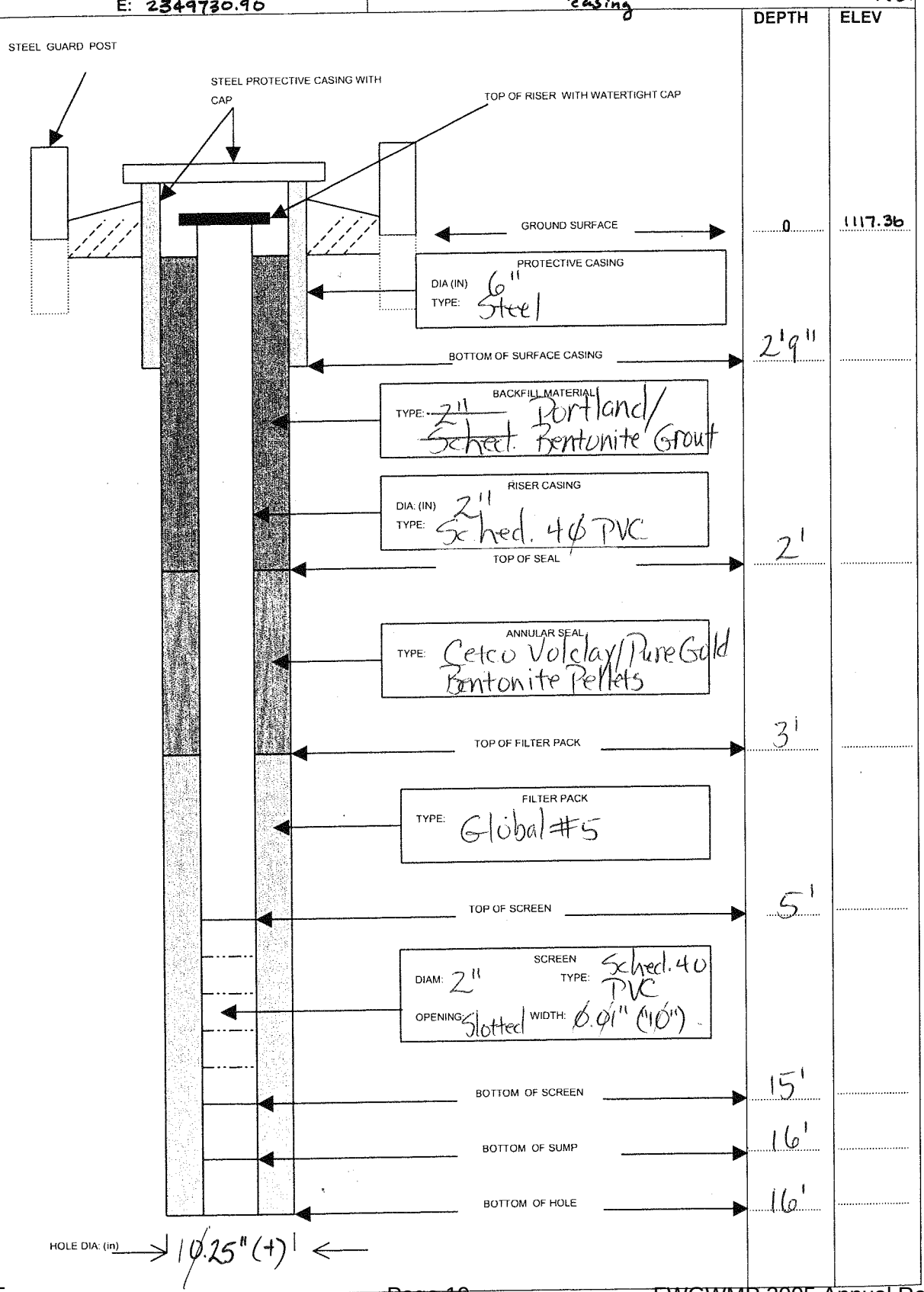
MFD 12-05-03

MONITORING WELL CONSTRUCTION DIAGRAM

PROJECT NAME: Phase I/II Fuze & Booster Quary Landfill/Pond **DELIVERY ORDER NO:** 0012

WELL NUMBER: FBQ-169 **BEGIN:** 12:45 / 10-13-03 **END:** 1:45 / 10-13-03

COORDINATES: N: 553681.21 E: 2349730.90 **REFERENCE POINT:** top inner casing **ELEVATION:** 1120.58 feet



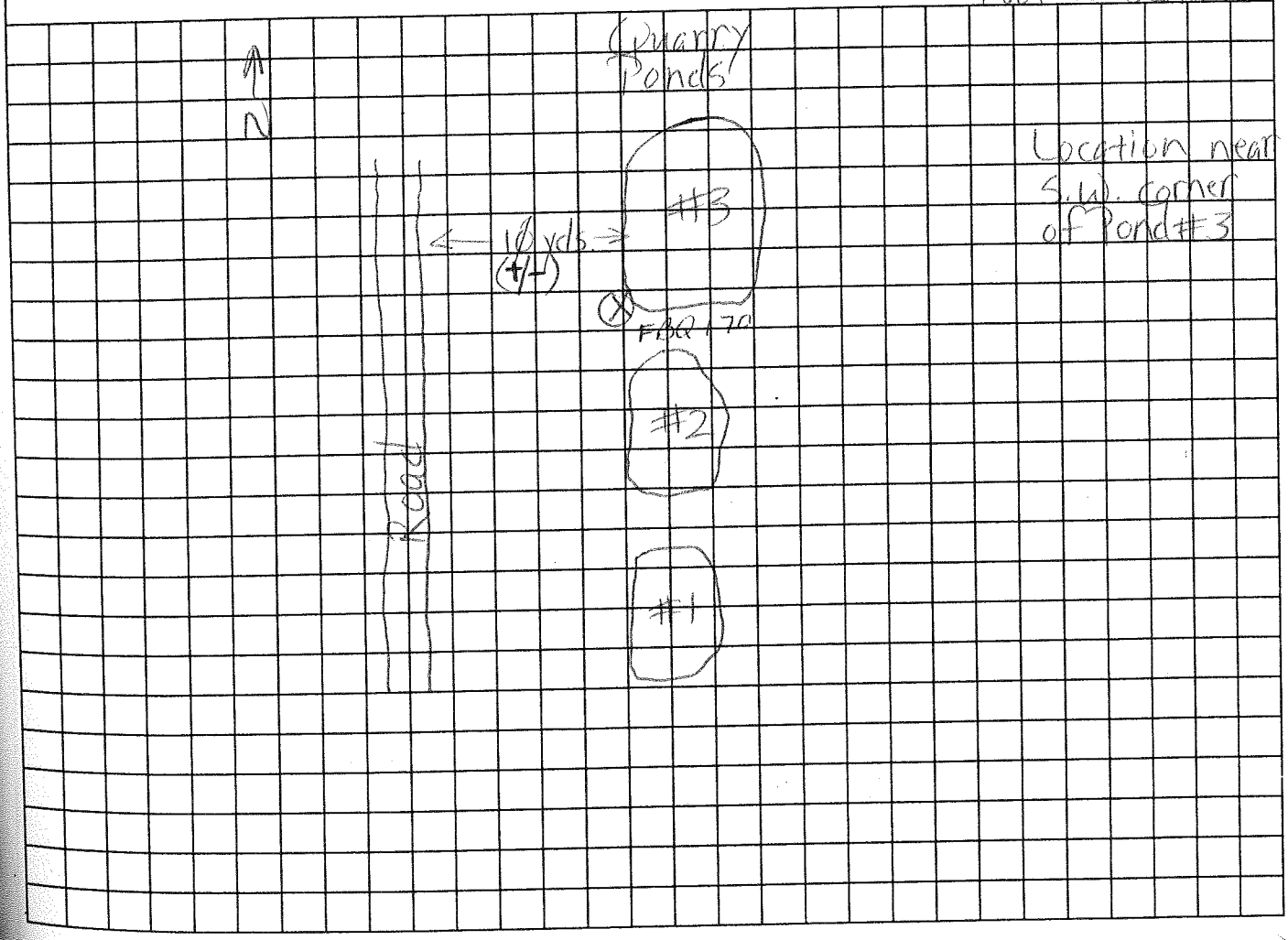
HTRW DRILLING LOG

1. COMPANY NAME: **SpecPro, Inc.**	2. DRILL SUBCONTRACTOR: To	Test
DISTRICT: **Louisville**		HOLE NUMBER **FBQ-170**
		SHEET 1 OF 1

3. PROJECT: **Fuze & Booster/RVAAP**	4. LOCATION: **Fuze & Booster Quarry Landfill/Pond**
5. NAME OF DRILLER: Neil Wiktor	6. MANUFACTURERS DESIGNATION OF DRILL: CME-75
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME-75 / 10.25" O.D. / 6.25" I.D.	8. HOLE LOCATION: FBQ-170
	9. SURFACE ELEVATION:
	10. DATE STARTED: 10/9/03 — 11. DATE COMPLETED: 10/9/03 (ADD 5-11-05)
12. OVERBURDEN THICKNESS: 8'	15. DEPTH GROUNDWATER ENCOUNTERED: 22-23' bgs (A.R./10-9-03)
13. DEPTH DRILLED INTO ROCK: 22.5'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 14.1' bgs / 162 hr / 5 min.
14. TOTAL DEPTH OF HOLE: 30.5' bgs	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES			
20. SAMPLES FOR CHEMICAL ANALYSIS: N/A	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE: Mon. well constructed	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: M.F. Doering		

LOCATION SKETCH/COMMENTS — SCALE: Not to scale



HTRW DRILLING LOG

HOLE NUMBER: FBQ-170

PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | SHEET 1 OF ~~3~~ 4 MFA

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Med-dk brn silty, clayey Topsoil, tr sand & grv, roots, damp - moist to ~~0.5~~ 1' bgs (ML) change to dk red SS frags	0 PPM			Blow Counts: 3-7-7-7 Recov.: 16"
	2	SS frags to ≈ 3' bgs, change to yel brn clayey Sand (fn) (sm) tr-l+l fn grv, damp to moist	∅			Blow Counts: 2-4-4-3 Recov.: 12"
MFA 4-6'	4	A/A to 4.5' bgs; change to tan med Sand, (sw) tr fn grv, damp - moist, loose	∅	(A/A = as above)		Blow Counts: ~~9-7-8-24~~ Recov.: 12"
	6	Sand A/A to 7'9" bgs; change to dk red Sand, tr-l+l fn-cse grv, loose, moist	∅			Blow Counts: 10-15-22-30 Recov.: 14"
	8	Dk red SS, dry	∅		MFA	~~Auger~~ SS refusal @ 8' bgs; auger refusal seated to 8.5' bgs ~~Blow Counts:~~ MFA ~~Recov.~~
	10					

HTRW DRILLING LOG

HOLE NUMBER FBQ-170

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering

SHEET 2 OF 3 4

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
			ϕ PPM			Air rotary began @ 8.5' bgs
	11	Tan Ss, dry				
	12		ϕ			
	13	Dk red Ss, dry				
	14		ϕ			
	15	A/A				
	16		ϕ			
	17					
	18	Dk red Ss A/A, dry	ϕ			
	19	A/A, moist-wet				
	20					

HTRW DRILLING LOG

HOLE NUMBER FBQ-170

SHEET 3 OF 34

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	21	Dk red Ss A/A, moist	ϕ PPM			Air rotary began @ 8.5' bgs (Air rot. drl'd. 22'/≈75 min)
↓	22	Tan Ss, moist	ϕ			
	23	Ss A/A, wet-sat.				
	24	Ss A/A, sat.	ϕ			
	25					
	26		ϕ			
	27					
	28	Red Ss, saturated	ϕ			
	29					
	30					

99

HTRW DRILLING LOG

HOLE NUMBER FBQ-170

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering

SHEET 4 OF 4

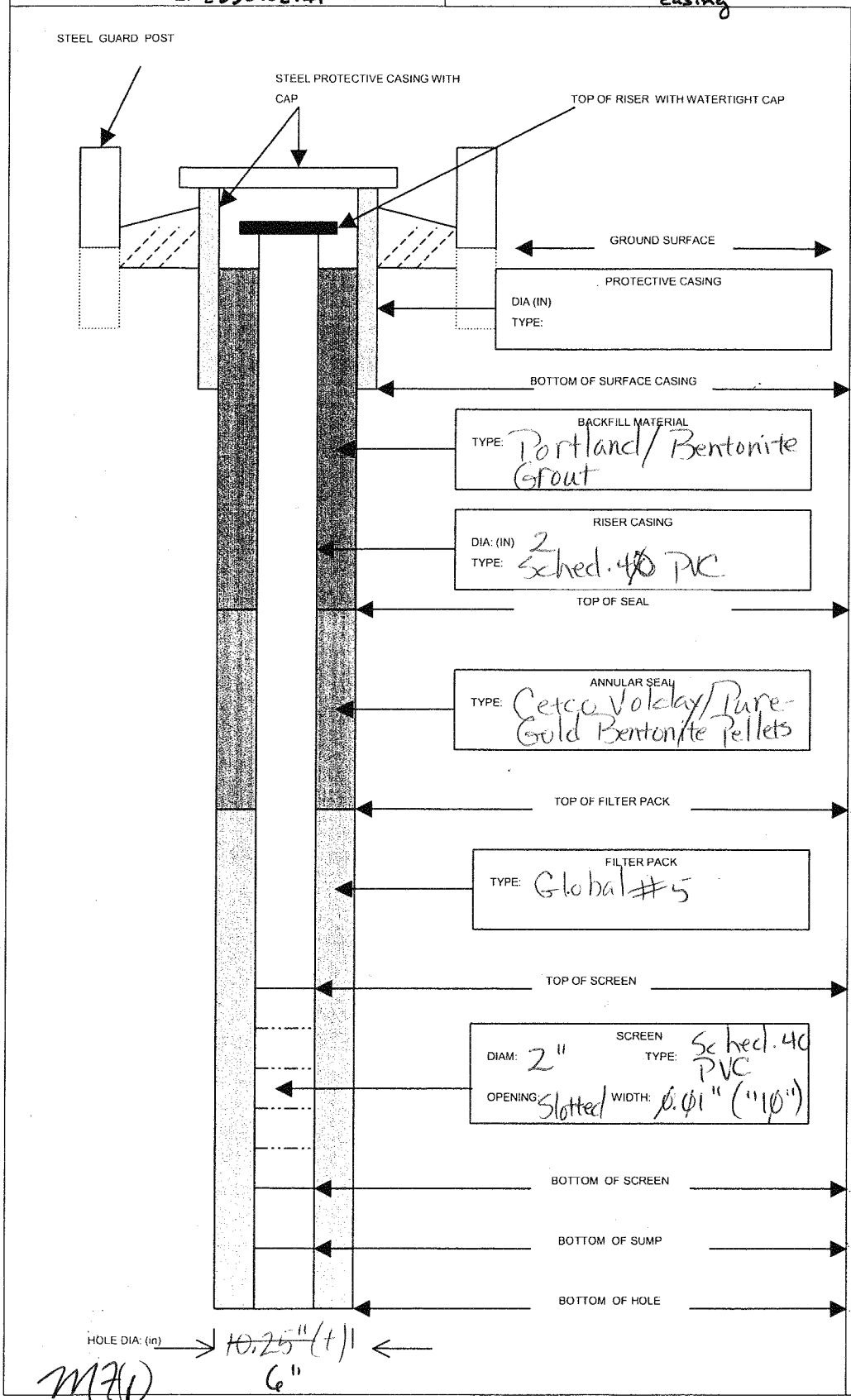
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSAPCE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Red Ss A/A	0 PPM			
	31					
	32					
	33					
	34					
	35					
	36					
	37					
	38					
	39					
	40					

MONITORING WELL CONSTRUCTION DIAGRAM

@17.5Ø @1Ø.3Ø

PROJECT NAME: Phase I/II Fuze & Booster Quary Landfill/Pond **DELIVERY ORDER NO:** 0012

WELL NUMBER: FBQ-17D	**BEGIN:** 10/9/03	**END:** 10/9/03
COORDINATES: N: 553175.40 E: 2350102.41	**REFERENCE POINT:** top inner casing	**ELEVATION:** MW 1142.26 feet

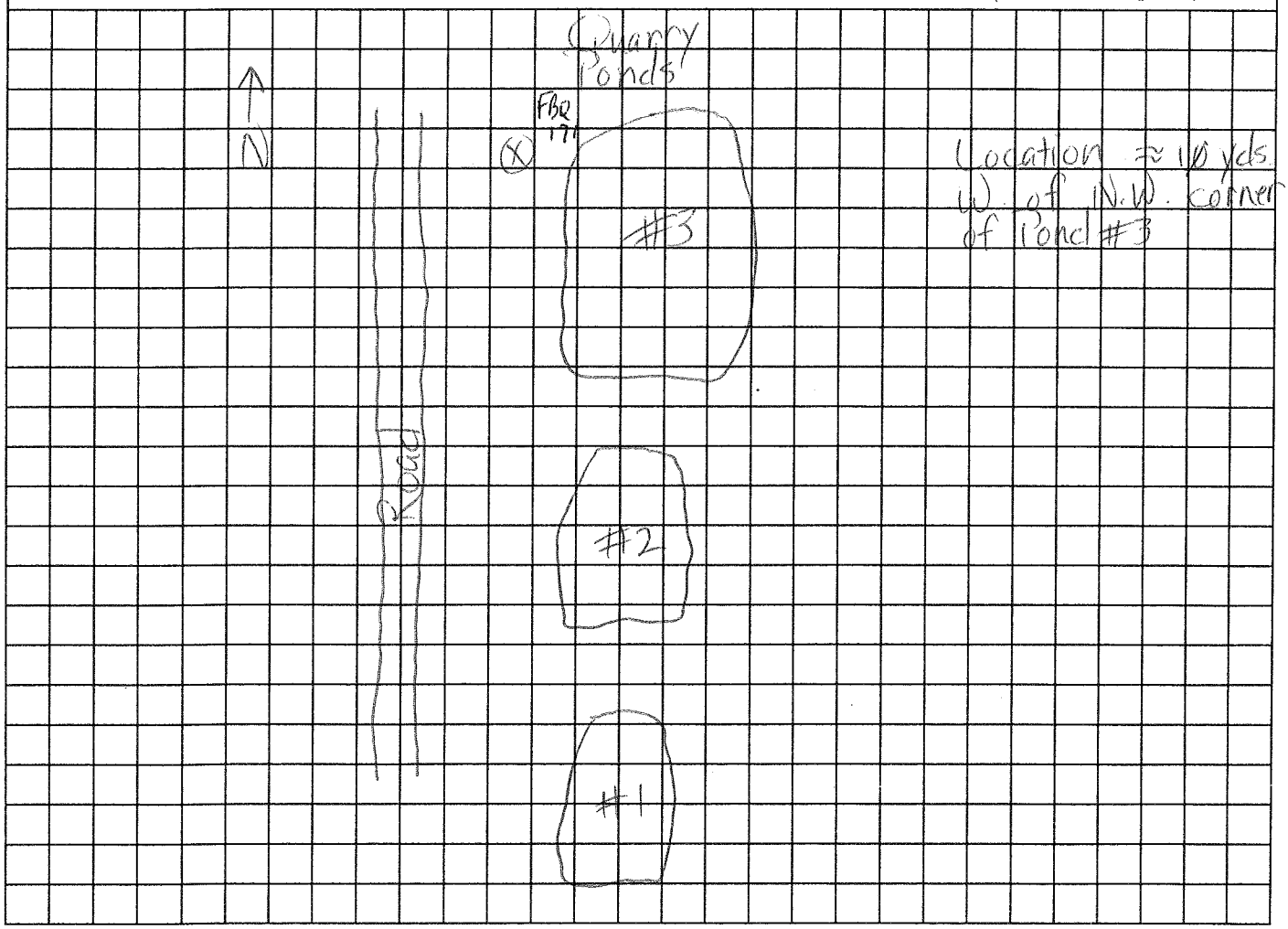


HTRW DRILLING LOG

DISTRICT: Louisville		HOLE NUMBER: FBQ-171
1. COMPANY NAME: SpecPro, Inc.	2. DRILL SUBCONTRACTOR: Tol Test	SHEET 1 OF 1
3. PROJECT: Fuze & Booster/RVAAP	4. LOCATION: Fuze & Booster Quarry Landfill/Pond	
5. NAME OF DRILLER: Neil Wiktor	6. MANUFACTURERS DESIGNATION OF DRILL: CME	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME-75 Auger Rig 10.25" O.D. / 6.25" I.D.	8. HOLE LOCATION: FBQ-171	
	9. SURFACE ELEVATION:	
	10. DATE STARTED: 10/9/03	11. DATE COMPLETED: 10/9/03
12. OVERBURDEN THICKNESS: 9.5'	15. DEPTH GROUNDWATER ENCOUNTERED: ≈20' bgs (A.R. drlg. / 10-9-03)	
13. DEPTH DRILLED INTO ROCK: 20.5'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 13.75' / 166 hr 40 min	
14. TOTAL DEPTH OF HOLE: 30' bgs	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES			
20. SAMPLES FOR CHEMICAL ANALYSIS: N/A	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE: Mon. well constructed	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: M.T. Dellaring		

LOCATION SKETCH/COMMENTS — SCALE: Not to scale



HTRW DRILLING LOG

HOLE NUMBER: FBQ-171

PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | SHEET 1 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS ©	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1	Dk olv brn silty Top-soil, tr fn-med sand & fn grv, damp, loose to ≈ 6" bgs, change to yel brn sdy Silt, tr-ltl fn-med grv, dry-damp (~~SM~~ ML) MFD	Ø PPM			Blow Counts: 3-4-6-5 Recov.: 11"
	2	Yel brn sdy Silt grading to yel brn silty Sand (fn) (SM), fn grv to ≈ 3' bgs; change to tan Sand (med), damp, ltl-some tan & dk red red Ss frags	Ø	A/A = as above		Blow Counts: 2-4-7-5 Recov.: 1Ø"
	3					
	4	Tan & red sand and Ss frags. A/A (SP-GP), damp - moist	Ø			Blow Counts: Ø-Ø-Ø-1 (≈ 1.5' void) Recov.: 3"
	5					
	6	Red Sand & Ss A/A (poss. weathered/fracture bedrock), damp - moist	Ø			Blow Counts: 6-1Ø-17-2Ø Recov.: 12"
	7					
	8	Red Sand & Ss frags. A/A to ≈ 9.5' bgs; change to tan Ss, med gr, well sorted, hard damp	Ø			Blow Counts: 1Ø-15-5Ø/6 Recov.: 11" Auger refusal (seated) @ 9.5' bgs
	9					
	10					

HTRW DRILLING LOG

PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | HOLE NUMBER FBQ-171 | SHEET 2 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Red Ss, dry ~~damp~~ MFD	Ø PPM			Air rotary drlg. began @ 9.5' bgs
	11					
	12		Ø			
	13	Tan Ss, dry (poss. damp @ 14' bgs)				
	14		Ø			
	15					
	16	Red Ss, dry	Ø			
	17					
	18		Ø			
		Tan Ss, dry				
	19					
	20	(Wet @ 20' bgs)	Ø			

HTRW DRILLING LOG

HOLE NUMBER FBQ-171

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering

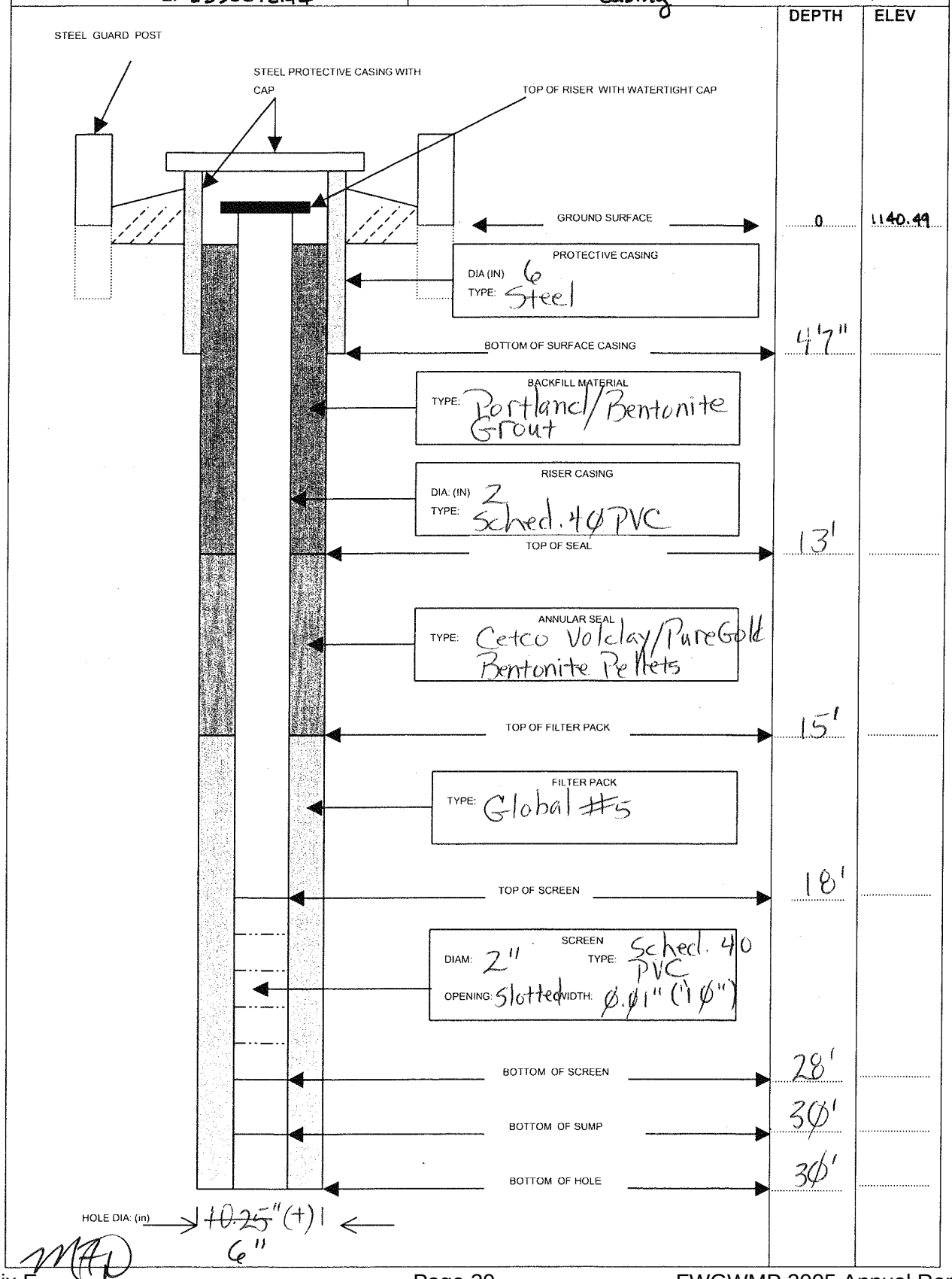
SHEET 3 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (D)	REMARKS (G)
		Red Ss, wet	Ø PPM			Air rotary drlg. began @ 9.5' bgs
	21	Red Ss, wet-sat.				
	22		Ø			
	23					
	24		Ø			
	25	Tan Ss, sat.; occas. red Ss				
	26		Ø			
	27					
	28		Ø			
	29					Air rotary drilled 20.5' in ≈ 65 min. (≈ 20-25'/hr)
	30		Ø			

MONITORING WELL CONSTRUCTION DIAGRAM

PROJECT NAME: Phase I/II Fuze & Booster Quary Landfill/Pond **DELIVERY ORDER NO:** 0012

WELL NUMBER: FBQ-171	**BEGIN:** 13:15 10/9/03@	**END:** 10/9/03@ 14:45
COORDINATES: N: 554230.93 E: 2350072.44	**REFERENCE POINT:** top inner casing	**ELEVATION:** 1143.55



HTRW DRILLING LOG

DISTRICT: Louisville

HOLE NUMBER: FBQ-172

1. COMPANY NAME: SpecPro, Inc.

2. DRILL SUBCONTRACTOR: To/ Test

SHEET 1 OF 1

3. PROJECT: Fuze & Booster/RVAAP

4. LOCATION: Fuze & Booster Quarry Landfill/Pond

5. NAME OF DRILLER: Neil Wiktor

6. MANUFACTURERS DESIGNATION OF DRILL: CME-75

7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME-75 10.25" O.D. / 6.25" I.D.

8. HOLE LOCATION: FBQ-172

9. SURFACE ELEVATION:

10. DATE STARTED: 10/8/03

11. DATE COMPLETED: ~~10~~ 10/9/03

12. OVERBURDEN THICKNESS: 22'

15. DEPTH GROUNDWATER ENCOUNTERED: ≈ 22' bgs (10/9/03)

13. DEPTH DRILLED INTO ROCK: 11'

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 19.75' bgs / 24hrs 0min

14. TOTAL DEPTH OF HOLE: 33' bgs

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

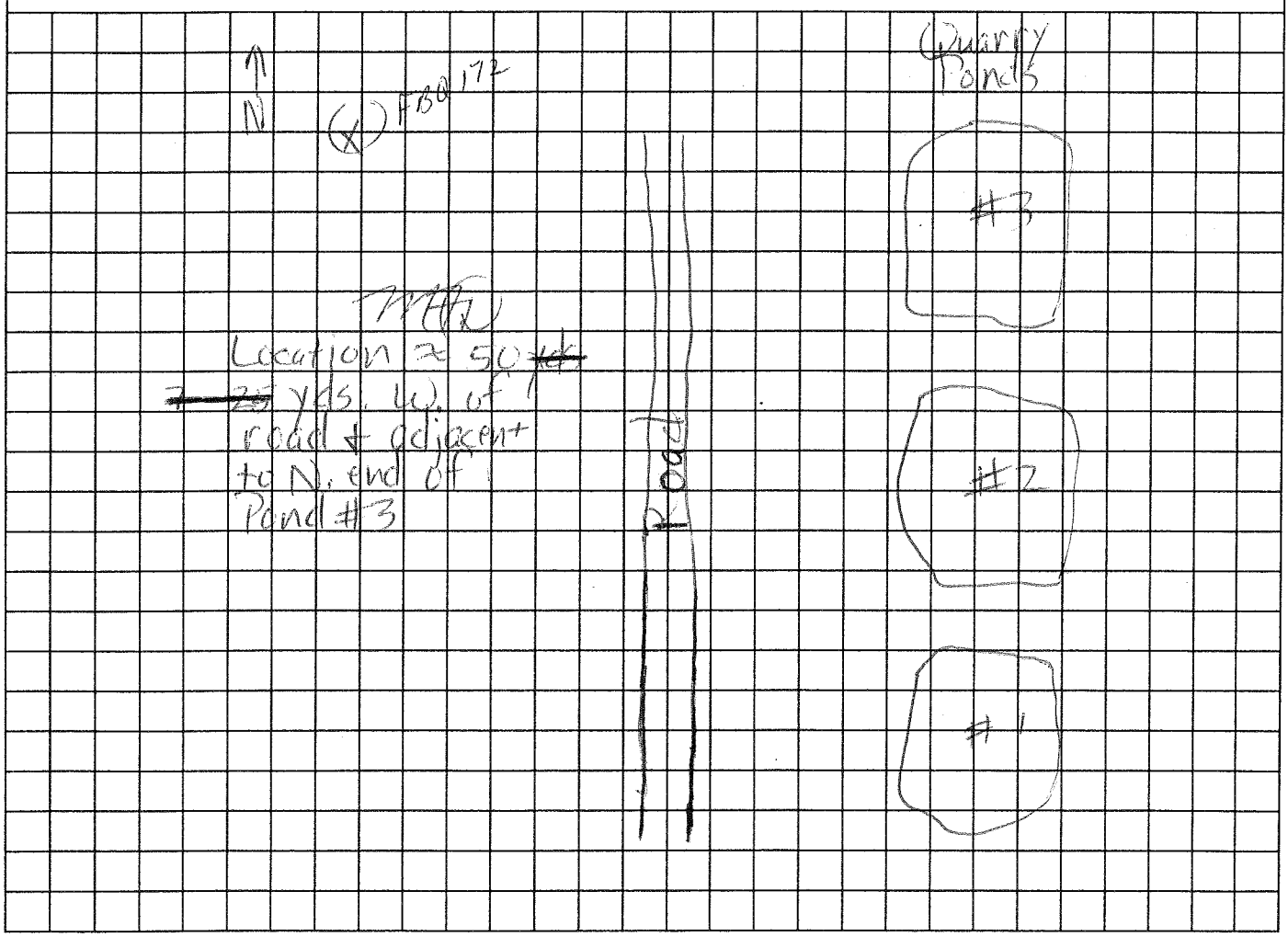
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
N/A						100%

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
				~~T.M.C.~~ Deering

LOCATION SKETCH/COMMENTS

SCALE: Not to scale



HTRW DRILLING LOG

HOLE NUMBER: FBQ-172

PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | SHEET 1 OF 4

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS ©	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0–1	MFD ~~Yel br~~ Med brn silty, sandy Topsoil, loose dry to ≈ 6" (ML) Change to yel brn clayey Sand (v. fn (SC) ~~med~~ cse) + some fn-~~med~~ grv, dense, dry MFD	∅ PPM	FBQ-172 ST-1	~~FBQ-172 (ST-1)~~ MFD	Push Shelby tube: ∅-2' bgs
	2	Lt olv brn sdy Silt (SM), tr clay + grv (fn-~~med~~), damp, loose cse MFD	∅			Blow Counts: 4-5-5-7 Recov.: 11"
	4–5	Dk olv brn silty Clay (CL) damp, tr sand, soft, plastic to 5'2"; change to lt brn + dk red ~~med~~ Sand (SW) damp-moist to 5'4"; change to tan Ss (GW) med gr, hard, well sorted, damp-moist (likely cse grv or boulder) MFD	∅			Blow Counts: 3-5-8-4 Recov.: 18"
	6–7	~~6-8'~~ No Recovery (w/ the exception of a 1" piece of Ss, A/A)	∅	A/A = as above		Blow Counts: 4-4-4-3 Recov.: ~~18.5"~~ 1"
	8–9	Tan med Sand (SW), wet, well sorted to 9'; change to gry brn clayey Silt, tr grv, tr sd, damp	∅			Blow Counts: 5-5-4-5 Recov.: 18.5"

MFD ~~4-6'~~ ~~6-8'~~ ~~bgs~~ (O.K.) 4-6'

HTRW DRILLING LOG

PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | HOLE NUMBER FBQ-172 | SHEET 2 OF 4

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
MAD		~~Reddish~~ ~~Yel~~ Olv brn clayey Silt (ML) A/A, damp, dense-v. dense	0 PPM			Blow Counts: 10-12-12-12 Recov.: 15"
	11					
	12	Dk olv brn Silt, dry, v. dense, tan mottling	0			Blow Counts: 14-12-18-18 Recov.: 17"
	13					
	14	Silt A/A to 15'; change to tan, med Sand (ML) damp, ltl fn ~~med~~ cse grv MAD	0			Blow Counts: 7-8-12-8 Recov.: 18.5"
	15					
	16	~~Dk red Ss to 17'; change to~~ Dk olv brn sdy Silt, damp, dense, some tan sand and dk red med gr Ss cse grv (slough?)	0			Blow Counts: 7-8-8-23 Recov.: 13"
	17					
	18	Dk red Ss frags. A/A, dry	0			Blow Counts: 50/3 Recov.: 3"
	19					Auger refusal @ 18' bgs Air rotary/roller bit drlg. @ 18'
	20					

HTRW DRILLING LOG

PROJECT: Fuze & Booster/RVAAP | HOLE NUMBER FBQ-172 | INSPECTOR Mark Deering/Ronda Bailey | SHEET 3 OF ~~4~~

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Dk red Ss, dry	0 PPM			Air rotary/roller bit drlg. to 22' bgs
	21					
		(Wet @ ≈ 21.5')				
	22	~~Ss A/A Dk r~~ Dk red med gr SS, well sorted, wet, massive ~~22'~~	0	FBQ-172 EB+ MFR C-1 (22'-33' bgs)		~~Air rotary/roller bit drlg~~
		~~(Possibly moist @ 23' bgs)~~				
	23	Tan med gr Ss, well sorted, occasional natural fractures (@ 30° to horizontal), massive				Bedrock coring @ ~~23'~~ 22' bgs (Core barrel: NX-WL)
	24	Ss A/A - saturated	0			
	25					
	26	SsA/A - saturated	0			
	27					
	28	Dk red SS A/A saturated	0			
	29	Gray tan SS A/A Saturated				
	30	Dk red SS A/A				

HTRW DRILLING LOG

HOLE NUMBER FBQ-172

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering/Ronda Bailey

SHEET 4 OF 4

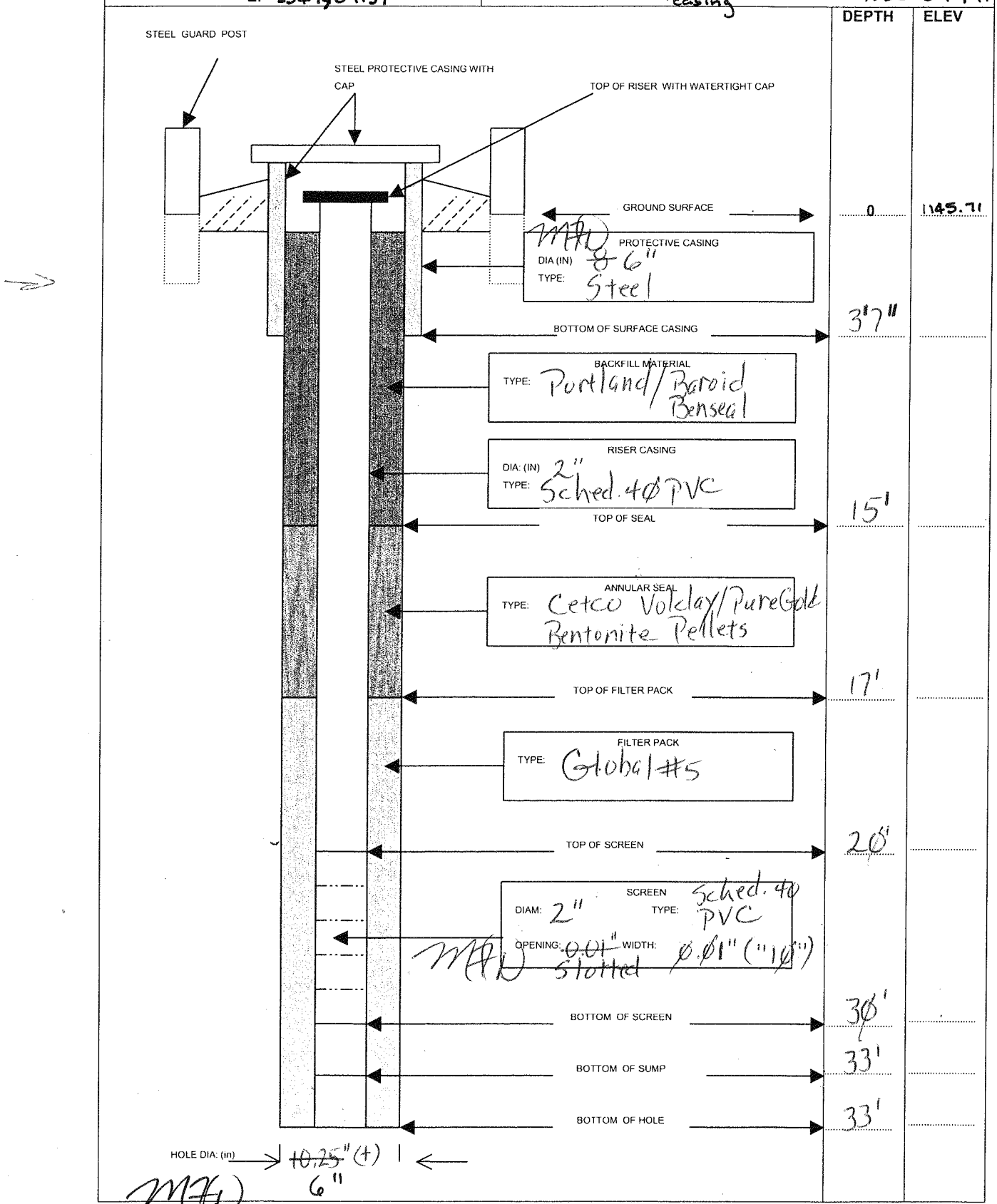
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSAPCE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	31	Dk red SS, med grain, well sorted, wet, massive occasional natural fractures 30° to horizontal. Saturated	0 PPM			
	32					
	33	T.D.				
	34					
	35					
	36					
	37					
	38					
	39					
	40					

MONITORING WELL CONSTRUCTION DIAGRAM

10/9/03 @ 10/9/03 @

PROJECT NAME: Phase I/II Fuze & Booster Quary Landfill/Pond **DELIVERY ORDER NO:** 0012

WELL NUMBER: FBQ-172	**BEGIN:** ~~09:30~~	**END:** 10:45
COORDINATES: N: 554322.17 E: 2349907.37	**REFERENCE POINT:** ~~top~~ inner casing	**ELEVATION:** 1150.09 ft.



HTRW DRILLING LOG

HTRW DRILLING LOG	DISTRICT: **Louisville**	HOLE NUMBER **FBQ-173**
1. COMPANY NAME: **SpecPro, Inc.**	2. DRILL SUBCONTRACTOR: Tol Test	SHEET 1 OF 1

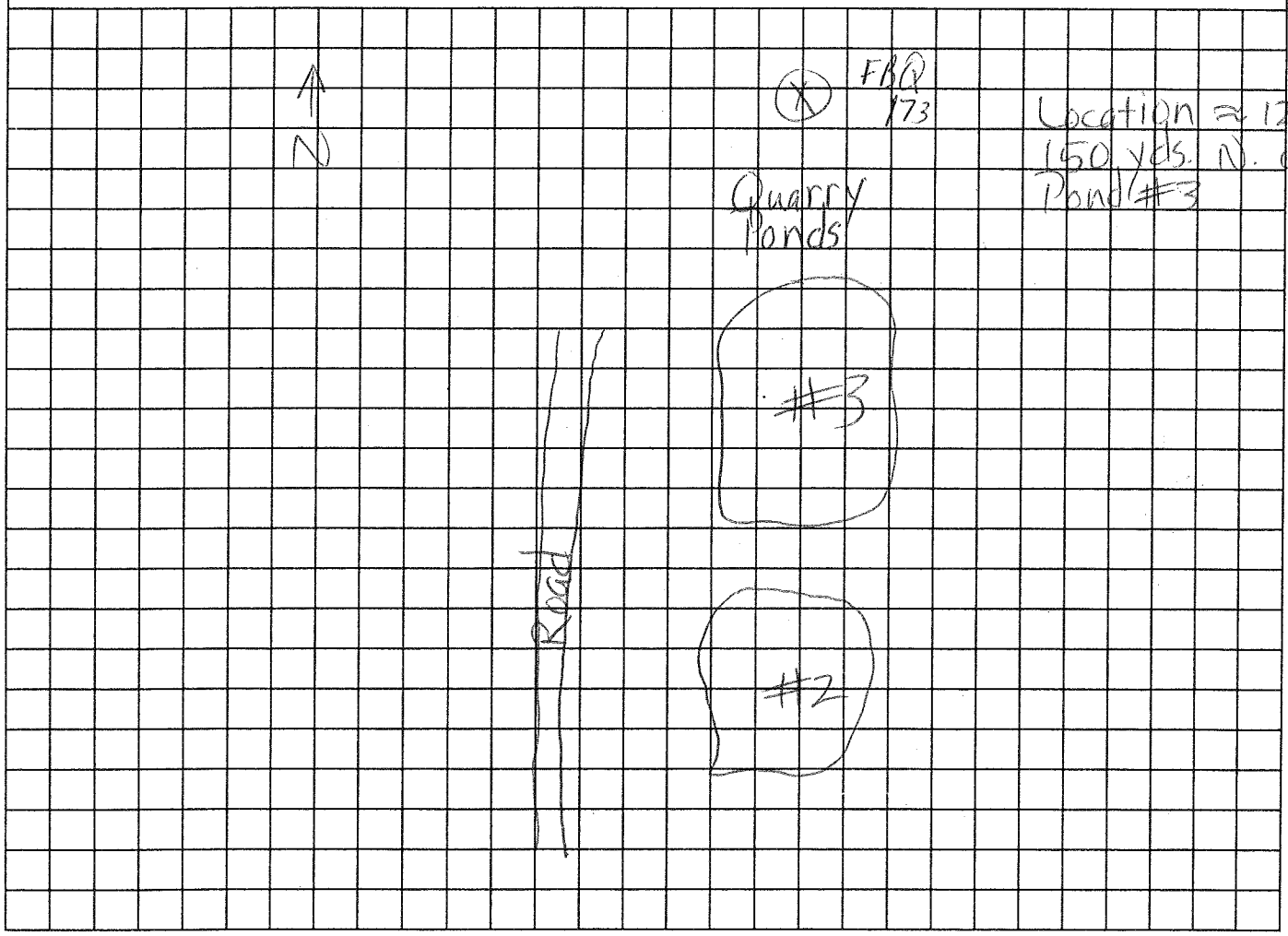
3. PROJECT: **Fuze & Booster/RVAAP**	4. LOCATION: **Fuze & Booster Quarry Landfill/Pond**
5. NAME OF DRILLER: Tony Brister (ATV)	6. MANUFACTURERS DESIGNATION OF DRILL: CME-550
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME-550 Auger Rig 10.25" (O.D.); 6.25" I.D.	8. HOLE LOCATION: FBQ-173
	9. SURFACE ELEVATION:
	10. DATE STARTED: 10/13/03 — 11. DATE COMPLETED: 10/15/03
12. OVERBURDEN THICKNESS: 3'	15. DEPTH GROUNDWATER ENCOUNTERED: 26.5' bgs w/in augers 10/13/03 @ 1811; 17.9' " " " 10/14/03 @ 080; 31.9' " " " " @ 143
13. DEPTH DRILLED INTO ROCK: 47'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 37.85' bgs/47hr 57min; 29.35 " " " 10/15/03 @ 075; ~~42.6~~ 42.2 " " " " @ 129
14. TOTAL DEPTH OF HOLE: 50' bgs	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES 2

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY 85%
N/A						

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
Mon. well constructed				M. F. Leering

LOCATION SKETCH/COMMENTS — SCALE: Not to Scale



HTRW DRILLING LOG

HOLE NUMBER: FBQ-173

PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | SHEET 1 OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS ©	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1	Med brn sdy ~~Silt~~ silty Topsoil, damp, ltl-some fn grv to ≈ 9-12" bgs; change to yel brn sdy Silt, ltl-some grv, damp (ML)	Ø PPM			Push Shelby tube: Ø-2' bgs Recov.:
	2	Silt A/A to 3' bgs; change to red Sand (med) (weath./fract. bdrk.?), damp (GW-GP)	Ø	A/A = as above		Blow Counts: 17-22-27-3Ø Recov.: 18"
	3					
	4	Tan med Ss, damp-dry; grading to red Ss; grading to dk red med Ss, damp to 5.7' bgs; weathered/fractured then change to tan Ss, med gr, hard, damp-wet, fractured occasionally, darker color banding occasionally	Ø			Blow Counts: 10-~~6~~ [illegible] Recov.: ~~14"~~ 12" [illegible] (SS refusal on bd-rk. @ 5', clean-out w/augers, prep. to core)
	5					
	6			FBQ-173 C-1		Begin coring @ 4.7' bgs; core to 14.7' bgs; recov. = 7.25', missing ftg. = 2.75' likely (due to jamming of fractured bed-rock w/in core barrel)
	7					
	8	Tan Ss A/A				
	9					
	10		Ø			

HTRW DRILLING LOG

HOLE NUMBER FBQ-173

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering

SHEET 2 OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11	Tan Ss, clamp-wet A/A	∅ PPM			
	12	Ss A/A to ≈ 13.7' bgs, then dk red, med gr, hard Ss, moist-wet (depth of change approx. due to jamming/missing section w/in core barrel)				
	15	Dk red Ss A/A, med, hard, occasionally darker banding, dry-clamp, somewhat less fractured than tan Ss above				Second core barrel run begins @ 14.7' bgs to 23.7' bgs. recov. = 9' (100%) /9'
	18	Dk red Ss A/A				
	19		∅			

HTRW DRILLING LOG

PROJECT: Fuze & Booster/RVAAP | INSPECTOR: Mark Deering | HOLE NUMBER FBQ-173 | SHEET 3 OF ~~4~~ 5 MAL

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	21	Dk red Ss A/A, dry-damp	Ø PPM			
	22	Ss A/A				
	23					
	24	Dk red Ss, damp A/A				End of 2nd core run @ 23.7' bgs, third run begins
	25					
	26					
	27	A/A, however Ss becoming ~1" org-brn and more shaly and micaceous at 26.5-27' bgs (mica predominantly light in color, although some dark); change to light to med gray shaly, micaceous, finer gr, softer Ss by 27.5' bgs	Ø			
	28					
	29					
	30					

159

4

HTRW DRILLING LOG

HOLE NUMBER FBQ-173

PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | SHEET ~~3~~ OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSAPCE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	31	Gray, shaly, micaceous Ss A/A, dry	0 PPM			
	32		0			
	33	Dk red Ss, damp - moist, hard (A/A) once again at ~~33~~ 32' bgs				End of third core run @ 322' bgs; recov. = 8.5' / 10' due to jamming in core barrel; water in borehole to ≈ 26.5' bgs; borehole reamed to 32' bgs. Roller bit drlg. from 32' - 50' bgs.
	34					
	35					See Activity Log Sheet re. adding 25 gal. potable water @ 33.6' bgs, per OEPA concur.
	36	Dk red Ss A/A				
	37		0			
	38	Ss A/A, damp			MPA2	Borehole advanced from 38.6 to 38.6' bgs at end of day 10/14/03.
	39					
	40					

HTRW DRILLING LOG

PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | HOLE NUMBER FBQ-173 | SHEET ~~4~~ OF ~~4~~ 5 of 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	41	Dk red Ss, damp-moist, hard (A/A)	ØPPM			Borehole advanced from 38.6-43.6' bgs on 10/15/03; then from 43.6-50' bgs (per discuss./ concur. w/ OEPA [ETM] & ACoE [TZ] also on 10/15/03)
	42	Dk red Ss A/A				
	43					
	44	Ss A/A, damp				
	45		Ø			
	46	Ss A/A				
	47	Dk red Ss, saturated, hard				Yield appears to have significantly increased (≈Ø.5-1.ØgPm ?)
	48	A/A				
	49					
	50	Dk red Ss A/A, ~~damp~~ saturated	Ø			

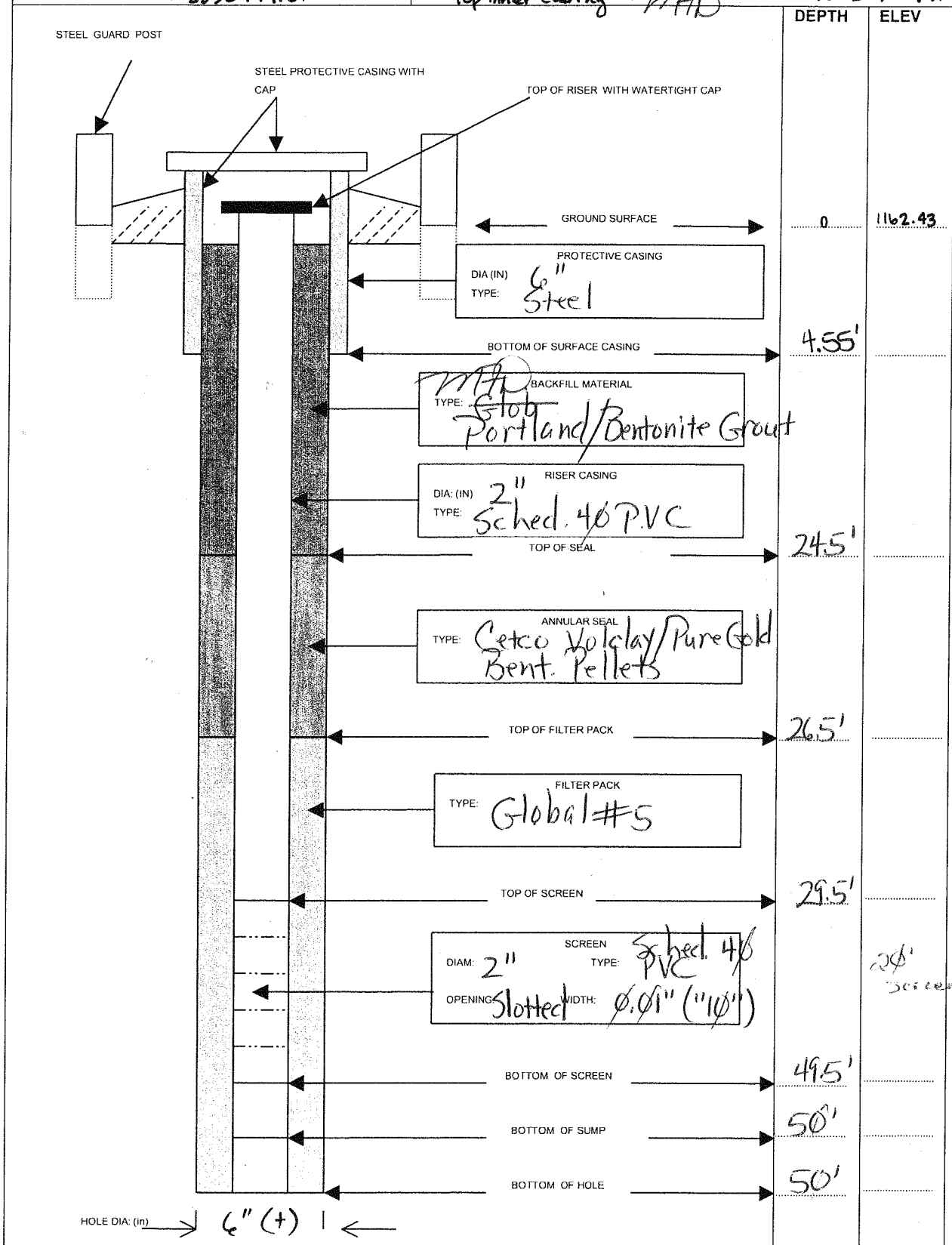
T.D.

MONITORING WELL CONSTRUCTION DIAGRAM

PROJECT NAME: Phase I/II Fuze & Booster Quary Landfill/Pond **DELIVERY ORDER NO:** 0012

WELL NUMBER: FBQ-173 **BEGIN:** 10/15/03@~~1250~~ 1255 **END:** 10/15/03@1550

COORDINATES: N: 554491.35 E: 2350449.01 **REFERENCE POINT:** top inner casing **ELEVATION:** 1165.94 ft.



HTRW DRILLING LOG

DISTRICT: Louisville

HOLE NUMBER: FBQ-174

1. COMPANY NAME: SpecPro, Inc.

2. DRILL SUBCONTRACTOR: To|Test

SHEET 1 OF 1

3. PROJECT: Fuze & Booster/RVAAP

4. LOCATION: Fuze & Booster Quarry Landfill/Pond

5. NAME OF DRILLER: Neil Wiktor

6. MANUFACTURERS DESIGNATION OF DRILL: CME-75

7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME-75 10.25" O.D. / 6.25" I.D.

8. HOLE LOCATION: FBQ-174

9. SURFACE ELEVATION:

10. DATE STARTED: 10/10/03

11. DATE COMPLETED: 10/10/03 AQB 5-11-05

12. OVERBURDEN THICKNESS: 1'

15. DEPTH GROUNDWATER ENCOUNTERED: ≈14' bgs (A.R./10-10-03)

13. DEPTH DRILLED INTO ROCK: 21.5'

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 10.7' bgs / 142 hr 45 min

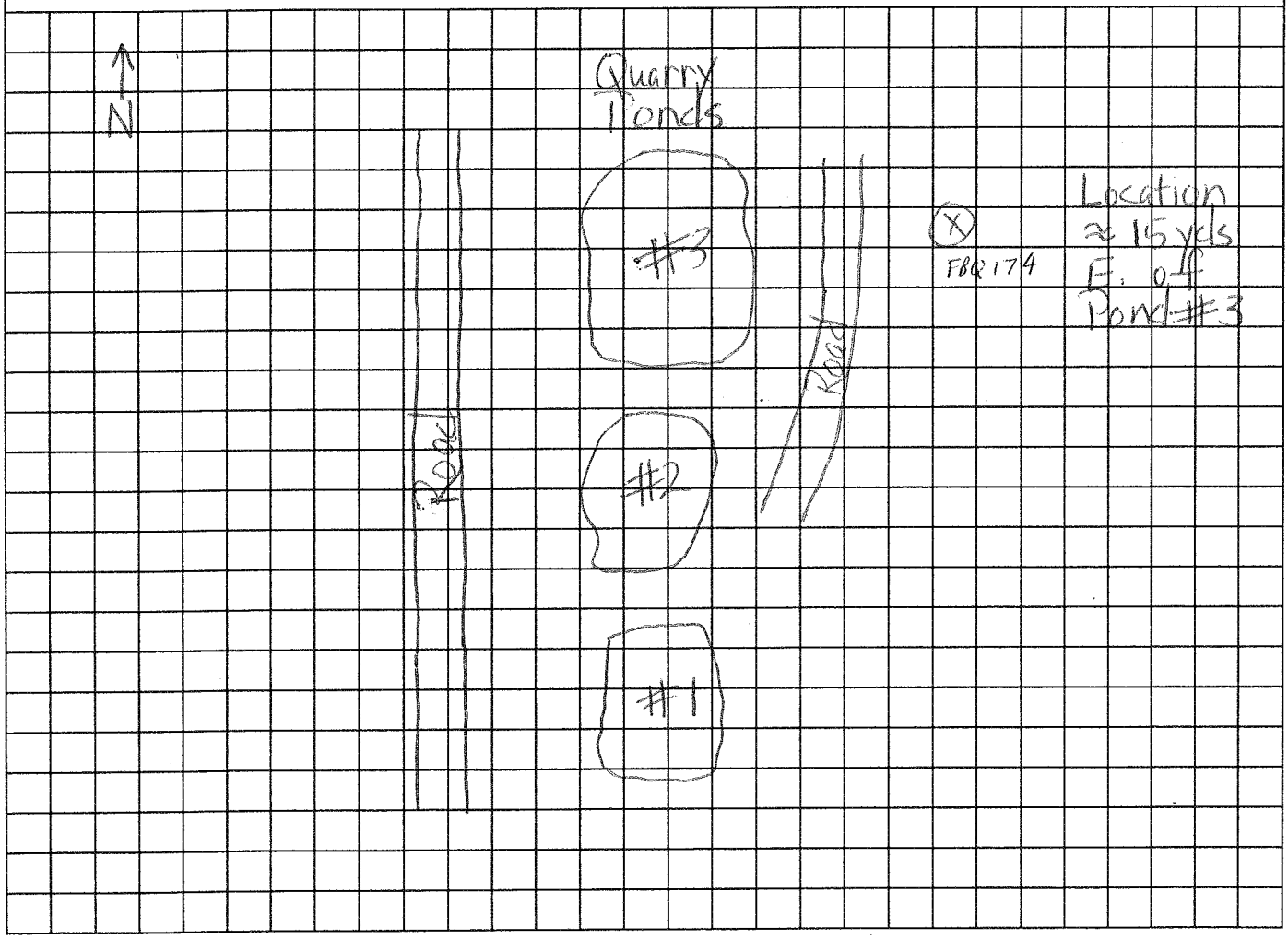
14. TOTAL DEPTH OF HOLE: 22.5' bgs

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES			
20. SAMPLES FOR CHEMICAL ANALYSIS: N/A	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE: Mon. well constructed	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: [signature]		

LOCATION SKETCH/COMMENTS

SCALE: Not to Scale



HTRW DRILLING LOG

HOLE NUMBER: FBQ-174

PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | SHEET 1 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS ©	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1	Dk olv brn silty Top-soil (ML) moist, tr fn grv, roots to ≈9" bgs; change to d'k red Ss, hard, dry	∅ PPM	FBQ-174 (ST-1)		
	2	A/A (as above) Dk red Ss A/A, hard, dry	∅			
	3					Auger refusal/augers seated @ 3.5' bgs; began air rotary drl'g. here
	4	A/A				
	5					
	6	A/A				
	7	Change to tan Ss, hard, dry	∅			
	8					
	9					
	10					

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HTRW DRILLING LOG

HOLE NUMBER FBQ-174

PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | SHEET 2 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Tan Ss A/A, dry, hard	ϕ PPM			Air rotary drlg.
	11					
	12	A/A	ϕ			
	13					
	14	Ss A/A, wet-saturated	ϕ			
	15					
	16	A/A, wet	ϕ			
	17					
	18	Ss A/A	ϕ			
	19	A/A, sat.				
	20					

?↓

HTRW DRILLING LOG

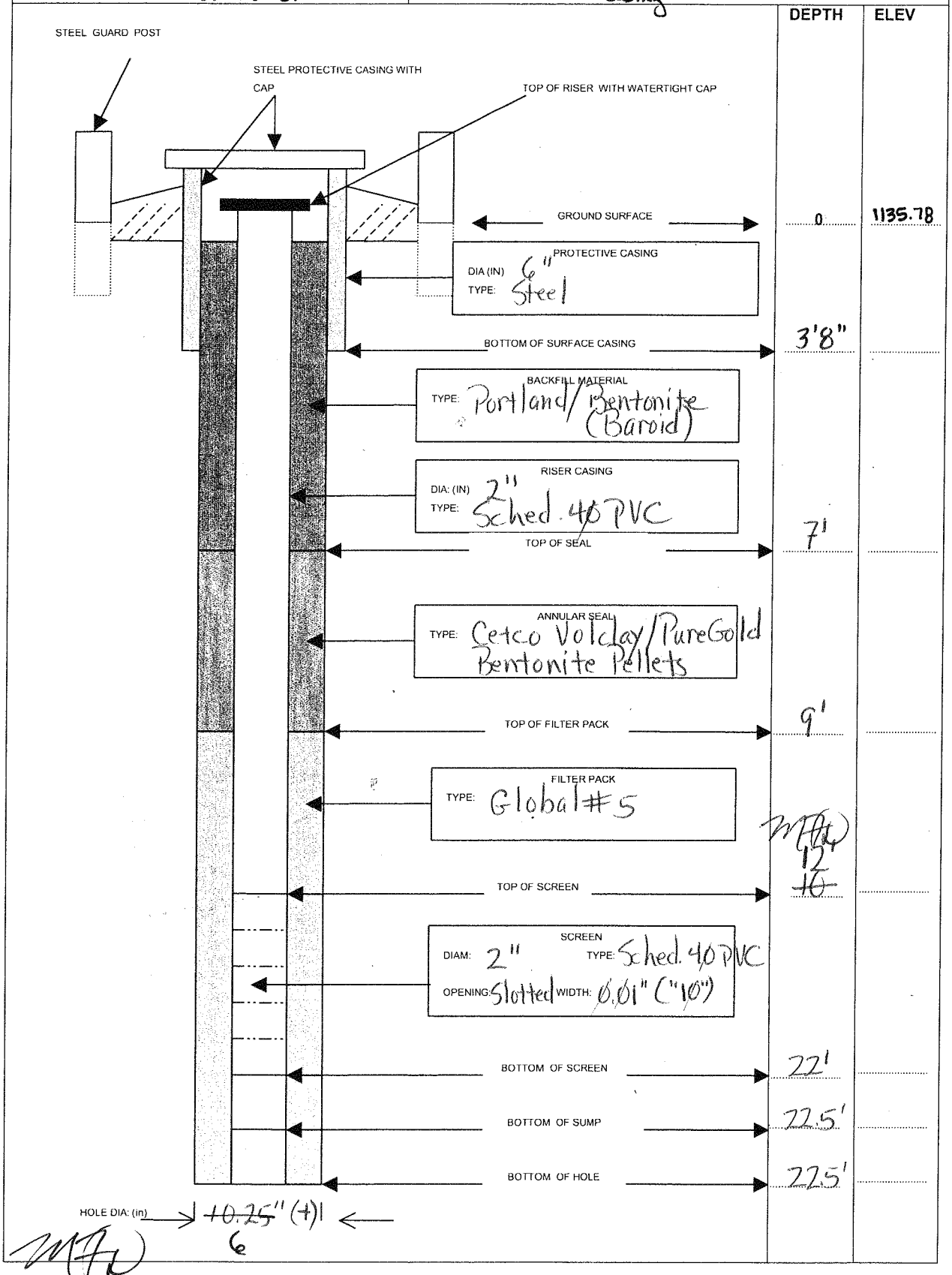
PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | HOLE NUMBER FBQ-174 | SHEET 3 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	21	Tan Ss A/A, saturated, hard	ϕ PPM			Air rotary drilled 19'/~~40~~ 47 min MFD indicated Good g.w. yield from blow
	22	Ss A/A, sat.	ϕ			
		T.D				
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					

MONITORING WELL CONSTRUCTION DIAGRAM

PROJECT NAME: Phase I/II Fuze & Booster Quary Landfill/Pond **DELIVERY ORDER NO:** 0012

WELL NUMBER: FBQ-174	**BEGIN:** 10-10-03/12:02	**END:** 10-10-03/12:37
COORDINATES: N: 554142.44 E: 2350289.81	**REFERENCE POINT:** top inner casing	**ELEVATION:** 1139.97 ft.



HTRW DRILLING LOG

DISTRICT: Louisville

HOLE NUMBER: FBQ-175

1. COMPANY NAME: SpecPro, Inc.

2. DRILL SUBCONTRACTOR: Tol Test

SHEET 1 OF 1

3. PROJECT: Fuze & Booster/RVAAP

4. LOCATION: Fuze & Booster Quarry Landfill/Pond

5. NAME OF DRILLER: Tony Brister

6. MANUFACTURERS DESIGNATION OF DRILL: CME-550

7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME-550 ATV Aug Rig 10.25" ø.D. / 6.25" I.D.

8. HOLE LOCATION: FBQ-175

9. SURFACE ELEVATION:

10. DATE STARTED: 10/16/03

11. DATE COMPLETED: 10/17/03

12. OVERBURDEN THICKNESS: 4 '

15. DEPTH GROUNDWATER ENCOUNTERED: 14.2' bgs (+ rising) in augers, on 10-16-03

13. DEPTH DRILLED INTO ROCK: 18 '

16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 13.1' bgs / 3hr 45 min

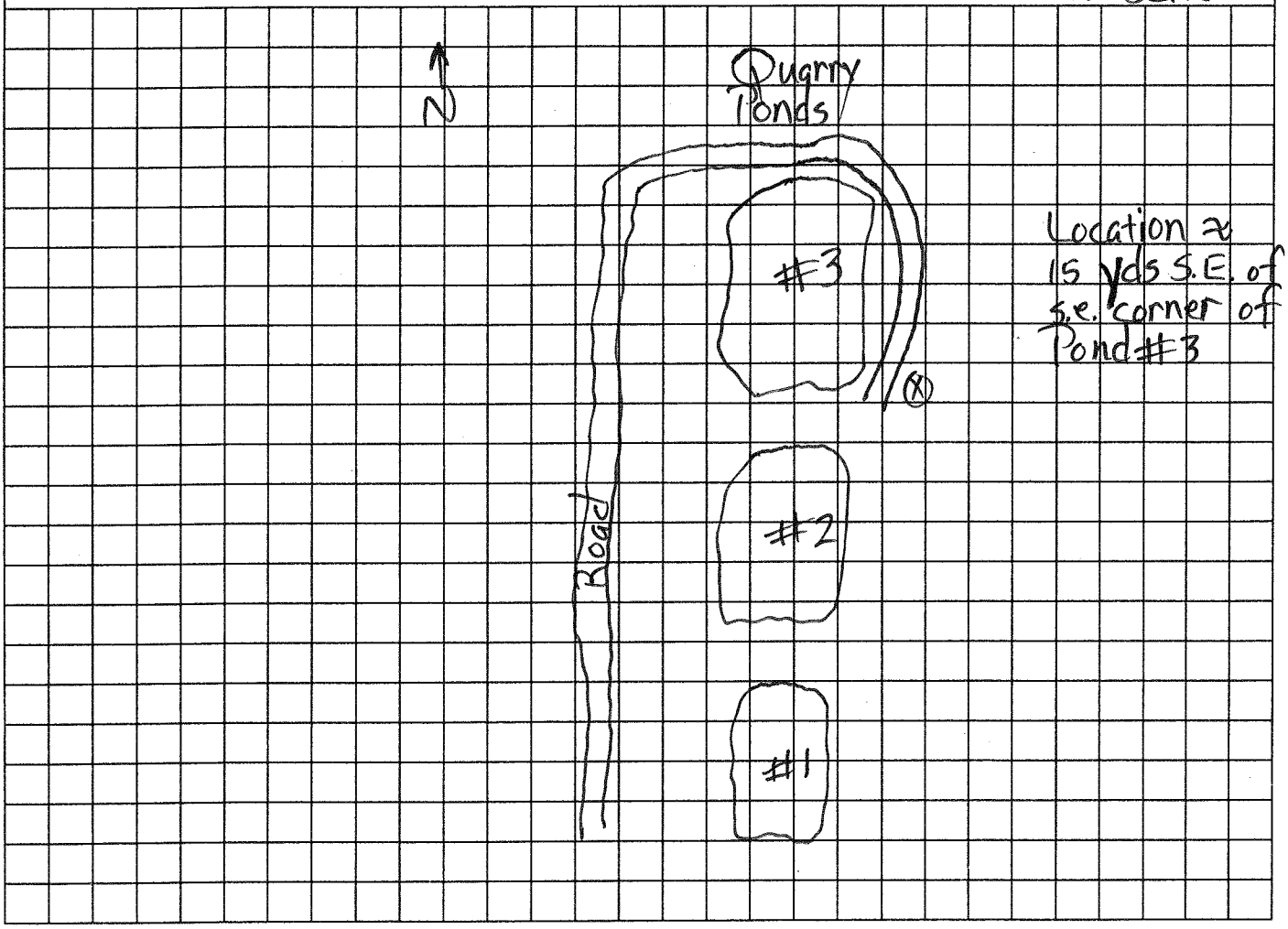
14. TOTAL DEPTH OF HOLE: 22 ' bgs

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: 2			
20. SAMPLES FOR CHEMICAL ANALYSIS: N/A	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY: 100%
22. DISPOSITION OF HOLE: Mon. well constructed	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: P.T. Koering		

LOCATION SKETCH/COMMENTS

SCALE: Not to Scale



HTRW DRILLING LOG

HOLE NUMBER: FBQ-175

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering

SHEET 1 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS ©	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Dk brn silty Topsoil, damp, organic (roots, grass), tr fn grv to 5" bgs; change to yel brn (ML) silty fn-med Sand (SW), damp, tr-ltl fn grv, loose-dense to 1' bgs; change to yel brn, fn-med Sand, damp, loose	∅ PPM ∅			Blow Counts: 3-7-10-12 Recov.: 18"
	1					
	2		∅			Blow Counts: 8-12-17-50/6 Recov.: 12"
	3	Yel brn Sand A/A (SW), ltl-some fn-med grv, damp (2-4' bgs SS)				
	4	Dk red Ss (med gr) frags, dry-damp (top of weathered bedrock)	∅			Blow Counts: 50/3 Recov.: 6" 3" n/a
	5	A/A = as above				
	6	Dk red Ss A/A, damp to 6'8" bgs; change to org-red Ss (med gr), damp to 7'3", then return to dk red Ss A/A, damp to 8'4"; change to org-red Ss A/A, grading to tan Ss (med gr), damp-moist to 10'9" bgs; change to dk red A/A once again (note: throughout this whole interval, the Ss is hard, well sorted, w/ apparent good poros., & is occasionally fractured -- although this is likely the result of the coring stresses		FBQ-175 C-1		Begin coring @ 4'8" bgs
	7					
	8		∅			
	9					
	10					

HTRW DRILLING LOG

PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | HOLE NUMBER FBQ-175 | SHEET 2 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11	Dk red med Ss, damp to moist, well sorted, hard, occasional fractures (however, likely mechanical from coring) to 15'11" bgs, poros. appears to be good	Ø PPM			
↓	12					End 1st core run @ 12'1" (100% recov. 7'5"); begin 2nd run here; some water @ begin. of 2nd run (wet)
	13					
	14					
	15					
	16	Ss A/A, except @15'11" change to org-red grading to tan in color (by ≈ 18' bgs), wet				Ream to 16' bgs on 10-16-03
MAD	17		Ø			
	18					
	19					
	20					

HTRW DRILLING LOG

HOLE NUMBER FBQ-175

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering

SHEET 3 OF 3

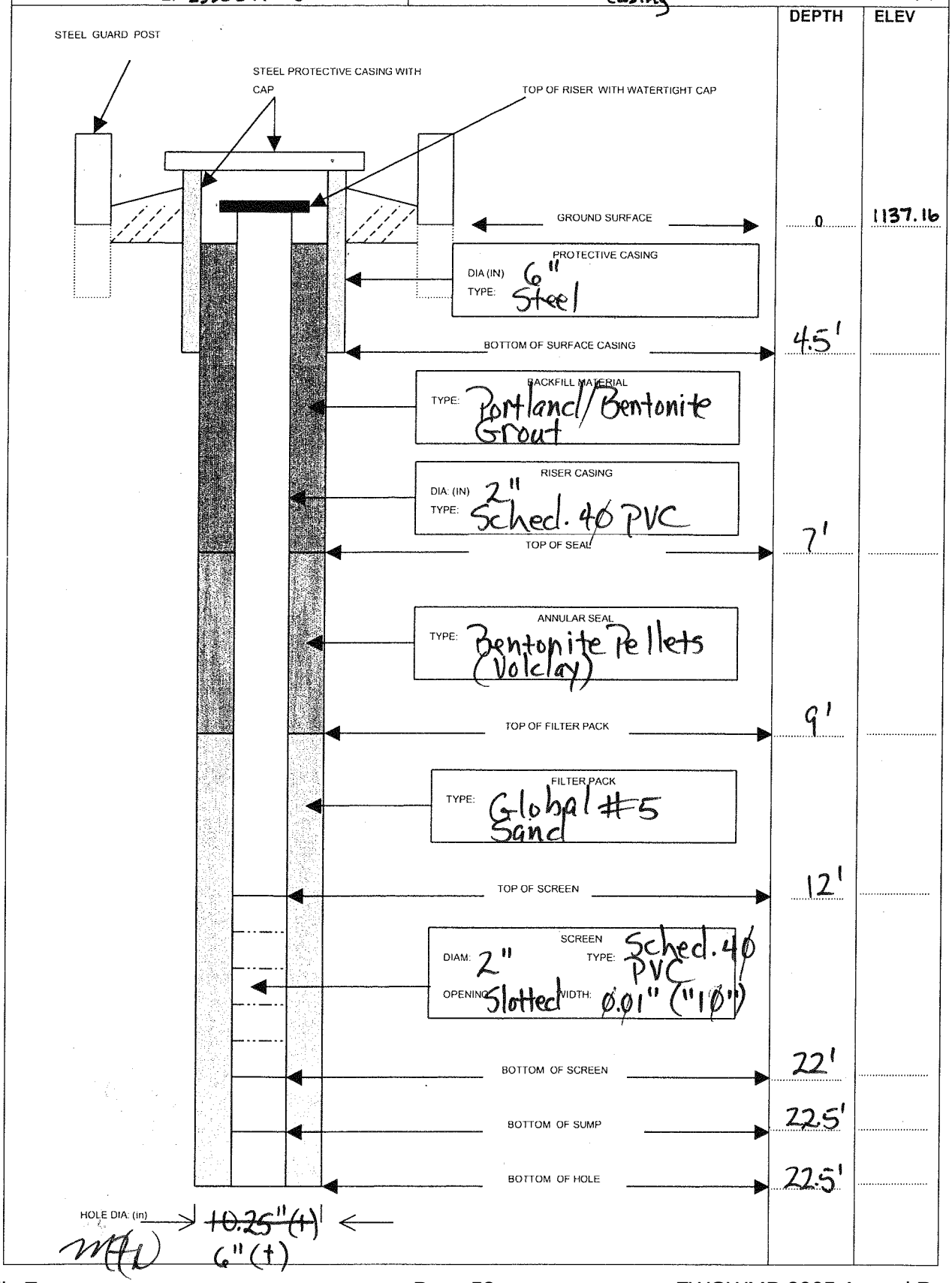
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	21	Tan Ss A/A, wet	Ø PPM			
	22	T.D.				End of 2nd core run @ 21'10" -- 100% recov. (9'9") Ream to 22.5' bgs (from 16') on 10-17-03
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					

MONITORING WELL CONSTRUCTION DIAGRAM

PROJECT NAME: Phase I/II Fuze & Booster Quary Landfill/Pond **DELIVERY ORDER NO:** 0012

WELL NUMBER: FBQ-175 **BEGIN:** 10-17-03/10:50 **END:** 10-17-03/11:30

COORDINATES: N: 553989.24 E: 2350297.98 **REFERENCE POINT:** ~~top~~ inner casing **ELEVATION:** 1140.73 ft.



HTRW DRILLING LOG

HTRW DRILLING LOG	DISTRICT: Louisville	HOLE NUMBER FBQ-176
1. COMPANY NAME: SpecPro, Inc. MAD	2. DRILL SUBCONTRACTOR: TCI Test	SHEET 1 OF 1
3. PROJECT: Fuze & Booster/RVAAP	4. LOCATION: Fuze & Booster Quarry Landfill/Pond	
5. NAME OF DRILLER: ~~Neal Wiker~~ Wiktor	6. MANUFACTURERS DESIGNATION OF DRILL: CME-75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME-75 Auger Rig 6.25" ID / 10.25" OD	8. HOLE LOCATION: FBQ-~~177~~ 176 MAD	
	9. SURFACE ELEVATION:	
	10. DATE STARTED: 10/7/03	11. DATE COMPLETED: 10/7/03
12. OVERBURDEN THICKNESS: 17' ~~bgs~~ MAD	15. DEPTH GROUNDWATER ENCOUNTERED: ≈ 14' bgs (10/7/03)	
13. DEPTH DRILLED INTO ROCK: 4.5' ~~bgs~~ MAD	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: ~~6.4"~~ (GS) / 25 hr 30 min 6.4' MAD	
14. TOTAL DEPTH OF HOLE: 21.5' bgs	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):	

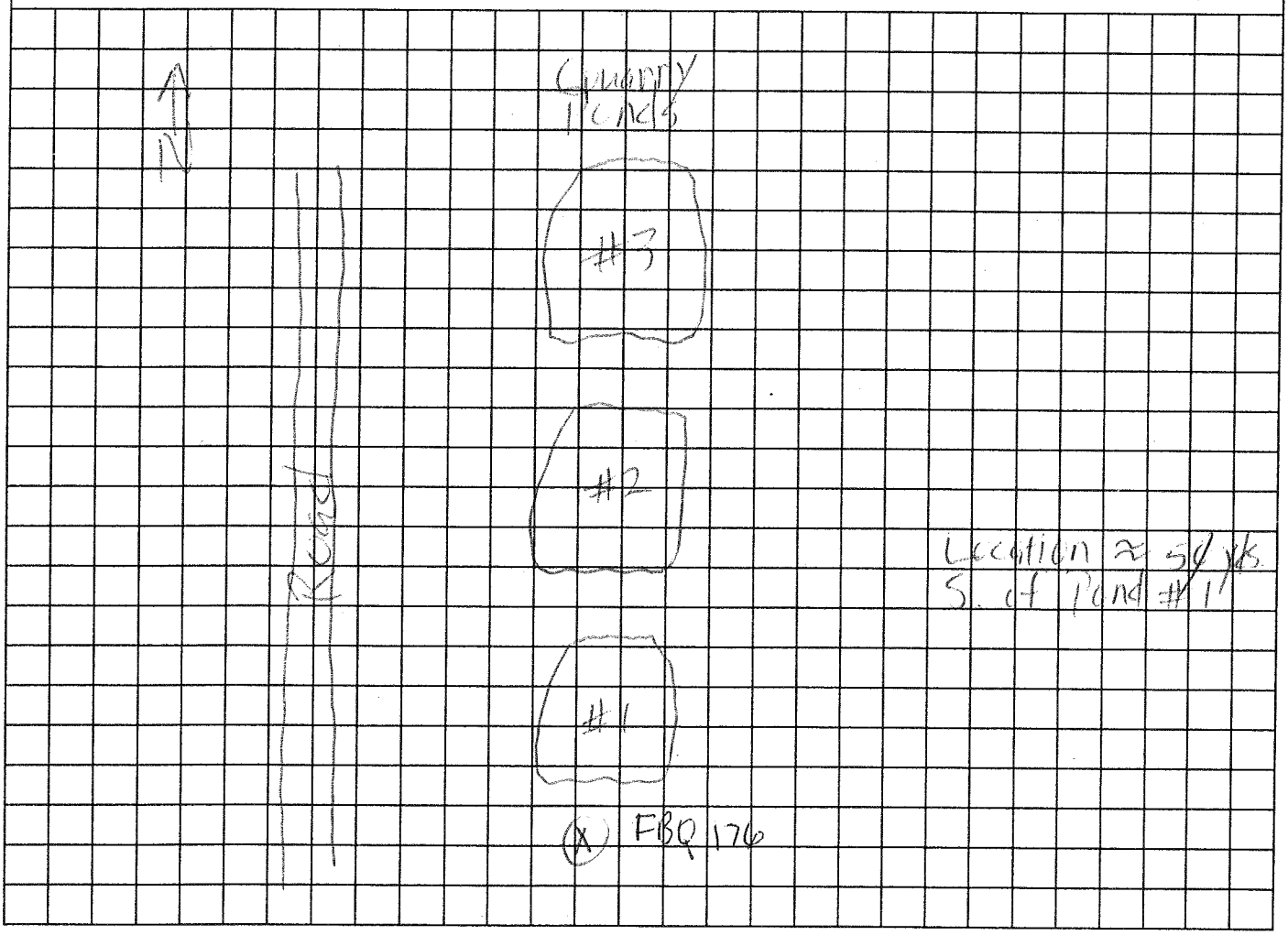
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
N/A						

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
Mon. well contracted				[signature]

LOCATION SKETCH/COMMENTS

SCALE: Not to scale



HTRW DRILLING LOG

HOLE NUMBER: FBQ-176

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering

SHEET 1 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS ©	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Yel brn silty clay, damp - moist, soft, plastic (CL)	ϕ PPM	FBQ-176 (ST-1)		Push Shelby tube: @ 2' bgs; Recov. 18"
	1					
	2	Silty Clay A/A (as above)	ϕ			Blow Counts: 4-4-5-5 Recov.: 6"
	3					
	4	Silty Clay A/A; broken dk red Ss in SS + TP (quarry spoil?)	ϕ			Blow Counts: 8-15-14-12 Recov.: 6"
	5					
MFD	6	Yel brn clayey Silt (ML) tr fn-~~CSE~~ gr v/ dry, dense, tr dk brn-blk org. matter.	ϕ			Blow Counts: 22-24-25-22 Recov.: 18"
	7					
	8	Clayey Silt A/A, w/ dk red Ss frags. A/A, dry - damp	ϕ			Blow Counts: 17-14-8-10 Recov.: 14"
	9					
	10					

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HTRW DRILLING LOG

PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | HOLE NUMBER FBQ-176 | SHEET 2 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11	(ML) Olv brn Silt, tr-ltl fn-med grv, dry-wet (top of SS), ltl dk organic material A/A	ϕ PPM			Blow Counts: 12-14-19-22 Recov.: 14"
	12	v-fn.-fn. Med gry to ltl olv brn silty Sand, some org-brn mottling, tr dk organic mater., layered (thin/fine), dry, dense (SM)	ϕ			Blow Counts: 15-25-32-32 Recov.: 18"
	13					
	14	-SM (SW) Med gry v. fn. Sand, layered (thin/fine -- shaly), org-brn mottling, wet-sat. (Water table est. @ ≈ 14' bgs)	ϕ			Blow Counts: 22-25-50/4 Recov.: 13"
	15					
	16	(SW-SM) Shaly Sand A/A grading to med gry sandy Shale, fissile, soft-med/hard, some org mottling, sat. @ 17' bgs	ϕ			Blow Counts: 27-40-50/6 Recov.: 11½"
	17					
	18	Dk gry Shale, med hard, v. fissile, sat.	ϕ			Blow Counts: 9-50/6 Recov.: 10"
	19					
	20					

HTRW DRILLING LOG

HOLE NUMBER FBQ-176

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering

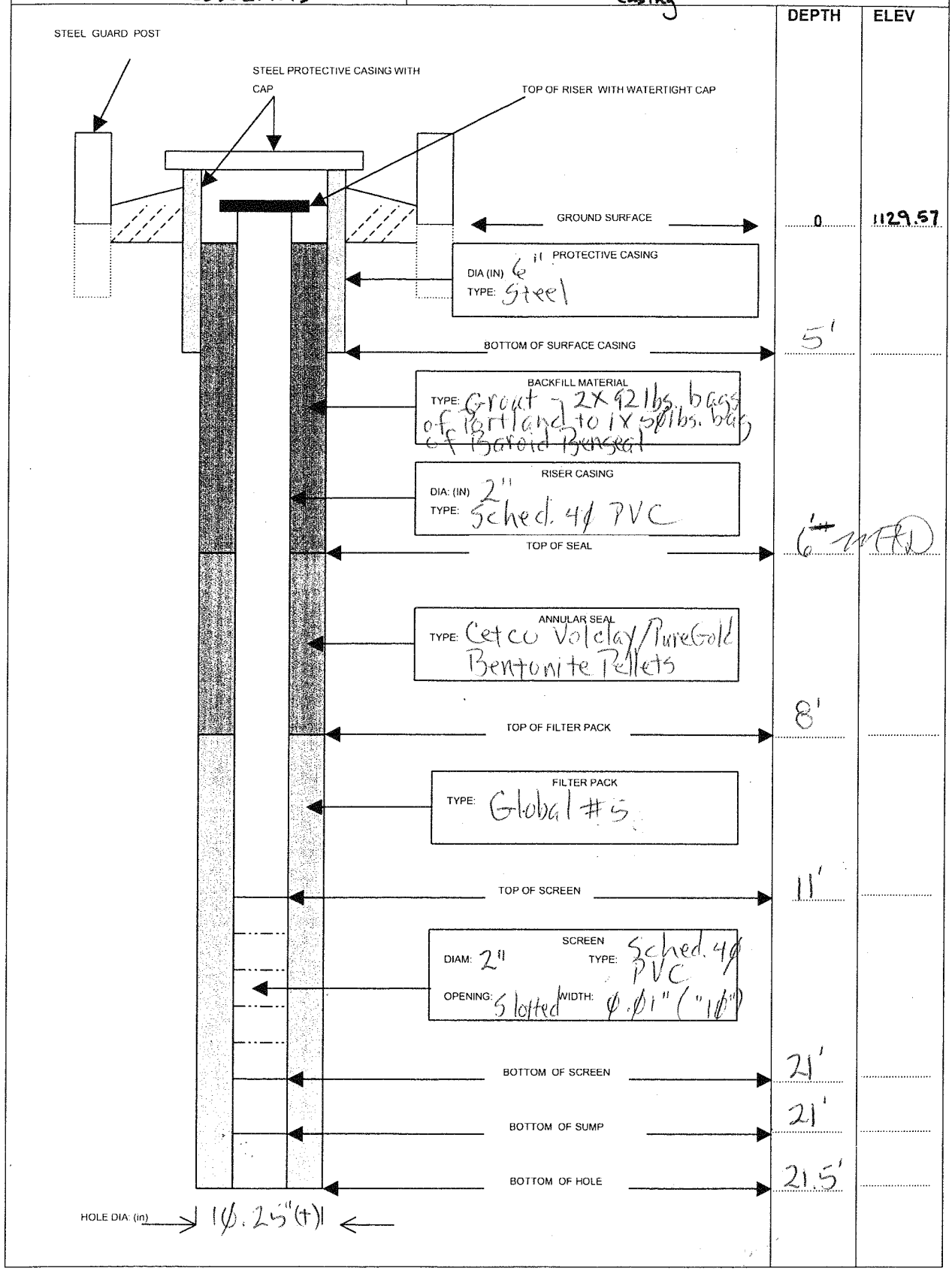
SHEET 3 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	21	Med - dk gry shale A/A	0 PPM			Blow Counts: 5/5 Recov.: 5"
		TD				
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					

MONITORING WELL CONSTRUCTION DIAGRAM

PROJECT NAME: Phase I/II Fuze & Booster Quary Landfill/Pond **DELIVERY ORDER NO:** 0012

WELL NUMBER: FBQ-17c	**BEGIN:** 10-07-03/1050	**END:** 10-7-03/1340
COORDINATES: N: 5532 73.33 E: 2350219.45	**REFERENCE POINT:** top inner casing	**ELEVATION:** 1131.91 ft.



HTRW DRILLING LOG

DISTRICT: Louisville

HOLE NUMBER: FBQ-177

SHEET 1 OF 3

1. COMPANY NAME: SpecPro, Inc.

2. DRILL SUBCONTRACTOR: Tolltest

3. PROJECT: Fuze & Booster/RVAAP

4. LOCATION: Fuze & Booster Quarry Landfill/Pond

5. NAME OF DRILLER: Neil Wiktor

6. MANUFACTURERS DESIGNATION OF DRILL: CME-75

7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME-75 Hollow Stem Auger 6.25" ID / 10.25" OD

8. HOLE LOCATION: FBQ-177

9. SURFACE ELEVATION:

10. DATE STARTED: 10/6/03

11. DATE COMPLETED: 10/6/03

12. OVERBURDEN THICKNESS: 18' bgs MFA

13. DEPTH DRILLED INTO ROCK: 4.5' bgs MFA

14. TOTAL DEPTH OF HOLE: 22'5"

15. DEPTH GROUNDWATER ENCOUNTERED: ≈12'2" (10/6/03)

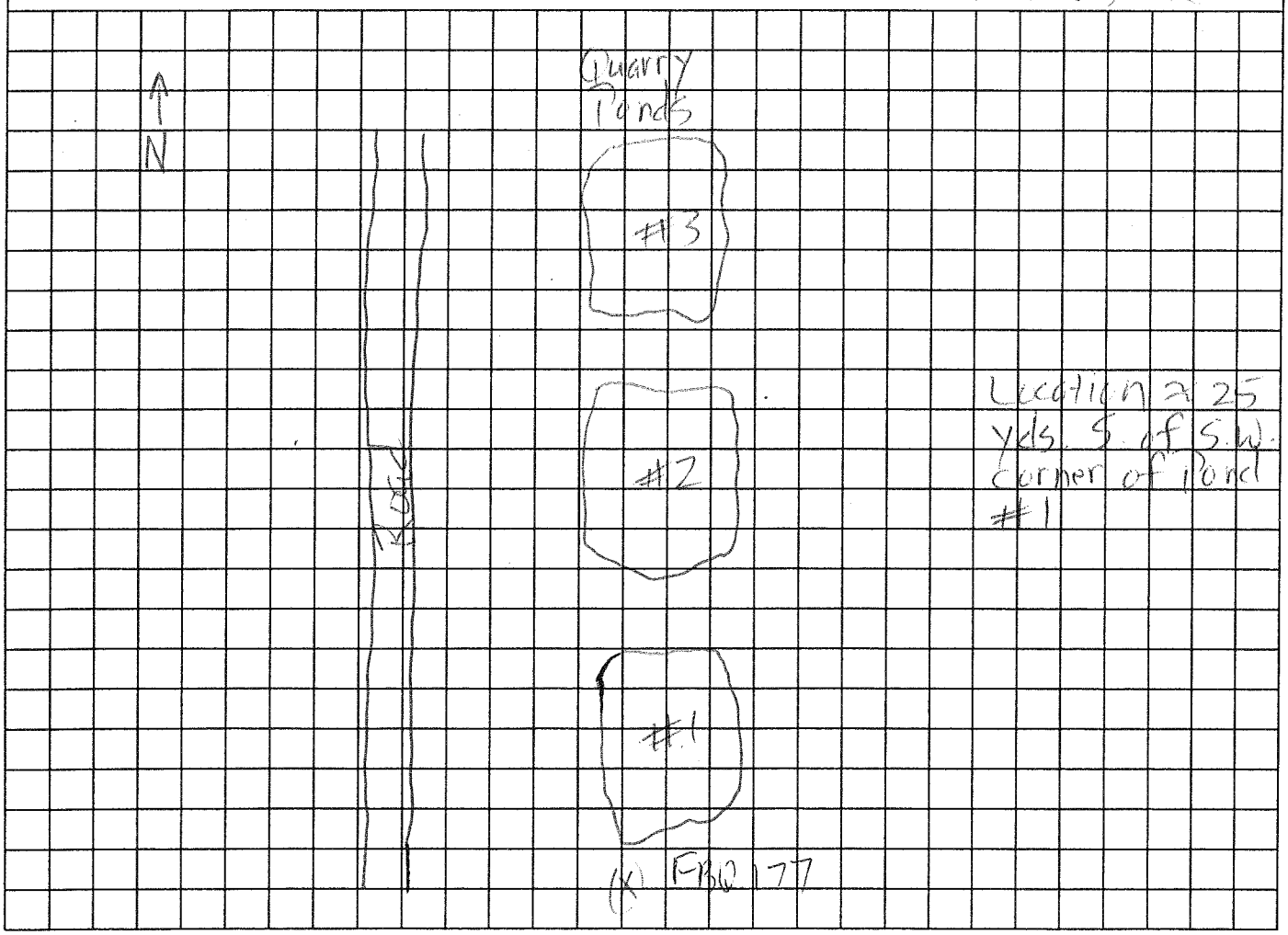
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 9'4" bgs (21hr 20 min) 9.11' MFA

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: N/A			
20. SAMPLES FOR CHEMICAL ANALYSIS: N/A	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE: M.W. Constructed	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: M.K. Deering		

LOCATION SKETCH/COMMENTS

SCALE: Not to scale



HTRW DRILLING LOG

HOLE NUMBER: FBQ-177

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering

SHEET 1 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS ©	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
	0	Olv brn Silt, tr grv, ltl sd, damp, loose to 6" @ 6", change to yel brn clayey Silt, tr fine sand, damp, dense (ML)	ϕ TPM	FBQ-177 (GT-1)		Push Shelby suff. to 3.5' bgs; recv.: 24" 2.0 MFD
	2	Yel brn clayey Silt A/A ← (as above)	ϕ			
	3					Blow counts: 3-6-7-13; Recov: 19"
MFD	4	Yel brn silt, tr sand, tr fn-csel grv, dry, dense	ϕ			Blow counts: 6-8-13-15; Recov: 2ϕ"
	5					
	6	Yel brn Silt A/A; 7-8' slightly clayey	ϕ			Blow counts: 1ϕ-22-27-29; Recov: 18"
	7					
	8	Yel brn sdy Silt; tr grv, damp-moist, loose	ϕ			Blow counts: 4-4-4-4; Recov: 22"
	9					
	10					

HTRW DRILLING LOG

HOLE NUMBER FBQ-177

PROJECT: Fuze & Booster/RVAAP | INSPECTOR Mark Deering | SHEET 2 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11	Yel brn sdy silt (ML) A/A to 11'8"; @ 11'8" change to yel brn fn-med sand, moist-wet, loose (SW)	ϕ PPM			Blow counts: 4-4-5-5; Recov. 24"
	12	Yel brn sand A/A, wet-sat. to 13' (?); change to fractured/weathered (?) red (dark), fn-med Ss bdrk, wet-sat. (GP) (Ss is not bdrk.) (Water table est. @ 12'2" bgs)	ϕ			Blow counts: 7-7-9-10; Recov.: 11"
	13					
	14	Yel brn fn-med sand (SW) tr grv, ltl dk red Ss bedrock frags, wet-sat, loose	ϕ			
	15					
	16	Yel brn fn-med sand, ltl-some fn-cse grv, sat, loose	ϕ			Blow counts: 8-10-20-22; Recov.: 24" (Note: 2nd Shelby tube not poss. due to very likely lack of recov. +/or refusal)
	17					
	18	Lt-med brn silty fn Ss, ~~laminated~~, sat. layered (thin/fine)	ϕ			Blow counts: refusal - 50/3"; Recov.: 3"
	19					
	20					

NFW

HTRW DRILLING LOG

HOLE NUMBER FBQ-177

PROJECT: Fuze & Booster/RVAAP

INSPECTOR Mark Deering

SHEET 3 OF 3

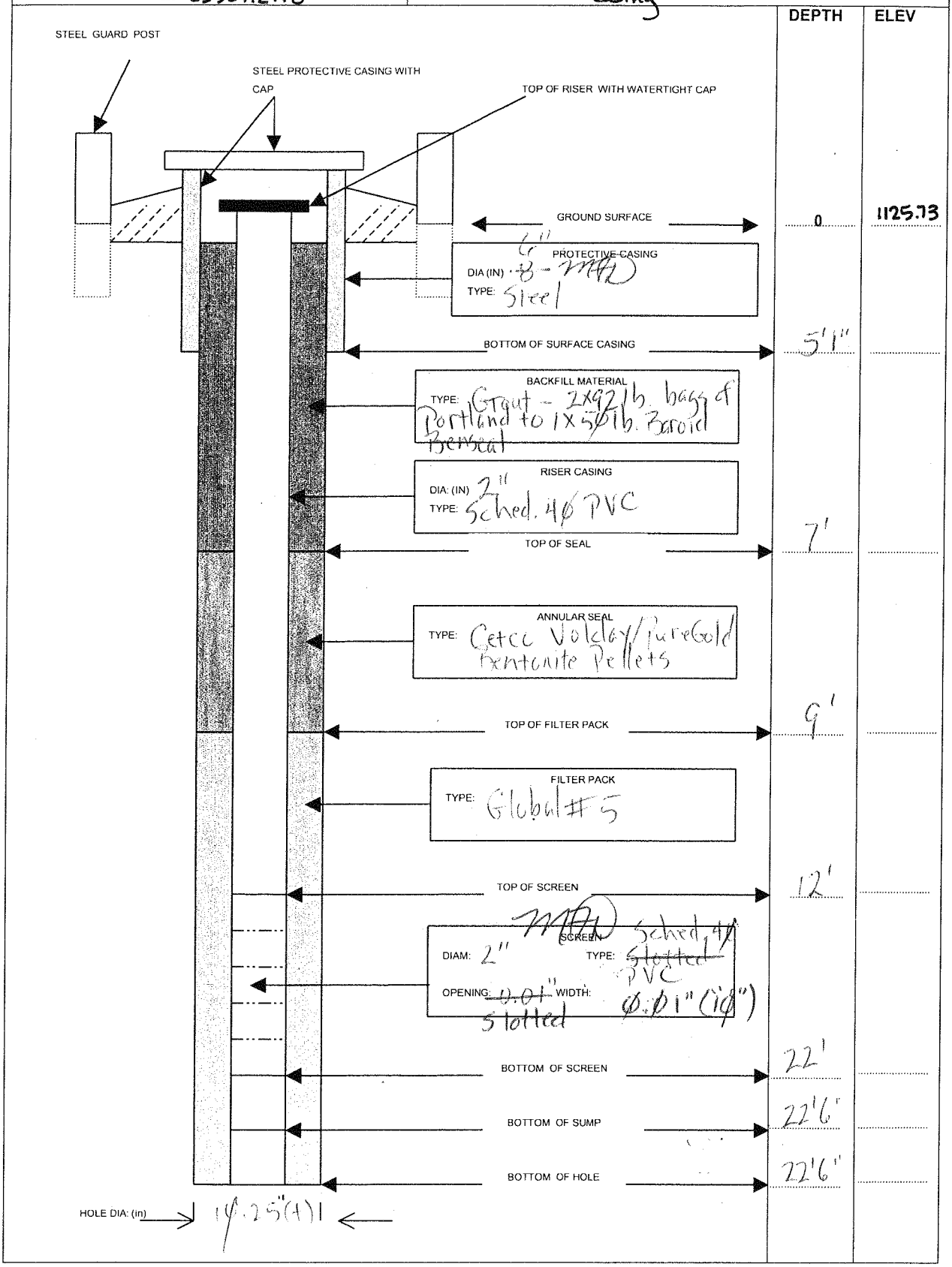
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Silty Sand, sl. A/A, v. fn - fn., sat.	ϕ PPM			~~Blow counts: refusal~~ - 50/3 Recov.: 3"
	21					
	22	Silty Ss A/a	ϕ			Auger only to 22'6"
	TD.					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					

MONITORING WELL CONSTRUCTION DIAGRAM

PROJECT NAME: Phase I/II Fuze & Booster Quary Landfill/Pond **DELIVERY ORDER NO:** 0012

WELL NUMBER: FBQ-177 **BEGIN:** 10-6-03/13:05 **END:** 10-6-03/16:15

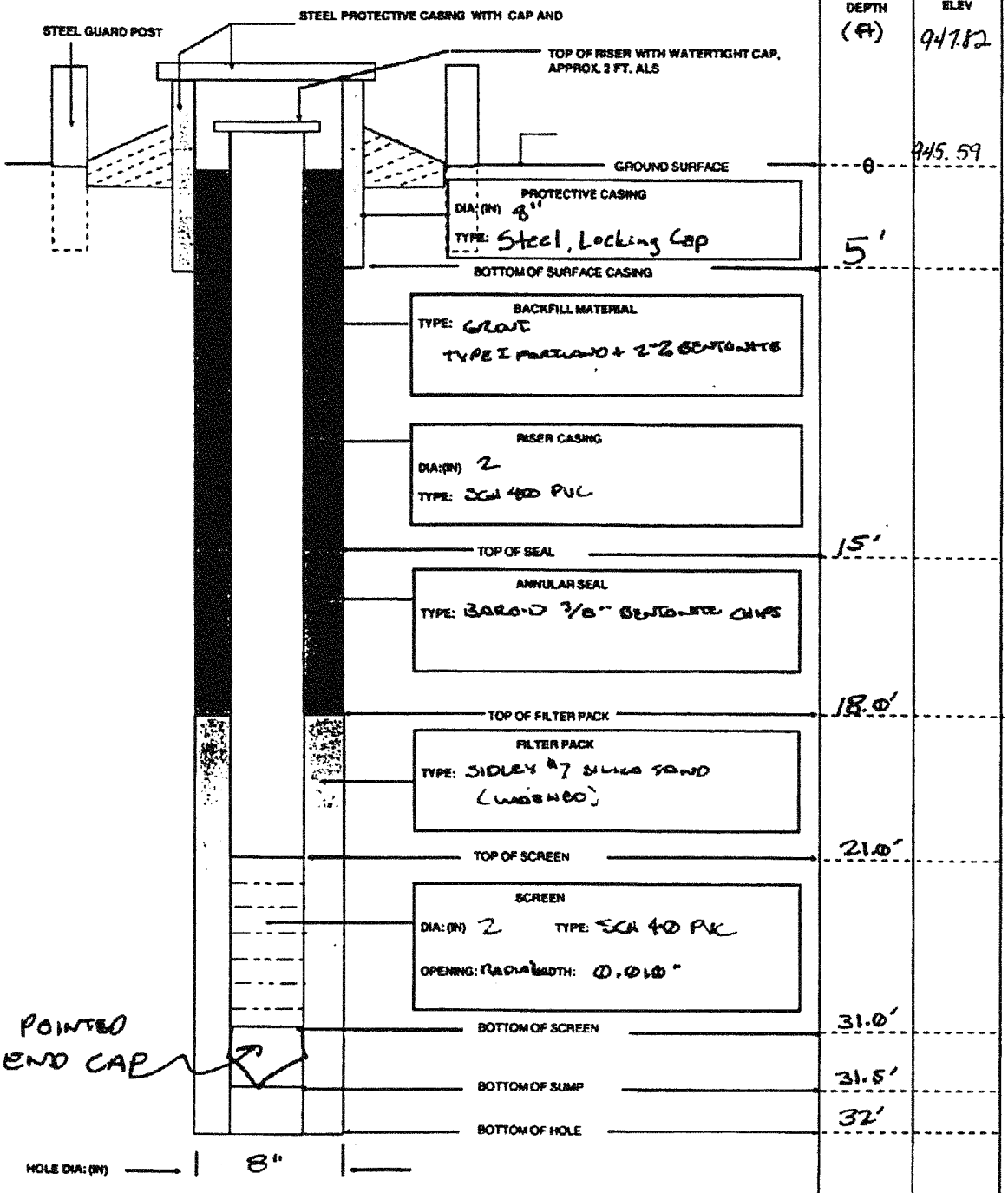
COORDINATES: N: 553321.94 E: 2350112.18 **REFERENCE POINT:** top inner casing **ELEVATION:** 1128.57 ft.



MONITORING WELL

PROJECT NAME: Erie Burning Grounds Phase II DELIVERY ORDER NO: 0710

WELL NUMBER: EBG MW-123	BEGIN: 10/28/03	END: 10/29/03
COORDINATES: N: 571747.04 E: 2380049.21	REFERENCE POINT: Top of Casing	ELEVATION: 947.82 MSL



3

HTRW DRILLING LOG	DISTRICT: Louisville	HOLE NUMBER MW-123
1. COMPANY NAME: SAIC	2. DRILL SUBCONTRACTOR: Frontz Drilling	SHEET 1 of 5

3. PROJECT: Erie Burning Grounds Phase II	4. LOCATION: Erie Burning Grounds
5. NAME OF DRILLER: Frontz Drilling : Aaron Mackey	6. MANUFACTURERS DESIGNATION OF DRILL: CME 750
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4 1/4 I.D. HSA, 2" SPLIT SPOON	8. HOLE LOCATION: Northend of EBG access road
	9. SURFACE ELEVATION: 947.82 TOC 945.59 ground
	10. DATE STARTED: 10/28/03 11. DATE COMPLETED: 11/29/03
12. OVERBURDEN THICKNESS: 32'+	15. DEPTH GROUNDWATER ENCOUNTERED:
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 7.28' bgs @ 1200 hr/30/03
14. TOTAL DEPTH OF HOLE: 32 fbgs.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

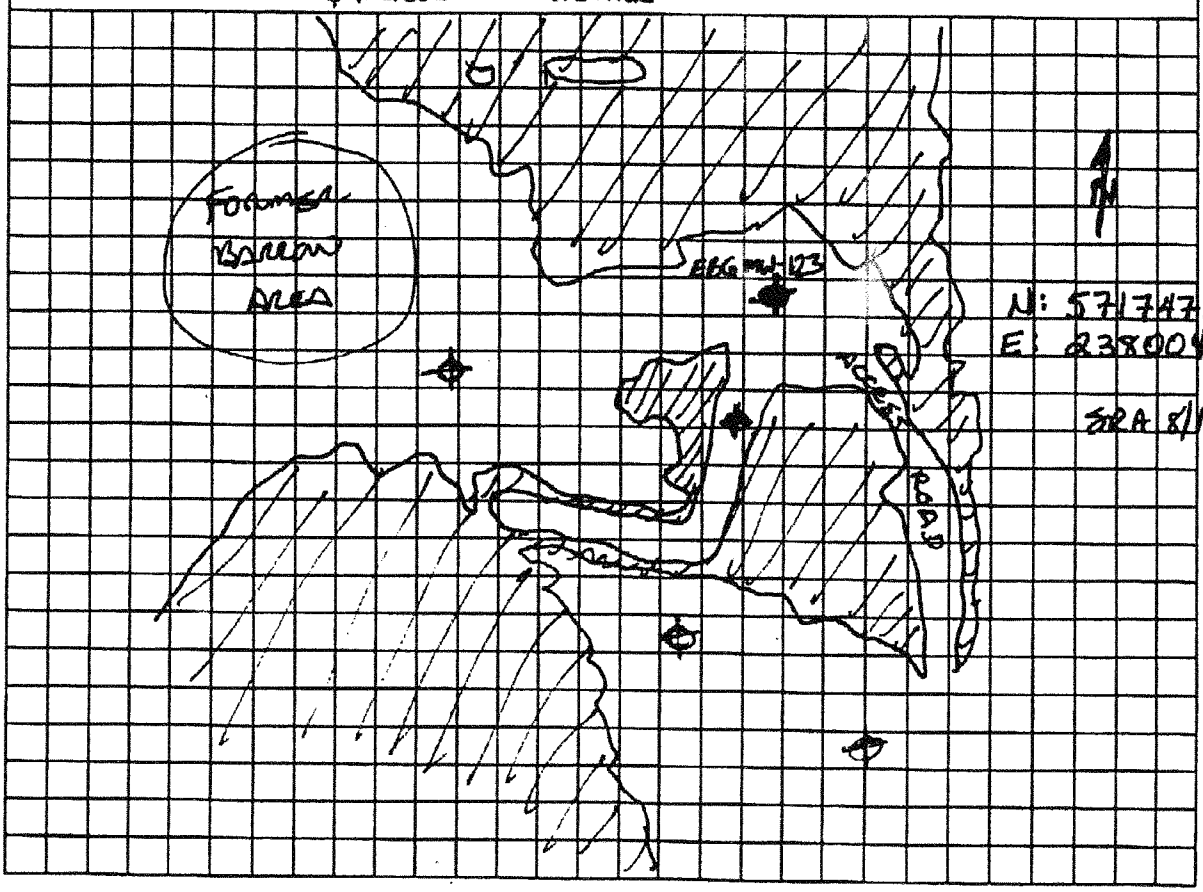
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: Ø

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
Vertical		MW-123		

LOCATION SKETCH/COMMENTS: ◆ INSTALLED WELL LOCATION ◇ PROPOSED WELL LOCATION

SCALE: 1" = 200'



N: 571747.04
E: 2380049.21

SRA 8/16/04

HTRW DRILLING LOG

HOLE NUMBER MW-123

PROJECT: Eric Burning Grounds Phase II

INSPECTOR CHARLES L. KLINGER

SHEET 2 OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	CL: LEAN CLAY, SP/SS, MOIST, LIGHT OLIVE BROWN (2.5Y5/4), APPROXIMATELY FRACTURES OF DEPOSITIONS AND CRACKING				2/2/3/4 S/S 0'-2' 1.2'/2'
	1	CLAY (7.5YR 6/1) STRONG BROWN (7.5YR 5/8) MEDIUM STIFF, MOIST				
	2	SAME AS ABOVE (SAA)				3/2/3/4 S/S 2'-4' 1.2'/2'
	3					
	4	SAA				2/3/3/4 S/S 4'-6' 1.1'/2'
	5					
	6	SAA w/ 6.6'-7.4' HIGHLY WEATHERED SANDSTONE, MORE MOIST				2/12/9/4 S/S 6'-8' 1.7'/2' comments: 0-8' bgs is fill. 8-8.4' bgs is possible fill 8.4-8.9' bgs is possible native material SRA 6/27/05
	7					
	8	8.0'-8.4' SW-SM WELL GRADED SAND WITH GRAVEL AND SILT, SATURATED, LT. YELLOWISH BROWN (2.5Y6/3)				DRILLER REPORTS WATER IN HOLE AT 8' 2/2/2/3 S/S 8'-10' 1.1'/2'
	9	8.4-8.9 PEAT, SATURATED DK. BROWN (7.5YR 3/2) CL: LEAN CLAY, STIFF, SATURATED, DK. GRAY (5Y4/1), LAMINATED - OR-VOIDS				
	10					

5

HTRW DRILLING LOG

HOLE NUMBER MW123

PROJECT: Erie Burning Grounds Phase II | INSPECTOR | SHEET 3 OF 5

ELEV. (A)	DEPTH (ft) (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	10	CL: LEAN CLAY, STIFF, SATURATED, DK. GRAY (5Y 4/1) (SAME AS ABOVE), LAMINATED				2/2/3/2 S/S 10'-12' @ 9"/2"
	11					
	12	SAS ABOVE				1/2/3/3 S/S 12'-14' 1.6'/2'
	13					
	14	SAA				1/1/1/2 S/S 14'-16' 1.7'/2'
	15					
	16	SAA, INCREASE IN SILT GRADING TO MH: ELASTIC SILT, SLIGHTLY PLASTIC SILT AND CLAY, SLIGHTLY STICKY.				3/4/4/7 S/S 16'-18' 1.1'/2'
	17					
	18	ML-MH ELASTIC SILT				2/3/7/9 18'-20' 1.8'/2'
	19					

6

HTRW DRILLING LOG

HOLE NUMBER MW-123

PROJECT: Eric Burning Grounds Phase II

INSPECTOR Charles L. Klinger

SHEET 4 OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	20	SAME AS ABOVE WITH FINE SAND STRINGERS				1/1/3/5 S/5 20'-22' 1.1'/2'
	21					
	22	SAND AS ABOVE, GRADING TO ML: SILT WITH FINE SAND, SATURATED, FIRM, DK. GRAY (5Y 4/1)				3/4/4/5 S/5 22'-24' 1.8'/2'
	23					
	24	SAA				1/1/3/4 S/5 24'-26' 1.8'/2'
	25					
	26	SAA TO 27.4				2/4/3/4 S/5 26'-28' 1.6/2'
	27					
	28	27.4-28 TILL CH FAT CLAY WITH SAND, SAND IS COARSE SAND, SUBANGULAR, GREENISH-GRAY AND DARK RED (2.5YR 3/4) ROCK CHIPS				1/1/3/2 S/5 28'-30' 1.9'/2'
	29	@28': SM SILTY SAND, SAND TO FINE SAND WITH SILT, SATURATED, DK GRAY SUBANGULAR TO SUBROUNDED MIXED LITHOLOGIES				
	30	CH FAT CLAY AS ABOVE TO 29.9'				

1

HTRW DRILLING LOG

HOLE NUMBER MW-123

PROJECT: Erie Burning Grounds Phase II

INSPECTOR CHARLES L. KLINGER

SHEET 5 OF 5

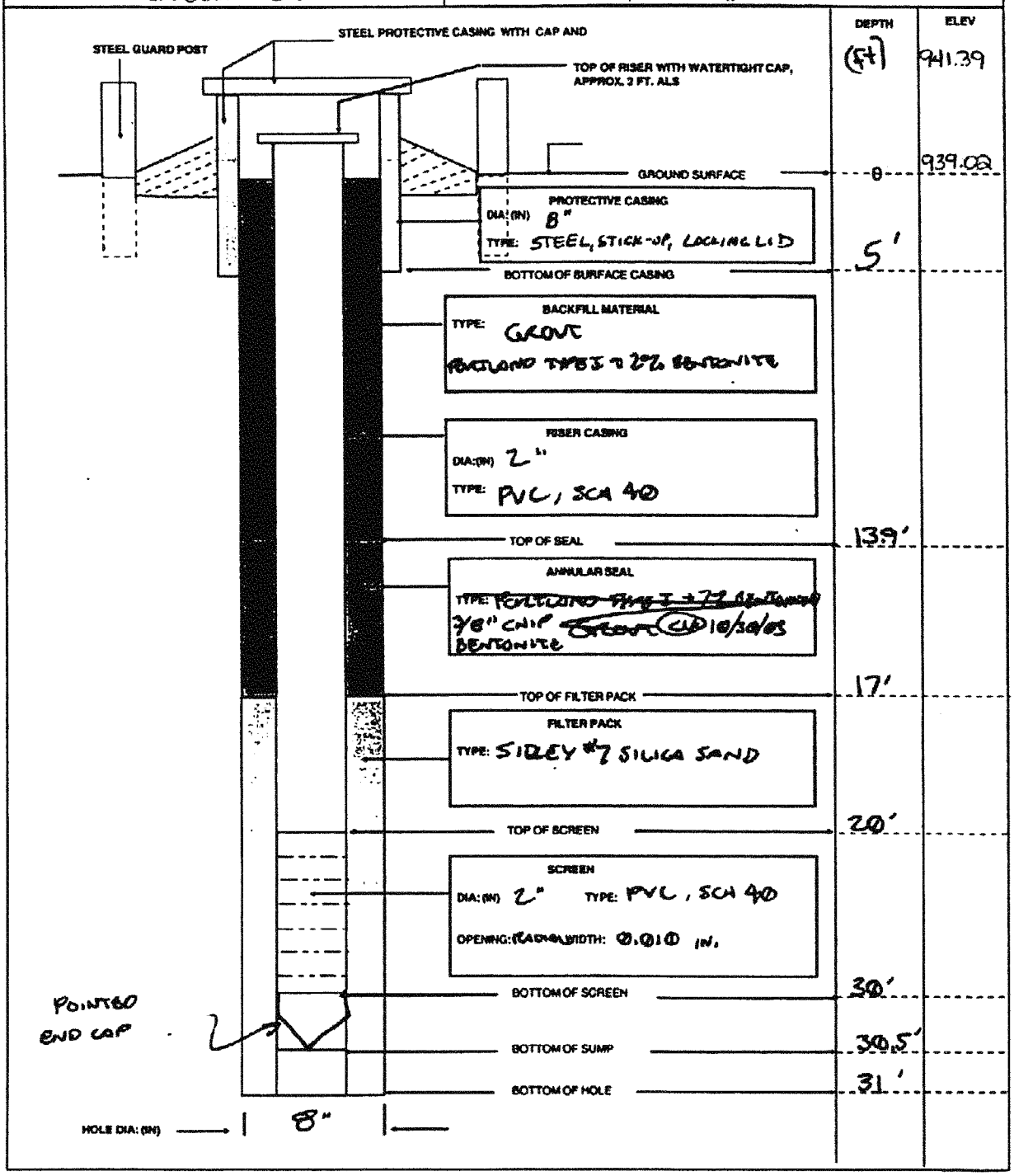
ELEV. (A)	DEPTH (B) (Ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	30	SM SAND WITH SILT, AS ABOVE (28' TO 29.6')				1/1/3/2 3/5 30'-32'
	31					
		TILL (ROUNDED TO SUBANGULAR)				
	32	CH FAT CLAY WITH GRAVEL PLASTIC, STICKY, VERY STIFF, MOIST, OLIVE GRAY (5Y 4/2)				
		END OF BORING @ 32'				
	33					
	34					

CW 10/28/03

MONITORING WELL

PROJECT NAME: Erie Burning Grounds Phase II DELIVERY ORDER NO: CY11

WELL NUMBER: EBG MW-124	BEGIN: 10/30/03	END: 10/31/03
COORDINATES: N: 571618.07 E: 2380030.24	REFERENCE POINT: Top of Casing	ELEVATION: 941.39 MSL



13

HTRW DRILLING LOG	DISTRICT: Louisville	HOLE NUMBER EBG mw-124
1. COMPANY NAME: SAIC	2. DRILL SUBCONTRACTOR: Frontier Drilling	SHEET 1 of 5

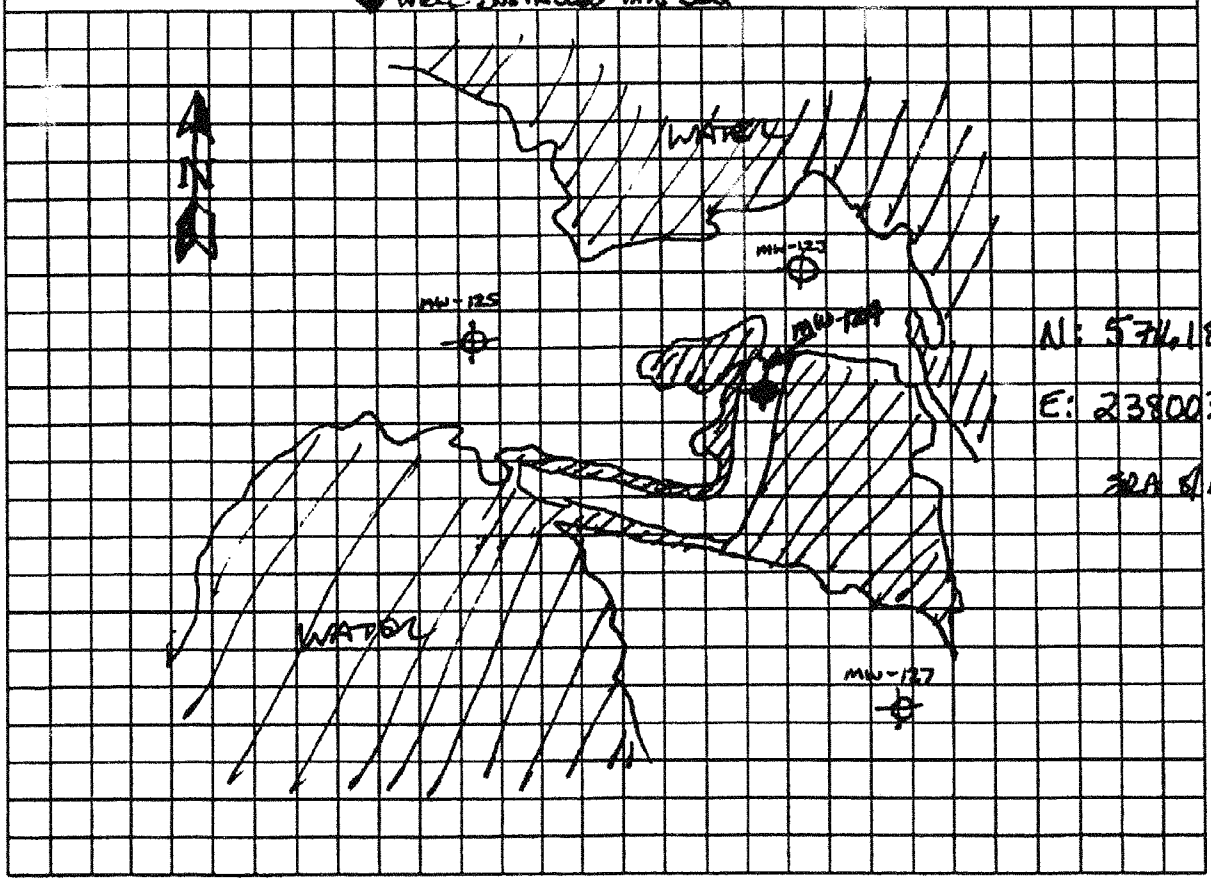
3. PROJECT: Erie Burning Grounds Phase II	4. LOCATION: Erie Burning Grounds
5. NAME OF DRILLER: Aaron Mackey	6. MANUFACTURERS DESIGNATION OF DRILL: CME 750
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4 1/4" HSA, 2" SPLIT SPOONS, SHELBY TUBES	8. HOLE LOCATION: T. area of EBG
	9. SURFACE ELEVATION: 939.02 ground
	10. DATE STARTED: 10/30/03 — 11. DATE COMPLETED: 11/3/03
12. OVERBURDEN THICKNESS: 32'+	15. DEPTH GROUNDWATER ENCOUNTERED:
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:
14. TOTAL DEPTH OF HOLE: 32' Bags	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: 0

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
		X		

LOCATION SKETCH/COMMENTS ⊕ WELL ◆ WELL INSTALLED THIS LOG — SCALE: 1" = 2000 Ft.



N: 574,18.07
E: 2380030.24
SDA 8/16/04

HTRW DRILLING LOG

HOLE NUMBER MW-124

PROJECT: Erie Burning Grounds Phase II

INSPECTOR Charles L. Kinman

SHEET 2 OF 5

ELEV. (A)	DEPTH (B) (Ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	0'-0.3 SP-SM: POORLY GRADED SAND WITH SILT AND ORGANIC MATERIAL, SATURATED NO PLASTICITY, BLACK (10YR 2/1)				1/9/6/3 S/S 0'-2' 1.0'/2'
	1	SANDSTONE, WEATHERED, GRAY (N6/0) AND YELLOWISH BROWN (10YR 5/8)				
	2	OL/OH ORGANIC MUCK FROM 2.0'-2.2'				1/1/1/1 S/S 2'-4' 0.8'/2'
	3	CH FAT CLAY, MOIST, HIGH PLASTICITY, STICKY, LAMINATED, GRAY (5Y 5/1)				
	4	SAME AS ABOVE CH FAT CLAY, COLOR CHANGES FROM GRAY TO OLIVE BROWN (2.5Y 4/4)				1/2/3/3 S/S 4'-6' 1.8'/2.0'
	5	AND BACK TO GRAY AGAIN				
	6					7/5/8/4 S/S 6'-8' 2.0'/2.0'
	7	SP POORLY GRADED SAND, WET, MEDIUM TO FINE, SUBANGULAR TO SUBROUNDED GRAYISH-BROWN (2.5Y 5/2)				
	8	CH FAT CLAY, SAME AS ABOVE @ 2.2'-6.4'				1/2/3/5 S/S 8'-10' 1.7'/2'
	9					
	10					

15

HTRW DRILLING LOG

HOLE NUMBER MW-129

PROJECT: Erie Burning Grounds Phase II | INSPECTOR CHARLES L. KLINGER | SHEET 3 OF 5

ELEV. (A)	DEPTH (B) (Ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	10	SAME AS ABOVE (CH: FAT CLAY, LAMINATED) MOIST, GRAY				1/3/5/8 S/S 10'-12' 1.9'/2.0'
	11					
	12	SAME AS ABOVE, GRADING TO CL: LEAN CLAY WITH MEDIUM PLASTICITY AND TO INCREASED SILT W. THIN STRINGERS, MOIST, GRAY (N 6/0) SLIGHTLY SILTY.				9/18/12/10 S/S 12'-14' 1.7'/2.0'
	13					
	14	SAME AS ABOVE				2/2/4/3 S/S 14'-16' 1.9'/2'
	15	SAND STRINGER				
	16	SAME AS ABOVE				6/6/4/5 S/S 16'-18' 2'/2'
		SAND STRINGER, WET				
		ML SANDY SILT, MOIST, NON PLASTIC, GRAY (N 6/0)				
	17	SP POORLY GRADED SAND, WET, MEDIUM TO FINE SATURATED GRAY (N 6/0) SUBANGULAR				
		ML SANDY SILT AS ABOVE				
	18				SHELBY EBA 284 TUBE	PUSHED SHELBY TUBE FROM 18'-20' Fair recovery (~24") porosity 0.255 TOC < .10 SC-SM wet density 140.1 dry density 123.1 Specific Gravity 2.65
	19					
	20					

HTRW DRILLING LOG

HOLE NUMBER MW-12A

PROJECT: Erie Burning Grounds Phase II | INSPECTOR Charles L. Kinner | SHEET 4 OF 5

ELEV. (A)	DEPTH (B) (ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	20	SP: POORLY GRADED SAND, MEDIUM TO FINE, SUBANGULAR, SATURATED GRAY (N 6/0)				2/2/2/2 S/S 20'-22' 2'/2'
	21					
	22	SAME AS ABOVE				4/3/3/3 S/S 22'-24' 1.8'/2.0'
	23					
	24	SAA				3/7/7/8 S/S 24'-26' 2'/2'
	25	SW-SM WELL GRADED SAND WITH GRAVEL AND SILT COARSENING WITH DEPTH, SATURATED, GRAY (N 6/0)				
		SP AS ABOVE				
	26	ML SILT AND FINE V. FINE SAND			Shelby Tube No Recovery	COLLECT SHELBY TUBE FROM 26' TO 28' FROM. ZERO (0') RECOVERY
	27					
	28	SP: POORLY GRADED SAND, FINE TO MEDIUM, SATURATED, SUBANGULAR, GRAY (N 6/0)				6/10/9/11 1.0'/2'
		ML: SILT COMPACTED GRAY MOIST				
	29					
	30					

17

HTRW DRILLING LOG

HOLE NUMBER MW-124

PROJECT: Erie Burning Grounds Phase II

INSPECTOR Charles L. Kinser

SHEET 5 OF 5

ELEV. (A)	DEPTH (B) (Ft.)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	30	ML: SILT, LOW PLASTICITY, V. FINE SAND STRINGERS AND SUBANGULAR GRAVEL (5%), MOIST, GRAY (N6/0)				9/13/16/21 S/S 30'-32' 1.9/2'
	31	NOTE: AUGERED W/ 8" O.D. HSA TO 31' BGS				
	32	END OF BORING @ 32' BGS (SPLIT SPOON)				
	33					
	34					
	35					
	36					
	37					
	38					
	39					
	40					

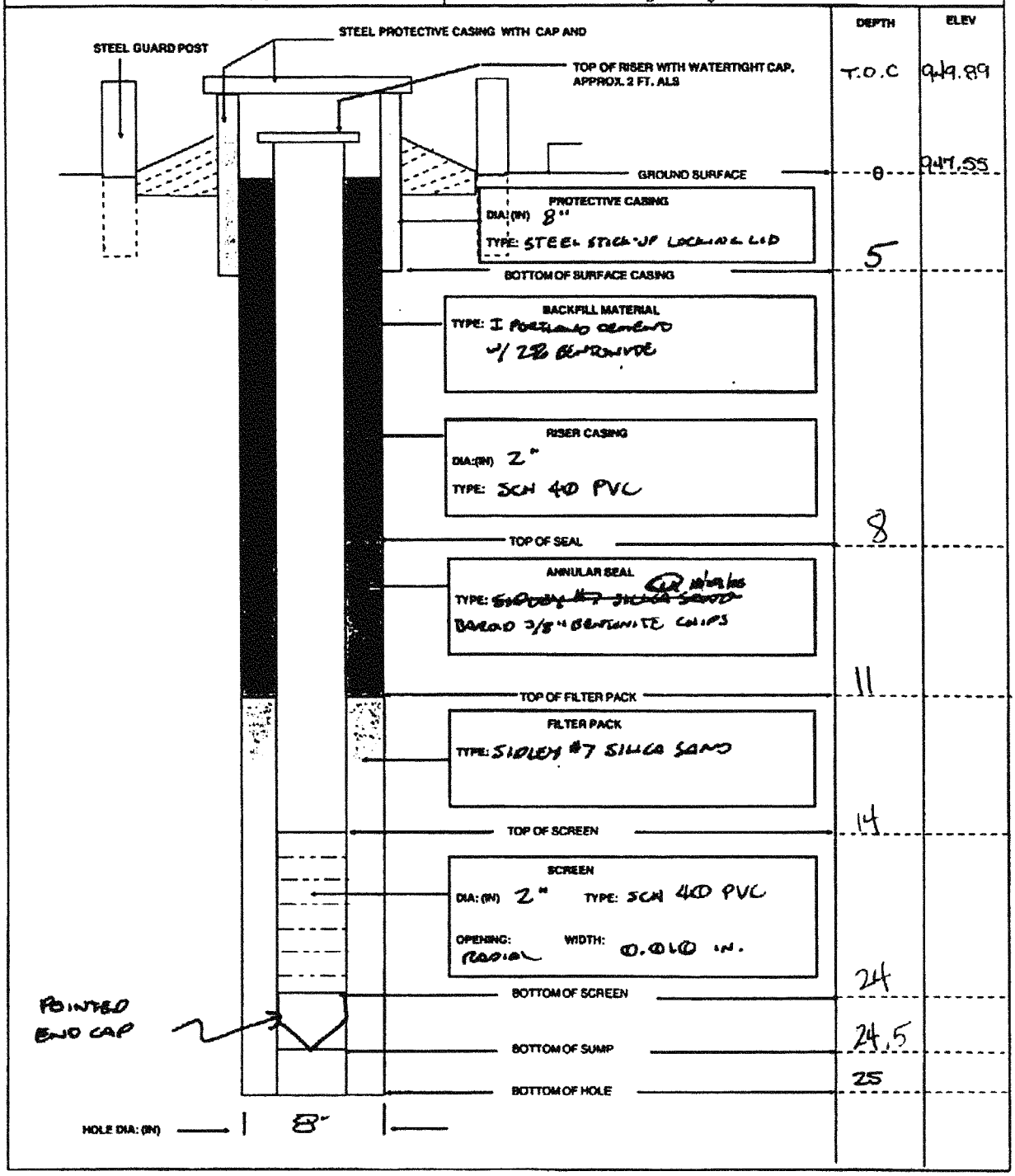
10/30/03

24

MONITORING WELL

PROJECT NAME: Erie Burning Grounds Phase II **DELIVERY ORDER NO.** [illegible]

WELL NUMBER: EBG mw-125	**BEGIN:** 10/29/03	**END:** 10/29/03
COORDINATES: N: 571655.63 E: 2379699.20	**REFERENCE POINT:** Top of Casing	**ELEVATION:** 949.89 MSL



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HTRW DRILLING LOG	DISTRICT: Louisville	HOLE NUMBER EBG MW-125
1. COMPANY NAME: SAIC	2. DRILL SUBCONTRACTOR: FRONTZ Drilling	SHEET 1 OF 4

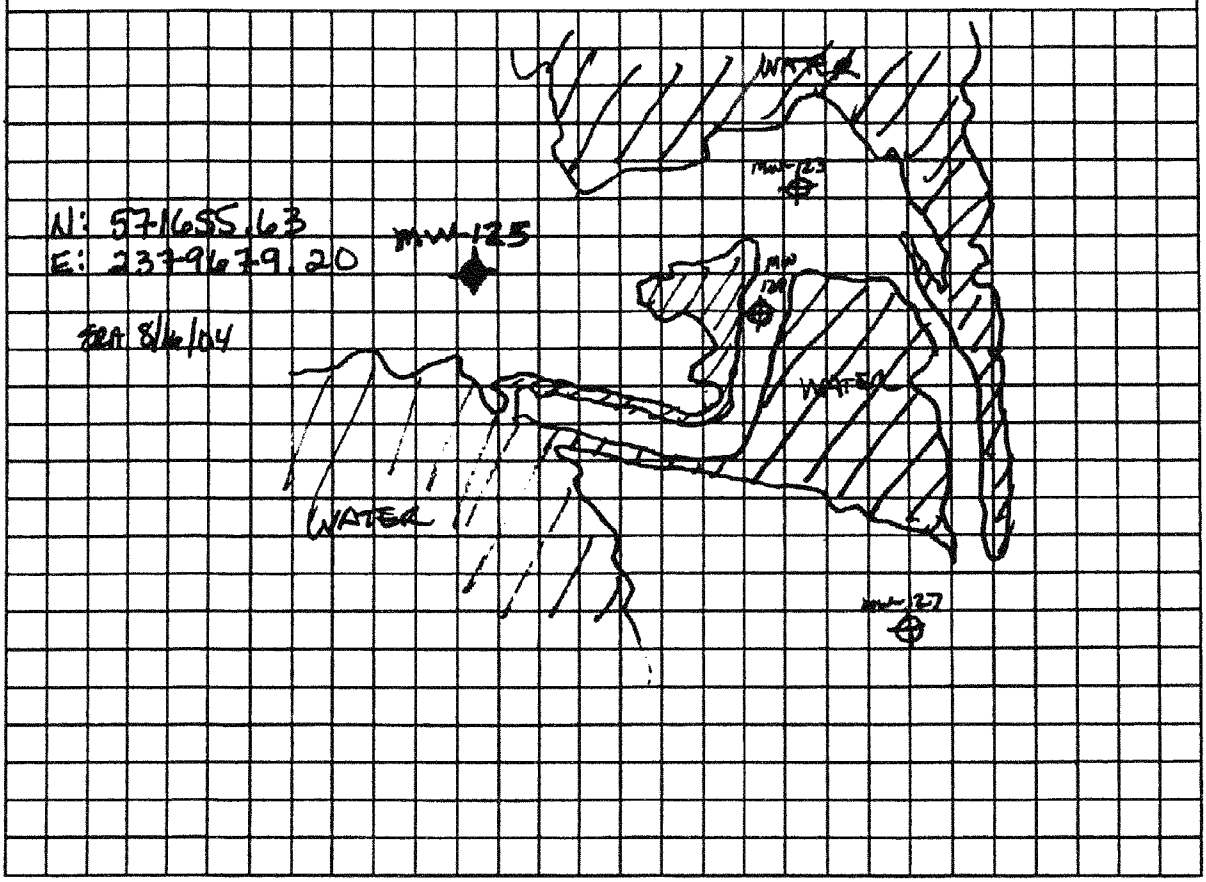
3. PROJECT: Erie Burning Grounds Phase II	4. LOCATION: Erie Burning Grounds
5. NAME OF DRILLER: Aaron Mackey	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 750
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4 1/4" ID HSA, 2" split spoons, Shelby Tubes	8. HOLE LOCATION: EBG on Track 49 Embankment
	9. SURFACE ELEVATION: 947.55 ground
	10. DATE STARTED: 10/29/03 — 11. DATE COMPLETED: 10/29/03
12. OVERBURDEN THICKNESS: 25'	15. DEPTH GROUNDWATER ENCOUNTERED:
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 9.18' bgs @ 205 10/30/03
14. TOTAL DEPTH OF HOLE: 25' BGS	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: 0

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	—	—	—			

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
Vertical	—	EBG MW-125	—	Charles L. Kunger

LOCATION SKETCH/COMMENTS — SCALE: 1" = 200'



HTRW DRILLING LOG

HOLE NUMBER MW-125

PROJECT: Erie Burning Grounds Phase II | INSPECTOR CHARLES L. KLINGER | SHEET 2 OF 4

ELEV. (A)	DEPTH (B) (ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	0'-0.3' ML: SILT WITH SAND AND TRACE GRAVEL; MOIST, SLIGHTLY PLASTIC, SOFT NON-STICKY DK. GRAYISH BROWN (10YR 4/2)				2/2/3/4 S/S 0'-2' 1.0'/2'
	1	CL: LEAN CLAY WITH FINE SAND. MEDIUM PLASTICITY, MOIST, FIRM YELLOWISH BROWN MATRIX (10YR 5/4) WITH REDDISH-ORANGE FEATURES HIGH CHROMA MOTTLES BROWNISH YELLOW (10YR 6/8) DEPOSITIONAL LT. GRAY (N 7/0)				
	2					3/4/7/4 S/S 2'-4' 1.1/2'
	3					
	4	SAME AS ABOVE (SAA)				1/2/4/7 S/S 4'-6' 1.0/2'
	5					
	6	SAME AS ABOVE WITH SANDSTONE FROM 6.5' TO 8' (STUCK IN SHOE OF S/S)				4/5/11/11 S/S 6'-8' 1.5'/2'
	7					
	8	SANDSTONE				15/6/4/3 O/S 8'-10' 0.4'/2'
	9					Comments: 0 - 10.2' bgs is fill material SRA 6127/05
	10					

HTRW DRILLING LOG

HOLE NUMBER AW-125

PROJECT: Erie Burning Grounds Phase II | INSPECTOR Charles L. Kinner | SHEET 3 OF 4

ELEV. (A)	DEPTH (B) (FT)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	10	SANDSTONE				3/3/3/3 S/6 10'-12' 1A/2'
	11	ML SANDY SILT, V. FINE SAND, MOIST GRADING TO SATURATED, SOFT, NON PLASTIC, GRAY (N 6/0) GRADING TO DK. GRAY AND BLUEISH-GREEN, WITH VERY DISTINCT REDDISH-YELLOW PORE LININGS (5YR 6/8)				Comments: 10.2 – 12.0' bgs is possible native material SEA 10/27/05
	12					
	13	SP: POORLY GRADED F. SAND, TRACE SILT. SATURATED, GRAY (N 6/0) GRADING TO BROWNISH GRAY AND BACK TO GRAY				3/4/6/5 S/8 12'-14' 1.3'/2'
	14	SAME AS ABOVE				1/2/2/3 S/5 14'-16' 1.4'/2'
	15					
	16					ATTEMPTED TO COLLECT SHELBY TUBE FROM 16' HAD HEAVE IN AUGER COULD NOT PUSH TUBE MORE THAN 2" HAD NO RECOVERY
	17					
	18	SAA				1/3/4/5 S/5 18'-20' 1.7'/2'
	19					
	20					

EBG-MW-

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HTRW DRILLING LOG

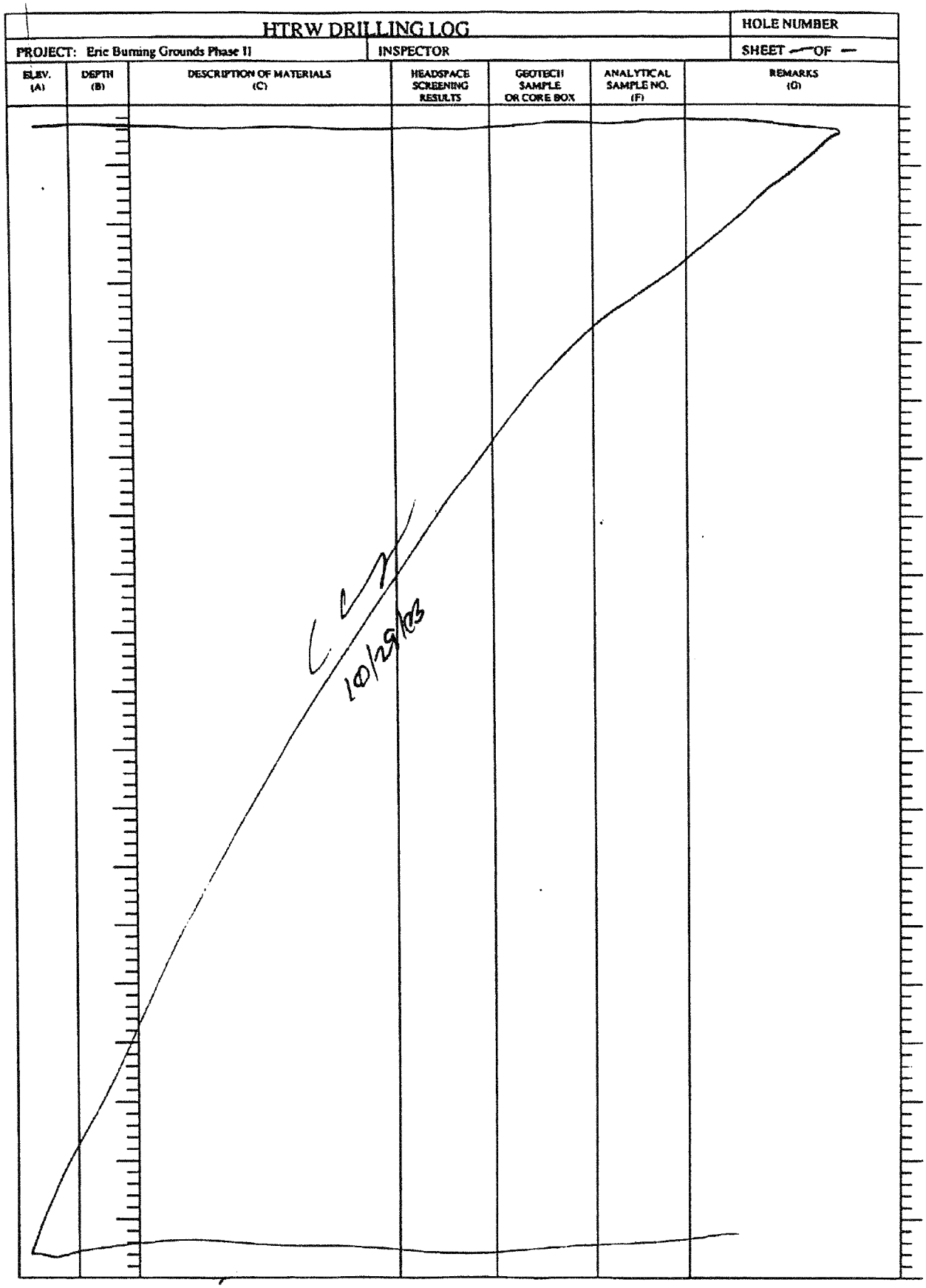
HOLE NUMBER 125

PROJECT: Erie Burning Grounds Phase II

INSPECTOR Charles L. Klinger

SHEET 4 OF 4

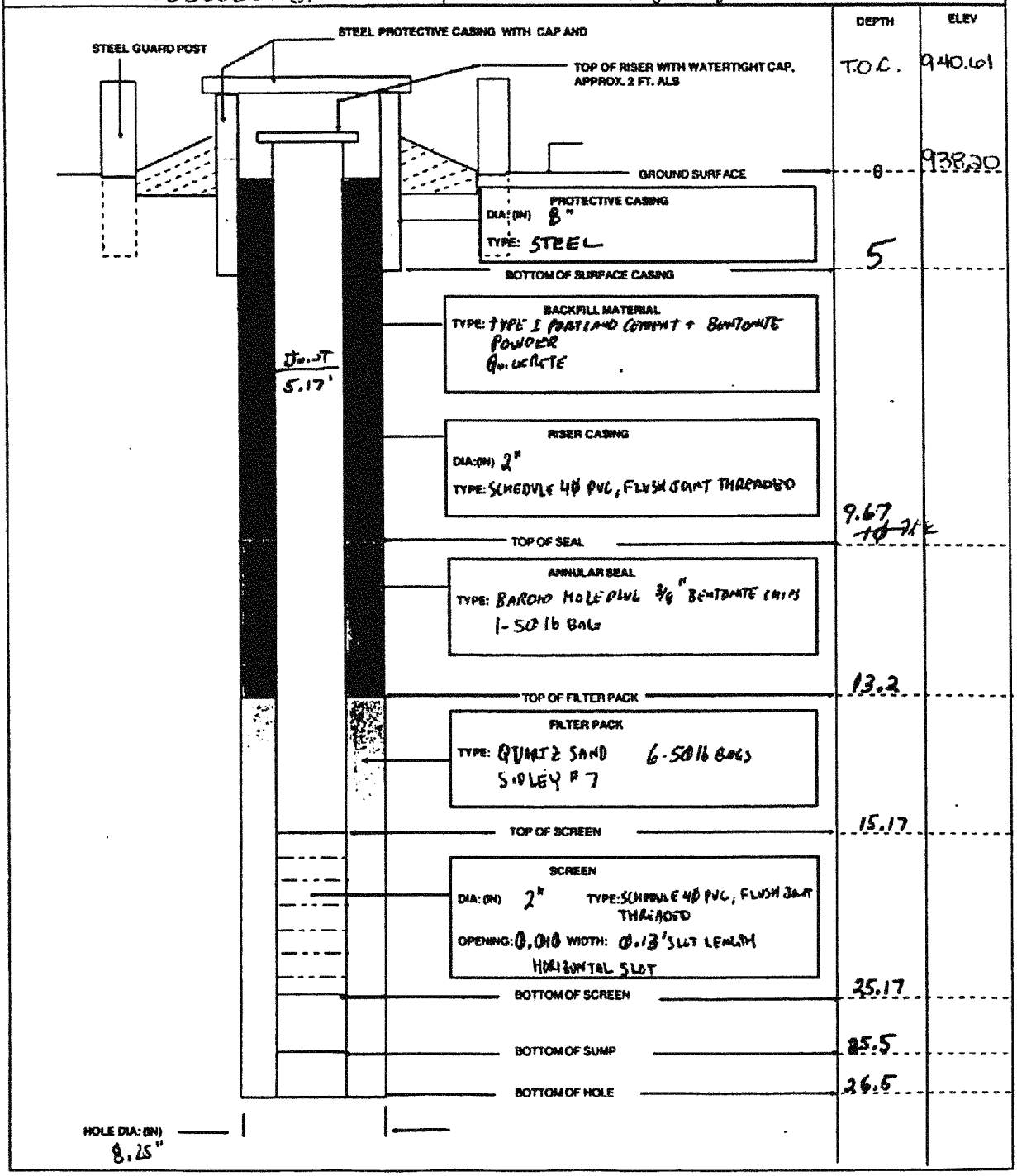
ELEV. (A)	DEPTH (B) (Ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	20	SOME AS ABOVE SP: POORLY GRADED FINE TO MEDIUM SAND, GRAY SATURATED				1/2/5/7 S/S 20'-22' 1.6'/2'
	21					
	22	SAA SC/SM			Shelby Tube EBG 0005	COLLECTED SHELBY TUBE FROM 22' TO 24.5' 25.25" RECOVERY - SATURATED. HAD TO USE HAMMER TO DRIVE TUBE. @ 1510 Porosity 0.316 TOC <.10 Wet Density 126.3
	23					
	24					Dry Density 107.5 Specific Gravity 2.64
	25	END OF BORING @ 25' BGS				
	26					
	27					
	28					
	29					
	30					


HTRW DRILLING LOG
HOLE NUMBER
PROJECT: Erie Burning Grounds Phase II
INSPECTOR
SHEET — OF —
ELEV. (A)
DEPTH (B)
DESCRIPTION OF MATERIALS (C)
HEADSPACE SCREENING RESULTS
GEOTECH SAMPLE OR CORE BOX
ANALYTICAL SAMPLE NO. (F)
REMARKS (G)
10/29/03

MONITORING WELL

PROJECT NAME: [illegible] DELIVERY ORDER NO: [illegible]

WELL NUMBER: EBG-MW-126	BEGIN: 10-28-03 @ 1100	END: 10-29-03 1006
COORDINATES: N: 572348.81 E: 2380307.31	REFERENCE POINT: Top of Casing	ELEVATION: 940.61 MSL



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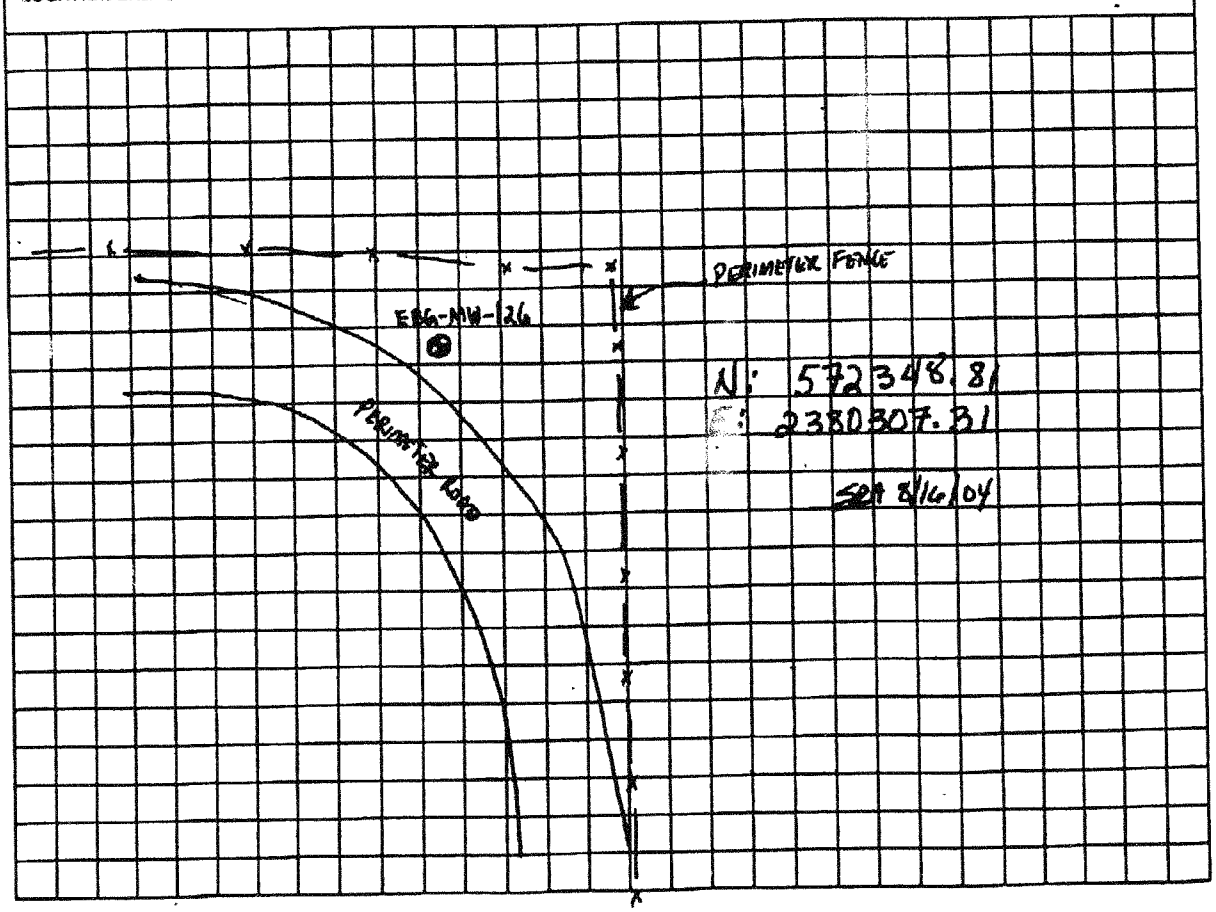
HTRW DRILLING LOG	DISTRICT: Louisville	HOLE NUMBER EBG-MW-126
1. COMPANY NAME: SAIC	2. DRILL SUBCONTRACTOR: Frontz	SHEET 1 OF 5

3. PROJECT: ~~Ramsdell Quarry Phase I RI~~ ERIE BURNING GROUNDS PHASE II RI	4. LOCATION: ~~Ramsdell Quarry~~ ERIE BURNING GROUNDS
5. NAME OF DRILLER:	6. MANUFACTURERS DESIGNATION OF DRILL: CME 75
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4½" ID HOLLOW STEM AUGER, 2" DIAM. SPLIT SPOON SAMPLER	8. HOLE LOCATION: NORTH EAST CORNER OF ERIE BURNING GROUNDS ALONG PERIMETER ROAD/FENCE
	9. SURFACE ELEVATION: 938.20 ground 'amsl
	10. DATE STARTED: 10-28-03 / 11. DATE COMPLETED: 11/24/03
12. OVERBURDEN THICKNESS >28'	15. DEPTH GROUNDWATER ENCOUNTERED:
13. DEPTH DRILLED INTO ROCK N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:
14. TOTAL DEPTH OF HOLE 28' BGL	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES NA			
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
N/A	N/A	N/A	N/A	N/A	NA	
22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR		
		X				

LOCATION SKETCH/COMMENTS — SCALE: ~1"=20'



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HTRW DRILLING LOG

PROJECT: ~~Ramadell Quarry Phase I RI~~ ERIE BURNING GROUNDS PHASE II RI | INSPECTOR TODD EBBY | HOLE NUMBER EBG-MW-126 | SHEET 2 OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		SURFACE: GRASS				
		CLAYEY SILT (ML): VERY DARK GRAY (2.5Y 3/2) ~20% SLAG GRAVEL, MOIST, SLIGHTLY PLASTIC, MOTTLED, ROOT ZONE, SOFT (0-0.5)				SPLITSPOON 0-2' BGL 1.2/2 REC. 3/7/9/9
	1	SILT (ML): OLIVE (5Y 4/4), ~20% SS GRAVEL, ROUNDED TO SUB-ROUNDED, DENSE, SLIGHTLY MOIST, TRACE ROOTS, ALSO QTZ PEBBLES (0.5-1.2')				
		ACCUMULATED LOST CORE				
	2	~~HAND~~ 16-23-43 ~~TO~~ SILTY CLAY (CL): GREENISH GRAY (10Y 5/1), MED. DENSE, SLIGHTLY MOIST, MED. PLASTICITY, ROOT FRAGMENTS				HAND AUGURED TO 4' TO CONTINUE TO CLEAR FOR UXO - ALL CLEAR
	3					
	4	SILTY CLAY (CL): GRAY (5N), MOIST, SOFT, MED. PLASTICITY				SPLITSPOON 4-6' BGL REC: 1.6/2' BLOWS: 2/1/2/2
	5	(4-5.6')				
		ACCUMULATED LOST CORE				
	6	SILTY CLAY (CL): SAME AS ABOVE W/ 1-2mm FINE SAND INTERBEDS				SPLITSPOON 6-8' BGL REC: 1.7/2' BLOWS: WT/WT/2/2.
	7	(6-7.7' BGL)				
		ACCUMULATED LOST CORE				
	8	SILTY CLAY (CL): GRAY (5N), MOIST, SOFT 1-2mm FINE SAND INTERBEDS UP TO 1" THICK FINE SAND INTERBEDS - SATURATED @ 8' BGL				SPLITSPOON 8-10' BGL REC: 1.5/2' BLOWS: WT/2/2/4
	9	(8-9.5' BGL)				
		ACCUMULATED LOST CORE				
	10					

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HTRW DRILLING LOG

HOLE NUMBER [illegible]

PROJECT: ~~Ramsdell Quarry Phase I RI~~ ERIE BORNING GROUNDS PHASE II RI

INSPECTOR TODD EMBY

SHEET 3 OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		SILTY CLAY (CL) WITH FINE SAND INTERBEDS: SAME AS ABOVE, POSSIBLE L.S. FRAGS @ 11.5' BGL				SPLIT SPOON 10-12' BGL REC: 1.7/2.0 BLOWS: WT/4/5/4
	11	(10-11.5' BGL)				
		SILTY SAND (SM): GRAY (5N) WELL GRADED FINE TO COARSE SAND, SATURATED				
		ACCUMULATED LOST CORE				
	12	SILTY SAND (SM): GRAY (5N) FINE TO MED. GRAINED, SATURATED, TRACE COARSE SAND				SPLIT SPOON 12-14' BGL REC: 2/2 BLOWS: 1/3/5/4
	13	(12-13.2' BGL)				
		SILTY SAND (SM): GRAY (5N) FINE GRAINED, SATURATED				
	14	(13.2-14.4')				SPLIT SPOON 14-16' BGL REC: 1.7/2 BLOWS: 4/2/3/3
		SANDY SILT (ML-SM): GRAY (5N) ~50% OF EACH, SAND - VERY FINE GRAINED, SATURATED, SOFT				
	15	(14.4-15.7' BGL)				
		ACCUMULATED LOST CORE				
	16	SILTY SAND (SM): GRAY (5N) VERY FINE TO FINE GRAINED, SATURATED, SOFT (16-18)				SPLIT SPOON 16-18' BGL REC: 2/2 BLOWS: 1/3/2/3
	17					
	18	V. FINE SAND (18-19)				SPLIT SPOON 18-20' REC 2/2 BLOWS: WT/1/3/2
	19	INCREASING SILT TO ~50% W/ V. FINE GRAINED SAND (ML-SM) (19-20)				
	20					

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HTRW DRILLING LOG

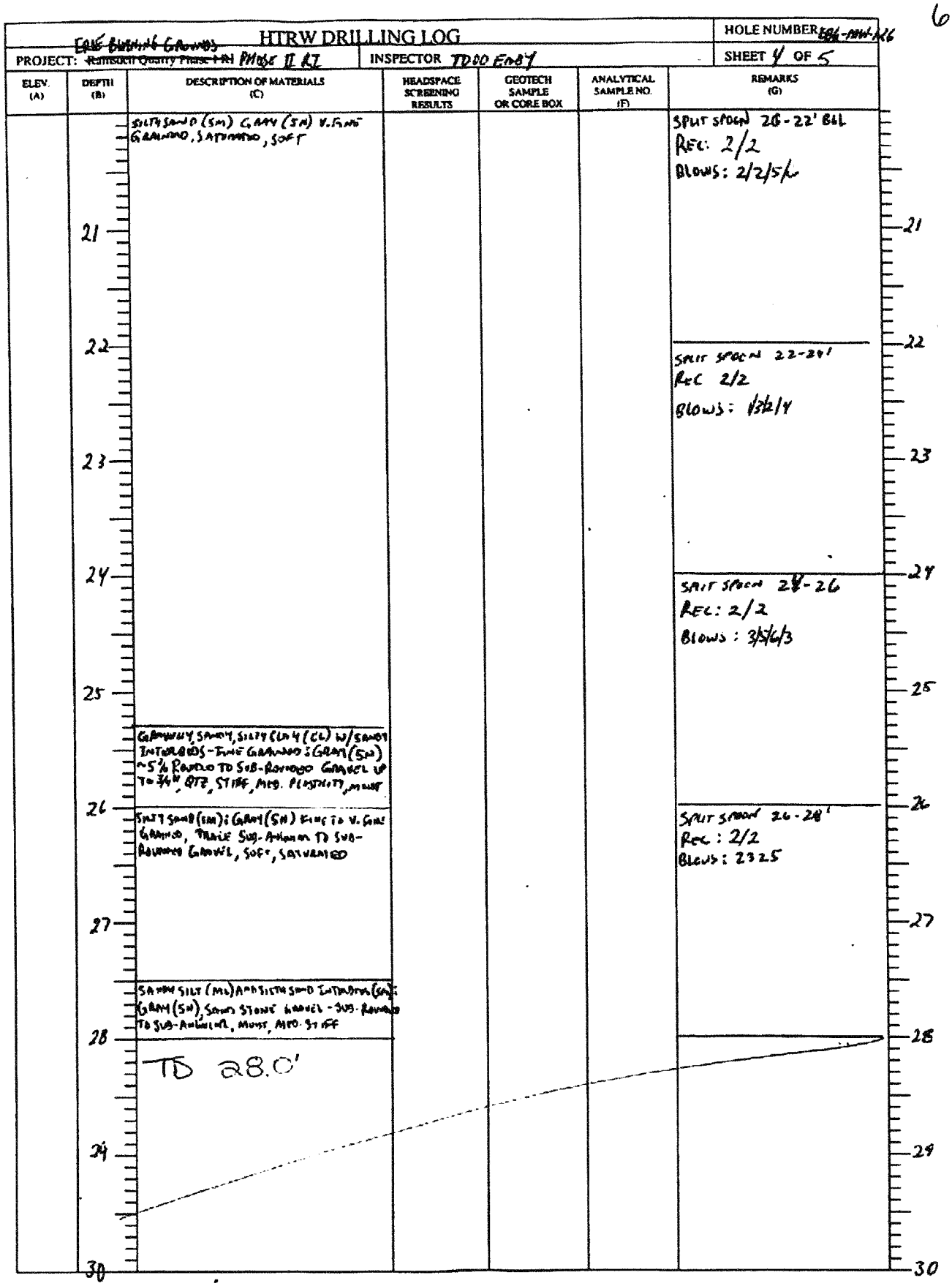
HOLE NUMBER EBG-MW-126

PROJECT: ~~Ramsdell Quarry Phase I RI~~ ERIE BURNING GROUNDS PHASE II RI

INSPECTOR TODD ENBY

SHEET 4 OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		SILTY SAND (SM) GRAY (SN) V. FINE GRAINED, SATURATED, SOFT				SPLIT SPOON 20-22' BGL REC: 2/2 BLOWS: 2/2/5/6
	21					
	22					SPLIT SPOON 22-24' REC 2/2 BLOWS: 1/3/2/4
	23					
	24					SPLIT SPOON 24-26 REC: 2/2 BLOWS: 3/5/6/3
	25					
		GRAVELLY, SANDY, SILTY CLAY (CL) W/SANDY INTERBEDS - FINE GRAINED; GRAY (SN) ~5% ROUNDED TO SUB-ROUNDED GRAVEL UP TO 3/4", QTZ, STIFF, MED. PLASTICITY, MOIST				
	26	SILTY SAND (SM); GRAY (SN) FINE TO V. FINE GRAINED, TRACE SUB-ANGULAR TO SUB-ROUNDED GRAVEL, SOFT, SATURATED				SPLIT SPOON 26-28' REC: 2/2 BLOWS: 2325
	27					
		SANDY SILT (ML) AND SILTY SAND INTERBEDS (SM); GRAY (SN), SAND STONE GRAVEL - SUB-ROUNDED TO SUB-ANGULAR, MOIST, MED. STIFF				
	28	TD 28.0'				
	29					
	30					



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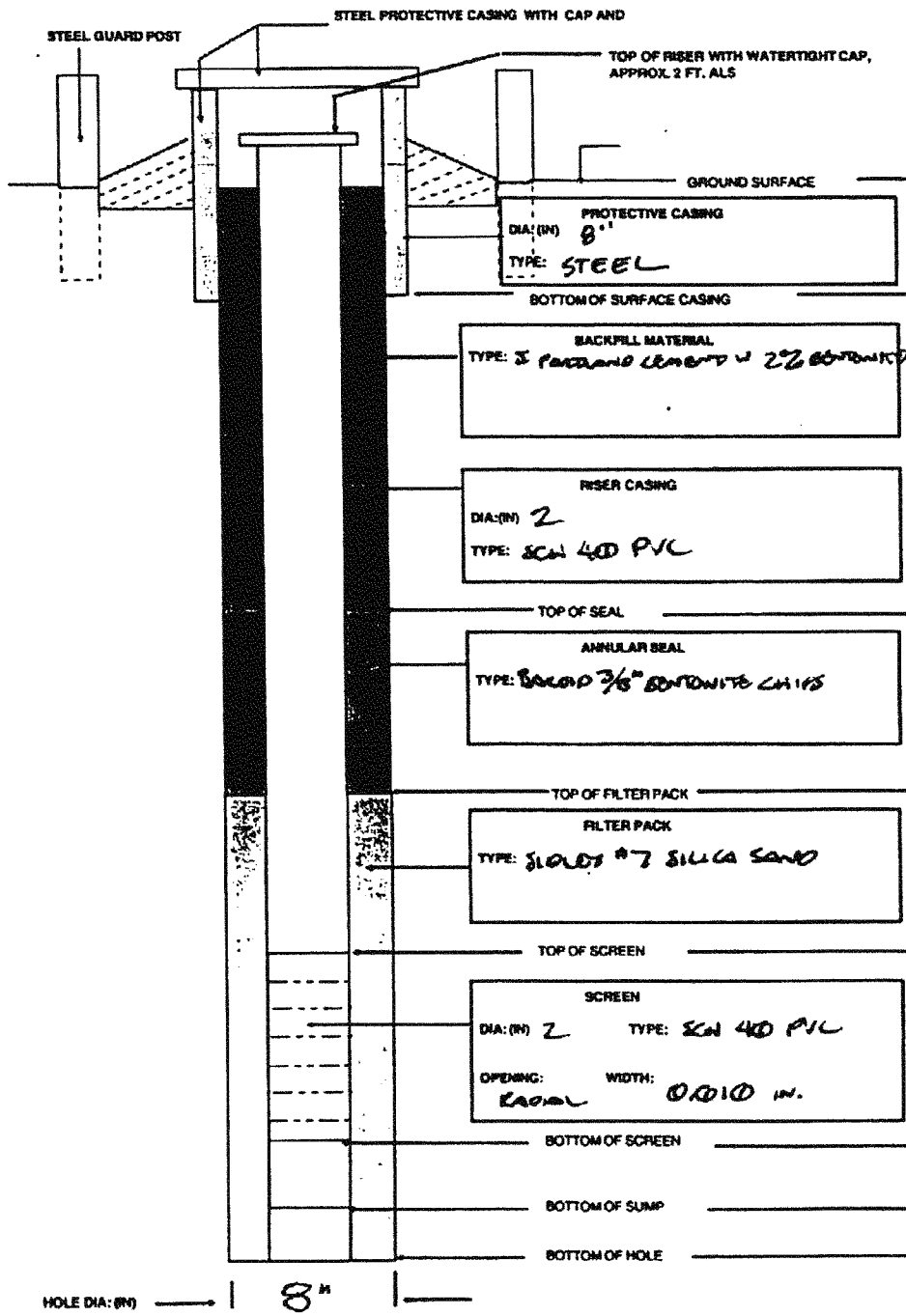
MONITORING WELL

PROJECT NAME: Erie Burning Grounds Phase II DELIVERY ORDER NO. [illegible]

WELL NUMBER: EBG MW-127	BEGIN: 10/30/03	END: 10/31/03
COORDINATES: N: 571083.61 E: 2380172.16	REFERENCE POINT: Top of Casing	ELEVATION: 943.07 MSL



DEPTH	ELEV
T.O.C.	943.07
0	940.21
5	
12.2'	
15.8'	
19.0'	
29.0'	
29.5'	
30.0'	

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HTRW DRILLING LOG	DISTRICT: Louisville	HOLE NUMBER: EBG MW-127
1. COMPANY NAME: SAIC	2. DRILL SUBCONTRACTOR: Frontz	SHEET 1 of 5

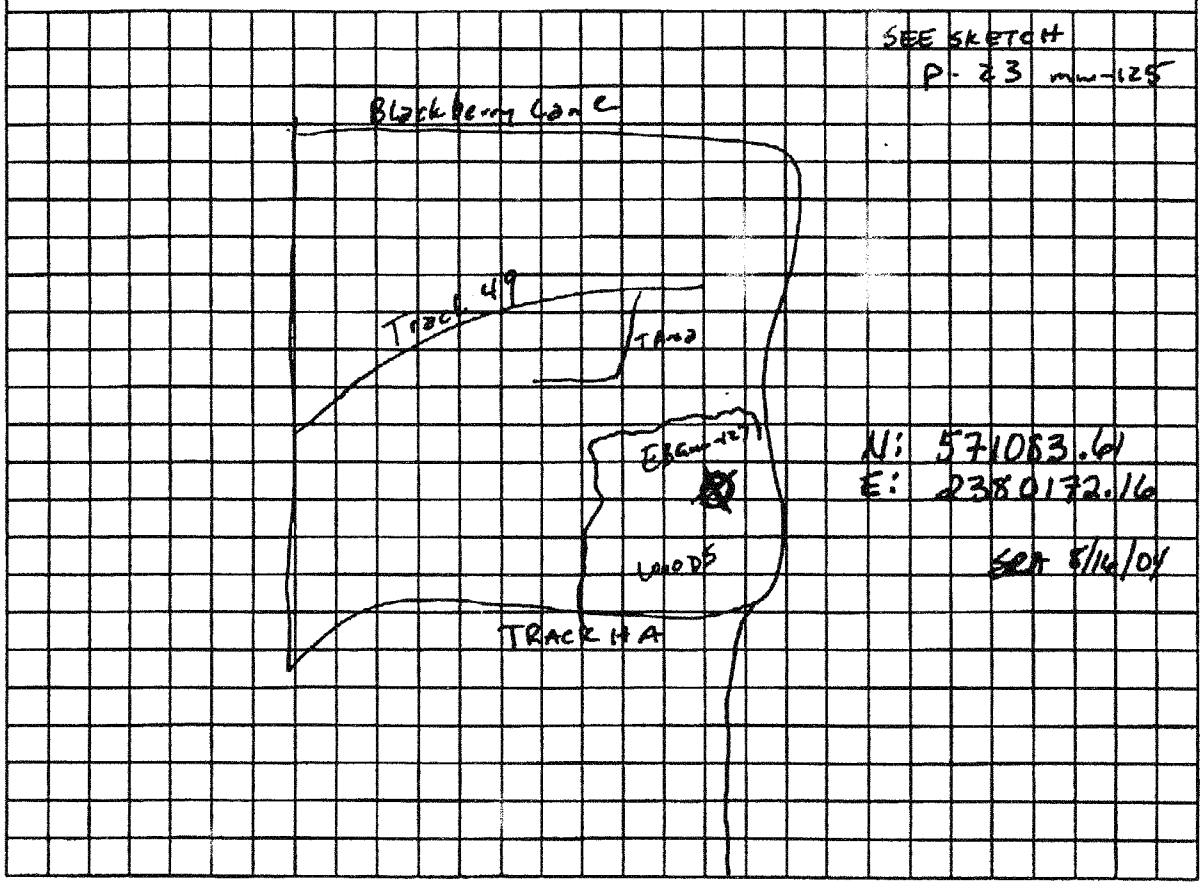
3. PROJECT: Erie Burning Grounds Phase II	4. LOCATION: Erie Burning Grounds
5. NAME OF DRILLER: Aaron Mackey	6. MANUFACTURERS DESIGNATION OF DRILL: CME 75
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA; 2" SPLITSPOONS; SHELBY TUBES	8. HOLE LOCATION: EBG, SE
	9. SURFACE ELEVATION: 940.21 (ground) 'amsl
	10. DATE STARTED: 10/30/03 — 11. DATE COMPLETED: 10/31/03
12. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 12' bgs
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:
14. TOTAL DEPTH OF HOLE: 30.4'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
		X		M Clay

LOCATION SKETCH/COMMENTS — SCALE: NA



HTRW DRILLING LOG

HOLE NUMBER MW-127

PROJECT: Erie Burning Grounds Phase II | INSPECTOR | SHEET 2 OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	ML SANDY SILT, V. FINE SAND, SUBANGULAR, NOT. V. DK. GRAYISH BROWN (10YR 3/2)				1/1/1/3 S/S 0'-2' 1.4'/2'
	1	CL LEAN CLAY WITH SAND GRADING TO SP-SC POORLY GRADED SAND WITH CLAY, WET, LT. GRAY (10YR 7/2) MATRIX WITH HIGH CHROMA MOTTLES YELLOWISH BROWN (10YR 5/6)				
	2	SAME AS ABOVE (SP-SC) MORE PRONOUNCED REDOXIMORPHIC FEATURES GRAY (N5/0) AND DK. YELLOWISH BROWN (10YR 4/6), STIFF LOW PLASTICITY, MOIST				3/4/5/5 S/S 2'-4' 1.4'/2'
	3					
	4	SP POORLY GRADED SAND, FINE, SUBANGULAR, GRAY (N 6/0) SOFT, MOTTLED				1/1/1/1 S/S 4'-6' 2'/2'
	5					
	6	ML SILT, NON PLASTIC, MOIST, GRAY (N 6/0), STIFF, LAMINATED				3/7/9/8 S/S 6'-8' 1.6'/2'
	7					
	8	SAME AS ABOVE				2/2/3/5 S/S 8'-10'
	9					
	10					

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HTRW DRILLING LOG

HOLE NUMBER EBGMW127

PROJECT: Erie Burning Grounds Phase II | INSPECTOR Charles L. Kinney | SHEET 3 OF 5

ELEV. (A)	DEPTH (B) (Ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	10	ML: SILT, STIFF, LAMINATED, MOIST, GRAY (N 6/0) NO PLASTICITY				3/3/5/4 S/S 10'-12' 1.9'/2'
	11					
	12	SAME AS ABOVE NO PLASTICITY, WET				6/5/11/10 S/S 12'-14' 2'/2'
	13					
	14	INCREASING AMOUNT OF SAND GRADING TO V.FINE SAND SAME AS ABOVE				10/30/05 @ 14' BGS, END DRILLING TODAY. 3/4/6/6 S/S 14'-16' 1.7'/2'
	15					
	16					5/7/7/7 S/S 16'-18' 1.4'/2'
	17	SP: POORLY GRADED FINE AND VERY FINE SAND; SOFT, SATURATED, GRAY (N 6/6) SOME SILT				
	18	SAME AS ABOVE				3/5/7/7 S/S 18'-20' 1.4'/2'
	19					
	20					

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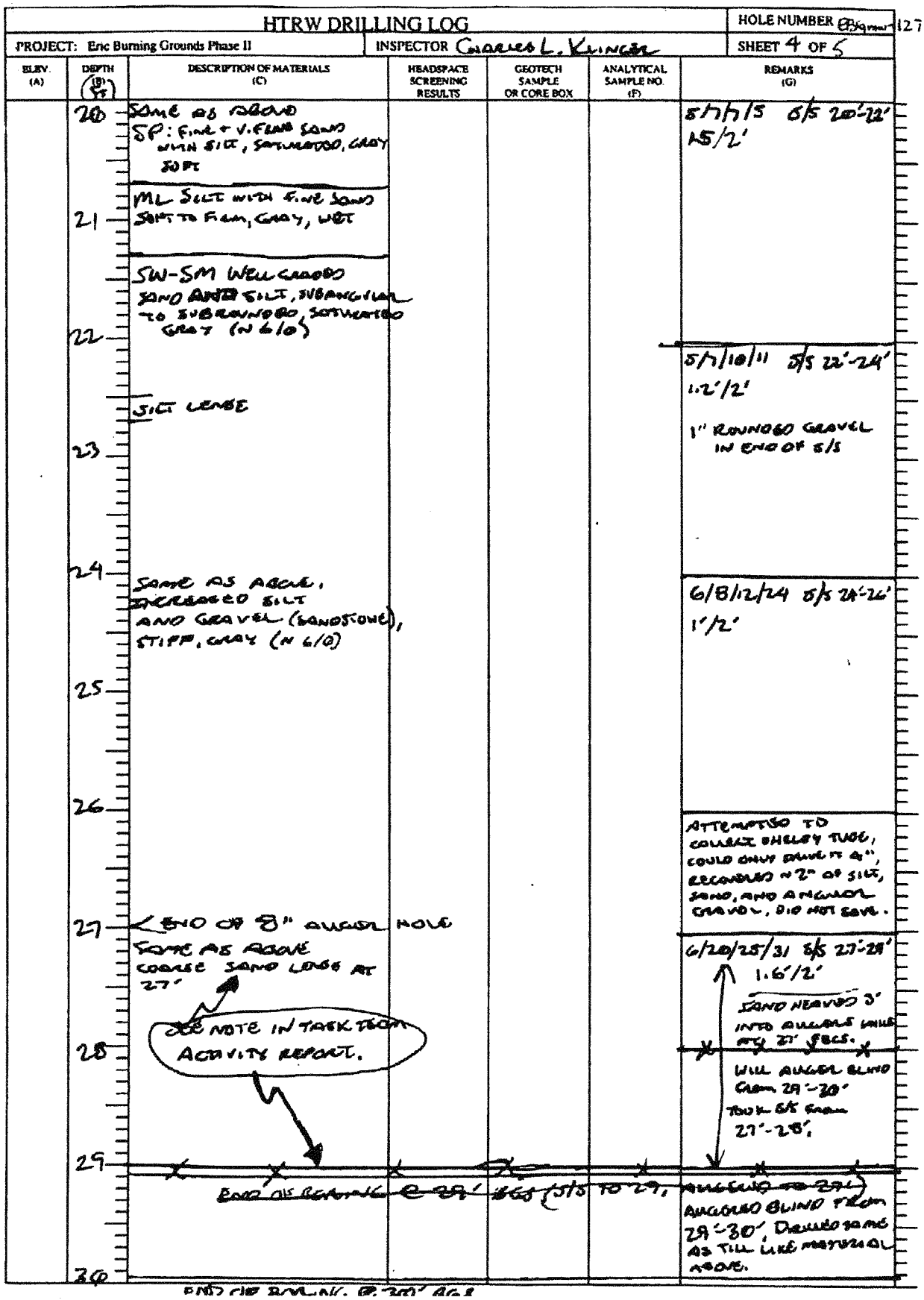

HTRW DRILLING LOG

HOLE NUMBER EBSgmw127

PROJECT: Eric Burning Grounds Phase II | INSPECTOR Charles L. Klinger | SHEET 4 OF 5

ELEV. (A)	DEPTH (B) (FT)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	20	SAME AS ABOVE SP: FINE + V. FINE SAND WITH SILT, SATURATED, GRAY SOFT				5/7/7/5 S/S 20'-22' 1.5/2'
	21	ML SILT WITH FINE SAND SOFT TO FIRM, GRAY, WET				
	22	SW-SM WELL GRADED SAND AND SILT, SUBANGULAR TO SUBROUNDED, SATURATED GRAY (N 6/0)				5/7/10/11 S/S 22'-24' 1.2'/2' 1" ROUNDED GRAVEL IN END OF S/S
	23	SILT LENSE				
	24	SAME AS ABOVE, INCREASED SILT AND GRAVEL (SANDSTONE), STIFF, GRAY (N 6/0)				6/8/12/24 S/S 24'-26' 1'/2'
	25					
	26					ATTEMPTED TO COLLECT SHELBY TUBE, COULD ONLY DRIVE IT 4", RECOVERED ~2" OF SILT, SAND, AND ANGULAR GRAVEL, DID NOT SAVE.
	27	< END OF 8" AUGER HOLE SAME AS ABOVE COARSE SAND LENSE AT 27'				6/20/25/31 S/S 27'-29' 1.6'/2' SAND HEAVED 3' INTO AUGERS WHILE AT 27' FBGS.
	28	SEE NOTE IN TASK TEAM ACTIVITY REPORT.				WILL AUGER BLIND FROM 29'-30' TOOK S/S FROM 27'-28'.
	29	END OF BORING @ 29' BGS (S/S TO 29, AUGERED TO 29')				AUGERED BLIND FROM 29'-30', DRILLED SAME AS TILL LIKE MATERIAL ABOVE.
	30	END OF BORING @ 30' BGS				

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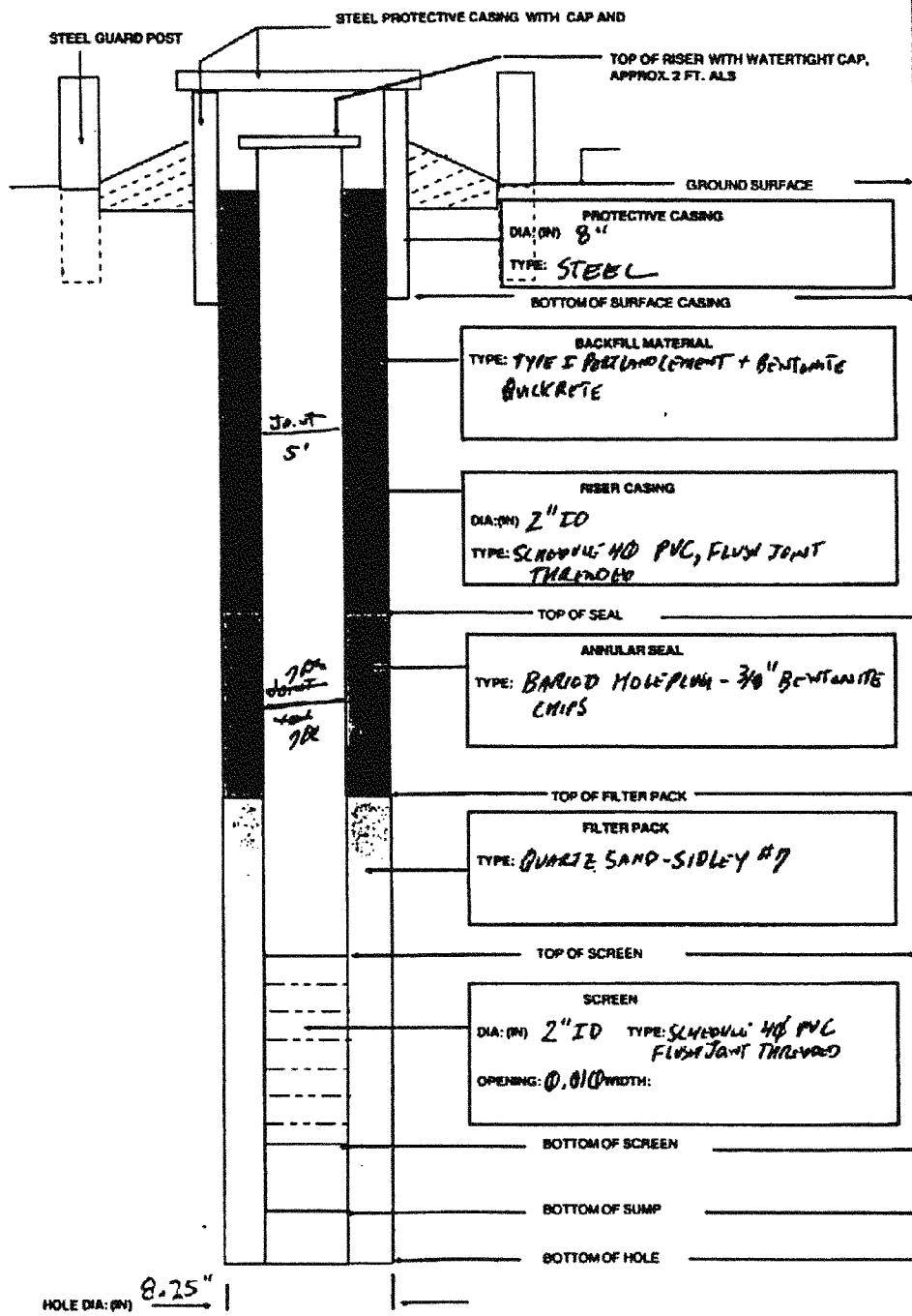
MONITORING WELL

PROJECT NAME: Ramsdell Quarry Phase II RI DELIVERY ORDER NO. [illegible]

WELL NUMBER: EBG-MW-128	BEGIN: 10-29-03, 1520	END: 10-30-03
COORDINATES: N: ~~570970.24~~ 570970.32 E: ~~2379892.52~~ 2379892.79 SRA 8/16/04	REFERENCE POINT: Top of Casing	ELEVATION: 942.47 MSL



DEPTH	ELEV
T.O.C.	942.47
0	
5	
8.1	
12	
15	
25	
25.33	
26	

13

HTRW DRILLING LOG

DISTRICT: Louisville

HOLE NUMBER: EBG-MW-128

1. COMPANY NAME: SAIC

2. DRILL SUBCONTRACTOR: Front

SHEET 1 of 5

3. PROJECT: ~~Ramsdell Quarry Phase I RI~~ ERIE BURNING GROUNDS PHASE II RI

4. LOCATION: ~~Ramsdell Quarry~~ ERIE BURNING GROUNDS

5. NAME OF DRILLER:

6. MANUFACTURER'S DESIGNATION OF DRILL: CME 75

7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" I.D. HOLLOW STEM AUGERS, 2" Diam. SPLIT SPOON SAMPLERS

8. HOLE LOCATION: ALONG RAILBED ON SOUTHERN BORDER OF BURNING GROUNDS, ~400' WEST OF POND AT SE CORNER

9. SURFACE ELEVATION: 942.47' amsl

10. DATE STARTED: 10-29-03

11. DATE COMPLETED: 10/30/03

12. OVERBURDEN THICKNESS: > 28'

13. DEPTH DRILLED INTO ROCK: N/A

14. TOTAL DEPTH OF HOLE: 28'

15. DEPTH GROUNDWATER ENCOUNTERED:

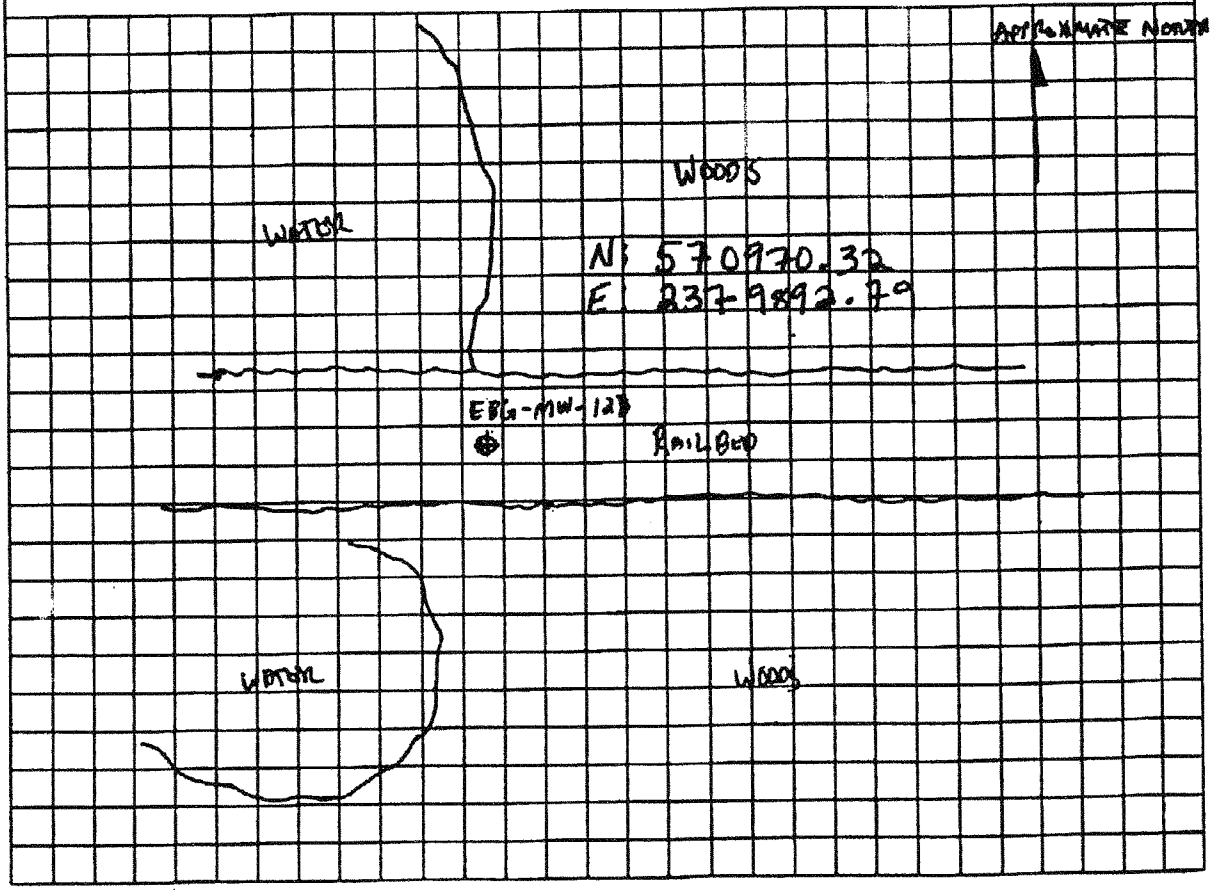
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: NA			
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY: NA %
	NA	NA	NA			
22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: Joe D. Gupa		
		X				

LOCATION SKETCH/COMMENTS

SCALE: 1" = 20'



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HTRW DRILLING LOG

PROJECT: ~~Ramsdell Quarry Phase I RI~~ ERIE BURNING GROUNDS PHASE II RI | INSPECTOR [signature] | HOLE NUMBER EBG-MW-128 | SHEET 2 OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		FILL: SLAG GRAVEL (0-0.2')				SPLIT SPOON 0-2' REC: 1.2/2 BLOWS: 4/3/4/3
		CLAYEY SILT (ML): STRONG BROWN (7.5YR 5/8) AND GRAY (2.5Y 5/1) SOFT, SLIGHTLY PLASTIC, MOIST, FILL				
	1					
		ACCUMULATED LOST CORE				
	2	SILTY CLAY (CL): DARK GREENISH GRAY (10Y 4/1), ORGANIC FRAGMENTS, MEDIUM STIFF, MOIST (2-4.8')				SPLIT SPOON 2-4' REC: BLOWS: HAND AUGER 2-4' TO CLEAR UXO
	3					
	4					SPLIT SPOON 4-6' REC: 1.2/2 BLOWS: 3/4/5/3
	5	SILTY CLAY (CL): BLACK (5Y 2.5/1), MEDIUM STIFF SLIGHTLY MOIST, FINE ROOTS (4.8-5.2')				
		ACCUMULATED LOST CORE				
	6	SILTY CLAY (CL): SAME AS ABOVE (6-6.2)				SPLIT SPOON 6-8' REC: 1.7/2 BLOWS: 5/8/5/7
		SANDY CLAY (CL): DARK GRAY (4/N) PLASTIC, SOFT, MEDIUM TO FINE SAND, MOIST (6.2-6.6)				
	7	CLAY (CL): DARK GRAY (4/N) AND LIGHT OLIVE BROWN (2.5Y 5/3) MOTTLED CLAY, SOFT, MOIST, MEDIUM PLASTICITY (6.6-7.7)				
		ACCUMULATED LOST CORE				
	8	INTERBEDDED FINE GRAINED SAND (SM) AND SILTY CLAY (CL): DARK GRAY TO DARK GRAYISH BROWN (2.5Y 4/1 - 4/2), MOIST, MEDIUM TO LOW PLASTICITY (8-9.5')				SPLIT SPOON 8-10' REC: 2/2 BLOWS 3/4/3/3
	9					
	10	INTERBEDDED SILTY SAND (SM) AND SILTY CLAY (CL): DARK GRAY TO GRAY (5N-4N) SOFT, FINE GRAINED SAND, MOIST, STICKY				

HTRW DRILLING LOG						HOLE NUMBER [illegible]
PROJECT: ~~Ramsdell Quarry Phase I RI~~ ERIE BURNING GROUNDS PHASE II RI		INSPECTOR [illegible]				SHEET 3 OF 5
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		SILTY SAND (SM): LIGHT OLIVE BROWN (2.5Y 5/3), FINE GRAINED, SATURATED (10-11')				SPLIT SPOON 10-12'. REC 2/2 BLOWS 4/7/3/4
	11	SILTY SAND (SM): GRAYISH BROWN TO GRAY (2.5Y 5/2-5/1) FINE GRAINED, INCREASED SILT FROM ABOVE, SATURATED (11-12')				
	12	CLAY (CL): GRAY (2.5Y 5/1), DENSE, MED. PLASTICITY, TRACE SUB-ROUNDED GRAVEL, MOIST (12-12.7')				SPLIT SPOON 12-14' REC: 2/2 BLOWS 2/4/4/5
	13	SILTY SAND (SP): GRAY (2.5Y 5/1) FINE GRAINED, SATURATED, ~5% COARSE SAND, TRACE SUB-ROUNDED TO SUB ANGULAR GRAVEL				
	14					SPLIT SPOON 14-16' REC: BLOWS: NT/2/1/2
	15					
		(12.7-15.8')				
	16	SILTY CLAY (CL): GRAY (2.5Y 5/1) DENSE, MED. PLASTIC, MOIST SAND (SP): SAME AS 12.7-15.8' INTERVAL @ TOP OF SHELBY TUBE		14/35 SHELBY TUBE 250 PSI 2' REC	Shelby Tube EBG 288	SHELBY TUBE 16-18' BGL porosity .353 TOC <.10 CL Wet Density 132.8 Dry Density 109.9 Specific Gravity 2.72
	17	BOTTOM OF SHELBY: SILTY CLAY, SAME AS 15.8-16' INTERVAL				
	18	SAND (SP): SAME AS 12.7-15.8' INTERVAL (18-18.8')				SPLIT SPOON 18-20' REC: 2/2 BLOWS: 1/3/4/4
	19	SILTY (ML), GRAY (SN) SAT., SOFT TO MED. STIFF (18.8-19.1)				
		SILTY CLAY (CL): GRAY (SN), MOIST, MED PLASTICITY MED. STIFF (19.1-19.4')				
		SILT (ML) SAME AS 18.8-19.1				
	20	SILTY CLAY (CL): SAME AS 19.1-19.4 INTERVAL.				

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HTRW DRILLING LOG

PROJECT: ~~Ramsdell Quarry Phase I RI~~ ERIE BURNING GROUNDS PHASE II RI | INSPECTOR [signature] | HOLE NUMBER EBG-MW-128 | SHEET 4 OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		INTERBEDDED SILTY SAND (SM) AND SILTY CLAY (CL): GRAY (5N), FINE GRAINED, SATURATED, MED. PLASTICITY CLAY (20-20.9')				SPLIT SPOON - 20-22' REC: 1.6/2 BLOWS: 3/5/2/6
	21	CLAYEY SILT (ML): GRAY (5N), MOIST, MEDIUM STIFF (20.9-21.6')				
		ACCUMULATED LOST CORE				
	22	TOP OF SHELBY: SILTY SAND (SM): GRAY (5N), VERY FINE GRAINED		1455 SHELBY TUBE 22-24'	Shelby Tube EBG 288	SHELBY TUBE 22-24' REC 2' 250 PSI Porosity 0.394 TOC < 0.10 CL-ML Wet Density 127.7 Dry Density 102.6 Specific Gravity 2.71
	23	BOTTOM OF SHELBY: SANDY SILT (ML): GRAY (5N), VERY FINE GRAINED, MOIST				
	24	CLAYEY SILT (ML): GRAY (5N), MOIST, SLIGHT PLASTICITY, TRACE, SUB-ROUNDED GRAVEL (24-24.9')				SPLIT SPOON 24-26' REC: 0.9' BLOWS: 2/2/3/7
	25	ACCUMULATED LOST CORE				
	26	SILTY CLAY (CL): GRAY (5N) MOIST, SOFT MED. TO LOW PLASTICITY (26-26.3)				SPLIT SPOON 26-28' REC: 1.6/2 BLOWS: WT/1/8/16
		CLAYEY SILT (ML): GRAY (5N) DENSE, VERY STIFF, SLIGHT MOIST TO DRY, ANGULAR CHIPS - FINE GRAVEL, 2 ANGULAR GRAVEL PIECES ~ 1" LONG (26.3-27.1')				
	27	ACCUMULATED LOST CORE				
	28					10-29-03 ADDED ~20 GAL TO AID IN SANDPACK PLACEMENT 10-30-03
	29					
	30					

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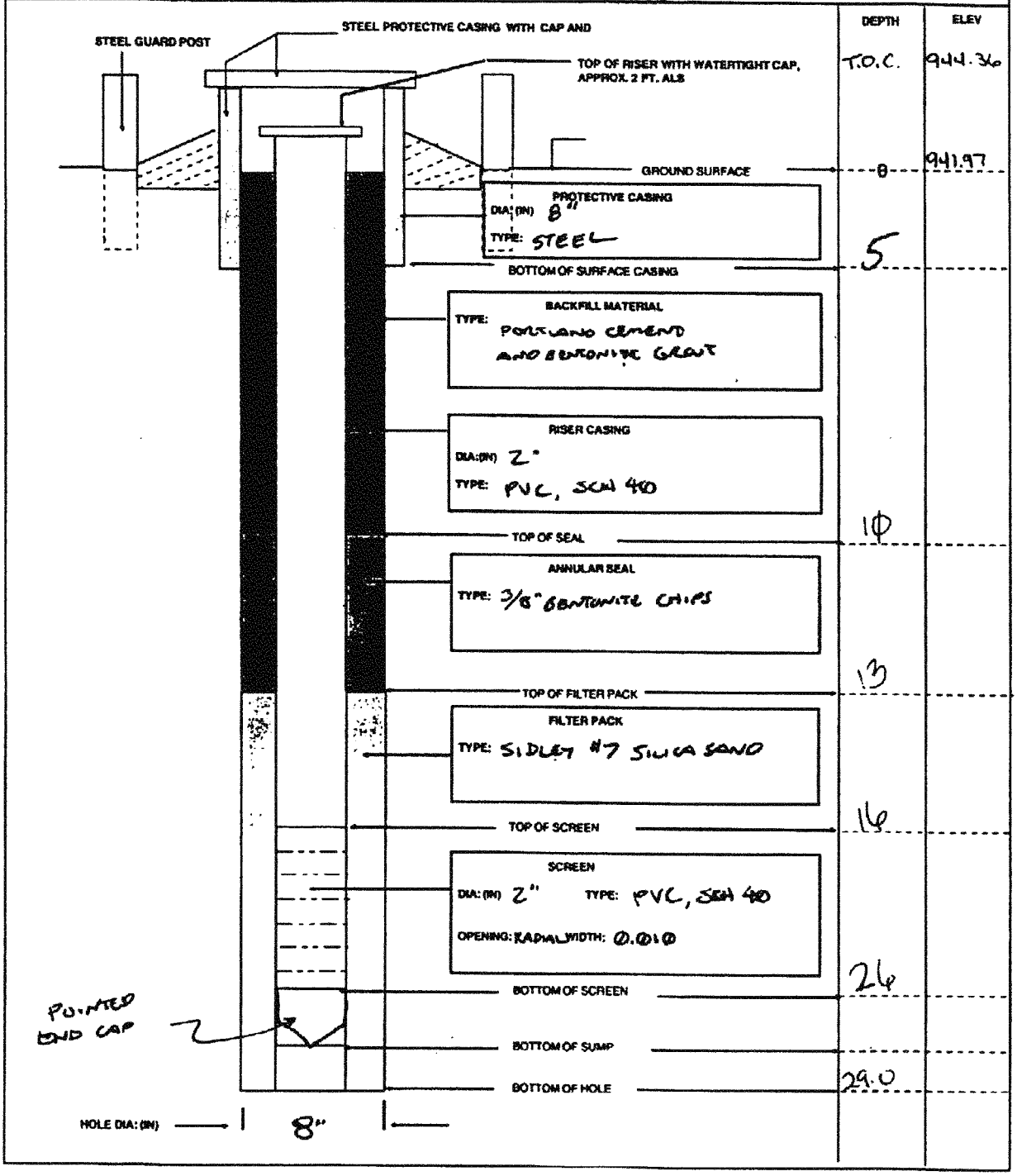
MONITORING WELL

PROJECT NAME: Erie Burning Ground Phase II **DELIVERY ORDER NO.** [illegible]

WELL NUMBER: EBG MW-129	**BEGIN:** 11/02/03	**END:** 11/03/03
COORDINATES: N: 572035.68 E: 2379240.52	**REFERENCE POINT:** Top of Casing	**ELEVATION:** 944.36 MSL



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HTRW DRILLING LOG	DISTRICT: Louisville	HOLE NUMBER EBG MW-129
1. COMPANY NAME: SAIC	2. DRILL SUBCONTRACTOR: FRONTIER DRILLING	SHEET 1 of 4

3. PROJECT: Erie Burning Grounds Phase II	4. LOCATION: Erie Burning Grounds
5. NAME OF DRILLER: Josh Vizzo	6. MANUFACTURERS DESIGNATION OF DRILL: CME 750
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA, 2" SPLIT SPOON	8. HOLE LOCATION:
	9. SURFACE ELEVATION: 941.97' amsl ground
	10. DATE STARTED: 11/02/03 — 11. DATE COMPLETED: 11/03/03
12. OVERBURDEN THICKNESS: 29'+	15. DEPTH GROUNDWATER ENCOUNTERED: 2' bgs
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:
14. TOTAL DEPTH OF HOLE: 29' bgs	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

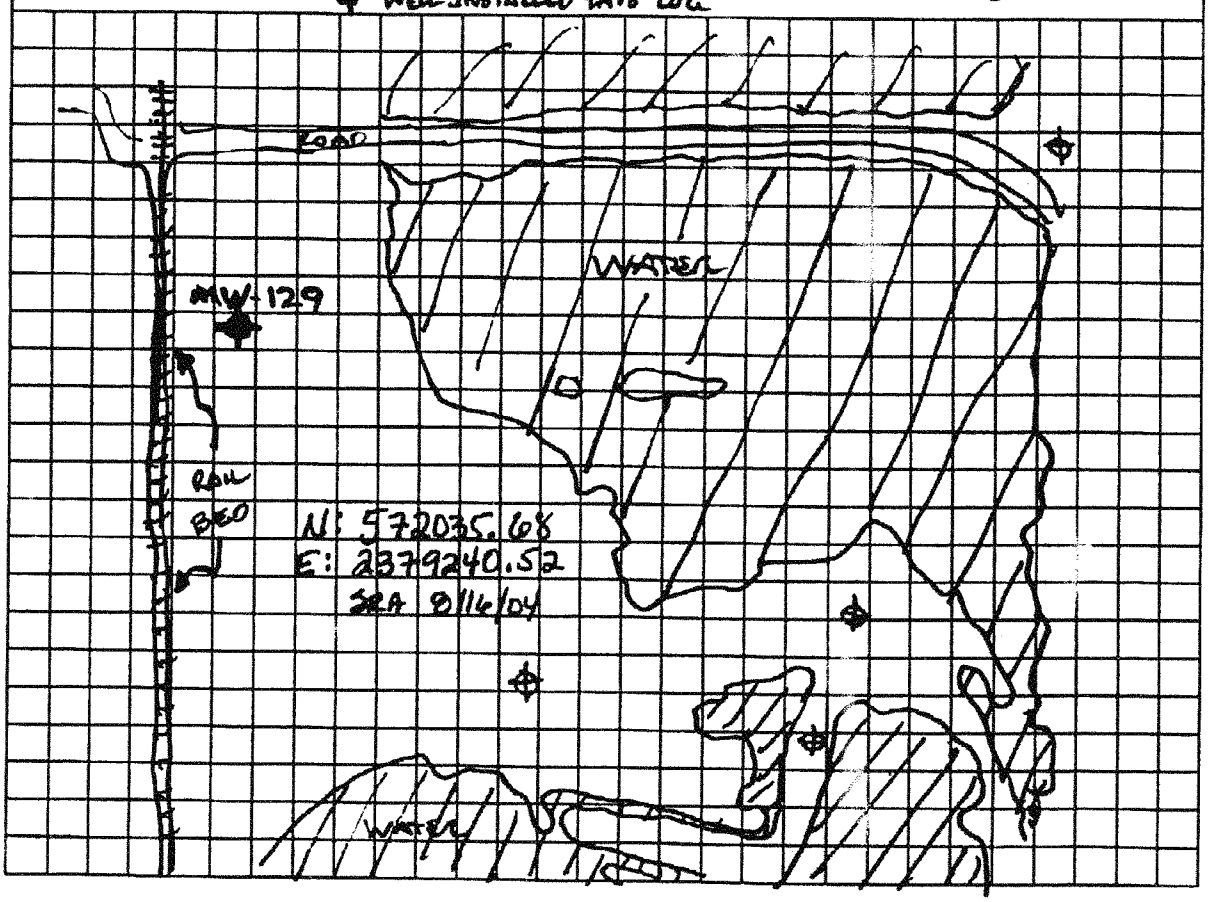
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: 0

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
-	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	GROUTED WELL EBG MW 129	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—			

LOCATION SKETCH/COMMENTS: WELLS — WELL INSTALLED TH'S LOG

SCALE: 1" = 200'



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HTRW DRILLING LOG

HOLE NUMBER MW-129

PROJECT: Erie Burning Grounds Phase II

INSPECTOR Charles L. Klinger

SHEET 2 OF 4

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	SP-SM Poorly graded sand and fine sand with silt, moist, dk. yellowish brown (10YR 4/6), subangular to subrounded				Weight of tool S/S 0'-2' 0.4'/2'
	1					
	2	Same as above, saturated, grading from dk. yellowish brown to gray (2.5Y 6/1)				1/1/1/1 S/S 2'-4' 1.3'/2'
	3					
	4	Same as above, some color changes; less silt				1/WOH/WOH/1 S/S 4'-6' 1.7'/2'
	5					
	6	Same as above, grading to SP, fine sand, gray (N 6/0) at 7.3' BGS				2/3/2/3 S/S 6'-8'
	7					
	8					2/1/1/1 S/S 8'-10' 1.9'/2'
	9	ML silt with v. fine sand, saturated, non plastic. gray (N 6/0)				
	10					

HTRW DRILLING LOG

HOLE NUMBER MW-129

PROJECT: Erie Burning Grounds Phase II

INSPECTOR Charles L. Kunkel

SHEET 3 OF 4

ELEV. (A)	DEPTH (B) (Ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	10	ML SILT WITH V. FINE SAND SATURATED, GRAY, NONPLASTIC				WEIGHT OF HAMMER 3/5 140#/12" 1.0'/2'
	11					
	12	SAME AS ABOVE GRADING TO SP-SM AT 13' BGS.				1/2/2/1 5/5 12'-14' 1.3'/2'
	13					
	14					WEIGHT OF HAMMER 3/5 14'-16' 0.8'/2'
	15	SW WELL GRADED SAND, SATURATED, BROWN/GRAY, MIXED LITHOLOGIES, GETS COARSER WITH DEPTH TO INCLUDED GRAVEL AT 17' GRAY (N 6/0)				
	16					1/4/3/3 5/5 16'-18' 1.3'/2'
	17					
	18	SAME AS ABOVE, SAND CHANGES IN SIZE BACK AND FORTH				2/4/5/5 5/5 18'-20'
	19					
	20					

HTRW DRILLING LOG

HOLE NUMBER MW 129

PROJECT: Erie Burning Grounds Phase II

INSPECTOR Charles L. Klinger

SHEET 4 OF 4

ELEV (A)	DEPTH (FT)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	20	Same as above SW		SHELBY TUBE 20'-22'		2'/2' Collected Shelby Tube from 20' to 22' porosity TNP* TOC * wet density TNP* dry density TNP* spec. gravity TNP*
	21	*TNP - insufficient recovery to perform geotechnical analysis (test not performed)				
	22					3/3/04 S/S 22'-24'
		SP Poorly Graded Fine to Medium Sand, Olive Gray (5Y 5/2) Saturated				
	23	SW Well Graded Sand to Coarse Sand with Trace Gravel. Gray (N 6/0) Subangular, Saturated				
	24	SP: Poorly Graded Sand, Subangular, Saturated, Gray (N 6/0).				5/12/6/13 S/S 24'-26'
	25					
	26	Same as above (SP)				2/3/4/5 S/S 26'-28' 2/2'
	27					
	28					
	29	END OF BORING @ 29' BGS.				
	30					

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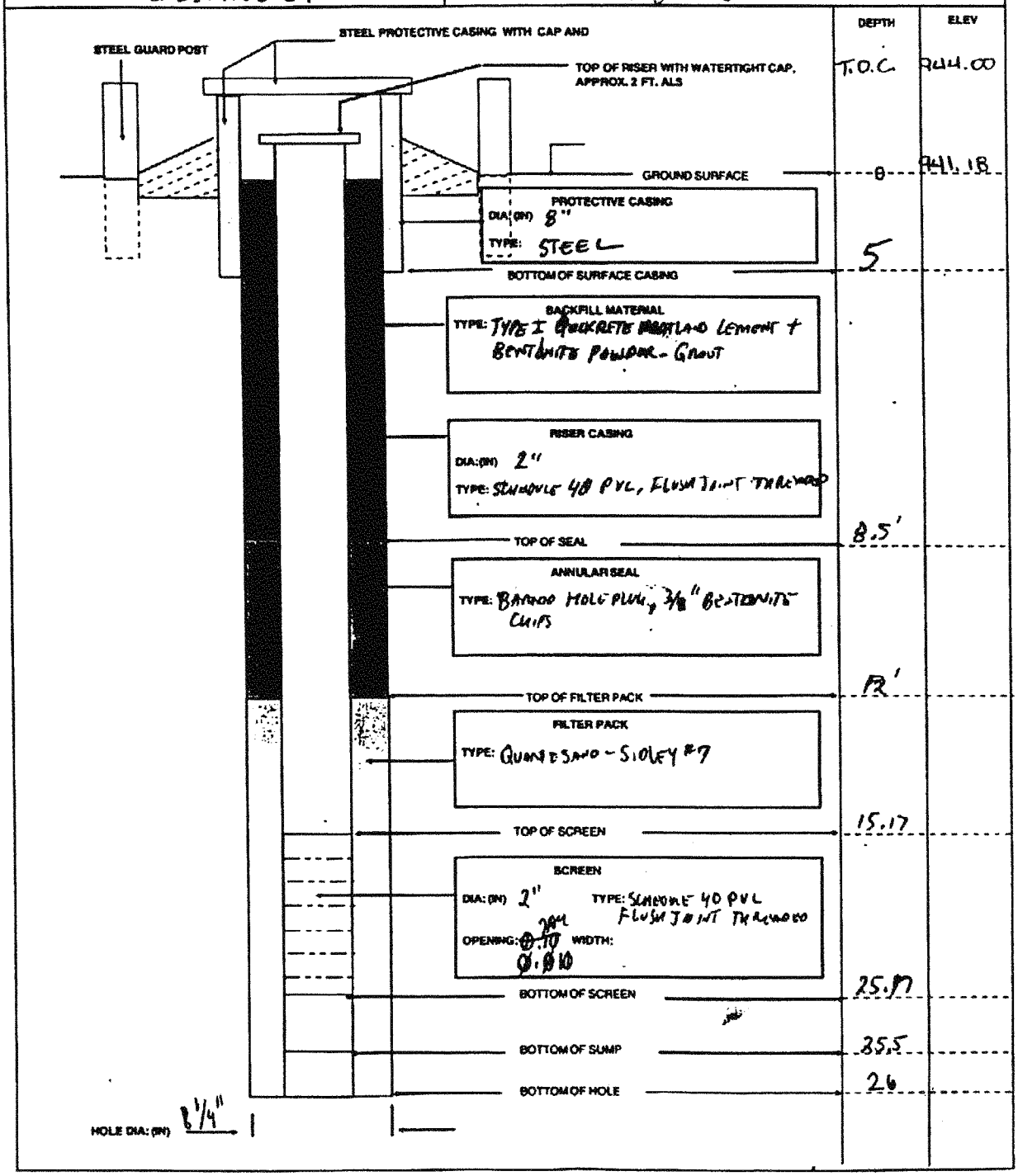
MONITORING WELL

PROJECT NAME: [illegible] DELIVERY ORDER NO: [illegible]

WELL NUMBER: EBG mw - 130	BEGIN: 1030-01	END: 10/30/08
COORDINATES: N: 570696.61 E: 2379220.69	REFERENCE POINT: Top of Casing	ELEVATION: 944.00 MSL



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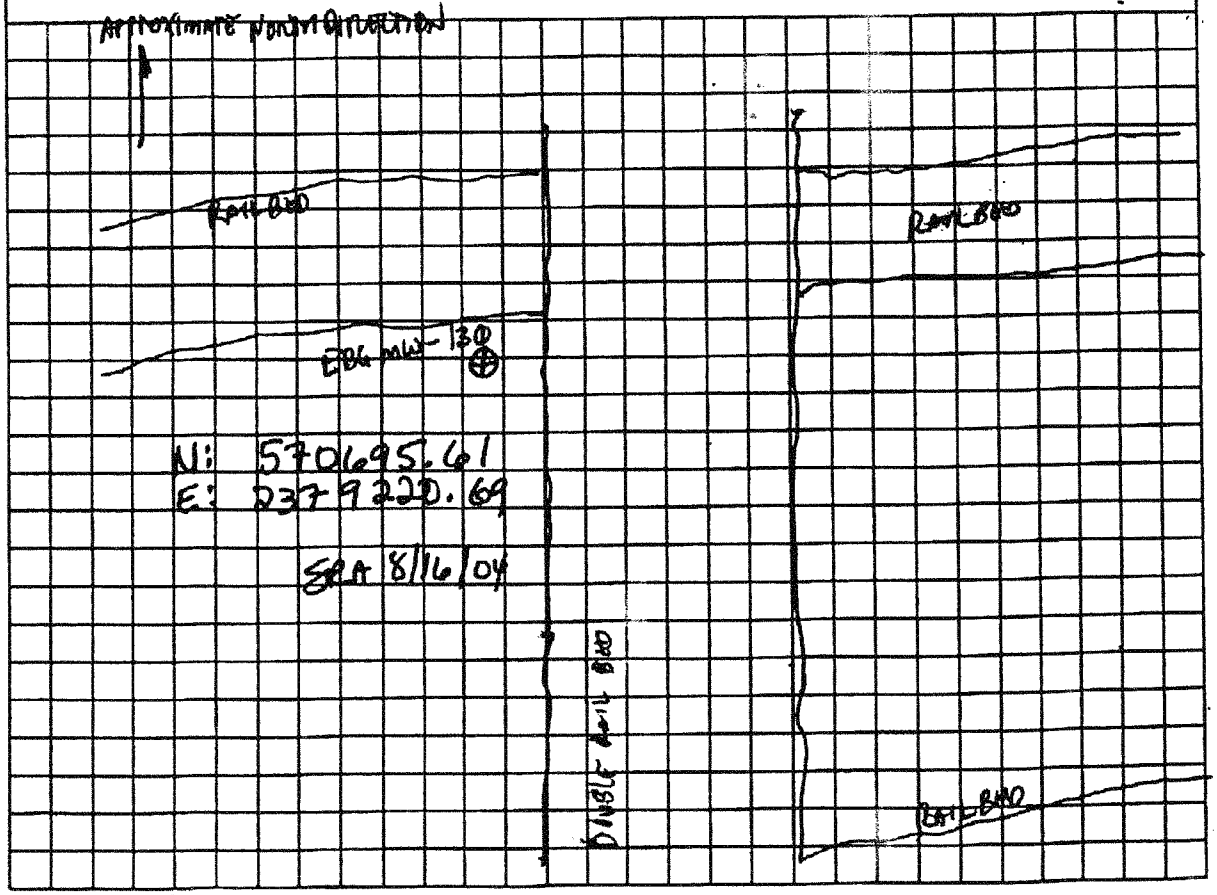
HTRW DRILLING LOG	DISTRICT: Louisville	HOLE NUMBER EBG MW-130
1. COMPANY NAME: SAIC	2. DRILL SUBCONTRACTOR: FRONTZ DRILLING	SHEET 1 OF 4
3. PROJECT: ERIE BURNING GROUNDS PHASE II RI ~~Ramsdell Quarry Phase I RI~~	4. LOCATION: ERIE BURNING GROUNDS ~~Ramsdell Quarry~~	
5. NAME OF DRILLER: ROB HAMILTON	6. MANUFACTURERS DESIGNATION OF DRILL: CME 75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" HOLLOW STEM AUGER; 2" DIAM SPLIT SPOONS	8. HOLE LOCATION: SOUTH WEST SECTION OF ERIE BURNING GROUNDS @ INTERSECTION OF RAIL BEDS	
	9. SURFACE ELEVATION: 941.18' amsl ground	
	10. DATE STARTED: 10-30-03	11. DATE COMPLETED: 10-31-03
12. OVERBURDEN THICKNESS > 25' BGL	15. DEPTH GROUNDWATER ENCOUNTERED:	
13. DEPTH DRILLED INTO ROCK N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:	
14. TOTAL DEPTH OF HOLE	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES N/A			
20. SAMPLES FOR CHEMICAL ANALYSIS NONE	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL X	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR [signature]		

LOCATION SKETCH/COMMENTS

SCALE: ~1" = 20'



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HTRW DRILLING LOG

PROJECT: ~~Ramsdell Quarry Phase I RI~~ EBG Burning Grounds PHASE II RI | INSPECTOR [illegible] | HOLE NUMBER EBG MW-130 | SHEET 2 OF 4

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		ROOT ZONE, CLAYEY SILT (ML): BROWN (10YR 4/3), MOIST, SOFT TO MED. STIFF, VERY SLIGHT PLASTICITY (0-0.9)				SPLIT SPOON 0-2' REC: 0.9/2 BLOWS: 4/3/2/2
	1	ALCUMULATED LOST CORE				
	2	CLAYEY SILT (ML): SAME AS ABOVE, W/O ROOTS (2-2.7')				SPLIT SPOON 2-4' REC: 1.4/2 BLOWS: 1/2/2/3
	3	SILTY CLAY (CL): VERY DARK GRAY (10YR 3/1), MOIST, SOFT, MEDIUM TO LOW PLASTICITY, SLIGHT MOTTLING AND IRON STAINING (2.7-3.4')				
		ALCUMULATED LOST CORE				
	4	SANDY SILTY CLAY (CL): DARK YELLOWISH BROWN (10YR 4/4) W/ GRAY (5/N) MOTTLING, FINE TO COARSE SAND (4-5.4')				SPLIT SPOON 4-6' REC: 1.4/2 BLOWS: 1/2/1/1
	5	ALCUMULATED LOST CORE				
	6	SANDY SILTY CLAY (CL): SAME AS ABOVE (6-6.3')				SPLIT SPOON 6-8' REC: 1.6/2 BLOWS: WT/1/1/2
	7	CLAY-SANDY (CL): GREENISH GRAY (10Y 5/1), SOFT, MOIST MEDIUM PLASTICITY, FINE TO MEDIUM GRAINED SAND = 1-2% (6.3-7.6')				
		ALCUMULATED LOST CORE				
	8	SANDY CLAY (CL): SAME AS ABOVE (8-8.6')				SPLIT SPOON 8-10 REC: 1.7/2 BLOWS: WT/1/3/3
		SILTY SAND (SM): AS 9.1-9.7' INTERVAL				
	9	SANDY CLAY (CL): SAME AS 8-8.6' INTERVAL				
		SILTY SAND (SM): GREENISH GRAY (10Y 5/1) FINE GRAINED, POORLY GRADED, SATURATED, <10% SILT (9.1-9.7')				
	10	ALCUMULATED LOST CORE				

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ERIE BURNING GROUNDS HTRW DRILLING LOG						HOLE NUMBER [illegible]
PROJECT: ~~Ramsdell Quarry Phase I RI~~ PHASE II RI		INSPECTOR [illegible]				SHEET 3 OF 4
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	10	~~Sand~~ SILTY SAND (SM); SAME AS ABOVE, < 10% SILT				SPLIT SPOON 10-12 REC: 1.8 BLOWS: 1/2/1/1
	11					
	12	ACCUMULATED LOST CORE				
	12	SILTY SAND (SM): SAME AS ABOVE		SHELBY TUBE 12- SAND - NO RECOVERY		SHELBY TUBE ~~10~~ 12- < 100 PSI SAND — NO RECOVERY
	1					
	13					
	14	SILTY SAND (SM): SAME AS ABOVE				SPLIT SPOON 14-16' REC: 2/2 BLOWS: 1/2/3/4
	15					
	16	- SAA				SPLIT SPOON 16-18' REC: 2/2 BLOWS: 3/5/7/11
	17					
		- TRACE VERY COARSE SAND				
	18	- SAA				SPLIT SPOON 18-20' REC: 2/2 BLOWS: 1/3/4/7
	19					
	20					

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HTRW DRILLING LOG

HOLE NUMBER EBG MW-130

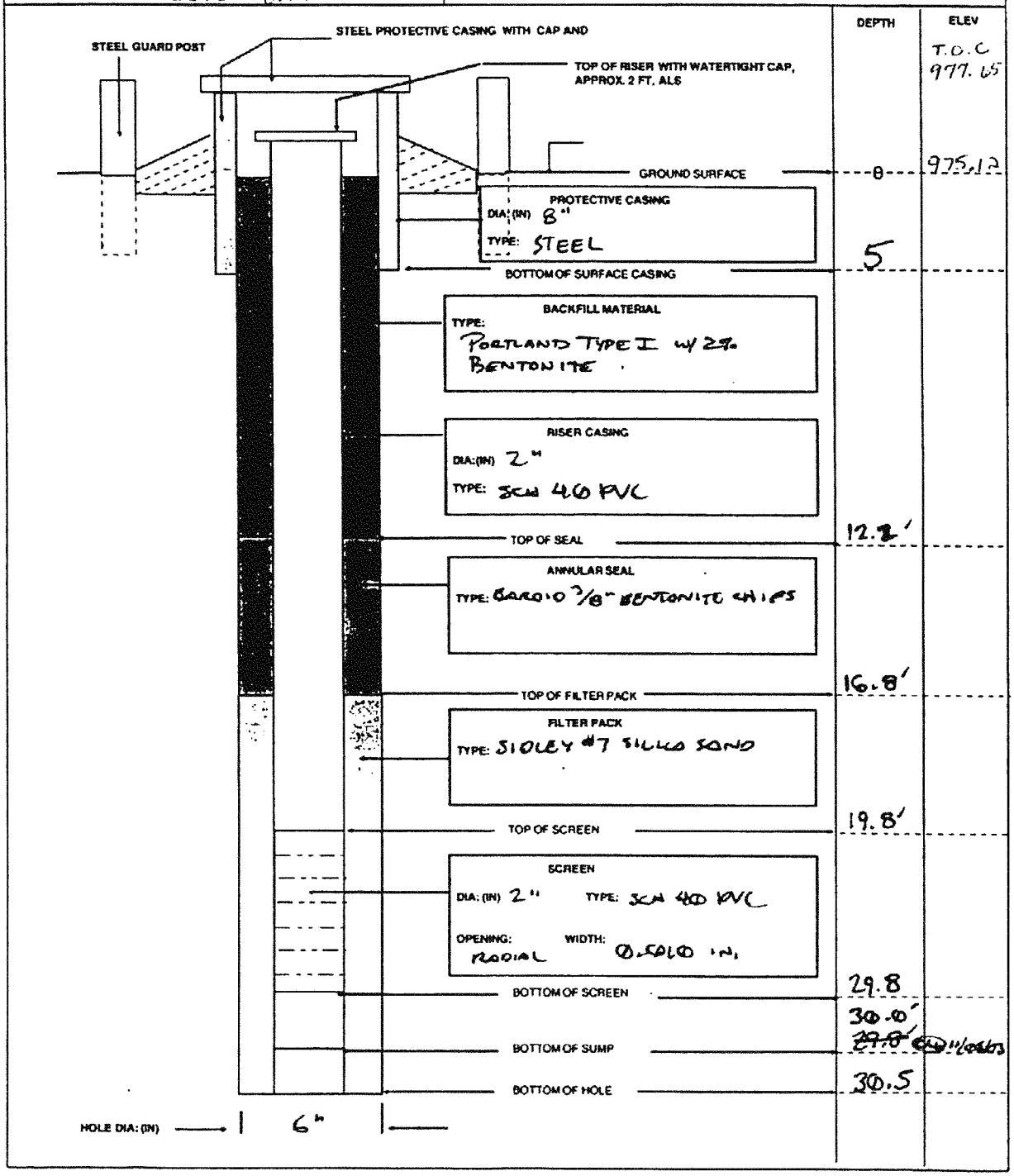
PROJECT: ~~Ramsdell Quarry Phase I RI~~ Erie Burning Grounds Phase II RI | INSPECTOR [illegible] | SHEET 4 OF 4

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		SAA - TRACE SUB-ROUNDED QTZ GRAVEL				SPLIT SPOON 20-22' REC: BLOWS: 3/3/3/4
	21					
	22	- ½" CLAY SEAM OF SAME COLOR, MEDIUM PLASTICITY, SANDY				SPLIT SPOON 22-24 REC: 2' BLOWS: 1/1/2/5
	23					
	24	SANDY, GRAVELLY, SILTY CLAY (CL): GREENISH GRAY (10Y 5/1) FINE SAND, SUB-ROUNDED TO SUB-ANGULAR GRAVEL, MEDIUM TO LOW PLASTICITY, MOIST				
		SHELBY 24-24.7 BOTTOM OF SHELBY SAME AS ABOVE		SHELBY EBG290	Porosity = 2.66 CL WD = 142.8 DS = 122.7 SG = 2.69	SHELBY 24-24.7 750 psi 8" REC
	25	SAME AS ABOVE ↓ SANDSTONE CHIPS AND FRAGMENTS - WEATHERED, CRUMBLY				SPLIT SPOON 24.7-26 REC: 0.9'/1.5 BLOWS: 31/48/29
		ACCUMULATED LOST CORE				
	26	TD = 26' BGS				~40 GALLONS OF H_2O USED WHILE DRILLING FROM 18-26' BAL TO CONTROL HEAVING SANDS
	27					
	28					
	29					
	30					

MONITORING WELL

PROJECT NAME: Erie Burning Grounds Phase II DELIVERY ORDER NO: CY10

WELL NUMBER: RBMW #12	BEGIN: 11/05/03	END: 11/06/03
COORDINATES: N: 566551.95 E: 2376558.19	REFERENCE POINT: Top of casing ELEVATION: 977.65 MSL	



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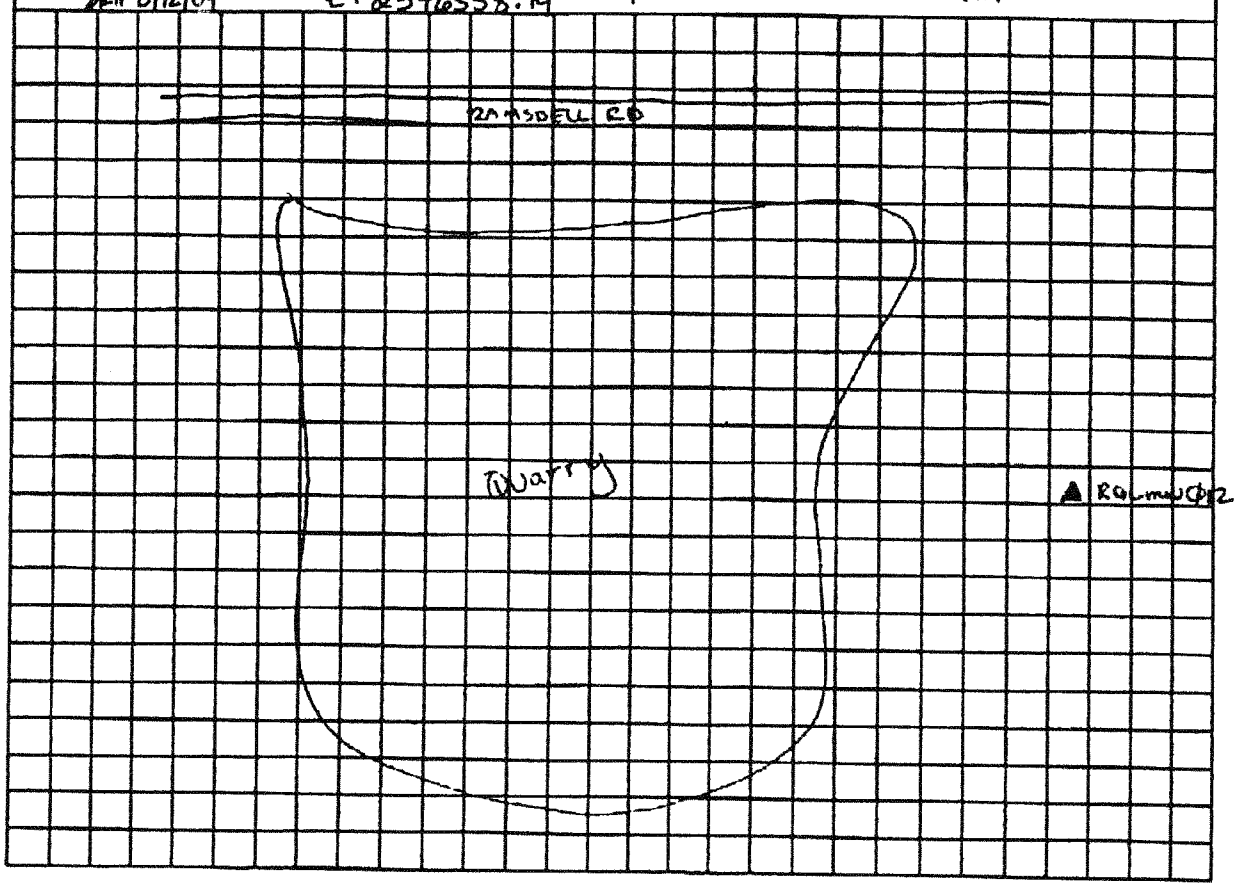
HTRW DRILLING LOG	DISTRICT: Louisville	HOLE NUMBER: RQL MW-012
1. COMPANY NAME: SAIC	2. DRILL SUBCONTRACTOR: Frontz Drilling	SHEET 1 of 5

3. PROJECT: ~~Erie Burning Grounds~~ Phase II I. Ramsdell Quarry Landfill	4. LOCATION: ~~Erie Burning Grounds~~ Ramsdell Quarry Landfill
5. NAME OF DRILLER: Eric Hamilton	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 75
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME 75	8. HOLE LOCATION: East of Ramsdell Quarry
	9. SURFACE ELEVATION: (975.12 ground) 977.65' amsl (top PVC)
	10. DATE STARTED: 11/05/03 11. DATE COMPLETED: 11/06/03
12. OVERBURDEN THICKNESS: 2.5'	13. DEPTH GROUNDWATER ENCOUNTERED: 15'
13. DEPTH DRILLED INTO ROCK: 26.7'	15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:
14. TOTAL DEPTH OF HOLE: 29.5	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: 3
20. SAMPLES FOR CHEMICAL ANALYSIS: N/A	TYPE	METHOD	OTHER (SPECIFY)
21. DISPOSITION OF HOLE	BACKFILLED	GROUTED	OTHER (SPECIFY)
		X	22. SIGNATURE OF INSPECTOR:

LOCATION SKETCH/COMMENTS: N: 566551.95 E: 2376558.19 (top PVC) SCALE: NA

ZA 8/12/04



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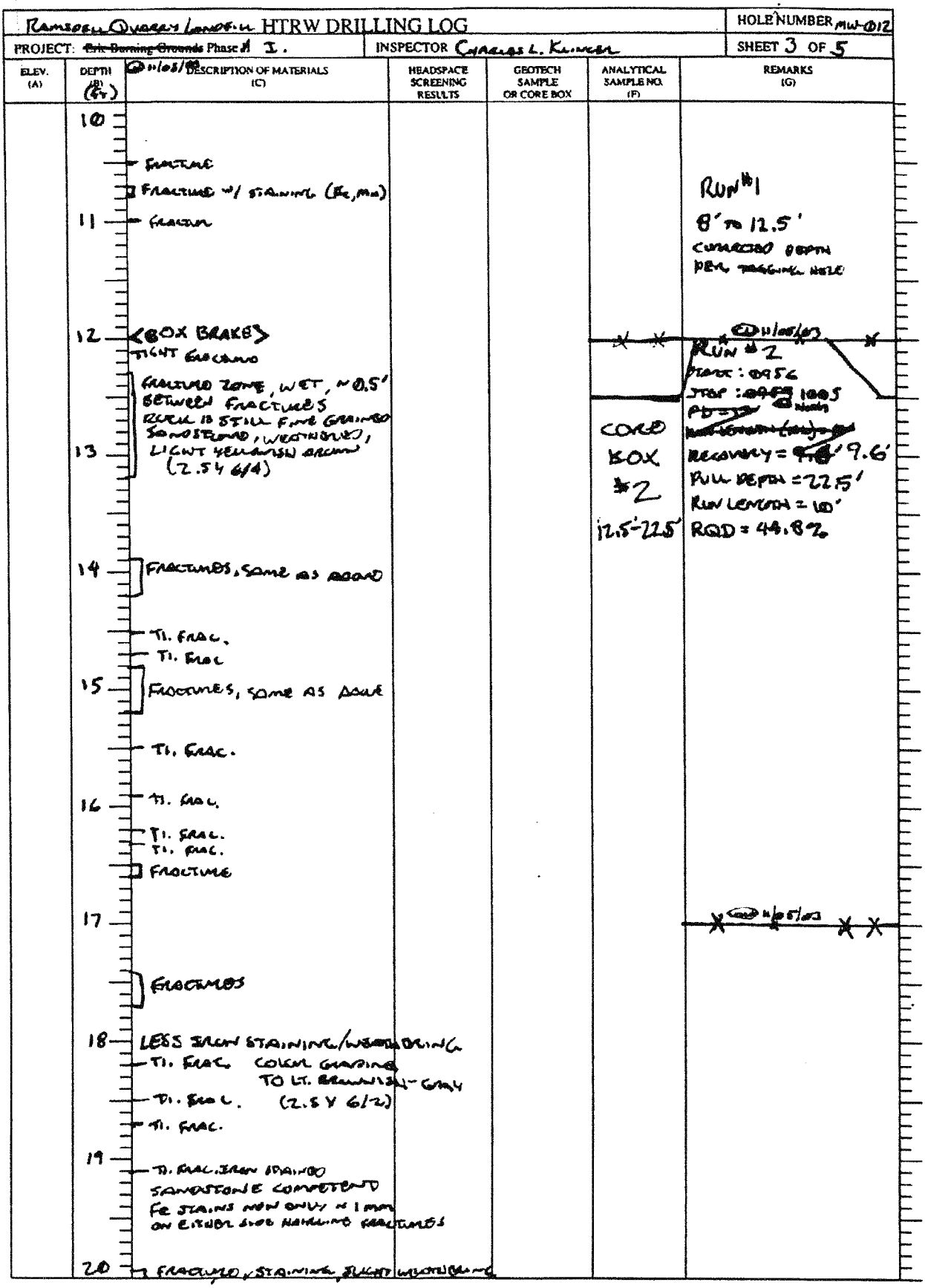
Ramsdell Quarry Landfill HTRW DRILLING LOG						HOLE NUMBER MW-012
PROJECT: ~~Eric Burning Grounds~~ Phase ~~II~~ I.		INSPECTOR Charles L. Klinger				SHEET 2 OF 5
ELEV. (A)	DEPTH (B) (FT)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	ML SILT, MOIST, STIFF, BROWN (10YR 4/3)				3/4/4/4 S/S 0'-2' 1.1'/2'
	1					
	2					6/50/0.4 S/S 2'-4' 0.8'/2'
		ML SILT, REDOXIMORPHIC, MOTTLED LT. GRAY (5Y 7/1) MATRIX, YELLOWISH-BROWN (10 YR 5/8) COATINGS, ALSO MN STAINS				
	3	SANDSTONE, WEATHERED, FINE GRAIN, YELLOWISH-BROWN (10YR 5/8)				BEGIN 8" ROLLER BIT/ AIR ROTARY, SET TEMPORARY PVC 8" CASING
	4					
	5	SAME AS ABOVE				
	6					
	7	SAME AS ABOVE				
		INTERBEDDED FRACTURES W/ IRON STAINING				
	8	FRACTURE W/ Fe + Mn TIGHT (T1) FRACTURE FRAC. W/ SAND + SOIL OBLIQUE FRAC.		RQL MW 012 BOX #1		START: 0944 FINISH: 0950 FULL DEPTH (FD) = 12.5 RUN LENGTH = 4.5' RECOVERY = 4.3' RQD = 46.5%
	9					
	10					RUN #1

35


RAMSDELL QUARRY LANDFILL HTRW DRILLING LOG
HOLE NUMBER MW-012
PROJECT: ~~Eric Burning Grounds~~ Phase I.
INSPECTOR CHARLES L. KLINGER
SHEET 3 OF 5
ELEV. (A)
DEPTH (B)
DESCRIPTION OF MATERIALS (C)
HEADSPACE SCREENING RESULTS
GEOTECH SAMPLE OR CORE BOX
ANALYTICAL SAMPLE NO. (F)
REMARKS (G)
10
FRACTURE
FRACTURE W/ STAINING (Fe, Mn)
11
FRACTURE
RUN #1
8' TO 12.5'
CORRECTED DEPTH PER TAGGING HOLE
12
<BOX BREAK>
TIGHT GROUND
GRAVEL ZONE, WET, ~0.5' BETWEEN FRACTURES
ROCK IS STILL FINE GRAINED SANDSTONE, WEATHERED, LIGHT YELLOWISH BROWN (2.5Y 6/4)
CORE BOX #2
12.5'-22.5'
RUN #2
RECOVERY = 9.6'
ROD = 44.8%
13
14
FRACTURES, SAME AS ABOVE
TI. FRAC.
TI. FRAC
15
FRACTURES, SAME AS ABOVE
TI. FRAC.
16
TI. FRAC.
TI. FRAC.
TI. FRAC.
FRACTURE
17
FRACTURES
18
LESS IRON STAINING/WEATHERING
TI. FRAC. COLOR GRADING TO LT. BROWNISH-GRAY
TI. FRAC. (2.5Y 6/2)
TI. FRAC.
19
TI. FRAC. IRON STAINED SANDSTONE COMPETENT
Fe STAINS NOW ONLY 1 mm ON EITHER SIDE HAIRLINE FRACTURES
20
FRACTURED, STAINING, SLIGHT WEATHERING

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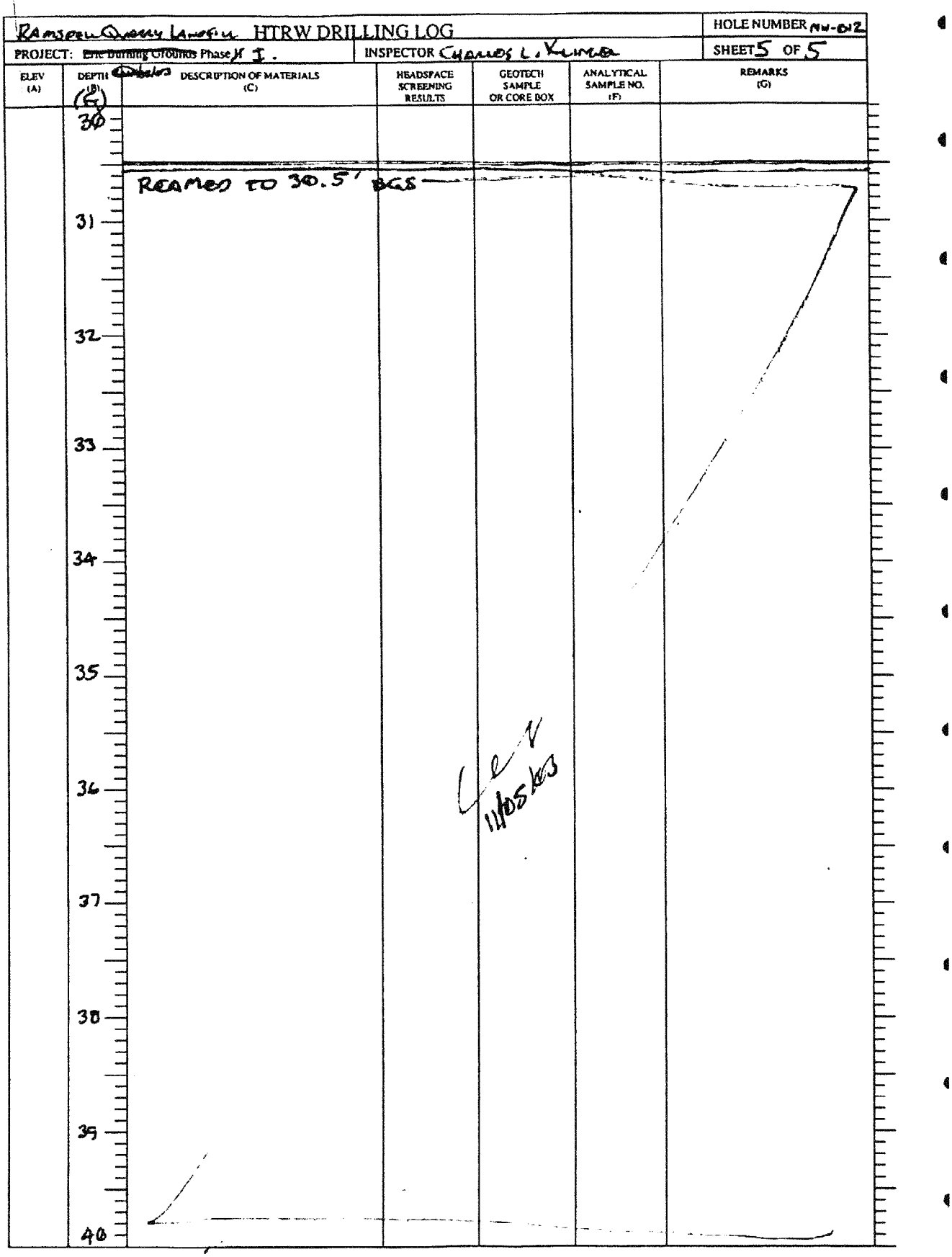
Ramsdell Quarry/Landfill HTRW DRILLING LOG		HOLE NUMBER MW-012
PROJECT: ~~Erie Dunning Grounds~~ Phase II I.	INSPECTOR Charles L. Klinger	SHEET 4 OF 5

ELEV. (A)	DEPTH (B) (Ft.)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	20					
		Tl. frac.				
		Tl. frac.				
	21	Tl. frac.				
		Tl. frac.				
		Tl. frac.				
		color grading to pale yellow (2.5Y 7/3)				
		fracture narrow, Fe stains for 0.1'				
		Tl. frac.				
	22	Tl. frac.				
		Tl. frac.				
		fracture with Fe			Core Box #3 22.5'-29.5'	RUN #3
	23	fracture w/ Fe				Start: 1219
		fracture w/ Fe				Stop: 1224
		Tl. fracture				Pull depth = 29.5'
		Tl. fracture				Run length = 7'
	24	fracture w/ Fe staining				Recovery = 7'
						RQD = 61.4%
		Tl. fracture				
	25	fracture w/ Fe + Mn				
		fracture				
	26	fractures w lt. staining				
	27	fracture				
	28					
		coarser sand				
		bedding, some Fe staining				
		fracture w/ Fe stains/coatings				
	29	more bedding, ironstained				
		End of coring @ 29.5'				Reamed hole to 6", drilled, reamed to 30.5' bgs
	30	Drilled blind to 30.5'				

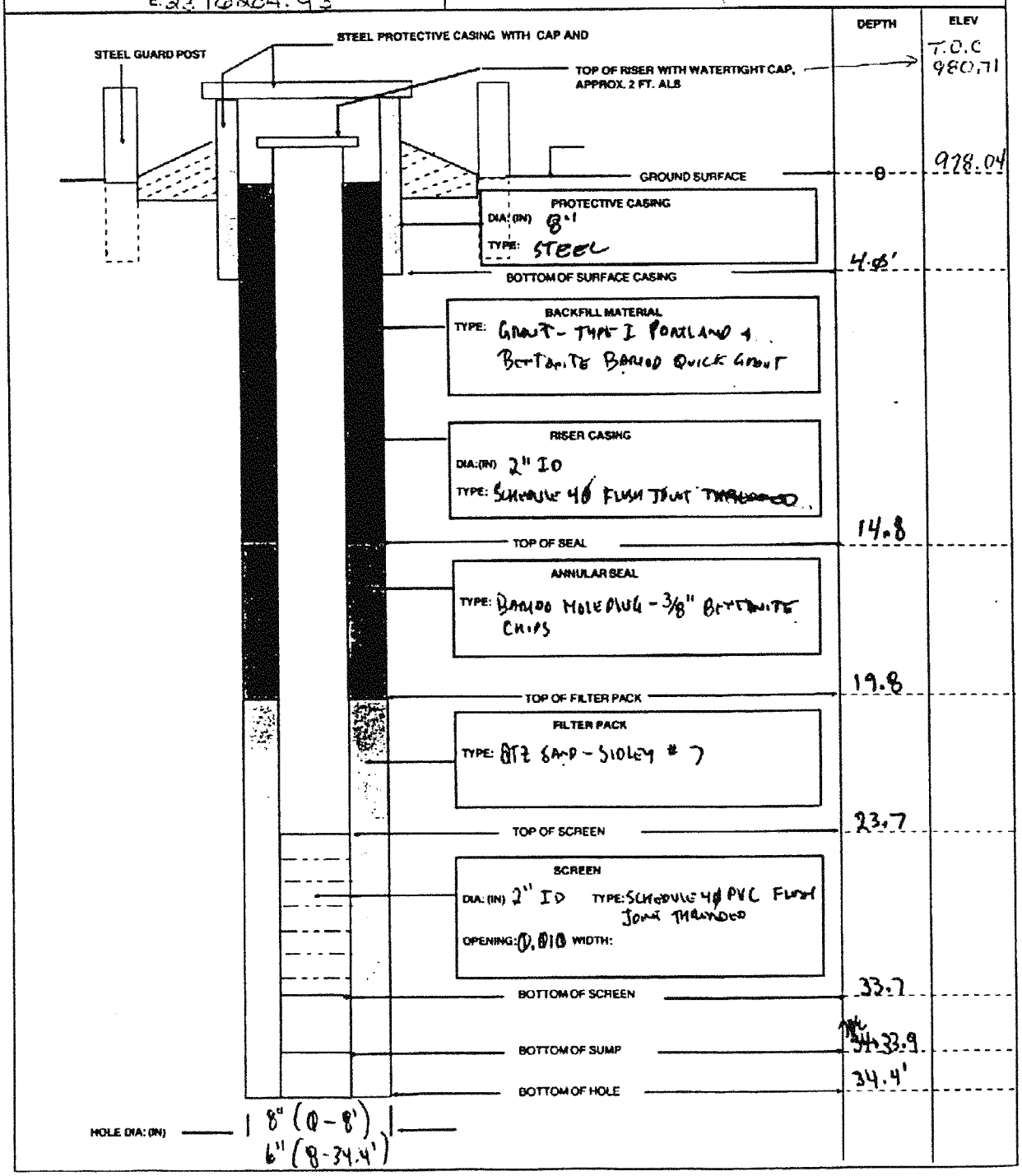

RAMSEUR QUARRY LANDFILL HTRW DRILLING LOG
HOLE NUMBER MW-012
PROJECT: Ext Burning Grounds Phase II
INSPECTOR CHARLES L. KUMER
SHEET 5 OF 5
ELEV (A)
DEPTH (B)
DESCRIPTION OF MATERIALS (C)
HEADSPACE SCREENING RESULTS
GEOTECH SAMPLE OR CORE BOX
ANALYTICAL SAMPLE NO. (F)
REMARKS (G)
30
REAMED TO 30.5' BGS
31
32
33
34
35
36
37
38
39
40

48

MONITORING WELL

PROJECT NAME: Ramsdell Quarry Phase 1 RI DELIVERY ORDER NO: CY11

WELL NUMBER: RQLmw-013	BEGIN: 11/4/03 0759	END: 11/4/03 1109
COORDINATES: N: 560928.09 E: 2376804.93	REFERENCE POINT: Top of casing	ELEVATION: 980.71 MSL



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HTRW DRILLING LOG	DISTRICT: Louisville	HOLE NUMBER RQLmw-013
1. COMPANY NAME: SAIC	2. DRILL SUBCONTRACTOR: FRONTZ DRILLING	SHEET 1 OF 5

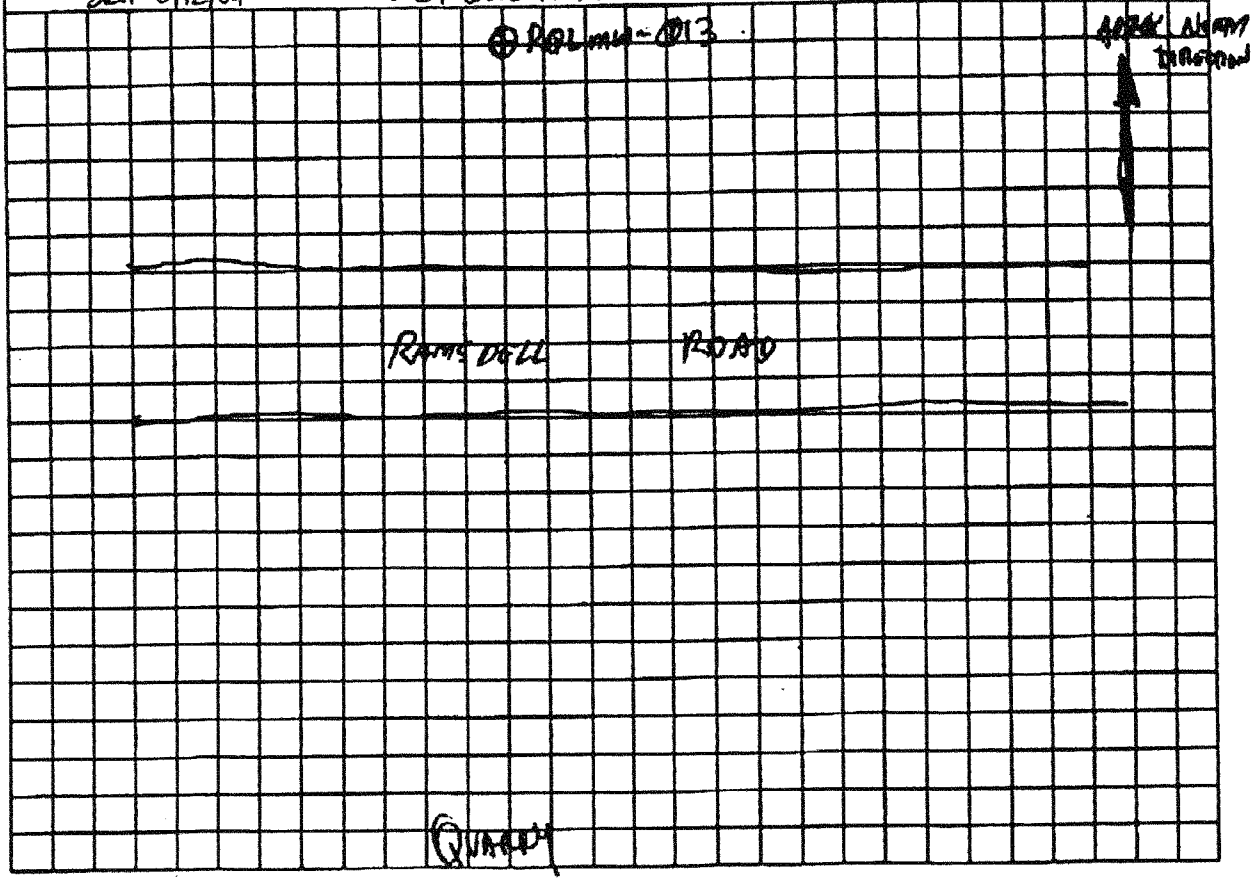
3. PROJECT: Ramsdell Quarry Phase I RI	4. LOCATION: Ramsdell Quarry
5. NAME OF DRILLER: ROB HAMILTON	6. MANUFACTURERS DESIGNATION OF DRILL: CME 75
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8" DIAM AIR ROTARY 0-8' BGL; 6" DIAM. AIR ROTARY 8-34.4' BGL	8. HOLE LOCATION: NORTH OF RAMSDELL QUARRY RIGG/NORTH
	9. SURFACE ELEVATION: 978.84 (ground) 980.71 (top PVC) SRA 8/12/04
	10. DATE STARTED: 11/3/03 — 11. DATE COMPLETED: 11/4/03
12. OVERBURDEN THICKNESS: 0.6' OF UNCONSOLIDATED 1.7' WEATHERED ROCK	13. DEPTH GROUNDWATER ENCOUNTERED: ~21'
13. DEPTH DRILLED INTO ROCK: 39.4'	15. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:
14. TOTAL DEPTH OF HOLE: 34.4'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

16. GEOTECHNICAL SAMPLES: None	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
NBPET	N/A	N/A	N/A	N/A	N/A	N/A

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
		X		[signature]

LOCATION SKETCH/COMMENTS: N: 566928.09 E: 2376204.93 (top PVC) SRA 8/12/04 SCALE: ~20' = 1"



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HTRW DRILLING LOG

PROJECT: Ramsdell Quarry Phase I RI	INSPECTOR [signature]	HOLE NUMBER RQLMW-013
		SHEET 2 OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		CLAYEY SILT (ML): VERY DARK GRAYISH BROWN (10YR 3/2), MOIST, SLIGHT PLASTICITY, ROOT ZONE (0 - 0.6')				SPLITSPOON 0-2' REC: 1.3/2 BLOWS: 4/9/10/19
	1	WEATHERED SANDSTONE: PALE YELLOW (2.5Y 7/3) FINE GRAINED SAND, CRUMBLY, SOFT (0.6 - 1.3)				
	2	ACCUMULATED LOST CORE				
		SAME AS ABOVE				SPLITSPOON 2-2.3' REC 4" REFUSAL BLOWS: 50-4" SET UP TO ADVANCE W/ AIR ROTARY 8" DIAM.
		PALE YELLOW (2.5Y 7/3) SANDSTONE: FINE GRAINED				
	3					
	4					
	5	- LIGHT GRAY (7/N) AND REDDISH YELLOW (7.5YR 6/6) ROCK CHIPS - INTERBEDDED, FE STAINING ON SOME CHIP FACES				
	6					
	7					
	8	FRACTURE ZONE 7.7 - 8' INCREASING GRAY (7/N) CHIPS				
		SANDSTONE: WHITE (8/N) TO LIGHT GRAY (7/N) FINE GRAINED, TRACE OF REDDISH YELLOW (7.5YR 6/6) CHIPS				- 8" DIAM ROLLER BIT TO 8' BGL - 6" DIAM ROLLER BIT 8 - 34.4'
	9					
	10					

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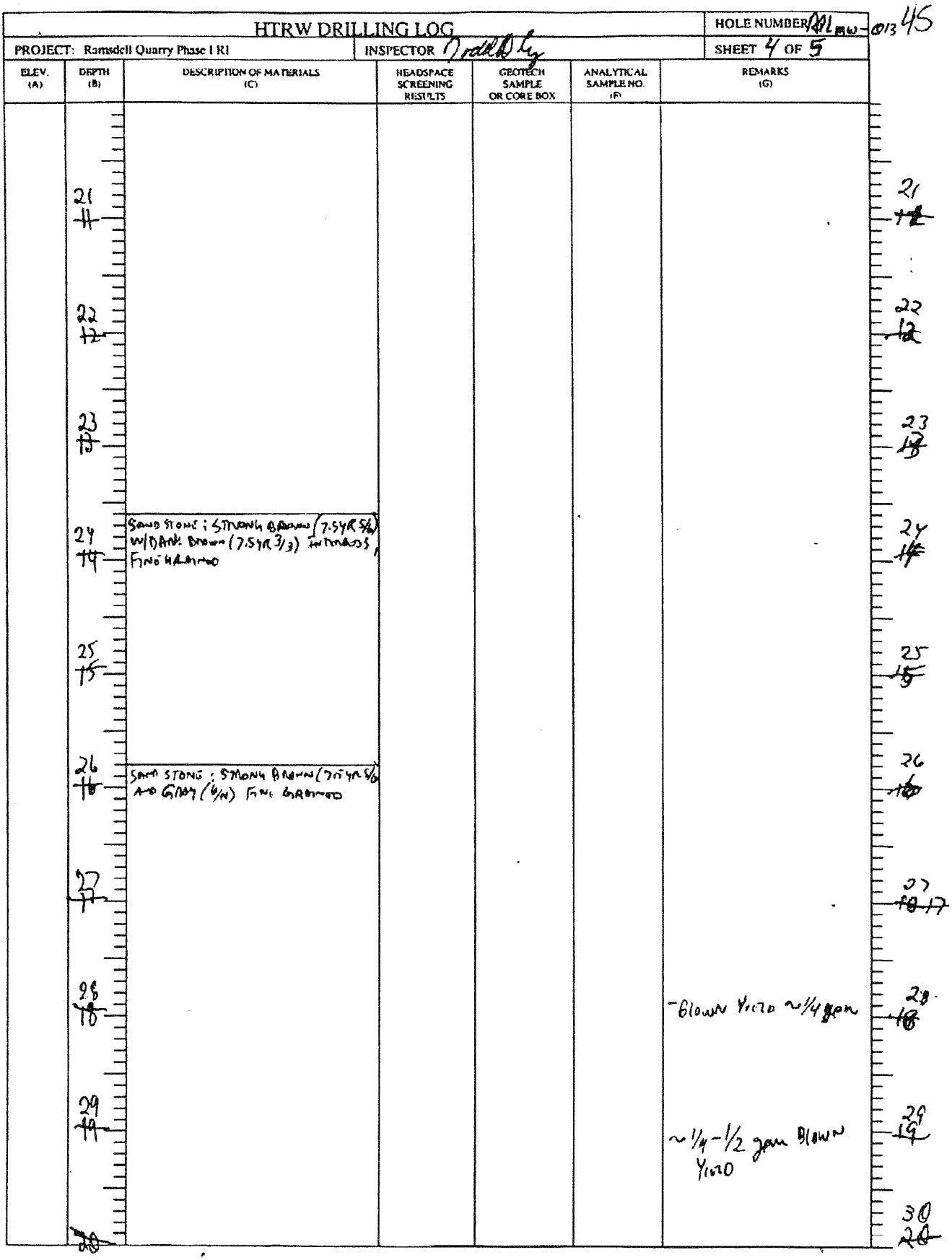
HTRW DRILLING LOG

HOLE NUMBER RQLmw-10/3

PROJECT: Ramsdell Quarry Phase I RI | INSPECTOR [illegible] | SHEET 3 OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		SAME AS ABOVE				
	11	SAND STONE: LIGHT GRAY (2.5Y 7/1) AND BROWNISH YELLOW (10YR 6/6), FINE GRAINED				
	12					
	13					
	14					
		FRACTURE ZONE				
	15	SAND STONE: GRAY (6/N-5/N) FINE GRAINED, TRACE FE STAINED CHIP FACES				
	16					
	17	FRACTURE ZONE				
	18					
	19					
	20					


HTRW DRILLING LOG
HOLE NUMBER RRL MW-013
PROJECT: Ramsdell Quarry Phase I RI
INSPECTOR
SHEET 4 OF 5
ELEV. (A)
DEPTH (B)
DESCRIPTION OF MATERIALS (C)
HEADSPACE SCREENING RESULTS
GEOTECH SAMPLE OR CORE BOX
ANALYTICAL SAMPLE NO. (F)
REMARKS (G)
SAND STONE ; STRONG BROWN (7.5YR 5/6) W/DARK BROWN (7.5YR 3/3) INTERBEDS, FINE GRAINED
SAND STONE ; STRONG BROWN (7.5YR 5/6) AND GRAY (N6) FINE GRAINED
-BLOWN YIELD ~1/4 gpm
~1/4-1/2 gpm BLOWN YIELD

HTRW DRILLING LOG

HOLE NUMBER RAL new-013

PROJECT: Ramsdell Quarry Phase I RI

INSPECTOR [illegible]

SHEET 5 OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	31					
	32					
	33					
	34					- Blown Yield ~1/2 gpm
		TD = 34.4' BGL				
	35					
	36					
	37					
	38					
	39					
	40					

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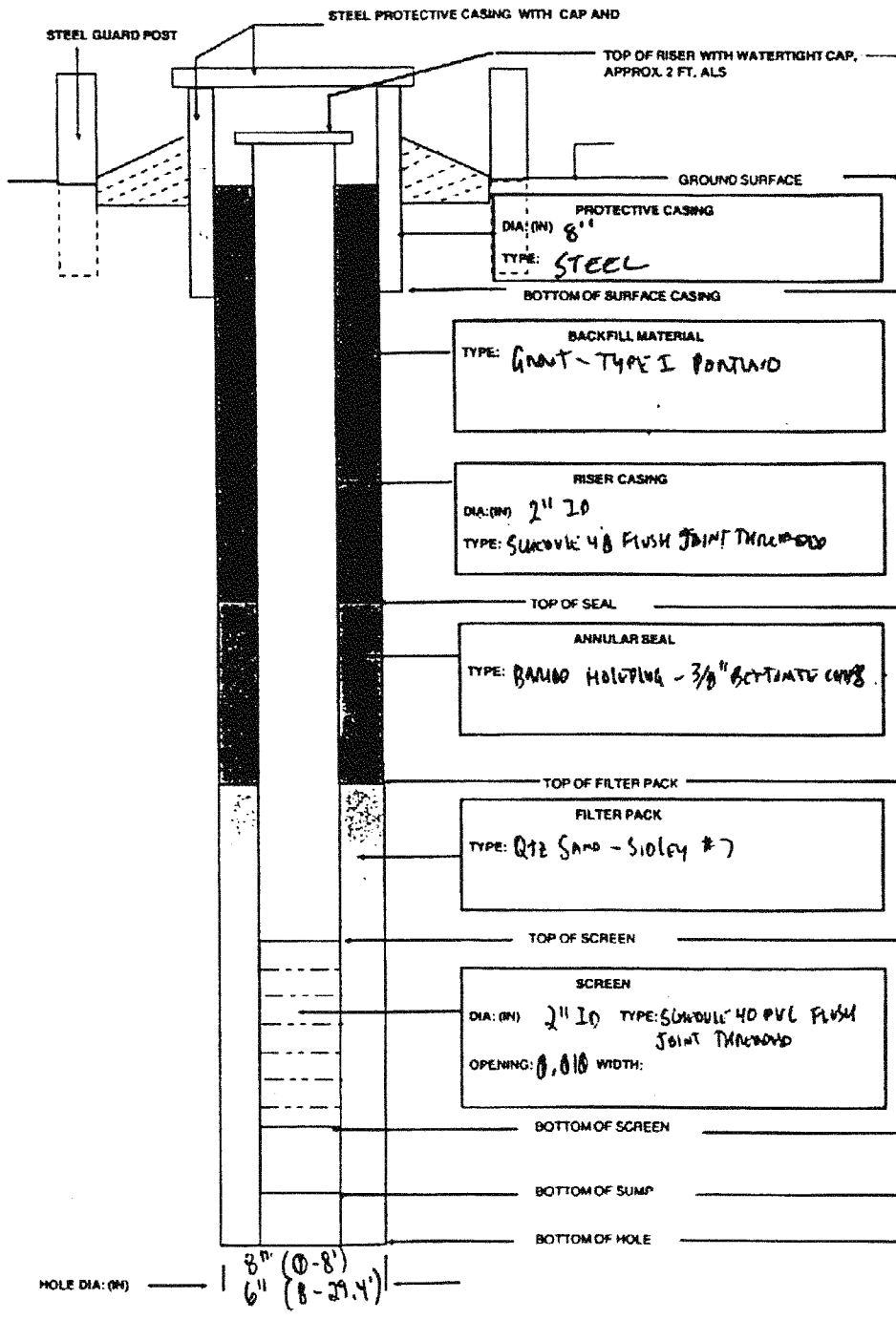
MONITORING WELL

PROJECT NAME: Ramsdell Quarry Phase I RI **DELIVERY ORDER NO.** [illegible]

WELL NUMBER: RQLmw-014	**BEGIN:** 1548 11/4/03	**END:** 11/4/03 1726
COORDINATES: N: 566941.29 E: 2376519.38	**REFERENCE POINT:** Top of casing	**ELEVATION:** 973.49 MSL



DEPTH	ELEV
→	T.O.C. 973.49
0	970.83
5	
11.9' (DRY) 11.5' (WET)	
15'	
18.57	
28.57	
28.9'	
29.4'	

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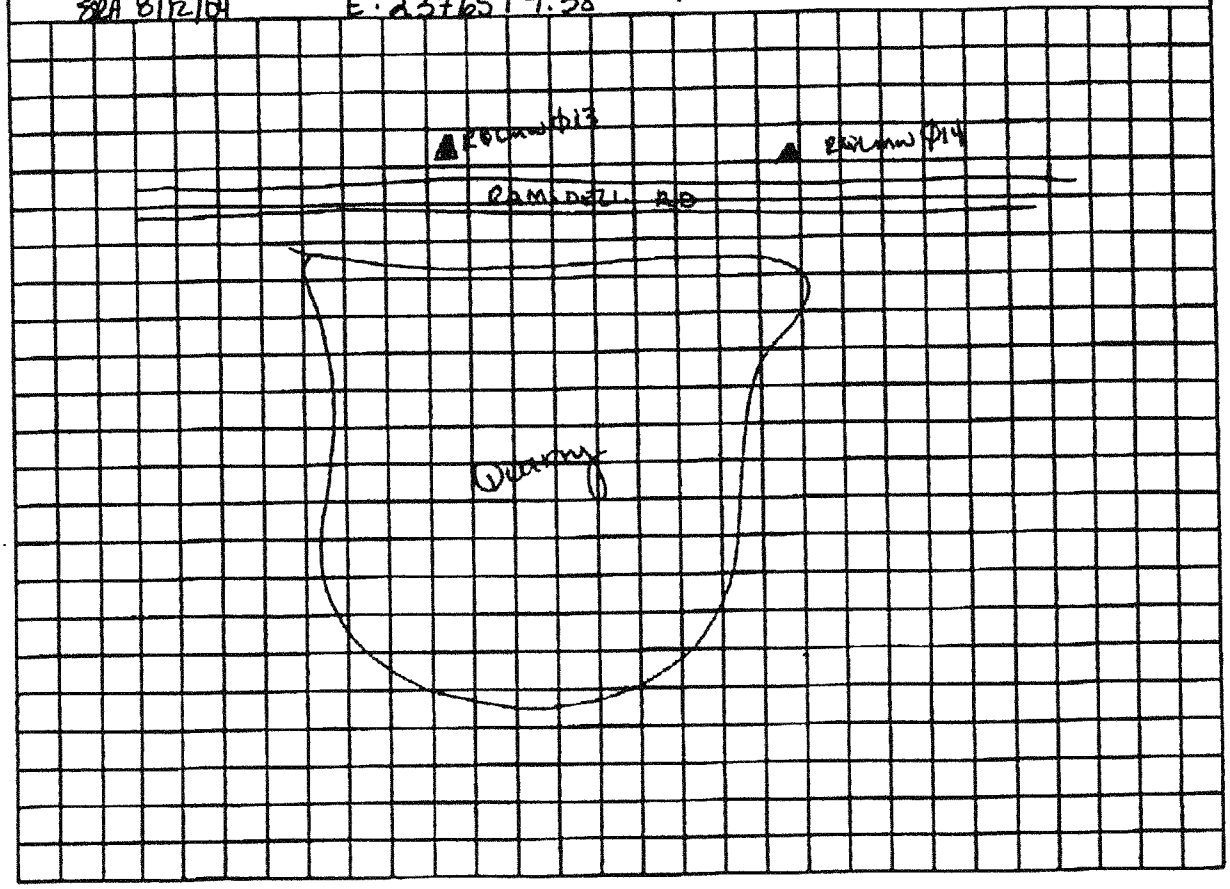
HTRW DRILLING LOG	DISTRICT: Louisville	HOLE NUMBER: RRMW-014
1. COMPANY NAME: SAIC	2. DRILL SUBCONTRACTOR: FRANTZ DRILLING	SHEET 1 OF 2

3. PROJECT: Ramsdell Quarry Phase I RI	4. LOCATION: Ramsdell Quarry
5. NAME OF DRILLER: Rob Hamilton	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 75
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8" Diam. Air Rotary; 6" Diam. Air Rotary	8. HOLE LOCATION: NORTH OF RAMSDELL ROAD, North END OF QUARRY
	9. SURFACE ELEVATION: 973.49 (Top PVC) (970.85 ground) SRA 8/12/04
	10. DATE STARTED: 11/4/03 — 11. DATE COMPLETED: 11/4/03
12. OVERBURDEN THICKNESS: 2.9'	15. DEPTH GROUNDWATER ENCOUNTERED: 22'
13. DEPTH DRILLED INTO ROCK: 16.5'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:
14. TOTAL DEPTH OF HOLE: 29.4'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES			
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR		
		X				

LOCATION SKETCH/COMMENTS: SRA 8/12/04 N: 566941.29 E: 2376519.38 (Top PVC) SCALE: NA



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HTRW DRILLING LOG

HOLE NUMBER RQLmw-014

PROJECT: Ramsdell Quarry Phase I RI

INSPECTOR Todd W. Eng

SHEET 2 OF 5

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		CLAYEY SILT (ML): VERY DARK GRAYISH BROWN (10YR 3/2) MOIST, SOFT, ROOT ZONE, TRACE GRAVEL (0 - 0.8)				SPLIT SPOON 0-2' REC: 1.3 BLOWS: WT/1/4/6
	1	CLAYEY SILT (ML): BROWN (10YR 5/3) SOFT, MOIST TO SAT. SS GRAVEL (0.8 - 1.3')				
		ACCUMULATED LOST CORE				
	2	CLAYEY SILT (ML): SAME AS ABOVE (2.0 - 2.4')				SPLIT SPOON 2-2.9' REC: 0.9 BLOWS: 26/50-5"
		WEATHERED SS: VERY PALE BROWN (10YR 8/3) INTERBEDDED W/ BROWNISH YELLOW (10YR 6/6) CRUMBLY, SOFT, FINE GRAINED				
	3	SANDSTONE: BROWNISH YELLOW (10YR 6/6) WITH MINOR VERY PALE BROWN (10YR 8/3) INTERBEDS, SLIGHTLY WEATHERED, FINE GRAINED, SOME FE STAINED CHIP FACES				SWITCHING TO 8" DIAM. AIR ROTARY
	4					
	5					
	6					
	7					
	8					6" DIAM AIR ROTARY 8- ' BGL
	9					
	10					

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HTRW DRILLING LOG

HOLE NUMBER RQL MW-014

PROJECT: Ramsdell Quarry Phase I RI

INSPECTOR Todd D. Cyr

SHEET 3 OF 5

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11	SAA				
	12	SANDSTONE; INTERBEDDED VERY PALE BROWN (10YR 7/3) AND YELLOWISH BROWN (10YR 5/4) FINE GRAINED, SOFT (MDS; BROKEN BY AUGER				
	13	SANDSTONE: YELLOWISH BROWN (10YR 5/4) W/ INTERBEDS OF DARK BROWN (10YR 3/3) FINE GRAINED				
	14	SANDSTONE: GRAY (5/N) FINE GRAINED				- EASIER PENETRATION - LESS THAN ABOVE
	15	SANDSTONE: BROWN (7.5YR 4/4) FINE GRAINED				
	16					
	17	SANDSTONE: BROWN (7.5YR 4/4) INTERBEDDED W/ DARK YELLOWISH BROWN (10YR 4/6) AND TRACE OF GRAY (6/N)				
	18					
	19					
	20					

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HTRW DRILLING LOG

HOLE NUMBER RALMW-004

PROJECT: Ramsdell Quarry Phase I RI

INSPECTOR [illegible]

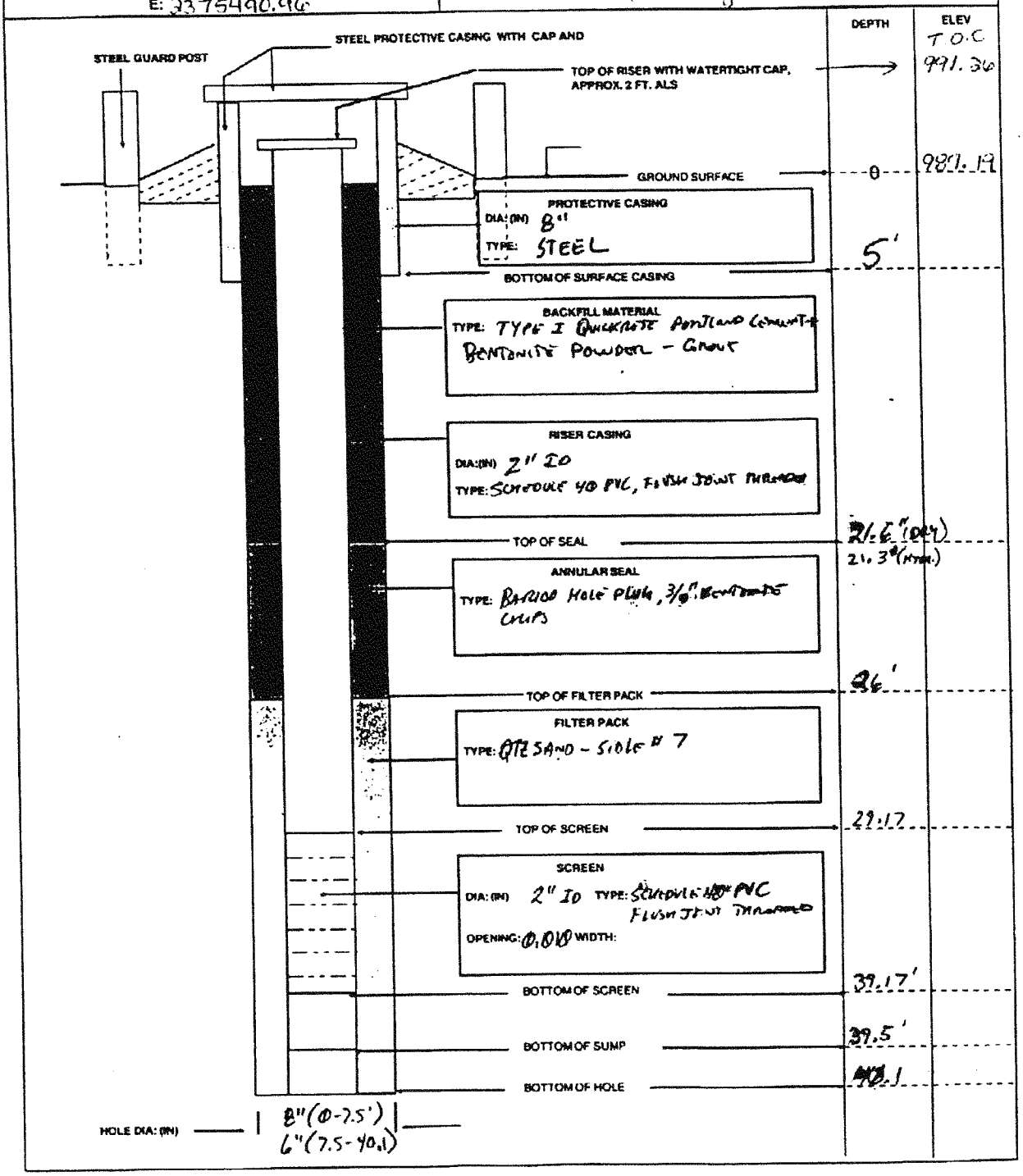
SHEET 4 OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	21					- POSS. BY GETTING INTO H_2O - CUTTINGS SLOUGHING BAILING AND DUST CUT BACK
	22	FRACTURE ZONE				
	23					
	24	SANDSTONE: LIGHT YELLOWISH BROWN (10YR 6/4) INTERBEDDED W/ STRONG BROWN (7.5YR 5/6) FINE GRAINED, TRACE OF CONGLOMERATIC				- BLOWN YIELD ~ 1/4 GAL PER MINUTE
	25					
	26					
	27					
	28	SANDSTONE/CONGLOMERATE: PALE YELLOW (2.5Y 7/4) FINE TO MEDIUM GRAINED, FINE GRAVEL				
	29					- BLOWN YIELD ~ 1/2 GAL PER MINUTE
		TD = 29.5' BGL				
	30					

MONITORING WELL

PROJECT NAME: Ramsdell Quarry Phase 1 RI DELIVERY ORDER NO. 0761

WELL NUMBER: RQL mw-~~12~~ 015	BEGIN: 11/3/03 0945	END: 11/4/03 1140
COORDINATES: N: 560560.90 E: 3375490.96	REFERENCE POINT: Top of casing	ELEVATION: 991.26 MSL



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HTRW DRILLING LOG	DISTRICT: Louisville	HOLE NUMBER RQLMW-015
1. COMPANY NAME: SAIC	2. DRILL SUBCONTRACTOR: FRONTZ DRILLING	SHEET 1 OF 5

3. PROJECT: Ramsdell Quarry Phase I RI	4. LOCATION: Ramsdell Quarry
5. NAME OF DRILLER: ROB HAMILTON	6. MANUFACTURERS DESIGNATION OF DRILL: CME 75
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: HX DIAMOND CORING 2 3/8" (0.4-40') 8" DIAM ROLLER BIT (0-7.5') 6" DIAM ROLLER BIT (7.5-40')	8. HOLE LOCATION: WEST SIDE OF RAMSDELL QUARRY LANDFILL 99419 (ground)
	9. SURFACE ELEVATION: 991.26 (top PVC) SRA 8/12/04
	10. DATE STARTED: 11/2/03 — 11. DATE COMPLETED: 11/3/03
12. OVERBURDEN THICKNESS: 0.4'	15. DEPTH GROUNDWATER ENCOUNTERED:
13. DEPTH DRILLED INTO ROCK: 40'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:
14. TOTAL DEPTH OF HOLE: 40'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

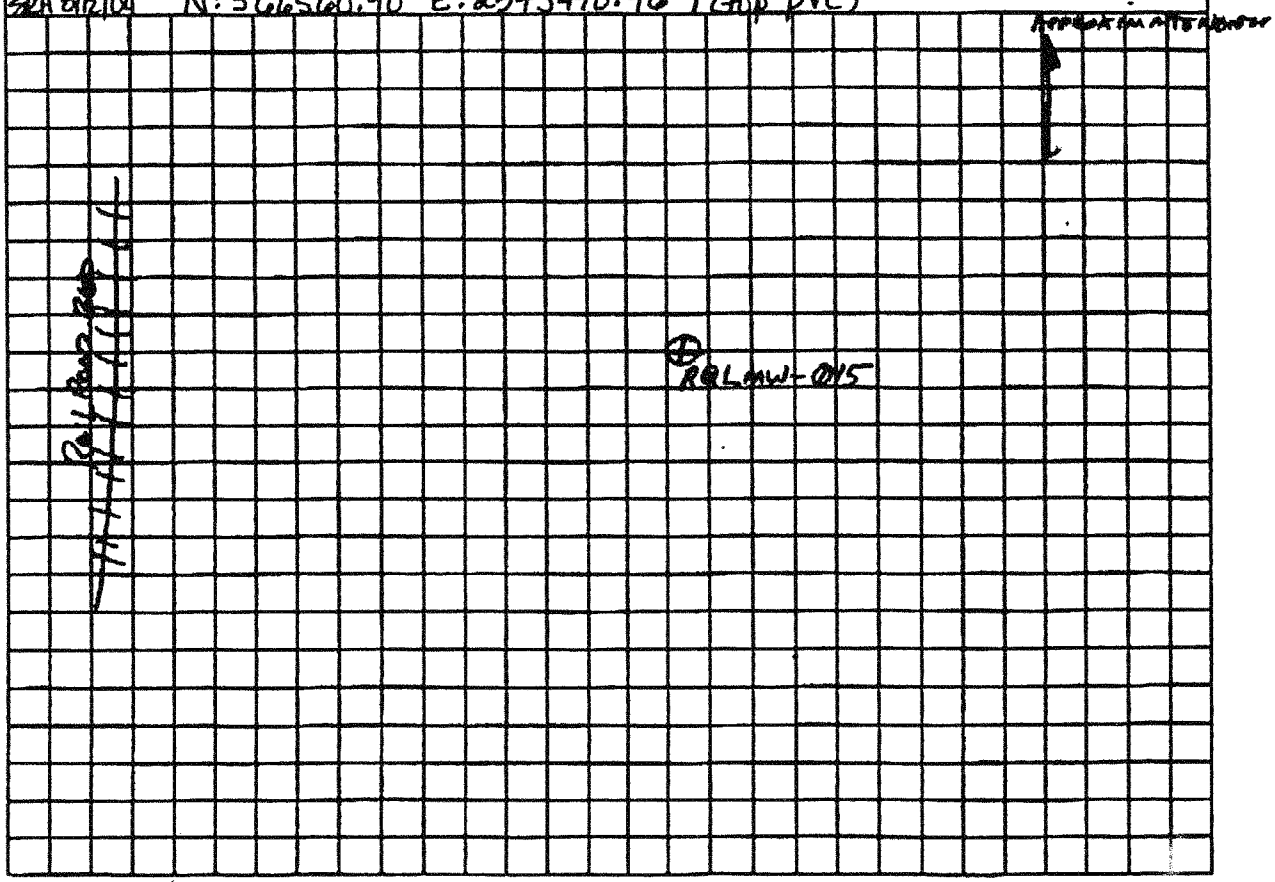
18. GEOTECHNICAL SAMPLES: NONE	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: 4

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
NONE	N/A	N/A	N/A	N/A	N/A	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
		X		[signature]

LOCATION SKETCH/COMMENTS — SCALE: 1"=20'

SRA 8/12/04 N: 566560.90 E: 2375490.96 (top PVC)



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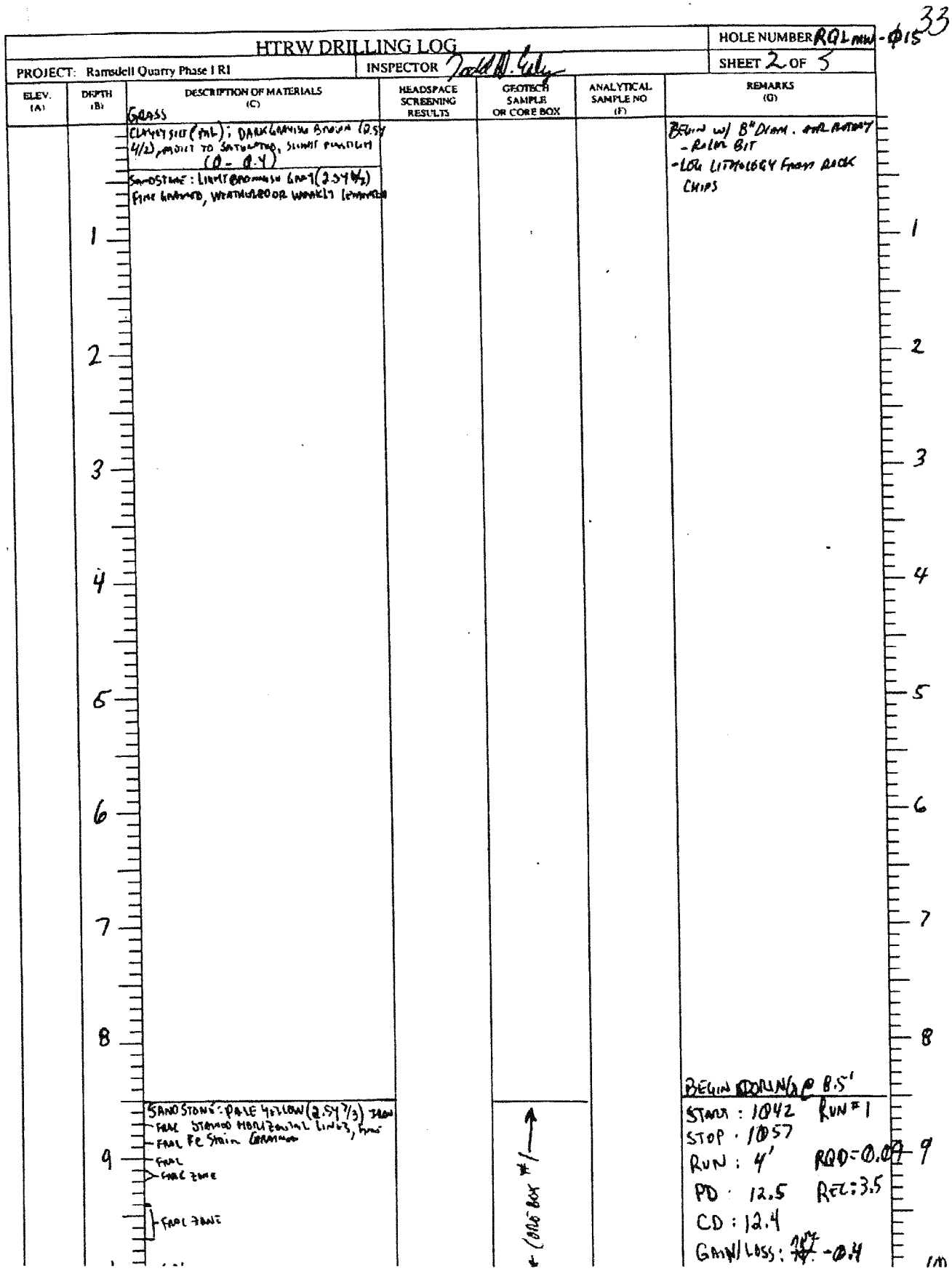


HTRW DRILLING LOG

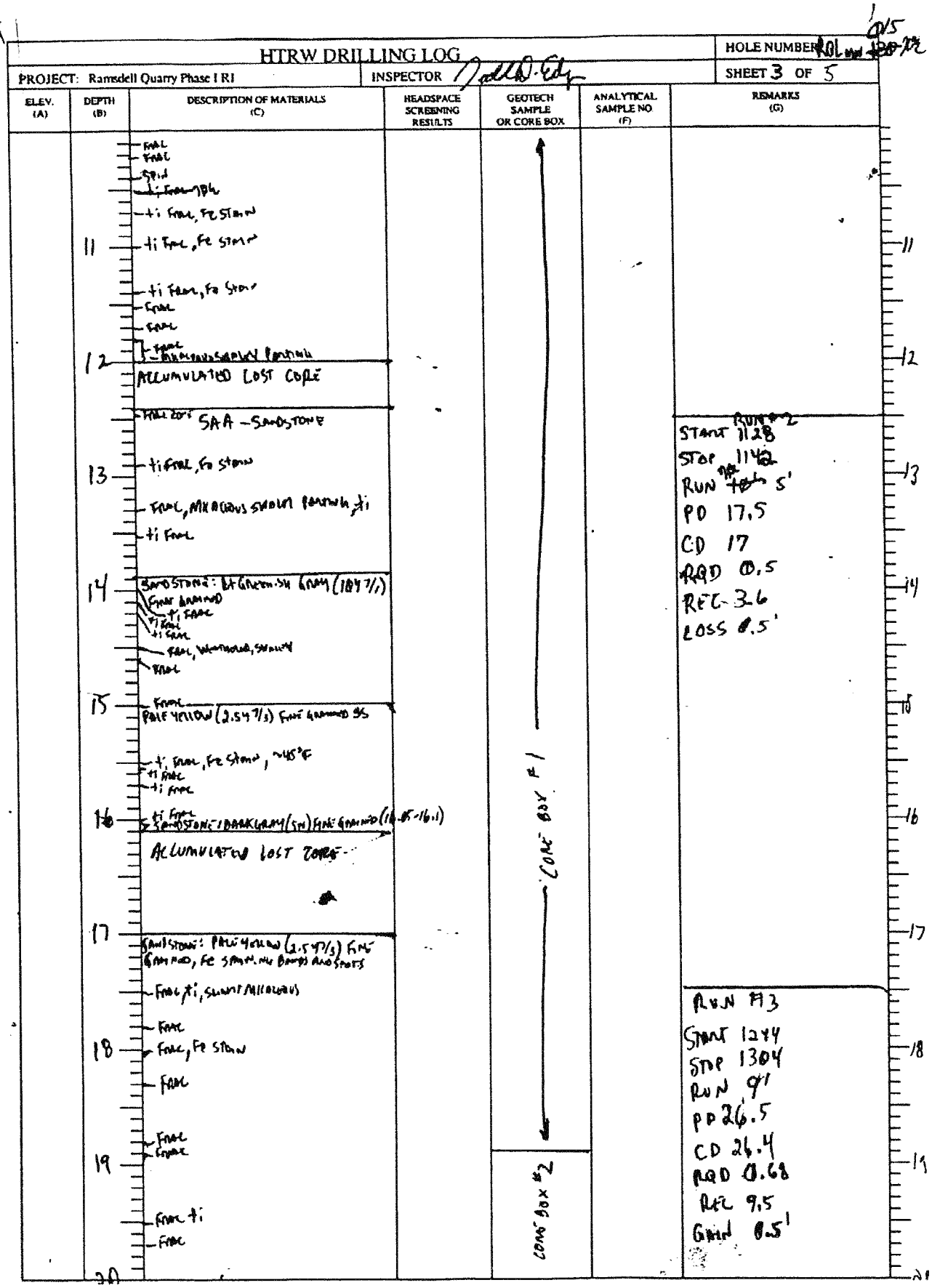
HOLE NUMBER RQL MW-Ø15

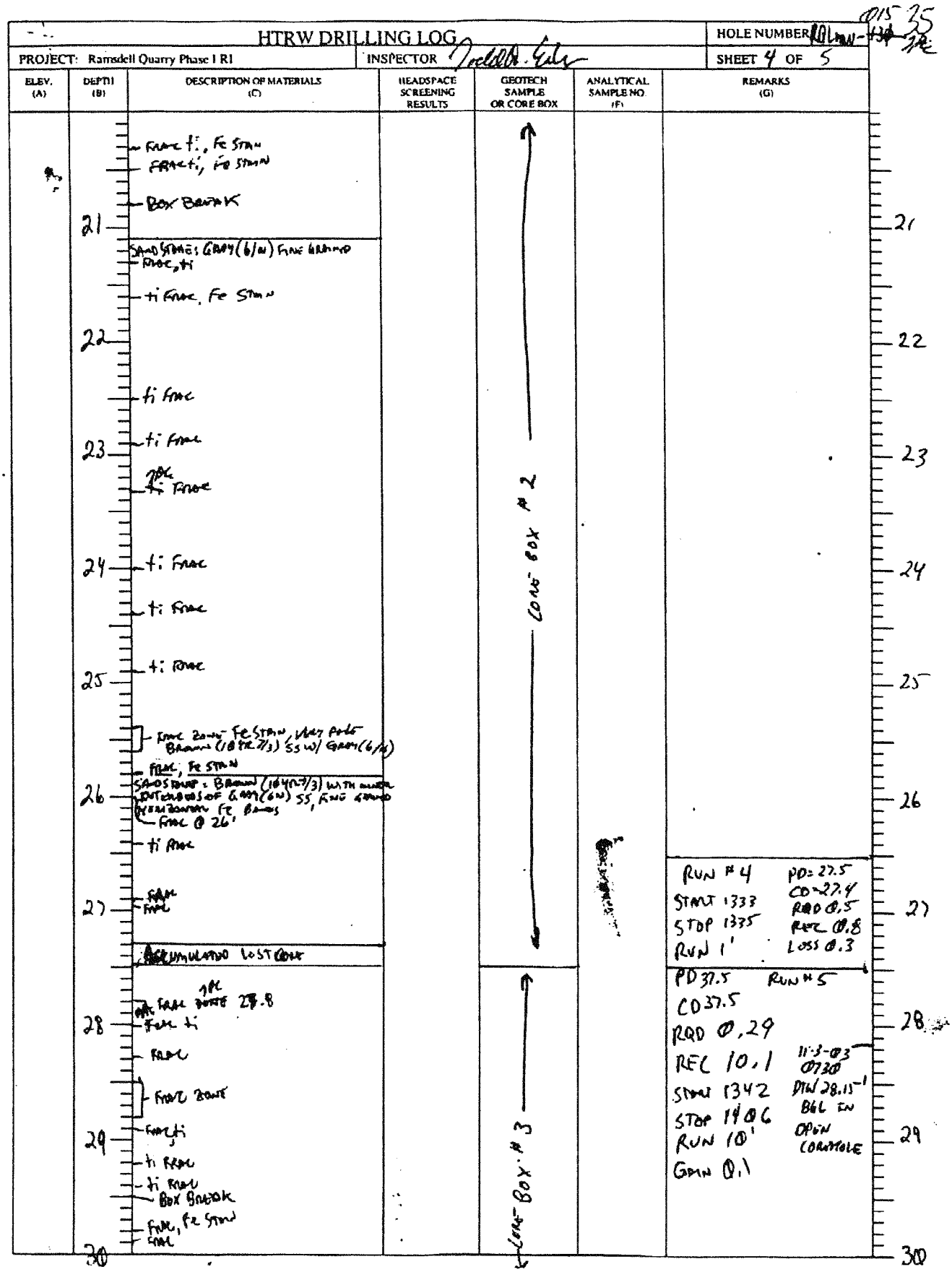
PROJECT: Ramsdell Quarry Phase I RI

INSPECTOR [signature]

SHEET 2 OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
		GRASS				
		CLAYEY SILT (PAL); DARK GRAYISH BROWN (2.5Y 4/2), MOIST TO SATURATED, SLIGHT PLASTICITY (0 - 0.4)				BEGIN w/ 8" DIAM. AIR ROTARY - ROLLER BIT - LOG LITHOLOGY FROM ROCK CHIPS
		SANDSTONE: LIGHT BROWNISH GRAY (2.5Y 6/2) FINE GRAINED, WEATHERED OR WEAKLY LEMINATED				
	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					BEGIN CORING @ 8.5'
		SANDSTONE: PALE YELLOW (2.5Y 7/3) IRON - FRAC STAINED HORIZONTAL LINES, FINE - FRAC Fe STAIN GRAINED		↑ CORE BOX #1		START: 1042 RUN #1
	9	FRAC				STOP: 1057
		FRAC ZONE				RUN: 4' RQD=0.09
		FRAC ZONE				PD: 12.5 REC: 3.5
						CD: 12.4
						GAIN/LOSS: [illegible] -0.4


HTRW DRILLING LOG
HOLE NUMBER
PROJECT: Ramsdell Quarry Phase I RI
INSPECTOR
SHEET 3 OF 5
ELEV. (A)
DEPTH (B)
DESCRIPTION OF MATERIALS (C)
HEADSPACE SCREENING RESULTS
GEOTECH SAMPLE OR CORE BOX
ANALYTICAL SAMPLE NO (F)
REMARKS (G)
ACCUMULATED LOST CORE
SAA - SANDSTONE
RUN #2
START 1128
STOP 1142
RUN 5'
PD 17.5
CD 17
RQD 0.5
REC 3.6
LOSS 0.5'
CORE BOX #1
CORE BOX #2
RUN #3
START 1244
STOP 1304
RUN 9'
PD 26.5
CD 26.4
RQD 0.68
REC 9.5
LOSS 0.5'

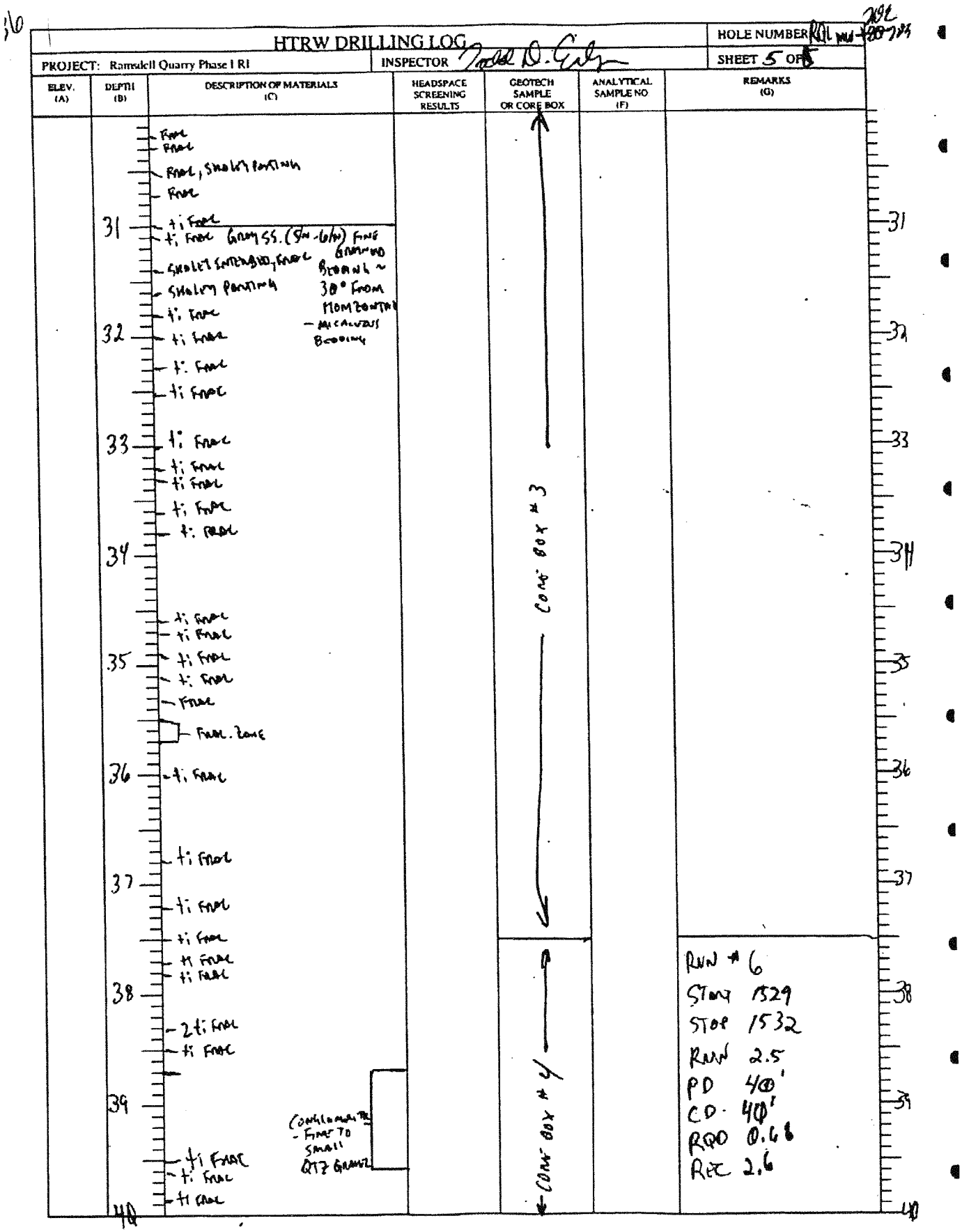

HTRW DRILLING LOG
HOLE NUMBER
PROJECT: Ramsdell Quarry Phase I RI
INSPECTOR
SHEET 4 OF 5
ELEV. (A)
DEPTH (B)
DESCRIPTION OF MATERIALS (C)
HEADSPACE SCREENING RESULTS
GEOTECH SAMPLE OR CORE BOX
ANALYTICAL SAMPLE NO. (F)
REMARKS (G)
CORE BOX # 2
CORE BOX # 3
RUN # 4
START 1333
STOP 1375
RUN 1'
PD= 27.5
CO=27.4
RQD 0.5
REC 0.8
LOSS 0.3
PD 37.5
RUN # 5
CO 37.5
RQD 0.29
REC 10.1
START 1342
STOP 1406
RUN 10'
GAIN 0.1
11-3-03
0730
DTW 28.15' BGL IN OPEN COREHOLE
21
22
23
24
25
26
27
28
29
30

36

HTRW DRILLING LOG

PROJECT: Ramsdell Quarry Phase I RI	INSPECTOR Todd D. Eilg	HOLE NUMBER RQL MW-20-7-03	SHEET 5 OF 5

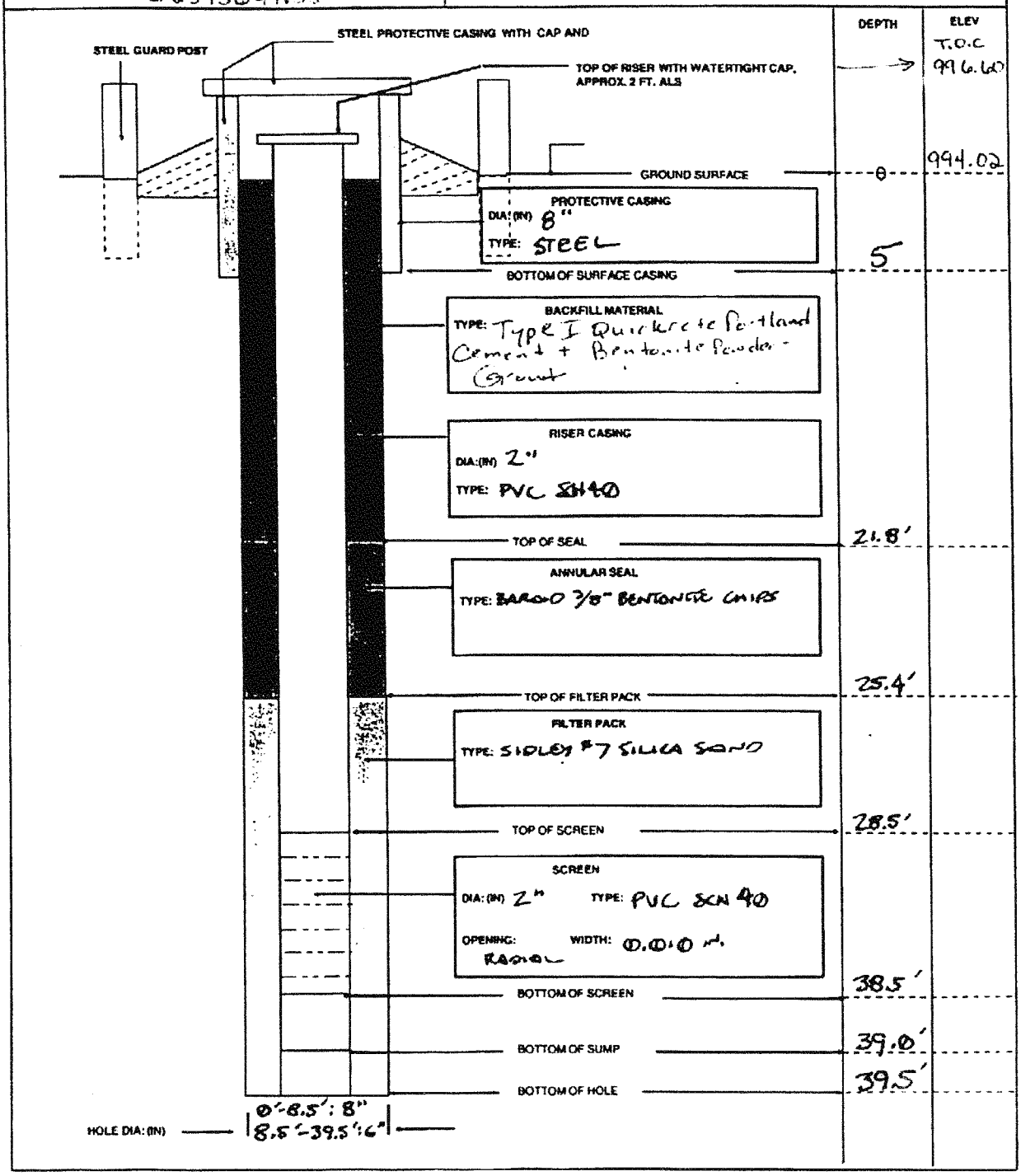
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Frac Frac Frac, Sholey Parting Frac				
	31	ti Frac ti Frac Gray SS. (5/N-6/N) Fine Grained Bedding ~ 30° From Horizontal - Micaceous Bedding Sholey Interbed, Frac Sholey Parting ti Frac				
	32	ti Frac ti Frac ti Frac				
	33	ti Frac ti Frac ti Frac ti Frac ti Frac		Core Box # 3		
	34					
	35	ti Frac ti Frac ti Frac ti Frac Frac Frac. Zone				
	36	ti Frac				
	37	ti Frac ti Frac ti Frac ti Frac ti Frac				
	38	2 ti Frac ti Frac		Core Box # 4		Run # 6 Start 1529 Stop 1532 Run 2.5 PD 40' CD 40' RQD 0.68 Rec 2.6
	39	Conglomerate - Fine to Small Qtz Gravel ti Frac ti Frac ti Frac				
	40					



MONITORING WELL

PROJECT NAME: Erie Burning Grounds Phase II — DELIVERY ORDER NO: 0010

WELL NUMBER: RQL MW-016	BEGIN: 11/03/03	END: 11/4/03
COORDINATES: N: 566177.68 E: 2375649.55	REFERENCE POINT: Top of Casing	ELEVATION: 996.60MSL



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HTRW DRILLING LOG

DISTRICT: Louisville

HOLE NUMBER: RQL MW016

1. COMPANY NAME: SAIC

2. DRILL SUBCONTRACTOR: Frontz Drilling

SHEET 1 of 5

3. PROJECT: ~~Erie Burning Grounds~~ Phase ~~II~~ I. Ramsdell Quarry Landfill

4. LOCATION: ~~Erie Burning Grounds~~ Ramsdell Quarry Landfill

5. NAME OF DRILLER: Jeremy Lockrane

6. MANUFACTURER'S DESIGNATION OF DRILL: CME 750

7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4 1/2" ID HSA, 2" SPLIT SPOON, 8" ROTARY/ROLLER BIT, 6" ROLLER BIT

8. HOLE LOCATION: SW of Ramsdell Quarry LF (SRA 8/12/04) 994.02' (ground)

9. SURFACE ELEVATION: 996.60 (top PVC) SRA 8/12/04

10. DATE STARTED: 11/03/03

11. DATE COMPLETED: 11/4/03

12. OVERBURDEN THICKNESS: 2.5'

13. DEPTH DRILLED INTO ROCK: 37' of rock (39.5' BGS)

14. TOTAL DEPTH OF HOLE: 39.5' BGS

15. DEPTH GROUNDWATER ENCOUNTERED:

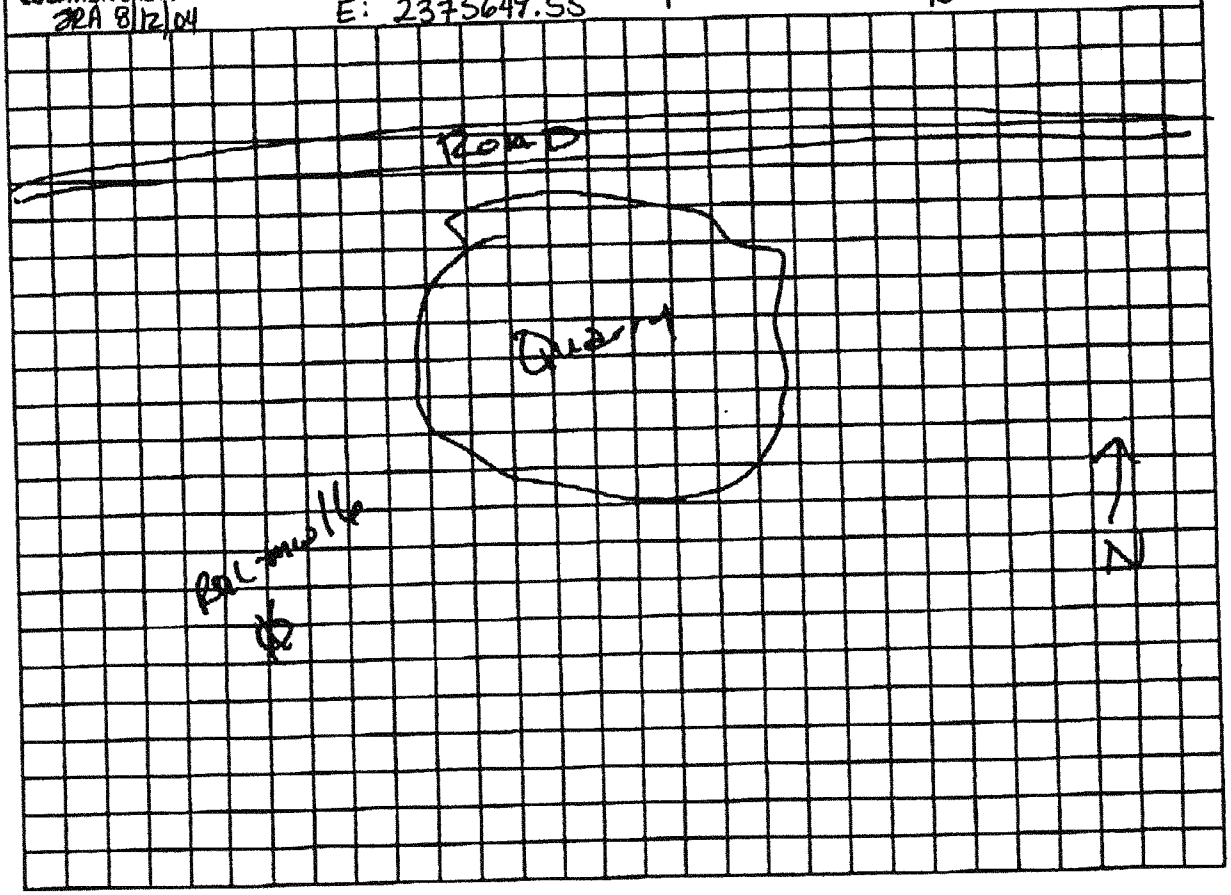
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:

17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES			
20. SAMPLES FOR CHEMICAL ANALYSIS	YES	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
—	—	—	—	—	—	
22. DISPOSITION OF HOLE	SHOWPIPE	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR		
VERTICAL	—	RQL MW-016	—			

LOCATION SKETCH/COMMENTS: SRA 8/12/04 N: 566177.68 E: 2375649.55 (top PVC)

SCALE: Not to Scale



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Ramsell Quarry Landfill HTRW DRILLING LOG		HOLE NUMBER MW-016
PROJECT: ~~Erie Burning Grounds~~ Phase II I.	INSPECTOR Charles L. Klinger	SHEET 2 OF 5

ELEV. (A)	DEPTH (B) (FT)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	ML SILT, WET, DK. GRAYISH BROWN (2.5Y 4/2), MANY ROOTS, LOW PLASTICITY, SOFT				1/2/1/1 S/S 0'-2' 1.3'/2'
	1	ML SILT WITH FINE SAND, MOIST, LOW PLASTICITY, MOTTLED YELLOWISH BROWN (10YR 5/8) AND LIGHT OLIVE GRAY (5Y 6/2) STIFF				
	2					10/ 50/.2 S/S 2'-4' 0.7'/2'
	3	SANDSTONE BEDROCK, YELLOWISH-GRAY (5Y 8/1) WEATHERED. FINE GRAIN				
		WEATHERED, FRACTURED ZONE				
	4					
	5	FRACTURE/WEATHERED ZONE				
		COMPETENT ROCK SANDSTONE, FINE GRAINED PALE BROWN (10YR 6/3)				
	6					
		COLOR CHANGED TO LT. GRAY (10YR 8/2)				
	7					
	8	SAME AS ABOVE				~~8" ROLLER BIT~~ CW 11/04/05 ~~6" ROLLER BIT~~ CORRECTION, DRILLER DRILLED TO 8.5' WITH 8" BIT, 6" STARTS AT 8.5' BGS.
	9					
	10	SAME AS ABOVE				

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RQL

Ramsdell Quarry Landfill HTRW DRILLING LOG		HOLE NUMBER AN-016
PROJECT: ~~Erie Burning Grounds~~ Phase ~~I~~ I.	INSPECTOR Charles L. Klinger	SHEET 3 OF 5

ELEV. (A)	DEPTH (B) (ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	10	SAME AS ABOVE: COMPETENT FINE GRAINED SANDSTONE, LT. GRAY				
	11					
	12	COLOR CHANGE TO YELLOWISH-BROWN (10YR 6/6)				
	13					
		SAME AS ABOVE				
	14					
		FRACTURE ZONE IRON STAINING				
	15					
	16					
		SAME AS ABOVE				
	17					
	18	COLOR CHANGE TO LIGHT BROWNISH GRAY (10YR 6/2)				
	19	LT. GRAY (10YR 7/2) AND SOFTER				
	20					

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Ransdell Quarry Landfill HTRW DRILLING LOG					HOLE NUMBER MW-016
PROJECT: ~~Erie Burning Grounds Phase~~ H J.		INSPECTOR Charles L. Klinger			SHEET 4 OF 5
ELEV. (A)	DEPTH (B) (ft)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	20					
	21	SAME AS ABOVE (SAA)				
	22	SAA				
	23					
		COLOR CHANGE TO DK. GRAY (N 4/0) V. HARD				
	24	FRACTURE ZONE IRON STAINING AND STRINGERS OF COMPETENT SANDSTONE i.e. INTERBEDDED ZONE				
	25					
		COMPETENT, FINE GRAINED, LT. GRAY SANDSTONE				
	26					
	27	SAME AS ABOVE				
	28	SAA				
	29					
	30	FRACTURE ZONE				

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Ramsden Quarry Landfill HTRW DRILLING LOG — HOLE NUMBER

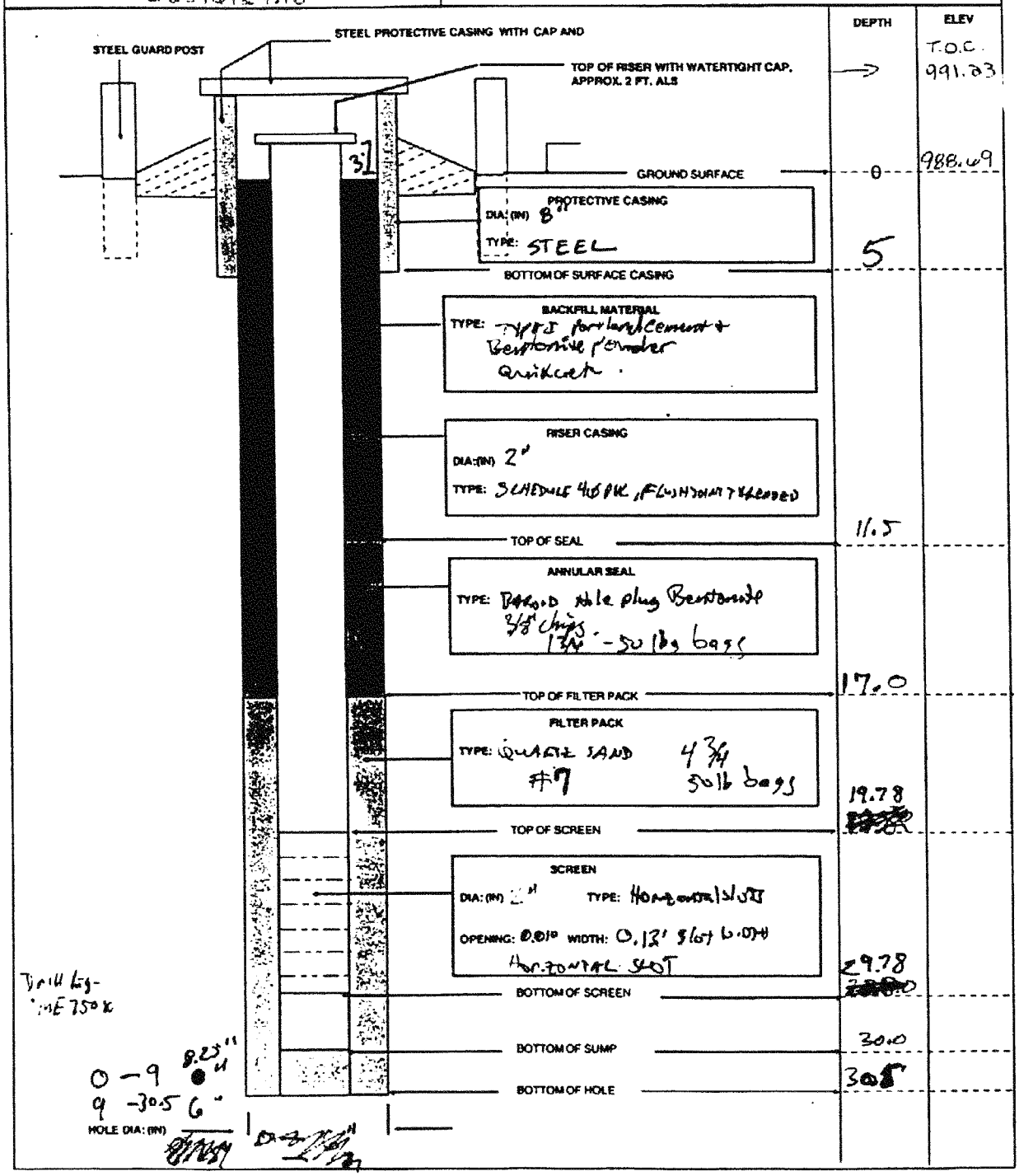
PROJECT: ~~Erie Burning Grounds Phase II~~ Phase I. — INSPECTOR Charles L. Kinney — SHEET 5 OF 5

ELEV. (A)	DEPTH (B) (FT)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	30	INTERBEDDED FRACTURED AND COMPETENT WEATHERED, FINE GRAINED SANDSTONE				
	31					
		COMPETENT SANDSTONE, FINE GRAINED, LT. GRAY (N7/0)				
	32					
	33					
		SAME AS ABOVE				
	34					
	35					
	36	FRACTURE ZONE				
	37					
	38	SOME CLAY CHIPS LIGHT OLIVE GRAY CLAY SIZE				
	39					
	40	END OF BORING @ 39.5' BGS. FROM 8.5' TO 39.5' IN 6" SCREENED IN ROCK				

MONITORING WELL

PROJECT NAME: East Burning Grounds Phase II DELIVERY ORDER NO: [illegible]

WELL NUMBER: RALms-017	BEGIN: 11-10-03	END: 11-11-03
COORDINATES: N: 565931.38 E: 2376124.18	REFERENCE POINT: Top of Casing	ELEVATION: 991.23 MSL



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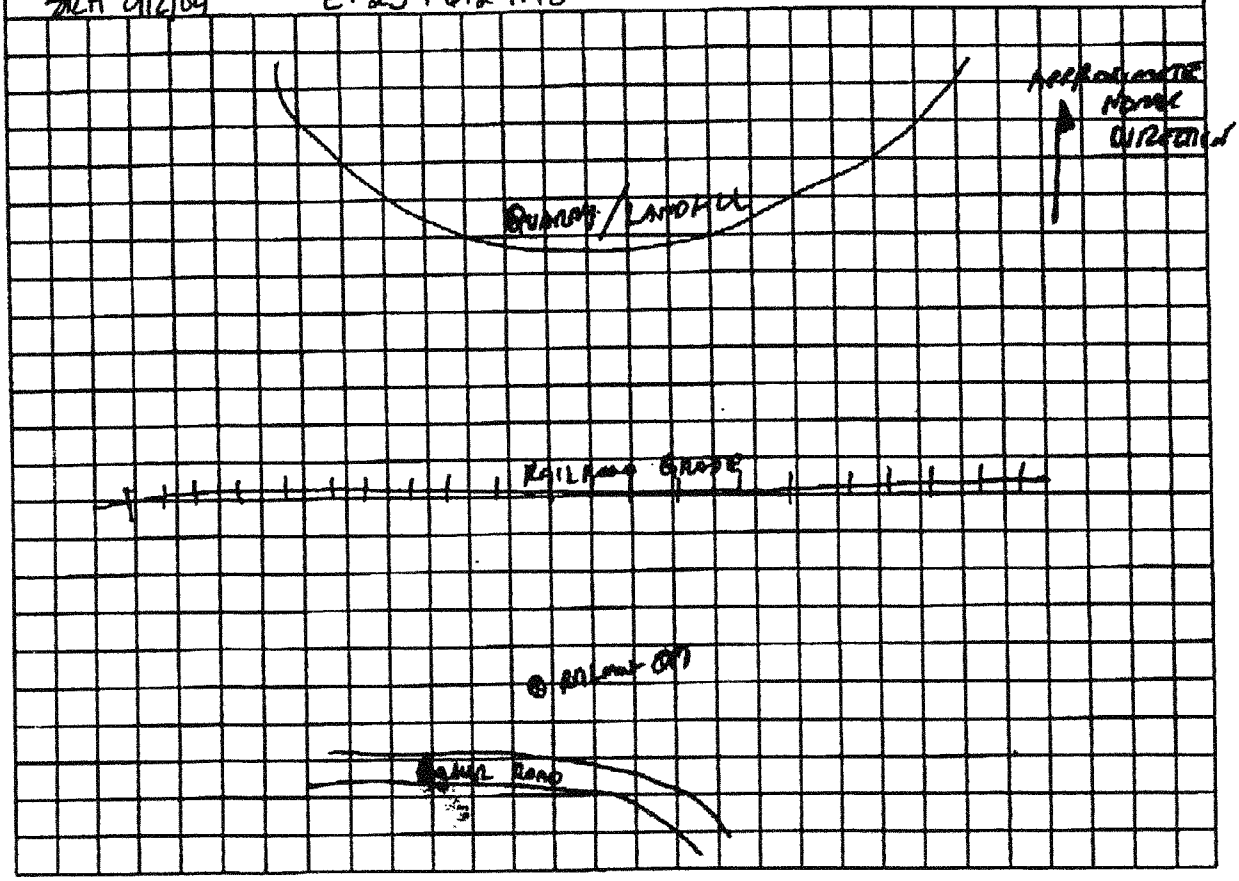
HTRW DRILLING LOG	DISTRICT: Louisville	HOLE NUMBER: RQLMW-017
1. COMPANY NAME: SAIC	2. DRILL SUBCONTRACTOR: Frontz.	SHEET 1 of 5
3. PROJECT: ~~Erie Burning Grounds Phase II~~ RANCOFIL QUARRY PHASE I RE	4. LOCATION: ~~Erie Burning Grounds~~ RANCOFIL QUARRY	
5. NAME OF DRILLER: JEREMY LECKRONE	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 75Φ	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA. 2" SPLITSPOON 8" ROTARY / CASING B.T 6" ROLLER B.T	8. HOLE LOCATION: SOUTH OF QUARRY	
	9. SURFACE ELEVATION: SRA 8/12/04 991.27' amsl (top PVC) 988.109' amsl (ground)	
	10. DATE STARTED: 11/5/03	11. DATE COMPLETED: 11/11/03
12. OVERBURDEN THICKNESS: 2 Φ'	13. DEPTH GROUNDWATER ENCOUNTERED: 25' bgs	
13. DEPTH DRILLED INTO ROCK: 28.5'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:	
14. TOTAL DEPTH OF HOLE: 30.5'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: 2
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY) / OTHER (SPECIFY) / OTHER (SPECIFY) / 21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE	BACKFILLED	X	OTHER (SPECIFY) / 23. SIGNATURE OF INSPECTOR: M. Clamp

LOCATION SKETCH/COMMENTS: SRA 8/12/04 N: 565931.38 E: 2376124.18 (top PVC) SCALE: 1" = 200'



Drill Rig- [illegible] CME 750X

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HTRW DRILLING LOG

HOLE NUMBER RFLMW-017

PROJECT: ~~Erie Burning Grounds Phase II~~ PHASE I

INSPECTOR Todd D. Cary

SHEET 2 OF 5

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	1	CLAYEY SILT (ML): VERY DARK GRAY (10YR 3/1), ORGANIC MATERIAL AND ROOT ZONE (0-0.4)				SPLIT SPOON 0-2' REC 1.4 BLOWS 1/2/3/3
		CLAYEY SILT (ML). YELLOW (2.5Y 7/6) W/ LIGHT BLUISH GRAY (10B 7/1) MOTTLING, MOIST, SOFT, SANDY - FINE GRAINED, TRACE GRAVEL, SLIGHT PLASTICITY (0.4-1.4')				
	2	ACCUMULATED LOST CORE				SPLIT SPOON 2-2.5' REC 0/2 BLOWS: 14/50-5" - END OF SPOON - SHOE CAME OFF - IN ROCK - AUGER FROM 0-3.5' BGL 8" AIR ROTARY 0-9' BGL
		SANDSTONE: LIGHT YELLOWISH BROWN (2.5Y 6/4) FINE GRAINED, WEATHERED - LOOSE FROM AUGER RETURNS (2-2.9)				
	3	SANDSTONE: LIGHT YELLOWISH BROWN (2.5Y 6/4) FINE GRAINED W/ INTERBEDDED YELLOW (2.5Y 7/8)				
	4					
	5					
	6					
	7					
	8					
	9	1': CLAY, 1': FINE, 1': SAND, 1': FINE, 1': FINE, 1': FINE		CORE BOX #1		RUN #1 ~~PUB~~ PR PD 16.8 RUN 7.9', CD 15.5'
	10	1': FINE ZONE				

Augered

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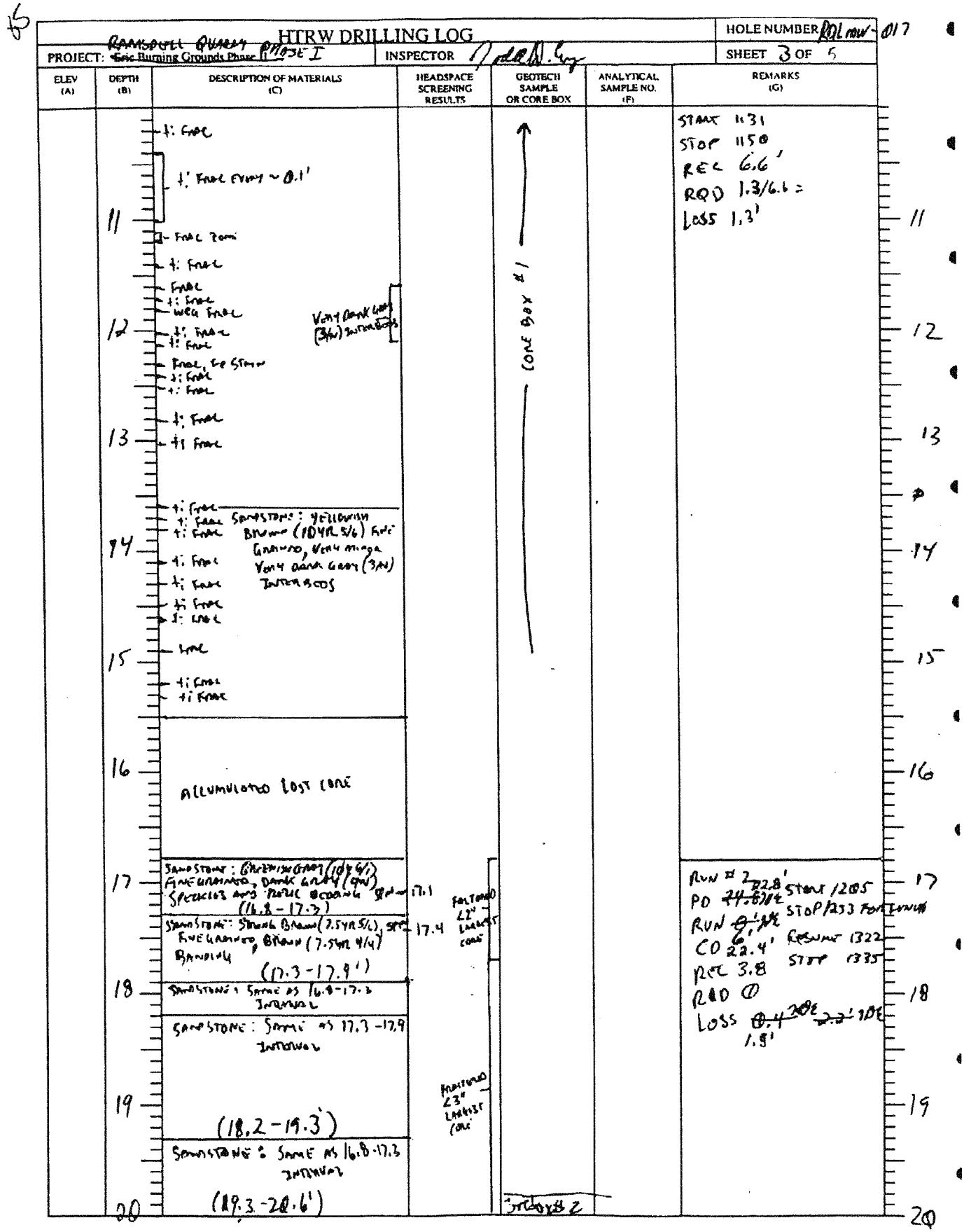
HTRW DRILLING LOG

PROJECT: ~~Eric Burning Grounds Phase II~~ RAMSDELL QUARRY PHASE I | INSPECTOR [signature] | HOLE NUMBER RQL MW-017 | SHEET 3 OF 5

ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		+: FRAC		CORE BOX #1		START 1131 STOP 1150 REC 6.6' RQD 1.3/6.6 = LOSS 1.3'
		+: FRAC EVERY ~0.1'				
	11	FRAC ZONE				
		+: FRAC				
		FRAC				
		+: FRAC				
		WEG FRAC				
	12	+: FRAC	VERY DARK GRAY (3/N) INTERBEDS			
		+: FRAC				
		FRAC, FE STAIN				
		+: FRAC				
		+: FRAC				
		+: FRAC				
	13	+: FRAC				
		+: FRAC				
		+: FRAC	SANDSTONE: YELLOWISH BROWN (10YR 5/6) FINE GRAINED, VERY MINOR VERY DARK GRAY (3/N) INTERBEDS			
	14	+: FRAC				
		+: FRAC				
		+: FRAC				
		+: FRAC				
	15	FRAC				
		+: FRAC				
		+: FRAC				
	16	ACCUMULATED LOST CORE				
	17	SANDSTONE: GREENISH GRAY (10Y 6/1) FINE GRAINED, DARK GRAY (9N) SPECKLES AND PARTIAL BEDDING SP~ 17.1 (16.8 - 17.3)	FRACTURED <2" LARGEST CORE			RUN # 2 22.8' PD ~~24.8'~~ 20E RUN ~~8'~~ 6' 20E CD 22.4' REC 3.8 RQD 0 LOSS ~~0.4~~ 20E ~~2.2'~~ 20E 1.8' START 1205 STOP 1253 FOR LUNCH RESUME 1322 STOP 1335
		SANDSTONE: STRONG BROWN (7.5YR 5/6), SPE FINE GRAINED, BROWN (7.5YR 4/4) BANDING (17.3 - 17.9')	17.4			
	18	SANDSTONE: SAME AS 16.8-17.3 INTERVAL				
		SANDSTONE: SAME AS 17.3 - 17.9 INTERVAL				
	19	(18.2 - 19.3')	FRACTURED <3" LARGEST CORE			
		SANDSTONE: SAME AS 16.8-17.3 INTERVAL				
	20	(19.3 - 20.6')		CORE BOX #2		



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HTRW DRILLING LOG

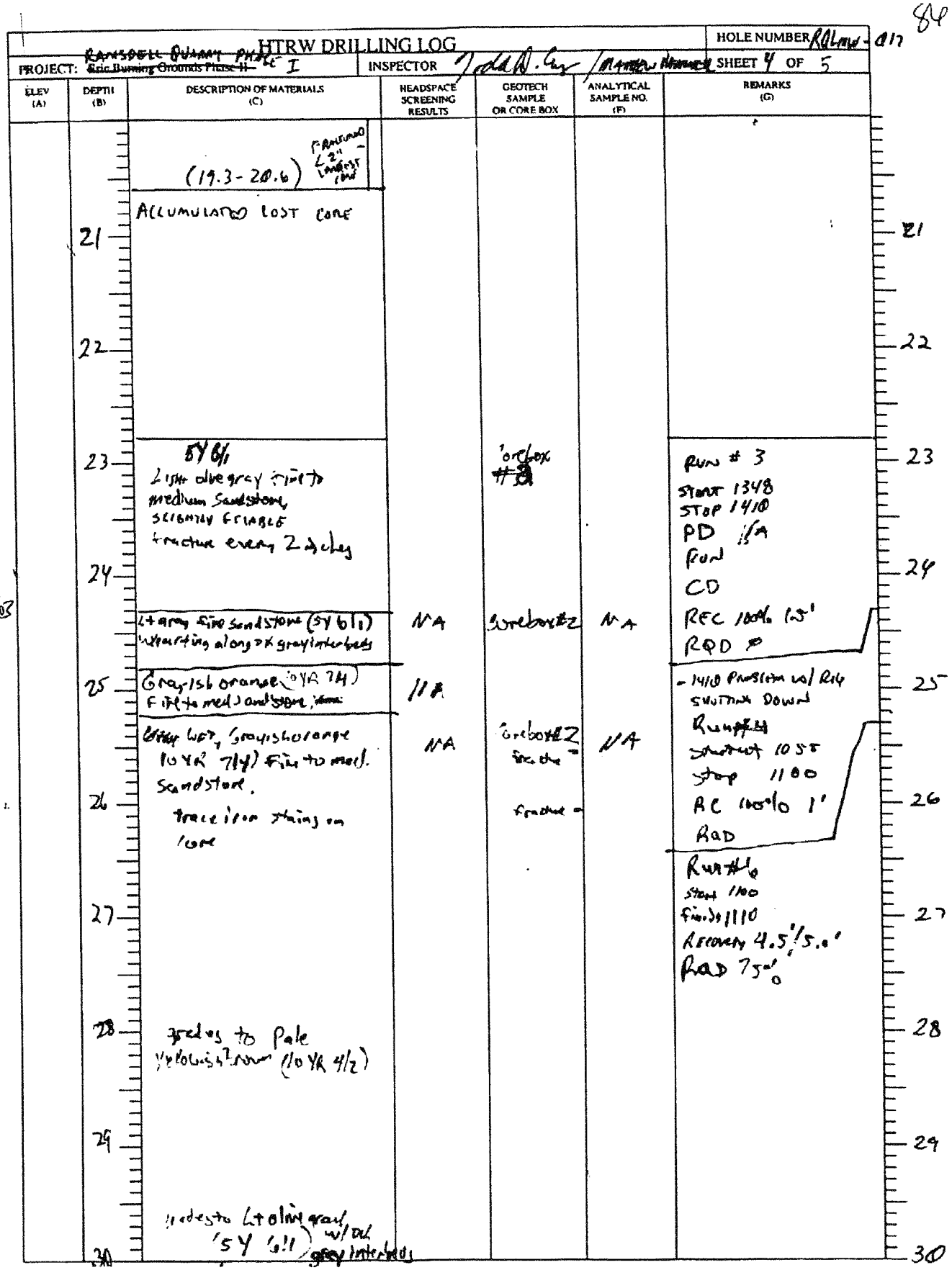
HOLE NUMBER RQLmw-017

PROJECT: ~~Eric Burning Grounds Phase II~~ RAMSDELL QUARRY PHASE I

INSPECTOR [illegible] / [illegible]

SHEET 4 OF 5

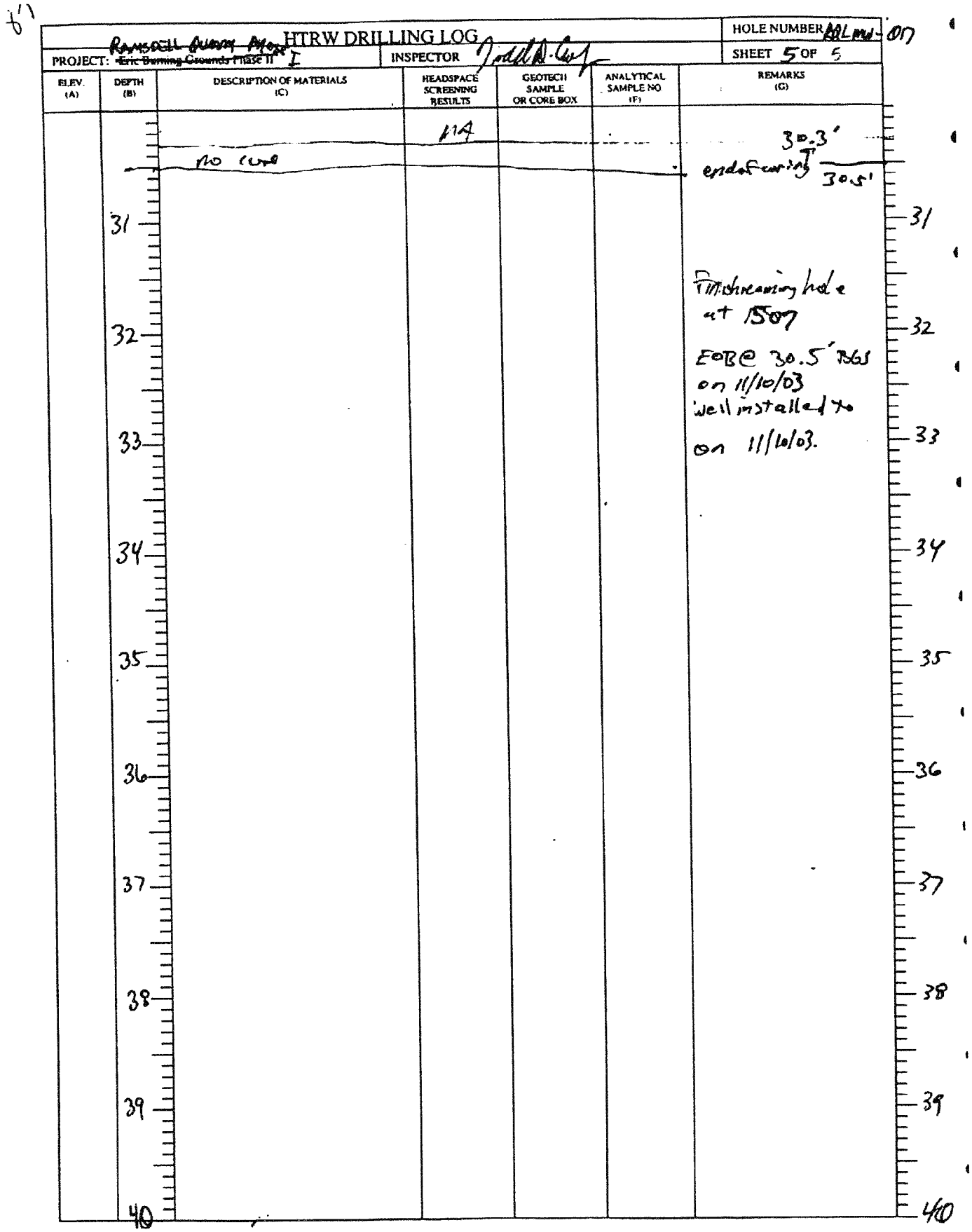
ELEV (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		(19.3-20.6) FRACTURED < 2" LARGEST CORE				
	21	ACCUMULATED LOST CORE				
	22					
	23	5Y 6/1 Light olive gray fine to medium sandstone, slightly friable fracture every 2 inches		Corebox #3		RUN # 3 START 1348 STOP 1410 PD N/A RUN CD
	24					
1403		Lt gray fine sandstone (5Y 6/1) weathering along dk gray interbeds	NA	Corebox #2	NA	REC 100% 1.5' RQD 0
	25	Grayish orange (10YR 7/4) fine to med sandstone	NA			- 1410 Problem w/ Rig shutting down
		Gray wet, Grayish orange (10YR 7/4) fine to med. sandstone.	NA	Corebox #2 fracture	NA	Run #4 start at 1055 stop 1100
	26	trace iron stains on core		fracture		RC 100% 1' RQD
	27					Run #6 Start 1100 finish 1110 Recovery 4.5'/5.0' RQD 75%
	28	grades to Pale yellowish brown (10YR 4/2)				
	29					
	30	grades to Lt olive gray (5Y 6/1) w/ dk gray interbeds				



HTRW DRILLING LOG

PROJECT: ~~Eric Burning Grounds Phase II~~ Ramsdell Quarry Phase I	INSPECTOR [signature]	HOLE NUMBER [illegible]-017
		SHEET 5 OF 5

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO (F)	REMARKS (G)
			NA			30.3'
		no core				end of coring 30.5'
	31					
	32					Finishreaming hole at 1507 EOB @ 30.5' BGS on 11/10/03 well installed to on 11/10/03.
	33					
	34					
	35					
	36					
	37					
	38					
	39					
	40					



HTRW DRILLING LOG

1. COMPANY NAME: MKM Engineers Inc.	DISTRICT: Louisville	HOLE NUMBER: CBLmw-001
3. PROJECT: RVAAP RI 14	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF 4 SHEETS

4. LOCATION: C-Block Quarry	
5. NAME OF DRILLER: Sam Holder	6. MANUFACTURER'S DESIGNATION OF DRILL: CME CC-60
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 10.25 OD HSA; 2" Splitspoon; 6.125 Air Rotary Hammer; 4" Core Barrel	8. HOLE LOCATION: West Side of the Quarry
	9. SURFACE ELEVATION: 1178.50 ASL
	10. DATE STARTED: 13 Dec 04 — 11. DATE COMPLETED: 14 Dec 04
12. OVERBURDEN THICKNESS: 1.9	15. DEPTH GROUNDWATER ENCOUNTERED: ~40 ft
13. DEPTH DRILLED INTO ROCK: 50 ft	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 42.5' @ 0918 12/22/04
14. TOTAL DEPTH OF HOLE: 50 ft	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)

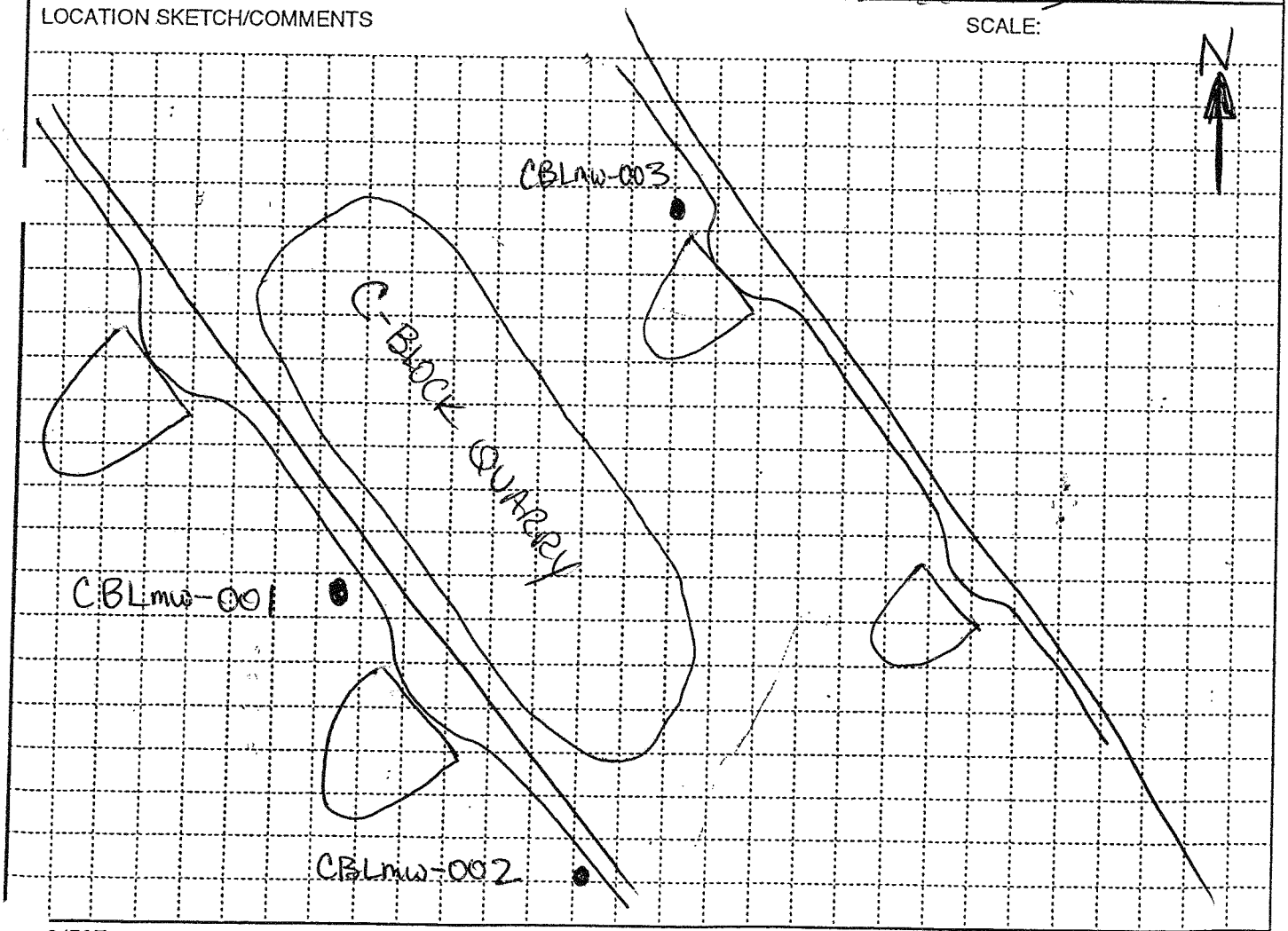
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	—	—	4

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
—	—	X	—	

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	CBLmw-001

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: CBLmw-001

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 2 OF 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	2" Topsoil Br. SILT 65% w/Sand Damp Moodo No Staining No Plasticity	0.0	1.7	M	1-1	Sampled Shelby Tube from 0-2 G930 13Dec04 7.5yr 5/6
	2	Split Spoon Refusal @ 1.9 Weathered SS				4-15	
	4						
1027	6	Top of Core #1 G60 WEATHERED SAND STONE LT. BRN FINE TO MED GRAIN					Recovery = 90/114 = 78% RQD = 49.5/90 = 55%
	8	LT. BRN TO WHITE					7.5YR 5/6
	10						
	12						
	14						
1200 1215	15.5	Bottom of Core #1 @ 15.5 Top of Core #2					
	16	REDDISH/BR SAND STONE MED TO FINE GRAIN					Recovery = 110.4/122.4 = 90.1% RQD = 68.5/110.4 = 62% 5YR 4/4
	18						
	20						

PROJECT: RVAAP RI 14

HOLE NO.: CBLmw-001

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: CBLmw-001

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 3 OF 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20						
	22	COLOR CHANGES TO LT BRN/GREY					7.5YR 5/6
	24						
1250		Bottom of Core #2 @ 25.7					
1330	26	Top of Core #3					Recovery = 109.2 / 116.4 = 93.8%
		REDDISH BRN					RQD = 16 / 109.2 = 14.6%
		MED TO FINE GRAIN SANDSTONE					5YR 4/6
	28						
		LIT BRN					7.5YR 5/6
	30						
	32						
	34						
1400		Bottom of Core #3 @ 35.4					
1450		Top of Core #4					
	36	LT BRN MED GRAIN SANDSTONE					7.5YR 5/6
	38						
	40						

PROJECT: RVAAP RI 14

HOLE NO.: CBLmw-001

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: CBLmw-001

PROJECT: RVAAP RI/Y

INSPECTOR: Mark Dunlevy

SHEET 4 OF 4 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	40	LT. BRN MED GRAIN SANDSTONE					7.5YR 5/6
	42						
	44						
	46						
	48						
	50	BOH 50 Ft					BOH 50 Sand to 49 Screen from 49 to 39 Sand to 34 Bentonite to 31 Grout to Surface Stick-up well completion
	52						

PROJECT: RVAAP RI/Y

HOLE NO. CBLmw-001

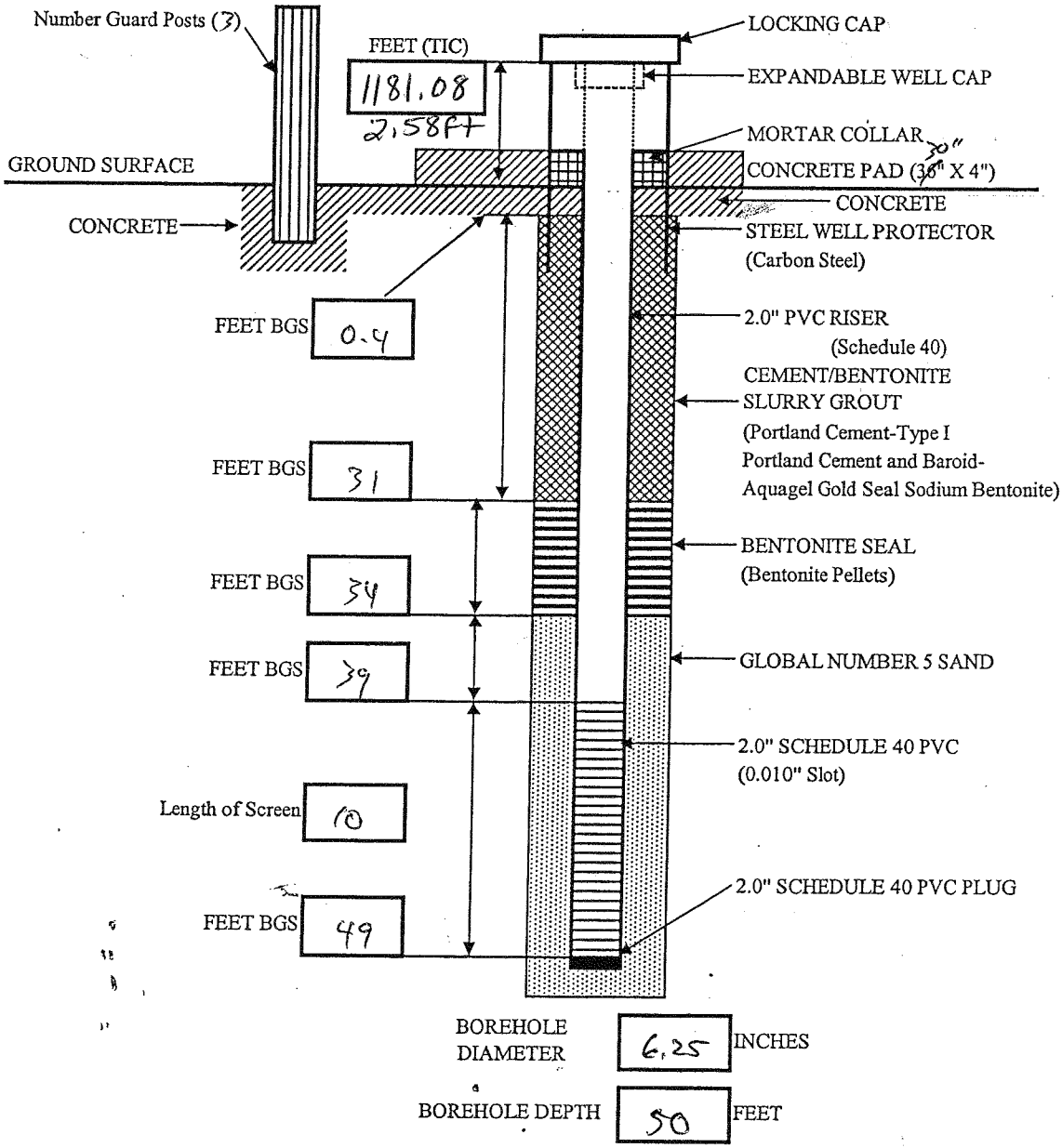
ENG FORM 5056A-R, AUG 94 (Proponent CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RMAP RI 14

Well Number: CBCMW-001	Begin: 13 Dec 04	End: 14 Dec 04
Coordinates: N: 559403.12 E: 2343657.08	Elevation: 1178.50	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

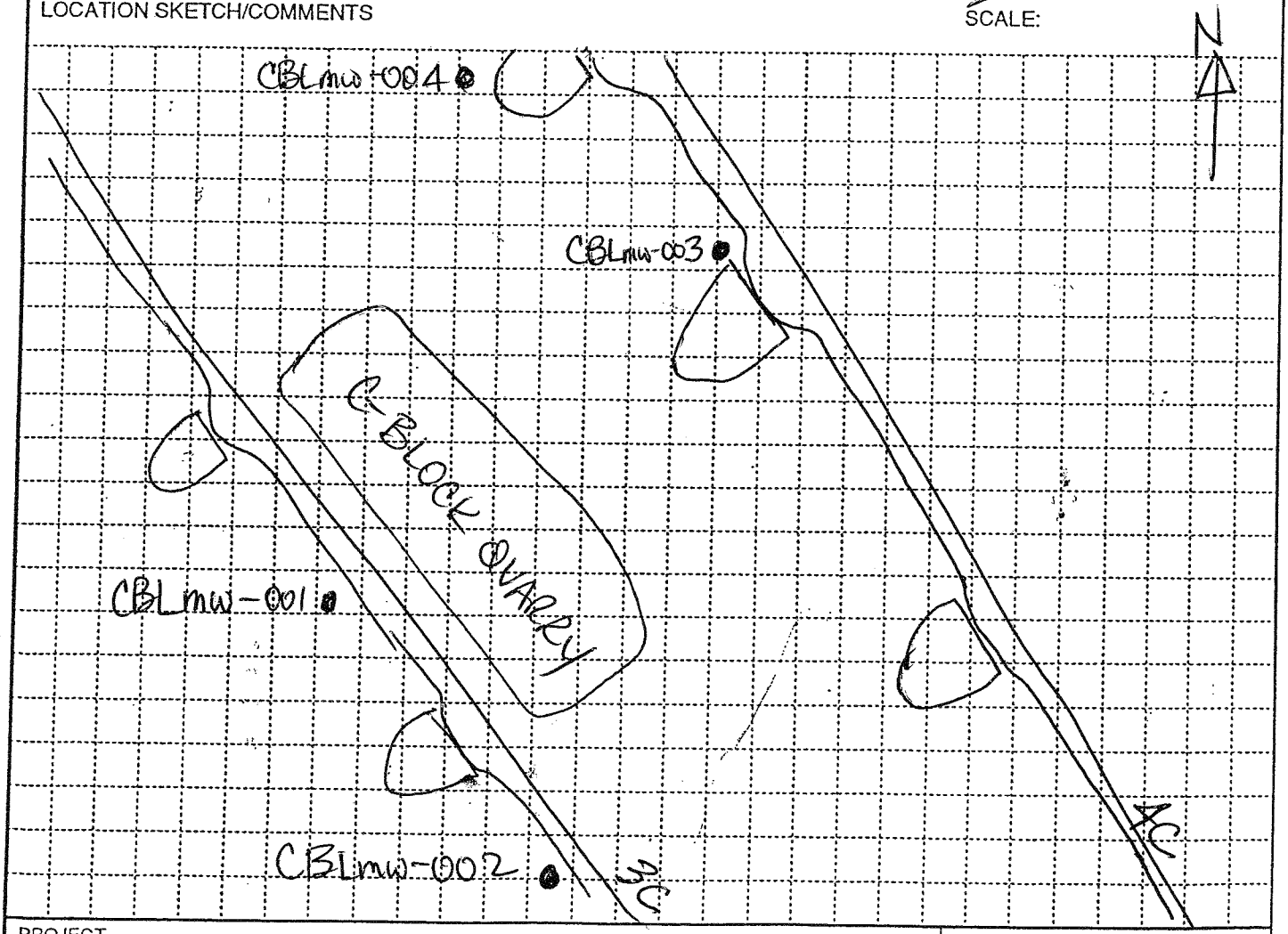
HTRW DRILLING LOG

	DISTRICT: Louisville	HOLE NUMBER: CBLmw-002
1. COMPANY NAME: MK&M Engineers Inc	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET: 1 OF SHEETS: 3
3. PROJECT: RVAAP RI 14	4. LOCATION: C-Block Quarry	
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 10.25 OD HSA; 2" Split Spoons; 6.125 Air Rotary Hammer	8. HOLE LOCATION: South of Ig/00	
	9. SURFACE ELEVATION: 1172.50 ASL	
	10. DATE STARTED: 21 Dec 04	11. DATE COMPLETED: 22 Dec 04
12. OVERBURDEN THICKNESS: 6.0	15. DEPTH GROUNDWATER ENCOUNTERED: 35 ft.	
13. DEPTH DRILLED INTO ROCK: 45.3	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 43.69' @ 0925 1/4/05	
14. TOTAL DEPTH OF HOLE: 45.3	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTRIBUTED: —	UNDISTURBED: —	19. TOTAL NUMBER OF CORE BOXES: — 0 Boxes			
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC: —	METALS: —	OTHER (SPECIFY): —	OTHER (SPECIFY): —	OTHER (SPECIFY): —	21. TOTAL CORE RECOVERY: — %
22. DISPOSITION OF HOLE	BACKFILLED: —	MONITORING WELL: X	OTHER (SPECIFY): —	23. SIGNATURE OF INSPECTOR: [signature]		

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	CBLmw-002

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: CBLmw-002

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
1460	0	Topsoil Br. SILT 60% w/ Sand Damp No Odor No Staining No Plasticity	0.0	1.6	ML	1-6 7-10	7.5y-4/6
	2	SAA	0.0	1.0	ML	4-7 7-7	SAA
	4	Br. SAND 60% w/ Silt Moist No Odor No Staining No Plasticity	0.0	1.8	SM	2-8 18-27	SAA
1446	6	Weathered Lt.Br/white SAND/SS Reddish Br. Weathered SS					Began Air Rotary Hammer @ 6.0 Ft.
	8	More Competent Bedrock @ ≅ 8.5 Ft Sandstone					
	10						
	12						
	14	Lt.Br. white SS → Color Change @ 13					7.5y-7/3
	16	Color change to Lt.Br. @ 15					7.5y-5/6
	18						
	20						
	22	Color Changes to Reddish Br. @ ~21 Ft Color Changes to Lt.Br./Grey @ 22 Ft					5y-4/4 7.5y-5/6
	24						
	26	Color Changes to Reddish Br. @ 26 Ft					5y-4/6
	28	Color Changes to Lt.Br. @ 27					7.5y-5/6
	30	Color Changes to Reddish Br. @ ~29.5					5y-4/6
	32						
	34						
▽	35	Saturated @ 35.0 Ft. (took WL on 22Dec04)					
	36						
	38	Color Change to Lt. Br. @ 37					7.5y-5/6
	40						

PROJECT: RVAAP RI 14

HOLE NO. CBLmw-002

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: CBLmw-002

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	42	SAA					SAA
	44	BOH 45.3					BOH 45.3 Sand up to 44.5 Screen from 44.5 to 34.5 Sand up to 29 Bentonite to 26 Grout to Surface Stick-up well completion
	46						
	48						
	50						
	52						
	54						
	56						
	58						
	60						

PROJECT: RVAAP RI 14

HOLE NO.: CBLmw-002

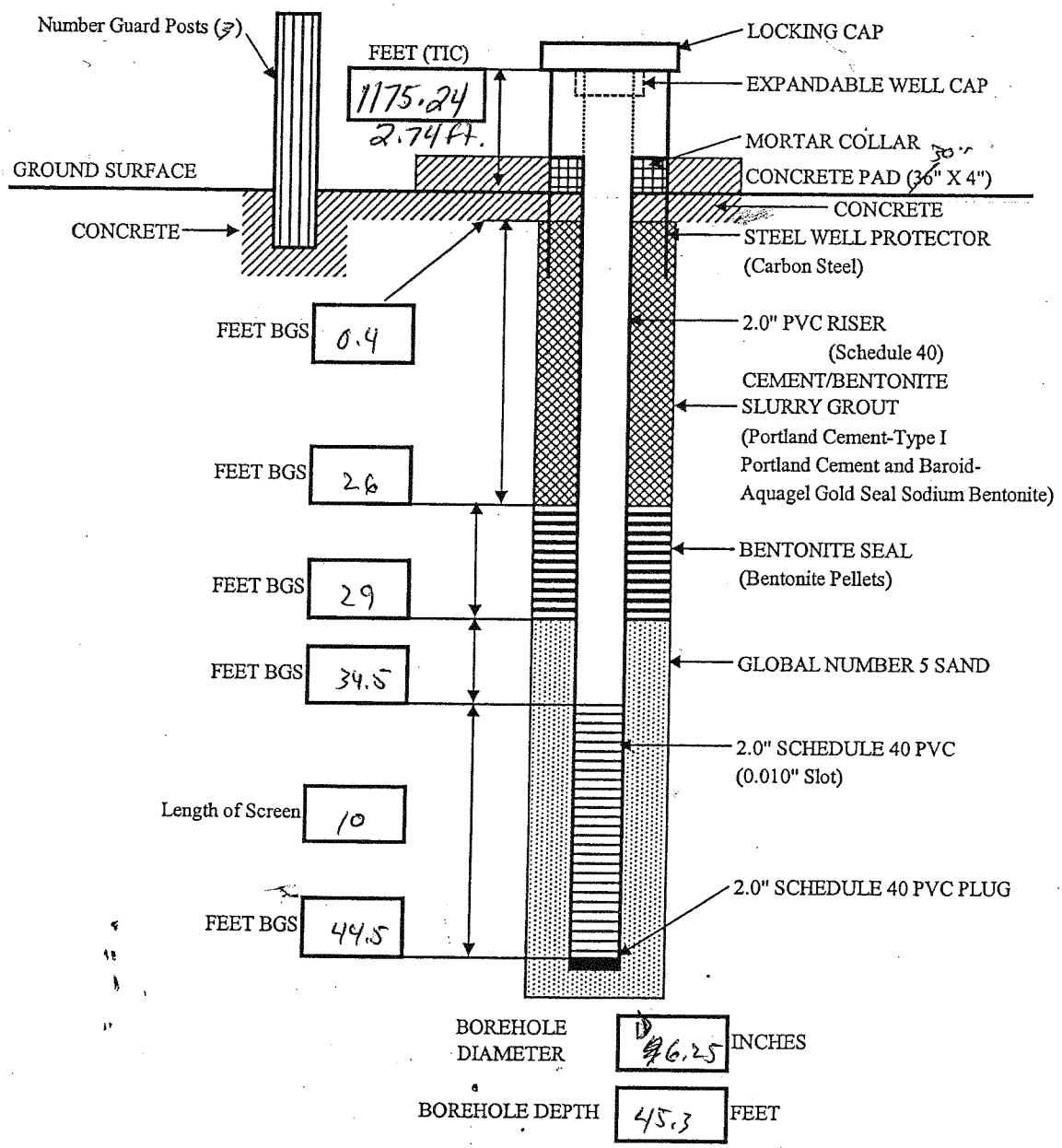
ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: CBLmw-002	Begin: 21Dec04	End: 22Dec04
Coordinates: N: 559044.48 E: 2343845.22	Elevation: 1172.50	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

	DISTRICT: Louisville	HOLE NUMBER: CBLmw-003
1. COMPANY NAME: MEM Engineers Inc	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF 4 SHEETS
3. PROJECT: RVAAP RI 14	4. LOCATION: C-Block Quarry	
5. NAME OF DRILLER: Sam Holter	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 10.25 OD HSA; 2" Split spoon; 6.125 Air Rotary Hammer; 2" ID Core Barrel	8. HOLE LOCATION: North of Igloo 4-C-9	
	9. SURFACE ELEVATION: 1172.22 ASL	
	10. DATE STARTED: 19Dec04	11. DATE COMPLETED: 21Dec04
12. OVERBURDEN THICKNESS: 2.5 ft	15. DEPTH GROUNDWATER ENCOUNTERED: ~30 ~38	
13. DEPTH DRILLED INTO ROCK: 44	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 34.5 @ 1314 1/4/05	
14. TOTAL DEPTH OF HOLE: 44	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

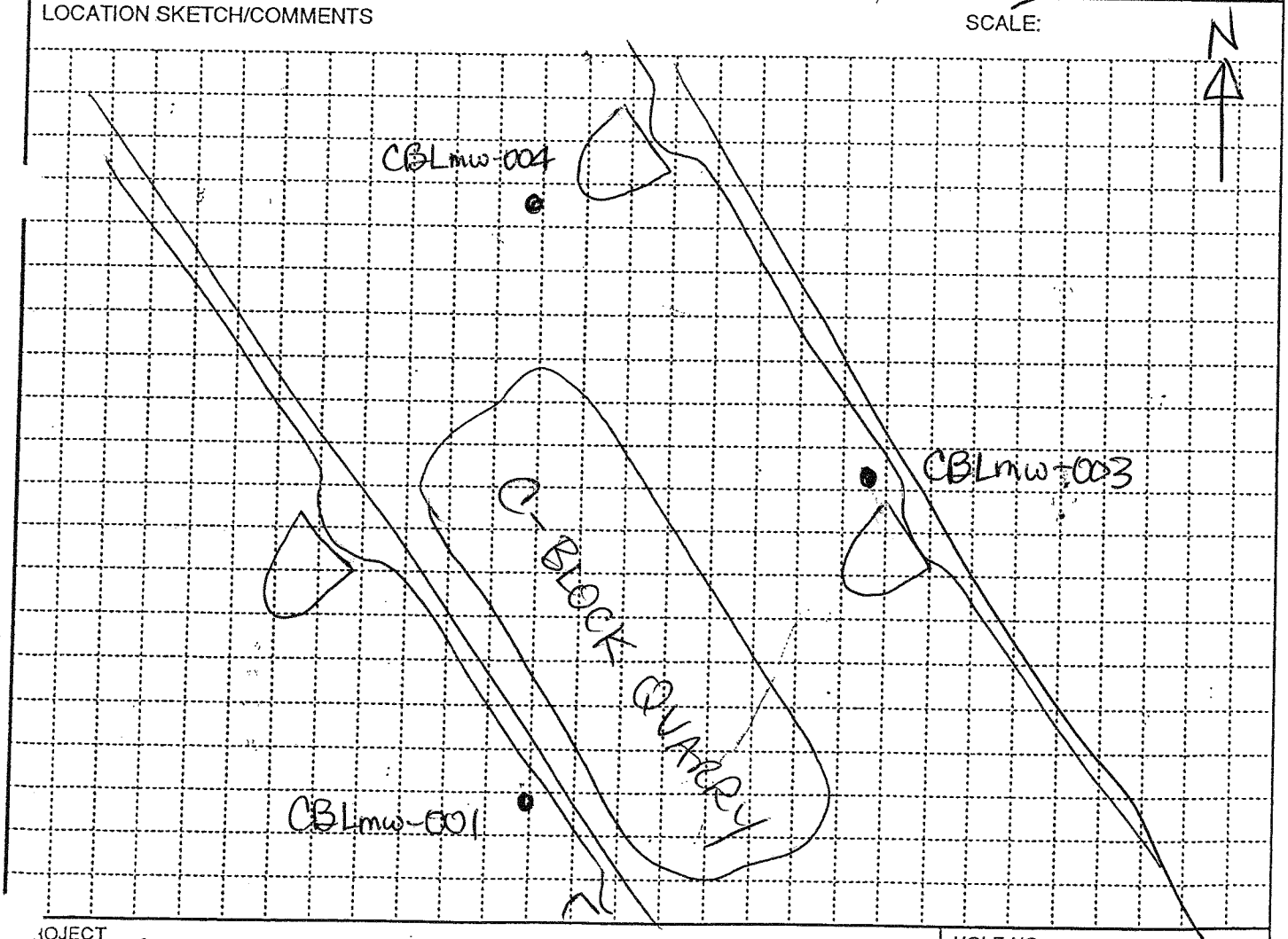
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	—	—	3

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	M.O. Duly

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	CBLmw-003

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: CRLMW-003

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 2 OF 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
	0	3" Topsoil					
		Reddish Sandy SILT 60% Dry No Odor No Staining No Plasticity			ML		
	2	Weathered SS					
		Split Spoon Refusal @ 2.5					
		Weathered SS Bedrock					
	4						
0855	6	Top of Core #1 @ 6"					
		LT BRN/TAN SANDSTONE FINE TO MED GRAINED				10YR5/4	Rec = 110/118 = 93.2%
	8	CHANGES TO RED/BR					RQD = 61/110 = 55.45% 5YR 5/6
	10						
	12						
	14						
0930	16	Bottom of Core #1 @ 15.9					
0950		Top of Core #2					
		REDDISH BRN SANDSTONE					5YR5/6
	18						
	20						

PROJECT: RVAAP RI 14

HOLE NO.: CRLMW-003

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: CBLMW-003

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 3 OF 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	SAA					Recovery = $\frac{117}{122}$ = 95.9%
	22						RQD = $\frac{30}{117}$ = 25.6%
	24						
16Dec09 0900		Bottom of Core #2 @ 25.5					
0915		Top of Core #3					
MW 16	26	LT BRN/TAN SANDSTONE					Recovery = $\frac{36}{120}$ = 30%
							RQD =
							10YR 7/8
	28						
	30						
							Recovery was so low due to drill bit or core barrel malfunctioned and pulverized the rock after 3 feet of coring.
	32						
	34						
1030		Bottom of Core #3 @ 35.5					
0940		Top of Core #4					
21Dec09	36	REDDISH / LT BROWN SANDSTONE					5YR 5/6
	38						
	40						

PROJECT: RVAAP RI 14

HOLE NO. CBLMW-003

ENG FORM 5056A-R, AUG 94

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: CBLMW-003

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 4 OF 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	40	SAA					Recovery = $\frac{90}{102}$ = 88.2%
	42						RQD = $\frac{51}{90}$ = 56.6%
1020	44	Bottom of Core @ 44.0					
		BOH 44.0					BOH 44 Sand to 43 Screen from 43 to 33 Sand up to 28 Bentonite to 25 Grout to Surface
	46						
	48						

PROJECT: RVAAP RI 14

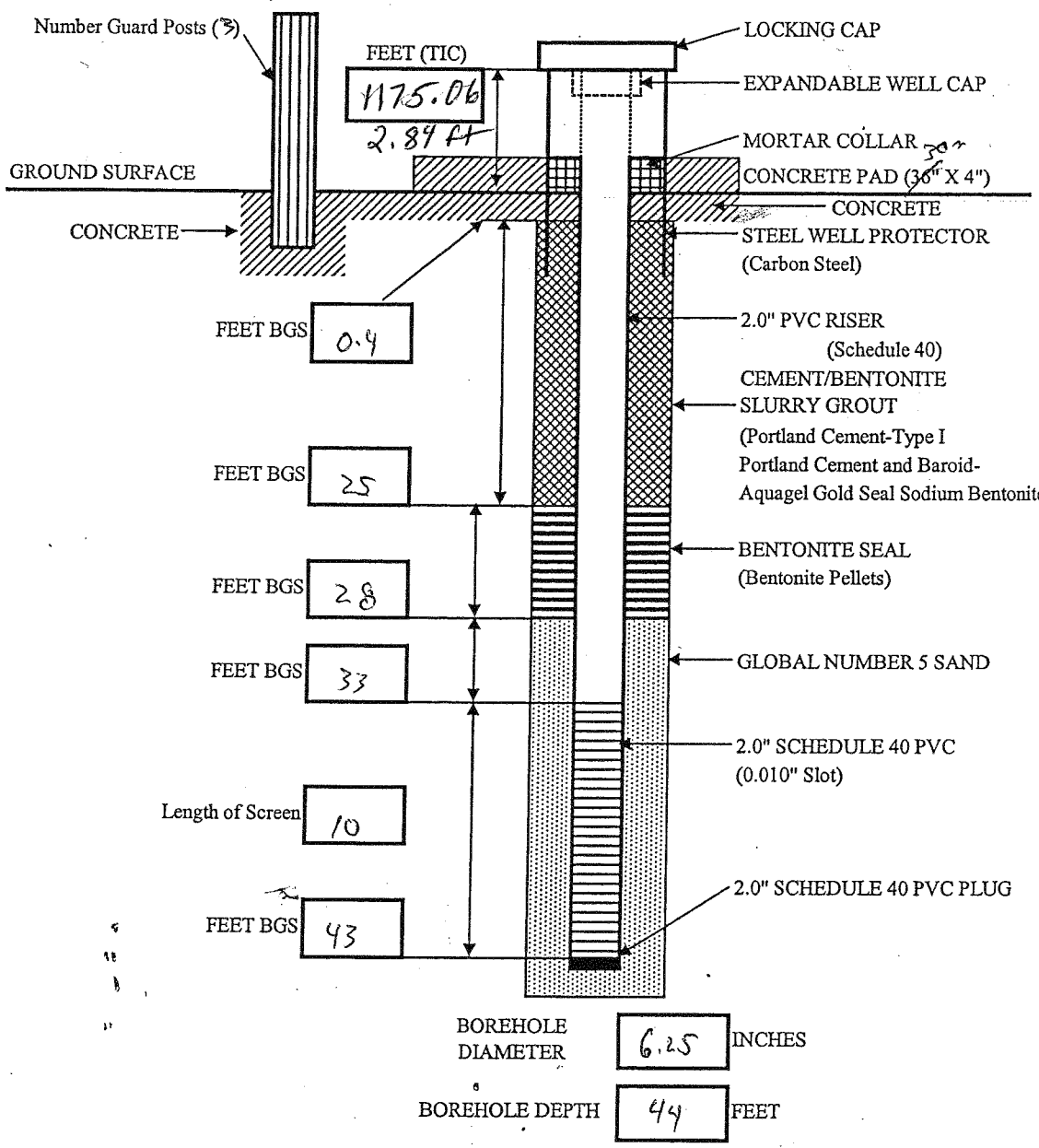
HOLE NO.: CBLMW-003

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RZ IV

Well Number: CBLMW-003	Begin: 14 Dec 04	End: 21 Dec 04
Coordinates: N: 559695.52 E: 2343970.00	Elevation: 1172.22	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

DISTRICT: Louisville		HOLE NUMBER: CBLmw-004
1. COMPANY NAME: MKm Engineers Inc	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF 3
3. PROJECT: RVAAP RI 14	4. LOCATION: CBlock Quarry	
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 6.25 ID HSA; 2" Split Spoon; 3" Shelby Tube; 6.[illegible] OD Air Rotary Hammer	8. HOLE LOCATION: North of Quarry	
	9. SURFACE ELEVATION: 1172.08 ASL	
	10. DATE STARTED: 04 Jan 05	11. DATE COMPLETED: 04 Jan 05
12. OVERBURDEN THICKNESS: 5.0	15. DEPTH GROUNDWATER ENCOUNTERED: ~16, ~35-37	
13. DEPTH DRILLED INTO ROCK: 45	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 34.2 @0909 01/07/05	
14. TOTAL DEPTH OF HOLE: 45	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

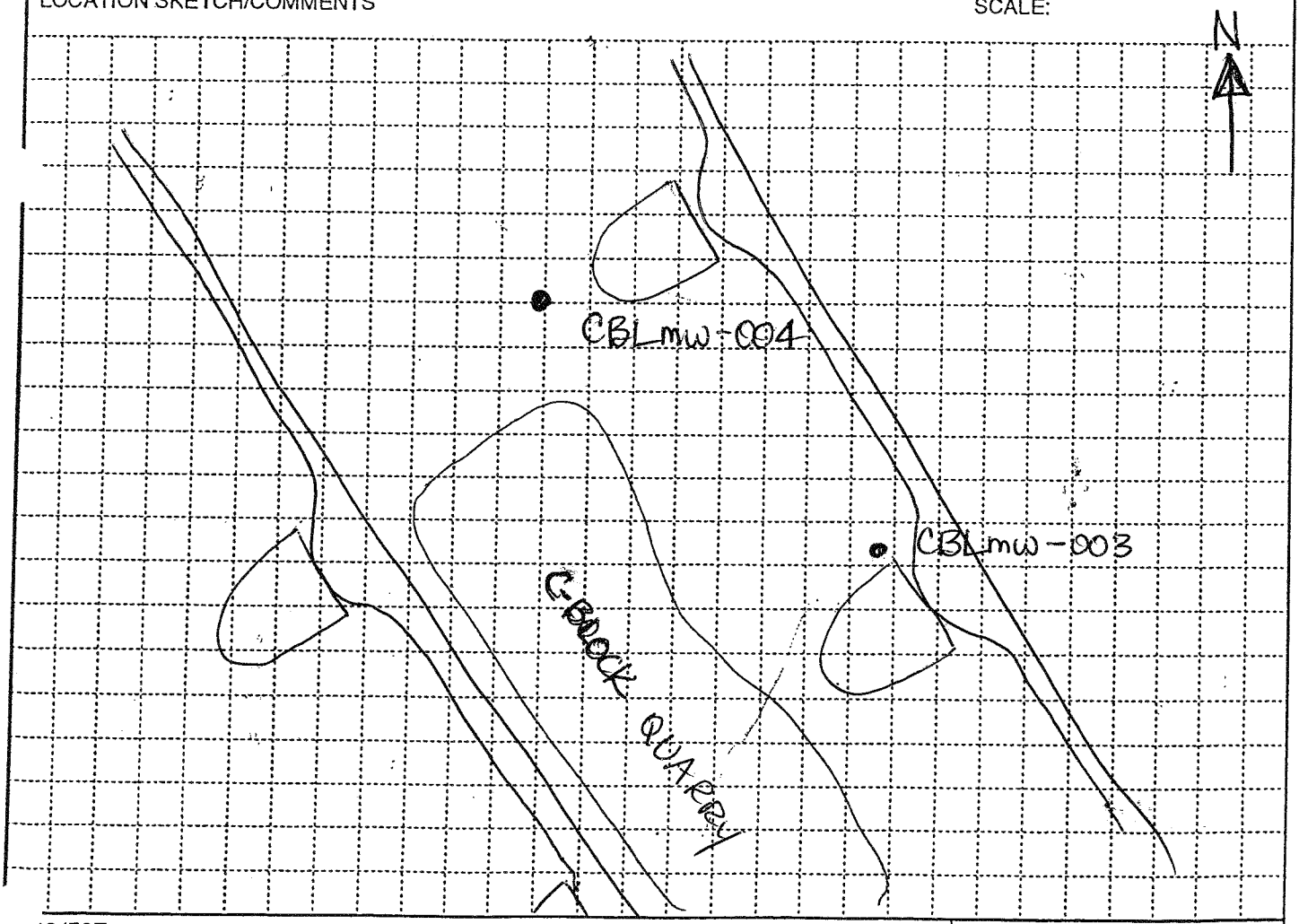
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	—	X	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	—	—	—	—	—	0 %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	[signature]

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	CBLmw-004

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: CBLMW-004

PROJECT: RVAAP RI/FS

INSPECTOR: Mark Dunlevy

SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO.	ANALYTICAL SAMPLE NO.	BLOW COUNT (g)	REMARKS (h)
845	0	3" TOPSOIL BR CL SILT					
	2	LT BROWN SILT (20%)/SAND (60%) (15%) TRACE ROCK FRAG (5%) LOW PLASTIC DAMP NO ODOR	0.0	1.5	ML	-/1 2/4	10YR 5/4
	4		—			— —	900 SHELBY TUBE
915	6	BR SANDY SILT (30%) (55%) W/ GRAVEL (10%) TRACE CLAY (5%) NO PLASTIC WEATHERED SS FRAG AT BOTTOM	0.0	2.0	ML	1/5 6/50+	10YR 5/4 AUGER REFUSAL @ 5'
938	8	LT BRZ/TAN SANDSTONE					
	10	Color changes to Red/Br @ 10					5y-5/6
	12						
	14						
V	16	Color changes to Dk Red Saturated Cuttings					5y-4/6
		~6" Grey Shale					7.5y-6/1
	18	Reddish Br. SS					5y-5/6
		Dk Grey/Black Shale					
	20						7.5y-4/1
		Dk Red Shale					
	22						5.5y-4/4
		Dk Grey/Black Shale					7.5y-4/1
		Reddish Br. SS					
	24						5y-5/6
	26						
		Color Changes to Br/Tan @ 27.5					7.5y-7/3
	28	~~Color Changes~~ mod					
	30						
	32						
	34	Color Changes to Yellow/Br/Tan					10y-7/8
	36	~~Color~~ mod					
V	38						
	40	Color Changes to Reddish Br @ 39.5					5y-5/6

PROJECT: RVAAP RI/FS

HOLE NO. CBLMW-004

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

PROJECT	INSPECTOR	HOLE NUMBER	SHEET / SHEETS
RVAAP RI 14	Mark Dunlay	CBLMW-804	3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	40						
	42	SAA					SAA
	44						
		BOH 45 ft.					BOH 45
	46						Sand to 44
	48						Screen from 44 to 34
	50						Sand up to 28.7
							Bentonite to 25
							Grout to Surface
							Stick-up well completion
							5 gallons dilute-Foam Hydration

PROJECT RVAAP RI 14 HOLE NO. CBLMW804

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

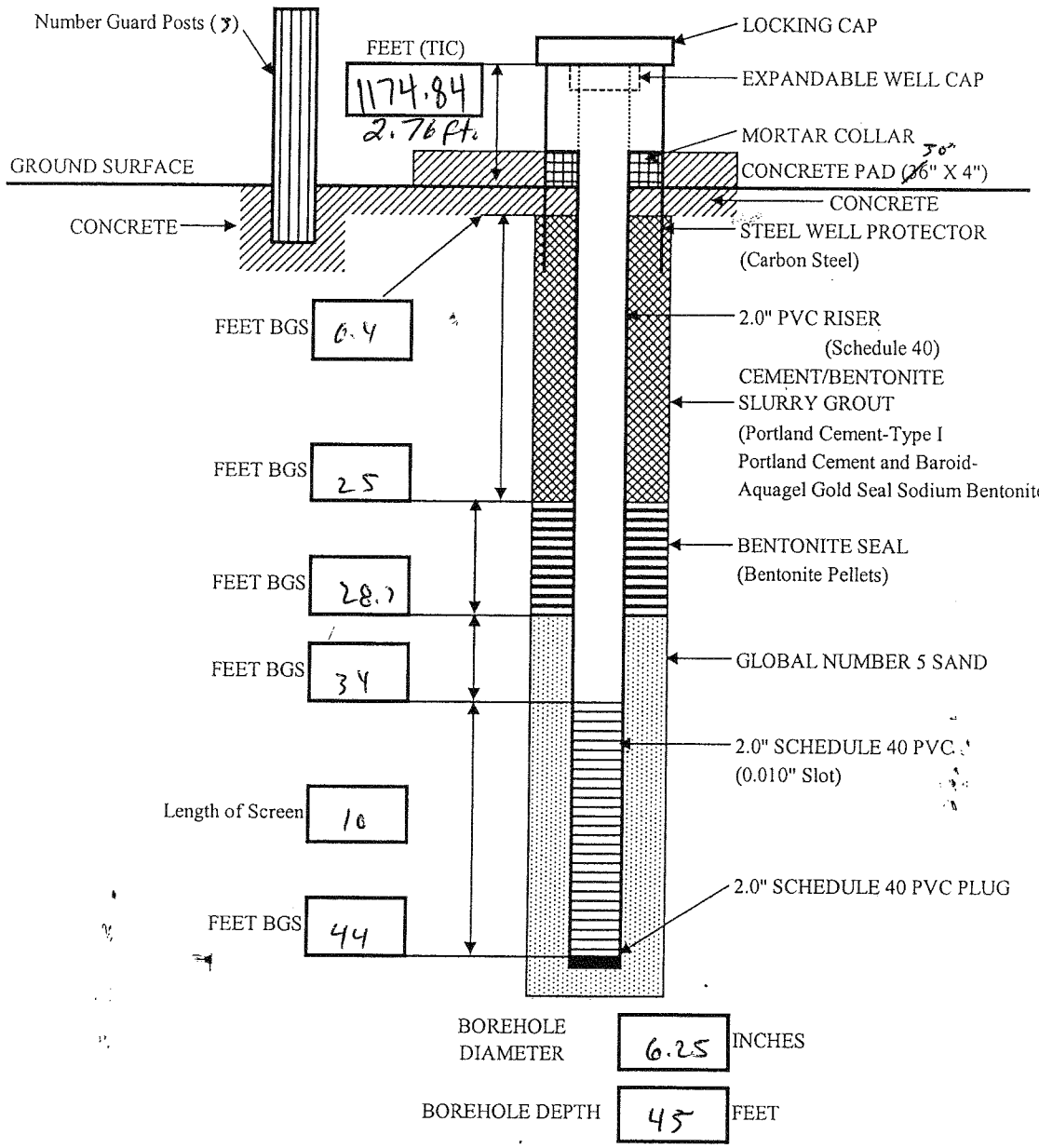
MKM

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: CBLmw-004	Begin: 04 Jan 05	End: 04 Jan 05
Coordinates: N: 559951.58 E: 2343688.76	Elevation: 1172.08	Reference Point:
Logged By: [signature]		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

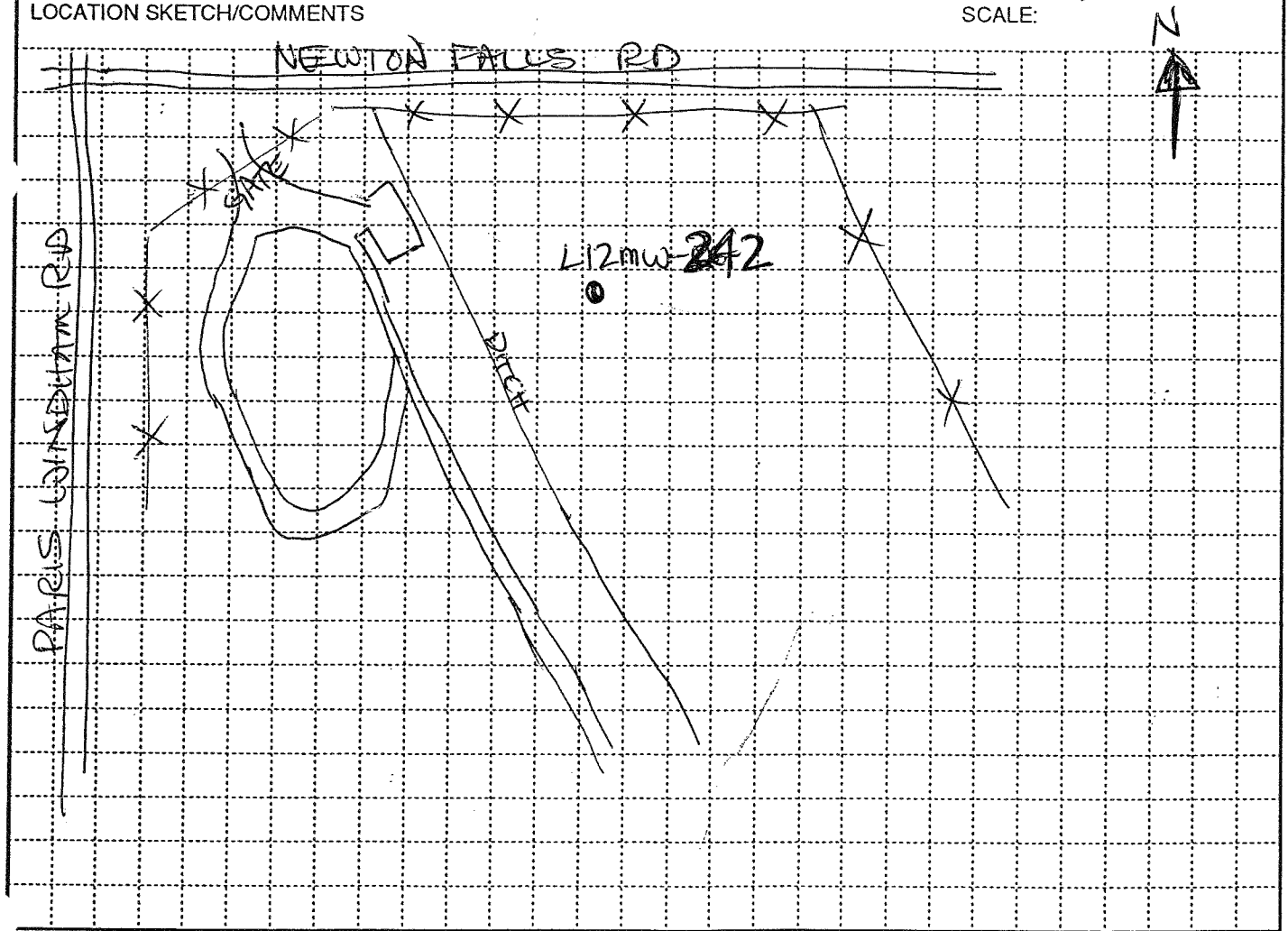
	DISTRICT: Louisville	HOLE NUMBER: L12mw-242
1. COMPANY NAME: MKM Engineers Inc	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF 3
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 12	
5. NAME OF DRILLER: Sam Heller	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC 60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 6.25" ID HSA; 2" Split Spoons	8. HOLE LOCATION: NE Side of Load Line 12	
	9. SURFACE ELEVATION: 978.40 ASL	
	10. DATE STARTED: 10 Nov 04	11. DATE COMPLETED: 10 Nov 04
12. OVERBURDEN THICKNESS: 26.3	15. DEPTH GROUNDWATER ENCOUNTERED: 14.5	
13. DEPTH DRILLED INTO ROCK: 0.0	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 7.96 @ 1059 11/16/04	
14. TOTAL DEPTH OF HOLE: 26.3	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTRIBUTED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBES 8-10, 12-14'		X	0

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	—	—	—	—	—	NA %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	L12mw-242

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: 612 MW-242

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	6" Topsoil Br. SILT 60% w/ Sand 25% Dry Stiff No Odor No Plasticity	0.0	1.5	ML	Push	5yr 5/6
	2	Same As Above Color change to DK. Br.	0.0	1.2	ML	3-6 8-10	7.5yr 4/6
	4	Same As Above	0.0	2.0	ML	1-6 9-10	7.5yr 5/6
	6	Rock Frag	0.0	1.8	ML	4-10 13-19	
	8	1520 10 Nov 04. Shelby Tube	—	—	—	—	
	10	Gray SILT 80% w/ Clay Damp No Plasticity No Odor No staining	0.0	1.3	ML	1-3 4-5	10yr 6/1
	12	1530 10 Nov 04 Shelby Tube	—	—	—	—	
▽	14	Grey SILT 80% w/ Clay Saturated No Plasticity No Odor No staining	0.0	1.7	ML	~~1-2~~ (MD) ~~4-4~~ (MD)	
	16	Changes to Damp @ 16 ft.	1.0	2/0	ML	1-2 4-4	
	18		1.4	2.0	ML	1+1 5-3	

PROJECT: RVAAP RI 14

HOLE NO. 612 MW-242

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

PROJECT: RVAAP RI 14 | INSPECTOR: Mark Dunlevy | HOLE NUMBER: LL12mw-242 | SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	SAME AS Above		1.7	ML	1-4 5-7	10y-6/1
	22	Grey SAND 70% w/ Silt 20% Saturated No Plasticity No Staining No Odor Grey SILT 70% w/ Clay wet No Plasticity No Staining No Odor		1.5	SM ML	1-1 2-2	10y-6/1
	24	Changes to Dry @ 24.5		2.0	ML	7-11 14-14	
	26	BOH 26.3					BOH 26.3' Sand up to 25.5 Screen from 25.5 to 15.5 Sand up to 14 Bentonite up to 11 Grout to surface 5 gallons Hydrate 8 Bags Sand 1.5 Bags Bentonite

PROJECT: RVAAP RI 14 | HOLE NO.: LL2MW-242

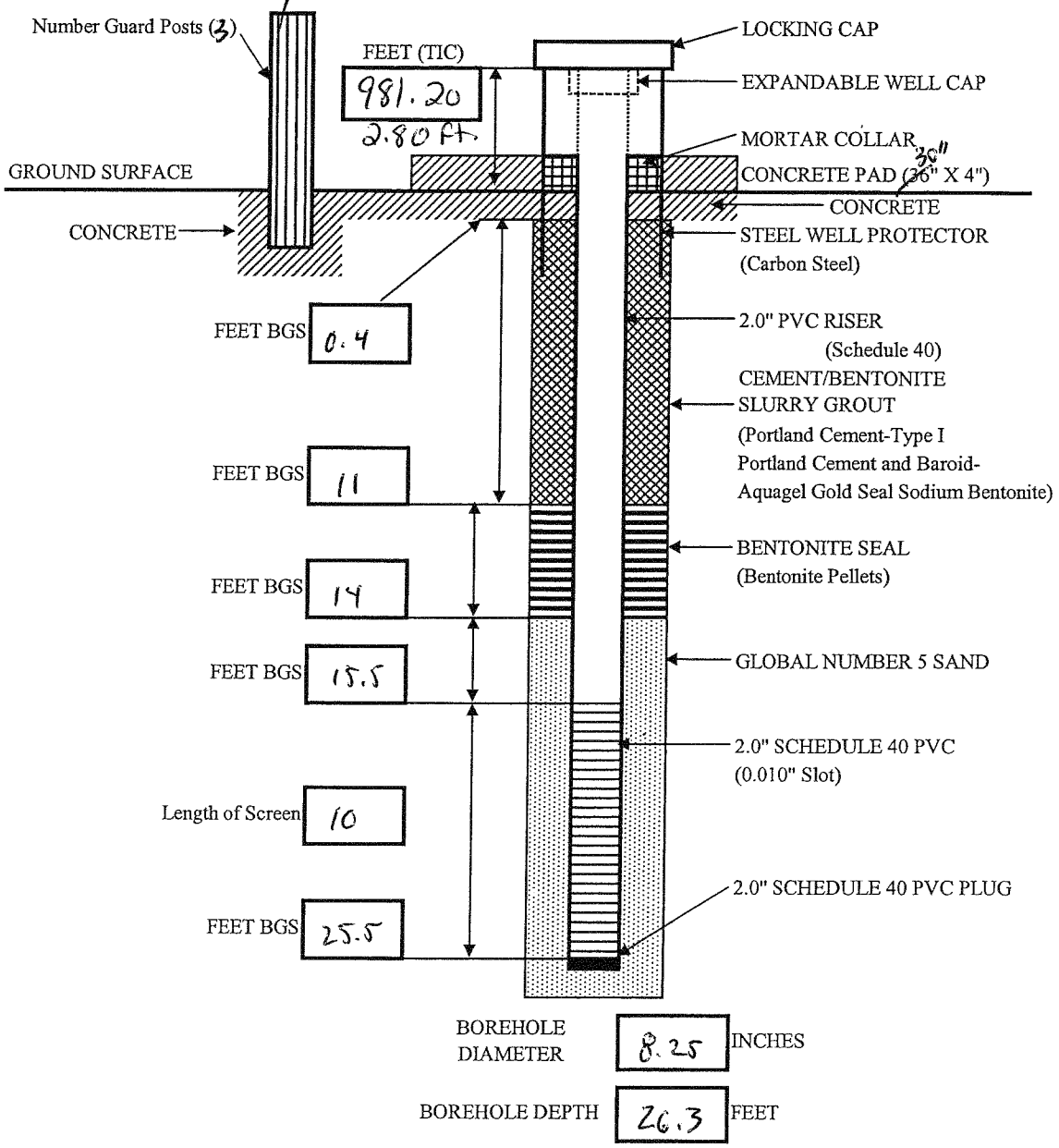
ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: L12mw-242	Begin: 10Nov04	End: 10Nov04
Coordinates: N: 558020.51 E: 2368545.29	Elevation: 978.40	Reference Point:
Logged By: Mark Dunlevy		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

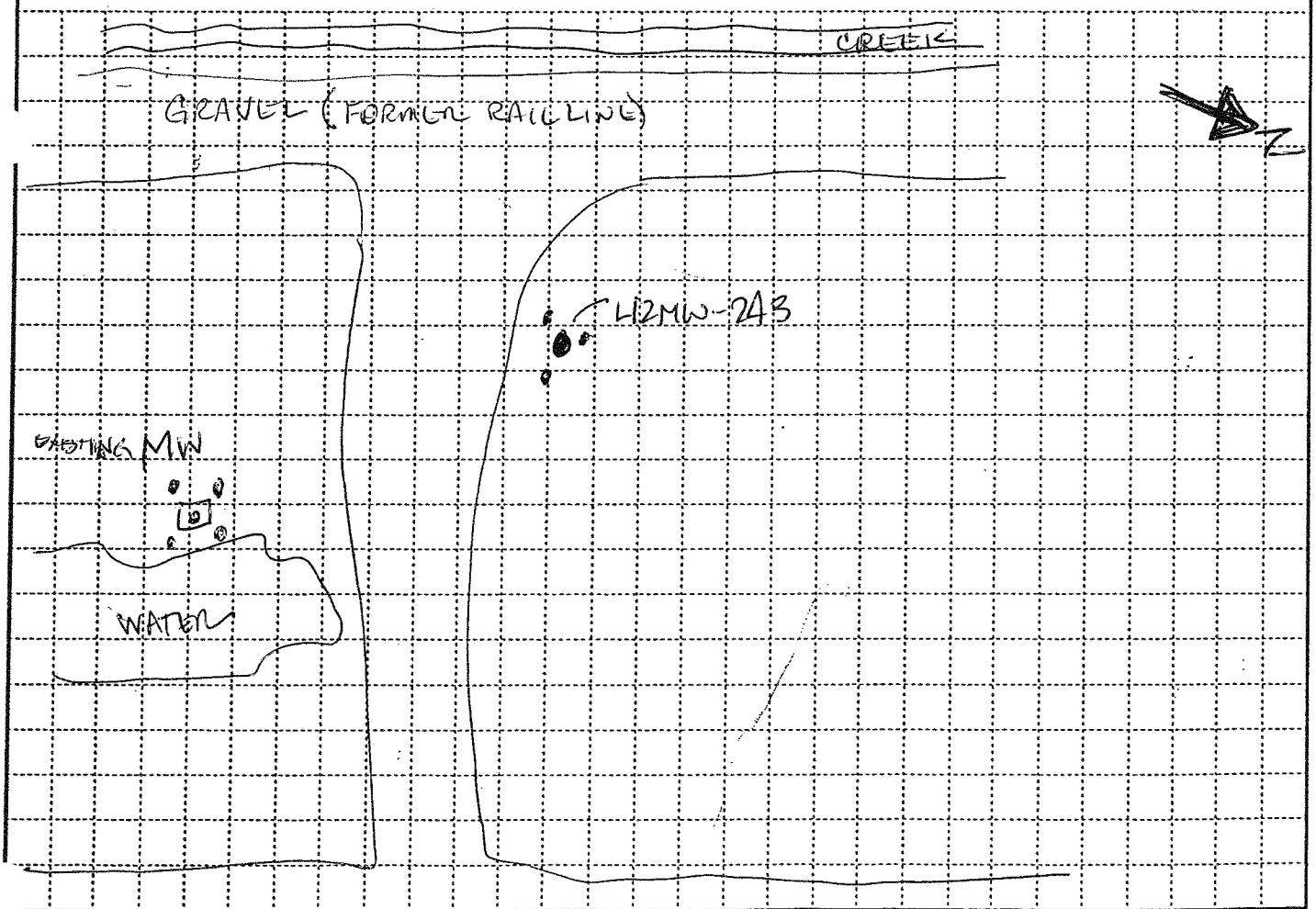
	DISTRICT: LOUISVILLE	HOLE NUMBER: LL2MW-243
1. COMPANY NAME: MKM ENGINEERS	2. DRILL SUBCONTRACTOR: HAD DRILLING	SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP-RI 14	4. LOCATION: RAVENNA, OH LOADLINE 12	
5. NAME OF DRILLER: SCOTT	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-55	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA; 2' SPLIT SPOON	8. HOLE LOCATION: LL-12	
	9. SURFACE ELEVATION: 978.10 ASL	
	10. DATE STARTED: 11/10/04	11. DATE COMPLETED: 11/10/04
12. OVERBURDEN THICKNESS: 24.0	15. DEPTH GROUNDWATER ENCOUNTERED: 14'	
13. DEPTH DRILLED INTO ROCK: 0.0	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 12.27' @ 1050, 11/15/04	
14. TOTAL DEPTH OF HOLE: 24'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTRICT	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 8-10	—	X	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
—	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	TK Earnest

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP-RI 14	LL2 MW-243

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL12MW-243

PROJECT: RVAAP-RI 14

INSPECTOR: DAVID K. EARNEST

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO.	ANALYTICAL SAMPLE NO.	BLOW COUNT (g)	REMARKS (h)
	0	CLAY, SANDY (15%) W/ SILT (10%) (60%) BROWN W/ GREY FINE TO MED GRAVEL/CONC DEBRIS LOW TO MED PLASTIC	9.5	~~1#~~ 1.2'	CL	1/1 4/3	7.5YR 4/3 15% MOTTLED
	2	SAA W/ CRUSHED BRICK	3.8	0.8'	CL	5/3 3/3	
	4	SAND, CLAYEY 6-12" THICK BROWN W/ GREY	5.2	0.8'	SC	1/2	7.5YR 4/3
		BROWN W/ GREY SILTY (20%) CLAY, SANDY (70%) STIFF TRACE SAND (10%) MED PLASTIC NO ODOR			CC	2/4	MOTTLED W/ 6/1 30% WET ~~MOIST~~ SAND PERCH ZONE
	6	SAA BRICK FRAG ASPHALT " ROCK "	9.4	0.3'	CL	2/5 7/12	MOIST
	8	SHELBY TUBE	NS	NR		—	SHELBY TUBE ROCK/DEBRIS AT TIP
	10	CLAY, SILTY (20%) V. STIFF (80%) MED PLASTIC GREY W/ BROWN NO ODOR	8.8	0.9	CL	2/7 11/16	7.5YR 4/2 MOTTLED 10% 5/6
	12	SAA	9.6	1.8	CL	2/6	
		SILT, CLAYEY (15%) GREY (85%) LOW TO MED PLASTIC			ML	7/6	7.5YR 4/1 MOIST
	14	SAA NO ODOR NO STAINING MED DENSE	6.0	2.0	ML	1/2 2/4	WET
	16	SAA	6.4	2.0	ML	1/1 3/5	WET TO SAT.
	18	SAA	8.2	2.0	ML	1/1 2/4	SAT
	20						

PROJECT: RVAAP - RI 14

HOLE NO. LL2MW-243

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL12MW-243

PROJECT: RVAAP - R1 14

INSPECTOR: DK EARNEST

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		SAA		RECOVERY	USCS	1/1	WET/SAT
			12.3	2.0	ML	3/6	
	22	SAA					
			11.2	2.0	ML	1/2	WET/SAT
1030	24					3/5	
	26						
	28						

EOB 24'

WELL SET AT 23'

SCREEN @ 13-23

SAND TO 10' — 9 BAGS SAND

BENT TO 7' SEAL

WATER IN HOLE; NO WATER ADDED

PROJECT: RVAAP - R1 14

HOLE NO.: LL12MW-243

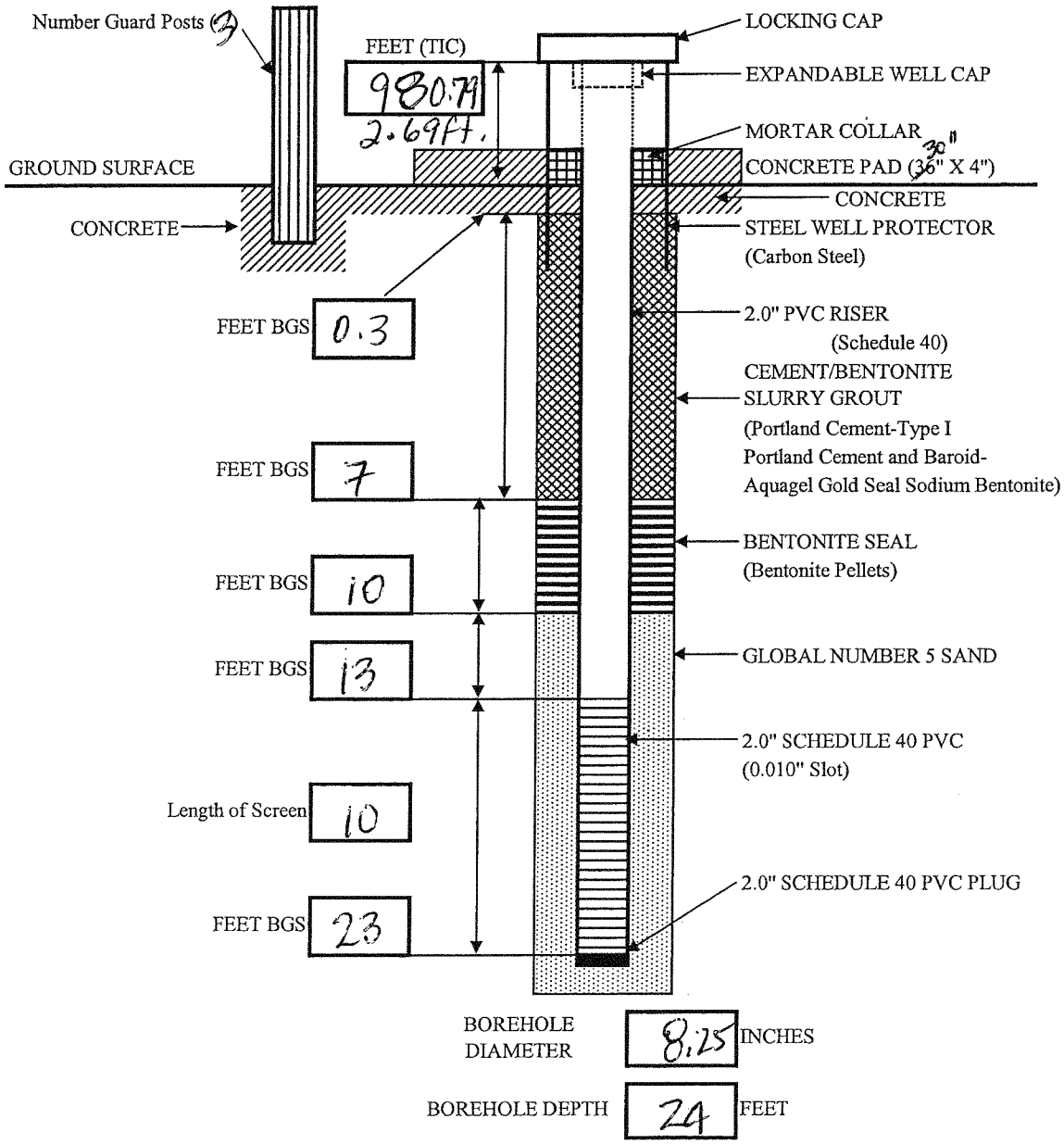
ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: LI2MW-243	Begin: 11/10/04	End: 11/10/04
Coordinates: N: 557376.32 E: 2368190.04	Elevation: 978.10	Reference Point:
Logged By: JK EARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM Engineers Inc.	DISTRICT: Louisville	HOLE NUMBER: L12mw-244
2. DRILL SUBCONTRACTOR: HAD Drilling		SHEET 1 OF 3
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 12	
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 HSA; 2" Split Spoons	8. HOLE LOCATION: Middle of LL, Eastside, Under Powerline Right of Way	
	9. SURFACE ELEVATION: 978.10 ASL	
	10. DATE STARTED: 10 Nov 04	11. DATE COMPLETED: 10 Nov 04
12. OVERBURDEN THICKNESS: 30'	15. DEPTH GROUNDWATER ENCOUNTERED: 17'	
13. DEPTH DRILLED INTO ROCK: 0'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 8.93' @ 1350 11/11/04	
14. TOTAL DEPTH OF HOLE: 30'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

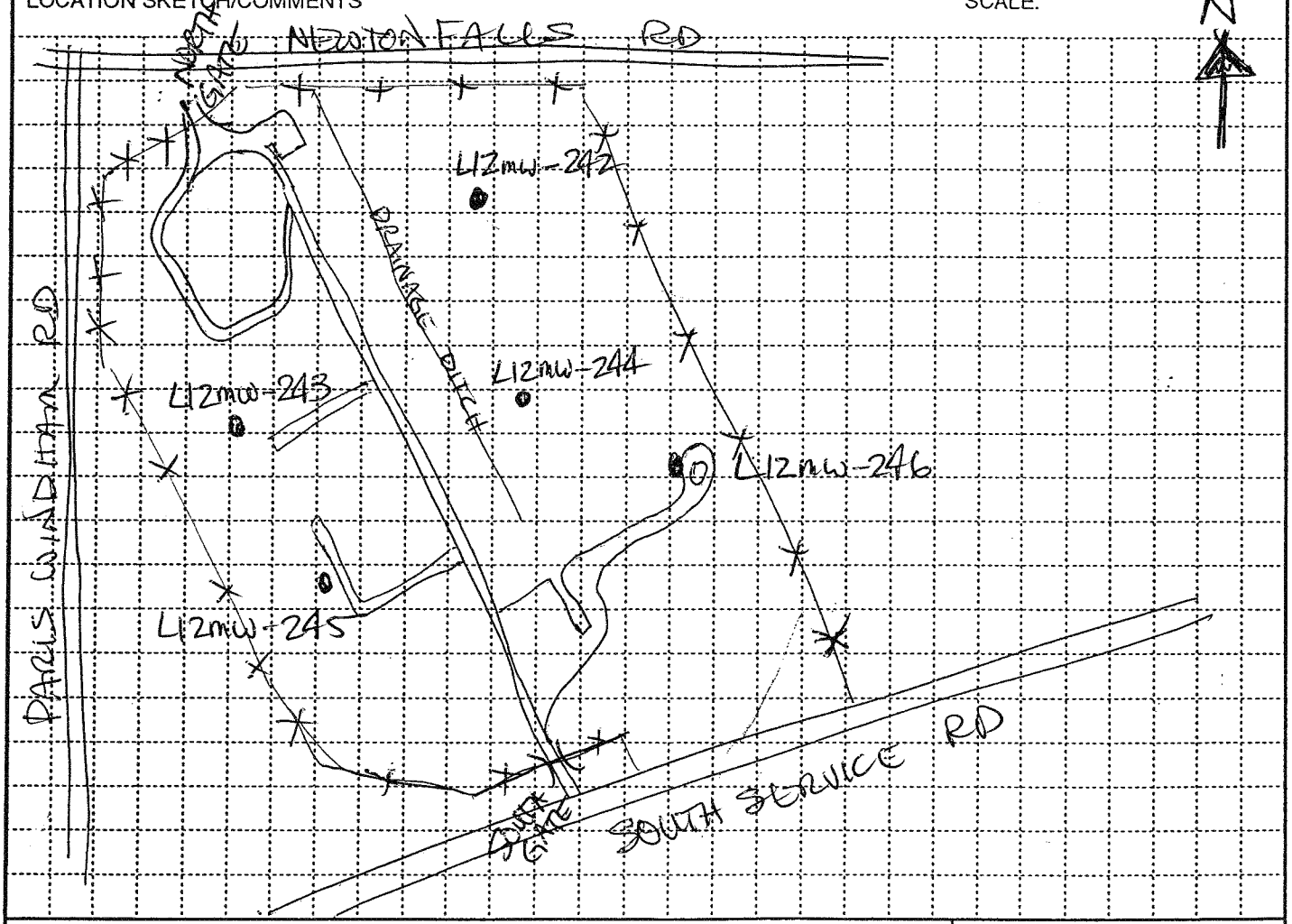
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 6-8'	—	X	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	—	—	—	—	—	NA %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	L12mw-244

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: 12mw-24y

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlavy

SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. Recovery	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
0900		4" Topsoil					
		Br. SILT 70% w/ Sand 15% Dry No Plasticity No Odor No Staining Red/Orange and Gray Mottles Present	0.9	2.0	ML	Push	5y-5/8
	2	SAA				4-9	
			0.7	1.7	ML	13-13	5y-5/8
	4					2-4	
		Br. SILT 60% w/ Sand 35% Moist No Plasticity No Odor Gray Mottling	0.0	1.6	ML	4-5	5y-5/8
	6						
		Shelby Tube 0925 10Nov09					
	8						
		Br SILT 75% w clay Dry No Plasticity No Odor No Staining	1.5	1.6	ML	3-9 9-15	2.5y-5/6
	10						
		Br. SILT 70% w/ Sand Dry No Plasticity No Odor No Staining	0.0	1.7	ML	3-10 12-15	2.5y-5/6
	12						
			0.6	1.9	ML	3-7 11-14	
	14						
		Gray SILT 75% w/ Clay and Sand Dry No Odor No Staining No Plasticity	0.0	2.0	ML	1-4 5-7	10y-6/1
	16						
V		Saturated @ 17'				1-3	
	18	Same As Above, but changes to wet	0.5	2.0	ML	5-5	
			0.0	2.0	ML	1-2 3-4	

PROJECT: RVAAP RI 14

HOLE NO. 12mw-24y

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: L12mw-24y

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	Soil Remains Wet					
			0.1	2.0	ML	1-3 4-5	10yr 6/1
	22						
		Same As Above	0.0	2.0	ML	2-2 3-5	10yr 6/1
	24						
		Same As Above	0.0	0.8	ML	1-5 5-8	10yr 6/1
	26						
		Same As Above	0.0	Blind 1.7	ML	1-6 8-11	10yr 6/1
	28						
		Grey SAND 60% w/ Silt 35% Dry No Plasticity No Odor No Staining	0.0	1.0	ML ~~SM~~	1-7	10yr 6/1
	30	Grey SILT 60% w/ Clay Dry STIFF No Plasticity No Odor No Staining			ML	10-15	
		BOH 30'					BOH 30' 6" Sand @ Bottom Screen From 29.5 to 19.5 Sand up to 16 Bentonite to 13 Grout to Surface

PROJECT: RVAAP RI 14

HOLE NO.: L12mw-24y

ENG FORM 5056A-R, AUG 94

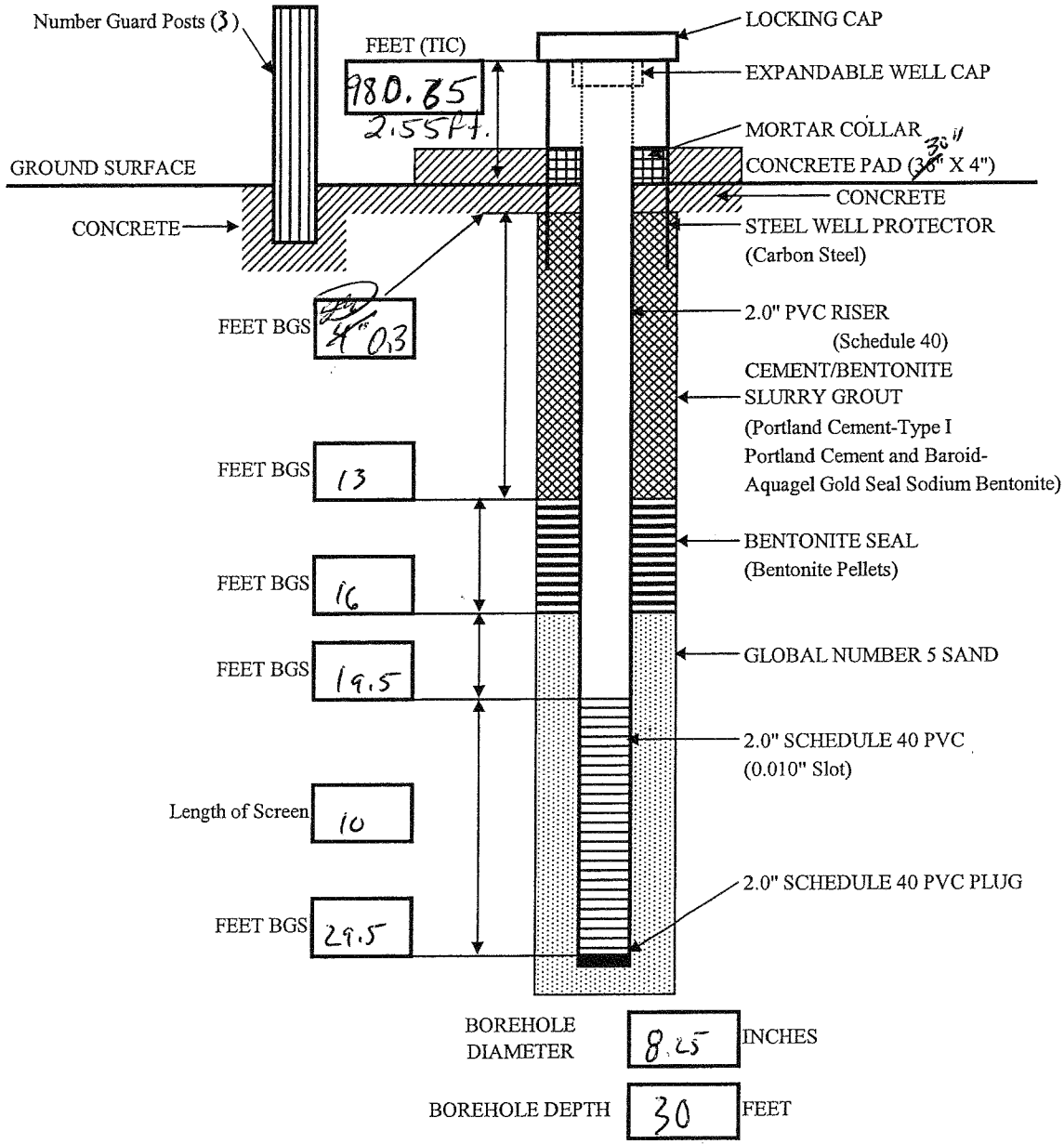
(Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: LIZMW-244	Begin: 10Nov04	End: 10Nov04
Coordinates: N: 557377.17 E: 2368751.42	Elevation: 978.10	Reference Point:
Logged By: Mark Dunlay		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

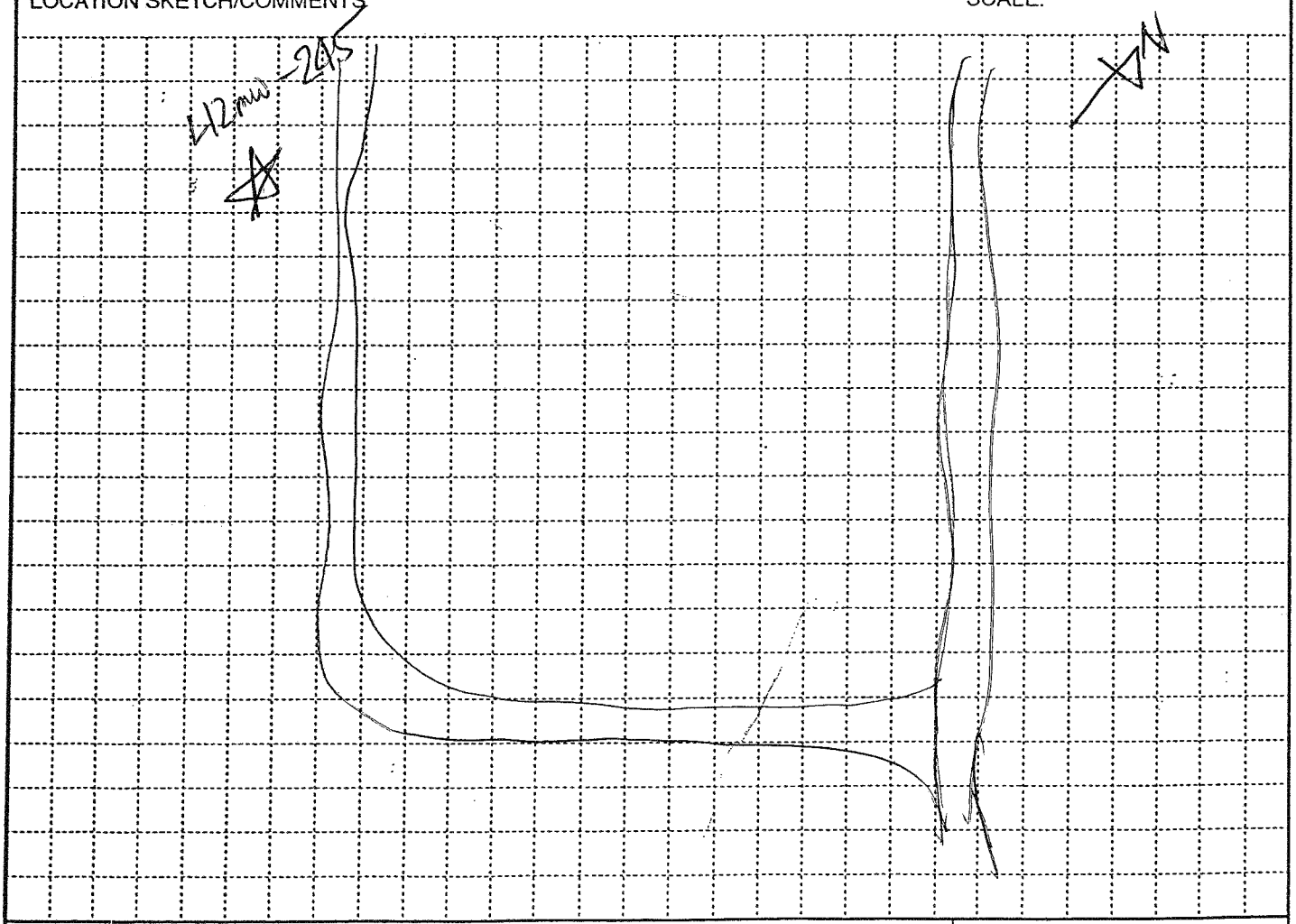
	DISTRICT: LOUISVILLE	HOLE NUMBER: LL12MW-245
1. COMPANY NAME: MKM	2. DRILL SUBCONTRACTOR: HAD DRILLING	SHEET 1 OF 3
3. PROJECT: RVAAP-RIA	4. LOCATION: ~~LL2-245~~ RAVENNA, OH LOAD LINE	
5. NAME OF DRILLER: SCOTT HEISER	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-55	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA; 2' SPLIT SPOON	8. HOLE LOCATION: Center of LL12 N of S. Service Rd	
	9. SURFACE ELEVATION: 977.50 ASL	
	10. DATE STARTED: 11/09/04	11. DATE COMPLETED: 11/09/04
12. OVERBURDEN THICKNESS: 29.0'	15. DEPTH GROUNDWATER ENCOUNTERED: 18'	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 7.66 @ 1018 11/15/04	
14. TOTAL DEPTH OF HOLE: 29'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
—	—	—	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
—	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	David K Gunn

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP-RI14	LL2MW-245

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER ~~L12MW-245~~ L12MW-245 (also L12MW-245)

PROJECT RVAAP-RI14

INSPECTOR DK EARNEST

SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
735	0	TOPSOIL, GRASS, ROOTS					
		MOTTLED GRAY W/BRN SILTY (20%) V.F. SAND (80%)	1.0	1.0	SM	5/3 5/4	MOIST 7.5YR 3/1 W/TRACE 7.5YR 5/6
	2						
		BROWN W/GRAY SILTY (30%) CLAY (70%) MED PLASTIC NO ODOR NO STAINING	0.5	1.0	CL	4/5 7/5	7.5YR 5/8 & 6/1 MOIST
	4	SAA TRACE SAND MED PLASTIC NO ODOR	0.2	1.0	CL	1/3 5/0	7.5YR 5/1 W/ 7.5YR 6/8
	6	SAA TRACE FINE GRAVEL	2.0	1.2	CL	2/5 7/10	MOIST
	8	GRAY W/BRN CLAY (20%) SILT (80%) LOW PLASTIC	2.4	1.5	ML	2/8 9/13	7.5YR 4/1 W/ 4/6
	10	SAA	2.7	1.6	ML	3/9 12/15	
	12	SAA TRACE ROCK FRAG.	1.5	2.0	ML	3/5 7/7	
	14	SAA	2.7	2.0	ML	1/3 5/6	
	16	SAA LOW TO MED PLASTIC	2.3	2.0	ML	1/1 2/5	7.5YR 5/1 WET
	18	SAA	—	2.0	ML	1/1 3/5	WET
	20						

PROJECT RVAAP-RI14 HOLE NO. L12MW-245

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: L12MW-24S

PROJECT: RVAAP- RI 14

INSPECTOR: DK EARNEST

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
		SAA	2.0	2.0	ML	1/1 4/4	WET
	22	SAA	4.0	2.0	ML	1/1 3/5	SAT
	24	SAA	1.8	2.0	ML	1/1 4/3	SAT
	26	SAA	1.9	2.0	ML	1/1 4/4	WET
	28	SAA	1.2	2.0	ML	1/1 4/4	WET
30	30	BOH 29'					
		SAMPLED TO 30'					
		DRILL TO 29'					
		SCREEN AT 18-28					
		~~3~~ SAND TO 15'					
		SEAL TO 12'					
		5 GALS WATER TO HYDRATE					

PROJECT: RVAAP- RI 14

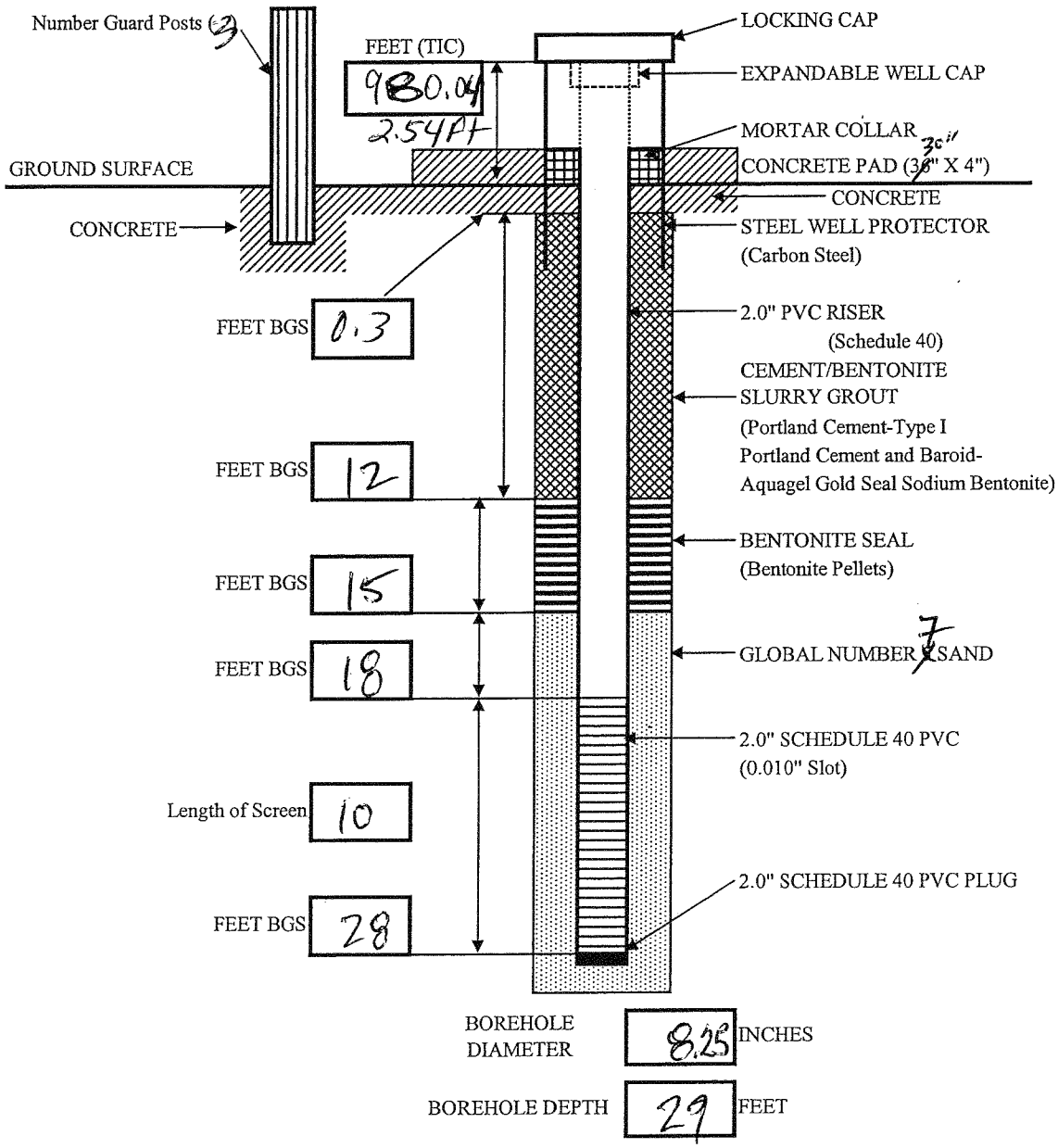
HOLE NO.: L12MW-24S

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI14

Well Number: L12MW245	Begin: 11/09/04	End: 11/09/04
Coordinates: N: 557044.55 E: 2368370.74	Elevation: 977.50	Reference Point:
Logged By: DKEARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

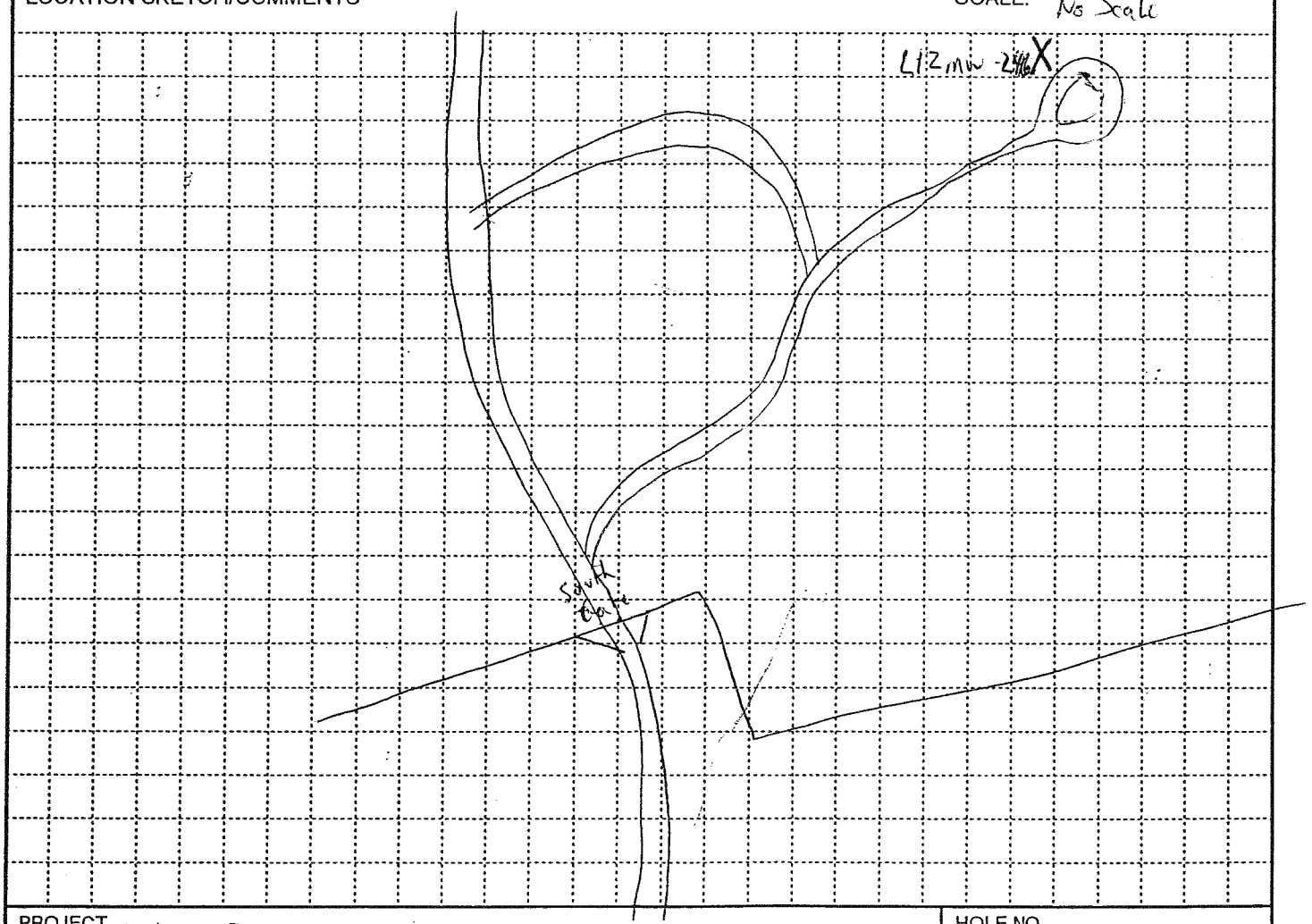
	DISTRICT: Louisville	HOLE NUMBER: L12mw-246
1. COMPANY NAME: MKM Engineers	2. DRILL SUBCONTRACTOR: HAD Drilling	SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 12	
5. NAME OF DRILLER: Sam Hafer	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4.25" ID HSA; 2" Split Spoons	8. HOLE LOCATION: SE of LL, near Southern Gate	
	9. SURFACE ELEVATION: 982.00 ASL	
	10. DATE STARTED: 09 Nov 04	11. DATE COMPLETED: 09 Nov 04
12. OVERBURDEN THICKNESS: 32'	15. DEPTH GROUNDWATER ENCOUNTERED: 25'	
13. DEPTH DRILLED INTO ROCK: -0-	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 15.15' @0932 11/12/04	
14. TOTAL DEPTH OF HOLE: 32'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTRICT	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	—	—	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
NA	—	—	—	—	—	NA %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
Monitoring Well		MW	—	

LOCATION SKETCH/COMMENTS — SCALE: No Scale



PROJECT	HOLE NO.
RVAAP RI 14	L12mw-246

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

PROJECT: RVAAP RI 14 | INSPECTOR: [illegible] | HOLE NUMBER: LI2/mw-24G | SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. Recovery	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	Black Topsoil / Road Base 4"	0.0	0.4		~~2-3 MD~~ 6-7 MD	7.5y-2.5/2
	2	Br. SILT 65% w/Clay 26% Dry Non Plastic/ No Color No Staining Grey Mottling Present	0.0	1.7	ML	2-3 8-7	7.5y-5/6
	4	Same As Above	0.0	1.5	ML	2-5 7-9	7.5y-5/6
	6	Mottling Stops @ 6.0' Same As Above	0.0	1.4	ML	1-4 6-8	7.5y-5/6
	8	Br. SILT 70% w/Clay STIFF Dry No Plasticity No Color No Staining Br SILT 85% STIFF Dry No Plasticity	0.0	2.1	ML / ML	1-7 15-28	7.5y-5/6
	10	Same As Above	0.0	1.8	ML	1-6 12-19	7.5y-5/6
	12	Color Change Same As Above	0.0	1.7	ML	8-7 15-20	7.5y-4/3
	14	Grey SILT Damp 70% w Clay 26% No Plasticity No Color No Staining	0.0	2.0	ML / ML	1-6 14-20	10y-6/1
	16	Same As Above	0.0	2.0	ML	2-3 5-7	10y-6/1
	18	Same As Above	0.0	2.0	ML	1-5 6-8	10y-6/1

PROJECT: RVAAP RI 14 | HOLE NO. LI2 mw-24G

ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: L12mw-246

PROJECT: RVAAPRI 14

INSPECTOR: Mark Dailey

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		Grey Soft SILT 80% wet w/Sand and Clay Mod. Plasticity	0.0	2.0	ML	1-1 2-4	10yr 6/1
	22	SILT Changes to very wet Poss. Saturation	0.0	2.0	ML	1-1 3-6	10yr 6/1
	24	▽					
		2" Grey SAND 70% w/SILT Saturated No Plasticity No Odor No Staining	0.0	2.0	SM	1-2 5-9	10yr 6/1
	26	Grey SILT 80% clump w/clay No Plasticity No Odor No Staining			ML		10yr 6/1
			0.0	2.0		1-6 9-12	
	28						
		Same As Above	0.0	2.0	ML	7-5 9-12	
	30						
			0.0	2.0	ML		
	32	Weathered					
		BOH 32'					BOH 32 Sand to 31.5 Screen from 31.5-21.5 Sand up to 18 Bentonite to 14 Grout to surface Stick-up construction 8 Bags Sand 1 Bag Bentonite 5 gallons to hydrate
	34						
	36						

PROJECT: RVAAP RI 14

HOLE NO.: L12-mw-246

ENG FORM 5056A-R, AUG 94

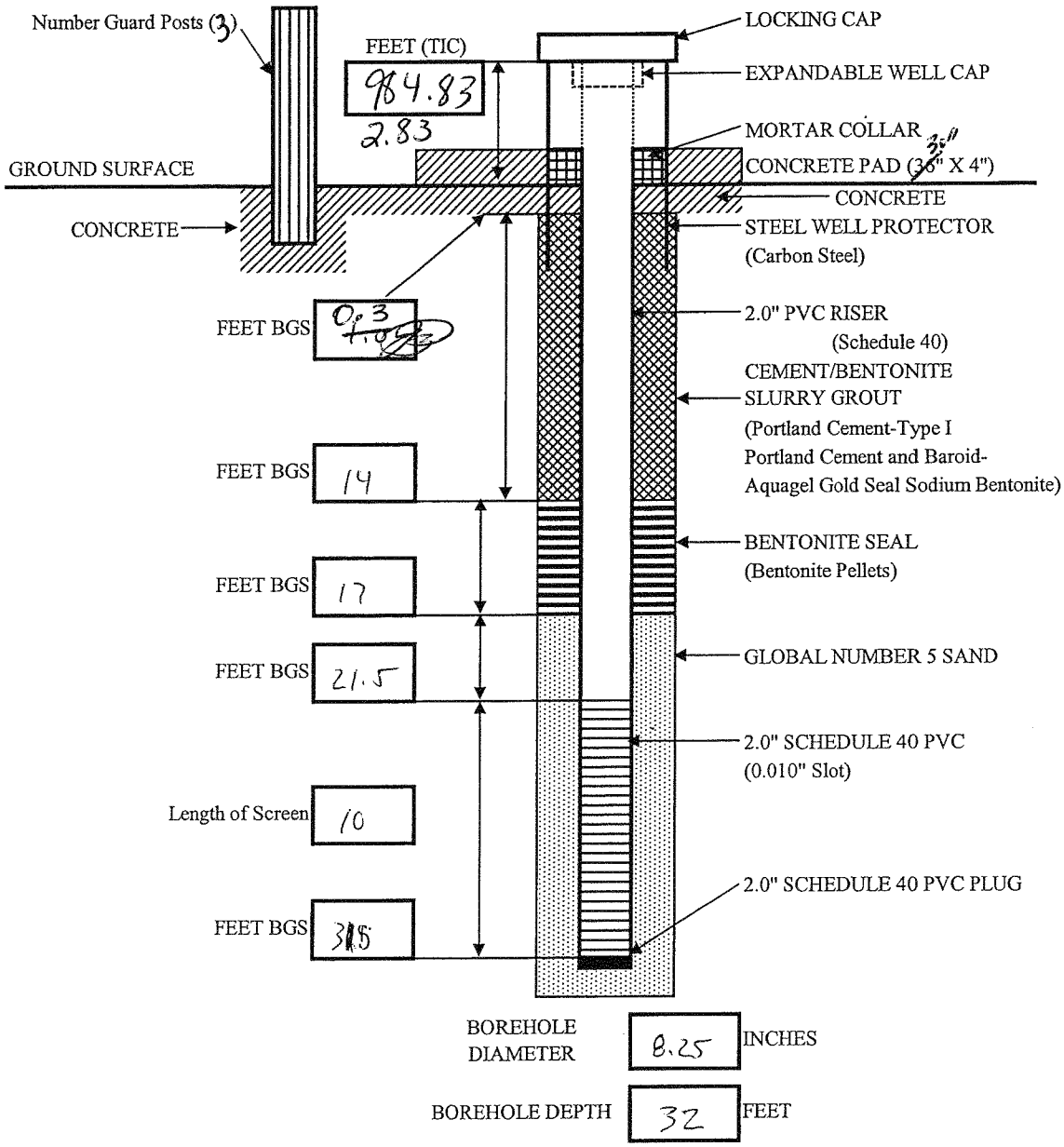
(Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: L12mw-246	Begin: 09 Nov04	End: 09 Nov04
Coordinates: N: 556658.89 E: 2369432.17	Elevation: 982.00	Reference Point:
Logged By: Mark Dunlevy		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

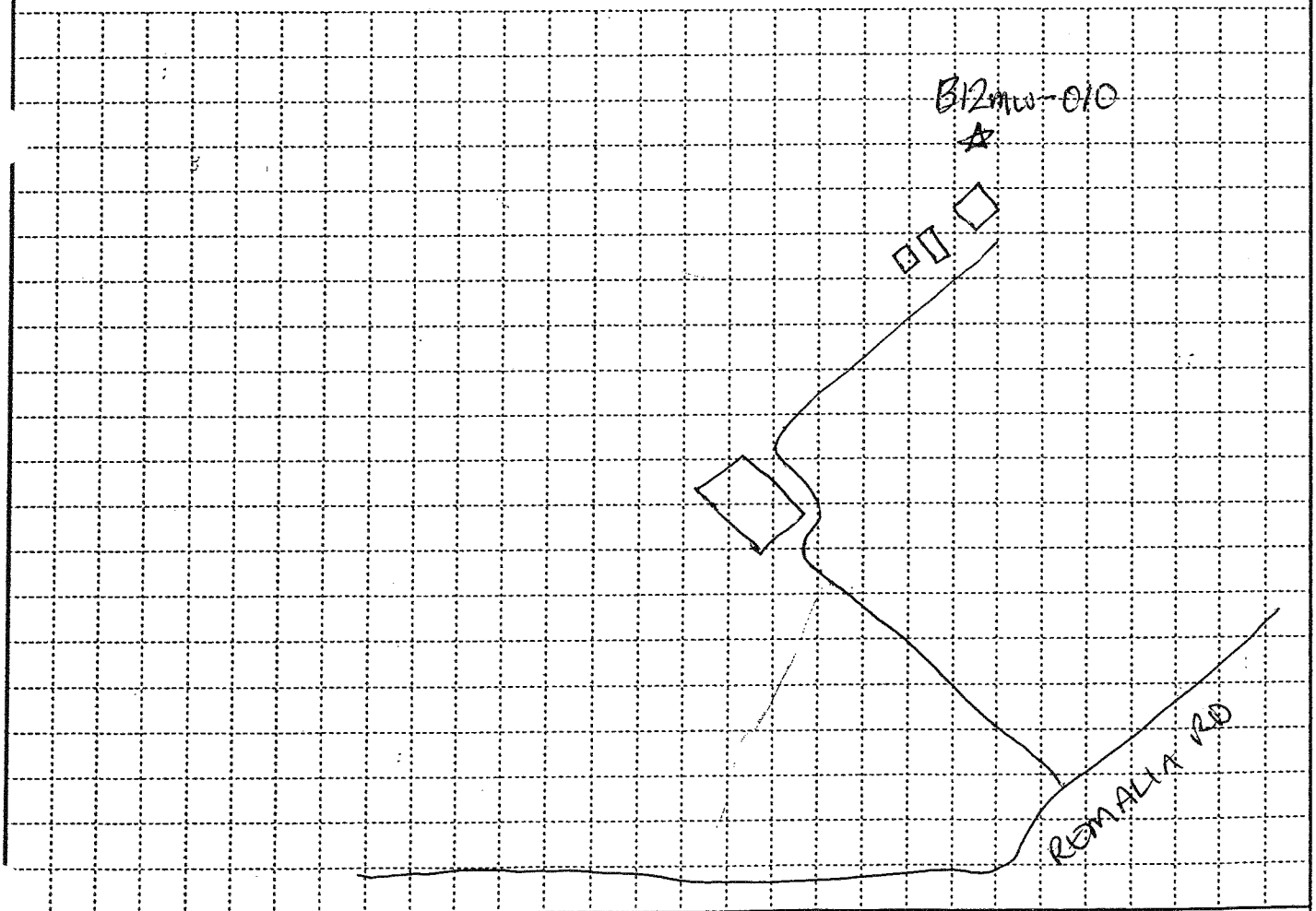
1. COMPANY NAME: MKM ENGINEERS	2. DRILL SUBCONTRACTOR: HAD DRILLING	DISTRICT: LOUISVILLE; HOLE NUMBER: B12MW-010; SHEET 1 OF 3
3. PROJECT: RVAAP-R114	4. LOCATION: RAVENNA, OH BLDG 1200	
5. NAME OF DRILLER: SCOTT HELSER	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-55	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME-55; 6¼" ID HSA; 3" DIA CORE BARREL X 10'	8. HOLE LOCATION: NORTH WEST PORTION OF SITE	
	9. SURFACE ELEVATION: 1002.72 ASL	
	10. DATE STARTED: 11/17/04	11. DATE COMPLETED: 11/18/04
12. OVERBURDEN THICKNESS: 3'	15. DEPTH GROUNDWATER ENCOUNTERED: ~12'	
13. DEPTH DRILLED INTO ROCK: 17'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: ~6' BGS 24 HR 11/20/04	
14. TOTAL DEPTH OF HOLE: 21' BGS	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): 15.6' @ 1110 11/23/04	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA	—	—	2

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
—	—	X	—	David K. Belmet

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP-R114	B12MW-010

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER B12MW-010

PROJECT RVAAP - R1 14 | INSPECTOR DK EARNEST | SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		TOPSOIL - GRASS & ROOTS DK BROWN CLAYEY SILT	2.4	1.4		2/2	7.5YR 3/2 MOIST
		BROWN CL SILT				2/21	10YR 5/4
	2	YELLOW BROWN SANDSTONE SILTY, FINE				50/3	10YR 6/6 WET
			A.6	0.5			
	4	HAMMER TO 5'; START CORING AT 5'					WATER IN HOLE AT START OF CORING
		SANDSTONE, FINE GRAINED WELL SORTED LT GREY					CORED · 5-13.3 FT
	6	DARK BEDDING STRAITONS 5% DARK GRAINS					10YR 7/1
	8	TAN STAINING ON BEDDING PLANES					20/99.6 20%
	10	HORIZONTAL BEDDING					
		BROWN 0.2	SOFT				5YR 5/5
11.6		WHITE 0.3 THICK	WELL CEMENTED HARD				10YR 10/1
11.9	12	BROWN IRON STAINED 0.9	SOFT				10YR 5/6
12.1		WHITE 0.3 WELL CEMENTED	HARD				
13.0							
13.3						2.5YR6/2	2ND CORE TO APPROX 18' THEN PART OF RIG BROKE
13.9		LT BROWN SANDSTONE					
14		HARD, WELL CEMENTED					
14.3		5% DARK GRAINS					31/60 =
		SHALE GREY FRIABLE					
		SAA					
	16						
	18	LT GREY SANDSTONE					18.3-20.9 10YR7/1
							0/31.2 = 0
	20						

PROJECT RVAAP - R1 14 | HOLE NO. B12MW-010

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: B12mw-010

PROJECT: RVAAP-R1 14

INSPECTOR: DK EARNEST

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		SHALE 20.3-20.6 GREY CORED TO 20.9					
		DRILLED OUT HOLE TO 20.9 WELL SET AT 20 SCREEN AT 10-20 SAND TO 8 SEAL TO 5					

PROJECT: RVAAP-R1 14

HOLE NO: B12mw-010

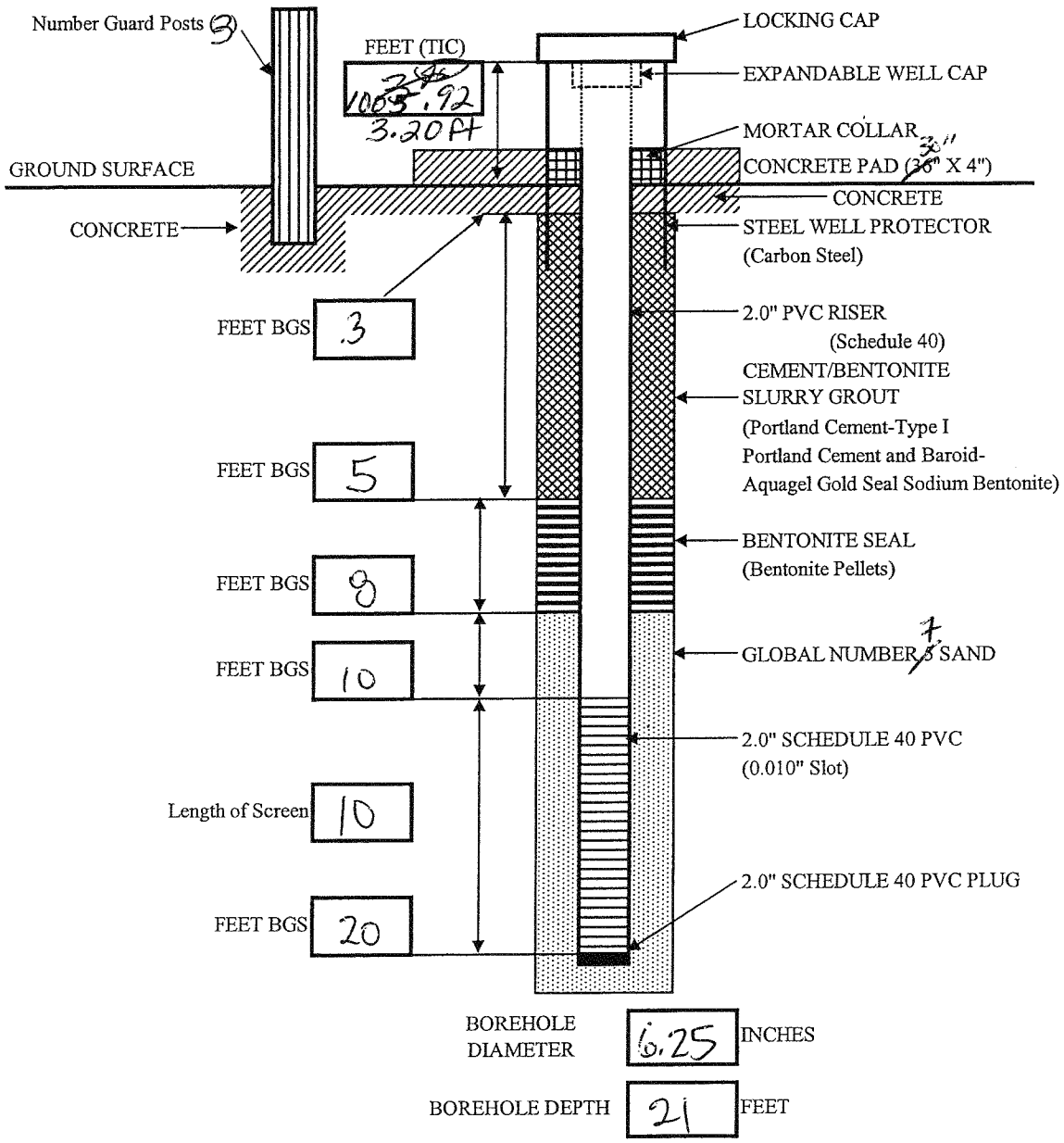
ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: B12MW-010	Begin: 11/17/04	End: 11/18/04
Coordinates: N: 565827.43 E: 2371292.81	Elevation: 1002.72	Reference Point:
Logged By: DKERNST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

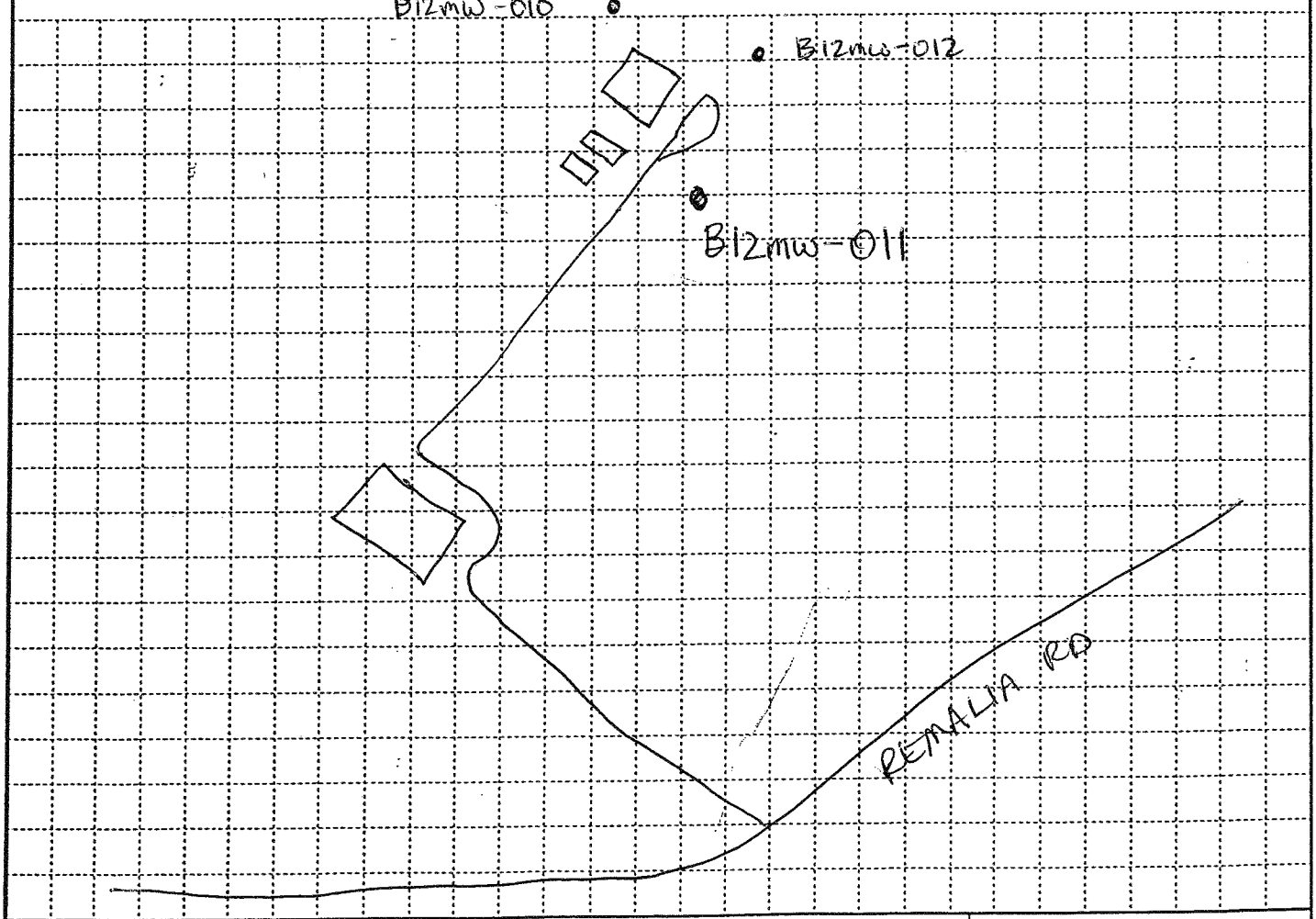
	DISTRICT: Louisville	HOLE NUMBER: B12mw-011
1. COMPANY NAME: MRA Engineers Inc	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF 3
3. PROJECT: RVAAP RI 14	4. LOCATION: Building 1200 Area	
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 6.25 ID HSA; 2" Shelby Tube; 6" OD Air Hammer	8. HOLE LOCATION: East well btw. Existing and NE well	
	9. SURFACE ELEVATION: 1003.76 ASL	
	10. DATE STARTED: 19Nov04	11. DATE COMPLETED: 19Nov04
12. OVERBURDEN THICKNESS: 2.0 Ft	15. DEPTH GROUNDWATER ENCOUNTERED: ~20 Ft	
13. DEPTH DRILLED INTO ROCK: 22.7 Ft	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 19.95 @1036 11/23/04	
14. TOTAL DEPTH OF HOLE: 24.7 Ft	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTRIBUTED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 0'-2'	—	X	0

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	B12mw-011

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: B12mw-011

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT - (g)	REMARKS (h)
	2	SHELBY TUBE 19NOV04 1310					
	4	Drilled Through Weathered SS Bedrock to set 6.25 ID Augers for Air Rotary					7.5yr 5/6
1300	6	Br. SS Bedrock Fine Grained Sand					
	8	Color Changes to Dk. Br.					7.5yr 4/4
	10	Color Changes to LT. Gray Color Changes to Br.					7.5yr 7/2 7.5yr 5/6
	12						
	14						
	16	Layered Shale - Dk Grey/Black and SS - Br/Reddish Br.					- Drilled to 20 Ft and let borehole sit open to check for water - 1340 → - 1500 - Checked WL up to 20 Ft.
	18						
	20						

PROJECT: RVAAP RI 14 HOLE NO.: B12mw-011

ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: B12mw-011

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT - (g)	REMARKS (h)
	22	Same As Above					
	24						
1340		BOH 24.7					BOH 24.7 Sand to 24 screen from 24 to 14 Sand to 10 Bentonite 7 Grout to Surface Stick up Construction 3 gallons to Hydrate
	26						

PROJECT: RVAAP RI 14

HOLE NO.: B12mw-011

ENG FORM 5056A-R, AUG 94

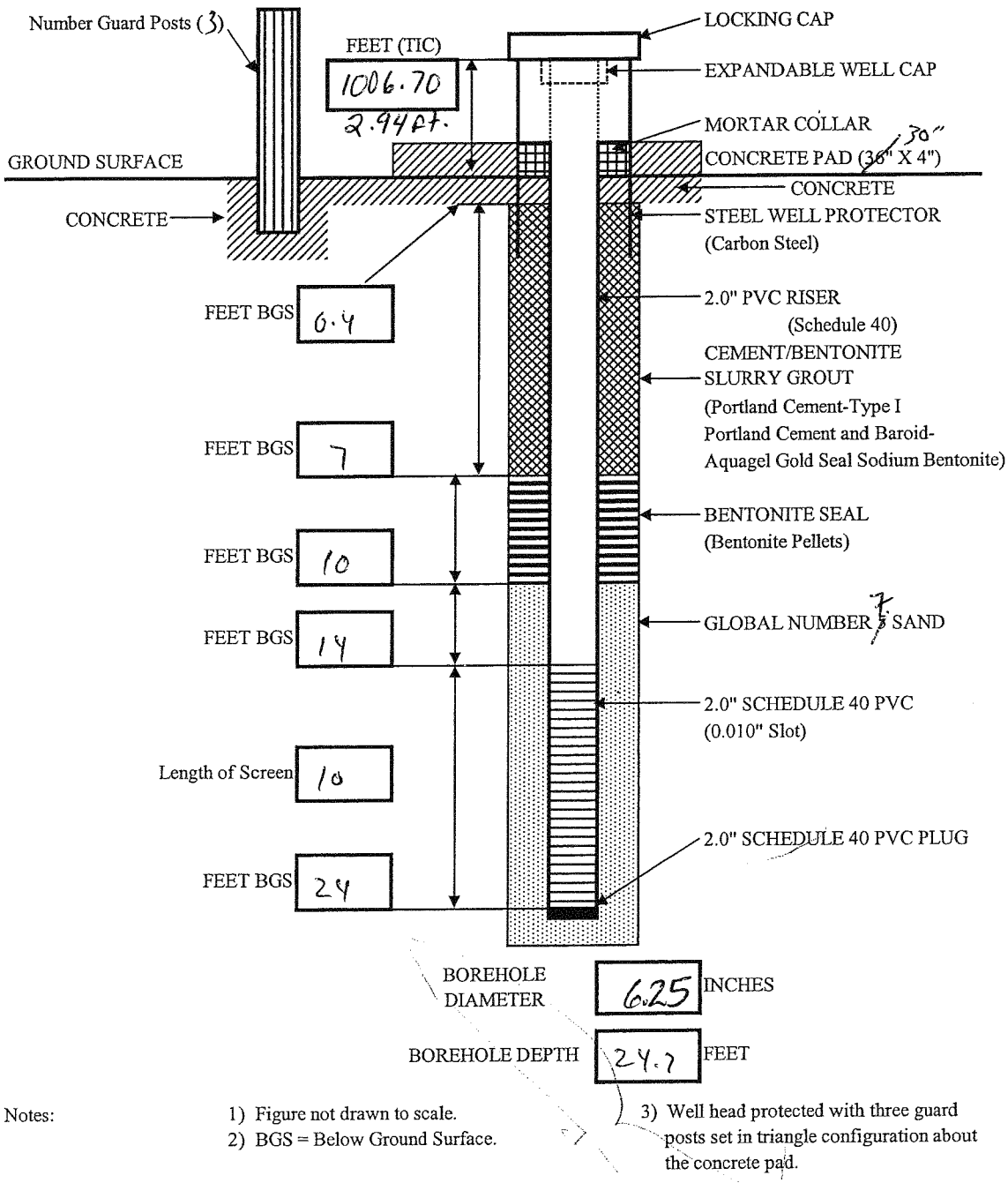
(Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: B12mw-011	Begin: 19Nov04	End: 19Nov04
Coordinates: N: 565687.82 E: 2371416.15	Elevation: 1003.76	Reference Point:
Logged By: Mark Dunlevy		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM Engineers Inc	DISTRICT: Louisville	HOLE NUMBER: B12mw-012
2. DRILL SUBCONTRACTOR: HAD Drilling Contractors		SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP RI IV	4. LOCATION: ~~NAC Test Pad~~ Building 1200 Area	
5. NAME OF DRILLER: Andy Wolf	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 550	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 ~~ID~~ HSA; 6.25" OD Core Barrel	8. HOLE LOCATION: NE Corner	
	9. SURFACE ELEVATION: 1003.43 ASL	
	10. DATE STARTED: 22 Nov 04	11. DATE COMPLETED: 29 Nov 04
12. OVERBURDEN THICKNESS: 2.5 ft	15. DEPTH GROUNDWATER ENCOUNTERED: ~18.5	
13. DEPTH DRILLED INTO ROCK: ~~19.5 ft~~ 19.8 ft	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 19.3 @ 1030 12/01/04	
14. TOTAL DEPTH OF HOLE: 22.3	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

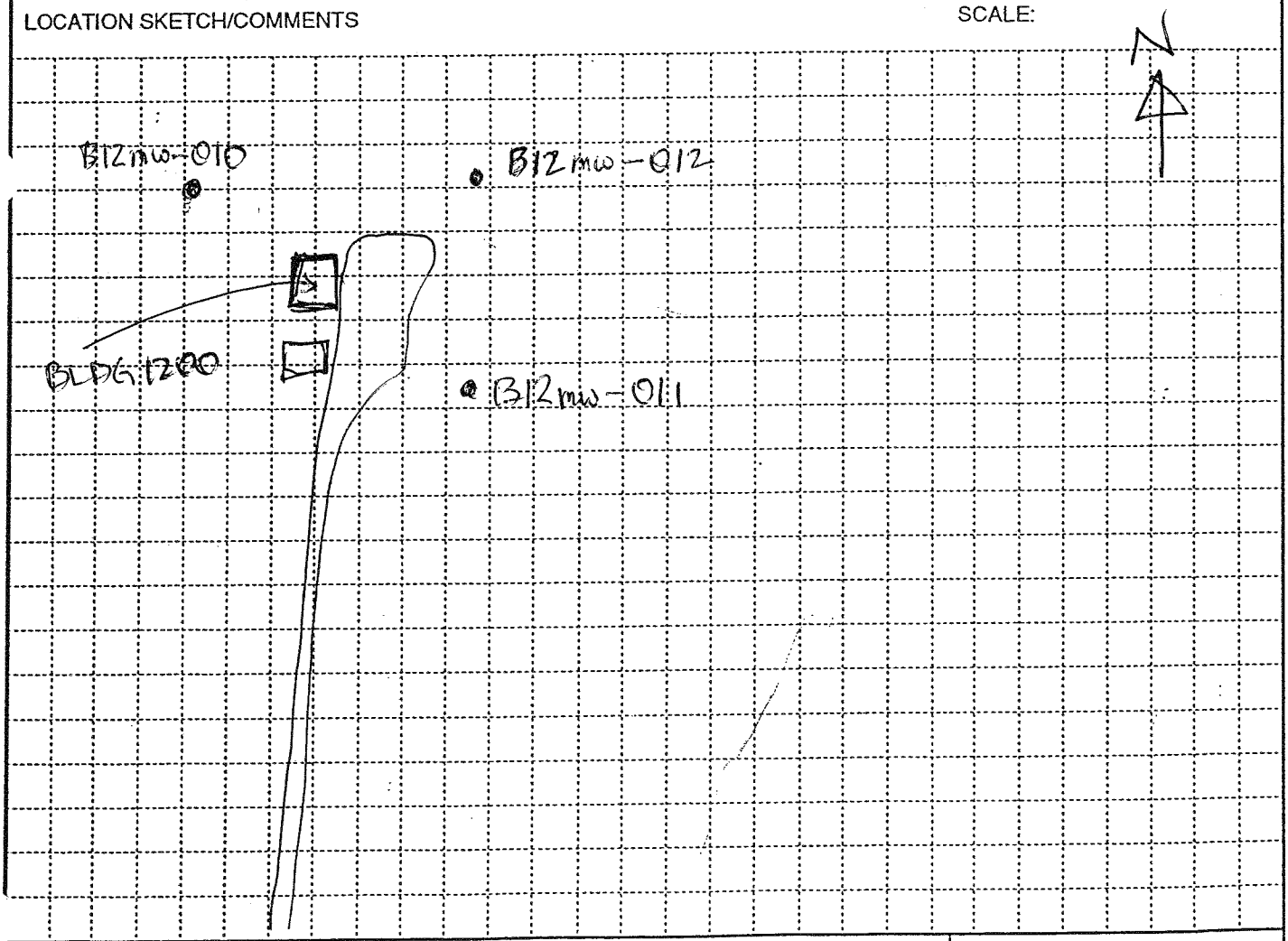
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	—	—	2

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	—	—	—	—	—	76 %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
		X		

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RI IV	B12mw-012

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: B12mw012

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. / Recovery	ANALYTICAL SAMPLE NO.	BLOW COUNT (g)	REMARKS (h)
		6" Topsoil				1-2	
		Reddish Br. SILT 70% w/Sand Damp No Odor No Staining Grey Mottles Present	0.0	1.5	ML	2-4	7.5yr 5/6
	2	Saturated Above Bedrock split spoon Refusal				1	
		Weathered Grey SS	6.0	0.4	—	Refusal	Used Air hammer to 7.0 due to length of Core Barrel
	4						
	6						7.5yr 5/2
1230		Begin Core #1 @ 7.0					Core #1
		Grey Weathered, Fine Grained SS very fractured					Recovery RQD
	8	Wet					
		Br/Grey SHALE, Very Soft/Fissle Highly Layered					7.5yr 5/3
		Br/Grey SS Fine Grained					
		Iron Stained					
	10						7.5yr 5/2
		Redish Br. SHALE, Thick layers - 1/8"					5yr 5/4
	12	Br/Grey Fine Grained SS - Highly Fractured btw. 11.8 & 12.2					7.5yr 5/3
		Changes to Grey w/Black & Iron Stained Layers					
	14	Less Fractured					7.5yr 6/2
		DK. Grey SHALE, Highly Compacted					7.5yr 4/1
1310		Br/Grey Fine Grained SS Bottom of Core #1					7.5yr 5/3
1345		Top of Core #2					Core #2
	16						Recovery RQD
							74.4 / 76.8 = 96.9% 39 / 74.4 = 52.4%
		Grey/Blk Layered Shale					7.5yr 6/2
		Redish Grey Fine Grained SS					
	18	Changes to Grey @ 17.8					7.5yr 5/3
							After 7 days only 1 ft of water Present, Cored more
1420		Bottom of Core #2 11/2/04					
0930		Top of Core #3 11/29/04					
		Same As Above					
	20	Grey/Blk Shale Highly Layered					7.5yr 6/2

PROJECT: RVAAP RI 14

HOLE NO.: B12mw-012

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: B12mw-012

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlavy

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT - (g)	REMARKS (h)
	20	SAA Grey Fine-grained SS w/ Black Streaks Very Competent					7.5yr-5/3
		Grey/Black Shale Very Layered					7.5y 6/2
1000	22	Bottom of Core 22.1 Grey Highly Compacted SS					7.5yr-5/3
		BOH 22.3					BOH 22.3 Sand to 22.0 Screen from 22 to 12 Sand up to 9 Bentonite up to 6 Grout to Surface Stick-up -1.5 ft Cut off Bottom
	24						5 gallons of Hydration water used

PROJECT: RVAAP RI 14

HOLE NO. B12mw-012

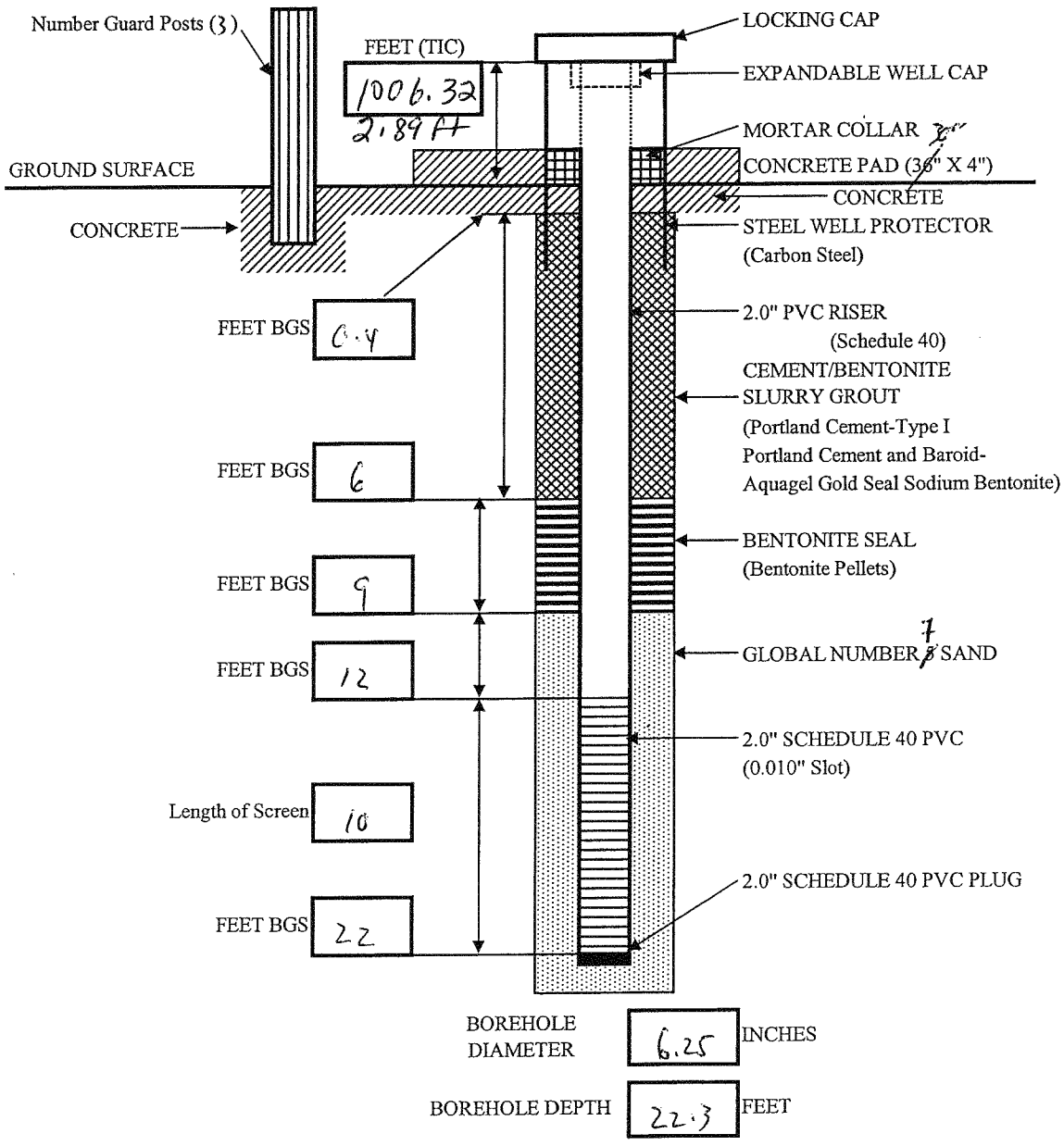
ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: B12mw-012 ~~[illegible]~~	Begin: 22Nov04	End: 29Nov04
Coordinates: N: 565828.01 E: 237430.41	Elevation: 1003.43	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM ENGINEERS	DISTRICT: LOUISVILLE	HOLE NUMBER: LNWMW-024
2. DRILL SUBCONTRACTOR: HAD DRILLING		SHEET 1 OF 3 SHEETS

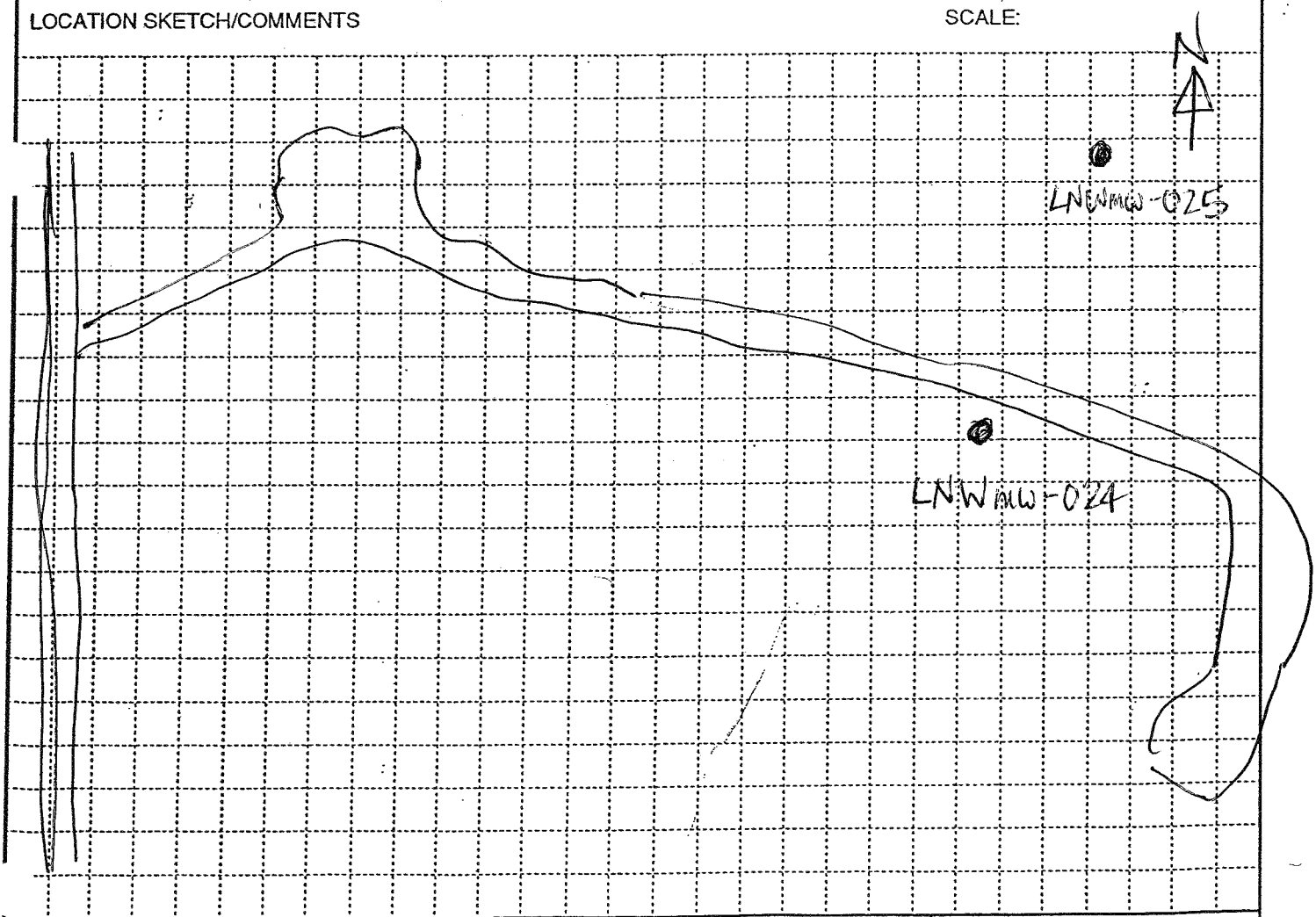
3. PROJECT: RVAAP-R114	4. LOCATION: RAVENNA, OH LANDFILL NORTH
5. NAME OF DRILLER: GREG	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA; 1½" x 24" SPLITSPOON	8. HOLE LOCATION: SOUTH SIDE OF ENTRANCE RD
	9. SURFACE ELEVATION: 1035.30 ASL
	10. DATE STARTED: 12/14/04 — 11. DATE COMPLETED: 12/15/04
12. OVERBURDEN THICKNESS: 17.5'	15. DEPTH GROUNDWATER ENCOUNTERED: 15' BGS
13. DEPTH DRILLED INTO ROCK: 3.5'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 10.74' @ 0917 — 12/22/04
14. TOTAL DEPTH OF HOLE: 24' BGS DRILLED TO 22'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 4'-6'	—	X	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
—	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
—	—	X	—	David K. Emmert

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP-R114	LNWMW-024

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LWWMW-024

PROJECT: RVAAP - RI 14

INSPECTOR: DK GARNEST

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOXNO.~~ RECOVERY	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
630		3" TOPSOIL, GRASS, ROOTS					
		BROWN SILTY (40%) CLAY (60%) TRACE SAND & GRAVEL MED PLASTIC	0	0.5	CL	2/3 4/6	MOIST 10YR 5/3
	2	SAA TRACE GREY MOTTLING MED TO STIFF	0	1.7	CL	5/10 11/10	
	4	SHELBY TUBE	—	—	—	—	COLLECTED 1545
	6	SAA LOW PLASTIC STIFF TO V. STIFF	0	1.3	CL/ML	6/11 17/22	DRY
	8	SAA	0	1.9		8/10 15/17	DRY MOIST AT 9.5'
	10	BROWN CLAYEY SILT TRACE SAND & GRAVEL LOW PLASTIC MED DENSE	0	1.8	ML	6/9 12/10	10YR 4/4 DAMP
	12	BROWN SILTY CLAY MED TO LOW PLASTIC TRACE SAND & GRAVEL	0	1.8	CL/ML	3/4 4/6	
630 600	14	SAA MEDIUM					
		BROWN SILTY (15%) SAND (85%)	0	1.5	SM	2/4 8/9	10YR 4/4 WET
	16	MED TO FINE GRAINED WELL SORTED MED DENSE SAA	0	1.3	SM	3/5 8/7	WET TO SAT 10YR 4/3
	18	BROWN SANDY (60%) SILT (65%) TRACE CLAY, LOW PLASTIC			ML		
		DK GREY WEATHERED FISSILE SHALE	0	1.3	SH	4/11 18/14	10YR 3/1
	20						

PROJECT: RVAAP - RI 14

HOLE NO. LWWMW-024

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LNWmw-024

PROJECT: RVAAP-RI 14

INSPECTOR: DK BARNETT

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
	22	SAA	0	1.0		8/10 11/50+	10YR 3/1
	24	SAA	0	0.5		17/50+	
	26	BOH 24' SAMPLED TO 24' DRILLED TO 22' SET WELL AT ~~21~~ 20' * ~~NE~~ SCREEN AT ~~21-21~~ BGS 10-20' * ~~NE~~					
	28	SAND TO 8' BGS SEAL TO 6' BGS * SAND BRIDGED & WELL WAS PULLED UP 1' TO 20'					

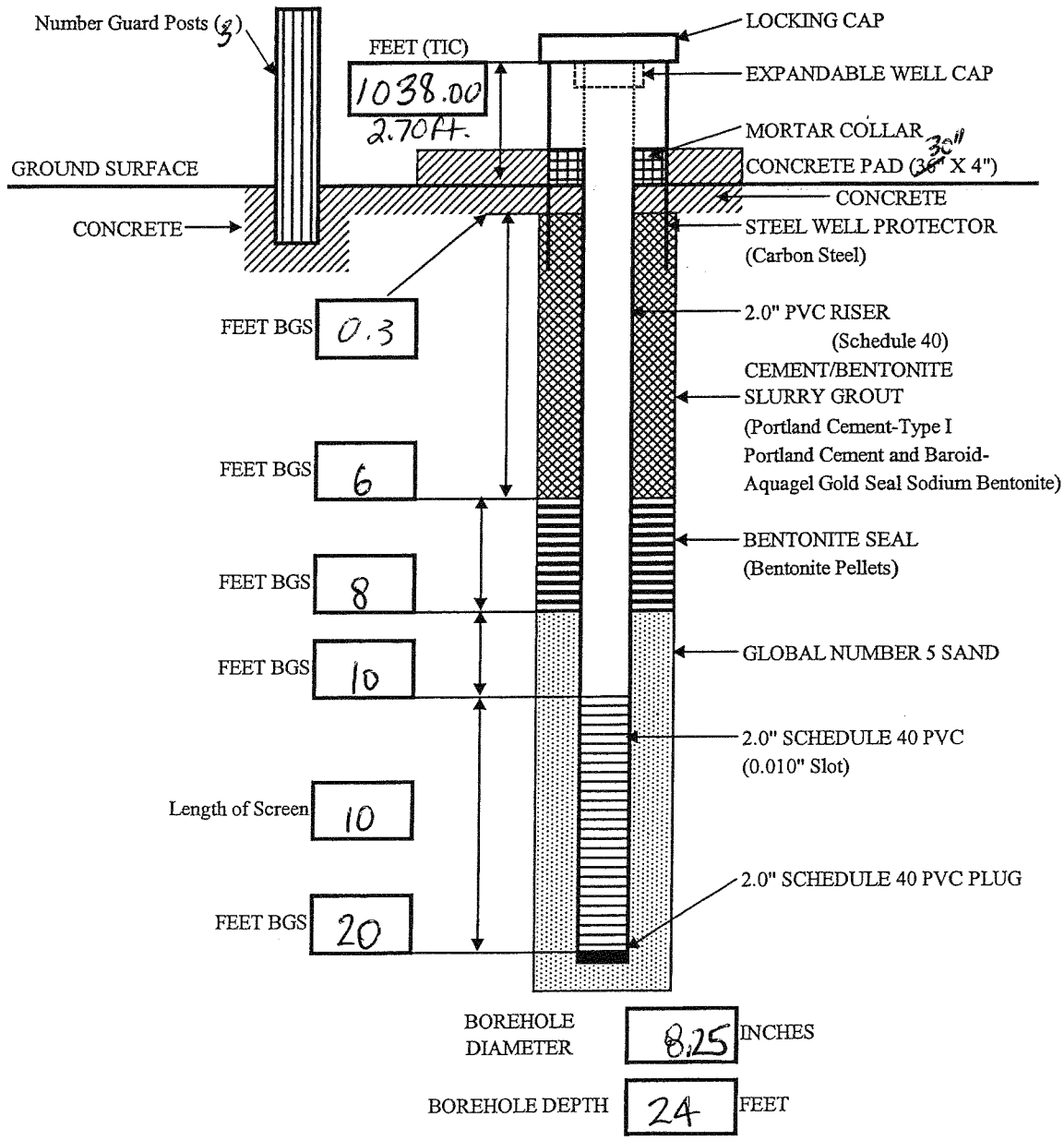
PROJECT RVAAP-RI 14 HOLE NO. LNWmw-024

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI14

Well Number: LNWmw-024	Begin: 12/14/04	End: 12/15/04
Coordinates: N: 564825.89 E: 2358403.21	Elevation: 1035.30	Reference Point:
Logged By: DK EARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM ENGINEERS	DISTRICT: LOUISVILLE	HOLE NUMBER: LNW MW-025
2. DRILL SUBCONTRACTOR: HAD DRILLING		SHEET 1 OF 2 SHEETS

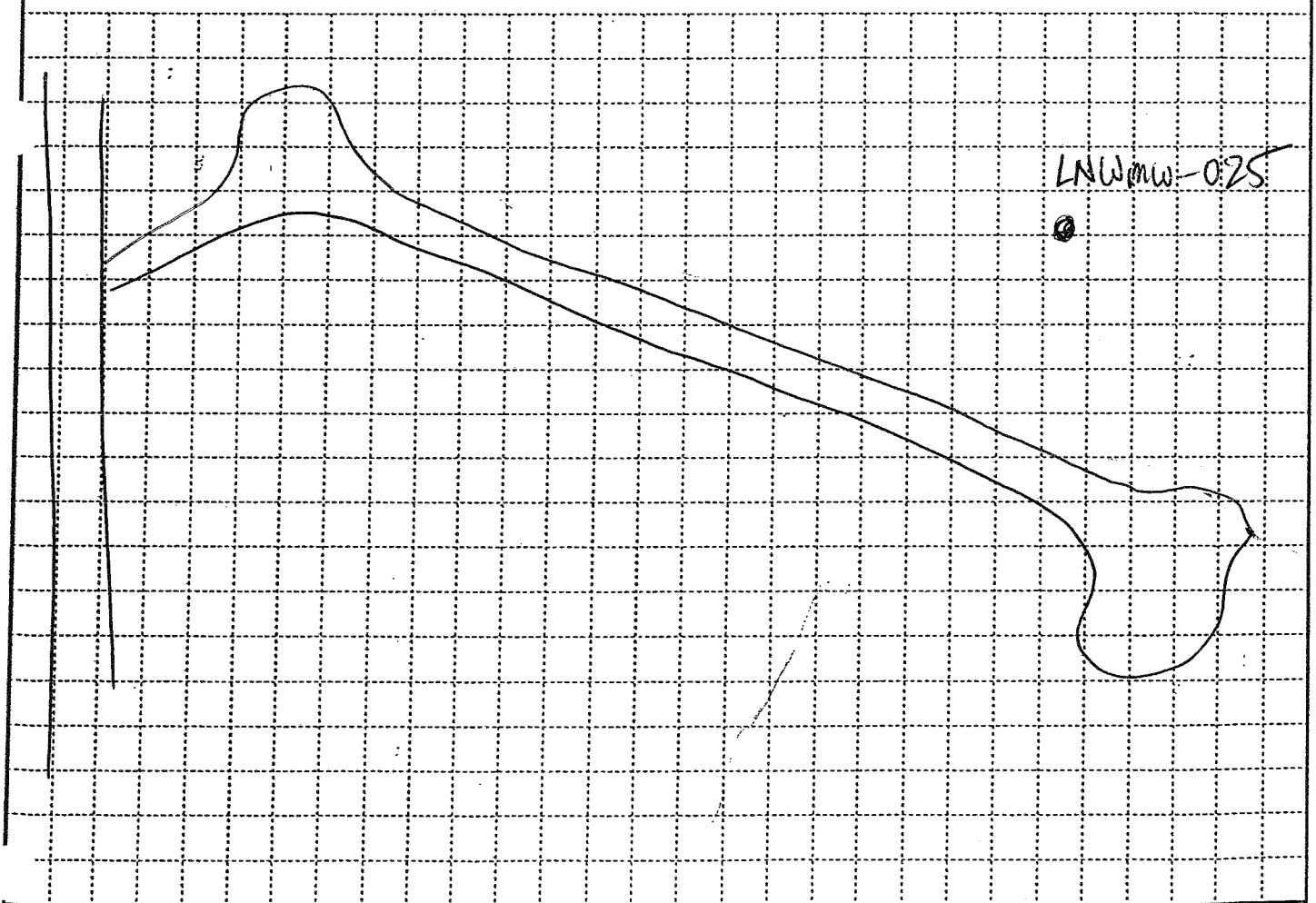
3. PROJECT: RVAAP-R114	4. LOCATION: RAVENNA, OH LANDFILL NORTH
5. NAME OF DRILLER: GREG	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4 1/4" ID HSA; 1 1/2" x 24" SPLIT SPOON	8. HOLE LOCATION: NORTH OF ENTRANCE ROAD
	9. SURFACE ELEVATION: 1027.20 ASL
	10. DATE STARTED: 12/15/04 — 11. DATE COMPLETED: 12/15/04
12. OVERBURDEN THICKNESS: 12'	15. DEPTH GROUNDWATER ENCOUNTERED: ~10' BGS
13. DEPTH DRILLED INTO ROCK: 7'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 3.1' @ 1415 12/22/04
14. TOTAL DEPTH OF HOLE: 19'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
2-4' SHELBY TUBE ~~4-6~~ BGS	—	X	

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
—	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	Donald K Earnest

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP-R114	LNWMW-025

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LNWMW-025

PROJECT: RVAAP - R1 14

INSPECTOR: DK EARNEST

SHEET 2 OF 2 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~SECTION SAMPLE OR CORE BOX NO.~~ RECOVERY	~~SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
300		3" TOPSOIL, ROOTS, GRASS					
	2	BROWN CLAYEY (20%) SILT (75%) SOME GREY MOTTLING LOW TO MED PLASTIC MED DENSE TRACE SAND (5%)	0	1.8	ML	DUSH	MOIST TO DAMP 10YR 5/4
	4	SHELBY TUBE	—	—	—	—	COLLECTED 1320
		SAA	0	1.8	ML	4/6 8/8	MOIST
	6	SAA	0	2.0	ML	5/6 10/11	MOIST
	8		0	1.8	ML	6/6 8/7	SAT AT 9.5
	10	BROWN V. FINE SANDY (40%) SILT (60%) LOW PLASTIC TRACE CLAY MED DENSE	0	1.5	ML	1/6 10/14	10YR 4/2 SAT
	12	DK GREY WEATHERED SHALE FISSILE, SOFT,	0	1.5	SH	20/38 34/98	10YR 3/1
	14	SAA	0	1.5	SH	5/25 36/50+	
	16	SAA	0	1.0	SH	25/50+	
	18	~~BOH 14'~~ SAMPLED ~~TO~~ 18' DRILLED TO 19' SET SCREEN AT 8-18' BGS SAND TO 6', SEAL TO 4', SEVEN BAGS SAND,					WILL CUT 2' FROM CASING NO WATER ADDED
	20						

PROJECT: RVAAP - R1 14

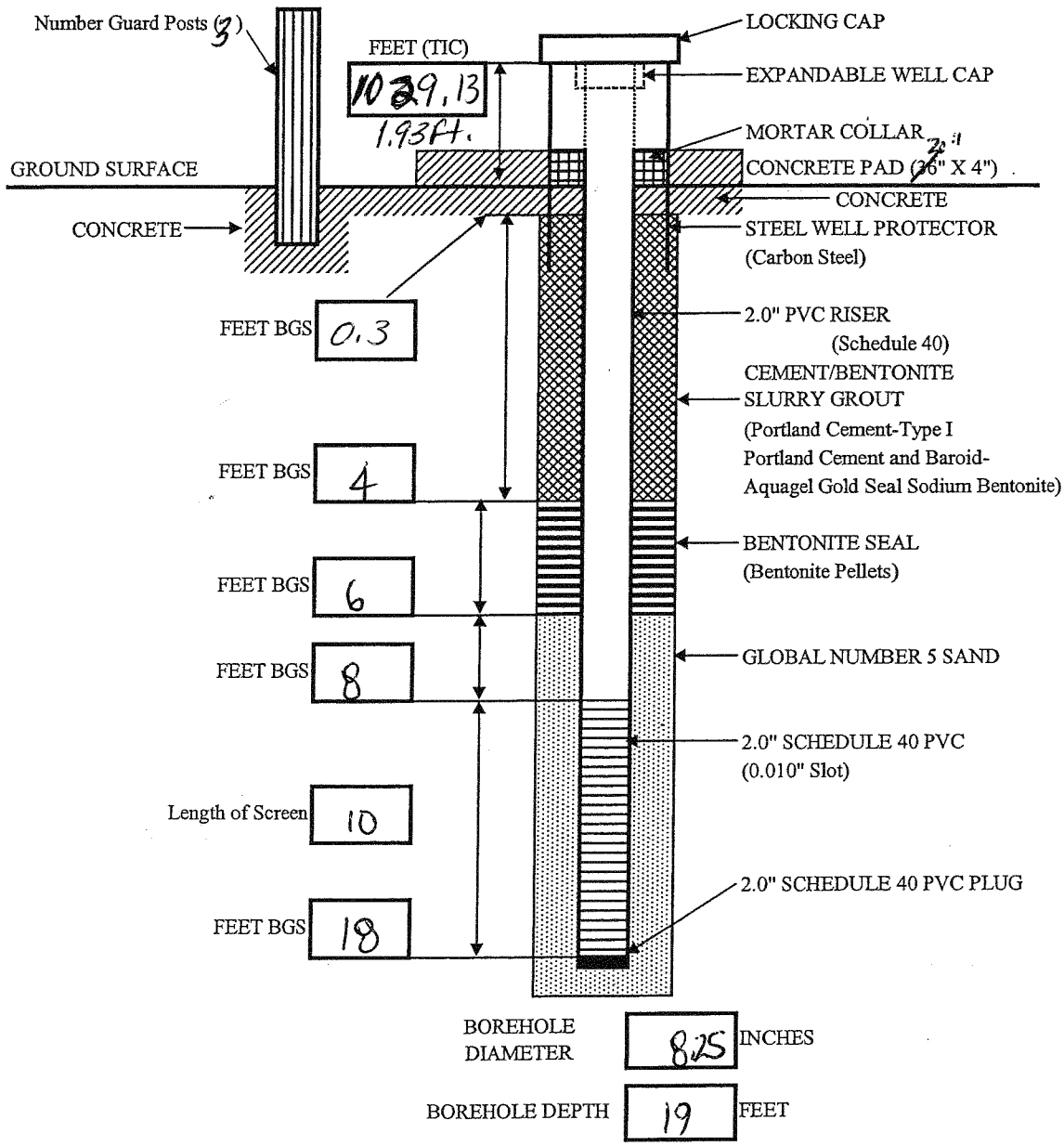
HOLE NO.: LNWMW-025

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: LNWmw-025	Begin: 12/15/04	End: 12/15/04
Coordinates: N: 565071.92 E: 2358417.06	Elevation: 1027.20	Reference Point:
Logged By: DK EARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

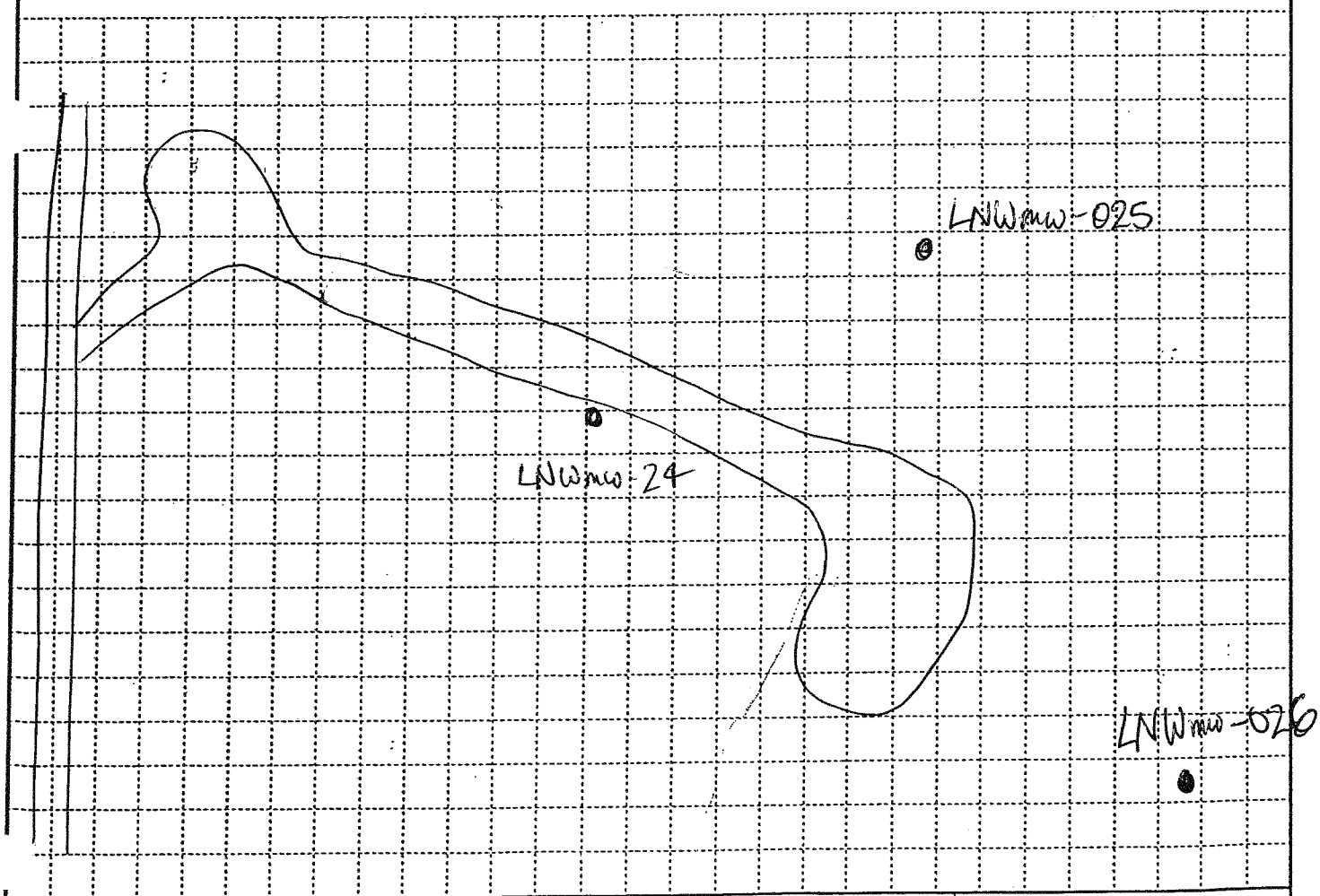
	DISTRICT: LOUISVILLE	HOLE NUMBER: LNW mw-026
1. COMPANY NAME: MKM ENGINEERS	2. DRILL SUBCONTRACTOR: HAD DRILLING	SHEET 3 OF 3 SHEETS
3. PROJECT: RVAAP-R1 14	4. LOCATION: RAVENNA, 10H LANDFILL NORTH	
5. NAME OF DRILLER: GREG	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC 60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA; 1½" ID X 24" SPLIT SPOON	8. HOLE LOCATION: EAST OF LANDFILL	
	9. SURFACE ELEVATION: 1025.00	
	10. DATE STARTED: 12/14/04	11. DATE COMPLETED: 12/14/04
12. OVERBURDEN THICKNESS	15. DEPTH GROUNDWATER ENCOUNTERED: ~13'	
13. DEPTH DRILLED INTO ROCK	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 3.4' @1436 12/22/04	
14. TOTAL DEPTH OF HOLE: 24' BGS	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
		X	

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
		X		David K Eaumt

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP-R1 14	LNW mw-026

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LNWMW-026

PROJECT: RVAAP-RI 14

INSPECTOR: DK EARNEST

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. RECOVERY	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
1004M	0	3" TOPSOIL DK BROWN SANDY SILT NO ODOR NO STAINING BROWN SANDY SILT (30%) (70%) LOOSE SAA NON PLASTIC	0.0	2.0	ML/SM	PUSH	MOIST TO WET 7.5YR 4/4
	2						
	4	SAA	0.0	1.0	ML	3/4 4/3	WET
	6	GREY SILT (80%) SOME FINE SAND (20%) SAA LOW PLASTIC NO ODOR LOOSE NO STAINING	0.0	1.5	ML	1/1 2/2	SAT @ 5' ? PERCHED ?
	8	SAA	0	1.5	ML	1/2 3/3	7.5YR 3/1 SAT
	10	GREY CLAYEY SILT (40%) (60%) MED PLASTIC SAA NO ODOR NO STAINING LOOSE	0	1.7	~~MLE~~ CL	1/2 3/4	CLAYEY @ 9' 7.5YR 4/1
	12		0	2.0	~~MLE~~ CL	1/2 2/4	MOIST TO WET
▽ S	14	GREY SILTY FINE SAND (80%) NO ODOR (20%) NON PLASTIC LOOSE NO STAINING	0	1.8	SM	5/5 6/5	SAT 7.5YR 5/1
	16	GREY SLICK SILT (20%) (80%) SAA LOW PLASTIC NO ODOR NO STAINING LOOSE TO MED DENSE	0	1.7	SM ML	1/2 4/4	7.5YR 4/1
	18	SAA	0	1.8	ML	2/5 7/7	SAT
	20		0	1.8	ML	3/3 4/5	

PROJECT: RVAAP-RI 14

HOLE NO. LNWMW-026

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LNWMW-026

PROJECT: RVAAP-R114

INSPECTOR: DK EARNEST

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		MORE CLAY/L MED PLASTIC	0		MK/CL	2/4 4/6	
	22	SAA					
			0		MK/CL	1/1 3/5	
	24	BOH 24'					
		DRILLED TO 24'					
		SET WELL AT 23'					
		SCREEN AT 13-23' BGS					
		SAND TO 11'	6 BAGS	#7 SAND			
		SEAL TO 8'					

PROJECT: RVAAP-R114

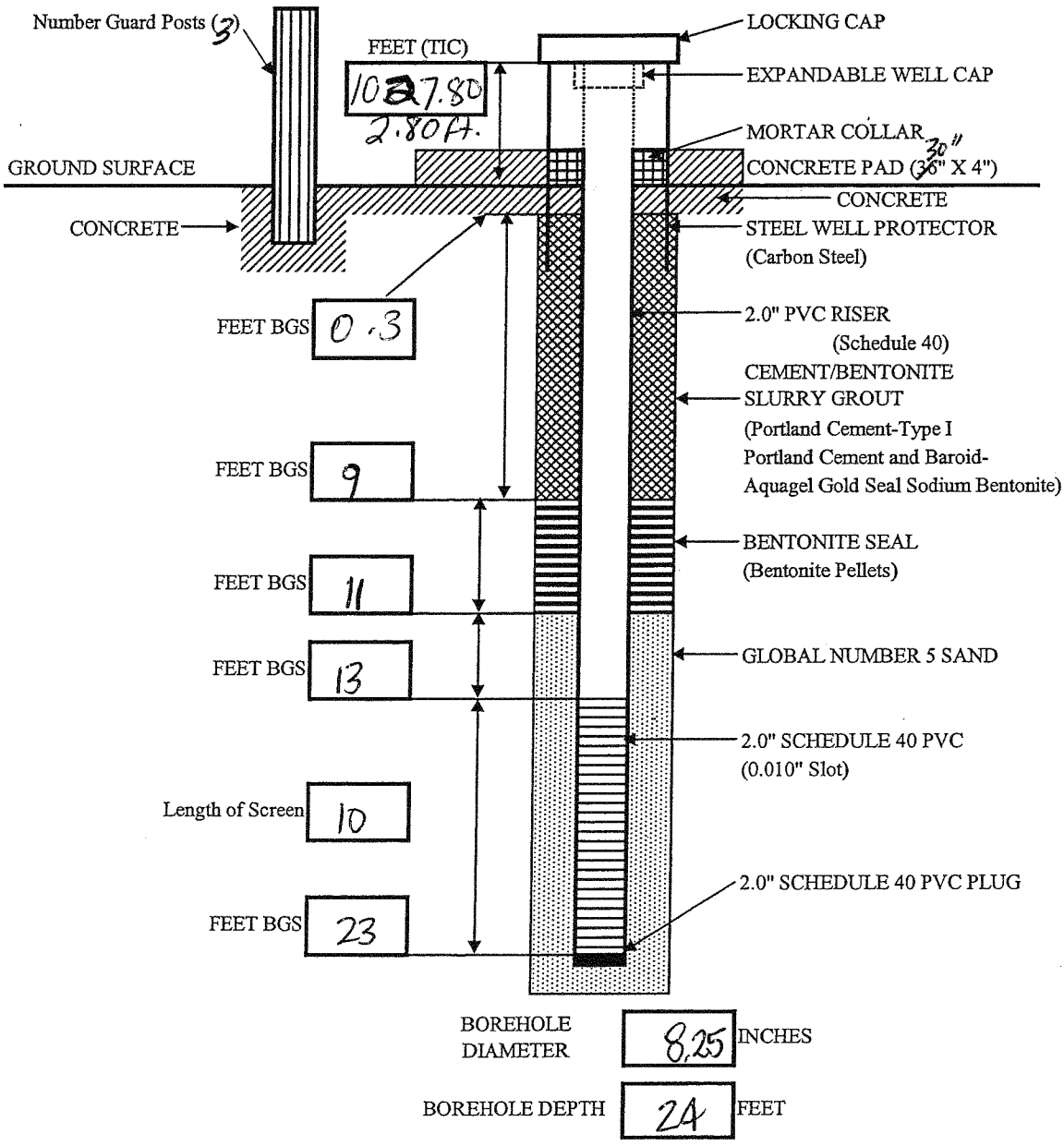
HOLE NO.: LNWMW-026

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project:

Well Number: LNWMW-026	Begin: 12/14/04	End: 12/14/04
Coordinates: N: 564658.16 E: 2358952.24	Elevation: 1025.00	Reference Point:
Logged By: DK EARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

MW Const Dia 05Nov04.xls

HTRW DRILLING LOG

	DISTRICT: LOUISVILLE	HOLE NUMBER: LNWMW-027
1. COMPANY NAME: MKM ENGINEERS	2. DRILL SUBCONTRACTOR: HAD	SHEET OF: SHEETS

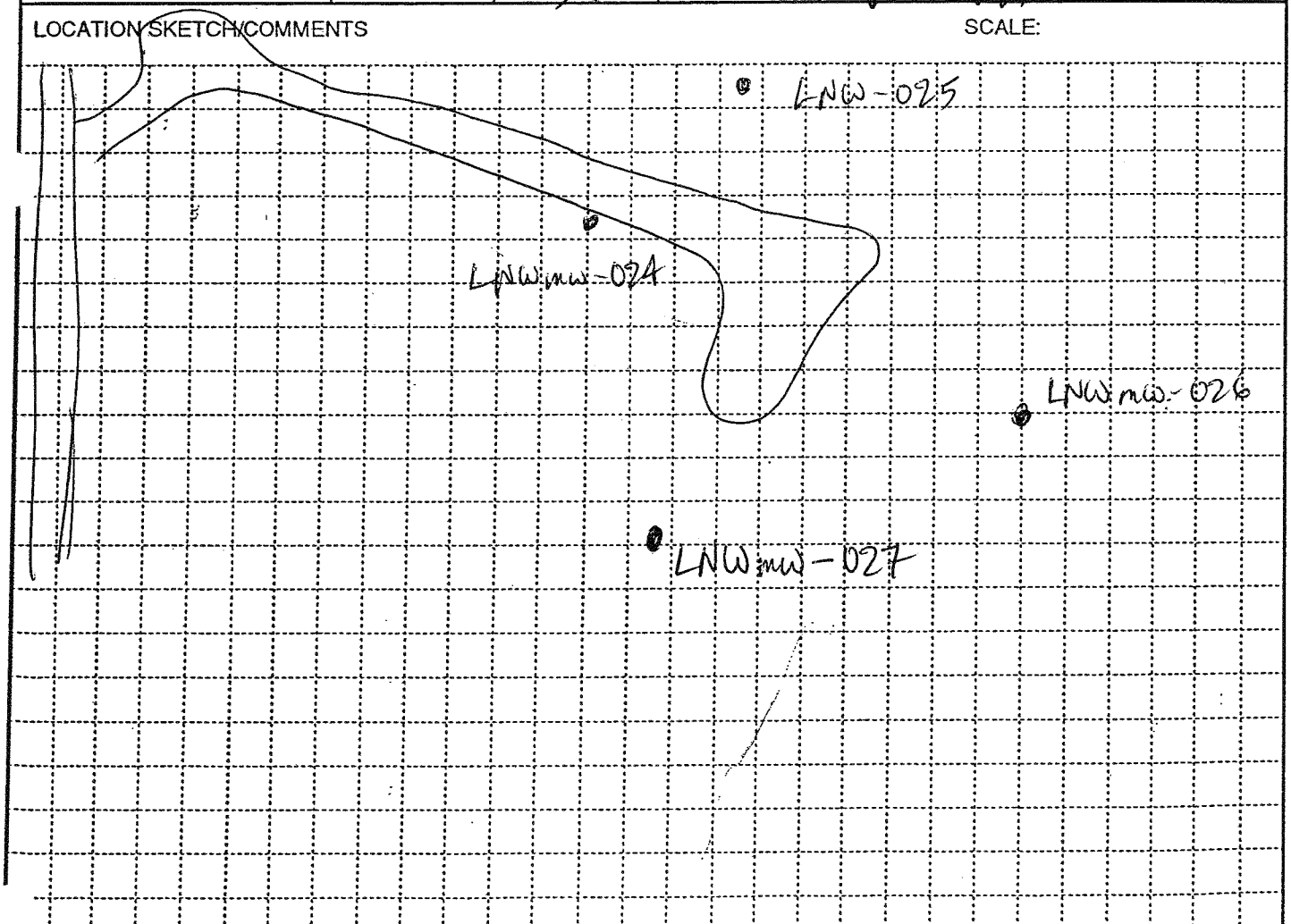
3. PROJECT: RVAAP-R14	4. LOCATION: RAVENNA, OH LANDFILL
5. NAME OF DRILLER: GREG	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA; 1½" ID X 24" SPLIT SPOON	8. HOLE LOCATION: SOUTH OF LANDFILL
	9. SURFACE ELEVATION: 1024.40 ASL
	10. DATE STARTED: 12/13/04 — 11. DATE COMPLETED: 12/14/04
12. OVERBURDEN THICKNESS: 10	15. DEPTH GROUNDWATER ENCOUNTERED
13. DEPTH DRILLED INTO ROCK: 15.5'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 8.5' @ 1030 12/22/04
14. TOTAL DEPTH OF HOLE: 25' BGS	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): 12/15/04 ~17.5' BGS

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	—	X	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	Robert Earnest

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP-R14	LNWMW-027

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LNW MW-027

PROJECT: RVAAP-RI 14

INSPECTOR: DK EARNEST

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. RECOVERY (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	2	TOPSOIL DK GREY/BROWN SILT BROWN W/GREY SLOPE SANDY SILT (10%) (60%) (30%) LOW PLASTIC SOME FINE TO MED GRAVEL LOOSE TO MED DENSE (10%)	0.0	1.8	ML	PUSH	7.5YR 4/3
	4	SAA	0	1.2	ML	3/4 4/6	
	6	CLAYEY SILT TR FINE SAND (20%) (60%) (10%) MED PLASTIC SOME GRAVEL (5%) BROWN MOTTLED W/GREY ~~STIFF~~ ROCK FRAGS MED DENSE	0	2.0	ML/CL	6/8 7/9	7.5YR 5/3
	8	SAA	0	1.9	ML/CL	9/7 15/13	
	10	DK GREY SHALE ~~WEATHERED~~ SAA FISSILE NO ODOR SOFT	0	1.0	ML/CL	9/31 50/4	SPOON REFUSAL 8-9.5'
	12	DK GREY/WEATHERED SHALE SAA	0	NR	SH	20/29 18/11	AUGER 10-11' 10YR 3/1 11-13
	14	SAA	0	1.8	SH	8/14 20/12	DRY 13-15
	16	SAA	0	1.6	SH	10/13 13/18	15-17
	18	SAA	0	1.1	SH	23/50/4	SPOON REFUSAL 17-19
	20	SAA	0	1.5	SH	22/100 15/100	19-21

PROJECT: RVAAP-RI 14

HOLE NO.: LNW MW-027

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LNWMW-027

PROJECT: RVAAP-RI 14

INSPECTOR: DK EARNEST

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	22	DK GREY WEATHERED SAA SHALE	0	1,8	SH	10/22 50+	21-23
	24	SAA	0	1,8	SH	10/12 16/18	23-25
	26	~~BOH 25'~~ SAMPLED TO 24' DRILLED TO 25' SET 24' WELL					
	28	SET SCREEN AT 14-24' BGS SAND TO 11' BGS SEAL TO 8' BGS					
	30	7 BAGS SAND					

PROJECT: RVAAP-RI 14

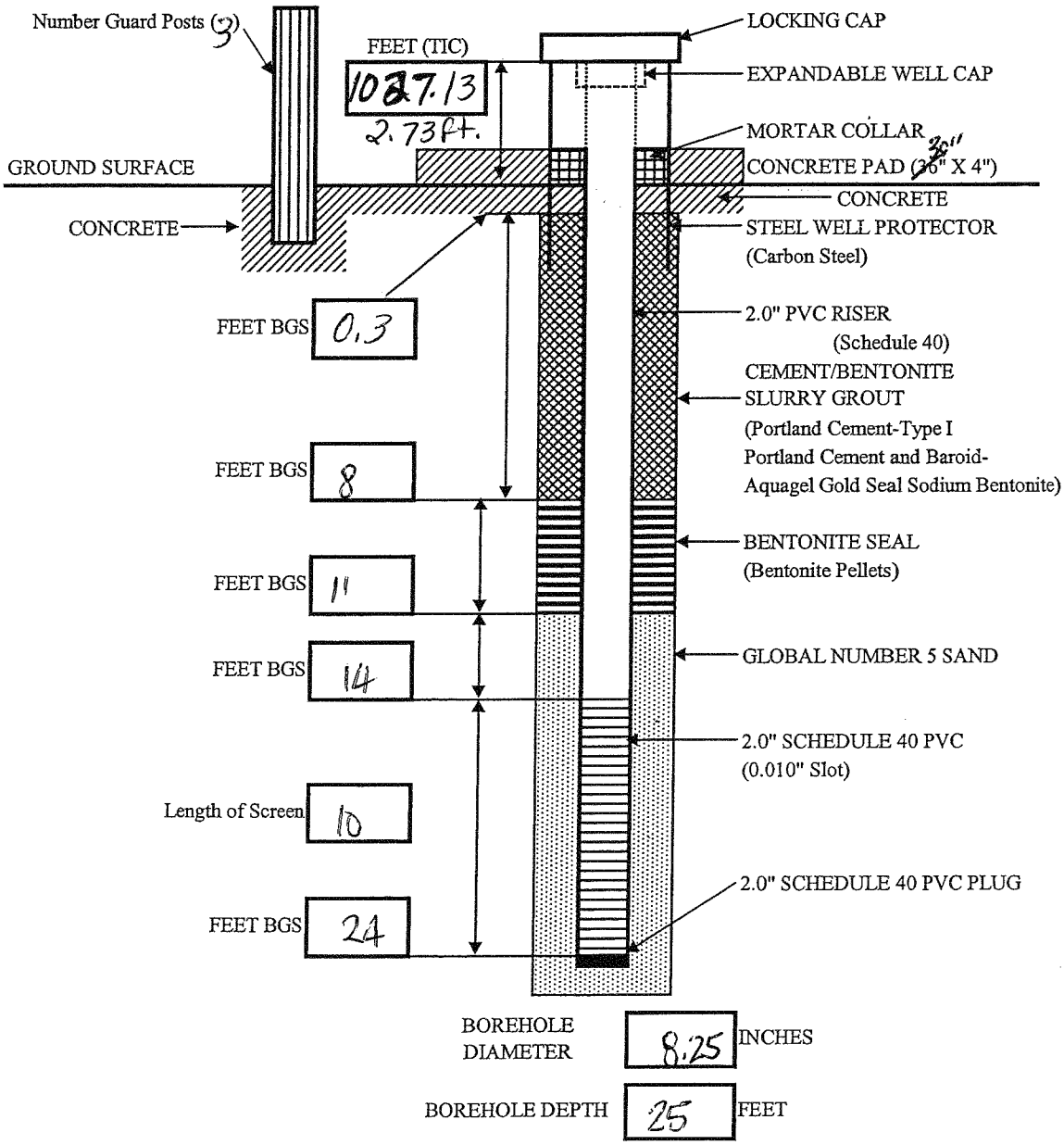
HOLE NO. LNWMW-027

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: LNW mw -025	Begin: 12/13/04	End: 12/14/04
Coordinates: N: 564517.41 E: 2358628.75	Elevation: 1024.40	Reference Point:
Logged By: DK GARNETT		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

MW Const Dia 05Nov04.xls

HTRW DRILLING LOG

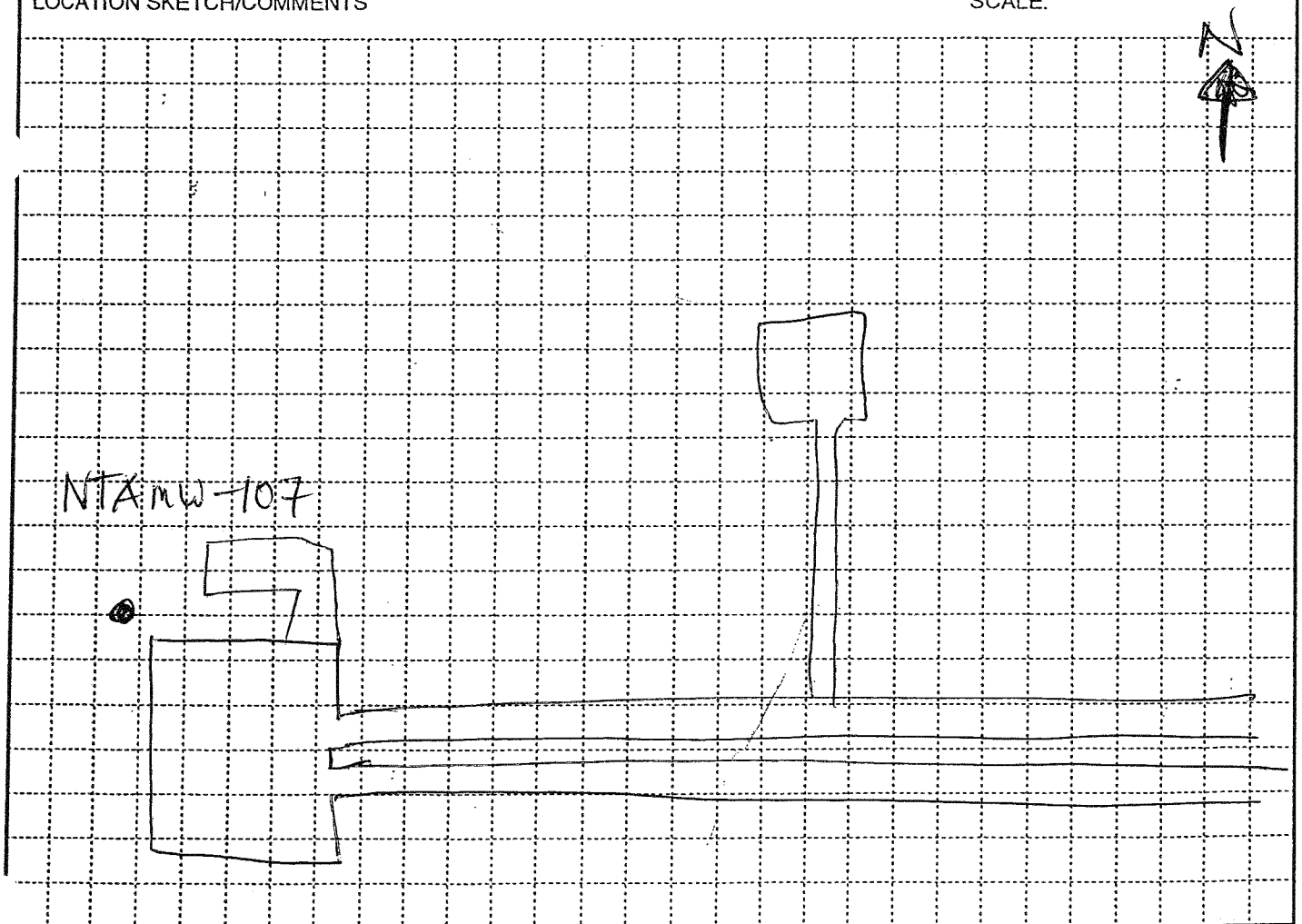
	DISTRICT: LOUISVILLE	HOLE NUMBER: NTAMW-107
1. COMPANY NAME: MKM ENGINEERS	2. DRILL SUBCONTRACTOR: HAP DRILLING	SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP-R1 14	4. LOCATION: NACA TEST AREA	
5. NAME OF DRILLER: SCOTT HETSER	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-55	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA; 1½" ID X 24" SPLITSPOON	8. HOLE LOCATION: WEST END OF SITE	
	9. SURFACE ELEVATION: 1077.65 ASL	
	10. DATE STARTED: 11/29/04	11. DATE COMPLETED: 11/29/04
12. OVERBURDEN THICKNESS	15. DEPTH GROUNDWATER ENCOUNTERED: ~16' BGS	
13. DEPTH DRILLED INTO ROCK	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 11.8' @ 1337 12/07/04	
14. TOTAL DEPTH OF HOLE: 23' BGS	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTRICT	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
		X		David K. Earnest

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT: RVAAP-R1 14	HOLE NO.: NTAMW-107

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTAMW-107

PROJECT: RVAAP - RI 14

INSPECTOR: DK EARNEST

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE~~ OR CORE BOX NO. RECOVERY	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
1000		2" TOPSOIL, GRASS & ROOTS BROWN CL SILT (20%) (80%) LOW PLASTIC W/GREY LOOSE	0	1.0	ML	2/3 3/2	MOIST 7.5YR 4/4
	2	LT GREY W/ORANGE TO BROWN (20%) SANDY SILT (80%) LOW PLASTIC	0	1.4	ML	3/3 3/5	MOIST TO WET 2.5Y 6/1 W/7.5YR 6/8
	4	MED BROWN W/GREY SL CL SILT (20%) (80%) NO ODOR LOW PLASTIC	0	1.3	ML	1/2 5/6	DAMP TO MOIST 10YR 4/3 MOIST TO WET
	6	SAA	0	2.0	ML	1/4 4/5	
	8	SAA	0	2.0	ML	1/4 4/5	WET TO SAT
	10	SAA	0	2.0	ML	1/2 3/4	DAMP TO MOIST
	12	GREY ~~SM~~ CL SILT (20%) (80%) LOW PLASTIC SAA	0	2.0	ML	1/2 3/4	2.5Y 5/1
	14	SAA	0	2.0	ML	1/1 4/3	
▽	16	~~GRAVEL~~ DK GREY SAND W/GRAVEL MED TO FINE	0	1.5	SP/SM	10/16 15/13	7.5YR 6/1 SAT
	18	MED TO COARSE SAND SAA W/SMALL GRAVEL	0	1.5	SP	1/5 6/5	
	20						

PROJECT: RVAAP - RI 14

HOLE NO.: NTAMW-107

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTA MW-107

PROJECT: RVAAP-RI 14

INSPECTOR: DK EARNEST

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	SAA	0	1.5	SP/SM	2/4 6/7	SAT
	22	SAA	0	1.5	SP/SM ML	1/5 7/8	SAT
130	24	GREY CL/SILT (70%) BOH 23'					

SAMPLED TO 24
DRILLED TO 23
SET WELL AT 22'
SCREENS AT 12'-22'
SAND TO 9' BGS
BENTSEAL TO 6' BGS
NO WATER ADDED

#7 SAND - 9 BAGS

PROJECT: RVAAP-RI 14

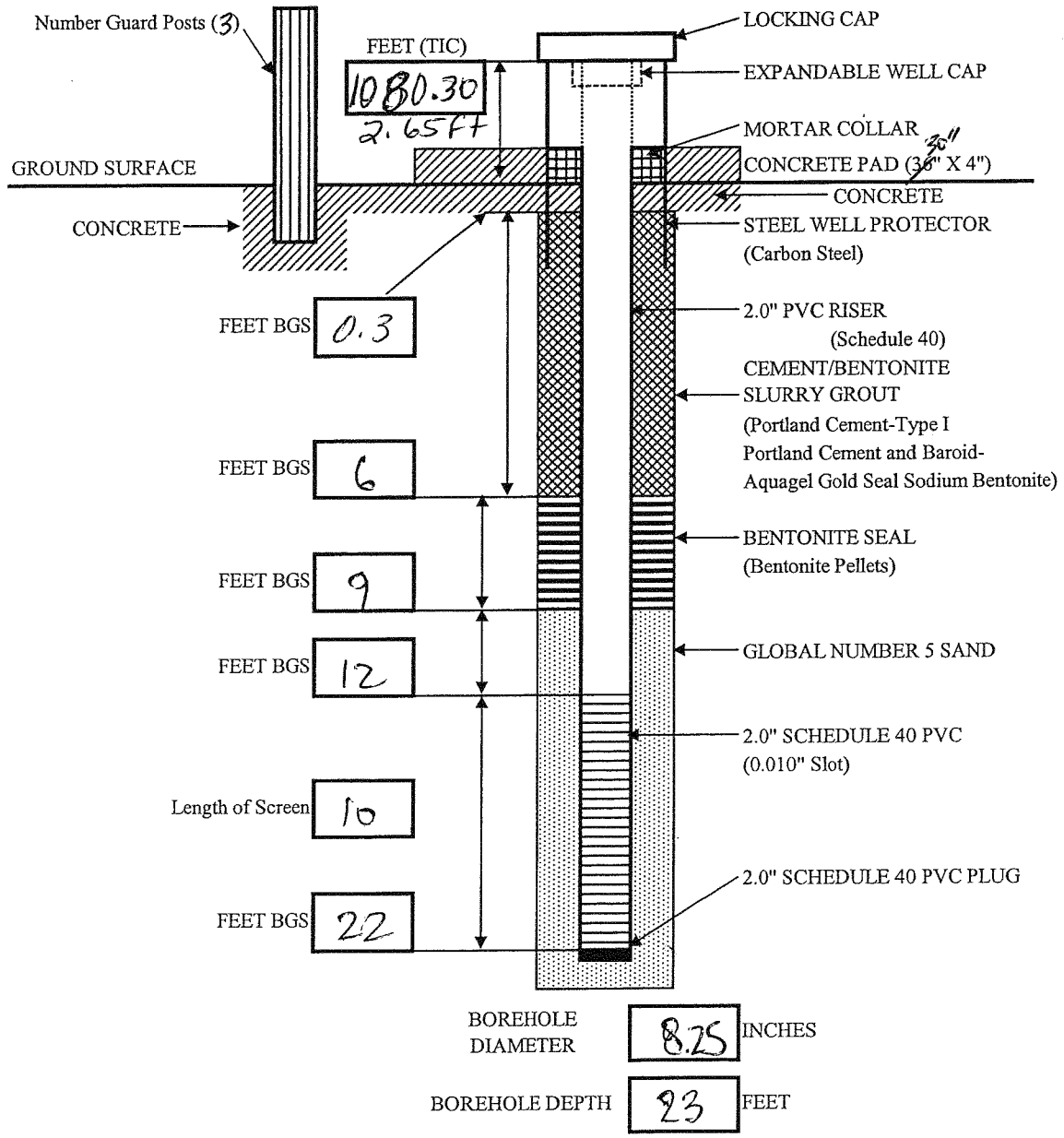
HOLE NO.: NTA MW-107

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: MTA-107	Begin: 11/29/04	End: 11/29/04
Coordinates: N: 551697.29 E: 2345433.40	Elevation: 1077.65	Reference Point:
Logged By: D.K. EARNEST		



Notes:

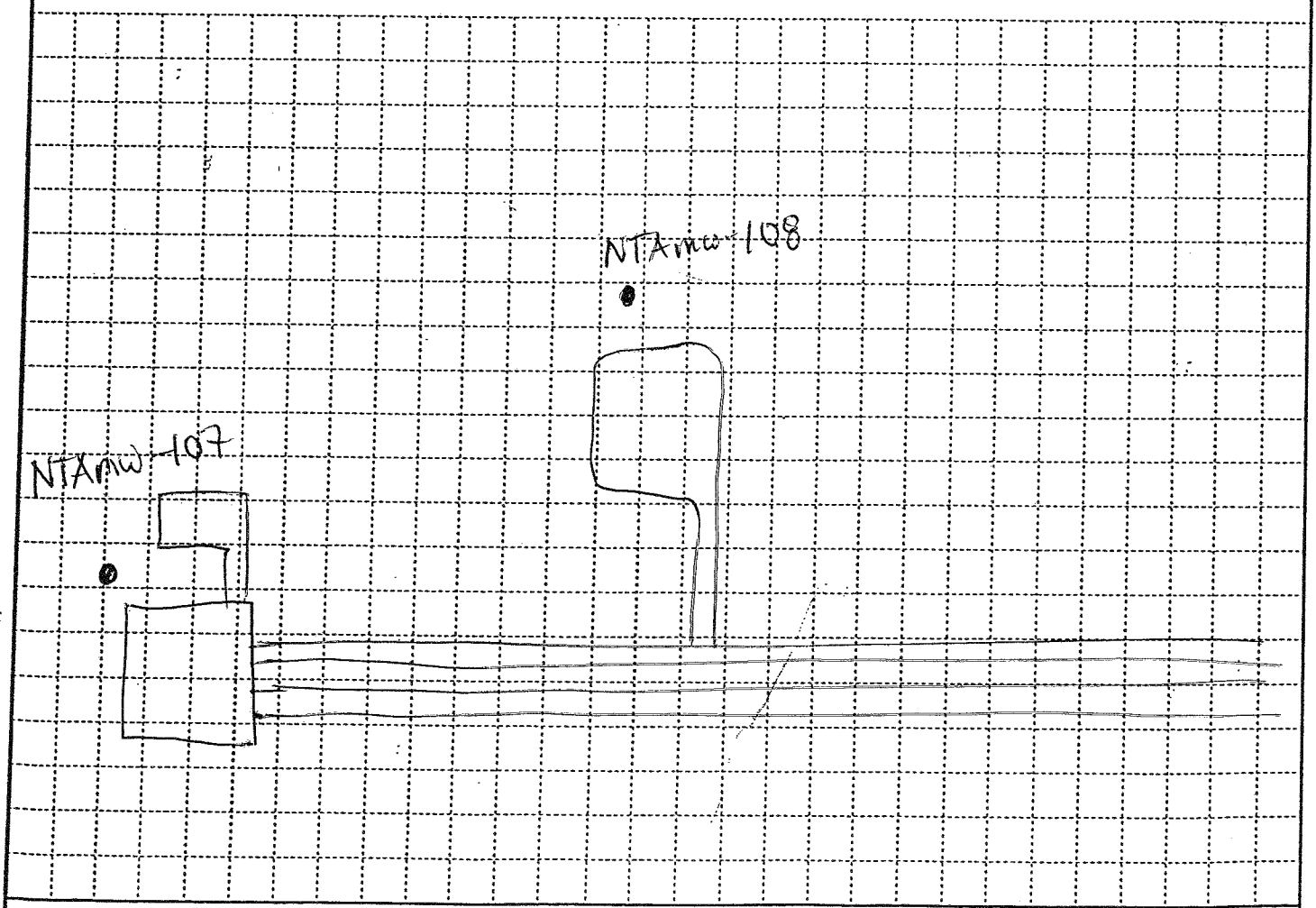
1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

	DISTRICT: LOUISVILLE	HOLE NUMBER: NTAmw-108
1. COMPANY NAME: MKM ENGINEERS	2. DRILL SUBCONTRACTOR: HAD DRILLING	SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP-R114	4. LOCATION: RAVENNA, OHIO NACA TEST AREA	
5. NAME OF DRILLER: GREG BRADY	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-~~55~~ 550	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" HSA; 2'-1½" ID SPLITSPOON	8. HOLE LOCATION: WEST END NORTH OF ROAD	
	9. SURFACE ELEVATION: 1083.22 ASL	
	10. DATE STARTED: 12/01/04	11. DATE COMPLETED: 12/01/04
12. OVERBURDEN THICKNESS	15. DEPTH GROUNDWATER ENCOUNTERED: ~16'	
13. DEPTH DRILLED INTO ROCK	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 10.15 @ 0900 12/08/04	
14. TOTAL DEPTH OF HOLE: 23'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES			
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL X	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR		

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT: RVAAP-R114 — HOLE NO.: NTAmw-108

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER NTAmw-108

PROJECT RVAAP-R114 | INSPECTOR ~~DK~~ EARNEST | SHEET 2 OF ~~3~~ 5

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
1015		TOPSOIL, GRASS ROOTS					
	2	GREY & BROWN (30%) SANDY SILT (60%) W/ BROWN SILT STRINGERS NON PLASTIC SAA FINE GRAVEL (10%)	0	1.1	ML	PUSH	10YR 4/4 & 10YR 5/1 MOIST TO WET
	4	LT GREY CL SILT (80%) W/ ORANGE LOW PLASTIC STIFF	0	1.9	ML	2/2 5/6	10YR 6/1 MOIST
	6	SAA MED BROWN W/ TRACE GREY MOTTLING STIFF	0	1.6	ML	3/8 6/6	10YR 4/4
	8	SAA	0	2.0	ML	4/4 5/6	
	10	9.5 GREY SILT (70%) SL. CL SANDY (10%) (20%) STIFF	0	1.8	ML	3/4 6/6	WET 8-8.5 2.5Y 4/1
	12	SAA	0	1.8	ML	— —	WET COUNT NOT RECORDED
	14	SAA	0	1.5	ML	4/4 5/6	WET
	16	15.5 BROWN SILT BROWN SAND (70%) FINE GRAVEL MED TO COARSE SAND MIX (30%) MED TO FINE GRAVEL MED DENSE	0	1.3	ML	2/4 3/6	WET
	18	~~BROWN~~ SAA LESS FINE GRAVEL	0	~~1.9~~	SP/SM	~~2/4 5/6~~	9/10 11/12 SAT
	20	ROCK FRAGS 19-20	0	1.0	SP	12/14 12/8	SAT

PROJECT RVAAP-R114 | HOLE NO. NTAmw-108

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTA mw-108

PROJECT: RVAAP-RIK

INSPECTOR: DK EARNEST

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX~~ NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
1130	22	BROWN SAND MED DENSE SAND & GRAVEL		1.0	SB/SM	10/12 12/13	SAT
		BOH 23'					
		DRILL TO 23' SET WELL AT 22' SCREEN AT 12-22' BGS SAND TO 9' BGS SEAL TO 6' BGS					
		7 BAGS SAND NO WATER ADDED					

PROJECT: RVAAP-RI 14

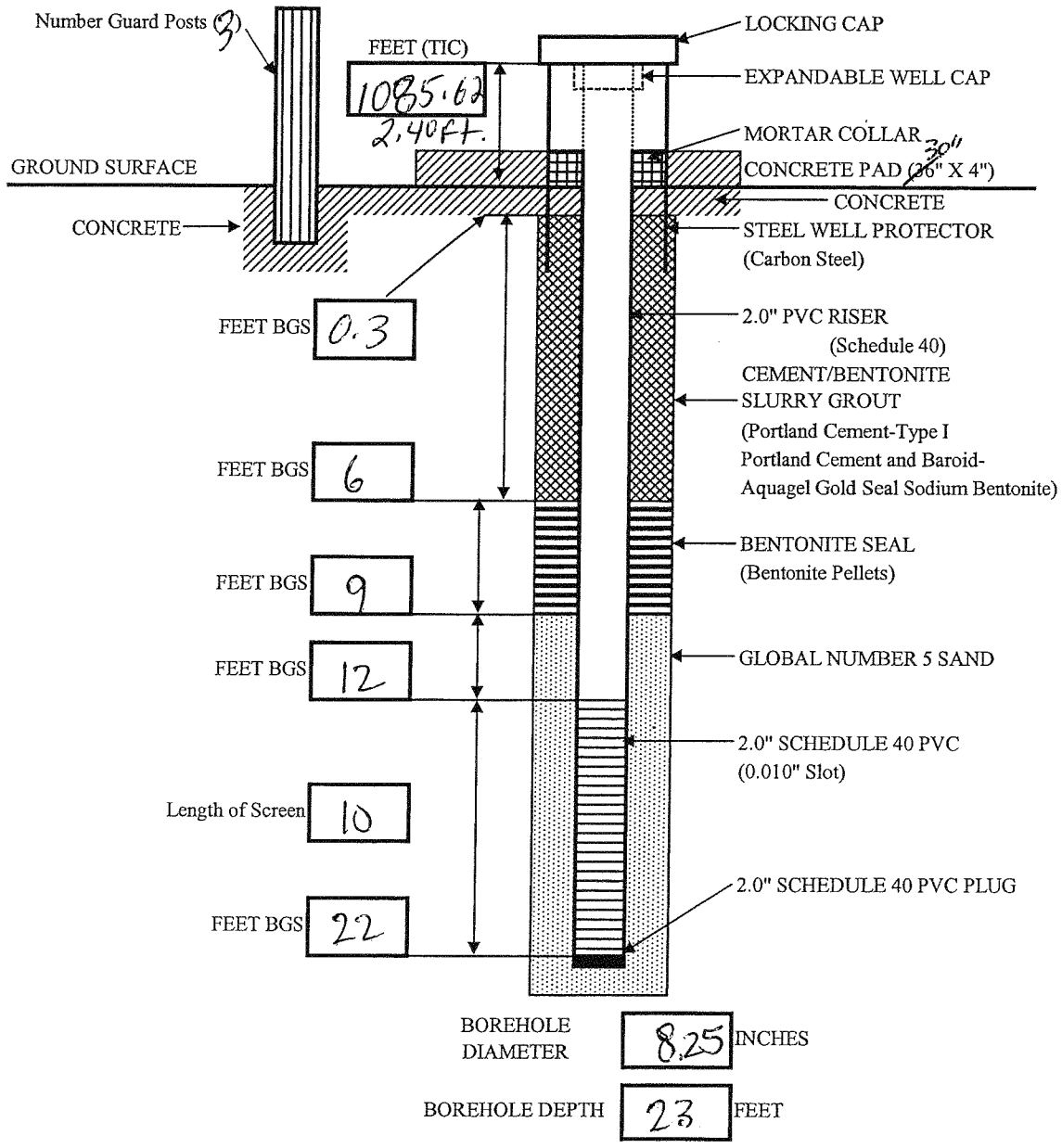
HOLE NO.: NTA mw-108

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: NTAmW-108	Begin: 12/01/04	End: 12/01/04
Coordinates: N: 551916.22 E: 2345781.60	Elevation: 1083.22	Reference Point:
Logged By: DK EARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

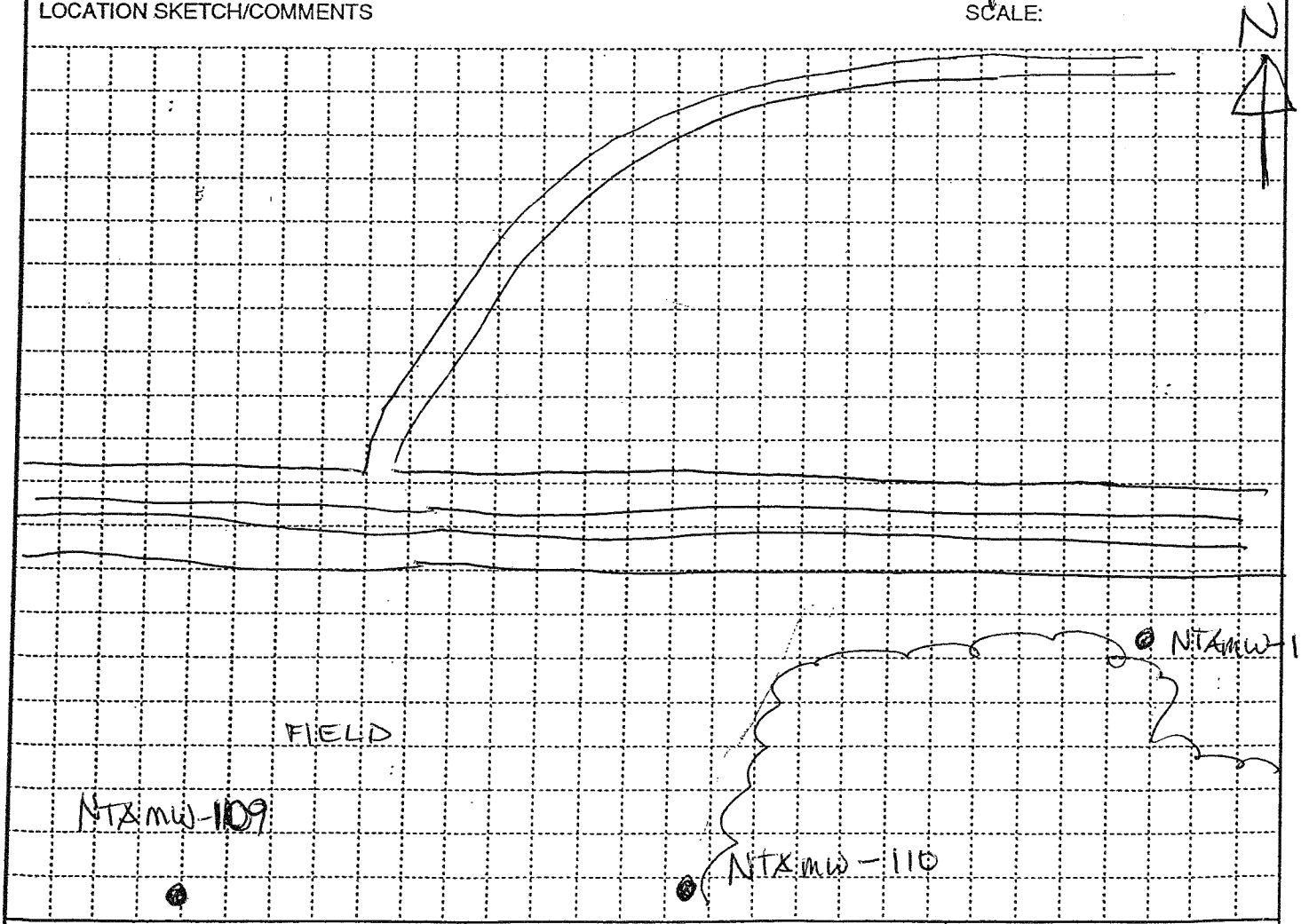
DISTRICT: LOUISVILLE		HOLE NUMBER: NTAmw-109
1. COMPANY NAME: MKM ENGINEERS	2. DRILL SUBCONTRACTOR: HAD DRILLING	SHEET 1 OF 2 SHEETS
3. PROJECT: RVAAP-RI14	4. LOCATION: RAVENNA, OH NACA TEST AREA	
5. NAME OF DRILLER: GREG	6. MANUFACTURER'S DESIGNATION OF DRILL: ~~CME~~-LC60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA; 1½" ID X 24" SPLITSPOON	8. HOLE LOCATION: ~300' SOUTH AND WEST OF INTERSECTION OF ENTRANCE ROAD & RUNWAY	
	9. SURFACE ELEVATION: 1076.89 ASL	
	10. DATE STARTED: 12/02/04	11. DATE COMPLETED: 12/02/04
12. OVERBURDEN THICKNESS: 19	15. DEPTH GROUNDWATER ENCOUNTERED: ~8'	
13. DEPTH DRILLED INTO ROCK: 0	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 10.49 @ 1340 12/10/04	
14. TOTAL DEPTH OF HOLE: 19'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE			NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
		X		David Beam

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP-RI14	NTAmw-109

ENG FORM 5056-R, AUG 94 (Previous Editions Are Obsolete)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTA MW-109

PROJECT: RVAAP-RI 14

INSPECTOR: DK EARNEST

SHEET 2 OF 2 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	6" TOPSOIL / DK BROWN SILT, GRASS					7.5 YR 3/3
		LT BROWN SL CLAYEY (10%) SILT (85%)		1.5	ML	PUSH	MOIST
		TRACE SAND					
		GREY MOTTLING					
	2	NO STAINING NO ODOR					
		SAA				3/2	
		MED TO STIFF		.5	ML		
	4					5/6	7.5 YR 5/3
		SAA					
				1.8	ML	3/7	
	5.5	BROWN (20%) SILTY SAND (75%)			SM	10/14	
	6	MED TO COARSE					
		SAA w/ FINE GRAVEL			SP	8/4	7.5 YR 4/3
		MED DENSE		1.2			
		POORLY SORTED				4/4	
	8						
		SAA			SP	3/2	SAT SAND
		GREY (10%) SILTY SAND (90%) LOOSE		1.1			
		BROWN SILTY STAIN			SM	3/2	2.5 Y 5/1
	10						
		SAA			SP		
		GREY BROWN SILTY (10%) SAND (90%)			SM	2/2	SAT
		COARSE ROUNDED		1.2			
		LOOSE 10% FINES				2/2	
	12						
		SAA				2/1	SAT
		GREY SAND (90%)			SP		2.5 Y 5/1
		<5% FINES		1.2		1/2	
	14						
		SAA				1/0	SAT
				1.6	SP		
						1/4	
	16						
		SAA				2/2	SAT
				1.8	SP		
						2/2	
	18						
		~~BOH 19'~~					
		DRILL TO 19					
		WELL SET AT 18', 6" SAND BELOW					
		SCREEN AT 8-18'					
		SAND TO 6'					
		SEAL TO 4' WILL CUT 2' OFF CASING					
	20	GROUT TO SURFACE,					

PROJECT: RVAAP-RI 14

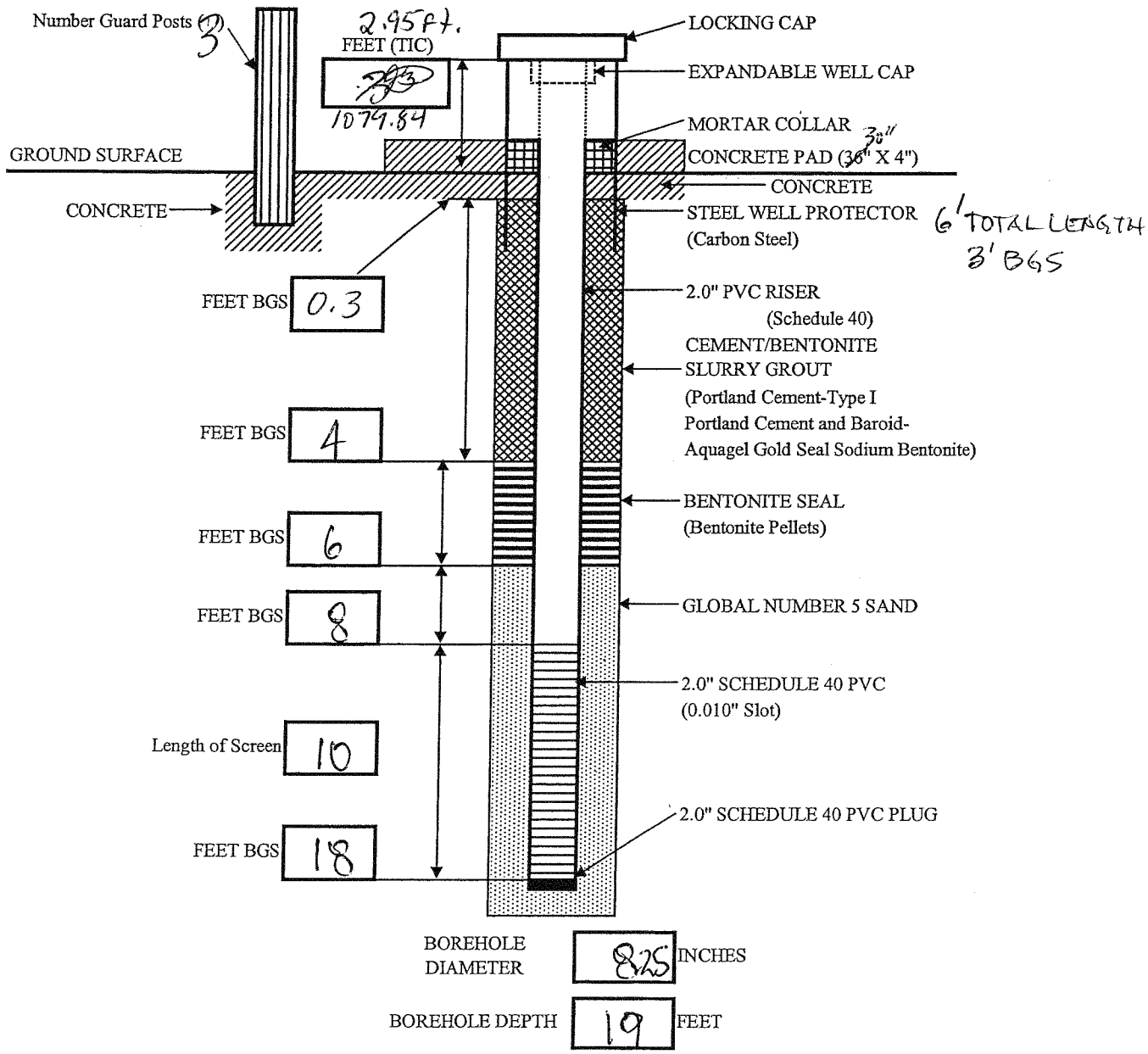
HOLE NO.: NTA MW-109

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: NTA mw-109	Begin: 12/02/04	End: 12/02/04
Coordinates: N: 551293.25 E: 2345997.72	Elevation: 1076.89	Reference Point:
Logged By: DK EARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

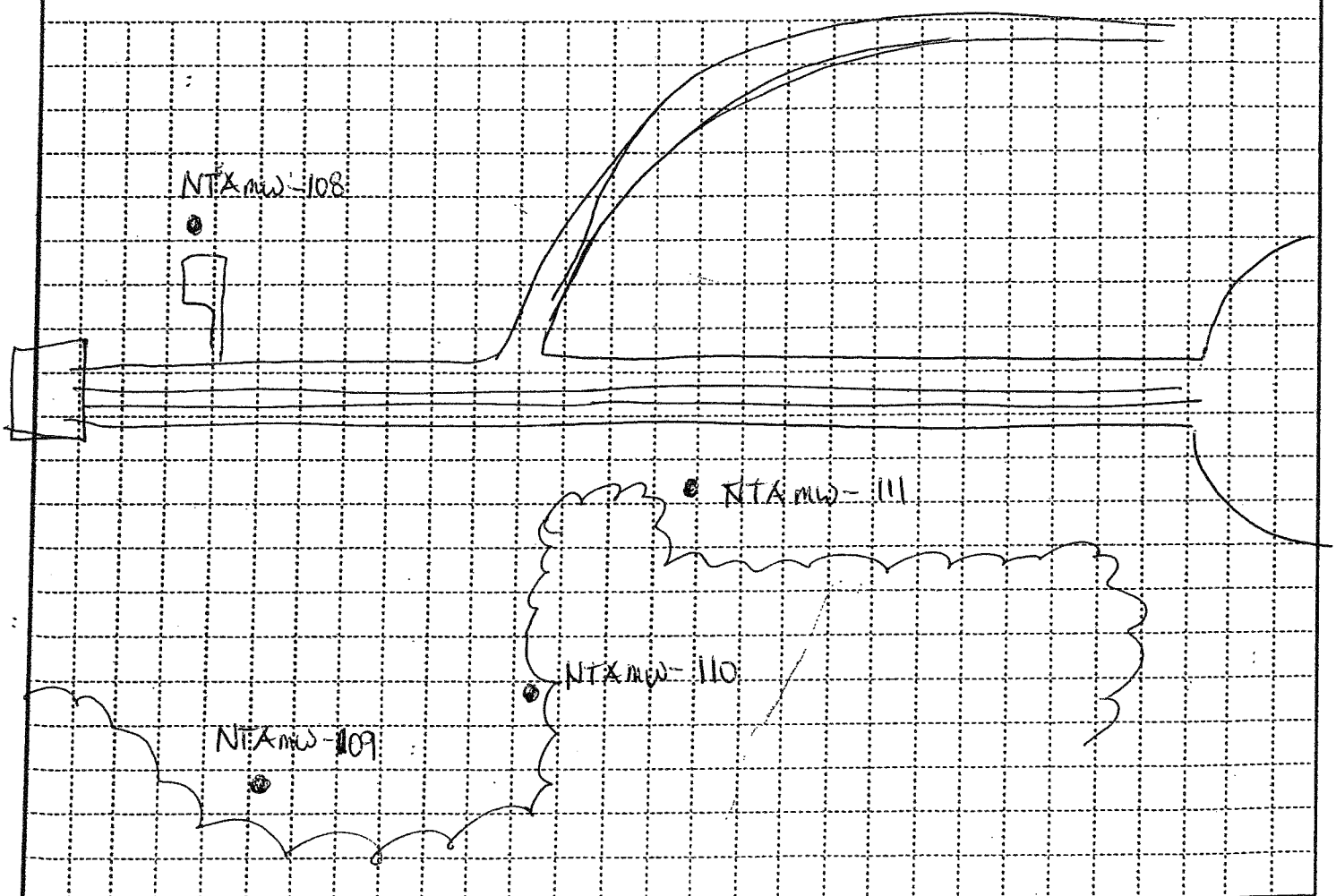
	DISTRICT LOUISVILLE	HOLE NUMBER NTAMW-110
1. COMPANY NAME MKM ENGINEERS	2. DRILL SUBCONTRACTOR HAD DRILLING	SHEET 1 OF SHEETS 3
3. PROJECT RVAAP - RI 14	4. LOCATION NACA TEST AREA	
5. NAME OF DRILLER GREG BRADY	6. MANUFACTURER'S DESIGNATION OF DRILL CME - LC60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA; 1½" ID x 24" SPLIT SPOON	8. HOLE LOCATION: APPROX 200' SOUTH OF INTERSECTION OF ENTRANCE ROAD & RUNWAY	
	9. SURFACE ELEVATION 1080.03 ASL	
	10. DATE STARTED 12/02/04	11. DATE COMPLETED 12/03/04
12. OVERBURDEN THICKNESS 28'	15. DEPTH GROUNDWATER ENCOUNTERED ~10'	
13. DEPTH DRILLED INTO ROCK 0	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED 12.92' @ 0937 12/08/04	
14. TOTAL DEPTH OF HOLE 28'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTRIBUTED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE			NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
—	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	NTAMW-110

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTA MW-110

PROJECT: RVAAP-RI 14 | INSPECTOR: DK EARNEST | SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVER	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		BROWN SANDY SILT (60%) ~~SILTY SAND DIKE~~	0	1.9	ML	PUSH	7.5YR 4/3 WET SAND
	2	1.5' SAA BROWN W/GREY MOTTLING (30%) SILTY CLAY (70%) LOW TO MED PLASTIC MED TO STIFF	0	1.1	CL	2/3 5/6	DAMP TO MOIST 7.5YR 5/3
	4	SAA	0	1.2	CL	4/5 5/7	
	6	SAA	0	1.5	ML	5/5 6/7	WET TO SAT 7-8'
	8	7' GREY SILT (90%) SAA SOME FINE SAND (10%) NO ODOR LOW PLASTIC NO STAINING MEDIUM	0.7	1.8	ML	3/4 6/6	MOIST 10YR 3/1 WET - 9.5'-10'
	10	SAA SOFT	0	1.5	ML	1/1 2/2	
	12	SAA SILTY VERY FINE SAND LENS	0	1.8	ML	1/3 3/3	MOIST TO WET
	14	SAA	0	1.8	ML	2/2 3/4	
	16	SAA	0	2.0	ML	0/1 2/3	
	18	SAA	0	2.0	ML	1/2 3/3	
	20	~~SAA DIKE~~					

PROJECT: RVAAP-RI 14 | HOLE NO.: NTA MW-110

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTA mw-110

PROJECT: RVAAP-RI14

INSPECTOR: D.K. EARNEST

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
		GREY SANDY CLAY SOME SILT MED PLASTIC	0	2.0	CL	2/2 3/4	
	22	GREY SILTY SAND (30%) (10% LOOSE	0	1.8	SM	1/2 3/3	2.5YR 6/1
	24	MORE SILT MED DENSE	0	NR	SM	7/7 8/8	SMALL AMOUNT ON TIP OF SPOON
	26	SAA	0	1.5	SM	1/1 3/4	
	28	MORE SILT	0	1.2	SM	0/0 0/1	
	30	BOH 28' SAMPLED TO 30' DRILLED TO 28' SET SCREEN 17-27' SAND TO 14' SEAL TO 11' 8 BAGS #7 SAND NO WATER ADDED					

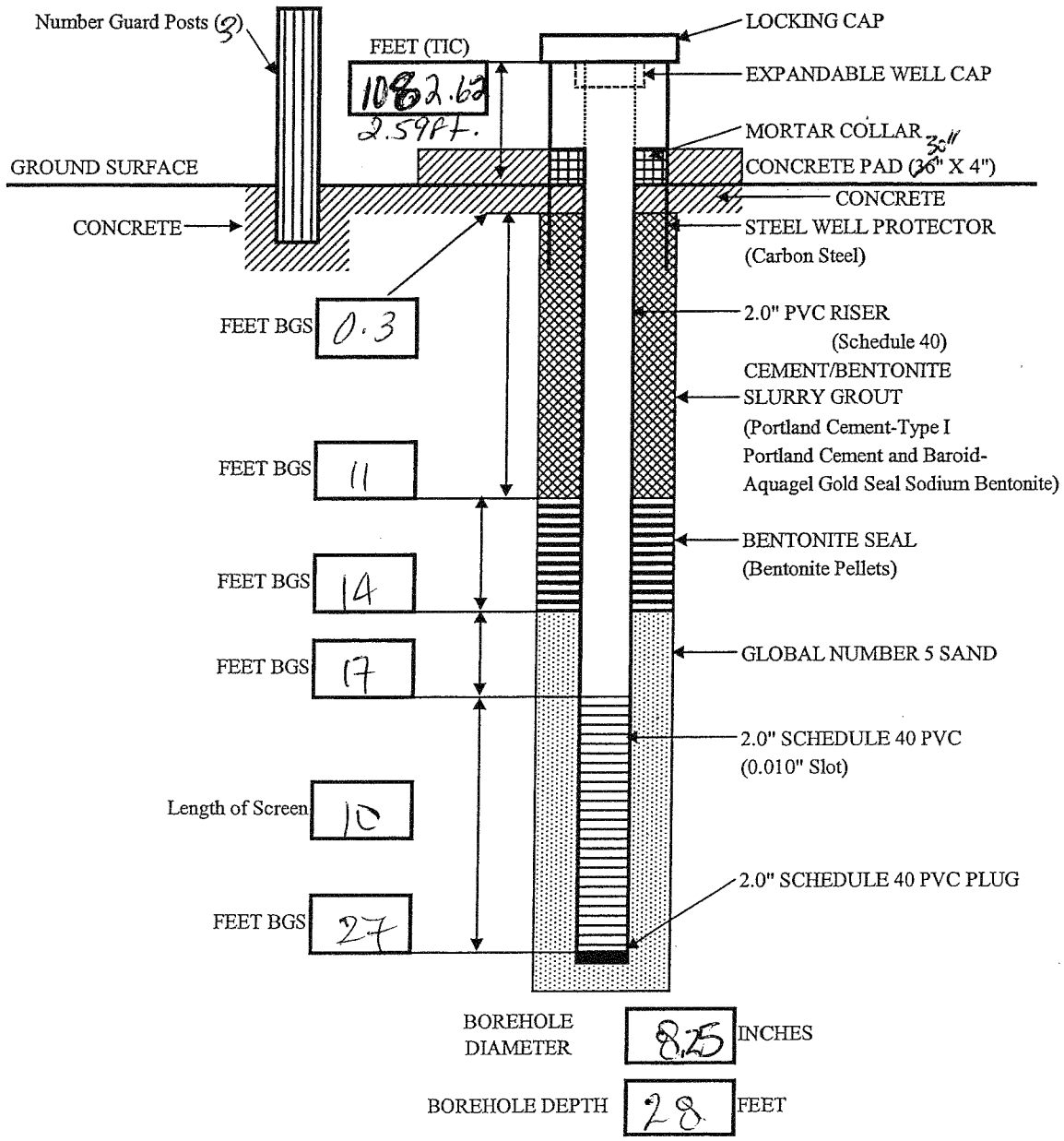
PROJECT RVAAP-RI14 HOLE NO. NTA mw-110

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP - RI 14

Well Number: NTA MW - 110	Begin: 12/02/04	End: 12/03/04
Coordinates: N: 551351.46 E: 2346438.94	Elevation: 1080.03	Reference Point:
Logged By: DK EARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

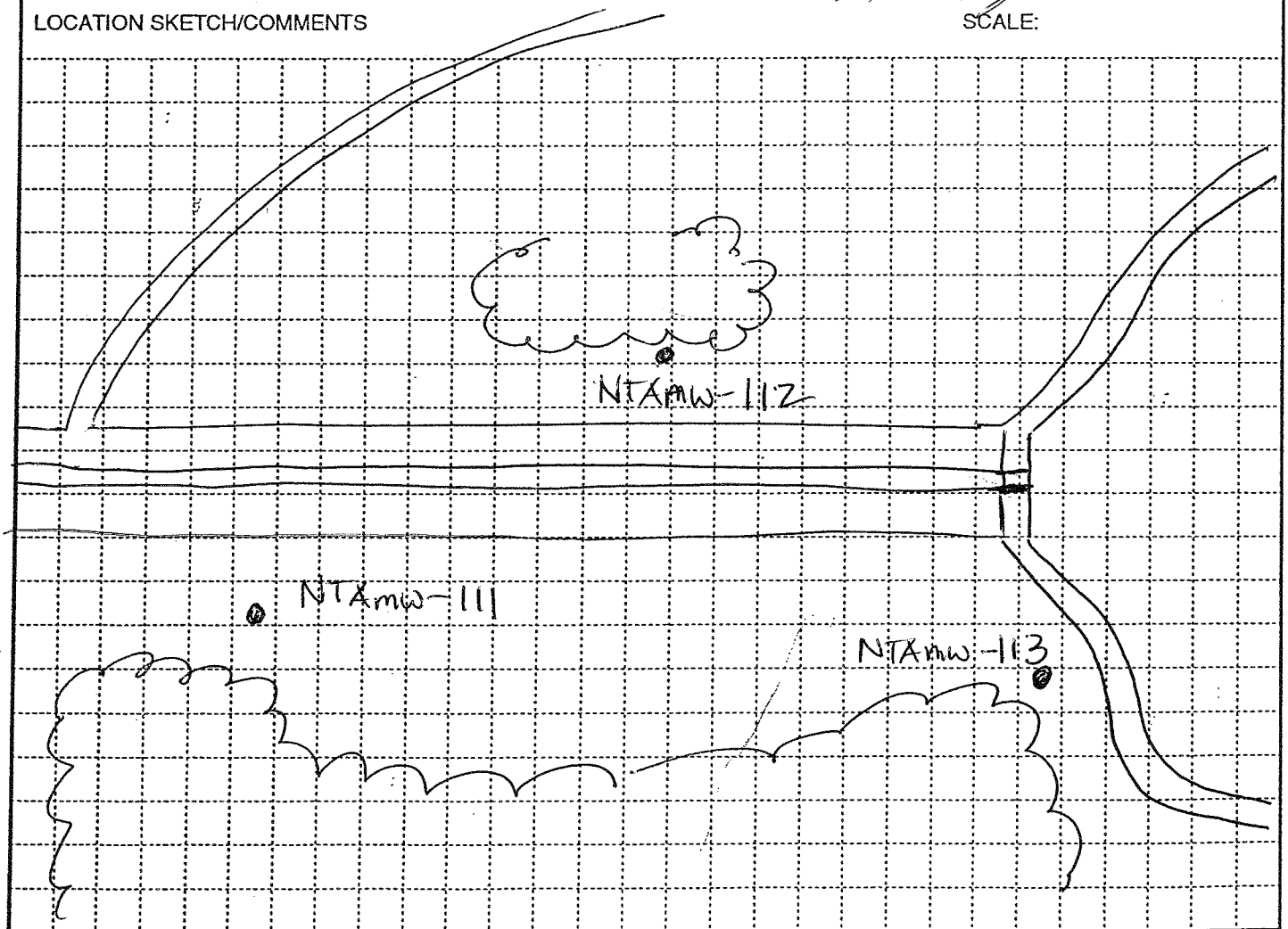
	DISTRICT Louisville	HOLE NUMBER NTAmw-111
1. COMPANY NAME MKM Engineers Inc	2. DRILL SUBCONTRACTOR HAD Drilling Contractors	SHEET 1 OF SHEETS 2
3. PROJECT RVAAP RI 14	4. LOCATION NACA Test Area	
5. NAME OF DRILLER Sam Holters	6. MANUFACTURER'S DESIGNATION OF DRILL CME-LC60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 8.25" OD HSA; 2" SPLITSPOON	8. HOLE LOCATION S and W of Runway	
	9. SURFACE ELEVATION 1078.07 ASL	
	10. DATE STARTED 03 Dec 04	11. DATE COMPLETED 03 Dec 04
12. OVERBURDEN THICKNESS 20 ft	15. DEPTH GROUNDWATER ENCOUNTERED 12.5	
13. DEPTH DRILLED INTO ROCK 0.0	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED 3.0 @ 1350 12/08/04	
14. TOTAL DEPTH OF HOLE 20.0	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) —	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 4-6	—	X	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	NTAmw-111

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTAmw-111

PROJECT: RVAAP RE 14

INSPECTOR: Mark Dunlevy

SHEET 2 OF 2 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. Recovery	~~ANALYTICAL SAMPLE NO.~~ (f)	BLOW COUNT (g)	REMARKS (h)
0855		6" Topsoil Redish Br. SILT 70% w/ Sand Dry Stiff No Odor No Staining No Plasticity Grey Mottles	0.0	1.4	ML	1-1 2-4	7.5yr 5/3
	2	DK. Br. SILT 75% w/ Sand Dry Stiff No Odor White/Grey Staining No Plasticity	0.0	1.2	ML	2-4 7-7	7.5yr 4/3
	4	03 Recov 0845 Shelby Tube					
	6	Br. SILT 75% w/ Clay Dry No Odor Grey Mottling No Plasticity	0.0	1.6	ML	1-3 5-6	7.5yr 4/4
	8	Br/Grey SAND 70% (Fine Grained) SILT wet Saturated	0.0	1.8	ML SM	2-3 4-7	SAA
	10	Br. SILT 70% w/ Clay Dry No Odor No Staining No Plasticity Br/Grey SILT 85% w/ Clay SATURATED No Odor No Staining	0.0	1.4	ML	1-4 9-8	SAA
✓	12	DK Br. SILT 80% w/ Clay Dry No Odor No Staining Changes to Saturated @ 12.5 Changes to Damp @ 13.5	0.0	1.9	ML	1-5 7-9	SAA
	14	Changes to Dry @ 15.5	0.0	1.8	ML	1-4 5-8	SAA
	16	Changes to Grey SAA	0.0	1.5	ML	2-6 8-9	7.5yr 5/2
	18	Grey SILT 65% w/ Sand + Fine Grained Gravel Dry No Odor No Staining No Plasticity	0.0	1.2	ML	2-7 7-8	SAA Drill 20 Sand to 19.5 Screen from 19.5 to 9.5 Sand up to 7.0 Bentonite to 5.0 Grout to Surface
	20						

No Water Used

PROJECT: RVAAP RE 14

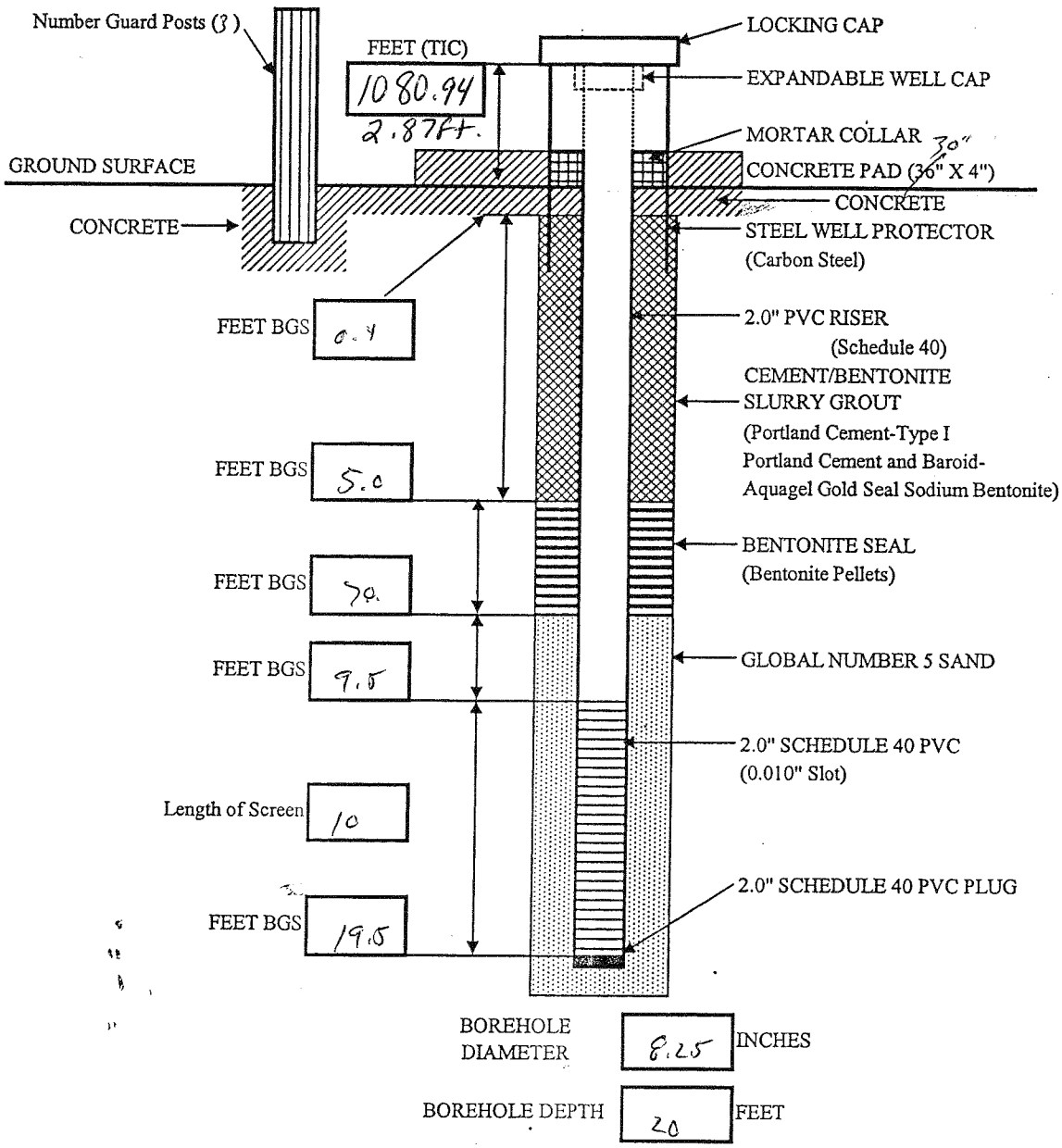
HOLE NO.: NTAmw-111

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: Rv AAP RI 14

Well Number: NTAmw-111	Begin: 03 Dec 04	End: 03 Dec 04
Coordinates: N: 551538.60 E: 2346638.01	Elevation: 1078.07	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

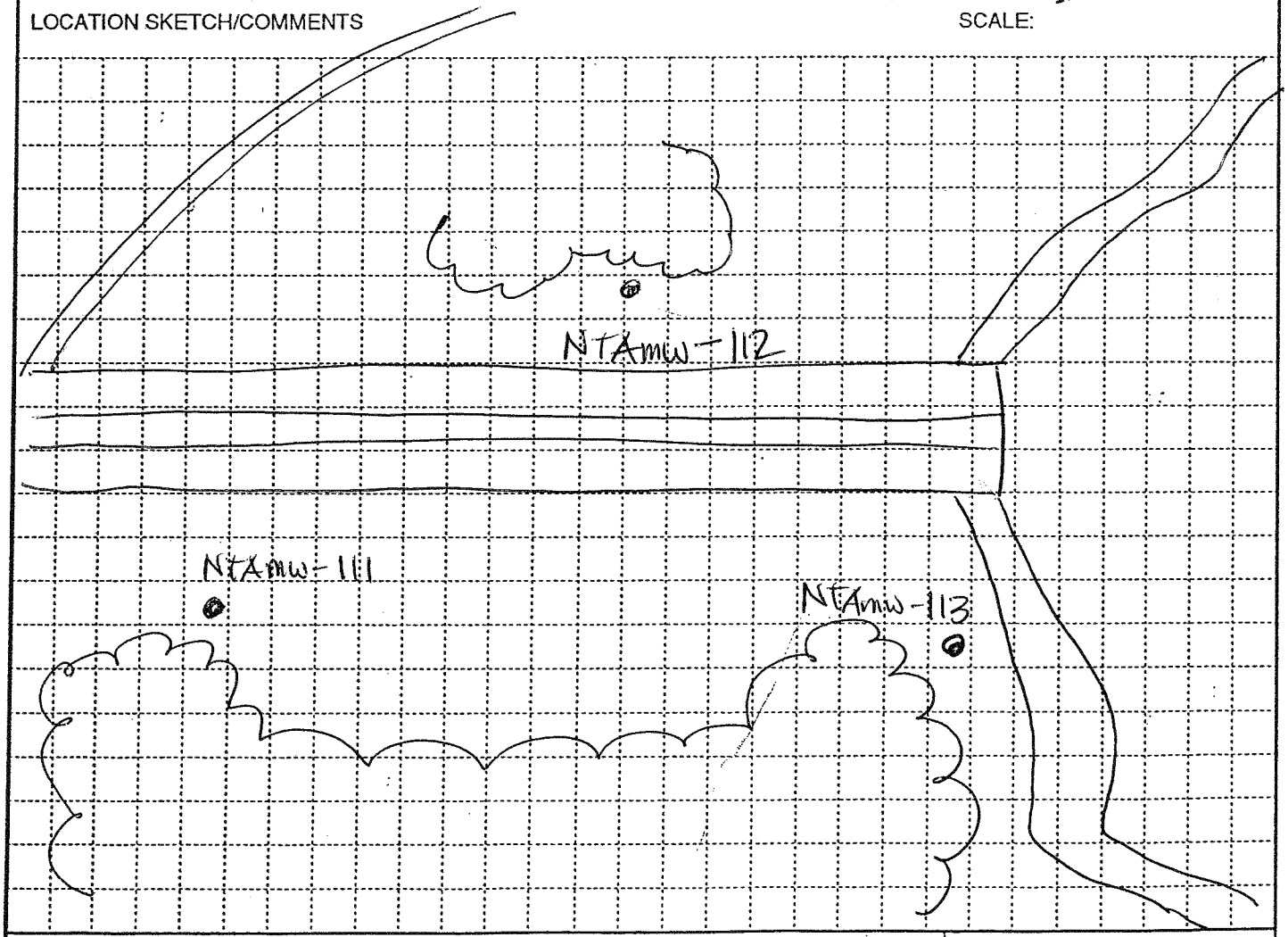
	DISTRICT: Louisville	HOLE NUMBER: NTAmw-112
1. COMPANY NAME: MKM Engineers Inc.	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP RI 14	4. LOCATION: NACA Test Area	
5. NAME OF DRILLER: Sam Holder	6. MANUFACTURER'S DESIGNATION OF DRILL: CME CC-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 HSA; 2" Split Spoon	8. HOLE LOCATION: North Runway	
	9. SURFACE ELEVATION: 1075.36 ASL	
	10. DATE STARTED: 02 Dec 04	11. DATE COMPLETED: 02 Dec 04
12. OVERBURDEN THICKNESS: 23.9	15. DEPTH GROUNDWATER ENCOUNTERED: 18.0 Ft.	
13. DEPTH DRILLED INTO ROCK: 0.0	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 7.9' @ 1401 12/09/04	
14. TOTAL DEPTH OF HOLE: 23.9	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTRICT	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 10-12	—	X	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY — %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	NTAmw-112

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTAmw-112

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ Recovery	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
1230		3" Topsoil Redish Br SILT 65% w/ Sand and fine gravel wet/Damp No Odor No Staining No Plasticity	0.0	1.4	ML	1-1 2-5	7.5yr 5/6
	2	SAA	0.0	1.5	ML	1-4 8-8	SAA
	4	SAA	0.0	1.9	ML	1-3 5-7	SAA
	6	SAA	0.0	1.9	ML	2-3 6-10	SAA
	8	SAA Grey/Br SILT 75% w/ Sand Dry Stiff No Odor No Staining No Plasticity	0.0	1.6	ML ML	1-5 10-11	SAA 7.5yr 5/3
	10	1250 02 Dec 04 Shelby Tube					
	12	Grey SILT 65% w/ Sand Damp No Odor No Staining No Plasticity	0.0	1.2	ML	2-3 6-6	7.5yr 5/2
	14	SAA	0.0	2.0	ML	4-2 5-5	SAA
	16	SAA Grey SILT 85% w/ Clay wet/Saturated Low Plasticity No Odor No Staining	0.0	2.0	ML	2-4 6-7	SAA
▽	18	Grey SAND 90% Saturated Grades to Fine Gravel	0.0	2.0	SP/SM	Weight	SAA

PROJECT: RVAAP RR 14

HOLE NO.: NTAmw-112

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTAmw-112

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		SAA		2.0	SP/SM	weight-1 2-2	SAA
	22						
		SAA		2.0	SP/SM	1-2 4-5	SAA
1430	24	Bolt 23.9					Bolt 23.9 ~~Sand to mw~~ Screen from 23.9 to 13.9 Sand up to 11 Bentonite to 8 Grout to surface Stick up Completion 5 gallons hydration water used
	26						

PROJECT: RVAAP RI 14

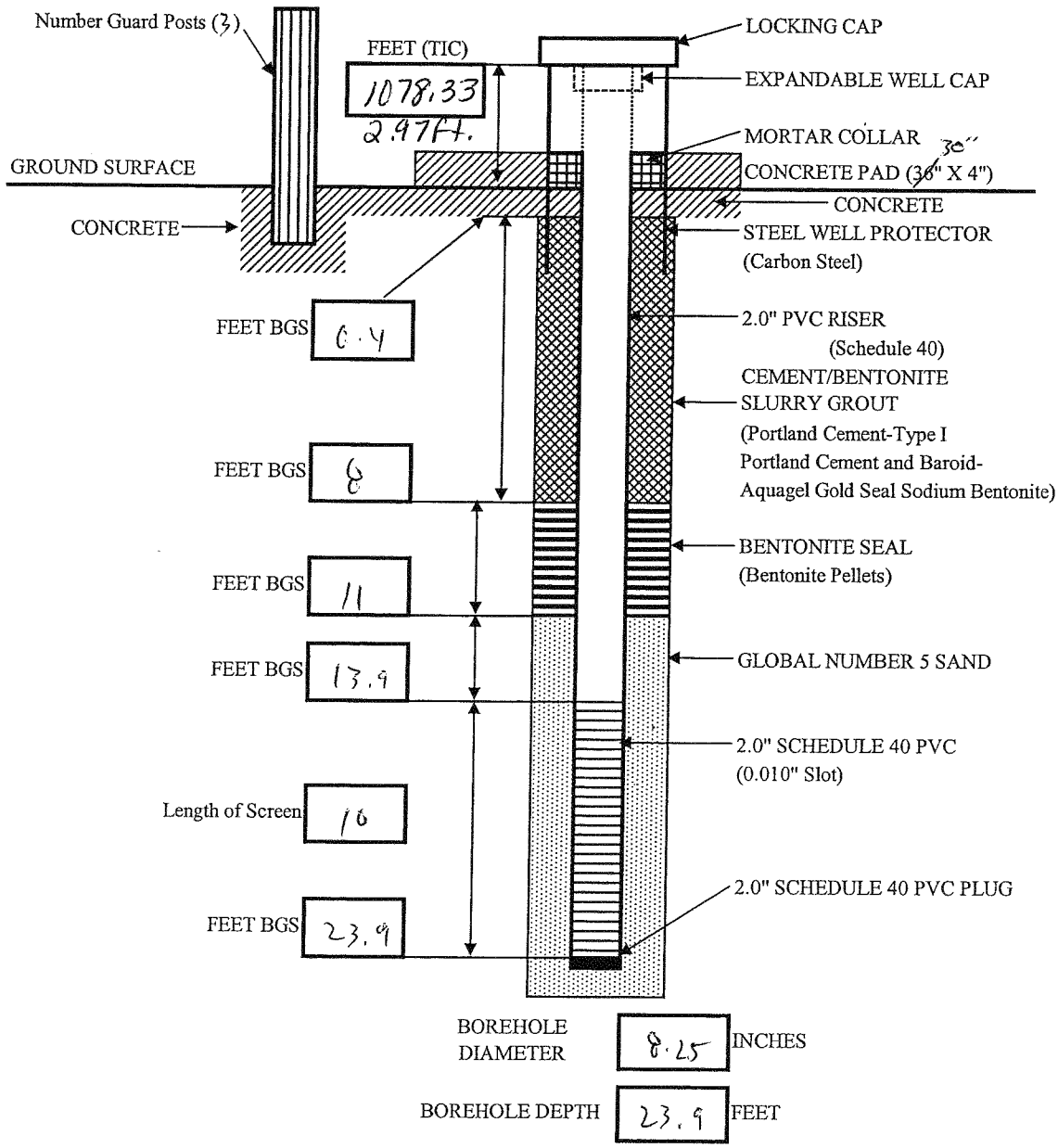
HOLE NO.: NTA mw-112

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: NTAmw-112	Begin: 02 Dec 04	End: 02 Dec 04
Coordinates: N: 551712.14 E: 2346889.48	Elevation: 1075.36	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

	DISTRICT: Louisville	HOLE NUMBER: NTAmw-113
1. COMPANY NAME: M&M Engineers	2. DRILL SUBCONTRACTOR: HAD Drilling Contractor	SHEET 1 OF 3

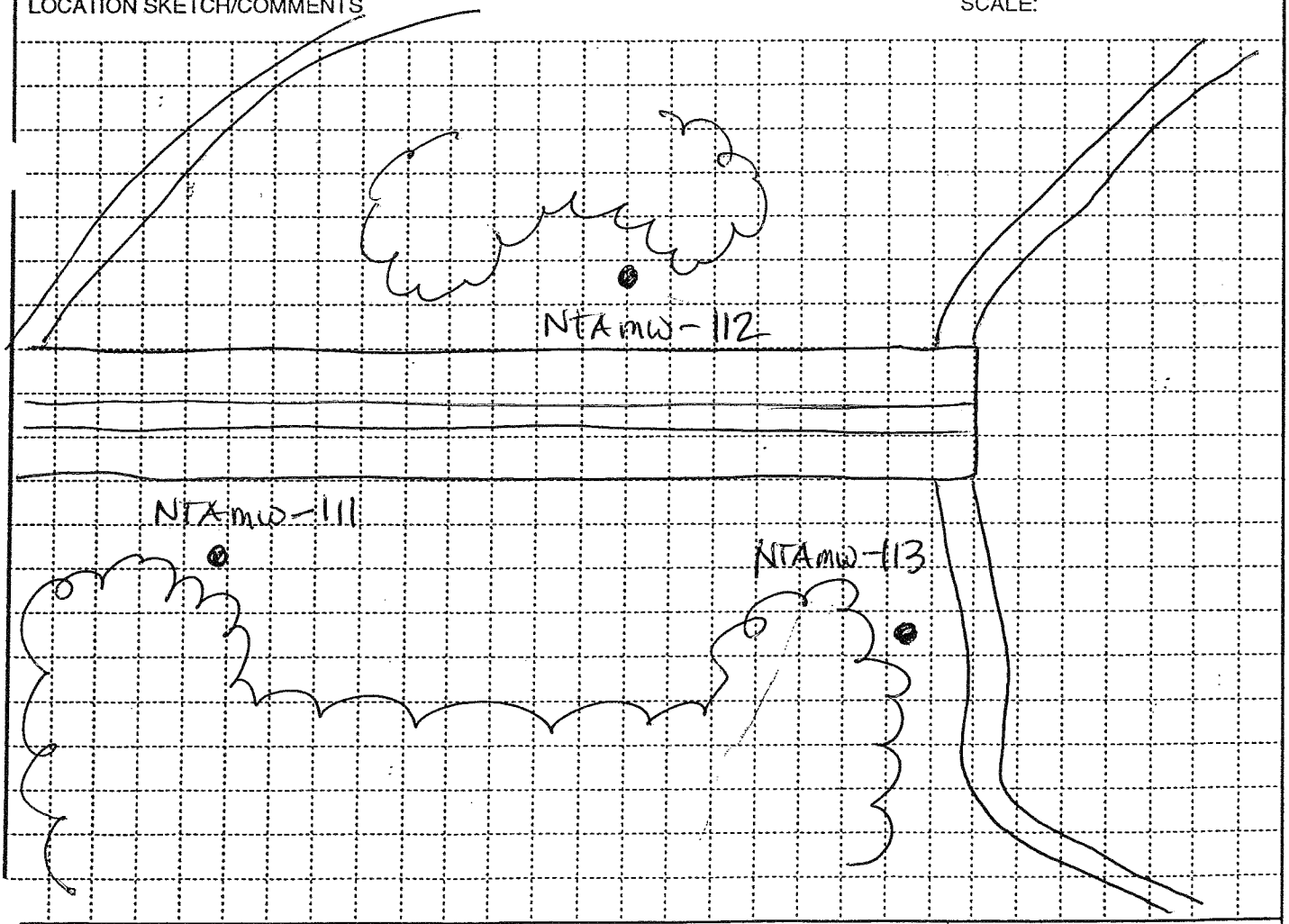
3. PROJECT: RVAAP RE 14	4. LOCATION: NACA Test Area
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC-60
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 HSA; 2" Split Spoon	8. HOLE LOCATION: South of Runway - East End
	9. SURFACE ELEVATION: 1072.61 ASL
	10. DATE STARTED: 02 Dec 04 — 11. DATE COMPLETED: 02 Dec 04
12. OVERBURDEN THICKNESS: 27.5	15. DEPTH GROUNDWATER ENCOUNTERED: 23 Ft.
13. DEPTH DRILLED INTO ROCK: 0.0	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 7.1' @ 0927 12/07/04
14. TOTAL DEPTH OF HOLE: 27.5	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)

18. GEOTECHNICAL SAMPLES	DISTRIBUTED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 6-8	—	X	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY — %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT: RVAAP RE 14 — HOLE NO.: NTAmw-113

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTAmw-113

PROJECT: RVAAP RF 14

INSPECTOR: Mark Dunlevy

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. Recovery	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
0846		0.4Ft. Topsoil					
		Lt.Br. SILT 20% w/ Clay Dry No Odor No Plasticity Grey Mottles Present	0.0	1.4	ML	1-2 4	7.5yr-5/3
	2	SAA	0.0	1.2	ML	1-3 5-7	SAA
	4	Br/Grey SAND 65% w/ Silt wet No Odor No Plasticity Grey Mottles Reddish Br. SILT 65% w Sand damp No odor No Plasticity Iron Staining and Grey Mottles	0.0	1.7	ML SM ML	1-7 9-5	SAA
	6	0852 02 Rec'd	Shelby		Tube		
	8	Dk Br. SILT 80% w/ Clay Dry SAA No Odor No Plasticity Grey Mottles	0.0	1.3	ML	1-6 5-12	7.5yr-4/4
	10	Dk Br. SILT 65% w/ Sand Dry No odor No Staining No Plasticity Br. SILT 70% w/ Sand wet No Odor No Staining Br. SILT 65% w/ Sand and Fine Gravel Damp No Odor No Staining No Plasticity	0.0	1.5	ML	1-3 5-4	7.5yr-4/6
	12	Clay is found SAA	0.0	1.7	ML	1-5 7-9	SAA
	14	SAA 2" Br/Grey SAND wet/Saturated	0.0	1.1	ML	1-5 5	SAA
	16	Br. Grey SILT 65% w/ Sand & Fine Grained Gravel					
		SAA	0.0	1.9	ML	1-1 3-4	SAA
	18	SAA	0.0	1.4	ML	1-1 1-3	SAA
	20						

PROJECT: RVAAP RF 14

HOLE NO. NTAmw-113

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTA mw-113

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		SAA		1.9	ML	2-5	SAA
	22						
▽					ML	1-3	
		Gray Fine Grained SAND 85% w/ Silt Saturated No Odor No Staining No Plasticity		1.9			SAA
	24				SM	7-7	
						1-3	
				1.9	SM		SAA
		Br. Gray SILT 65% w/ Sand and Fine Gravel No Odor No Staining No Plasticity				4-3	
	26				TW		
					ML		
	28	BOH 27.5					BOH 27.5 Sand up to 27 Screen from 27 to 17 Sand up to 14 Bentonite to 11 Grout to Surface No water used to hydrate

PROJECT: RVAAP RI 14

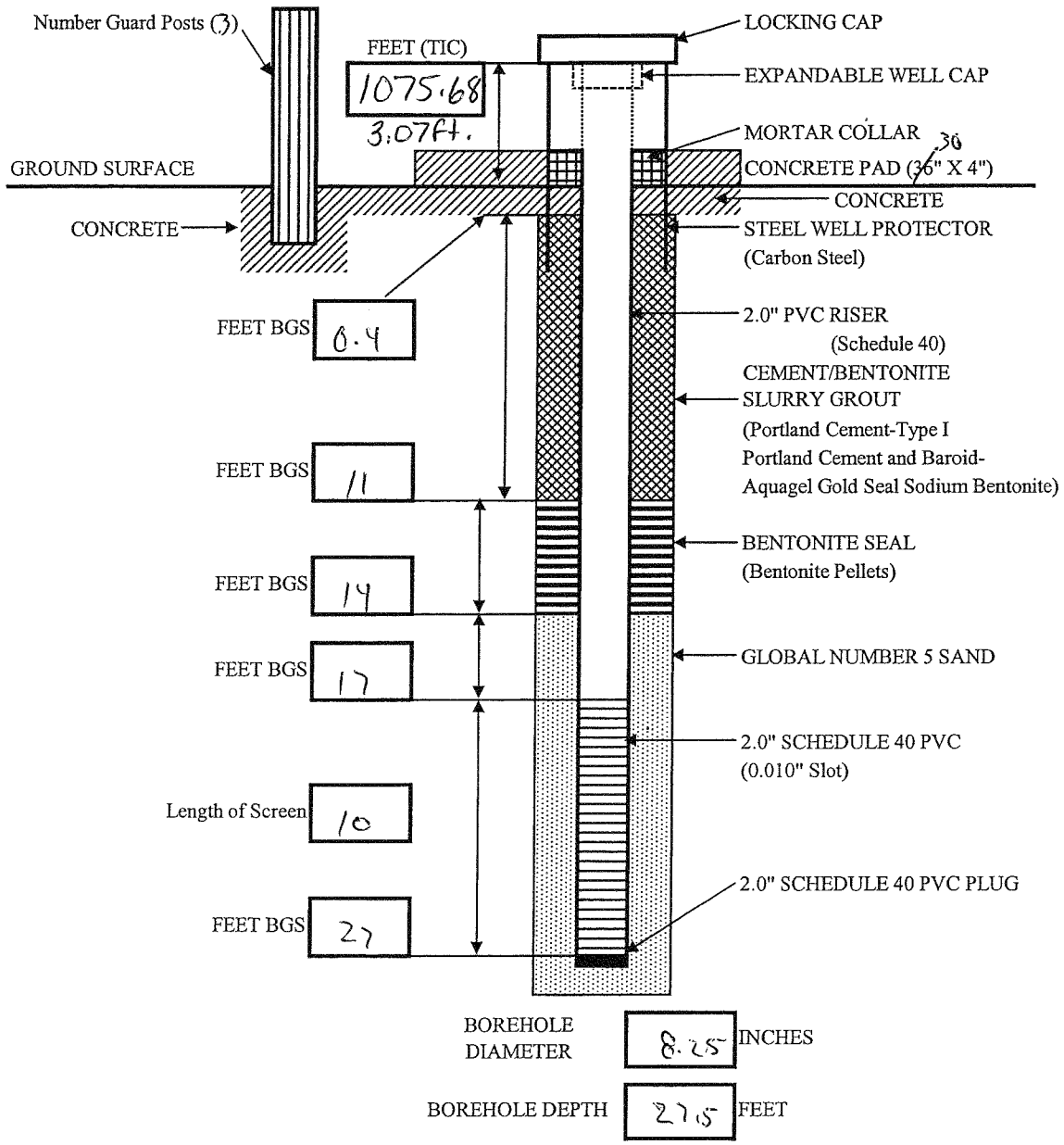
HOLE NO.: NTA MW-113

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RE 14

Well Number: MTAmw-113	Begin: 02 Dec 04	End: 02 Dec 04
Coordinates: N: 551488.52 E: 2347082.83	Elevation: 1072.61	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

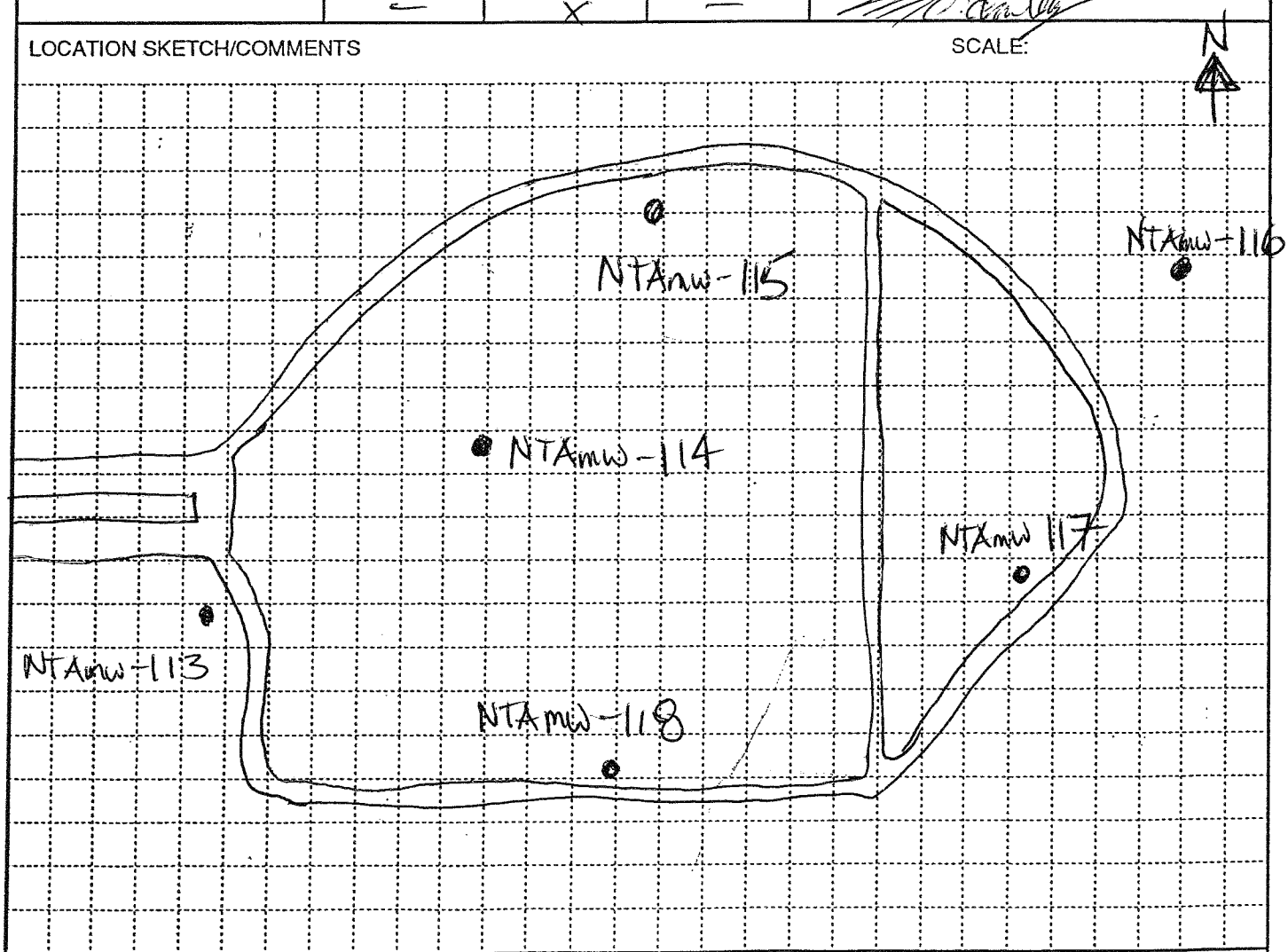
	DISTRICT: Louisville	HOLE NUMBER: NTAmw-114
1. COMPANY NAME: MKM Engineers Inc.	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF 2 SHEETS
3. PROJECT: RVAAP RI 14	4. LOCATION: NACA Test Area	
5. NAME OF DRILLER: Sam Holter	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 OD HSA; 2" Split spoons	8. HOLE LOCATION: East End of Runway	
	9. SURFACE ELEVATION: 1075.61 ASL	
	10. DATE STARTED: 18 Nov 04	11. DATE COMPLETED: 18 Nov 04
12. OVERBURDEN THICKNESS: 20 Ft	15. DEPTH GROUNDWATER ENCOUNTERED: ≈ 9.5	
13. DEPTH DRILLED INTO ROCK: 0 Ft	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 6.5' @ 0850 11/22/04	
14. TOTAL DEPTH OF HOLE: 20 Ft	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	—	—	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY — %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	NTAmw-114

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTAmw-114

PROJECT: RVAAP RI 14 | INSPECTOR: Mark Dunlay | SHEET 2 OF 2 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. Recovery	ANALYTICAL SAMPLE NO. USCS	BLOW COUNT (g)	REMARKS (h)
0900		2" Topsoil					
		Br. SILT 70% w/ Clay Damp No Odor No Staining No Plasticity	0.0	1.2	ML	1-2	7.5yr 4/4
	2					4-4	
		Same As Above	0.0	0.65	ML	1-1	7.5yr 4/4
						2-2	
	4	Changes to Moist				Push Push	
		Grey SILT 60% w/ Clay Moist Mod. Plasticity No Odor No Staining	0.0	1.6	ML	1-1	7.5yr 4/1
	6					Wt. 1	
		Same As Above	0.0	1.9	ML	1-2	7.5yr 4/1
	8					1-4	
▽		Br. SAND 75% w/ Silt Fine Grained Saturated No Odor No Staining	0.0	1.9	SM	5-5	7.5yr 5/6
	10	@ 9.5 Br. SILT 75% w Sand @ 10 Br SAND 75% w/ Silt wet				3-4	
		Grey SILT 70% w Sand Damp No Odor No Plasticity No Staining	1.6	1.3	ML	5-5	7.5yr 4/1
	12					1-3	
		Same As Above w/ Pea Gravel present	0.8	1.6	ML	4-4	Same As Above
	14	↓				1-2	
			0.0	1.9		4-5	Same As Above
	16	Br/Grey SAND 80% w/ Silt No Odor No Staining wet/Saturated Grades from Fine Grained to Course Grained	0.0	0.9	SM	Push 2	Same As Above
						4-4	
	18	Grey SILT w/ Sand wet No Odor No Staining					
		Grey Fine Grained SAND 75% w/ Silt wet No Odor No Staining No Plasticity	0.0	2.0		1-2	BOH 20 Sand up to 7.5 Sand to 14.5 Bentonite to 3.5 Screen from 19.5 to 9.5 Grout to Surface
0940	20	Grey SILT 70% w/ Clay Damp No Plasticity No Odor			ML	4-4	

No water used to Hydrate

PROJECT: RVAAP RI 14 BOH 20' | HOLE NO.: NTAmw-114

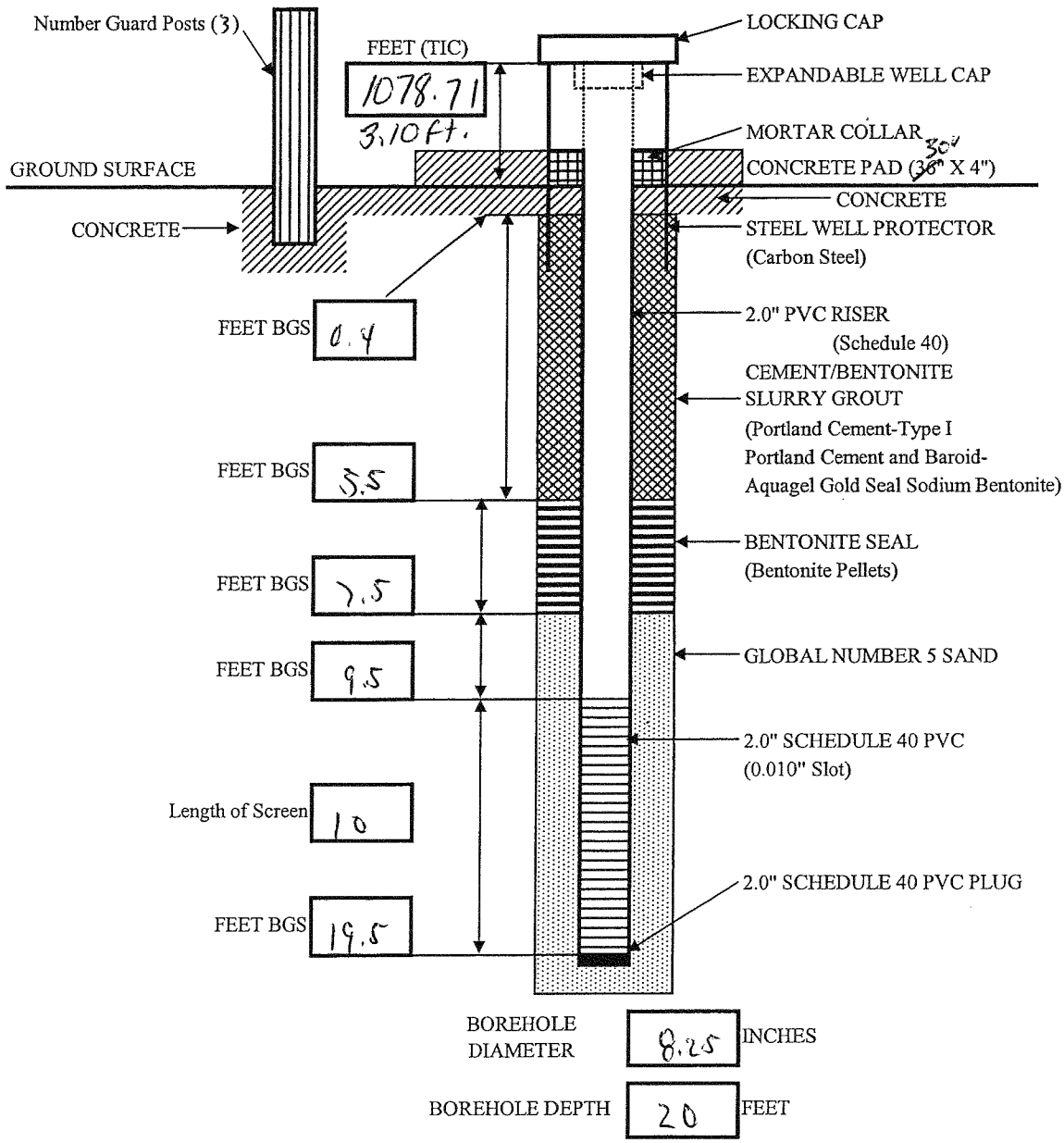
ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: NTAmw-014	Begin: 18Nov04	End: 18Nov04
Coordinates: N: 551592.94 E: 2347301.57	Elevation: 1075.61	Reference Point:
Logged By: MacDonley		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

	DISTRICT: Louisville	HOLE NUMBER: NTA mw-115
1. COMPANY NAME: MKM Engineers Inc	2. DRILL SUBCONTRACTOR: HAP Drilling Contractors	SHEET 1 OF 3
3. PROJECT: RVAAP RI 14	4. LOCATION: NACA Test Area	
5. NAME OF DRILLER: Sara Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 45C-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 HSA OD; 2" Splitspoons	8. HOLE LOCATION: ON NORTH CIRCLE AT EAST END	
	9. SURFACE ELEVATION: 1086.91 ASL	
	10. DATE STARTED: 18 Nov 04	11. DATE COMPLETED: 18 Nov 04
12. OVERBURDEN THICKNESS: 24'	15. DEPTH GROUNDWATER ENCOUNTERED: 12.5 19	
13. DEPTH DRILLED INTO ROCK: 0	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 14.0 @ 1125 11/22/04	
14. TOTAL DEPTH OF HOLE: 24'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

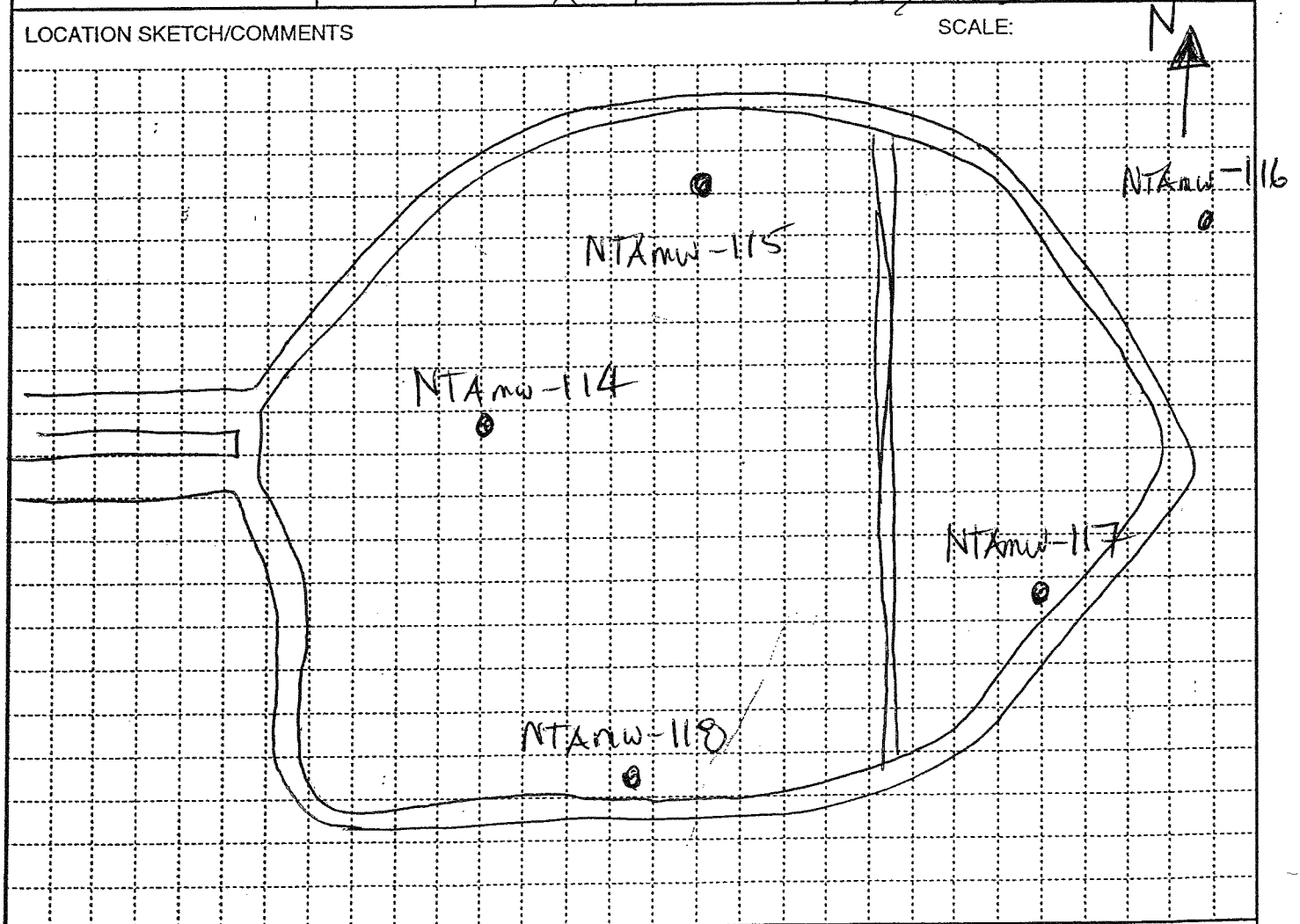
18. GEOTECHNICAL SAMPLES	DISTRIBUTED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY — %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
		X		

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	NTA mw-115

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTAmw-115

PROJECT: RVAAP RI 14 | INSPECTOR: Mark Dunlevy | SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. RECOVERY	ANALYTICAL SAMPLE NO. USICS	BLOW COUNT (g)	REMARKS (h)
1210		4" Topsoil Br/Redish Br. SILT 70% w/ Sand Damp No Odor No Plasticity	1.0	1.7	ML	1-3 4-4	7.5yr 5/6
	2						
		Dk. Br. SILT 60% w/ Sand Damp No Odor No Staining Br SILT 75% w/ Clay Dry Stiff Br SAND Damp w/ Silt	2.4	1.6	ML	4-4 6-6	7.5yr 4/4 7.5yr 5/4
	4	Grey/Br. SILT 70% w/ Sand Dry					
		Br. SAND 75% w/ Silt wet No Odor No Staining No Plasticity	2.4	1.7	SM	6-4 6-7	Same As Above
	6	Br. SILT 70% w/ Sand Damp. No Odor No Staining No Plasticity					
		Changes to Dry	0.0	2.0	ML	4-7 10-10	SAA
	8	Br. SILT 80% w/ Clay Dry No Odor No Staining No Plasticity					
		Br. SILT 70% w/ Sand Dry No Odor No Staining	0.0	2.0	ML	2-3 5-6	SAA
	10	Grey Mottles Begin					
		Br. SILT 80% w/ Clay Dry No Odor No Staining No Plasticity	0.0	2.0	ML	2-4 7-7	SAA 10yr 5/1
▽	12	Changes to Grey, Wet/Saturated					
		Same As Above	0.0	2.0	ML	1-2 3-4	SAA
	14						
		Same As Above	0.0	2.0	ML	1-1 3-2	SAA
	16						
		Same As Above	0.0	1.6	ML	1-5 5-8	SAA
▽	18	Grey/Br. SILT 65% w/ Sand Wet No Odor No staining No Plasticity					7.5yr 5/1
▽		Br/Grey Layers SILT 80% w/ clay wet/Saturated	0.0	2.0	ML	1-2 2-4	
	20						

PROJECT: RVAAP RI 14 | HOLE NO.: NTAmw-115

ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTA mw-115

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 3 OF SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE~~ OR CORE BOX NO. recovery	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (e)	REMARKS (h)
	22	Same as Above ↓		1.8	ML	1-2 2-3	7.5Y 5/1
		Grey/Brn SILT Got w/ Sand wet		1.6	ML	1-2 2-4	7.5Y 5/1
1300	24	BoH 24'					BoH 24 Sand to 22.5 Screen from 22.5 to 12.5 Sand up to 9.5 Bentonite to 6.5 Grout to surface Backed hole off to 23 ft. Split spooned to 24 5 gallons of water for hydration
	26						
	28						

PROJECT: RVAAP RI 14

HOLE NO. NTA mw-115

ENG FORM 5056A-R, AUG 94

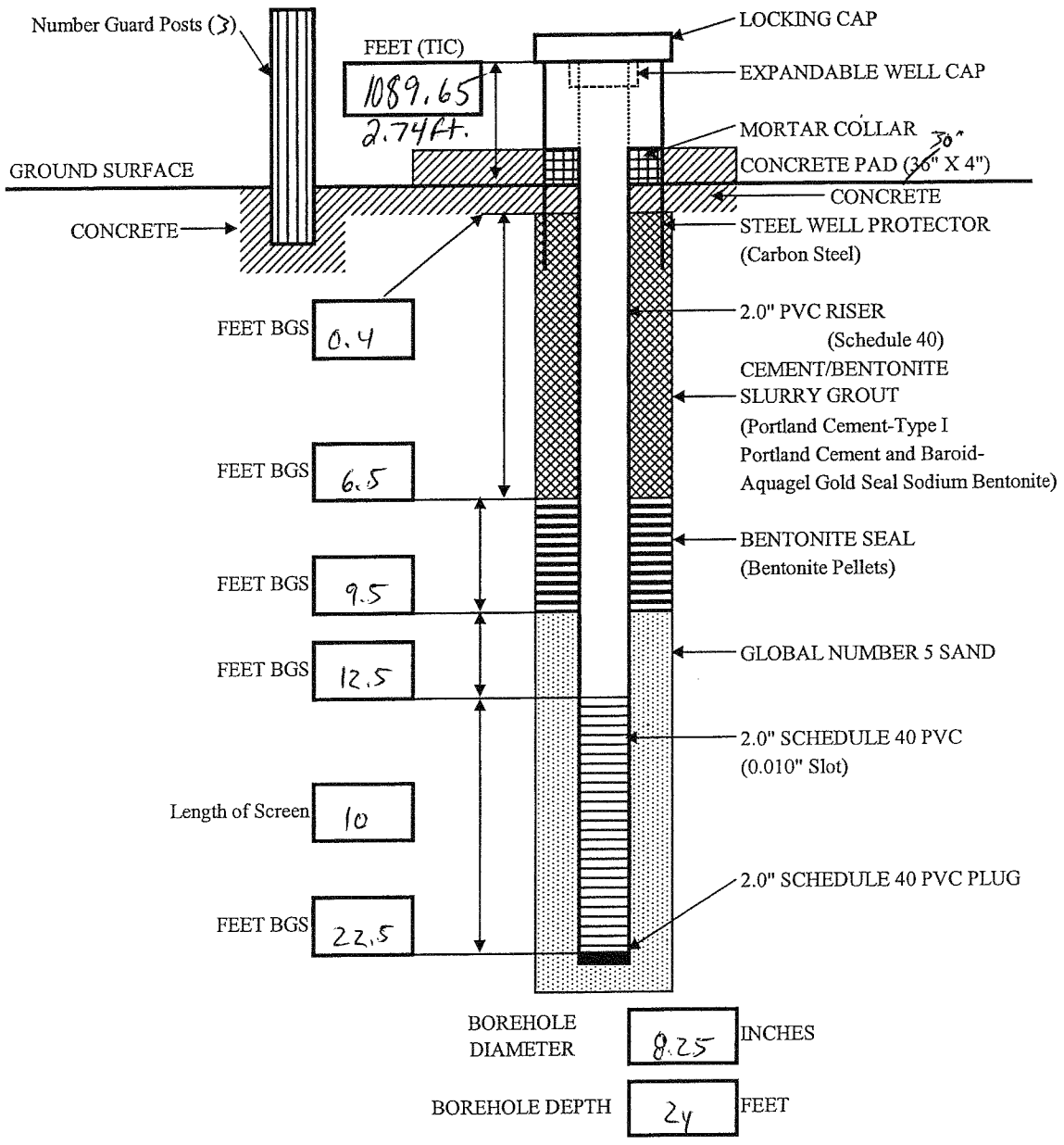
(Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI IY

Well Number: NTA mw - 115	Begin: 18 Nov 04	End: 18 Nov 04
Coordinates: N: 551791.78 E: 2347581.16	Elevation: 1086.91	Reference Point:
Logged By: Matt Dunlavy		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

MW Const Dia 05Nov04.xls

HTRW DRILLING LOG

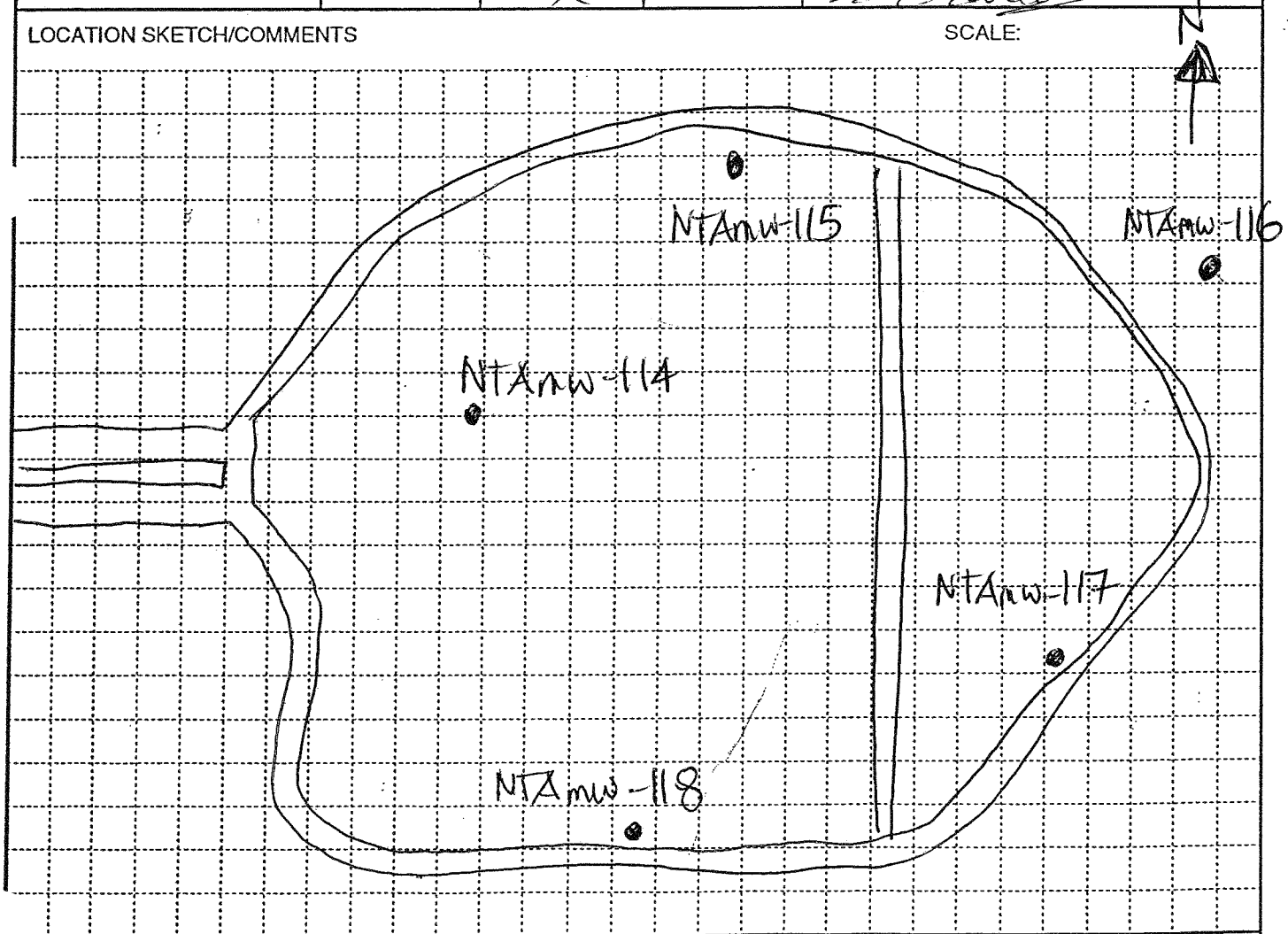
	DISTRICT: Louisville	HOLE NUMBER: NTAmw-116
1. COMPANY NAME: MKM Engineers Inc	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP RI/FS	4. LOCATION: NACA Test Area	
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 OD HSA; 2" Splitspoons	8. HOLE LOCATION: East end of Runway	
	9. SURFACE ELEVATION: 1091.68 ASL	
	10. DATE STARTED: 19 Nov 04	11. DATE COMPLETED: 19 Nov 04
12. OVERBURDEN THICKNESS: 22 Ft	15. DEPTH GROUNDWATER ENCOUNTERED: 5.5, 8.5	
13. DEPTH DRILLED INTO ROCK: 0 Ft	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 5.05 @1332 11/22/04	
14. TOTAL DEPTH OF HOLE: 22 Ft	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	—	—	0

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS SCALE:



PROJECT	HOLE NO.
RVAAP RI/FS	NTAmw-116

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTAmw-116

PROJECT: RVAAP RI 14 | INSPECTOR: Mark Dunlavy | SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~CORE BARREL SAMPLE OR CORE BOXING~~ RECOVERY	~~ANALYTICAL SAMPLE~~ USCS	BLOW COUNT - (g)	REMARKS (h)
	0	4" Topsoil					
		Dk Br. SILT 60% w/ Sand Damp No Odor No Staining No Plasticity	0.0	2.0	ML	1-2 2-3	7.5yr 4/2
	2	LT. Br. SILT w/ Sand Damp			ML	1-4	7.5yr 5/6
		Br. SAND 75% Fine to medium Grained Wet	0.0	1.7	SM	4-4	7.5yr 4/4
	4					1-2	
▽		Saturated Layer @ 5.0	0.0	1.4	SM	3-3	
		Changes to damp @ 5.5					
	6		0.0	2.0	SM	1-1 1-2	
▽	8	Another Saturated Layer @ 8.5	0.0	1.3	SM	1-2 3-3	
	10				SM	2-2	
		Grey SILT 80% w/ Clay Wet No Odor No Staining Low-Med. Plasticity	0.0	1.8	ML/CL	3-4	7.5yr 5/1
	12		0.0	0.8		1-3 3-4	
	14		0.0	0.7		2-2 4-2	
	16		0.0	1.1		2-3 4-2	
	18		0.0	1.3		2-2 3	
	20						

PROJECT: RVAAP RI 14 | HOLE NO. NTAmw-116

ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTA mw-116

PROJECT: RVAAP RE 14

INSPECTOR: Mark Dunlevy

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. / RECOVERY	ANALYTICAL SAMPLE NO. / USCS	BLOW COUNT (g)	REMARKS (h)
	20	Same As Above	0.0	1.4		2-2 3-1	Same As Above
	22	BOH 22ft.					Sand up to 20 Screen from 20 to 10 Sand up to 7.5 Bentonite to 4 Due to mis-calculation Grout to Surface Stick-up was cut short to 3ft out and 4ft in ground No Hydration water used
	24						
	26						

PROJECT: RVAAP RE 14

HOLE NO.: NTA mw-116

ENG FORM 5056A-R, AUG 94

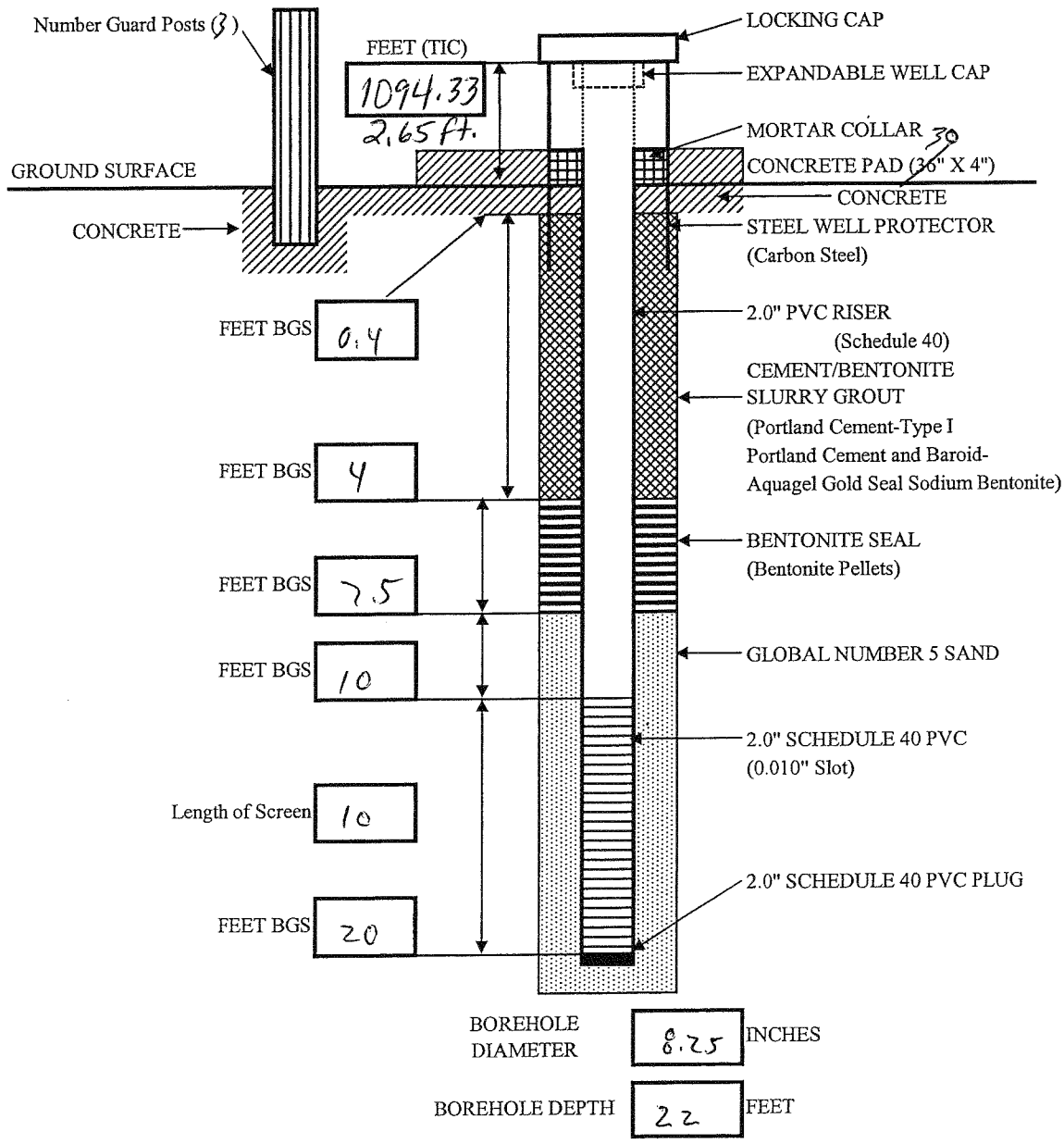
(Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: NTA mw-116	Begin: 19Nov04	End: 19Nov04
Coordinates: N: 551748.00 E: 2348196.39	Elevation: 1091.68	Reference Point:
Logged By: Mark Dunlevy		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

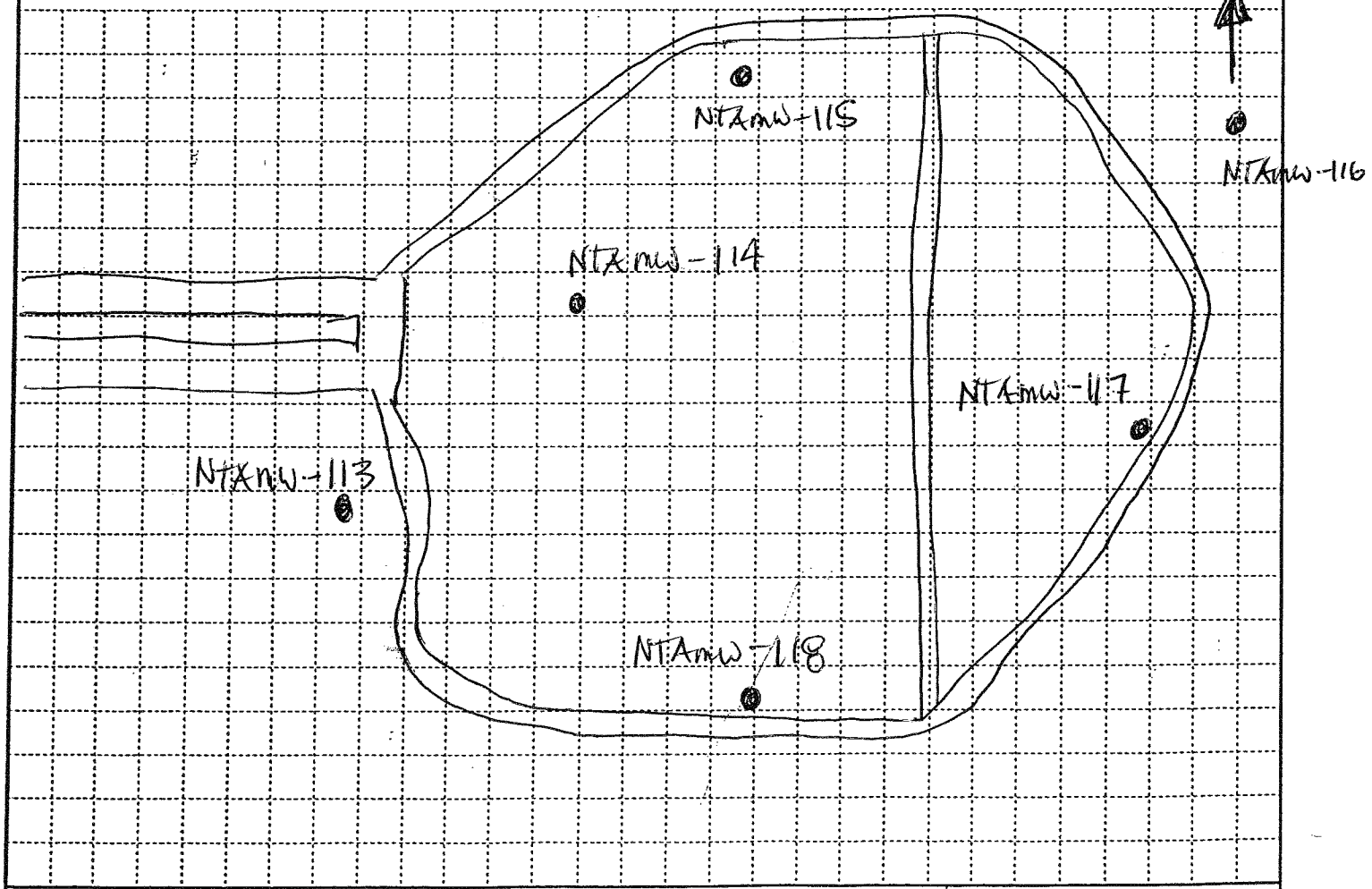
	DISTRICT: Louisville	HOLE NUMBER: NTAmw-117
1. COMPANY NAME: MK&M Engineers Inc	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF 7
3. PROJECT: RVAAP RI 14	4. LOCATION: NACA Test Area	
5. NAME OF DRILLER: Sam Hoffer	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 OD HSA; 2" Split Spoons	8. HOLE LOCATION: East End, Interior Road Circle	
	9. SURFACE ELEVATION: 1091.67 ASL	
	10. DATE STARTED: 01 Dec 04	11. DATE COMPLETED: 01 Dec 04
12. OVERBURDEN THICKNESS: 25 ft	15. DEPTH GROUNDWATER ENCOUNTERED: 4.6, 9.2, 17.8	
13. DEPTH DRILLED INTO ROCK: 0 ft	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 12.5 @ 1410 12/06/04	
14. TOTAL DEPTH OF HOLE: 25 ft	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —	

18. GEOTECHNICAL SAMPLES	DISTRICT	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	—	—	NA —

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	—	—	—	—	—	— %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	NTAmw-117

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: MAmw-117

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dailey

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. Recovery	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	5" Topsoil Reddish Br. SILT 65% w/sand wet No Odor No Staining No Plasticity	0.0	1.5	ML	1-2 1	7.5yr 5/8
	2	Br. SILT 75% w/Sand Damp No Odor No Plasticity Grey Mottles Pres.	0.0	1.7	ML	1-4 4-5	7.5yr 4/4
	4	Br. SILT 85% w/Clay Saturated No Odor No Staining No Plasticity	0.0	1.8	ML	3-5 5-6	SAA
	6	Br. SILT 70% w/Sand Slight No Odor No Plasticity No Staining Dry Br. SILT 85% w/Clay Dry No Odor No Staining No Plasticity	0.0	1.2	ML	1-3 5-8	SAA
	8	Changes to wet / Low Plasticity @ 8.4 Saturated @ 9.2	0.0	1.6	ML	1-2 5-6	SAA
	10	Damp @ 9.8 Changes to Grey @ 10.1	0.0	1.4	ML	1-2 5-5	7.5yr 5/1
	12	SAA	0.0	1.5	ML	1-1 2-2	SAA
	14	SAA Grey Br. SAND 65% w/Silt wet No Odor No Staining No Plasticity	0.0	1.3	ML	1-3 3-3	SAA 7.5yr 5/2
	16	Grey SILT 70% w/Sand Dry No Odor No Staining No Plasticity Fine Gravel Present Becomes Wet @ 16.4 Dry @ 17.2	0.0	0.5	ML	1-3 5-11	7.5yr 5/1
	18	Fine Grained SAND 85% w/SILT Saturated No Odor No Staining No Plasticity Br. Grey SILT 65% w/Sand No Odor No Staining No Plasticity	0.0	1.4	SM ML	4-6 8-11	7.5yr 5/2
	20						

PROJECT: RVAAP RI 14

HOLE NO.: MAmw-117

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NT-Amw-117

PROJECT: RVAAP RI 14

INSPECTOR: Matt Dailey

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	22	S.A.A	0.0	1.4	ML	2-3 8-8	7.5yr 5/2
		Same As Above		1.5	ML	1-3 7-9	7.5yr 5/2
	24				ML		
		Bott 25					BOH 25 Sand to 24.5 Screen from 24.5 to 14.5 Sand up to 11 Bentonite to 8 Grout to Surface Stick-up completion 5 gallons of hydration water used

PROJECT: RVAAP RI 14

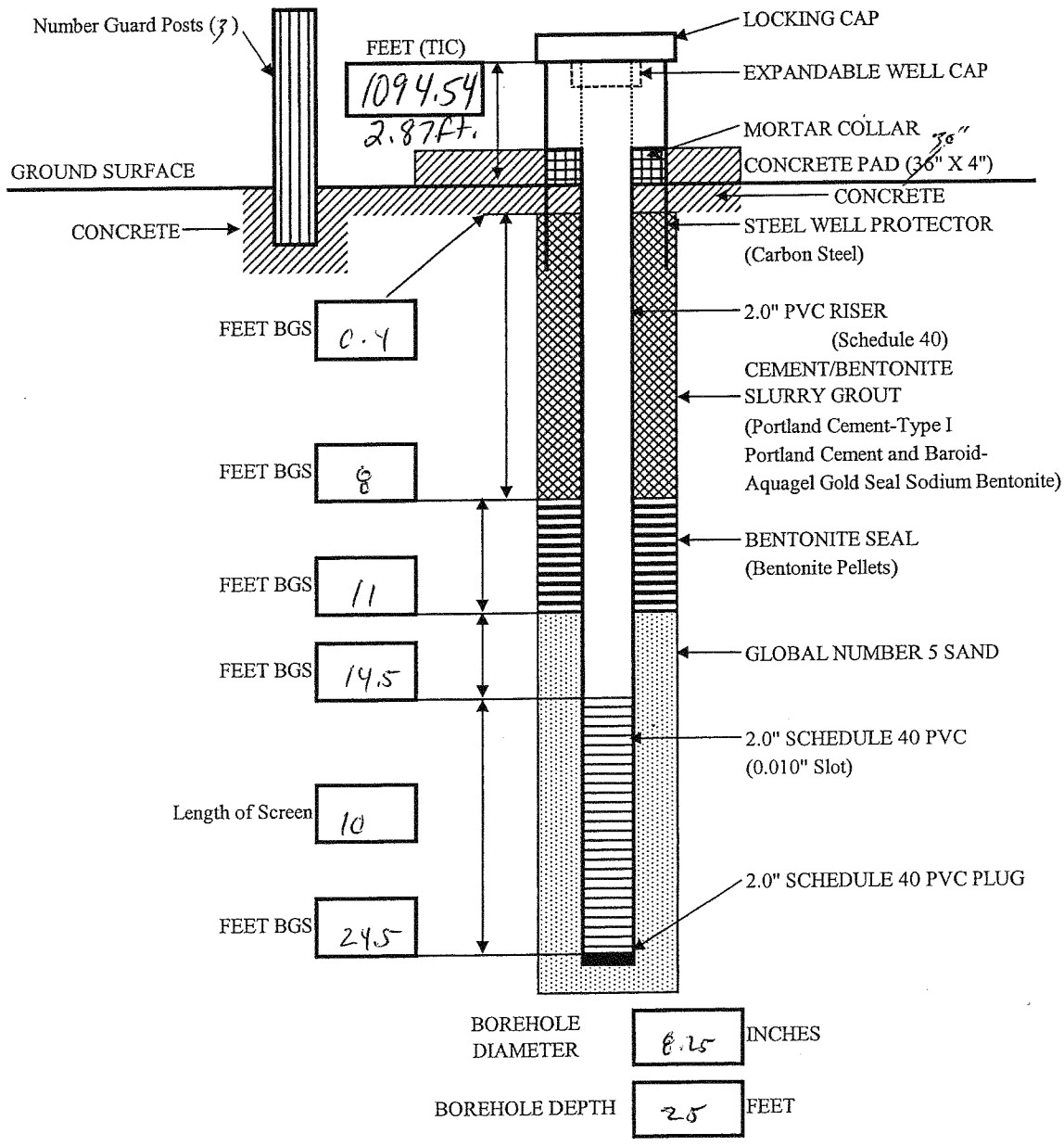
HOLE NO.: NT-Amw-117

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP #214

Well Number: NTA mw-117	Begin: 01Dec04	End: 01Dec04
Coordinates: N: 551584.57 E: 2347994.83	Elevation: 1091.67	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

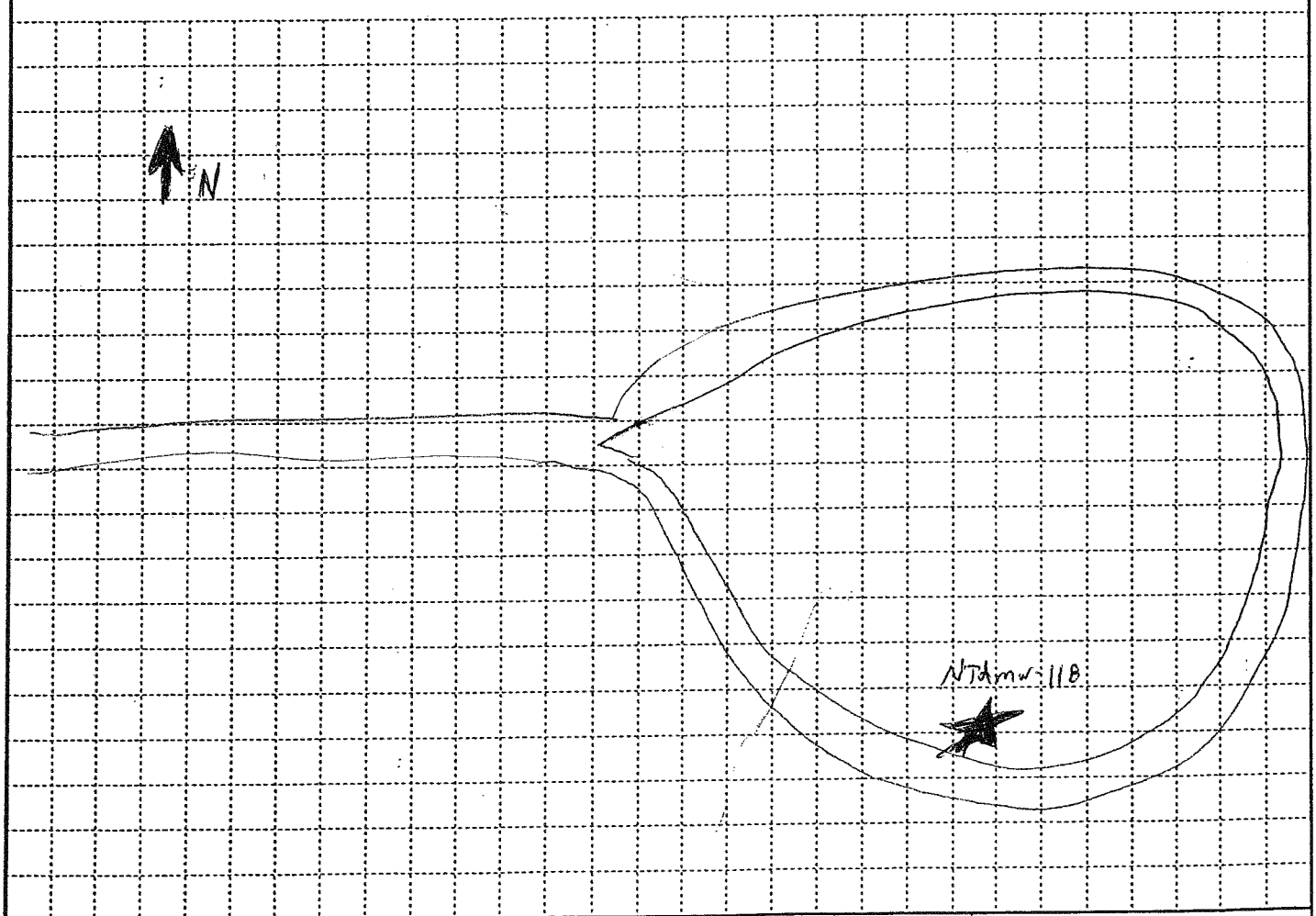
	DISTRICT: Louisville	HOLE NUMBER: NTAmw-118
1. COMPANY NAME: MKM Engineers Inc	2. DRILL SUBCONTRACTOR: H&D Drilling Contractors	SHEET 1 OF 3
3. PROJECT: RVAAP RI IV	4. LOCATION: NAC-4 Test Area	
5. NAME OF DRILLER: Andy Wolff	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 HSA; 2" Split Spoons	8. HOLE LOCATION: South end of Circle Road	
	9. SURFACE ELEVATION: 1078.86 ASL	
	10. DATE STARTED: 26 Nov 04	11. DATE COMPLETED: 26 Nov 04
12. OVERBURDEN THICKNESS: 22.5	15. DEPTH GROUNDWATER ENCOUNTERED: ~11.5 18.5	
13. DEPTH DRILLED INTO ROCK: 0	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 7.45' @ 1045 12/02/04	
14. TOTAL DEPTH OF HOLE: 22.5	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	—	—	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	—	—	—	—	—	— %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP RI IV	NTAmw-118

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTAMW-118

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ Recovery	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
		5" Topsoil Redish SILT 60% w/Sand Damp No Odor No Plasticity No Staining	0.0	1.7	ML	1-2 2-2	5yr 5/8
	2						
	4	Br. SILT 75% w/Clay Stiff dry No Odor No Staining No Plasticity	0.0	1.5	ML	Push 2 4-7	7.5yr 5/4
	6	Br. SILT 85% w/Clay Wet No Odor No Staining No Plasticity Br. SILT 70% w/Clay Low Plasticity No Staining	0.0	2.0	ML	Push-6 8-10	7.5yr 5/4
	8	Br. SILT 70% w/Sand Damp No Odor No Staining No Plasticity	0.0	2.0	ML	3-5 6-7	SAA
	10		0.0	2.0	ML	Push-2 5-5	SAA
	12	Br. SAND 85% w/Silt Damp/Wet Br. Grading to Grey SILT 7.5 w/Sand No Odor No Staining No Plasticity	0.0	2.0	ML SM	2-4 4-6	SAA
	14		0.0	1.1	ML	3-5 5-6	7.5yr 5/4 SAA
	16	Large Rock Frags Pres	0.0	1.7	ML	2-3 4-5	SAA
	18	Same As Above	0.0	2.0	ML	2-4 7-7	SAA
	20	Fine to Med. Grained SAND Grey Saturated	0.0	1.7	SM	2-5 4-3	SAA

PROJECT: RVAAP RI 14

HOLE NO.: NTAMW-118

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: NTAmw-118

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	Same AS Above	0.0	1.3	SM	1-3	SAA
		Grain size changes to Large Grained				4-3	
	22						
		BOH 22.5					BOH 22.5
							Sand to 22.0
							Screen from 22 to 12
	24						Sand up to 9
							Bentonite to 6
							Grout to Surface
	26						Stick-up well Completion
							No water used for Hydration

PROJECT: RVAAP RI 14

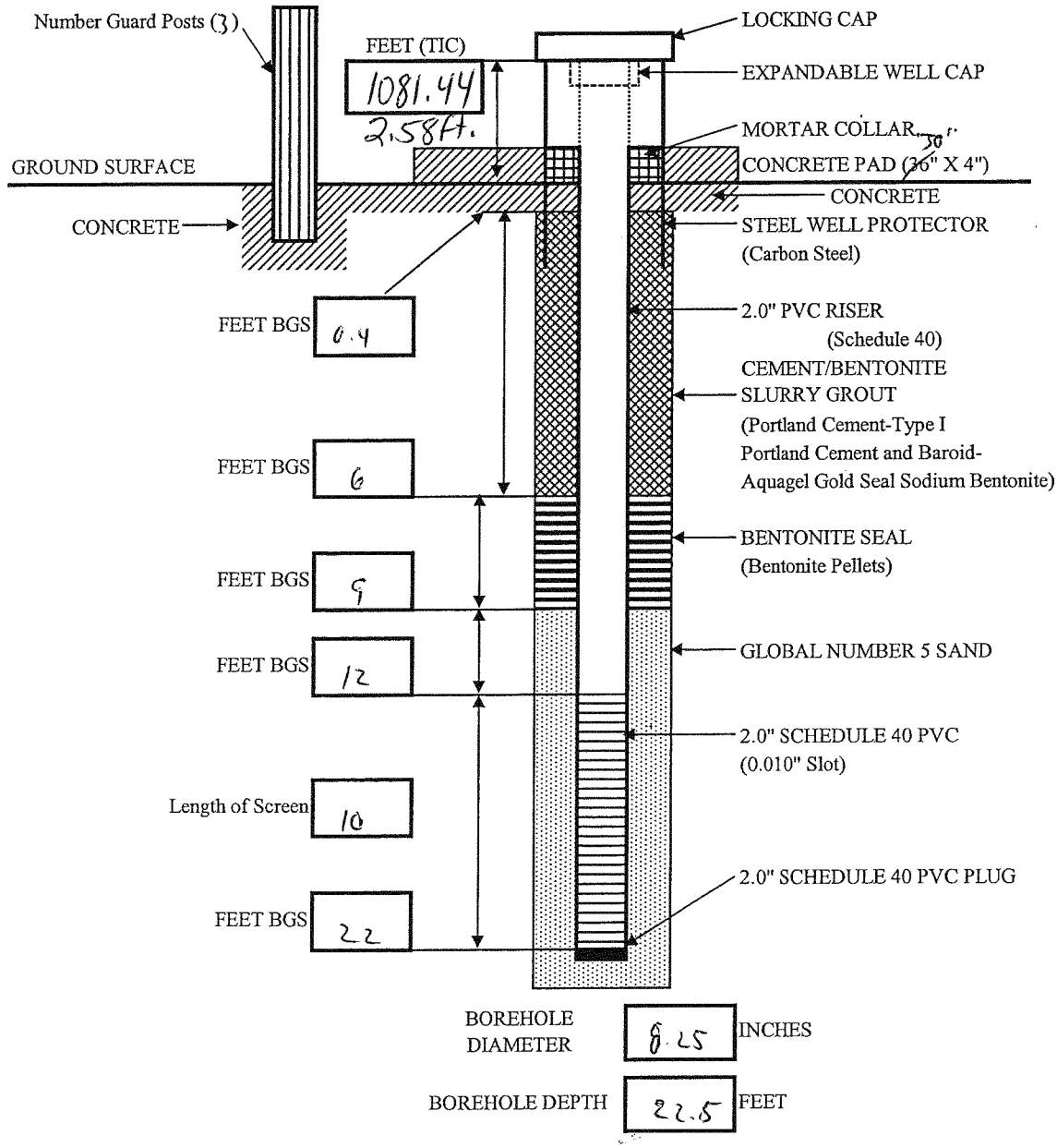
HOLE NO.: NTAmw-118

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: NE4, mw-118	Begin: 30 Nov 04	End: 30 Nov 04
Coordinates: N: 551335.04 E: 2347609.41	Elevation: 1078.86	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

	DISTRICT: Louisville	HOLE NUMBER: LL5mw-001
1. COMPANY NAME: Main Engineers	2. DRILL SUBCONTRACTOR: H&D Drilling Contractors	SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 5	
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 550	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 HSA; 2" Split Spoons	8. HOLE LOCATION: ADJACENT TO BLDG 1F-8	
	9. SURFACE ELEVATION: 1125.00 ASL	
	10. DATE STARTED: 08Dec04	11. DATE COMPLETED: 08Dec04
12. OVERBURDEN THICKNESS: 26	15. DEPTH GROUNDWATER ENCOUNTERED: ~15, ~18	
13. DEPTH DRILLED INTO ROCK: 0	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 17.74 @ 1055 12/17/04	
14. TOTAL DEPTH OF HOLE: 26	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

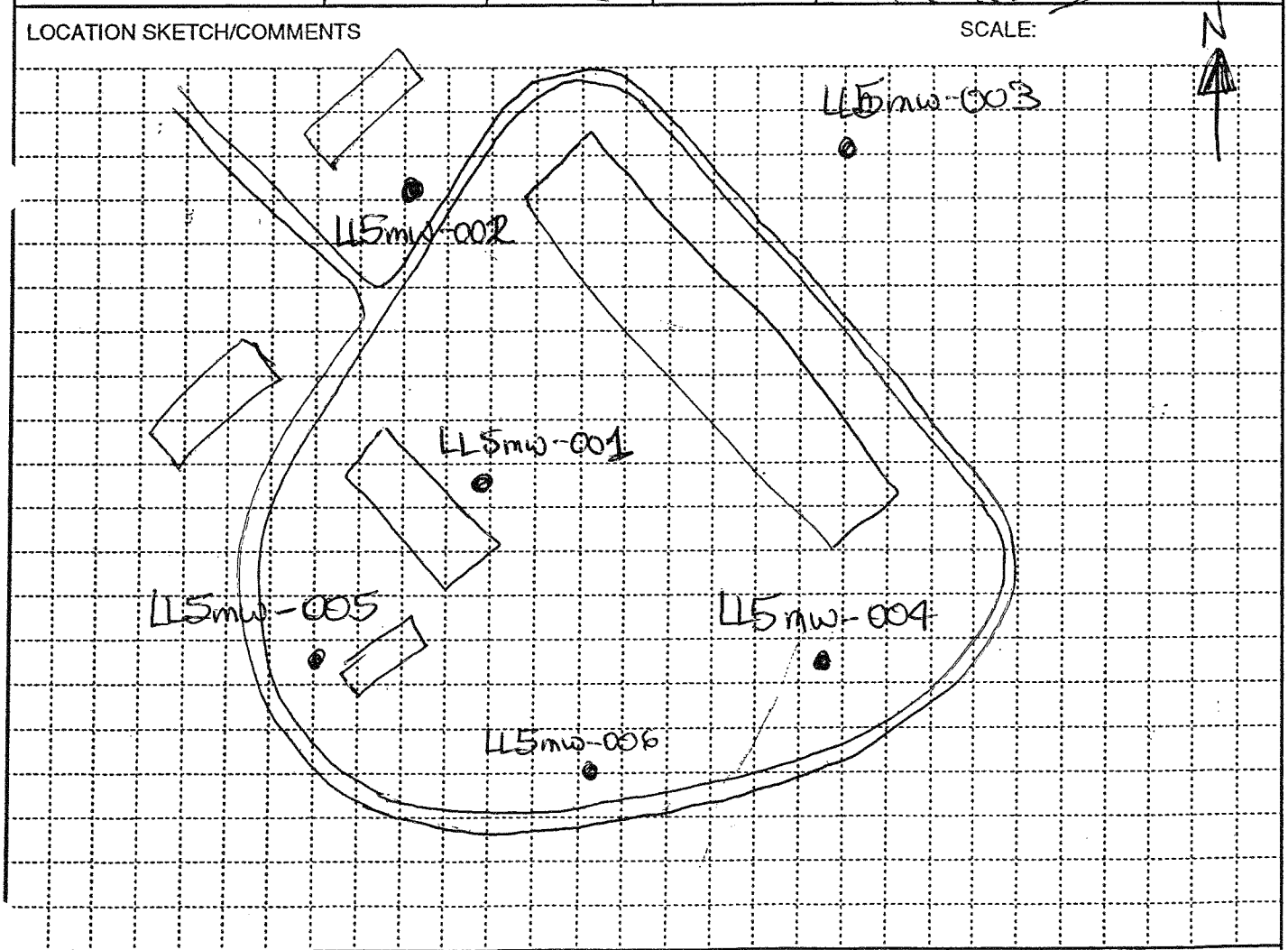
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 6-8	—	X	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY — %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	LL5mw-001

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL5mw-001

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ Recovery	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
1230		4" Topsoil Redish/Br. SILT 70% w Sand Damp No Odor No Plasticity Grey Mottling	0.0	1.6	ML	1-2 4-5	7.5y-5/6
	2	SAA	0.0	1.7	ML	1-4 8-8	SAA
	4	DK Br. SILT 75% w Sand Dry Stiff No Odor No Plasticity No Staining	0.0	1.7	ML	1-4 5-13	7.5y-4/3
	6	1240 08Dec04 Shelby Tube		~~1.5~~ MDD		~~1-3~~ MDD ~~6-6~~	
	8	Br. SILT 60% w Sand Dry No Odor No Staining No Plasticity	0.0	1.5	ML	1-3 6-6	7.5y-4/6
	10	SAA	0.0	2.0	ML	2-4 6-14	SAA
	12	SAA	0.0	1.7	ML	1-2 8-6	SAA
	14	SAA	0.0	1.5	ML SM	2-5 24-18	SAA 7.5y-7/4
▽		Lt. Br. SAND 85% w SILT Dry No Odor No Plasticity No Staining Possible weathered Rock Frag					
	16	Br. SILT 65% w Sand Damp/Moist No Odor No Staining	0.0	1.7	ML	5-5 5-5	
▽	18	Grey SAND 70% w Silt Damp No Odor No Staining No Plasticity	0.0	0.9	SM	1-1 2-1	7.5y-5/2
	20						

PROJECT: RVAAP RI 14

HOLE NO.: LL5mw-001

ENG FORM 5056A-R, AUG 94 Appendix E Page 253 FWGWMP 2005 Annual Report (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: 115mw-001

PROJECT: RVAAPRI 14

INSPECTOR: Mark Dunlop

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ Recovery (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		SAA Redish Br. SAND 70% w Silt Dry No Odor No Staining No Plasticity Weathered Bedrock	0.0	1.4	SM	2-10 10-3	SAA 7.5yr 5/6
	22	SAA	0.0	1.1	SM	2-13 13-8	SAA
	24	SAA	0.0	0.7	SM	1-4 2-6	SAA
	26						Bolt 26 to Screen from 24 to 14 Sand to 11 Bentonite to 8 Grout to surface 2.5 gallons hydration water used Stick-up Completion
	28						

PROJECT: RVAAP RI 14

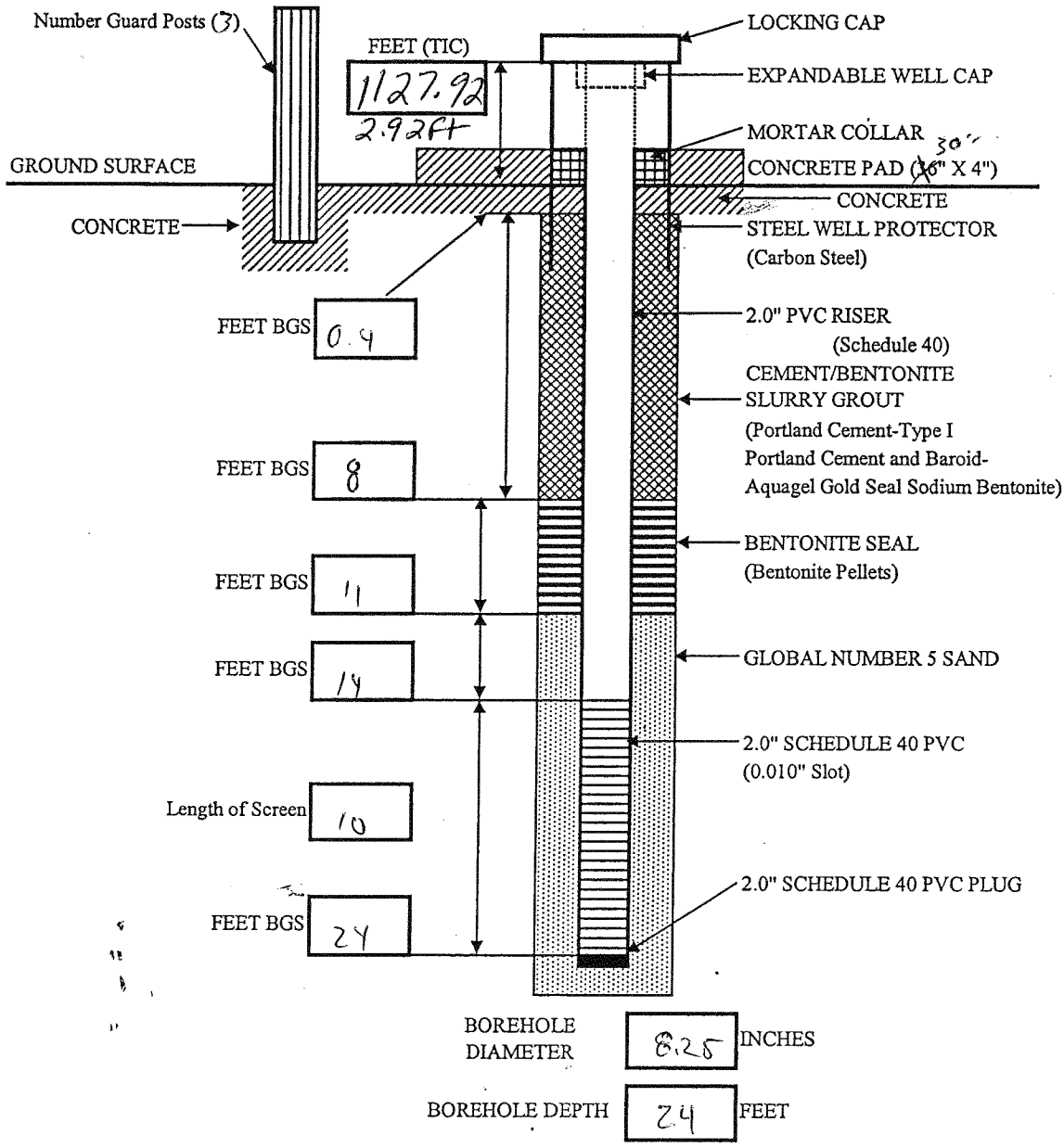
HOLE NO.: 115mw-001

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: LI5mw-001	Begin: 08Dec04	End: 08Dec04
Coordinates: N: 554319.25 E: 2354625.07	Elevation: 1125.00	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM Engineers Inc	DISTRICT: Louisville	HOLE NUMBER: LLSMW-002
2. DRILL SUBCONTRACTOR: H&D Drilling Contractors		SHEET 1 OF 3

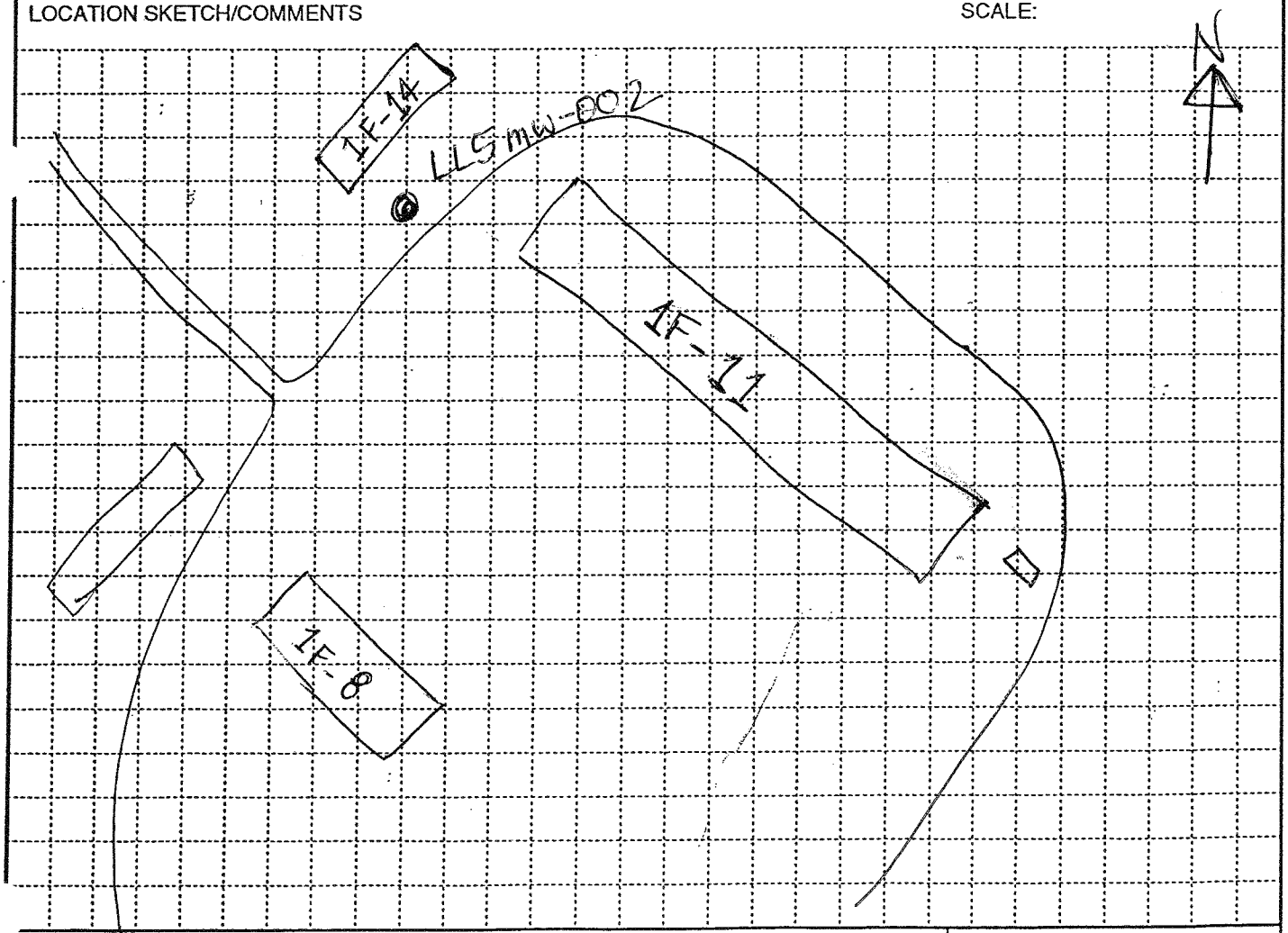
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 5
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC-60
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25" HSA-OD; 2" Split Spoons	8. HOLE LOCATION: North side of LL in front of Change House
	9. SURFACE ELEVATION: 1125.80 ASL
	10. DATE STARTED: 09Dec04 / 11. DATE COMPLETED: 09Dec04
12. OVERBURDEN THICKNESS: 24.6	15. DEPTH GROUNDWATER ENCOUNTERED: 18, 24.5
13. DEPTH DRILLED INTO ROCK: 0.4	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 15.6' @ 905 12/17/04
14. TOTAL DEPTH OF HOLE: 25.0	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	—	—	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	LLSMW-002

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL5mw-002

PROJECT: RVAAPRI 14

INSPECTOR: Mark Dunlevy

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ PR Covery	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
0820		0.4' Topsoil Lt. Br. SILT 65% w/ Sand Damp No Odor No Plasticity No Staining	0.3	1.4	ML	1-1 2-3	7.5y-6/6
	2	DK Reddish/Brass Rock Frag 1/2" Dk Br. SILT 70% w/ Sand Dry No Odor No Staining No Plasticity	0.0	1.0	ML	2-7 9-8	7.5y-5/4
	4	SAA	0.0	1.5	ML	4-7 9-3	SAA
	6	very stiff Br. SILT 60% w Sand Damp No Odor No staining No Plasticity	0.0	1.5	ML	1-7 4-10	SAA
	8	SAA changes to Dry	0.0	1.6	ML	1-8 6-7	SAA
	10	SAA	0.0	1.5	ML	1-4 6-7	SAA
	12	SAA	0.0	1.4	ML	1-3 10-16	SAA
	14	SAA	0.0	0.7	ML	1-6 9-16	SAA
	16	Changes to Grey / Damp-Moist	0.0	1.6	ML	1-2 3-4	7.5y-5/1
▽	18	Slightly saturated / Spoon was wet SAA	0.0	0.8	ML	1-2 4-8	SAA
	20						

PROJECT: RVAAPRI 14

HOLE NO.: LL5mw-002

ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL5mw-002

PROJECT: RVAAPRI14

INSPECTOR: Mark Dunlay

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ Recovery	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
		SAA Grey Fine Grained SS Rock Frag 1" Grey SILT 70% w Sand and Gravel Dry no Oder No Plasticity No Staining	0.0	1.6	ML	4-10 10-13	SAA
	22	4" SAND Grey 75% w/ Silt Moist no oder No Staining ; No Plasticity Grey SILT 70% w/ Sand and Gravel Damp no oder No Staining Grey weathered SS SAND 70% w/ Silt	0.0	1.7	ML	2-2 2-4	
V	24	Grey SAND 85% Saturated No oder No Staining No Plasticity Grey Fine Grained SS slightly weathered	0.0		SP/SM	2/50/3	
		TOH 25					BOH 25 Screen from 25 to 15 Sand up to 12 Bentonite to 9 Grout to Surface Stick-up completion Gallons used to hydrate
	26						
	28						

PROJECT: RVAAPRI14

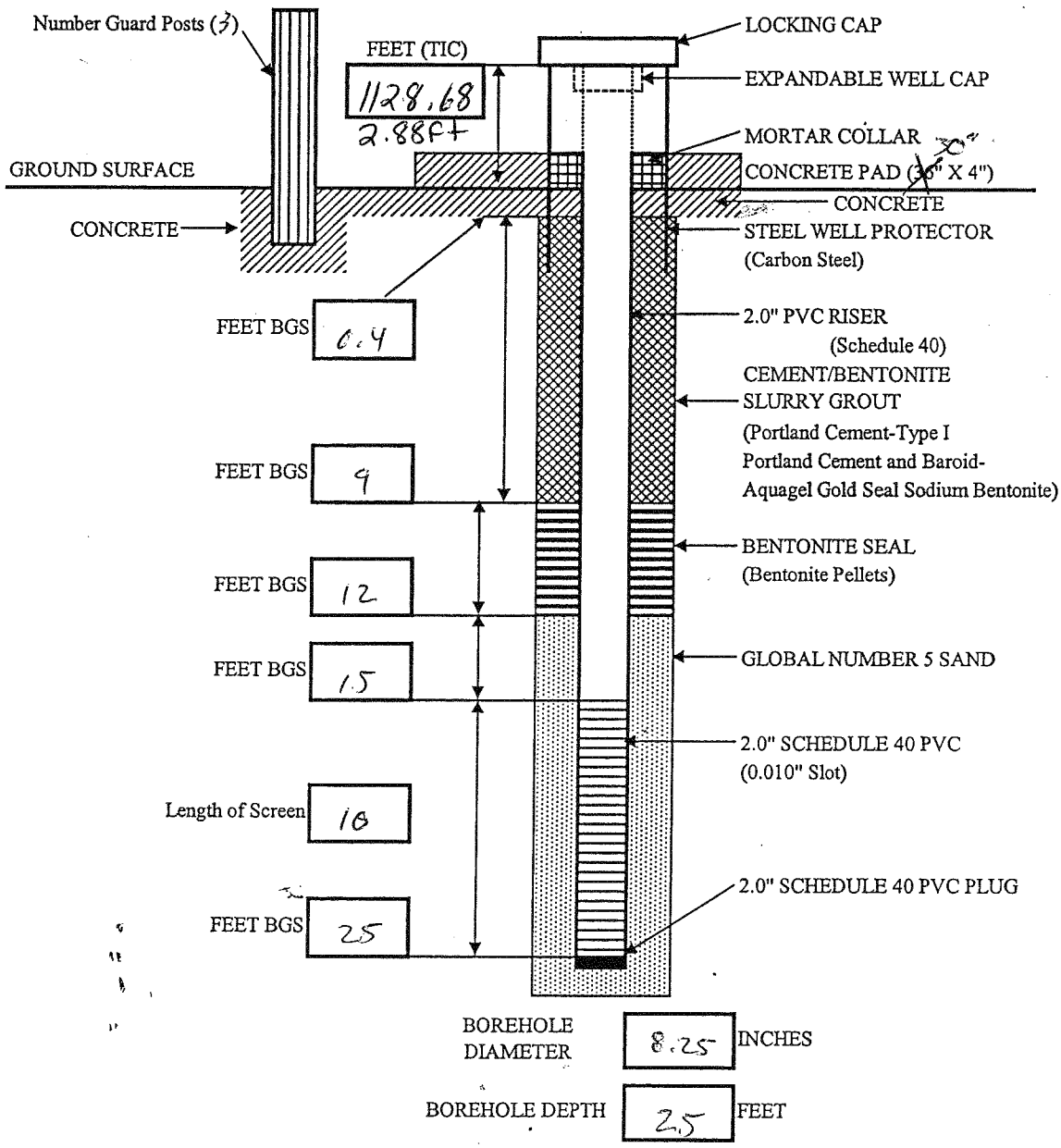
HOLE NO.: LL5mw-002

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: LLSmw-002	Begin: 09Dec04	End: 09Dec04
Coordinates: N: 554604.01 E: 2354571.52	Elevation: 1125.80	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

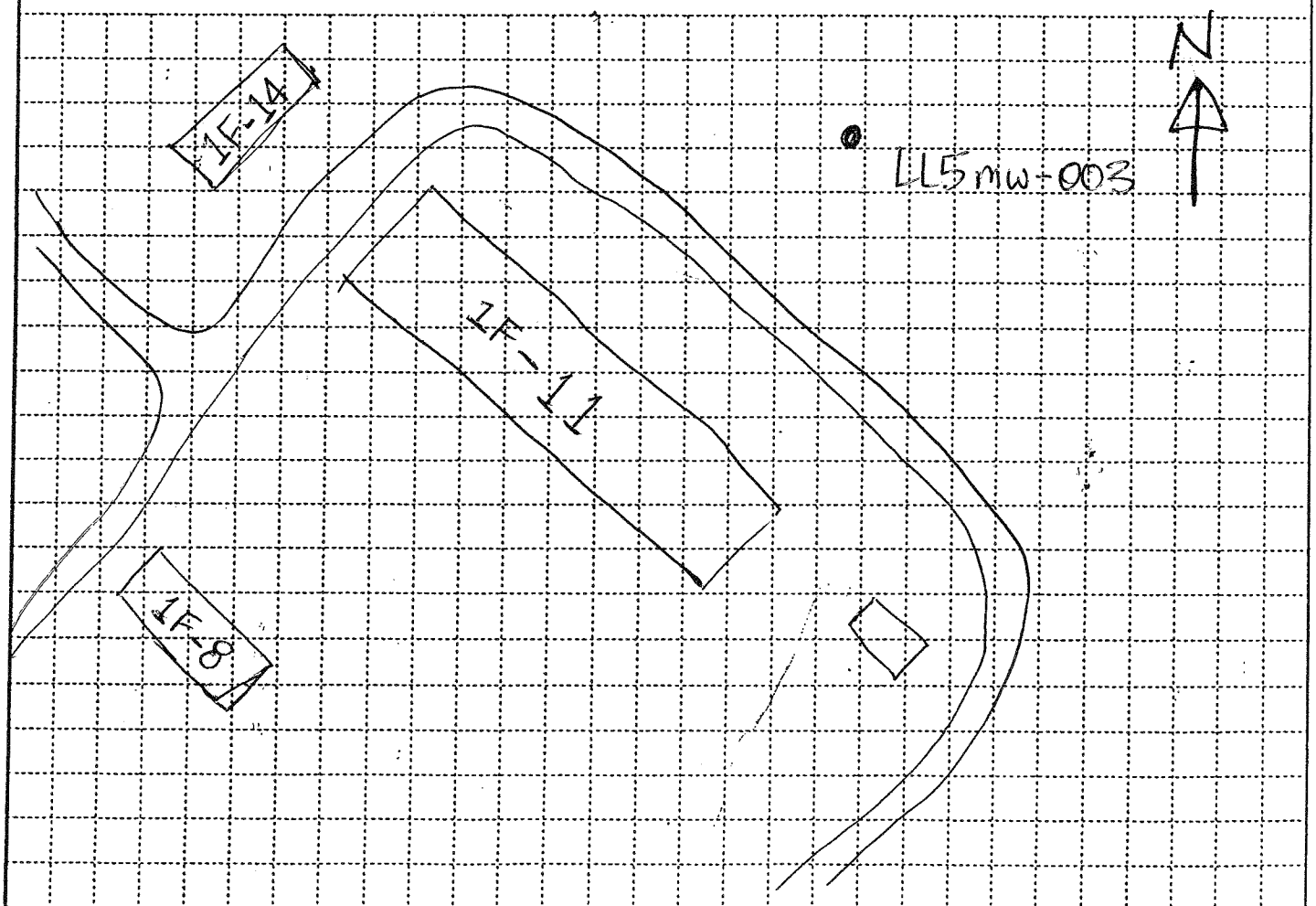
DISTRICT: Louisville		HOLE NUMBER: LL5mw-003
1. COMPANY NAME: MKM Engineers Inc	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF SHEETS 3
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 5	
5. NAME OF DRILLER: Sam Holter	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25" OD HSA; 2" Splitspoons	8. HOLE LOCATION: East Side	
	9. SURFACE ELEVATION: 1124.70 ASL	
	10. DATE STARTED: 09Dec04	11. DATE COMPLETED: 09 Dec 04
12. OVERBURDEN THICKNESS: 21	15. DEPTH GROUNDWATER ENCOUNTERED: 11, 14.5	
13. DEPTH DRILLED INTO ROCK: 0	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 17.1 @ 0925 12/17/04	
14. TOTAL DEPTH OF HOLE: 21	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 8-10'	—	X	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	—	—	—	—	—	— %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	[signature]

LOCATION SKETCH/COMMENTS SCALE:



PROJECT: RVAAP RI 14	HOLE NO.: LL5mw-003

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LLSmw-003

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlap

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ Recovery (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		0-4 Topsoil Br. SILT 65% w/ Sand Damp No Odor No Staining No Plasticity Lt. Br. SILT 75% w/ Clay No Odor Damp Low Plasticity No Staining	5.1	1.3	ML	1-1 3-3	7.5y-4/6 7.5y-6/4
	2	Br. SILT 70% w/ Sand Dry No Odor No Staining No Plasticity	6.4	1.6	ML	1-3 9-10	7.5y-4/6
	4	Very Stiff white Mottling Present DK Br. SAA	0.0	1.7	ML	1-4 8-13	7.5y-4/4
	6	SAA Br. SAND 80% w/ Silt wet/Saturated No Odor No Staining No Plasticity Br. SILT w/ Sand Dry No Odor No Staining No Plasticity	0.0	1.5	SM ML	2-7 8-11	
	8	1056 09 Dec 04 Shelby Tube				~~1 MPD~~ ~~3 MPD~~	
▽	10	Br. SAND 80% w/ Silt Fine Grained ~~Damp~~ Wet saturated 8-11 Br. SILT 65% w/ Sand Dry No Odor No Plasticity No Staining	0.0	1.6	SM	1-1 3-3	7.5y-4/4
	12		0.0	1.7	ML	2-2 3-5	SAA
▽	14	Br. SAND 85% w/ Silt Saturated No Odor No Staining No Plasticity Br. SILT 60% w/ Sand Damp No Odor No Staining No Plasticity	0.0	1.6	SM ML	1-1 5-6	SAA
	16	SAA	0.0	1.5	ML	1-6 8-13	SAA
	18		0.0	1.4	ML	1-4 7-11	
	20	Lt. Br. SAND 85% w/ Silt Saturated No Odor No Staining			SM		7.5y-7/6

PROJECT: RVAAP RI 14

HOLE NO.: LLSmw-003

ENG. FORM 5056A-R, AUG 94

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Proponent: CECW-EG

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LLSmw-003

PROJECT: RVAAPRI 14

INSPECTOR: Mark Dunlay

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		SAA	0.0		SM		SAA
		Bott 21					Bott 21 Screen from 21 to 11 Sand to 8 Bentonite to 5 Grout to surface Stick-up Completion
	22						
	24						

PROJECT: RVAAP RI 14

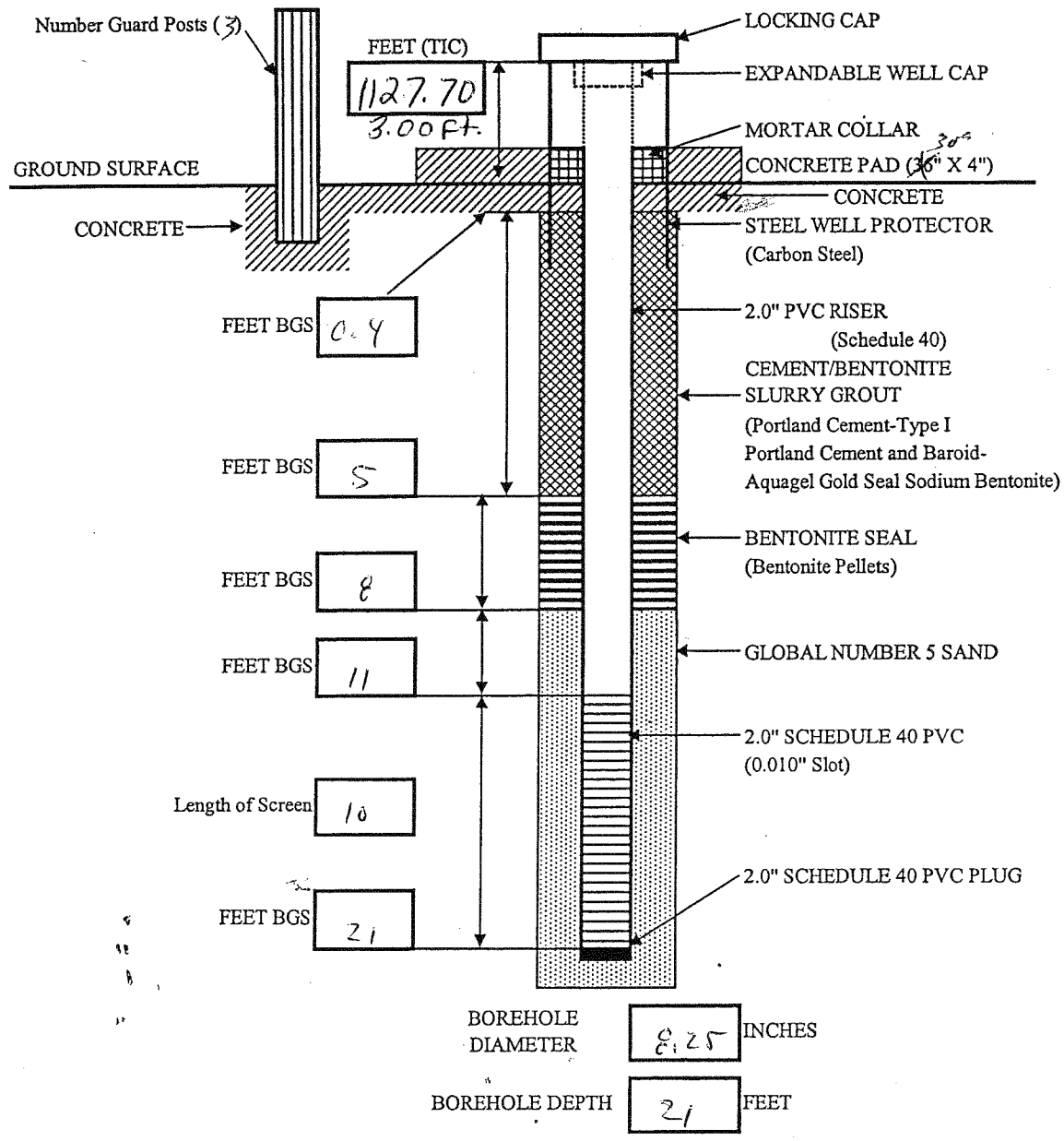
HOLE NO.: LLSmw-003

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RIMAP RI 14

Well Number: LL5mw-003	Begin: 09Dec04	End: 09Dec04
Coordinates: N: 554535.41 E: 2354964.47	Elevation: 1124.70	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

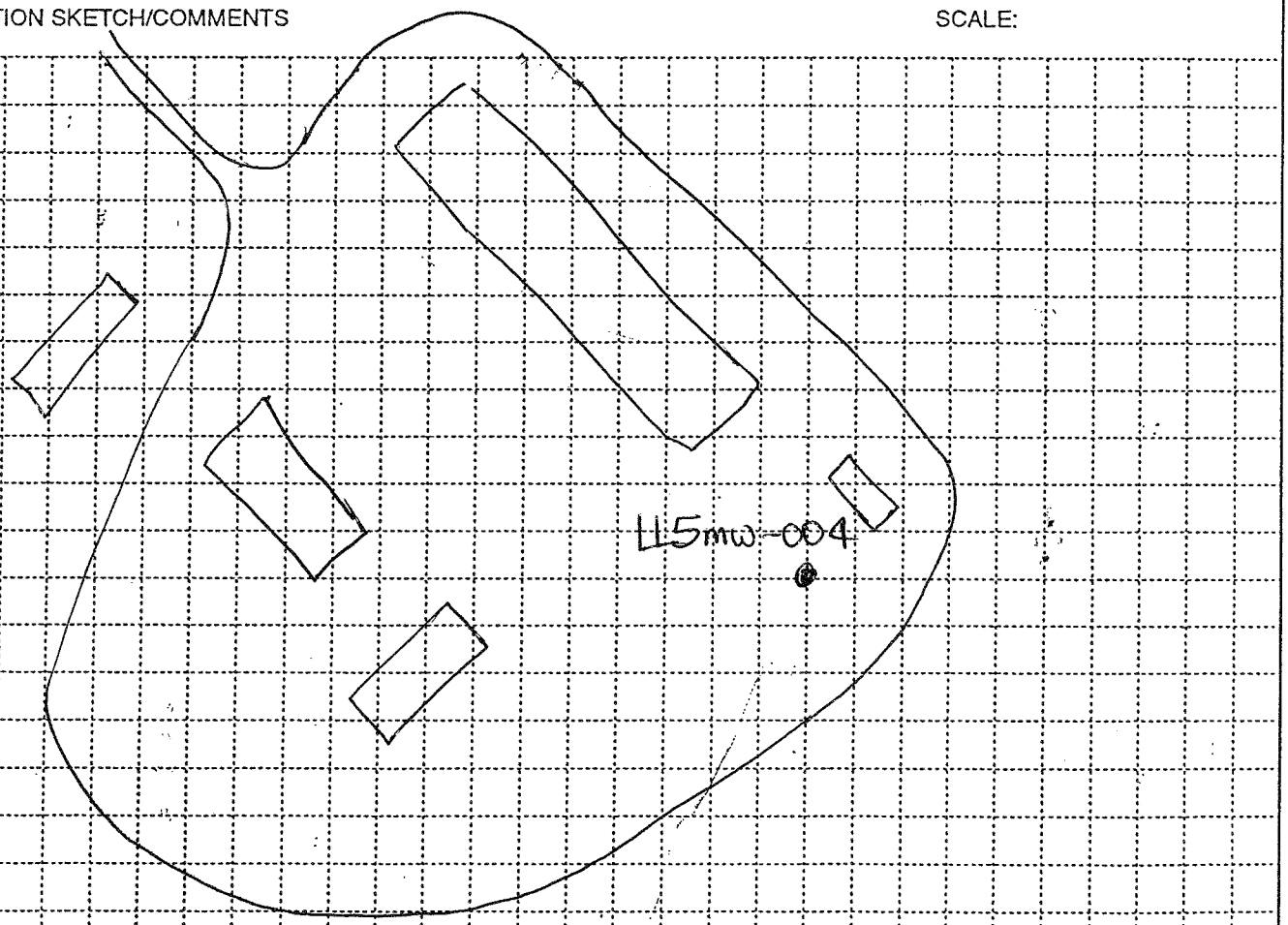
	DISTRICT: Louisville	HOLE NUMBER: LL5mw-004
1. COMPANY NAME: MKM Engineers Inc	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF 3
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 5	
5. NAME OF DRILLER: Sam Holder	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 OD HSA; 2" Splitspoon	8. HOLE LOCATION: South Side of LL	
	9. SURFACE ELEVATION: 1122.90 ASL	
	10. DATE STARTED: 09Dec04	11. DATE COMPLETED: 09Dec04
12. OVERBURDEN THICKNESS: 21.8	15. DEPTH GROUNDWATER ENCOUNTERED: 17.5	
13. DEPTH DRILLED INTO ROCK: 0.6	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 16.00 @ 0955 12/17/04	
14. TOTAL DEPTH OF HOLE: 22.4	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	—	—	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	—	—	—	—	—	—

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	LL5mw-004

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL5mw-004

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlwy

SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ Recovery (e)	~~ANALYTICAL SAMPLE NO.~~ USCS (f)	BLOW COUNT (g)	REMARKS (h)
1330		0-6' Topsoil Lt. Redish Br. SILT 65% w/ Sand Damp No Odor No Plasticity Grey Mottles	0.0	1.7	ML	1-1 1-2	7.5yr 5/6
	2	Dk. Br. SILT 75% w/ Sand Dry Stiff No Odor No Staining No Plasticity	0.0	1.6	ML	4-1 9-2	7.5yr 4/4
	4	white Mottles Begin	0.0	1.1	ML	4-8 11-13	SAA
	6	white Mottles Stop	0.0	1.6	ML	1-8 14-12	SAA
	8	Redish Br. SAND 65% w/ Silt wet No Odor No Staining No Plasticity			SM		
		Br. SILT 70% w/ Sand Damp No Odor No Staining No Plasticity	0.0	1.5	ML	2-6 5-8	SAA
	10	SAA	0.0	2.0	ML	1-4 7-7	SAA
	12	SAA	0.0	1.6	ML	14 7-9	SAA
	14	SAA	0.0	2.0	ML	5-5 6-13	SAA
	16	Br. SAND 85% w/ Silt Fine Grained wet No Odor No Staining No Plasticity Saturated @ 17.5	0.0	1.7	SM	6 17 37 14	SAA
▽	18	Redish/Br. weathered SS Rock Fragments					7.5yr 6/6
		Br. SAND 85% w/ Silt Fine Grained Saturated No Odor No Staining	0.0	1.4	SM	8-8 6-4	7.5yr 4/4
	20						

PROJECT: RVAAP RI 14

HOLE NO.: LL5mw-004

ENG. FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LLS mw 004

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. Recovery	ANALYTICAL SAMPLE NO. USACE	BLOW COUNT (g)	REMARKS (h)
		S.A.A	0.0	1.4	SM	3-8 10-10	S.A.A
	22	Split Spoon Refusal @ 22.0 weathered SS Bedrock					
		Bott 22.4					Bott 22.4 Sand to 22 Screen from 22 to 12 Sand up to 7.5 Bentonite to 5 Grout to Surface Stick-up Completion 5 gallons of water to hydration
	24						
	26						

PROJECT: RI AAP RI 14

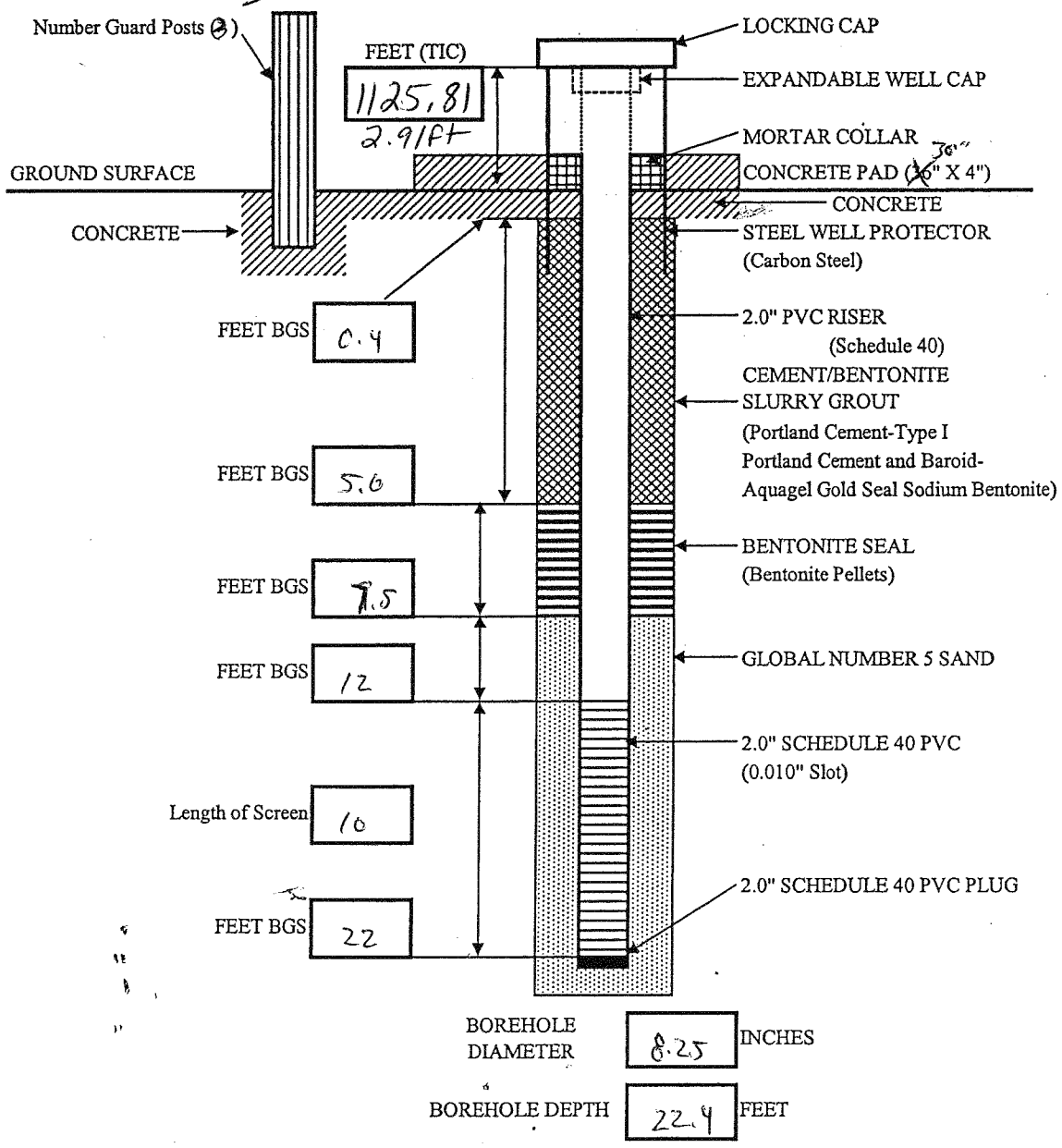
HOLE NO.: LLS mw 004

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: LLSmw 004	Begin: 09Dec04	End: 09Dec04
Coordinates: N: 554073.73 E: 2355006.44	Elevation: 1122.90	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

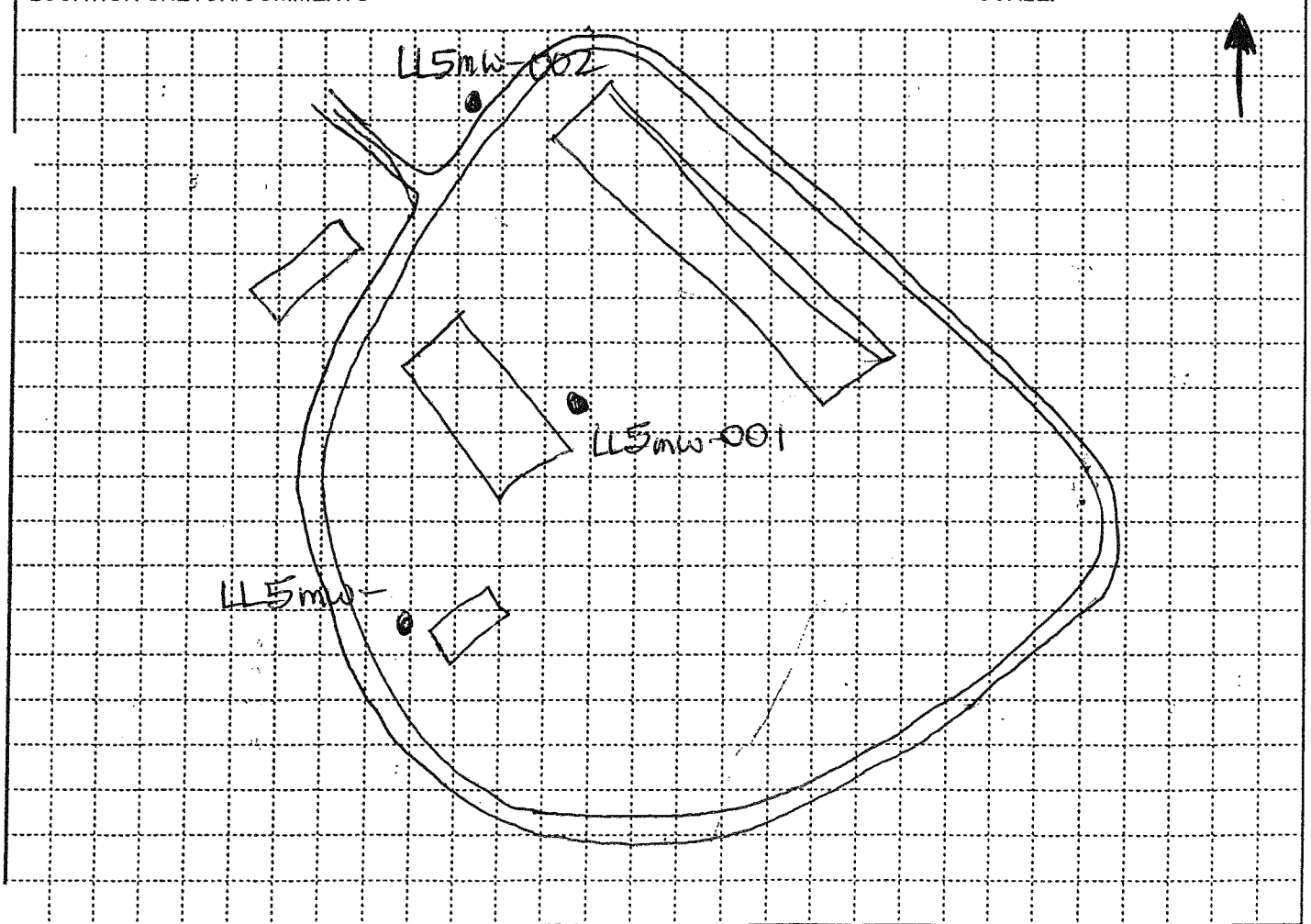
	DISTRICT: Louisville	HOLE NUMBER: LL5mw-005
1. COMPANY NAME: MEM Engineers Inc	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 5	
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 OD HSA; 2" Split Spoons	8. HOLE LOCATION: West side of LL	
	9. SURFACE ELEVATION: 1126.50 ASL	
	10. DATE STARTED: 10 Dec 04	11. DATE COMPLETED: 10 Dec 04
12. OVERBURDEN THICKNESS: 26	15. DEPTH GROUNDWATER ENCOUNTERED: 19, 24	
13. DEPTH DRILLED INTO ROCK: 1.8	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 19.1 @ 0922 12/21/04	
14. TOTAL DEPTH OF HOLE: 27.8	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTRIBUTED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	—	—	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY — %
—	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	LL5mw-005

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LLSmw-005

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
1015	0	0.9' Topsoil Dk Br. SILT 75% w/ Sand Damp Plastic No odor No staining No Plasticity	0.0	1.5	ML	1-1 2-3	7.5yr 5/6
	2	Changes to Dk Br + STIFF / Dry	0.0	1.1	ML	2-4 11-16	7.5Y-4/4
		White Mottles Begin					
	4	SAA	0.0	1.4	ML	2-7 8-12	SAA
	6	Br. SILT 65% w/ Sand Dry No odor No Plasticity No staining Fine Gravel Present	0.0	1.9	ML	2-4 7-9	SAA
	8	Br. SILT 65% w/ Sand wet No odor No staining No Plasticity Br. SILT 65% w/ Sand Dry No odor No staining No Plasticity	0.0	1.8	ML	1-2 6-7	SAA
	10	SAA	0.0	1.9	ML	1-8 9-16	SAA
	12	Br. SAND 80% w/ Silt Dry No odor No staining No Plasticity	0.0	1.7	SM	2-8 9-9	SAA
	14	Br. SILT 65% w/ Sand Dry No odor No staining No Plasticity	0.0	1.7	ML	2-4 8-9	SAA
		SAA					
	16	SAA	0.0	1.8	ML	2-7 17-11	SAA
	18	Br SAND 80% w/ Silt wet No odor No staining No Plasticity	0.0	2.0	ML SM	5-8 13-15	SAA
	20	Br. SILT 65% w/ Sand Dry No odor No staining No Plasticity			ML		

PROJECT: RVAAP RI 14

HOLE NO.: LLSmw-005

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL5MW005

PROJECT: RVAAP RF 14

INSPECTOR: Mark Dunlay

SHEET 3 OF 5 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
		SAA	0.0	1.9	ML	2 7	SAA
		2" SAND 85% w/silt wet No odor No Staining No Plasticity			SM	8 11	
	22	Redish Br. SILT 60% w Sand Damp No odor No Staining No Plasticity			ML	3-14	7.5y-5/6
		Redish Br. SAND 70% w/silt Dry No Odor No Plasticity Black and Red Striations	0.0	1.6	SM	16-17	
▽	24	Grey/Br. SAND 85% w/silt Saturated No odor No Plasticity No Staining	0.0	1.7	SM	8-12	7.5y-6/2
	26	Grey weathered SS Fragments				17-12	
		weathered SS			~~SPIKE~~		
	28	Bott 27.8					Bott 27.8 Sand up to 27 Screen from 27 to 17 Sand up to 19 Bentonite to 11 Grout to Surface Stick-up well Completion 5 gallons Hydration water used

PROJECT: RVAAP RF 14

HOLE NO.: LL5MW-005

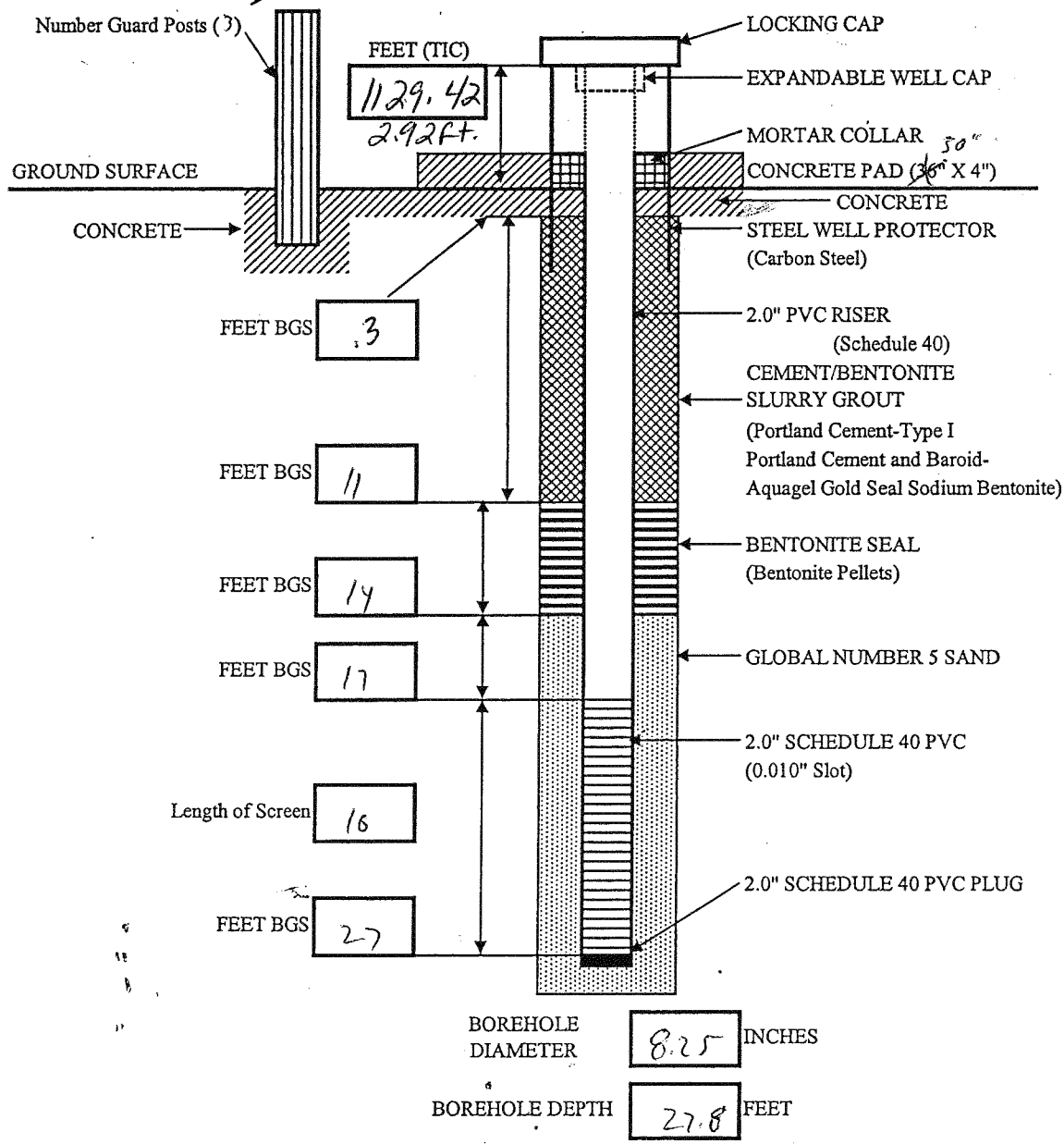
ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: LLSmw-005	Begin: 10 Dec 04	End: 10 Dec 04
Coordinates: N: 554152.73 E: 2354422.02	Elevation: 1126.50	Reference Point:
Logged By: MO'daly		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

	DISTRICT: Louisville	HOLE NUMBER: LL5mw-006
1. COMPANY NAME: MK ME Engineers	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF 3
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 5	
5. NAME OF DRILLER: Sam Keller	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC 60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 6.25 OD HSA; 2" Splitspoons	8. HOLE LOCATION: South west MW	
	9. SURFACE ELEVATION: 1125.10 ASL	
	10. DATE STARTED: 10 Dec 04	11. DATE COMPLETED: 10 Dec 04
12. OVERBURDEN THICKNESS: 22	15. DEPTH GROUNDWATER ENCOUNTERED: 18.21	
13. DEPTH DRILLED INTO ROCK: 2.5	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 17.5 @ 1256 12/21/04	
14. TOTAL DEPTH OF HOLE: 24.5	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

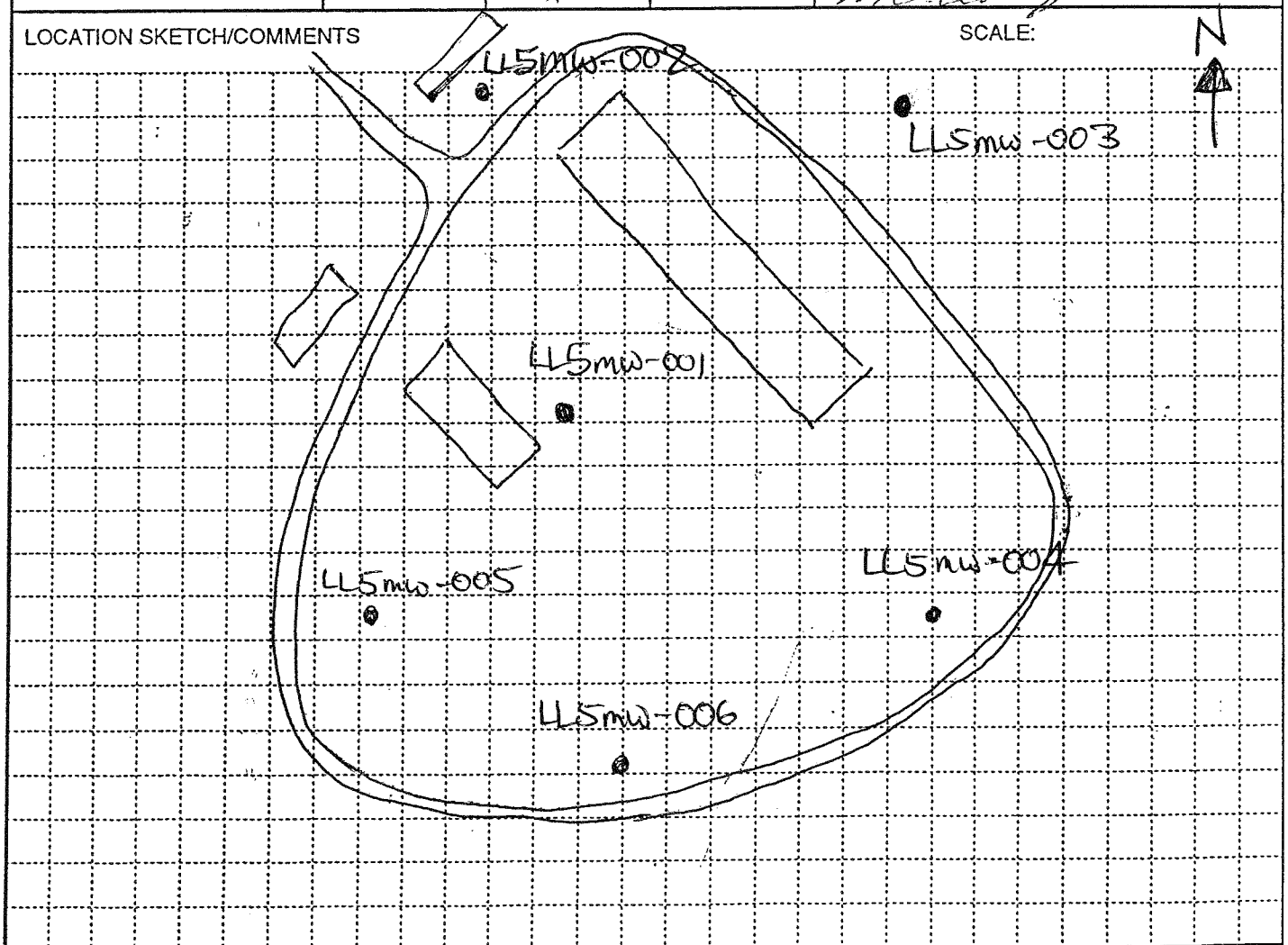
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 10'-12'	—	X	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY — %
—	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	M.D. Awly

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RI-14	LL5mw-006

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LLSMW-006

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. Recovery	ANALYTICAL SAMPLE NO. USCS	BLOW COUNT (g)	REMARKS (h)
0826	0	0.4 Topsoil Lt Br. SILT 65% w Sand Damp No odor No Plasticity Grey Mottling	0.5	1.5	ML	1-1 2-4	7.5y-6/6
	2	Dk Br. SILT 75% w/ Sand Dry Stiff No Odor No Plasticity Grey Mottles Present	0.0	1.5	ML	1-5 8-11	7.5y-4/6
	4	SAA	0.0	1.6	ML	3-6 8-11	SAA
	6	Br. SILT 65% w/ Sand Damp No odor No Staining No Plasticity	0.0	1.7	ML	1-4 8-4	7.5yr-5/4
	8	SAA	0.0	1.9	ML	1-1 6-9	SAA
	10	0845 10 Dec 09 Shelby Tube					
	12	Br. SILT 65% w/ Sand Damp No odor No Staining No Plasticity Change to Dry	0.5	1.7	ML	1-3 5-8	7.5yr-5/4
	14	SAA	0.0	1.4	ML	4-10 3-4	SAA
	16	SAA	0.0	1.8	ML	4-10 11-11	SAA
IT	18	Grey SILT 75% w/ Sand Dry No odor No staining No Plasticity wet @ 18.5 Br. SILT 60% w/ Sand & Fine Gravel Dry No Odor No Staining No Plasticity	0.0	1.9	ML	6-10 12-11	7.5yr-5/1 7.5yr 5/6
	20						

PROJECT: RVAAP RI 14

HOLE NO. LLSMW-006

ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL5mw-006

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
▽		SAA Br. SAND 85% w/ Silt Saturated No odor No staining Split-Spoon Refusal weathered SS Bedrock		1.4	ML SM	8 10 23 50/3	SAA
	22						
	24						
930		DOH 24.5					DOH 24.5 Sand up to 24 Screen from 24 to 14 Sand up to 11 Bentonite to 8 Grout to surface Stick-up Completion 5 gallons Hydration water used
	26						

PROJECT: RVAAP RI 14

HOLE NO. LL5mw-006

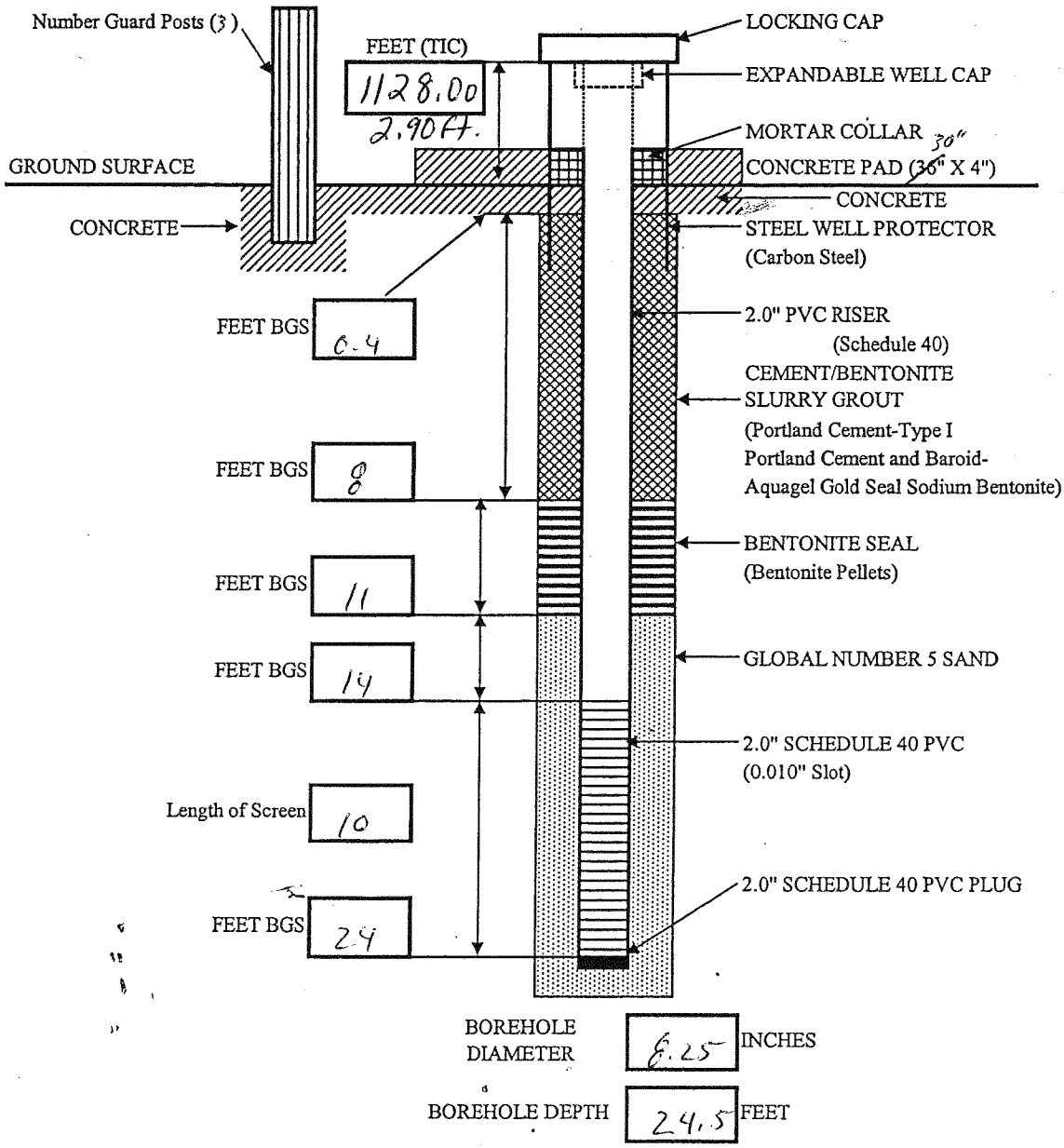
ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EC)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RIWAP RI 14

Well Number: LL5mw-006	Begin: 10 Dec 04	End: 10 Dec 04
Coordinates: N: 553984.82 E: 2354730.78	Elevation: 1125.10	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM Engineers Inc.	DISTRICT: Louisville	HOLE NUMBER: LL7mw-001
2. DRILL SUBCONTRACTOR: HAD Drilling Contractors		SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP RE 14	4. LOCATION: Load Line 7	
5. NAME OF DRILLER: Sam Walker	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" Split spoon; 6.25 OD HSA; 6.25 OD Air Rotary Hammer	8. HOLE LOCATION: North of 2B-9	
	9. SURFACE ELEVATION: 1126.90 ASL	
	10. DATE STARTED: 14 Jan 05	11. DATE COMPLETED: 14 Jan 05
12. OVERBURDEN THICKNESS: 14.4	15. DEPTH GROUNDWATER ENCOUNTERED: ~21	
13. DEPTH DRILLED INTO ROCK: 15.5	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 17.1 @ 1307 01/17/05	
14. TOTAL DEPTH OF HOLE: 29.9	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —	

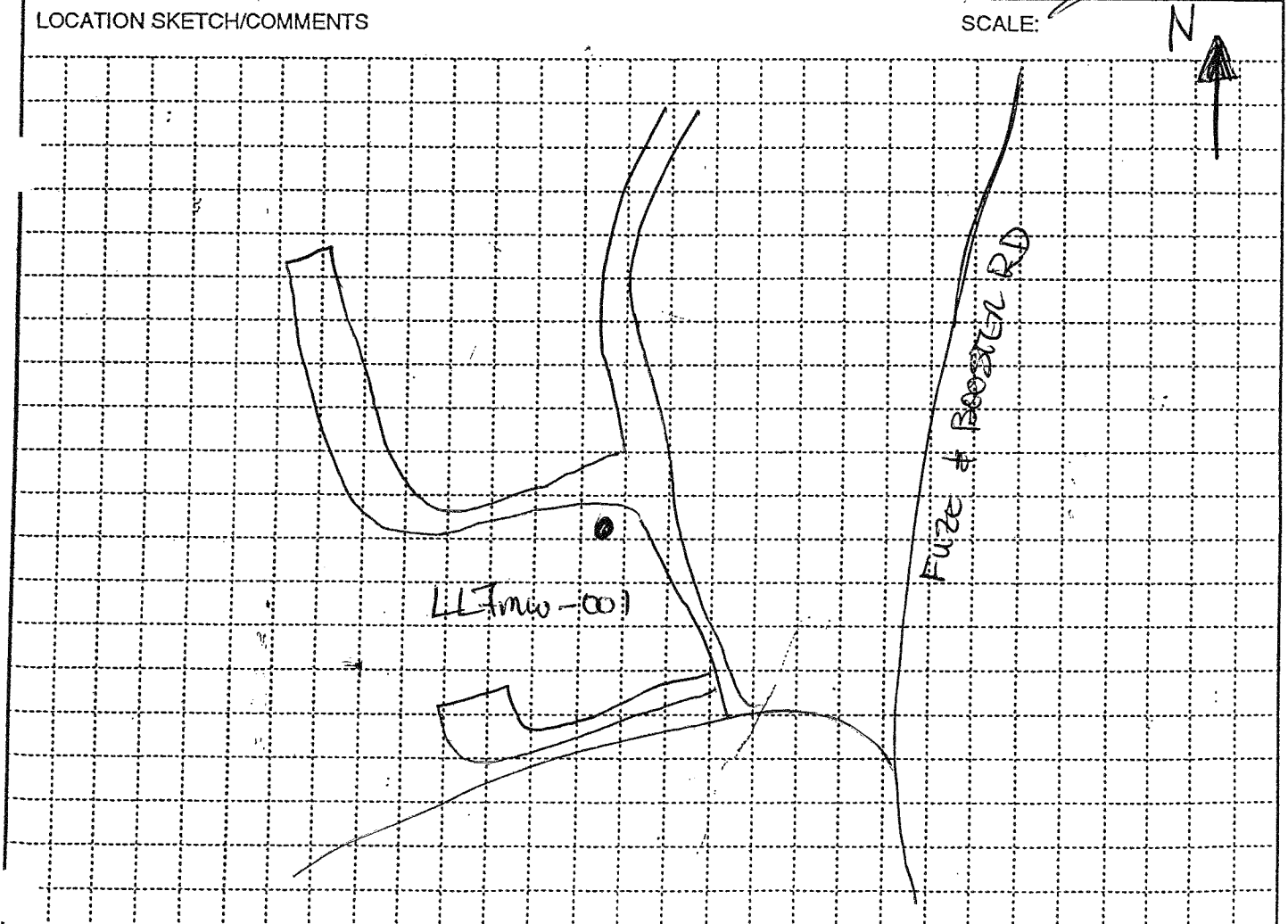
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	—	—	0

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY — %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RE 14	LL7mw-001

ENG FORM 5056-R, AUG 94

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LC)mw-001

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunkley

SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. Recovery	ANALYTICAL SAMPLE NO. USCS	BLOW COUNT (g)	REMARKS (h)
0845		4" Topsoil					
		Br. SILT 75% w/Sand Damp No Odor No Plasticity No Staining	0.0	1.2	ML	Push 1 3-2	7.5yr-5/4
	2	Br. SILT 80% w/ Sand and Clay Dry St/M No Odor No Plasticity Grey Mottling Present	0.0	1.0	ML	1-3 4-5	SAA
	4	Br. SILT 60% w/ Sand Dairy No Odor No Plasticity Red Iron Staining	0.0	1.7	ML	1-3 5-5	5yr 5/6
	6	Br. SILT 65% w/ Sand and Fine Gravel Dry No Odor No Plasticity No Staining					7.5yr 5/4
		Changes to wet @ 6.0					
		SHALE Rock Frag @ 7.0	0.0	1.7	ML	1-4 4-6	SAA
		Br. SILT 65% w/ Sand and Fine Gravel					
	8	Dry No Odor No Plasticity No Staining	0.0	1.6	ML	1-3 3-3	SAA
		SAA					
	10	SAA	6.0	1.6	ML SM	1-4 7-9	SAA
		Br SAND 70% w SILT Damp, No Odor No Plasticity No Staining					
	12	Br. SILT 65% w/ Sand and Fine Gravel Dry No Odor No Plasticity No Staining	6.0	1.7	ML	4-7 13-16	7.5yr 6/2
		Changes to Grey @ 13.2					
0915	14	Red/Br SAND 65% w/ Silt Dry Weathered Bedrock @ 14.4 ft Split Spoon Refusal		0.5	SM	9-50/2	
		Reddish Br. SANDSTONE, weathered Fine Grained					
	16						
	18						
	20						

PROJECT: RVAAP RI 14

HOLE NO. LC)mw-001

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL7mw001

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	~~ANALYTICAL SAMPLE NO.~~ USGS	BLOW COUNT (g)	REMARKS (h)
	20						
▽		Wet Cuttings @ ~21 ft					
	22						
	24	Color Changes to grey @ 24					7.5y-6/1
	26						
	28						
1030							
	30	BOH 29.9					BOH 29.9 Sand to 29.5' Screen from 29.5' to 19.5' Sand up to 16 Bentonite to 13 Grout to Surface Stick up well Completion No Hydration water used
	32						

PROJECT: RVAAP RI 14

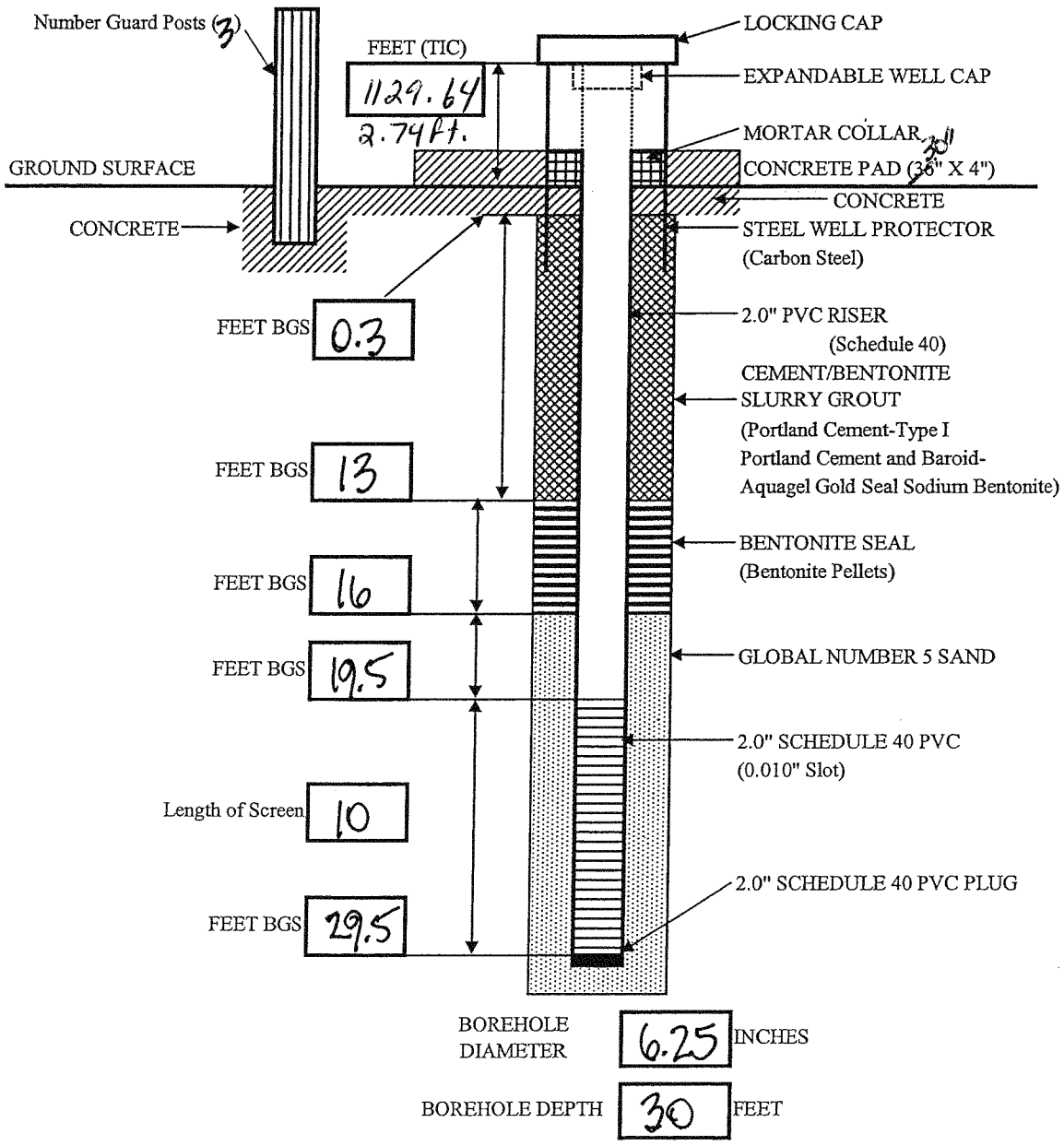
HOLE NO.: LL7mw-001

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project:

Well Number: LL7 MW-001	Begin: 01/14/05	End: 01/14/05
Coordinates: N: 554925.77 E: 2352192.91	Elevation: 1126.90	Reference Point:
Logged By: MARK DUDLEY		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

MW Const Dia 05Nov04.xls

HTRW DRILLING LOG

	DISTRICT: Louisville	HOLE NUMBER: LL7mw-002
1. COMPANY NAME: MKM Engineers	2. DRILL SUBCONTRACTOR: H-AD Drilling Contractors	SHEET 1 OF 5 SHEETS
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 7	
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 6.25 ID HSA; 2" Split Spoon; 2" Core Barrel ID; 6.25 OD Air Rotary Hammer	8. HOLE LOCATION: North of LB-18	
	9. SURFACE ELEVATION: 1126.70 ASL	
	10. DATE STARTED: 10 Jan 05	11. DATE COMPLETED: 11 Jan 05
12. OVERBURDEN THICKNESS: ~21.6 ft	15. DEPTH GROUNDWATER ENCOUNTERED: ~11.5, ~19, ~23	
13. DEPTH DRILLED INTO ROCK: 24.9	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 11.7' @ 0950 01/13/05	
14. TOTAL DEPTH OF HOLE: 26.5	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

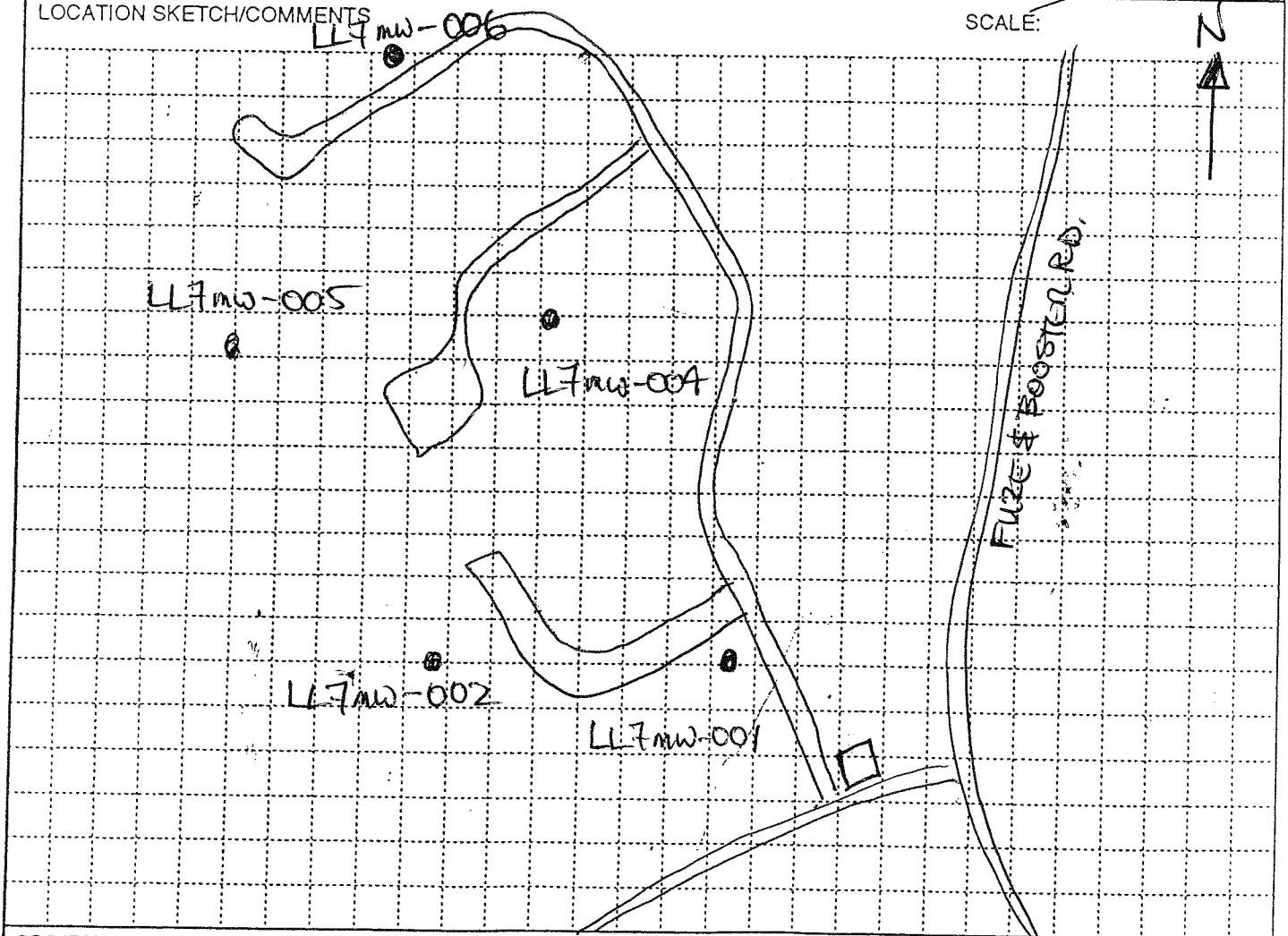
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	—	—	2 Boxes

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	—	—	—	—	—	70.5

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT: RVAAP RI 14

HOLE NO: LL7mw-002

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL7mw-002

PROJECT: RVAAP RI14

INSPECTOR: Mark Dunlay

SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. RECOVERY	ANALYTICAL SAMPLE NO. USCS	BLOW COUNT - (g)	REMARKS (h)
1515		0.3 Topsoil Damp				Weight to 6	
		Br. SILT 80% w/Sand Damp No Odor No Staining w/o Plasticity		1.6	ML		7.5y-5/4
		Lt.Br. SILT 65% w/Sand No Odor Damp No Plasticity Rd Iron Staining				SU/5	7.5y-6/4
	2	Weathered SS 5'-15 Split Spoon Refusal					
	4						
1550	6	Top of Core #1 @ 6.0					
		Lt. Br. Fine Grained Sandstone horizontal to 15° Bedding Planes - Black Striations Present - Iron Staining Present					Recovery = 74.4/114 = 65% RQD = 20.4/74.4 = 27.4%
	8						7.5y-7/4
	10						
V	12	Highly Fractured Zone btw 11.5-12.2 w/Iron Staining					
		Grey Fine Grained Sandstone w/Black Striations					5y-7/1
	14	Grey Very Fissle Shale, No recovery in Core due to highly fractured nature					7.5y-5/1
1620 0900		Bottom of Core #1 @ 15.5					
	16	DK. Grey/Black SHALE very fissle Small recovery due to wet clay near top of section, bottom of shale lost because of being dry					Recovery = 96.6/120 = 75.5 RQD = 27/96.6 = 29.8% 7.5y-5/1
	18	Grey Sandstone, Fine Grained Horizontal to 15° Bedding Planes - Black Striations Present - Black/Dk. Grey Vugs present w/ thin layers of shale to 24 Ft					5y-7/1
V	20						

PROJECT: RVAAP RI 14

HOLE NO.: LL7mw-002

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL7 mw-002

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT - (g)	REMARKS (h)
	22						SAA
V		V					
	24	Gray Fine-Med. Cemented Sandstone Horizontal Bedding Planes, well cemented					SAA
0940		Bottom of Core #2 @ 25.5					
	26						
		BOH 26.5					BOH 26.5 Sand to 25 Screen from 25 to 15 Sand up to 10 Bentonite to 7 Grout to Surface No Hydration water used Stick-up Completion
	28						
	30						

PROJECT: RVAAP RI 14

HOLE NO.: LL7 mw-002

ENG FORM 5056A-R, AUG 94

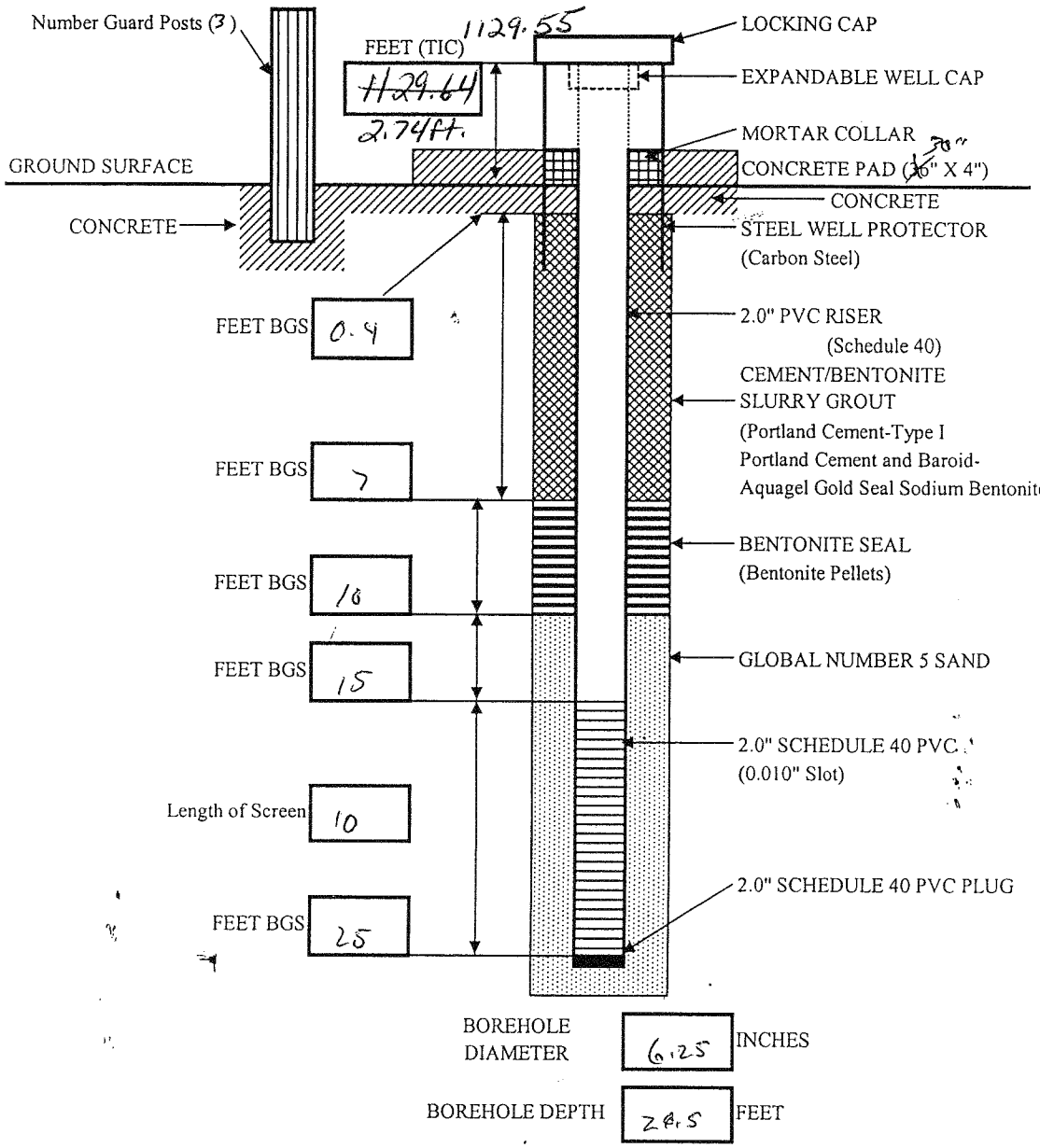
(Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: LL7mw-002-GW	Begin: 10 Jan 05	End: 11 Jan 05
Coordinates: N: ~~554925.77~~ 555126.55 ab E: ~~2352192.91~~ 2351918.23 ab	Elevation: ~~1126.90~~ 1126.70 ab	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM Engineers	DISTRICT: Louisville	HOLE NUMBER: LL7mw-003
2. DRILL SUBCONTRACTOR: AAD Drilling Contractors		SHEET 1 OF 3

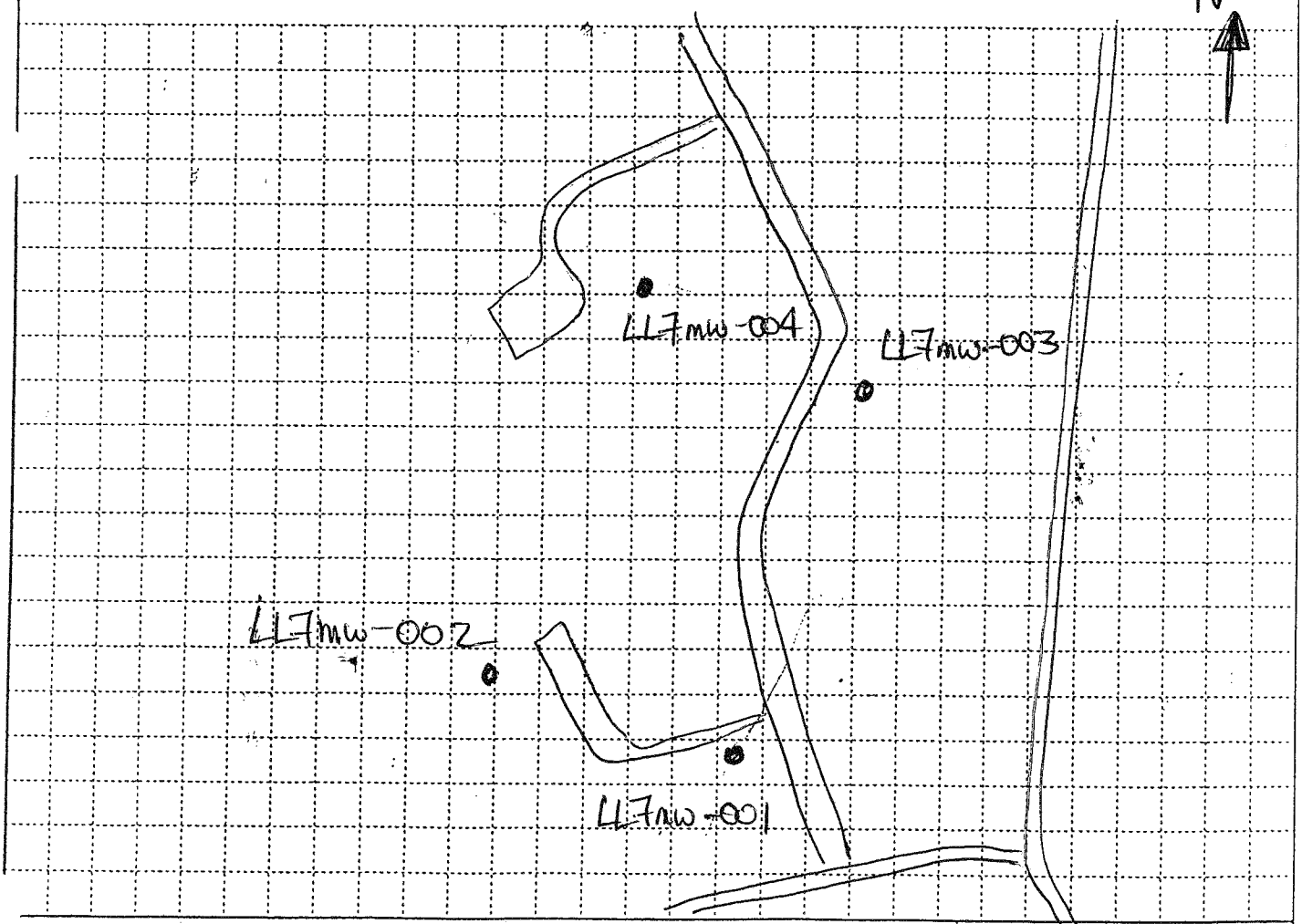
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 7
5. NAME OF DRILLER: Sam Holter	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" Split Spoons; 3" Shelby Tube; 6.25" ID HSA; 2" ID Core Barrel; 6.25" OD Air Rotary Hammer	8. HOLE LOCATION: East of 1B-3
	9. SURFACE ELEVATION: 1118.23 ASL
	10. DATE STARTED: 13 Jan 05 — 11. DATE COMPLETED: 13 Jan 05
12. OVERBURDEN THICKNESS: 16.9	15. DEPTH GROUNDWATER ENCOUNTERED: ~26
13. DEPTH DRILLED INTO ROCK: 14	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 8.3' @ 1445 01/17/05
14. TOTAL DEPTH OF HOLE: 31.5	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —

18. GEOTECHNICAL SAMPLES	DISTRIBUTED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 4'-6'	—	X	1

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	—	—	—	—	—	47.9%

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS — SCALE: N



PROJECT	HOLE NO.
RVAAP RI 14	LL7mw-003

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL7mw-003

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunkey

SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. Recovery	ANALYTICAL SAMPLE NO. USCS	BLOW COUNT (g)	REMARKS (h)
1050		6" Topsoil				Push 2	
		BS Rock Frag w/ Sand					
		Dk. Br. SILT 70% w Sand Damp	0.0	1.3	ML	4-3	7.5yr 4/2
	2	No Oder No Plasticity Iron Staining					
		Br. SILT 70% w/ Sand & Clay				1-3	
		Dry No Oder No Plasticity	0.0	1.4	ML		7.5yr 5/4
		Grey Mottling Present				6-7	
	4	1100					
		13 Jan 05 Shelby Tube					
	6	Br. SILT 65% w/ Sand and Fine Gravel				1-5	
		Dry No Oder No Plasticity No Staining	0.0	1.9	ML	7-10	7.5yr 5/4
	8						
		Br. SAND 65% w/ Silt Wet				1-7	
		No Oder No Staining No Plasticity	0.0	1.7	SM	5-3	SAA
	10	Br. SILT 70% w/ Sand and Fine Gravel					
		No Oder No Staining No Plasticity	0.0	1.3	ML	1-10	SAA
						11-13	
	12						
		Changes to Grey				1-3	
		SAA	0.0	1.6	ML	4-6	7.5yr 5/1
	14						
		SAA	0.0	1.1	ML	1-5	SAA
						6-8	
	16						
		Splitspoon Refusal @ 16.9	0.0	0.9		7/50/3	
		Weathered SANDSTONE Bedrock					
	18	Grey Fine Grained					
		Shale encountered w/ air rotary hammer @ 19 Ft	0.0				7.5yr 4/1
	20	Grey/Black very Fissile					

PROJECT: RVAAP RI 14

HOLE NO.: LL3mw-003

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL7mw-003

PROJECT: RV AAP RI (4)

INSPECTOR: Mark Dunlevy

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT - (g)	REMARKS (h)
1250	20	Top of Core #1 @ 20.2					Recovery = $\frac{56.4}{117.6}$ = 47.9%
		Dk. Grey/Black SHALE Fissle					RQD = $\frac{10.8}{56.4}$ = 19.1%
		very little recovery of the shale layer due the thin horizontal layers					7.5yr 4/1
	22						
	24						
▽	26	Grey Fine Grained SANDSTONE horizontal to 35° bedding planes black Striations present					7.5yr 7/1
		26.4 to 29.3 contained Vertical Fracture w/ Iron Staining					
	28						
1320	30	Bottom of Core #1 @ 30.0					
1400							
	32	BOH 31.5					BOH 31.5 Sand up to 31 Screen from 31 to 21 Sand up to 18 Bentonite to 15 Grout to Surface Stick-up well Completion No Hydration water used

PROJECT: RV AAP RI (4)

HOLE NO.: LL7mw-003

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

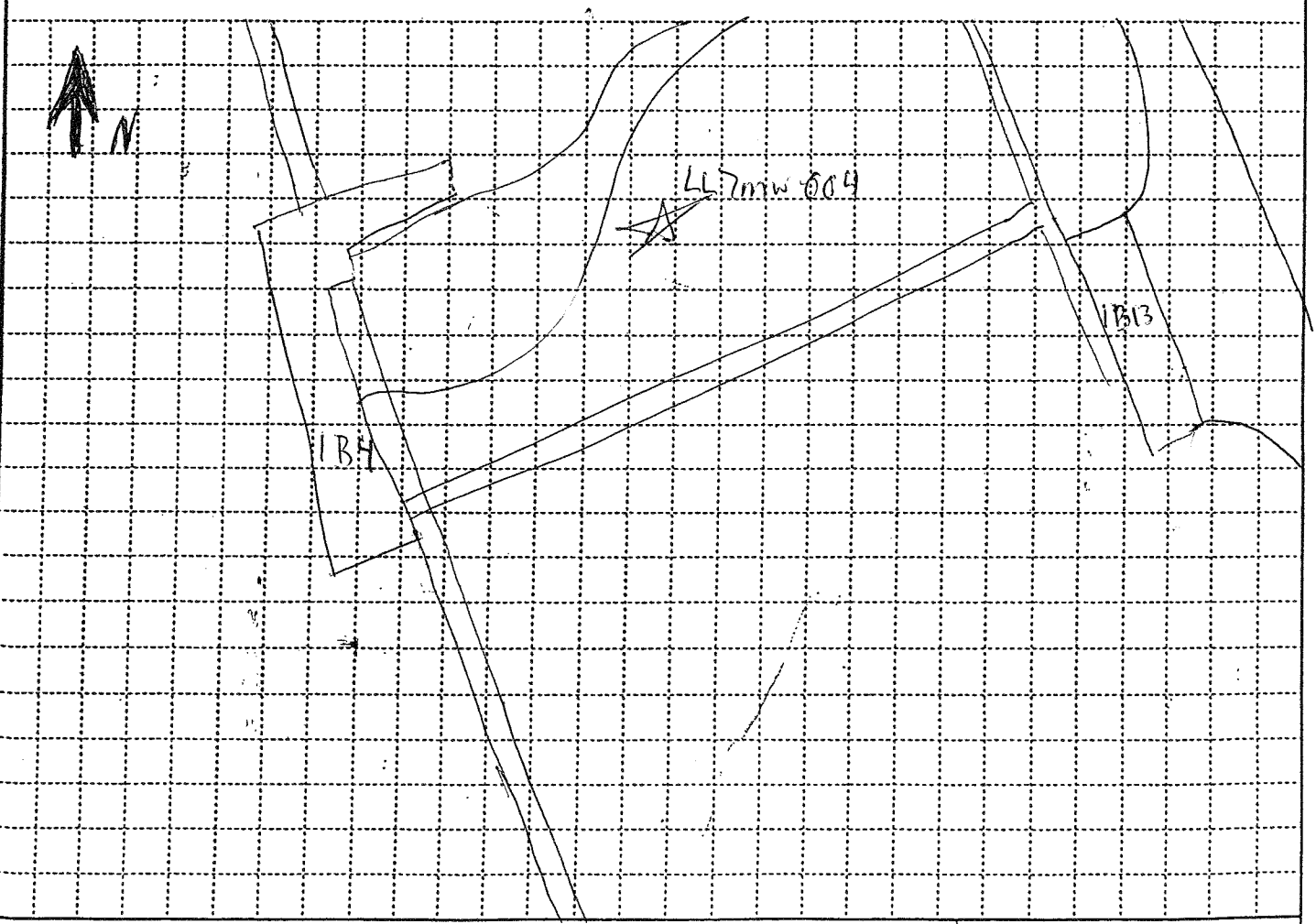
	DISTRICT: Louisville	HOLE NUMBER: LL7mw-004
1. COMPANY NAME: M&M Engineers	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF SHEETS 3
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 7	
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 6.25" ID HSA; 2" Split Spoons; 6.250D Air Rotary Hammer	8. HOLE LOCATION: Eastof 2B-4	
	9. SURFACE ELEVATION: 1123.30 ASL	
	10. DATE STARTED: 12 Jan 05	11. DATE COMPLETED: 13 Jan 05
12. OVERBURDEN THICKNESS: 9.5	15. DEPTH GROUNDWATER ENCOUNTERED: ~21 ft	
13. DEPTH DRILLED INTO ROCK: 20	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 11.85 @ 0935 01/17/05	
14. TOTAL DEPTH OF HOLE: 29.5	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —	

18. GEOTECHNICAL SAMPLES	DISTRIBUTED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	—	—	0

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	—	—	—	—	—	0 %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	LL7mw-004

ENG FORM 5056-R, AUG 94 (Proponent CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL7mw-004

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ Recovery	~~ANALYTICAL SAMPLE NO.~~ LL63	BLOW COUNT (g)	REMARKS (h)
1545		6" Topsoil				Push -1	
		Lt. Br. SILT 65% w/ Sand Damp No Odor No Plasticity Grey Mottling	0.0	1.7	ML	2-4	7.5yr 5/6
	2						
			1.3			1-3	
			0.0		ML	6-7	
	4	Br. SILT 70% w Sand Dry No Odor No Plasticity No Staining					7.5yr 5/4
			0.0	1.8	ML	1-4	
						5-8	
	6						
		SAA			ML	2-12	SAA
			0.0	1.8			
		Grey SAND 70% w SILT dry No Odor No Staining No Plasticity			SM	17-25	7.5yr 6/3
	8	Br. SILT 65% w Sand dry No Odor. No Staining No Plasticity					
			0.0	1.5	ML	4-10	7.5yr 5/6
1550		weathered Sandstone @ 9.5 Split spoon Refusal				4/50	
0755	10	Lt. Br. w/Red SANDSTONE weathered					7.5yr 7/6
	12						
	14						
		Color Changes to Grey @ 15.5					7.5yr 6/1
	16	Intermittent SHALE and SANDSTONE Layers between 15 and 18 Ft					7.5yr 4/1
		Black SHALE					+
		Grey SANDSTONE					7.5yr 6/1
	18	Grey Fine Grained SANDSTONE					7.5yr 6/1
	20						

PROJECT: RVAAP RI 14

HOLE NO.: LL7mw 004

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL7mw-004

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	22	Grey Fine Grained SANDSTONE					7.5Y-6/1
V		Cuttings become wet @ ~21.5 ft A					
	22						
	24						
	26						
	28						
0850							
	30	TD of 29.5					BoH 29.5 Screen from 29.5 to 19.5 Sand up to 16 Bentonite to 13 Grout to Surface Stick-up well Completion No water used Hydrate

PROJECT: RVAAP RI 14

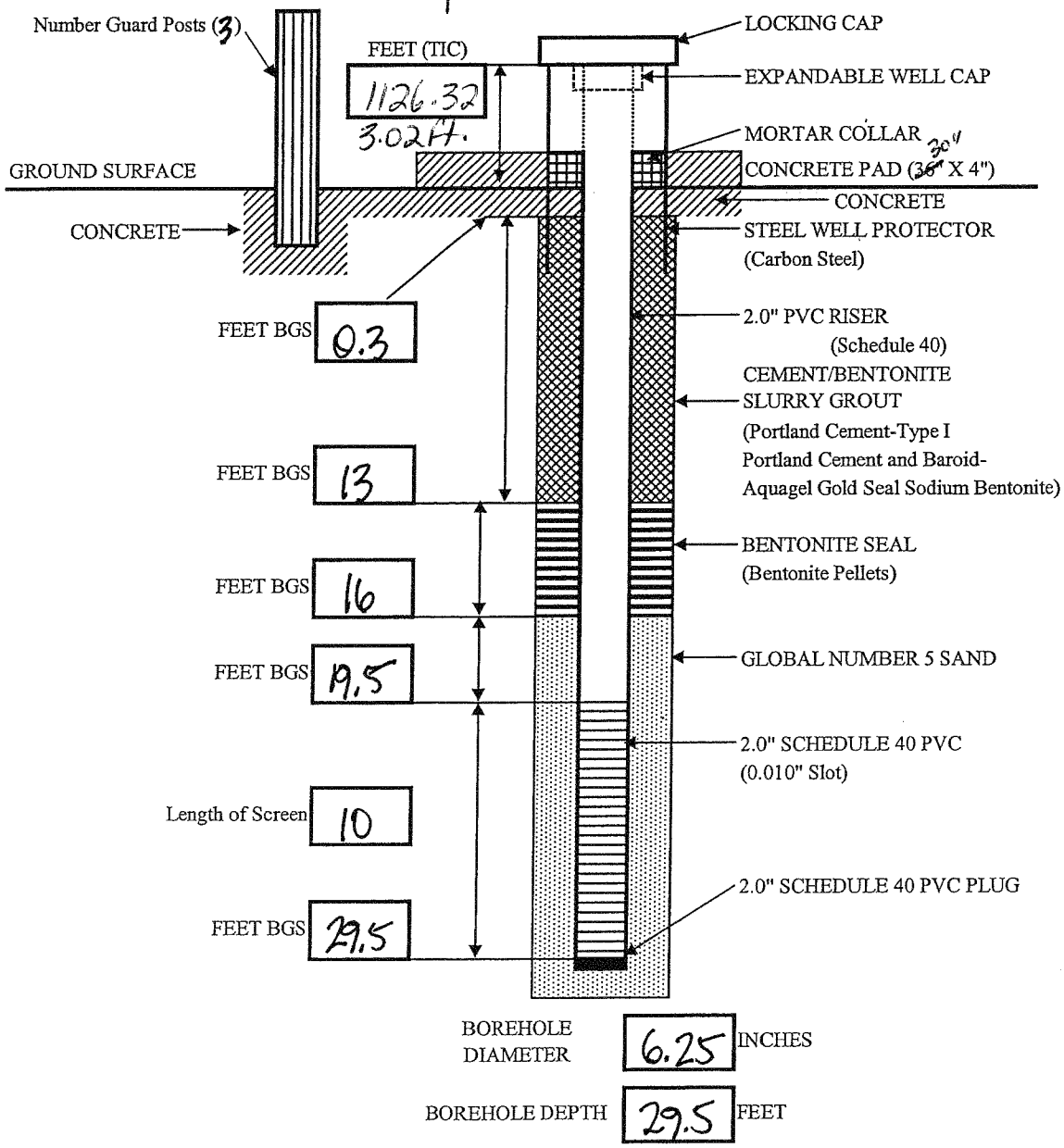
HOLE NO.: LL7mw-004

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project:

Well Number: LL7mw-004	Begin: 01/12/05	End: 01/13/05
Coordinates: N: 555581.14 E: 2352035.20	Elevation: 1123.30	Reference Point:
Logged By: MARK DUNLEVY		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

MW Const Dia 05Nov04.xls

HTRW DRILLING LOG

DISTRICT: Louisville		HOLE NUMBER: LL7mw-005
1. COMPANY NAME: MLM Engineers	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF SHEETS 3
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 7	
5. NAME OF DRILLER: Sam Holter	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" Split Spoon; 3" Shelby Tube; 6.25" ID HSA; 6.25" OD Air Rotary Hammer	8. HOLE LOCATION: West of 2B-4	
	9. SURFACE ELEVATION: 1133.30 ASL	
	10. DATE STARTED: 11 Jan 05	11. DATE COMPLETED: 11 Jan 05
12. OVERBURDEN THICKNESS: 2.0	15. DEPTH GROUNDWATER ENCOUNTERED: ~21	
13. DEPTH DRILLED INTO ROCK: 26.2	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 17.35' @ 1345 01/13/05	
14. TOTAL DEPTH OF HOLE: 28.2	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

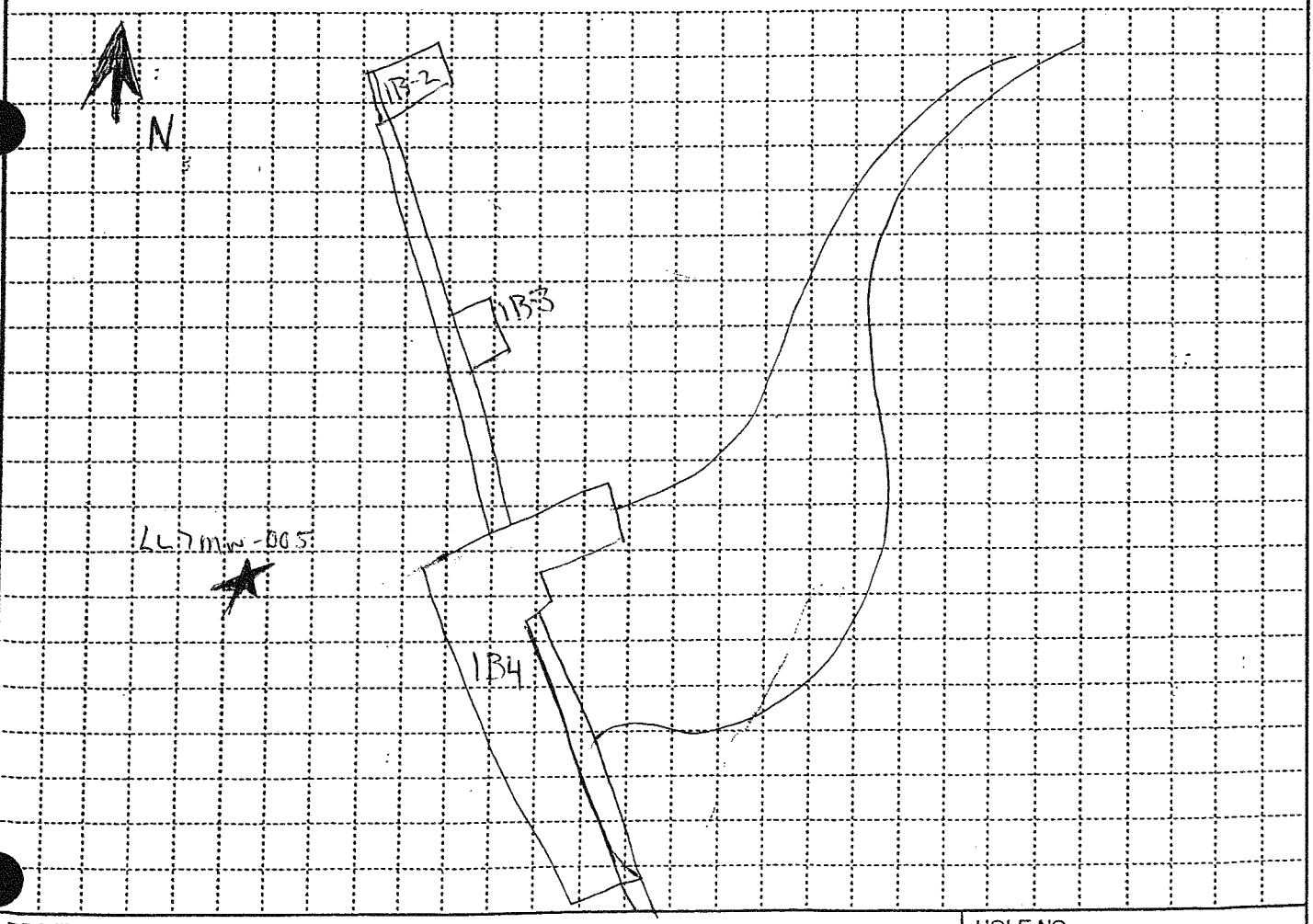
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
Shelby Tube 0-2 ft	—	X	0

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY — %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	[signature]

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT: RVAAP RI 14	HOLE NO.: LL7mw-005

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL7mw-005

PROJECT: RUAAP RI 14

INSPECTOR: Mark Dunkey

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. Recovery (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
1415		6" Topsoil				Push - 2	Shelby Tube Taken from 0-2 ft 1426
		Reddish Br. SAND 70% w/silt Damp No Odor No Plasticity Red Iron Staining	0.0	1.7		4-7	7.5yr 5/6
	2	SPLIT SPOON Refusal @ 2.0					
		Reddish Br. Sandstone highly weathered					2.5yr 5/6
	4	Becomes more competent @ 4.0					
	6						
		Color Changes @ 7.0					7.5yr 5/6
	8						7
	10						
		DK. Grey/Black Shale very fissle Soft					
	12						7.5yr 4/1
	14						
	16						
	18						
		Grey Sandstone hard Fine Grained					7.5yr 7/2
	20						

PROJECT: RUAAP RI 14

HOLE NO. LL7mw-005

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL7mw-005

PROJECT: RVAAP RI/4

INSPECTOR: Mark Dunlevy

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
▽	20	Saturated/wet Cuttings below Shale					
	22	SAA					SAA
	24						
	26						
1515	28	BOH 28.2					BOH 28.2 Screen from 28 to 18 Sand up to 15 Bentonite to 12 Grout to Surface Stick-up well completion No Hydration water used
	30						

PROJECT: RVAAP RI/4

HOLE NO. LL7mw-005

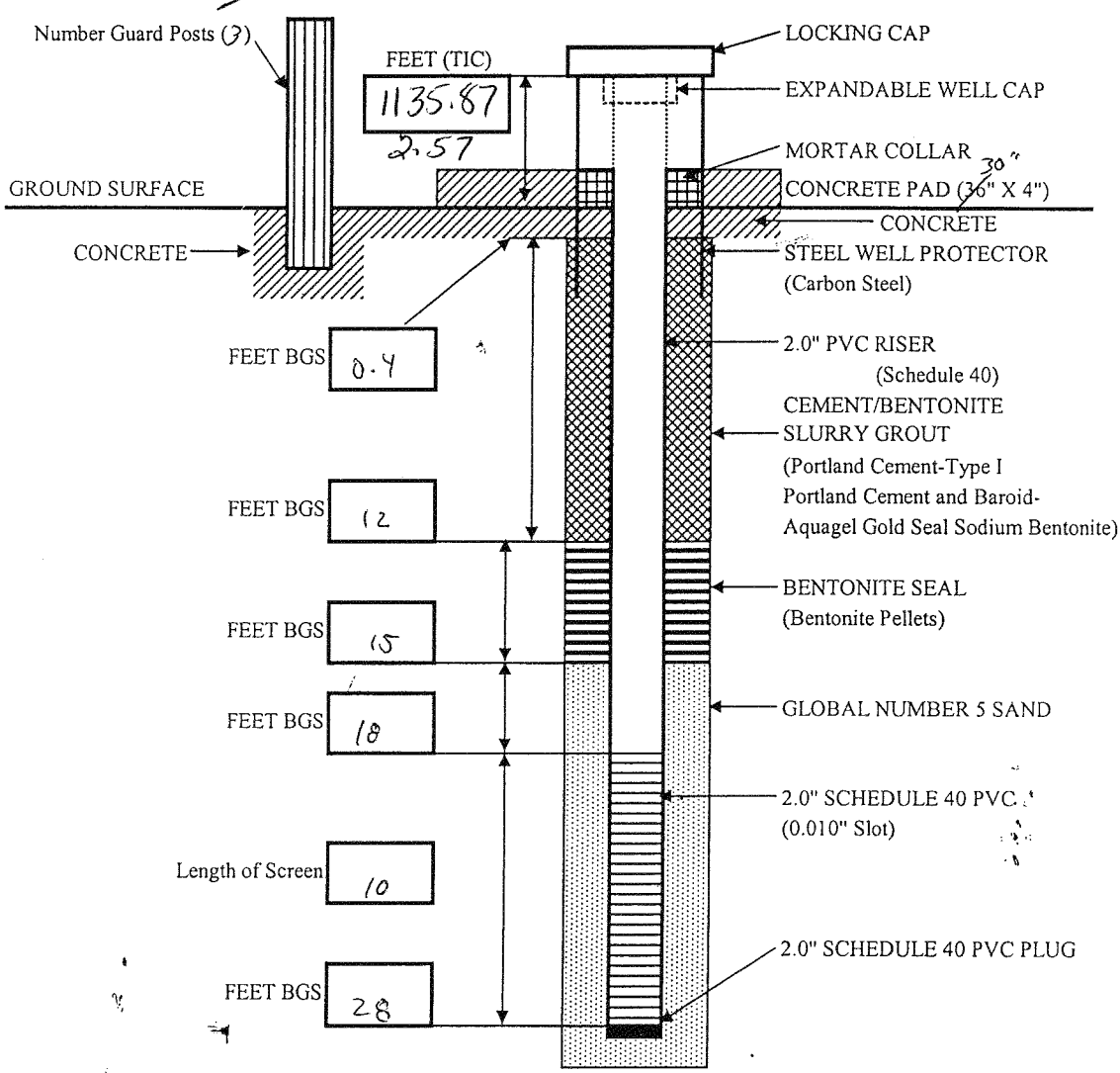
MKM

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAPRR1Y

Well Number: LL7mw-005	Begin: 11 Jan 05	End: 11 Jan 05
Coordinates: N: 555581.80 E: 2351741.47	Elevation: 1133.30	Reference Point:
Logged By: [signature]		



BOREHOLE DIAMETER	6.25	INCHES
BOREHOLE DEPTH	28.2	FEET

Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

	DISTRICT: Louisville	HOLE NUMBER: LL7mw-006
1. COMPANY NAME: MK M Engineers Inc	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 7	
5. NAME OF DRILLER: Sam Holder	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 6.25 ID HSA; 3" Shelby Tube; 2" Split Spoon; 2" ID Core Barrel; 6.25 OD Air Rotary Hammer	8. HOLE LOCATION: NE of 1B-2	
	9. SURFACE ELEVATION: 1120.70 ASL	
	10. DATE STARTED: 12 Jan 05	11. DATE COMPLETED: 12 Jan 05
12. OVERBURDEN THICKNESS: 10.1	15. DEPTH GROUNDWATER ENCOUNTERED: ~19	
13. DEPTH DRILLED INTO ROCK: 18	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 7.95 @ 0945 01/14/05	
14. TOTAL DEPTH OF HOLE: 28.1	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

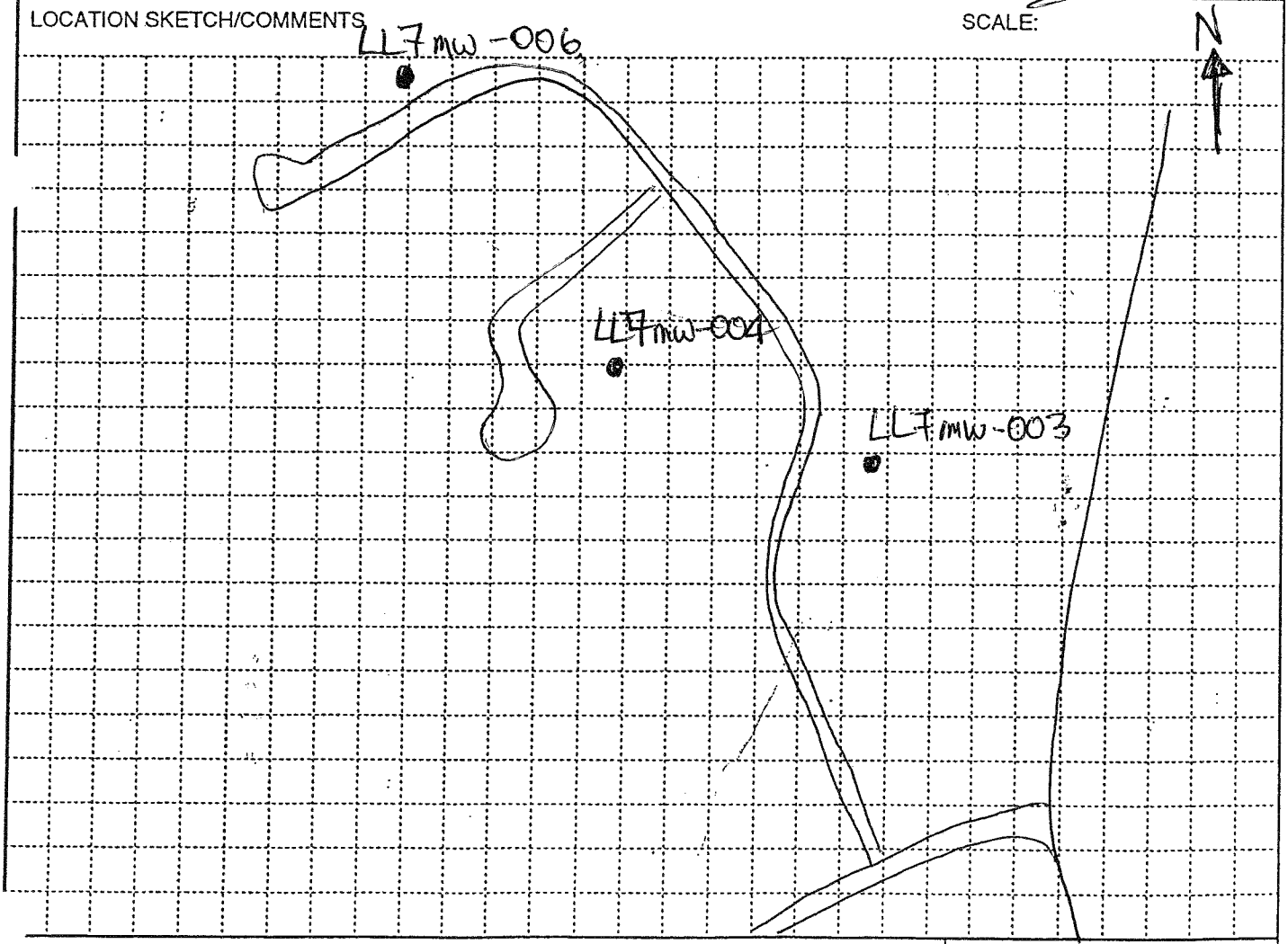
18. GEOTECHNICAL SAMPLES	DISTRIBUTED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 2'A'	—	X	2

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	—	—	—	—	—	72%

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
—	—	X	—	

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	LL7mw-006

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL7 mw-006

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
0840	0	6" Topsoil Br. SILT 70% w/Sand Damp/wet No Odor No Staining No Plasticity Grey Mottling	0.0	1.7	ML	Weight	7.5yr 4/6
	2	Shelby Tube					0845 12 Jan 05
	4	Br. SILT 65% w/Sand Damp No Odor No Plasticity No Staining				1-4	7.5yr 4/6
		Reddish Br. SILT 70% w/Sand Damp No Odor No Plasticity ~~Iron~~ Stained		1.7	ML	4-12	5yr 5/6
	6						
		Br. SAND 75% w/Silt Damp No Odor No Plasticity No Staining				9-32	7.5yr 4/6
	8			1.4	SM	42-20	
		Changes to Dk. Br.				4-10	7.5yr 4/6
	10			1.2	SM		
		Split Spoon Refusal @ 10.1 Weathered SS Bedrock				12-4	
1015	12	Top of Core #2 @ 12.0					Recovery = $\frac{61.2}{108}$ = 56.7% RQD = $\frac{8.4}{61.2}$ = 13.7%
	14						
		Dk. Grey/Black SHALE very fissile No Recovery in Core Barrel due to Fractured Nature					
	16						
	18						
V							
	20						

PROJECT: RVAAP RI 14

HOLE NO.: LL7 mw-006

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: CL)mw-006

PROJECT: RVAAP RI14

INSPECTOR: Mark Dunlevy

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
1110		Bottom of Core #1 @ 21.4'					
1125	22	Grey fine grained Sandstone horizontal to 25° Bedding Planes Black Strations Throughout					Recovery = 65.4/66 = 99% RQD = 18/65.4 = 27.5 % 7.5y 6/1
	24						
1155	26	Bottom of Core # 2 @ 26.5					
	28	BOH 28 Ft					BOH 28 Sand up to 27.5 Screen from 27.5 to 17.5 Sand up to 14 Bentonite to 11 Grout to Surface Stick-up well Completion No Hydration water Used
	30						

PROJECT: RVAAP RI 14

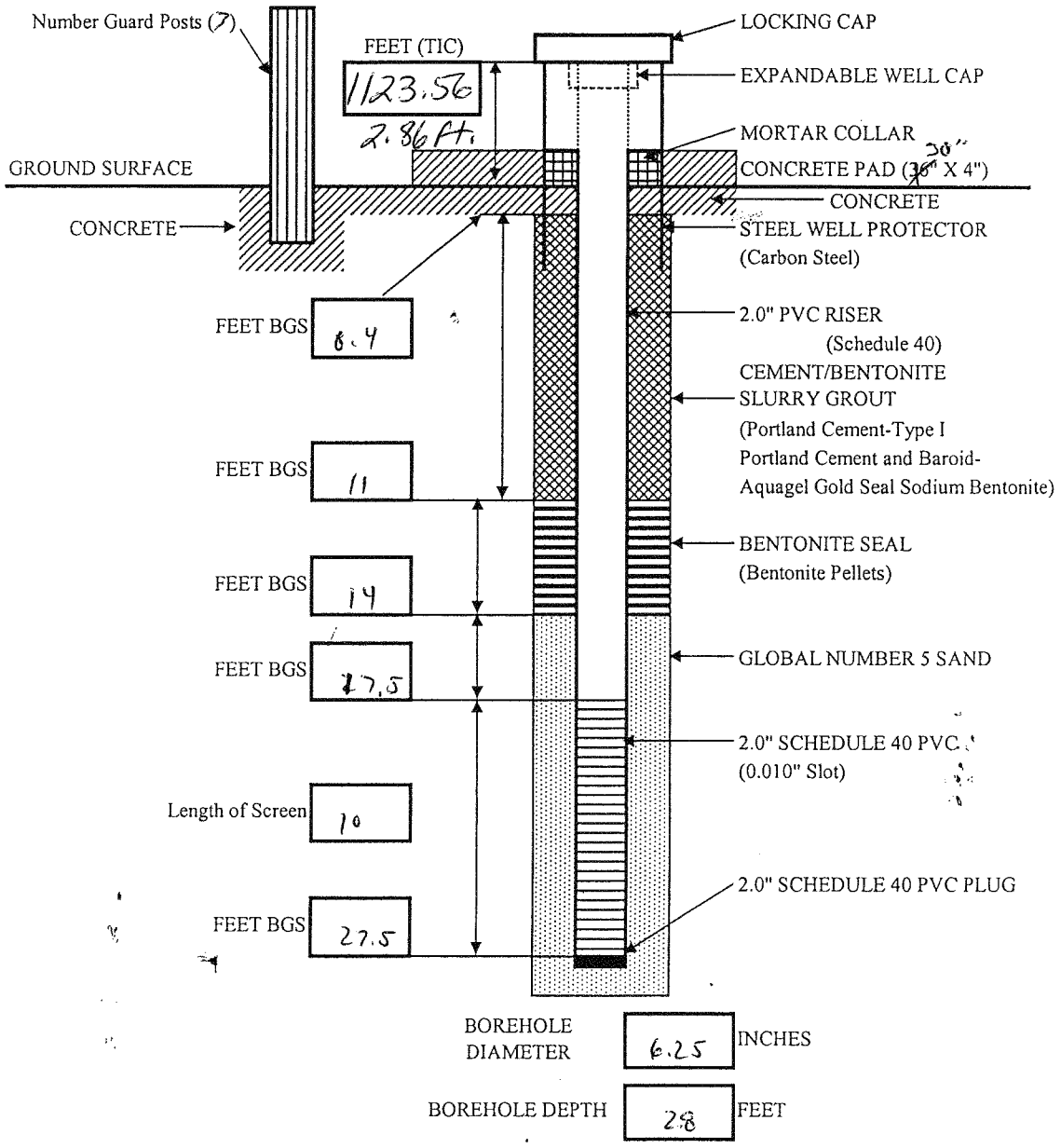
HOLE NO.: CL)mw-006

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAPRI 14

Well Number: LL7mw-006	Begin: 12 Jan 05	End: 12 Jan 05
Coordinates: N: 555990.59 E: 2351879.92	Elevation: 1120.70	Reference Point:
Logged By: M.D. Daly		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

TRW DRILLING LOG

DISTRICT: Louisville		HOLE NUMBER: LLBmw-001
1. COMPANY NAME: MCM Engineers	2. DRILL SUBCONTRACTOR: A&B Drilling Contractors	SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP RE IV	4. LOCATION: Load Line 8	
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 OD HSA; 2" Split Spoons	8. HOLE LOCATION: Near Gate House	
	9. SURFACE ELEVATION: 1118.69 ASL	
	10. DATE STARTED: 08 Dec 04	11. DATE COMPLETED: 08 Dec 04
12. OVERBURDEN THICKNESS: 24.0	15. DEPTH GROUNDWATER ENCOUNTERED: 16.4, 16'	
13. DEPTH DRILLED INTO ROCK: 0	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 9.3' @ 0930 12/15/04	
14. TOTAL DEPTH OF HOLE: 24.0	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —	

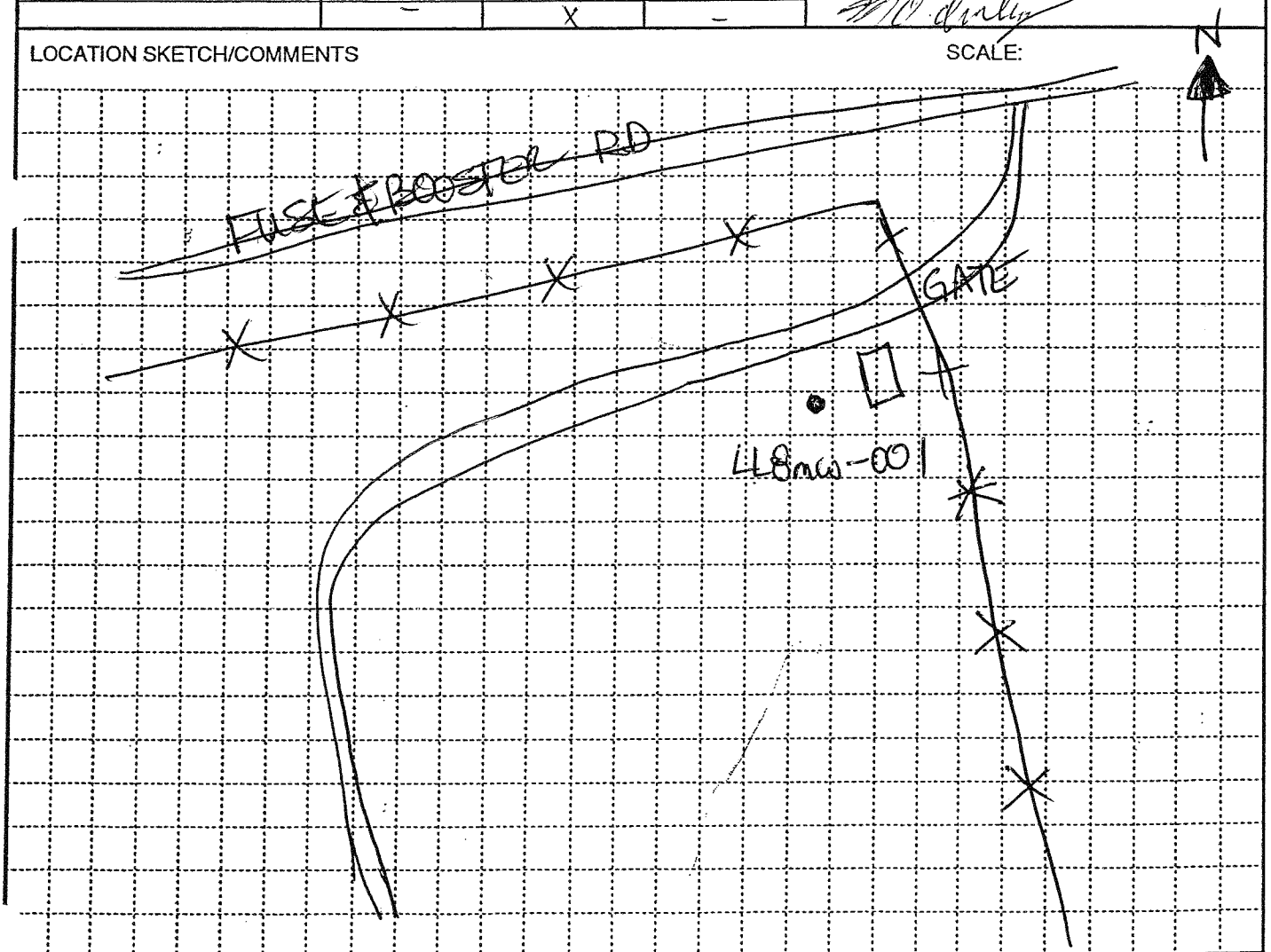
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 10-12'	—	X	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY — %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RE IV	LLBmw-001

ENG FORM 5056-R, AUG 94

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: 48mw001

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlop

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e) Recovery	ANALYTICAL SAMPLE NO. USCS	BLOW COUNT (g)	REMARKS (h)
		1.5 ft Topsoil	0.0	1.7		1-1	
		Redish Br. SILT 65% w/ Sand Damp Gravel Present No odor No staining No Plasticity			ML	3-4	7.5yr 5/6
	2	Dk Br. SILT 70% w/ Sand Dry No odor No Plasticity Grey Mottling Present	0.0	1.0	ML	2-3 5-7	7.5yr 4/4
	4	SAA	0.5	1.9	ML	2-6 1-11	SAA
	6	SAA	0.0	2.0	ML	2-8 16-22	SAA
	8	SAA	0.0	1.7	ML	1-2 10-13	SAA
	10	0840 08 Dec 04 Shelby Tube					
	12	Br. SILT 65% w/ Sand Damp No Odor No Staining No Plasticity	0.0	1.6	ML	2-4 5	7.5yr 4/6
	14	1/2" Sand Layer wet Br. SILT 65% w/ Sand Damp No Odor No staining No Plasticity	0.0	0.7	ML	2-12 6-8	SAA
▽	16	wet/Saturated SAA	0.0	0.7	ML	1-5 7-6	SAA
▽	18	Grey SILT 65% w/ Sand Damp No Odor No Staining No Plasticity	0.0	1.7	ML	1-2 3-5	7.5yr 5/1

PROJECT: RVAAP RI 14

HOLE NO. 228MW-001

ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LLBmw-001

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. USCS	BLOW COUNT (g)	REMARKS (h)
		SAA Grey SAND 85% w/ Silt Wet/saturated No Staining No Plasticity		1-7	ML SM	1-2 1-5	SAA
	22	SAA		1-6	SM	1-7 16-24	SAA
	24						Bent 24 Screen from 24 to 14 Sand up to 6.5 Sand Bridged Bentonite to 4 Grout to Surface Stick-up Completion 5 gallons of water used for Hydration
	26						
	28						

PROJECT: RVAAP RI 14

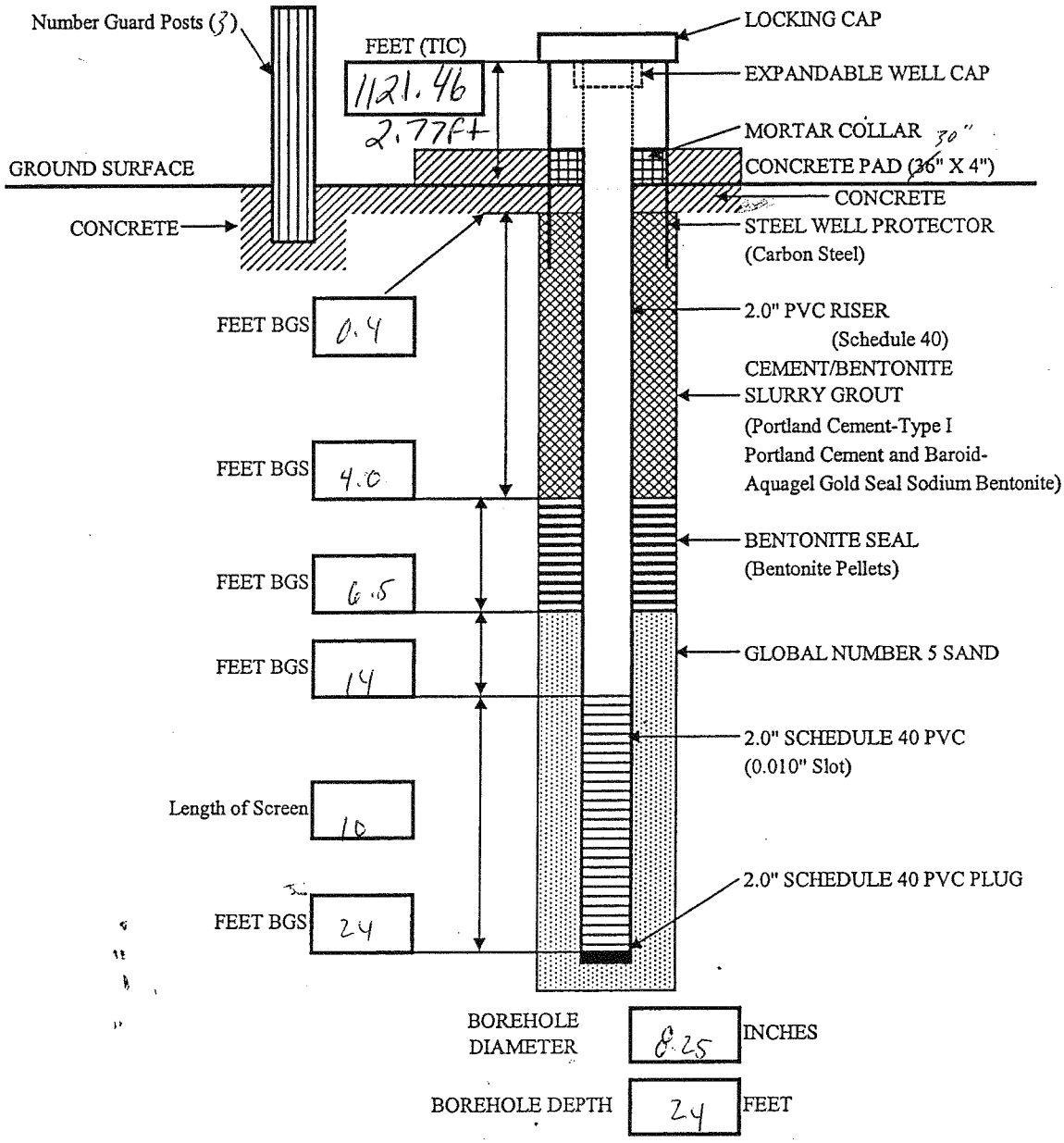
HOLE NO.: LLBmw-001

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RI/FS RI 14

Well Number: LL8mw-001 ~~TOBE~~	Begin: 08Dec04	End: 08Dec04
Coordinates: N: 552607.06 E: 2351666.10	Elevation: 1118.69	Reference Point:
Logged By: MJ Darby		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM Engineers	DISTRICT: Louisville	HOLE NUMBER: LL8mw-002
2. DRILL SUBCONTRACTOR: HAD Drilling Contractors		SHEET 1 OF 3
3. PROJECT: RVAAP RI 14	4. LOCATION: North of 2B-21 Load Line 8	
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-CCGO	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 OD HSA; 2" Split Spoons	8. HOLE LOCATION: North of 2B-21	
	9. SURFACE ELEVATION: 1121.67 ASL	
	10. DATE STARTED: 03Dec04	11. DATE COMPLETED: 03Dec04
12. OVERBURDEN THICKNESS: 30.4	15. DEPTH GROUNDWATER ENCOUNTERED: 20ft	
13. DEPTH DRILLED INTO ROCK: 0.0	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 16.3' @ 0950 12/13/04	
14. TOTAL DEPTH OF HOLE: 30.4	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

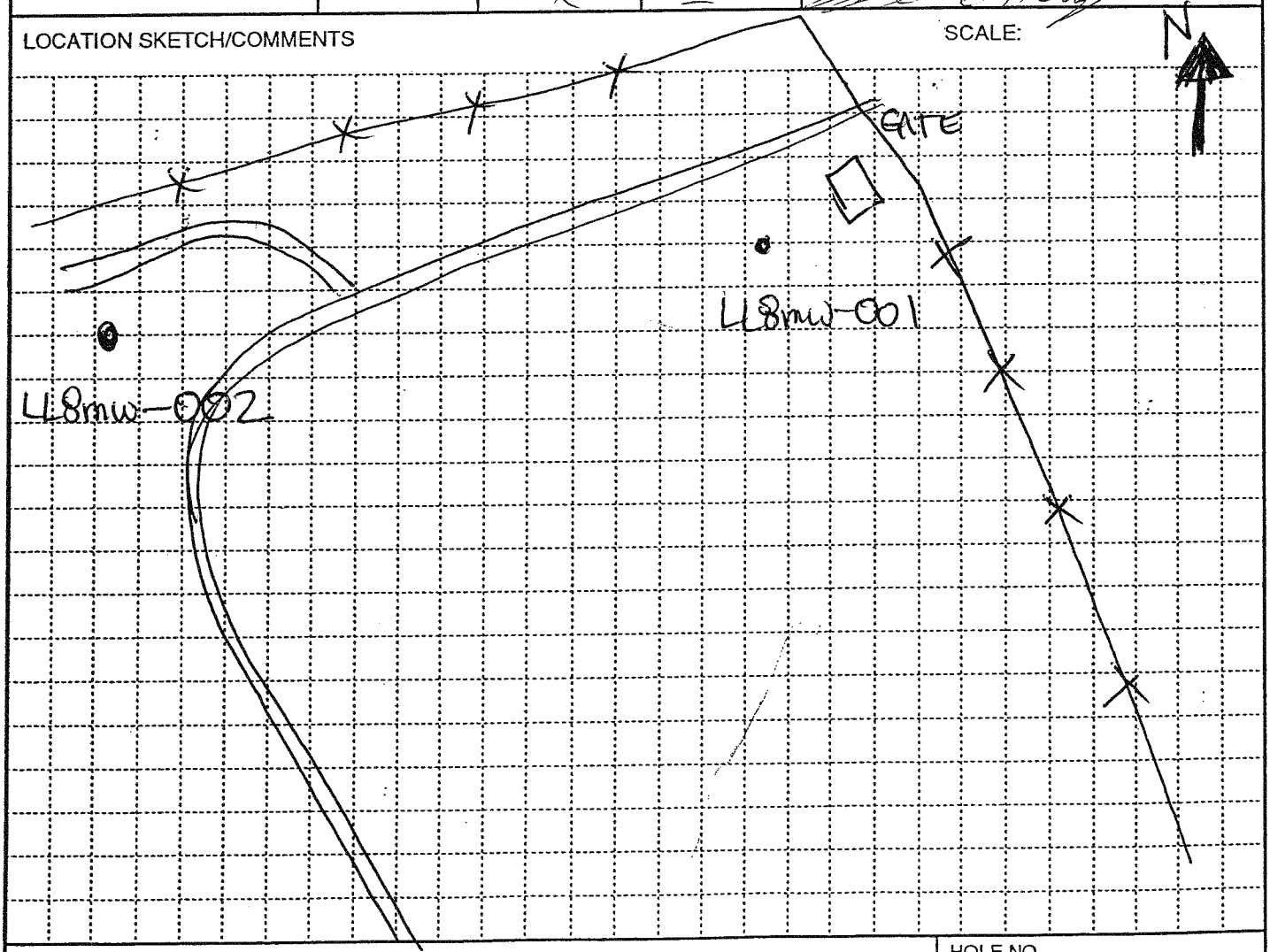
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	—	—	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY — %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	LL8mw-002

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LLBMW-002

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunkey

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ Recovery (e)	~~ANALYTICAL SAMPLE NO.~~ USCS (f)	BLOW COUNT (g)	REMARKS (h)
1110		4" Topsoil Br. SILT 70% w/ Sand Dry Stiff No Odor No Staining No Plasticity	0.0	1.3	ML	1-2 3-4	7.5yr 5/6
	2	SAA Grey Mottles Start	0.0	1.1	ML	2-3 3-5	SAA
	4	SAA	0.0	1.4	ML	2-4 9-11	SAA
	6	Br. SILT 65% w/ Sand Dry Stiff No Odor No Plasticity Grey Mottles	0.0	1.6	ML	2-11 15-18	7.5yr 4/4
	8	SAA	0.0	2.0	ML	12-7 7-15	SAA
	10	SAA Mottles Stop @ 11 ft	0.0	1.4	ML	12-17 14-21	SAA
	12	SAA	0.0	1.9	ML	8-11 19-21	SAA
	14	SAA	0.0	1.6	ML	1-7 18-14	SAA
	16	SAA	0.0	1.5	ML	1-3 5-9	
	18	Grey SILT 80% w/ Clay No odor Damp No Staining No Plasticity	0.0	1.8	ML	1-3 6-7	7.5yr 5/1
	20	Br. SILT 60% w/ Sand Damp No odor No Staining					7.5yr 4/4

PROJECT: RVAAP RI 14

HOLE NO.: LLBMW-002

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LLB,mw-002

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlicy

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	Gray/Br. SILT 65% w/Sand wet/Saturated No Odor No Staining No Plasticity		1.7	ML	1-3 4-5	7.5Y-5/2
	22	Damp @ 21.5					
		SAA		2.0	ML	1-2 5-6	SAA
	24						
		SAA		1.4	ML	1-2 4-5	SAA
	26						
		SAA		1.7	ML	1	SAA
	28	Gray SAND 85% w/Silt Fine Grained Saturated No Odor No Staining w/ No Plasticity		1.6	SM	1-2 5-7	SAA
	30	Gray SILT 65% w/Sand Damp No Odor No Staining					
		DCH 30.4					Built 30.4 Sand to 30 Screen from 30 to 20 Sand up to 16 Bentonite to 13 Grout to surface Stick-up Completion No water used for Hydration
	32						
	34						

PROJECT: RVAAP RI 14

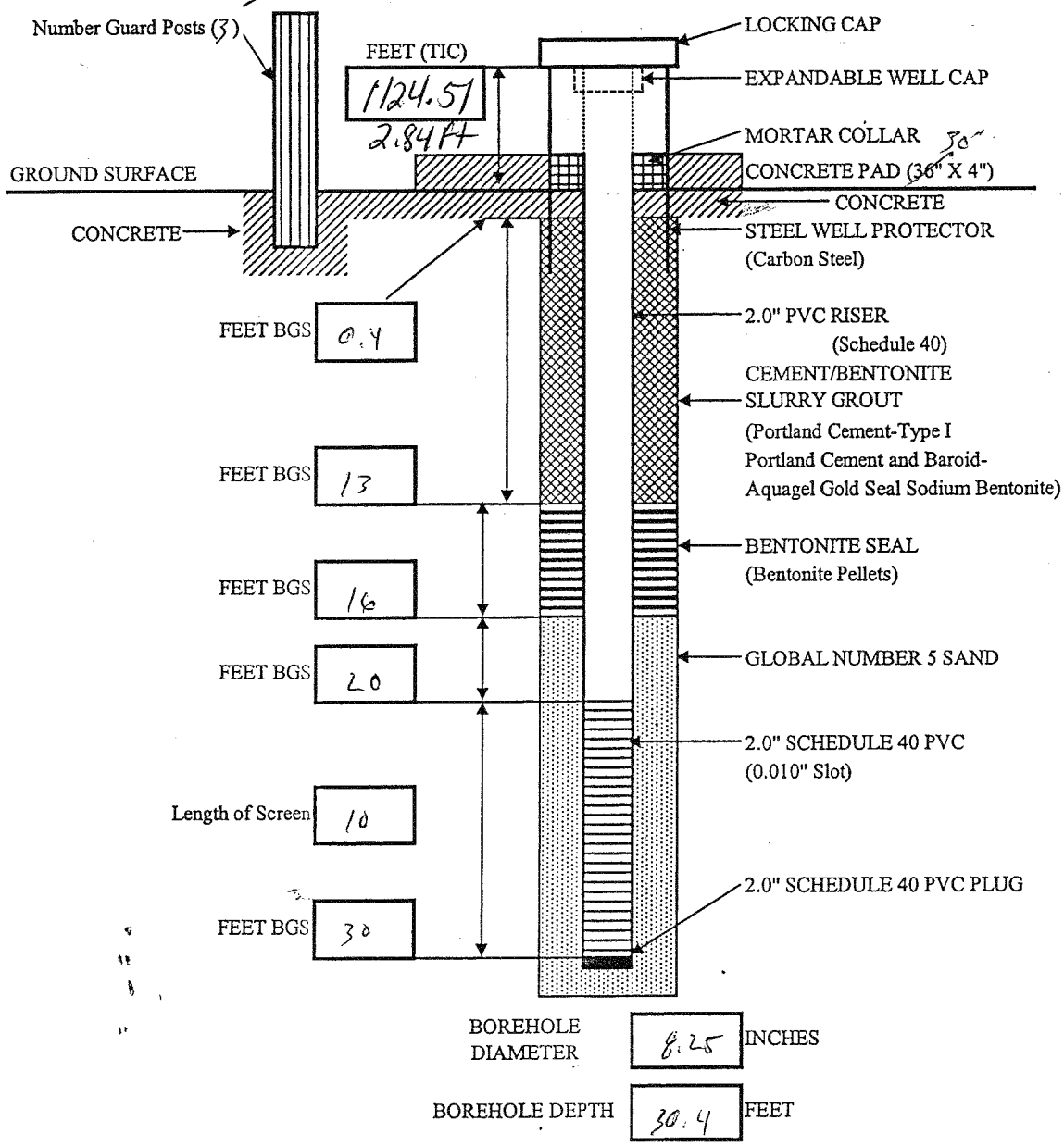
HOLE NO.: LLB,mw-002

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: LL8mw ~~002~~ [illegible]	Begin: 03Dec04	End: 03Dec04
Coordinates: N: 552408.18 E: 2351010.33	Elevation: 1121.67	Reference Point:
Logged By: [signature]		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

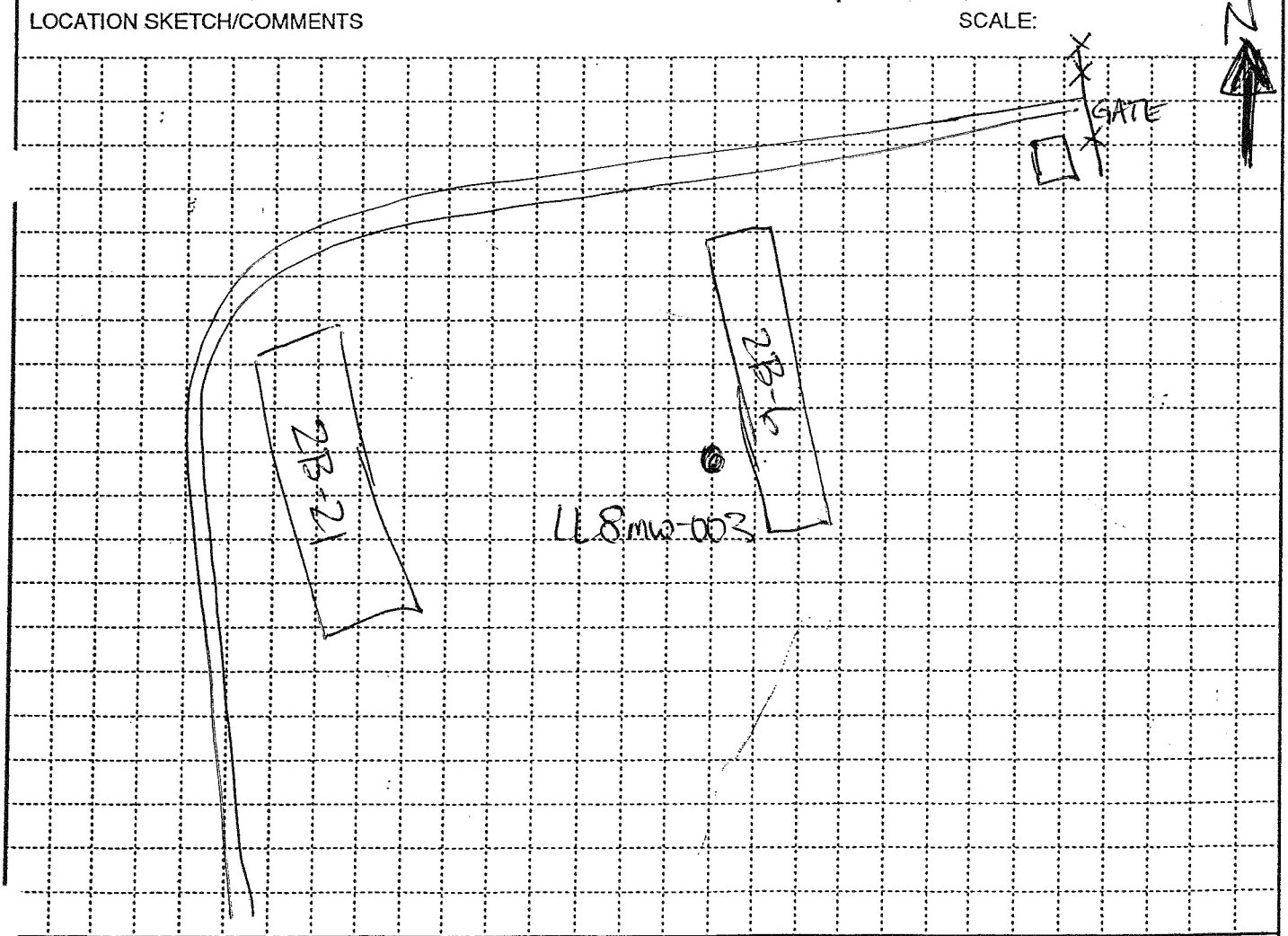
DISTRICT: LOUISVILLE		HOLE NUMBER: LL8 mw-003
1. COMPANY NAME: MKM ENGINEERS	2. DRILL SUBCONTRACTOR: HAD DRILLING	SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP-RI 14	4. LOCATION: LOAD LINE 8	
5. NAME OF DRILLER: SCOTT HEISER	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-55	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA; 1½" ID x 24" SPLIT SPOON	8. HOLE LOCATION: WEST OF BLDG 2B-6	
	9. SURFACE ELEVATION: 1176.30 ASL	
	10. DATE STARTED: 11/30/04	11. DATE COMPLETED: 11/30/04
12. OVERBURDEN THICKNESS: —	15. DEPTH GROUNDWATER ENCOUNTERED: ~14' BGS	
13. DEPTH DRILLED INTO ROCK: —	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 10.45 @ 1340 12/13/04	
14. TOTAL DEPTH OF HOLE: 21' BGS	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
—			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	David R. Ernst

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT: RVAAP-RI 14	HOLE NO.: LL8 mw - 003

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL8 MW-003
PROJECT: RVAAP-RI 14
INSPECTOR: DKEARNEST
SHEET 2 OF SHEETS 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. RECOVERY	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
930	0	SILT GREY BROWN SANDY SILT W/ CRUSHED ROCK, GRASS (30%) REDDISH BROWN SILTY SAND (60%) W/ CRUSH ROCK (10%) MED DENSE	0	1.1	ML	9/10 10/7	10YR 2/2 5YR 4/4 WET
	2	SAA BROWN W/ TRACE GREY CLAYEY SILT (20%) MED DENSE TRACE SAND TRACE ROCK FRAGS (5%)	0	1.3	ML	4/5 7/7	10YR 4/4
	4	SAA LITTLE TO NO PLASTIC 5-10% SMALL GRAVEL SOME ANG ROCK FRAG SOME ROUNDED	0	1.4	ML	1/8 14/16	DRY
	6	SAA	0	1.7	ML	4/11 16/20	10YR 5/4
	8	SAA BROWN V. STIFF (40%) SILTY CLAY (60%) LITTLE TO NO PLASTIC	0	1.8	CL	4/11 15/22	10YR 5/4 DRY
	10	SAA V. STIFF	0	1.8	CL	2/14 15/24	DRY
	12	SAA V. STIFF	0	1.8	CL	5/10 16/24	
	14	(10%) SILTY CLAY W/ (5%) GRAVEL BROWN SAND (80%) MED TO COARSE 6-8" THICK	0	1.8	SP	2/3 9/14	SAND WET 10YR 5/4
	16	BROWN SILT (80%) SOME SAND (20%) LITTLE TO NO PLASTIC MED DENSE	0	1.5	ML	2/10 10/12	10YR 5/4 WET
	18	(20%) BROWN SILTY SAND (70%) W/ TRACE ROUNDED GRAVEL (5%) MED DENSE MED TO FINE GRAINED	0	1.5	SM	2/5 5/9	10YR 4/2
	20	GREY SANDY SILT (40%) (60%)			ML		

PROJECT: RVAAP-RI 14
HOLE NO.: LL8 MW-003

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LLBmw-003

PROJECT: RVAAP-RI 14

INSPECTOR: DK EARNEST

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. RECOVERY (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	GREY SILTY SAND (20%) (80%) TO MED TO COARSE SAND	0	1.0	SM/SP	— —	SAT
	22	BOH 21'					
		SAMPLED TO 22' DRILLED TO 21' WELL SET AT 20.5					
		SCREEN AT 10.5-20.5 BGS					
		SAND TO 8.5' BGS	8 BAGS #7 SAND				
		SEAL TO 6.5 BGS					
		NO WATER ADDED					

PROJECT: RVAAP-RI 14

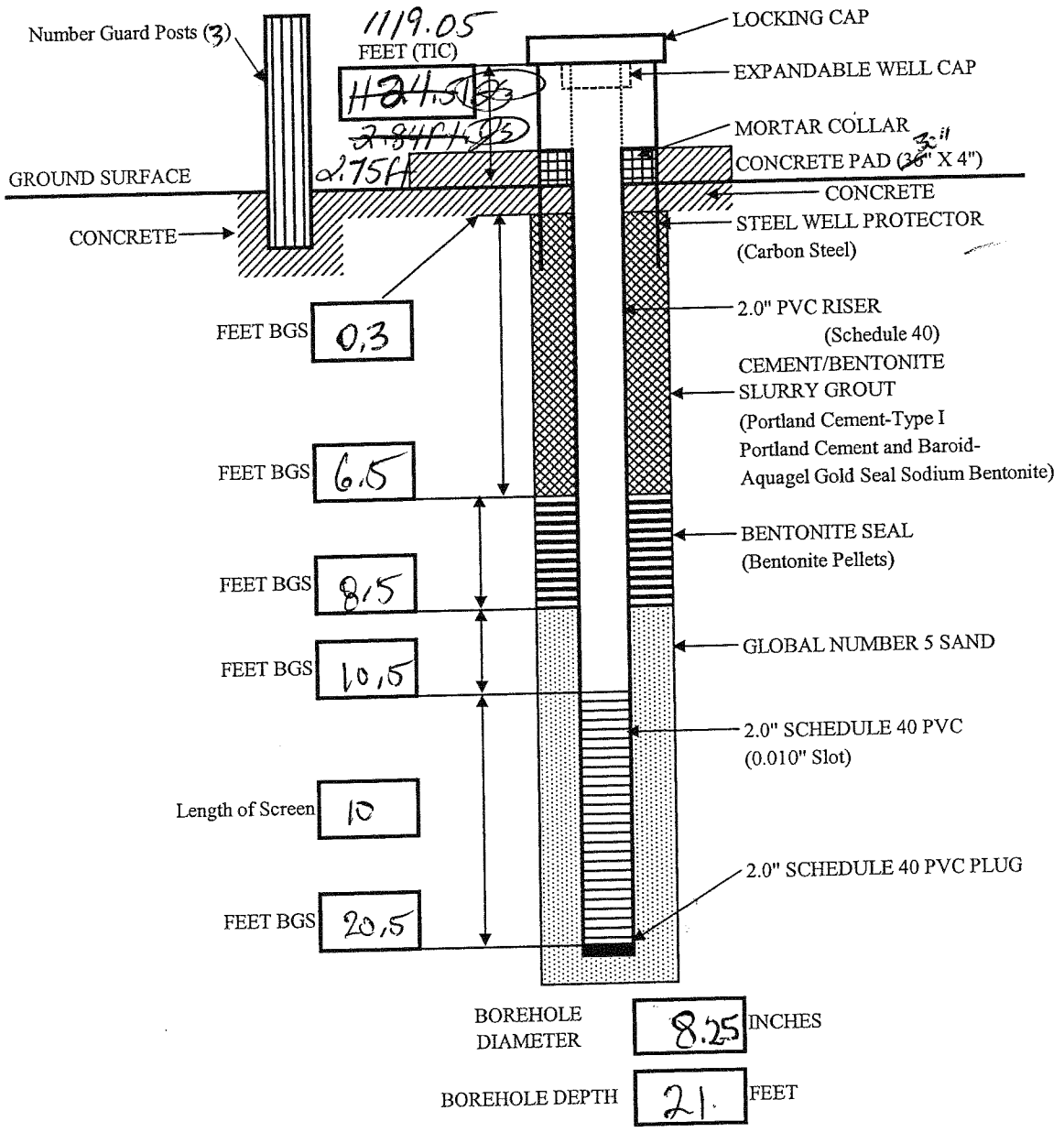
HOLE NO.: LLBmw-003

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project:

Well Number: LL8mw-003	Begin: 11/30/04	End: 11/30/04
Coordinates: N: 552231.14 E: 2351359.25	Elevation: ~~H21.6~~ 1116.30	Reference Point:
Logged By: DK EARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

MW Const Dia 05Nov04.xls

HTRW DRILLING LOG

1. COMPANY NAME: MKM Engineers	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	DISTRICT: Louisville; HOLE NUMBER: LL8mw-004; SHEET 1 OF 2 SHEETS
3. PROJECT: RIWAP RI 14	4. LOCATION: Load Line 8	
5. NAME OF DRILLER: Sam Holter	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 OD HSA; 2" split spoons	8. HOLE LOCATION: West Center of LL	
	9. SURFACE ELEVATION: 1112.73 ASL	
	10. DATE STARTED: 06 Dec 04	11. DATE COMPLETED: 06 Dec 04
12. OVERBURDEN THICKNESS: 20.5	15. DEPTH GROUNDWATER ENCOUNTERED: 13.5	
13. DEPTH DRILLED INTO ROCK: 0.0	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 9.61 @ 0945 12/14/04	
14. TOTAL DEPTH OF HOLE: 20.5	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

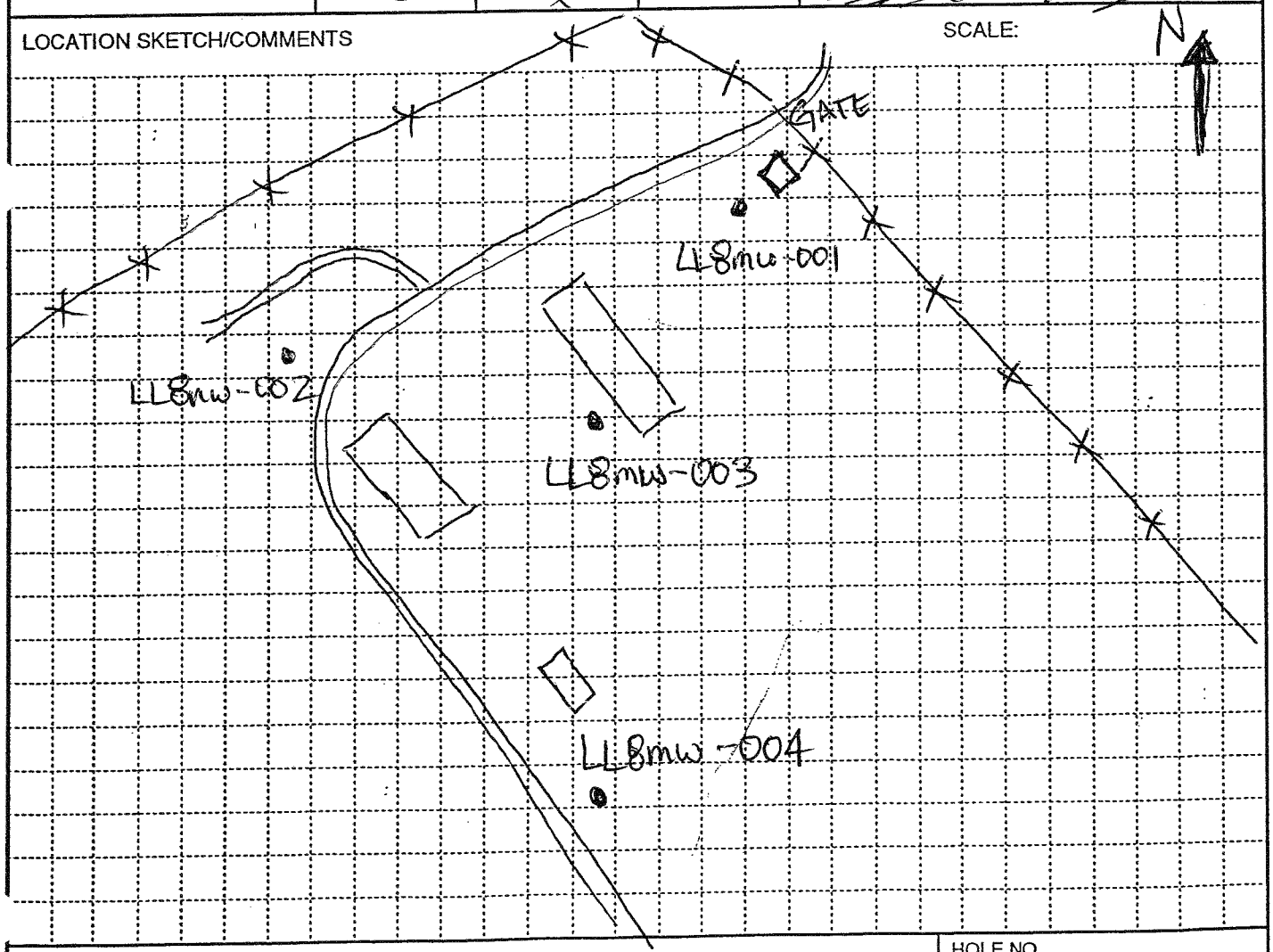
18. GEOTECHNICAL SAMPLES	DISTRIBUTED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 6'-8'	—	X	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RIWAP RI 14	LL8mw-004

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL8mw-604

PROJECT: RVAAP FI 14

INSPECTOR: Mark Dunlevy

SHEET 2 OF 2 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
1295		4" Topsoil					
		Lt. Br. SILT 65% w/ Sand Moist No Odor No Staining No Plasticity	1.2	1.5	ML	1-1 1-1	7.5Y-6/2
	2	Reddish Br SILT 60% w Sand Moist No Odor No Staining No Plasticity Rock Frag Present (Fill)	0.6	1.5	ML	1-5 7-5	7.5Y-5/6
	4	Color Changes to Br					7.5Y-4/6
		Br. SAND 70% w Silt Damp No Odor No Staining No Plasticity	0.0	1.7	SM	2-6 7-9	
	6	Dk. Br. SILT 75% w/ Clay Dry Stiff No Odor No Staining No Plasticity			ML		
		1255 06 Dec 04 Shelby Tube					
	8	Br. SILT 85% w/ Clay Dry Stiff No Odor No Staining No Plasticity	0.0	2.0	ML	3-11 13-16	7.5Y-4/4
	10	Changes to clay					
		Damp SILT 70% w/ Sand No odor No staining No Plasticity	0.0	2.0	ML	1-6 9-9	SAA
		Br. SILT 85% w/ Clay Damp No Odor No Staining No Plasticity					
	12						
▽		Br. SILT 85% w/ Sand wet/Saturated No Odor No Staining No Plasticity	0.0	2.0	ML	2-8 14-16	SAA
	14		0.0	2.0	ML	9-8 12-15	SAA
		Red/Br SILT 60% w/ SAND Damp No Odor No Staining No Plasticity					7.5Y-5/6
	16	Br. SAND 85% w/ Silt wet No odor No Staining No Plasticity	0.0	2.0	SM	11-7 19-23	
	18						BOH 20.5 Sand to 20 Screen from 20 to 10 Sand up to 7 Bentonite to 5 Grout to Surface No Hydration water used
		Br SAND 60% w Silt Damp No Odor No Staining No Plasticity	0.0	1.0	SM	2-8 13-17	
	20						

PROJECT: RVAAP FI 14

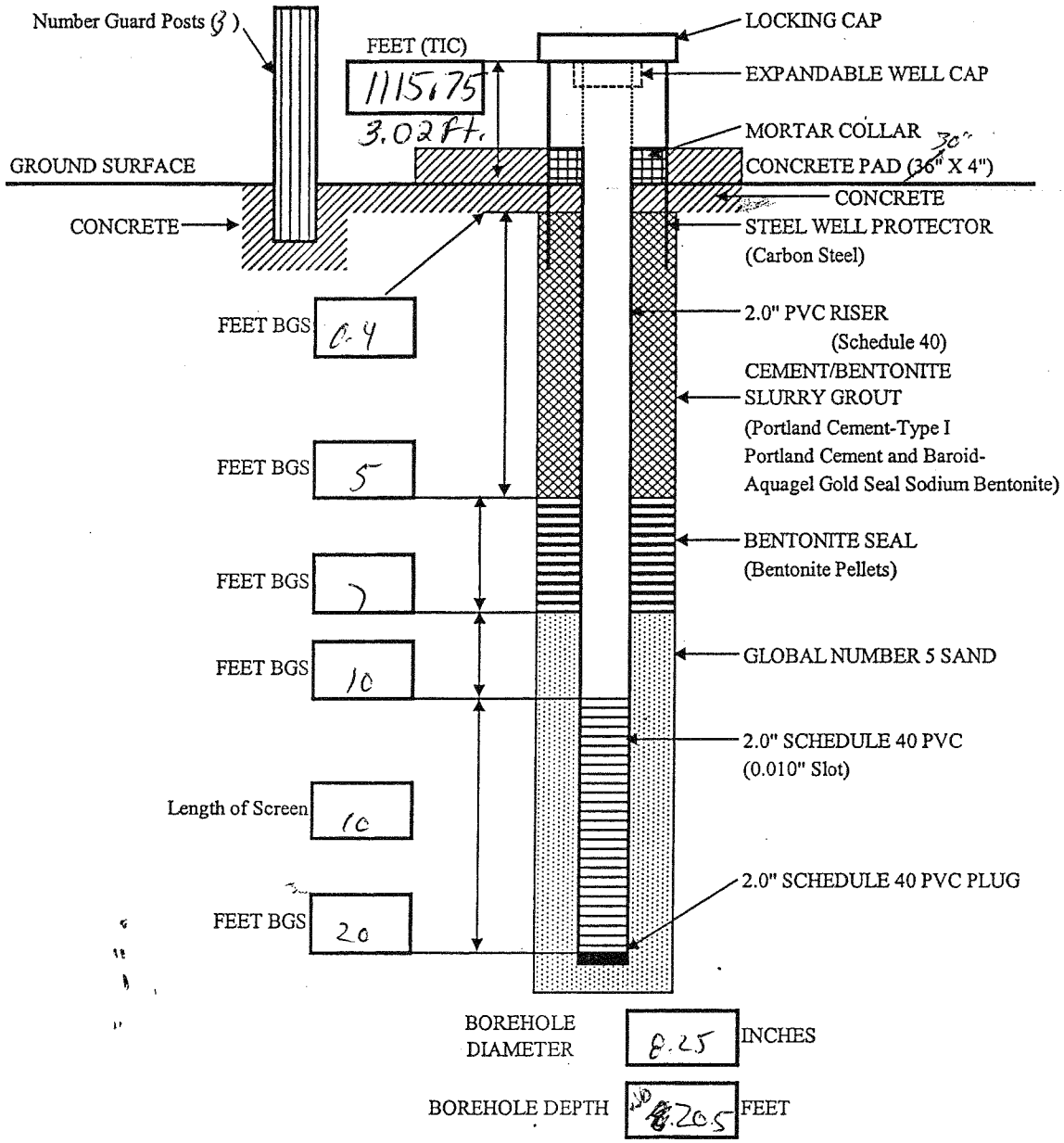
HOLE NO.: LL-8mw-604

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI-14

Well Number: LLEmw-004	Begin: 06Dec04	End: 06Dec04
Coordinates: N: 551807.58 E: 2351261.83	Elevation: 1112.73	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM ENGINEERS	DISTRICT: LOUISVILLE	HOLE NUMBER: LL8MW-005
2. DRILL SUBCONTRACTOR: HAD DRILLING		SHEET 1 OF 3

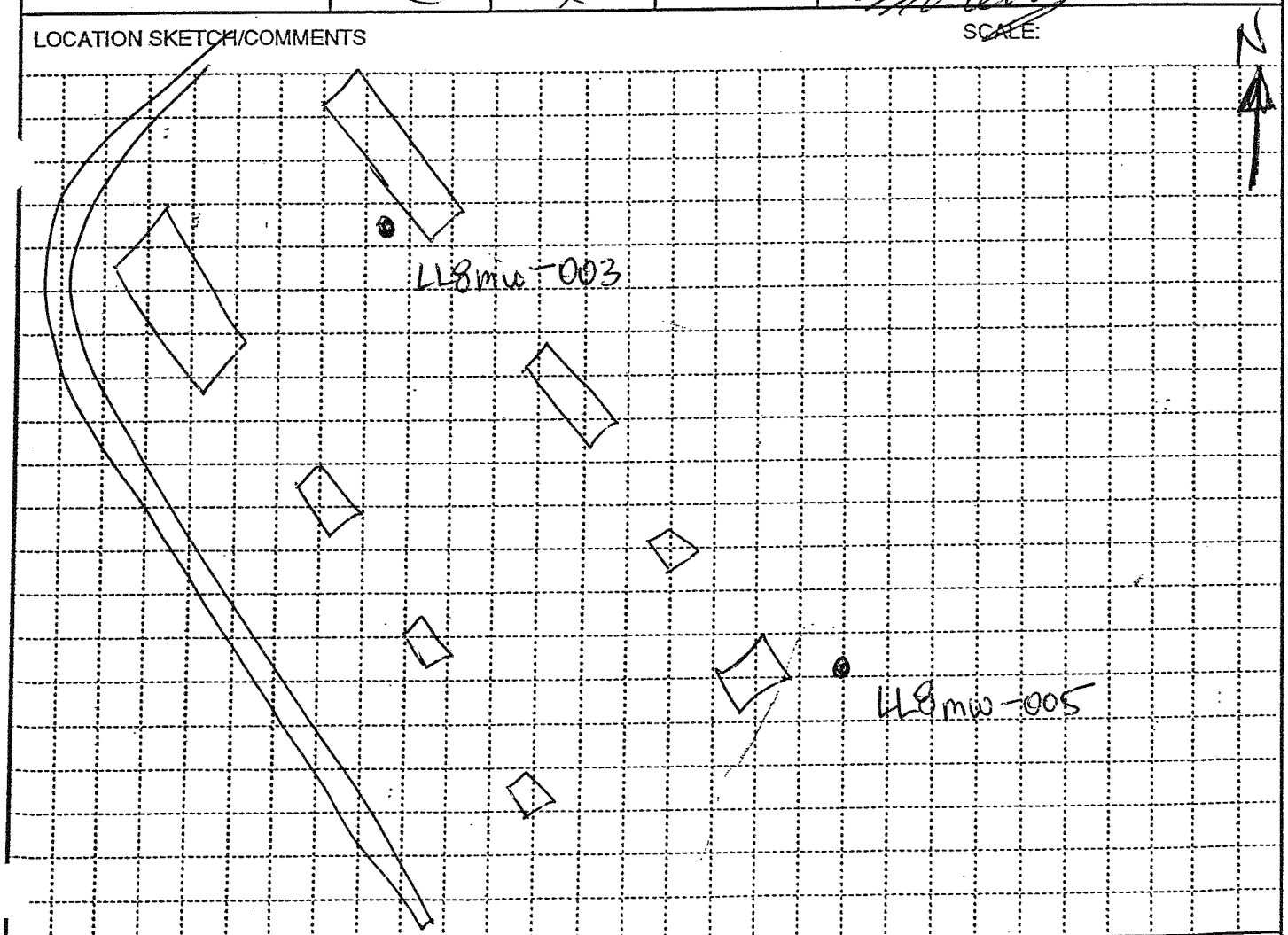
3. PROJECT: RVAAP RI 14	4. LOCATION: LOADLINE 8
5. NAME OF DRILLER: S/M HOFFER	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC60
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 HSA; 2" SPLIT SPOON	8. HOLE LOCATION: SE WELL LOCATION ADJACENT TO BLDG 2B-2
	9. SURFACE ELEVATION: 1112.51 ASL
	10. DATE STARTED: 12/07/04 — 11. DATE COMPLETED: 12/07/04
12. OVERBURDEN THICKNESS: 23.5	15. DEPTH GROUNDWATER ENCOUNTERED: 14.0, 17.6
13. DEPTH DRILLED INTO ROCK: 0.5 WEATHERED	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 9.7' @1035 12/16/04
14. TOTAL DEPTH OF HOLE: 24.0	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	—	X	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY — %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X		

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP - RI 14	LL8mw-005

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL8mw-005

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. Recovery	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	6" Topsoil					
		Br. SILT 70% w/Sand Damp No Odor No Staining No Plasticity	4.6	1.1	ML	1-1 2-4	7.5yr 4/6
	2	Grey Mottles present	7.7	1.4	ML	1-1 2-2	7.5yr 5/6
	4	SAA	0.0	1.6	ML	1-1 3-5	SAA
	6	SAA	6.0	1.8	ML SM ML	3-7 10-11	7.5yr 5/2
		2" Grey SAND 70% w/Silt No Odor No Staining No Plasticity					
	8	Reddish Br. SILT 60% w/Sand and Gravel No Odor No Staining No Plasticity	0.0	1.0	ML	1-7 10-4	7.5yr 5/4
	10						
		Br. SILT 75% w/Sand Damp No Odor No Staining No Plasticity	1.0	0.9	ML	1-7 13-4	7.5yr 4/6
	12						
		Grey SILT 80% w/Clay Damp No Odor No Staining Med. Plasticity	13.4	1.5	ML	2-2 5-5	
▽	14	Saturated @ 14.0					7.5yr 5/1
		changes to damp @ 15.0	4.6	1.6	ML	4-2 3-2	
	16						
▽		Grey Fine Grained SAND 85% w/Silt Saturated No Odor No Staining No Plasticity	1.7	1.8	ML SM	1-2 4-6	
	18		12.4	1.6	SM	1-1 5-7	7.5yr 5/2
	20						

PROJECT: RVAAP RI 14

HOLE NO. LL8mw-005

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL8mw-005

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ Recovery	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	22	SAA	0.0	1.4	SM	1-7 5-5	SAA
	24	weathered Gry SS Fine Grained	0.0	1.5	SM	5-11 13-18	SAA
		BOH 24 Ft.					BOH 24 Screen from 24 to 14 Sand up to 11 Bentonite to 8 Grout to surface Stick-up well Completion 5 gallons of water used to hydrate
	26						
	28						

PROJECT: RVAAP RI 14

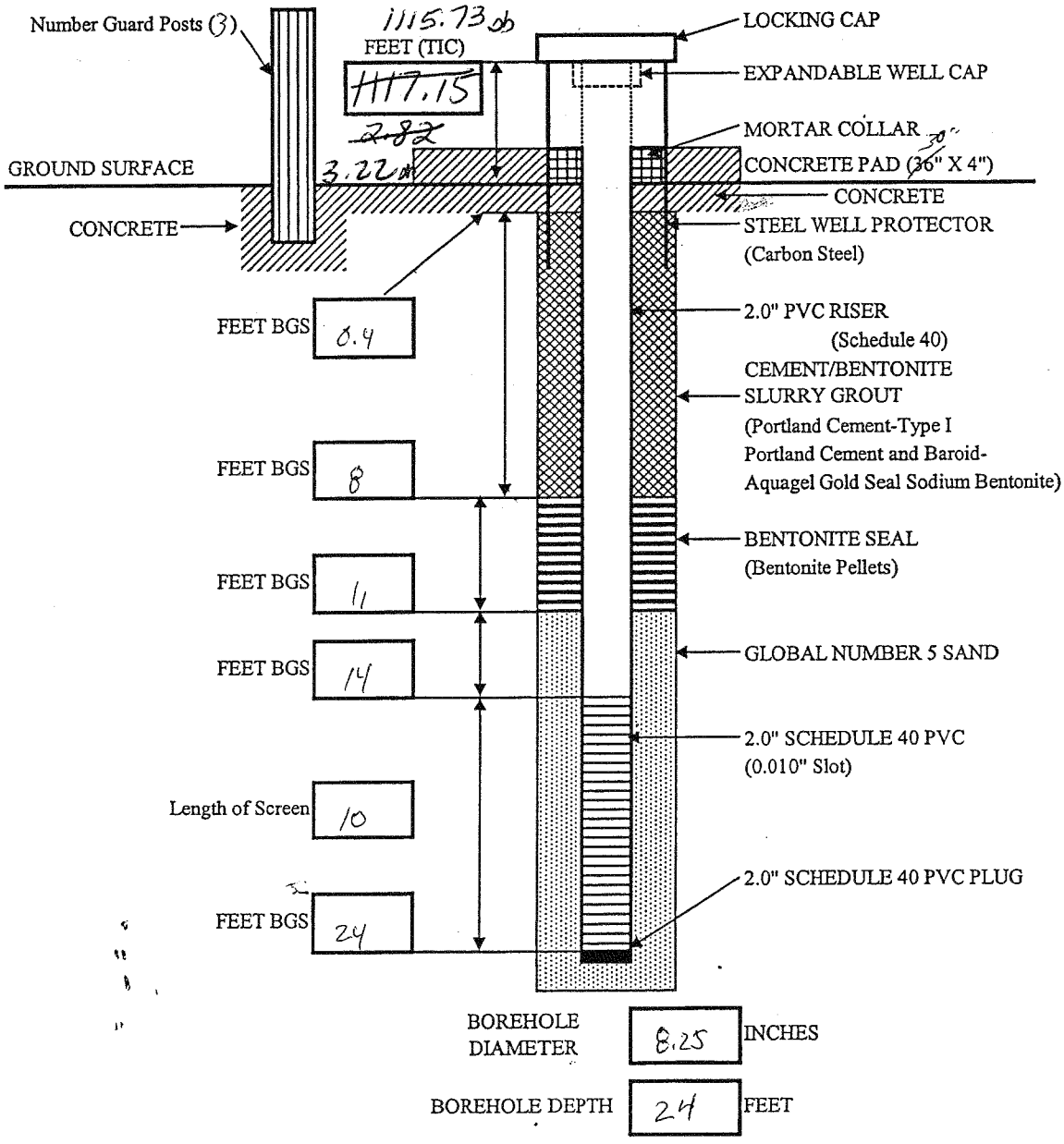
HOLE NO.: LL8mw-005

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RFI 4

Well Number: LC8mw-005	Begin: 07 Dec 04	End: 07 Dec 04
Coordinates: N: 551522.48 E: 2351748.32	Elevation: ~~1114.33~~ 1112.51 nb	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

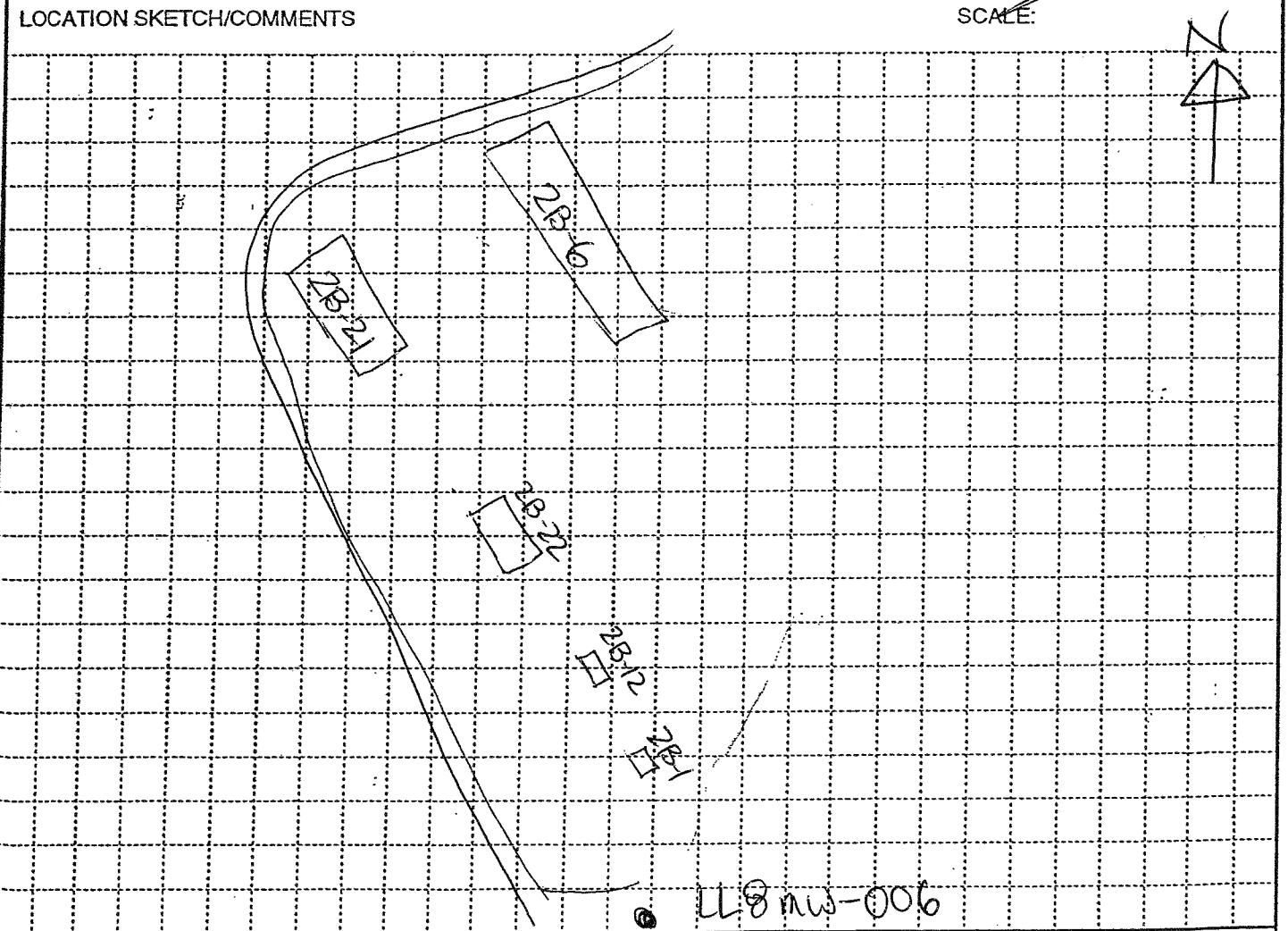
	DISTRICT: LOUISVILLE	HOLE NUMBER: LL8mw-006
1. COMPANY NAME: MKM ENGINEERS	2. DRILL SUBCONTRACTOR: HAD DRILLING	SHEET 1 OF 3
3. PROJECT: RVAAP - RI 14	4. LOCATION: LOAD LINE 8	
5. NAME OF DRILLER: SAM HOFFER	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 OD HSA; 2" SPLITSPOON	8. HOLE LOCATION: SOUTHEND OF LL	
	9. SURFACE ELEVATION: 1114.33 ASL	
	10. DATE STARTED: 12/07/04	11. DATE COMPLETED: 12/07/04
12. OVERBURDEN THICKNESS: 20'	15. DEPTH GROUNDWATER ENCOUNTERED: 17.5	
13. DEPTH DRILLED INTO ROCK: 4' WEATHERED	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 18.7 @ 0930 12/16/04	
14. TOTAL DEPTH OF HOLE: 24'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 8'-10'	—	X	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
		X		

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP - RI 14	LL8mw-006

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LiSmw-006

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. Recovery	ANALYTICAL SAMPLE NO. USCS	BLOW COUNT (g)	REMARKS (h)
		1" Topsoil Lt. Br. SILT 65% w/ Sand Damp No Odor No Plasticity Grey Mottling	0.0	1.3	ML	1-1 2-4	7.5yr 6/6 7.5yr 4/4
	2	Changes to Stiff and Dry					
			5.0	1.5	ML SM	2-7 9-12	
	4	Br. SAND 70% w/ SILT Dry No Odor No Staining No Plasticity					
		Br. SILT 70% w/ Sand No Odor No Staining No Plasticity Dry	4.0	1.5	ML	2-6 5-7	SAA
	6						
		SAA	3.0	1.8	ML	2-4 8-9	SAA
	8						
		Shelby Tube					
	10						
		Br. SILT 70% w/ Sand Dry No Odor No Staining No Plasticity	1.8	1.2	ML	1-4	7.5yr 4/4
		Dk. Reddish Br. SS Frag.					
		Br. SILT 70% w/ Sand Dry No Odor No Staining No Plasticity			ML	10-12	
	12						
		SAA	2.1	2.0	ML	4-11 13-11	SAA
	14						
		Becomes Damp	1.0	1.4	ML	2-4 7-14	SAA
		SAA					
	16						
▽		Grey SILT 85% w/ Clay Damp No Odor No Staining Mod Plasticity	0.0	1.5	ML	2-6 8-18	7.5yr 5/1
		Br. SILT 65% w/ sand Saturated No Odor No Staining No Plasticity					7.5yr 5/3
	18	Weathered Grey/White SS / Sand					7.5yr 6/1
			0.0	1.3	SS	2-13 12-5	

PROJECT: RVAAP RI 14

HOLE NO.: LiSmw-006

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LL8mw-006

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlevy

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ Recovery	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
	22	SAA	0.0	1.2	SS	10-12 17-23	SAA
	24	SAA	0.0	1.4	SS	5-6 9-10	SAA
		BOH 24.2					BOH 24.2 Sand to 24 Screen from 24 to 14 Sand up to 11 Bentonite to 8 Grout to surface Stick-up well completion 5 gallons of water used
	26						
	28						

PROJECT: RVAAP RI 14

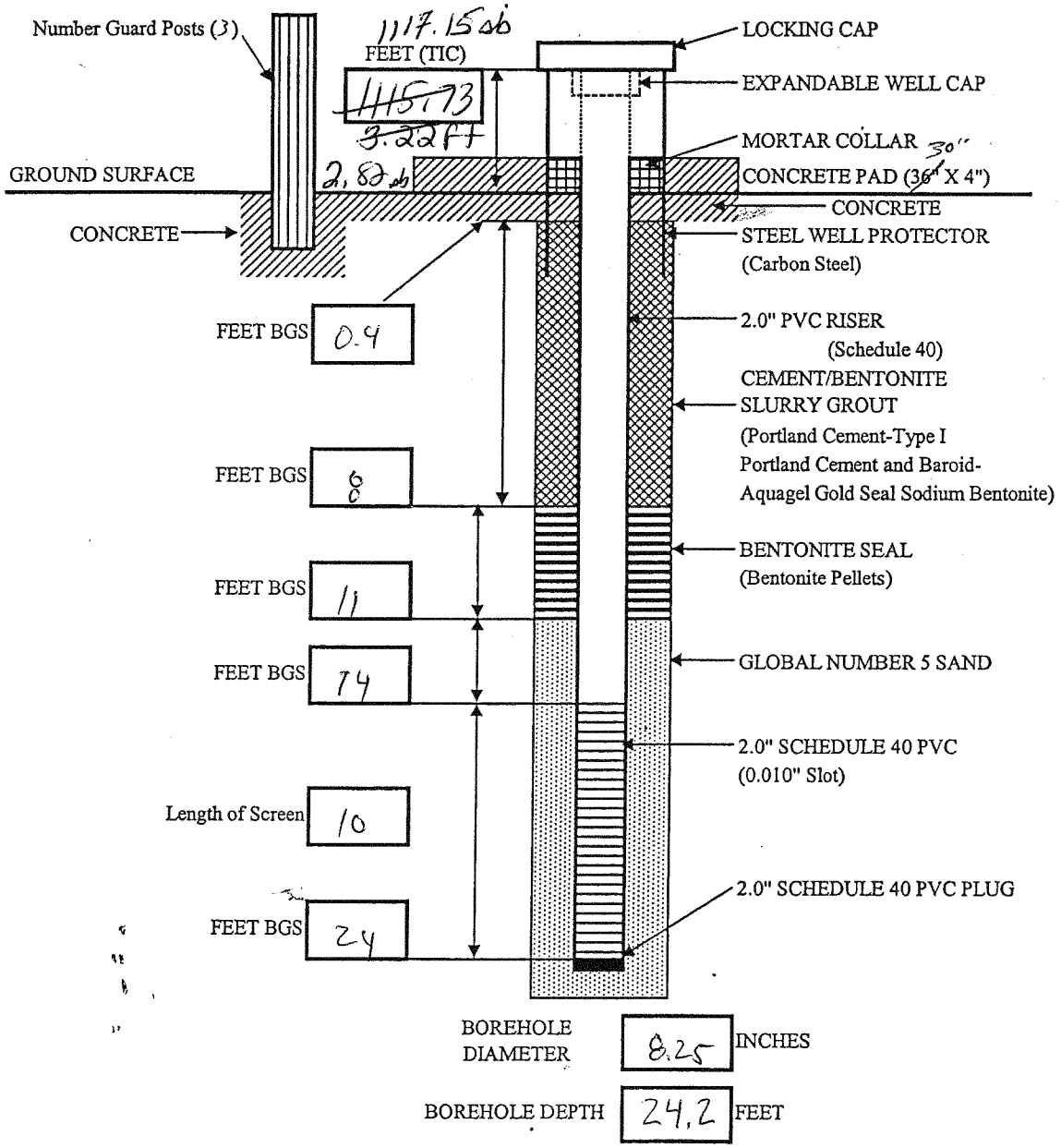
HOLE NO.: LL8mw-006

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: LL8mw-006	Begin: 07 Dec 04	End: 07 Dec 04
Coordinates: N: 551296.77 E: 2351483.58	Elevation: ~~1112.57~~ 1114.33 ab	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM ENGINEERS	DISTRICT: LOUISVILLE	HOLE NUMBER: L10MW-001
2. DRILL SUBCONTRACTOR: HAD DRILLING		SHEET 3 OF 3 SHEETS

3. PROJECT: RVAAP-R114	4. LOCATION: RAVENNA, OH LOADLINE 10
5. NAME OF DRILLER: GREG / ANDY	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA; 1½" ID X 2' SPLIT SPOON; 3" DIA SHELBY TUBE; 6¼" ID HSA; 2" DIA CORE BARREL	8. HOLE LOCATION: NORTH OF BLDG PE-1
	9. SURFACE ELEVATION: 1130.00 ASL
	10. DATE STARTED: 12/16/04 — 11. DATE COMPLETED: 12/20/04
12. OVERBURDEN THICKNESS: 15	15. DEPTH GROUNDWATER ENCOUNTERED: ~17' BGS
13. DEPTH DRILLED INTO ROCK: 13'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 22.6' @ 1100 01/03/05
14. TOTAL DEPTH OF HOLE: 28'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —

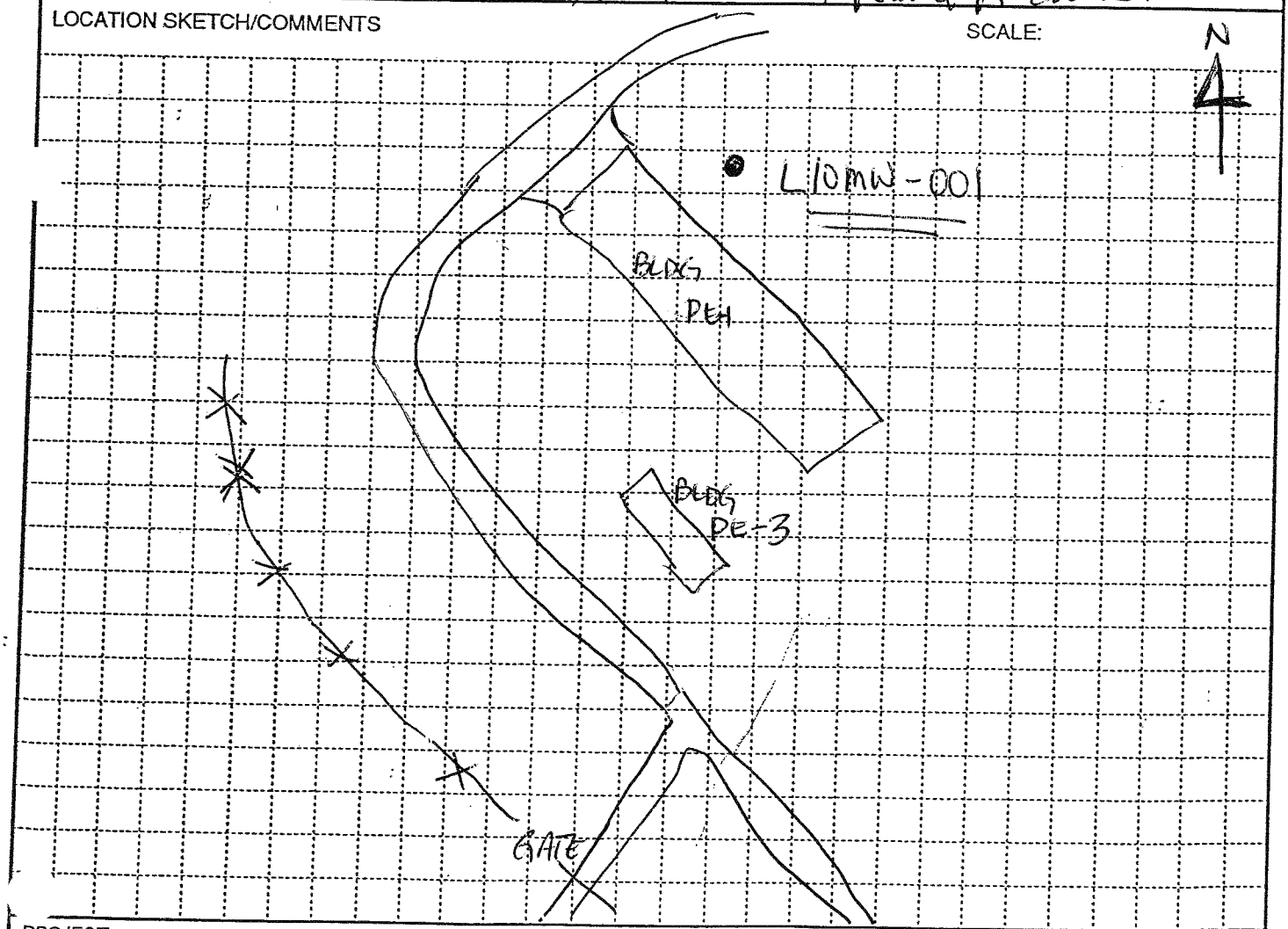
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
6-8' SHELBY TUBE		X	1

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
—	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	David A Ernst

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP-R114	L10MW-001

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: L10MW-001

PROJECT: RVAAP - RI 14

INSPECTOR: DK LARNEST

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	2	3" TOPSOIL GREY CL SILT BROWN CLAYEY SILT (25/0) (608) NONPLASTIC FINE LITTLE SAND (10%) TRACE FINE GRAVEL (5%)	0	1.1	ML	PUSH	DRY 10YR 5/4
	4	SAA MED DENSE	0	1.7	ML	5/5 9/10	
	6	SAA LOOSE TO MED DENSE	0	1.0	ML	5/9 11/11	
	8	SHELBY TUBE		N.R		NR	SHELBY TUBE 13:45
	10	SAA TRACE FINE TO SMALL ROUNDED GRAVEL LOOSE	0	1.8	ML	3/2 5/6	
	12	SAA	0	1.0	ML	5/6 5/6	
	14	SAA ROCK FRAG & SAND	0	1.0	ML	4/10 9/50/4	
	16	TAN/LT BROWN WEATHERED SANDSTONE FINE GRAINED WELL SORTED <10% FINES, 90% SAND	AUGER REFUSAL 15.3'	0.2		50/1	SPOON REFUSAL DRY 10YR 8/3
	18	TAN/LT BROWN SANDSTONE <10% FINES, 90% SAND FINE TO MED GRAINED WELL SORTED HARD VISABLE BEDDING PLANES LAMINATED WELL CEMENTED SLIGHTLY WEATHERED CORED TO 20.5'		/			10YR 7/3
	20			/			RECOVERY OF 52"

PROJECT: RVAAP - RI 14 HOLE NO.: L10MW-001

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HLMW-001

PROJECT: RVAAP-R14

INSPECTOR: DK EARNEST

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	22	SAA HEAVY PETROLEUM STAINING IN FRACTURES FROM ABOUT 20.75' - 22.5'					2ND CORE 20.5-28.3 SLIGHT PETROL ODOR 20.5-21.0
	24	MICACEOUS FLAKES IN SOME FRACTURES					
		45° DIP ON BEDDING PLANES.					
	26	@ 25'-28' LT BROWN & GREY SAND LAYERS					
	28	BOH 28'					
		CORED TO 28' SET WELL AT 27' SCREEN AT 17'-27' BGS SAND TO 15' SEAL TO 12' BGS					

PROJECT: RVAAP-R14

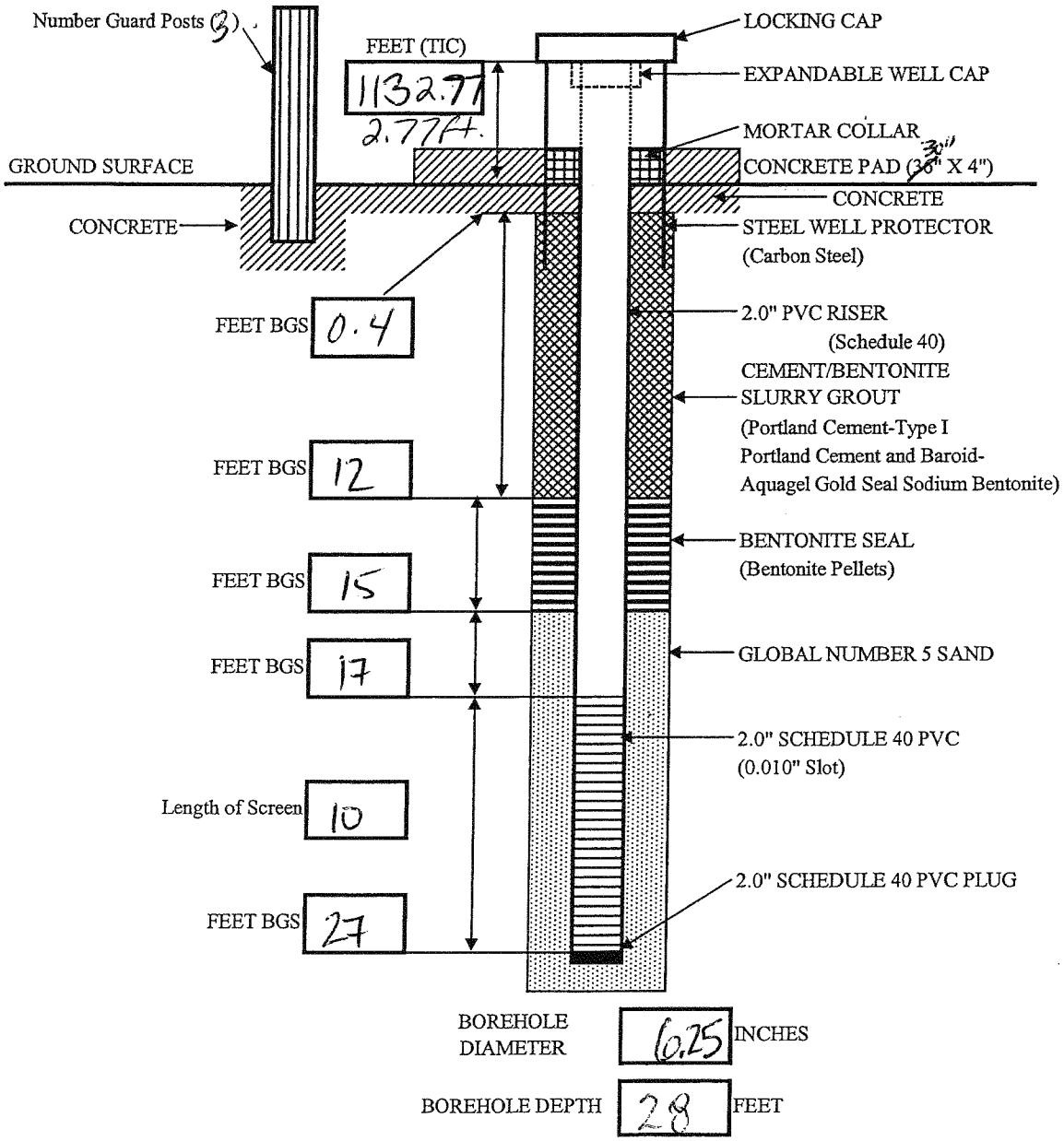
HOLE NO.: HLMW-001

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: LIOmw-001	Begin: 12/16/04	End: 12/20/04
Coordinates: N: 555816.25 E: 2355272.22	Elevation: 1130.00	Reference Point:
Logged By: DAVID K. EARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

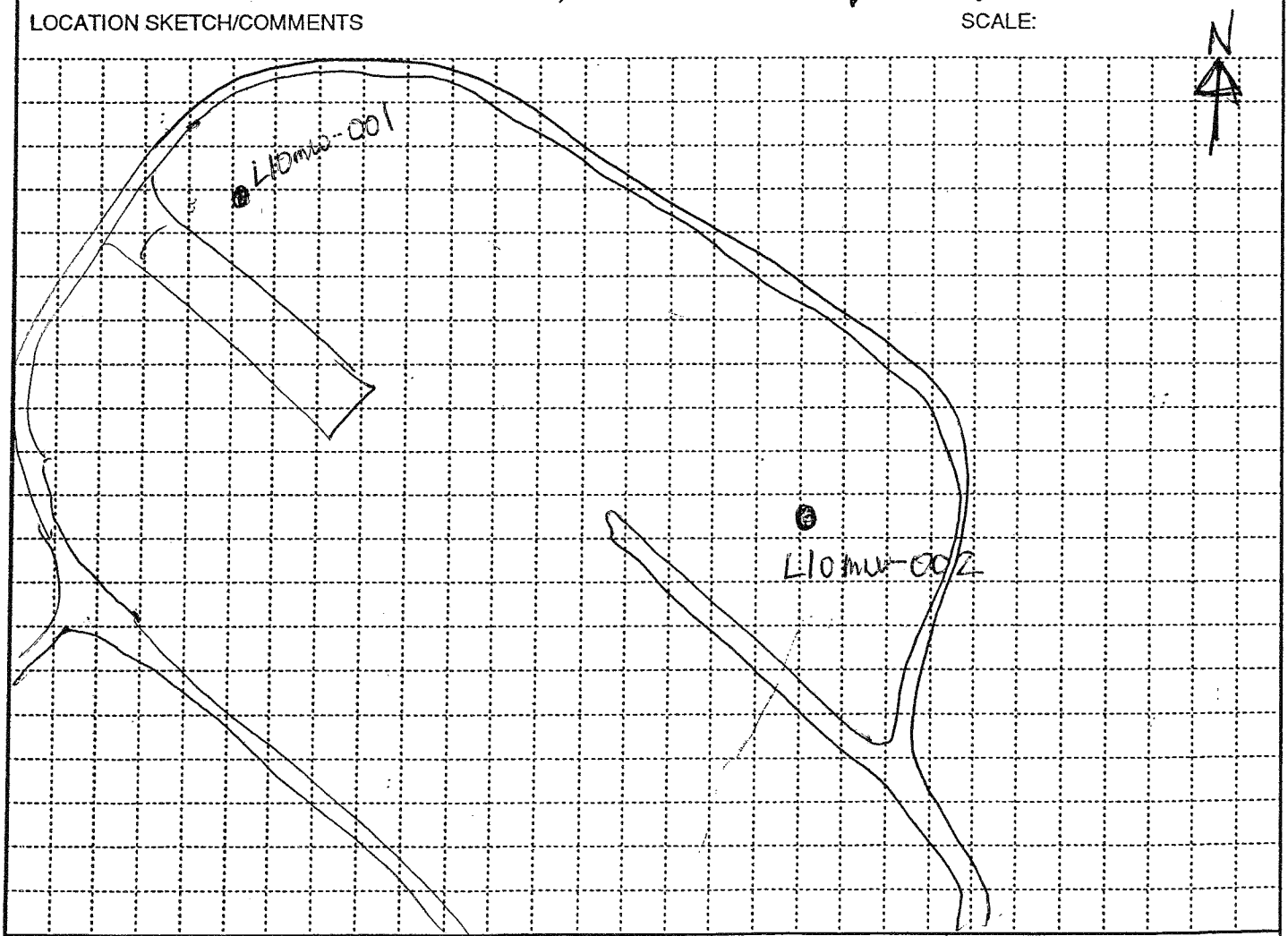
DISTRICT: LOUISVILLE		HOLE NUMBER: L10mw-002
1. COMPANY NAME: MKM ENGINEERS	2. DRILL SUBCONTRACTOR: HAD DRILLING	SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP-RI 14	4. LOCATION: RAVENNA, OH LOADLINE 10	
5. NAME OF DRILLER: GREG	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA; 1½" ID x 2' SPLIT SPOON; 6¼" ID HSA; 2" DIA CORE BARREL	8. HOLE LOCATION: EAST OF BLDG DE-19	
	9. SURFACE ELEVATION: 1124.40 ASL	
	10. DATE STARTED: 12/20/04	11. DATE COMPLETED: 12/21/04
12. OVERBURDEN THICKNESS: 15'	15. DEPTH GROUNDWATER ENCOUNTERED: 14' BGS	
13. DEPTH DRILLED INTO ROCK: 13'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 14.55' @ 0915 01/03/05	
14. TOTAL DEPTH OF HOLE: 28'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
—	—	—	2

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
—	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	Harold Earnest

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT: RVAAP-RI 14	HOLE NO.: L10mw-002

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: L10MW-002

PROJECT: RVAAP-R114 | INSPECTOR: DK EARNEST | SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. RECOVERY	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	2	2" top soil DK BROWN CL SILT (40%) TRACE SAND (20%) & FINE GRAVEL (5%) LOW PLASTIC (5%) LOOSE	0.0	1.4	ML	PUSH	MOIST 7.5YR 3/1
	4	BROWN SILTY CLAY (60%) MOTTLED W/ RED & GREY (30%) SAA MED PLASTIC TRACE SAND & FINE GRAVEL (5%) STIFF	0.0	2.0 ~~1.0~~	ML CL	2/3 4/5	MOIST 7.5YR 5/3
	6	SAA	0.0	0.5	CL	3/7 9/8	
	8	SAA	0.0	2.0	CL	8/8 7/8	
	10	DENSE FINE (40%) BROWN SANDY SILT (50%) LITTLE CLAY (10%) LOW PLASTIC	0.0	1.8	ML	9/8 20/24	7.5YR 5/4
	12	BROWN SILTY SAND (20%) (70%) W/ ROCK FRAG (10%) NON PLASTIC MED DENSE	0.0	1.8	SM	14/11 10/12	7.5YR 6/4
	14	TAN/LT BRN SANDSTONE FINE GRAINED WELL SORTED HARD WELL CEMENTED VISIBLE BEDDING PLANES	0.0	0.5	SM	6/50+	1ST CORE 16-26
	16	STAINING (OXIDE) ALONG FRACTURES, CLOSE TO HIGH LAMINATED PLANES FRACTURES			SS		10YR 6/4
	18	GREY SANDSTONE					2.5Y 6/1
	20						@ 19-20' BGS * SOME HEAVY PETROLEUM

PROJECT: RVAAP-R114 | HOLE NO.: HOMW-002

* RESIDUE IN FRACTURES, ODOR SIMILAR TO USED/BURNT OIL, SLIGHT ODOR, NO PID RESULTS OILY RESIDUE ON FINGERS

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LIOMW-002

PROJECT: RVAAP-RI IA

INSPECTOR: DK EARNEST

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	22	NEARLY HORIZONTAL BEDDING MICACEOUS FLAKES IN FRACTURE PLANES					42"/120 = 135
		LITTLE OXIDE STAINING BELOW ~22.5					
	24	LAMINATED BEDDING PLANES AT ~24' DIP OF BEDDING INCREASE TO ~30° AT ~24.5					
	26	VERY THIN CARBONIFEROUS SEAM AT 25.7' SAA					2ND CORE 26'-28' 13.5/24 = 56.3
		THIN COAL SEAM					
	28	~~BOH 28'~~					
		CORED TO 28' SET WELL AT 27' SCREEN AT 17'-27' SAND TO 15' SEAL TO 12' BGS 5 BAGS SAND - NO WATER ADDED					

PROJECT: RVAAP-RI IA

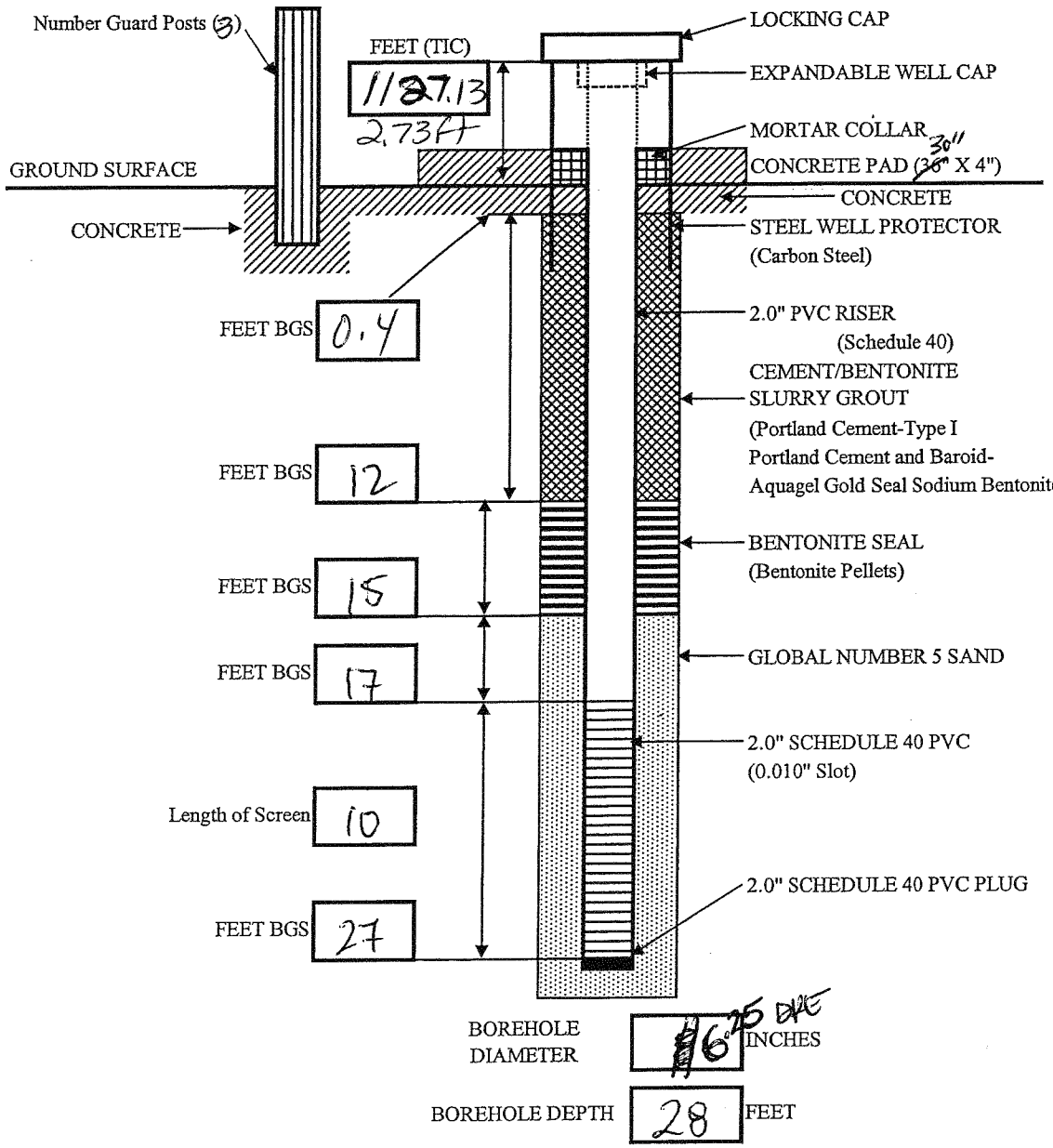
HOLE NO.: LIOMW-002

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI14

Well Number: L10mw-002	Begin: 12/20/04	End: 12/21/04
Coordinates: N: 555523.36 E: 2355710.51	Elevation: 1124.40	Reference Point:
Logged By: DK EARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM Engineers Inc	DISTRICT: Louisville	HOLE NUMBER: L10mw003
2. DRILL SUBCONTRACTOR: H&D Drilling Contractors		SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP RI/FS	4. LOCATION: Load Line 10	
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" Split Spoons; 6.25 ID HSA; 2" Core Barrel; 6.25 OD Air Rotary Hammer	8. HOLE LOCATION: ADJACENT TO BLDG PE-3	
	9. SURFACE ELEVATION: 1127.40 ASL	
	10. DATE STARTED: 07 Jan 05	11. DATE COMPLETED: 07 Jan 05
12. OVERBURDEN THICKNESS: 12.5	15. DEPTH GROUNDWATER ENCOUNTERED: ~18.5	
13. DEPTH DRILLED INTO ROCK: 14	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 16.19 @ 0850 01/10/05	
14. TOTAL DEPTH OF HOLE: 26.4	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —	

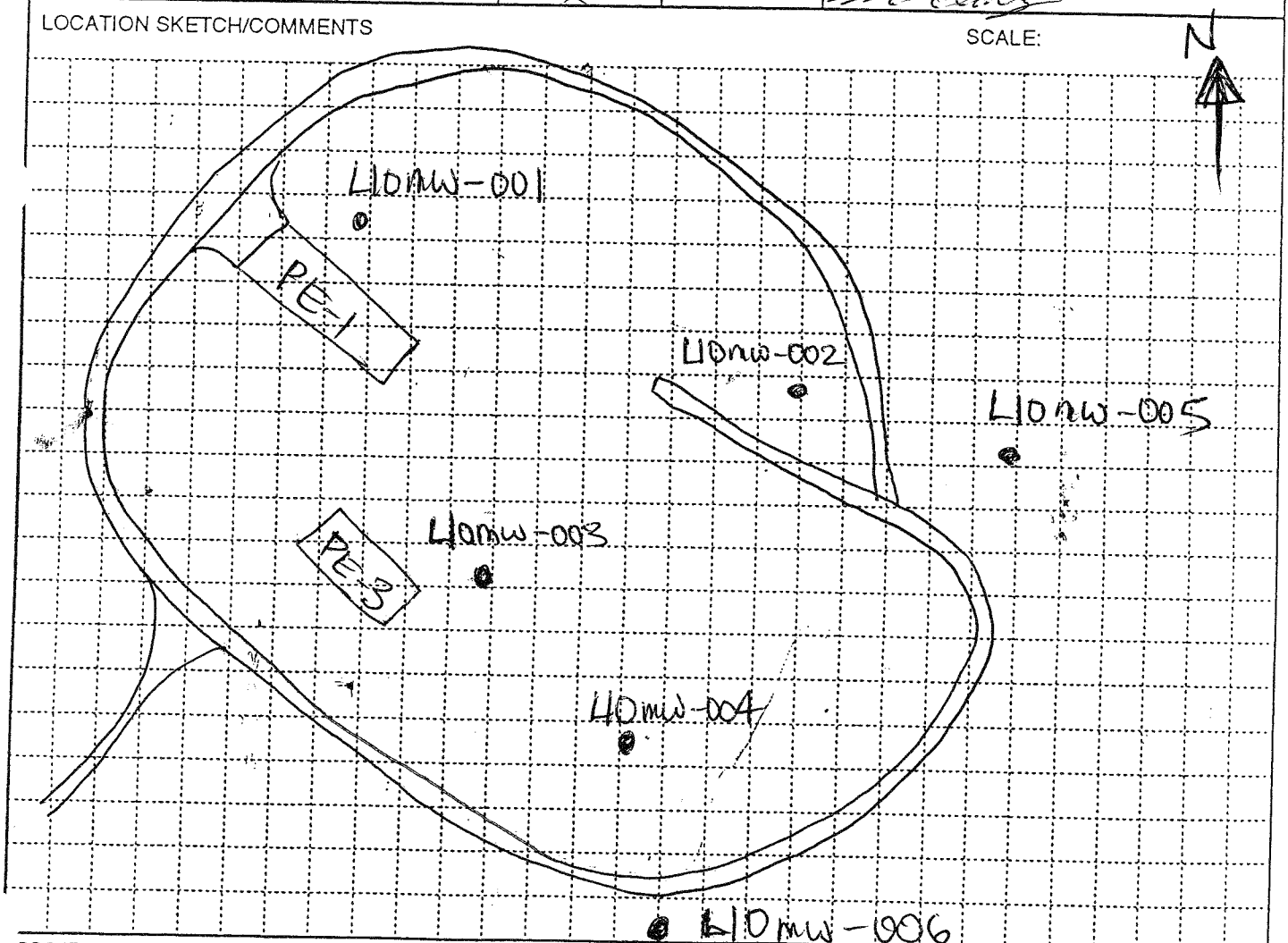
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	—	—	1

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	—	—	—	—	—	82%

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RI/FS	L10MW-003

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: L/OMW-003

PROJECT: RVAAP RI / 4

INSPECTOR: Mark Parker

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT - (g)	REMARKS (h)
0930		6" Gravel from road					
		Red/Brn SAND 75% w/silt Dry Road Base No Odor No Staining No Plasticity SS Rock Frag Present	0.0	1.5	SM	1-11 8-6	5yr 5/8
	2						
		Br. SILT 65% w/ Clay Damp No Odor No Staining No Plasticity Grey Mottling Pres	0.0	1.7	SM ML	3-2 4-7	7.5y-5/4
	4						
		Br. SILT 75% w Sand and fine Gravel No Odor No Plasticity No Staining	0.0	1.7	ML	1-5 7-13	SAA
		Becomes very shaly @ 5.5					
	6						
		2" Siltstone Rock Frag. Grey Br. SILT 70% w/ Sand and Fine Gravel No Odor No Staining No Plasticity	0.0	1.6	ML	2-12 6-12	7.5yr 7/1 7.5yr 5/4
	8						
		SAA	0.0	1.6	ML	3-7 8-8	SAA
	10						
		SAA	0.0	1.5	ML	2-3 3-4	SAA
	12						
		Weathered SS Bedrock: Tan/Lt Br SAND 85% Dry No Odor No Staining No Plasticity				6 50/3	7.5yr 6/6
		Split Spoon Refusal @ 12.5		0.6			
		Weathered SS Bedrock					
0920	14	Top of Core #1 @ 14.3					
		2" Gray SS w/ horizontal bedding planes Pink/Gray Sandstone w/ horizontal to 30° Bedding Planes Fine Grained	5y-7/1 7.5y-7/4				Recovery: 60/82.8 = 72% RQD: 9.6/60 = 16%
	16	Changes to Br @ 16.4					7.5y-6/4
		Iron Staining Present @ 17.4 and continues to bottom of Core					
	18						
	20						

PROJECT: RVAAP RI / 4

HOLE NO.: L/OMW-003

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: L10mw-003

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
0950		Top of Core # 2 @ 21.2					
		SAA					Recovery = 54/55.2 = 97%
	22	Grey Fine Grained Sandstone horizontal to 35° Bedding Planes Black Striations Present Throughout					RQD = 13.2/54 = 24%
	24	Water Present btw Cores					
		Bottom of Core # 2 @ 25.8					
	26						
		Bolt 26.4					Bolt 26.4
							Sand to 26
	28						Screen from 26 to 16
							Sand to 13
							Bentonite to 10
							Grout to Surface
	30						Stick-up well Completion
							5 gallons of water used to hydrate Bentonite

PROJECT: RVAAP RI 14

HOLE NO.: L10mw-003

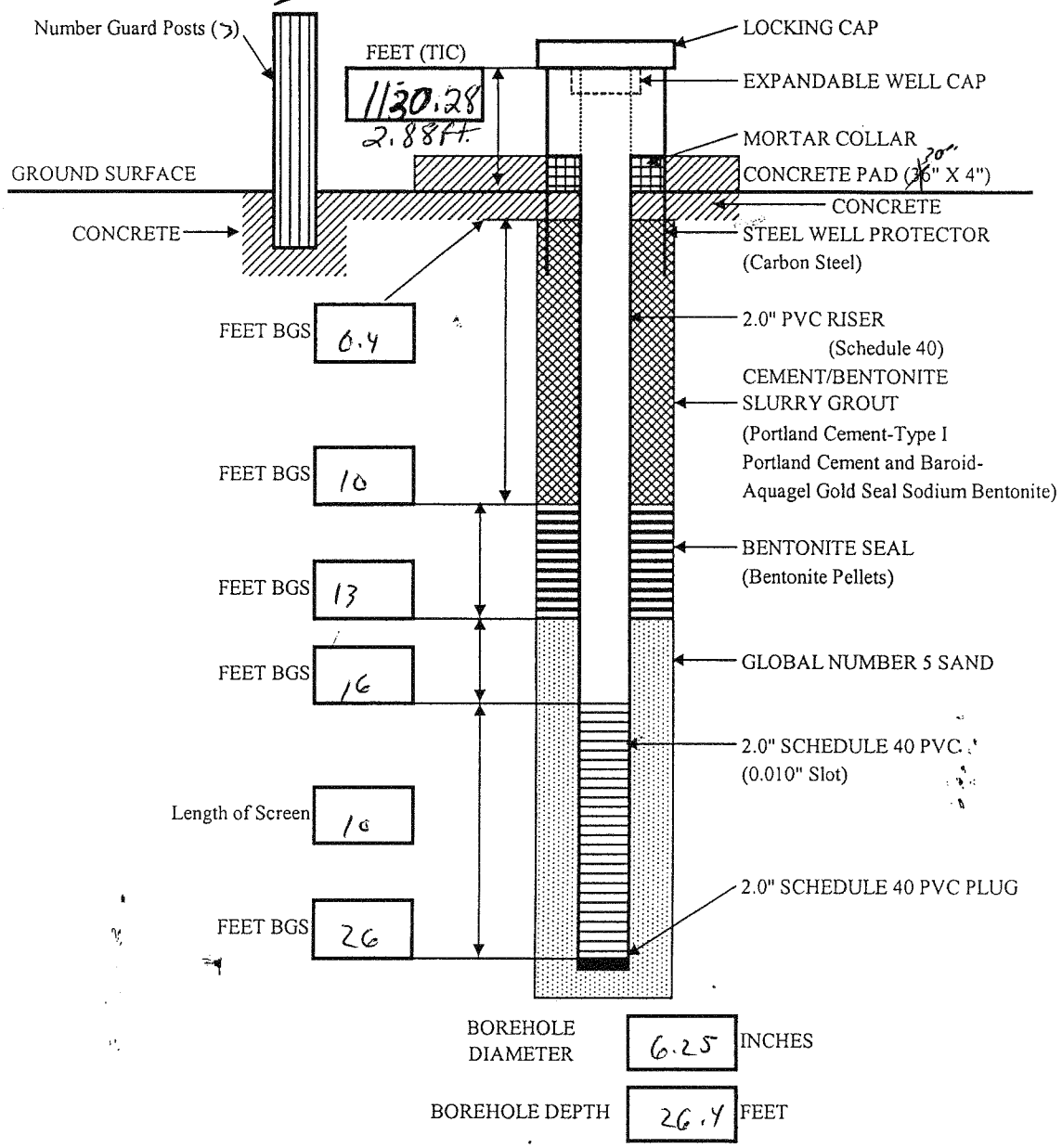
ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI/4

Well Number: L10MW-003	Begin: 07Jan05	End: 07Jan05
Coordinates: N: 555494.71 E: 2355389.92	Elevation: 1127.40	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

DISTRICT: Louisville		HOLE NUMBER: L10MW-004
1. COMPANY NAME: MKM Engineers Inc.	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 10	
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" Split Spoons; 6.25 ID HSA; 3" Shelby Tube; 2" Core Barrel; 6.25 OD Air Rotary Hammer	8. HOLE LOCATION: South of PE-9	
	9. SURFACE ELEVATION: 1119.60 ASL	
	10. DATE STARTED: 05 Jan 05	11. DATE COMPLETED: 07 Jan 05
12. OVERBURDEN THICKNESS: 18 ft	15. DEPTH GROUNDWATER ENCOUNTERED: ~24 ft	
13. DEPTH DRILLED INTO ROCK: 13.5	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 8.85' @ 1440 01/11/05	
14. TOTAL DEPTH OF HOLE: 31.5	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

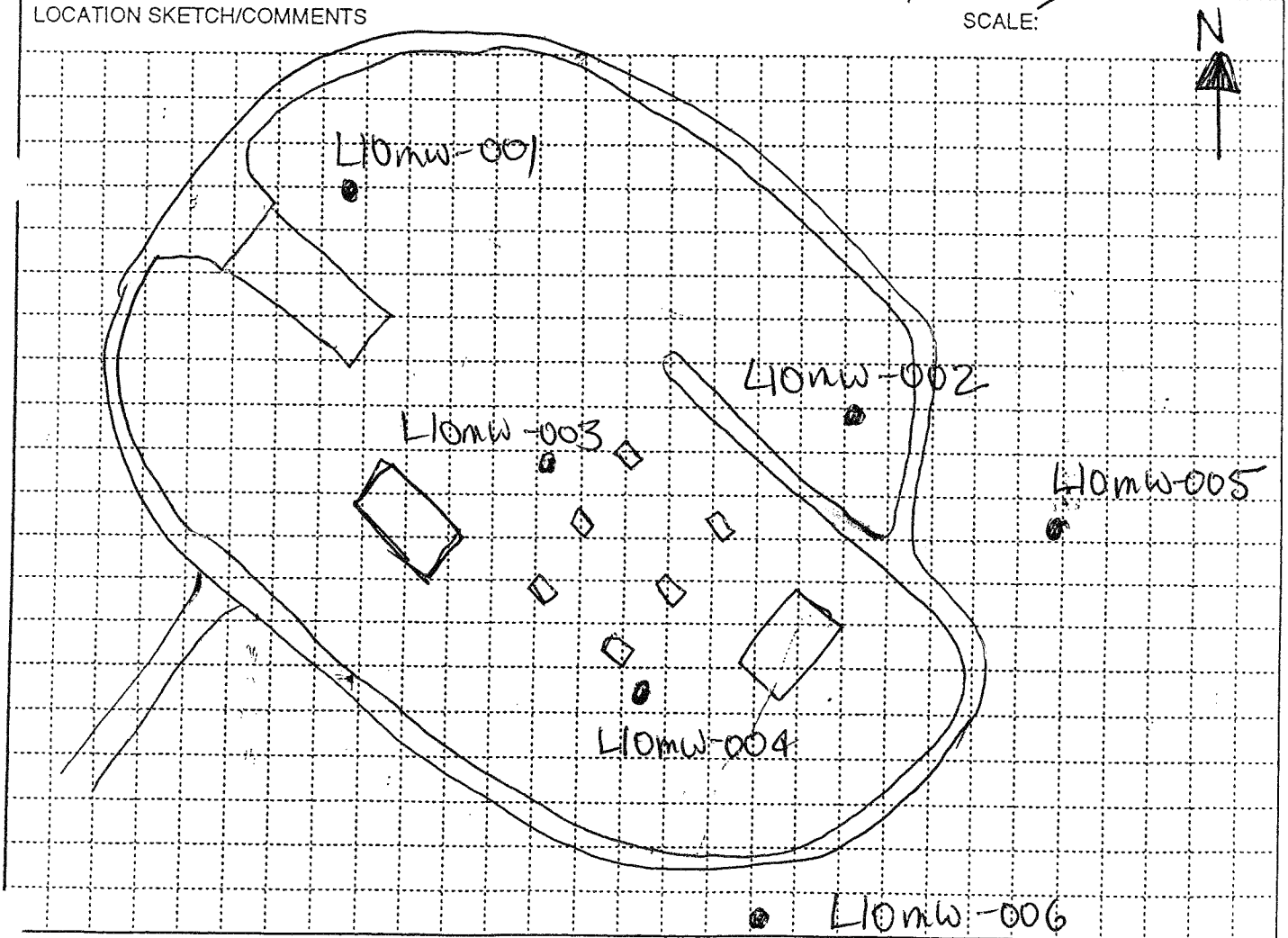
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 8'-10'	–	X	1

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	–	–	–	–	–	88 %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	–	X	–	[signature]

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	L10mw-004

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: L10MW-004

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. Recovery	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	6" Topsoil Dk. Br. SILT 70% w/ Sand & Clay Damp No Odor No Staining No Plasticity	0.0	1.7	ML	Push-1 2-3	7.5yr 4/4
	2	Changes to Grey @ 2.1	0.0	1.6	ML	1-2 1-4	
	4	Red Br SAND 70% w/ Silt Dry No Odor No Plasticity No Staining Br. SILT 65% w/ Sand & Gravel Dry No Odor No Staining No Plasticity Gravel Stops @ 5.5	0.0	1.9	SM ML	1-5 7-8	7.5yr 5/6
	6	SAA	0.0	2.0	ML	1-4 7-8	
	8	1245 05 Jan 05 Shelby Tube					
	10	Br. SILT 70% w Sand Damp No Odor No Staining No Plasticity Rock Frag Present	0.0	1.8	ML	1-2 5-7	7.5yr 5/6
	12	SAA	0.0	2.0	ML	2-18 21-31	SAA
	14	SAA	0.0	1.6	ML	16-15 25-25	SAA
	16	SAA Weathered SS Fragments w Sand	0.0	1.1	ML	5-18 18-21	SAA
	18	Split Spoon Refusal @ 18.1 Top of Core #1 @ 19.2 Ft					
	20	Description on next page					

PROJECT: RVAAP RI 14

HOLE NO.: L10MW-004

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: L10mw004

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT - (g)	REMARKS (h)
	20	Red/Br. Highly weathered Sandstone Fine Grained w/ horizontal bedding Planes ↓ from 19.2					Recovery = 120/135.6 = 88%
	22	Grey Competent Sandstone (Grey-Brown) Fine Grained w/ horizontal to 15-20° Bedding Planes					RQD = 64.8/120 = 54% 7.5y-6/6
							7.5y-6/3
▽	24	Lt. Grey Fine Grained Sandstone layer w/ water present btw cores @ 24					7.5y-7/1
		Br./Grey Sandstone Fine Grained horizontal Bedding Planes					7.5yr 6/3
	26	Grey Fine Grained Sandstone w/ Horizontal to 45° Bedding Planes					7.5yr 6/2
▽		Water Present between cores Lt. Grey Fine Grained Sandstone					7.5yr 7/1
	28	Grey/Br. Highly Competent Sandstone w/ Horizontal to 20° Bedding Planes					7.5y-6/1
	30	Bottom of Core #1 @ 30.5'					
		BOH @ 31.2					BOH @ 31.2 Sand to 31 Screen from 31 to 21 Sand up to 19 Bentonite to 16 Grout to Surface Stick-up well Completion
	32						
	34						
	36						

PROJECT: RVAAP RI 14

HOLE NO. L10mw-004

ENG FORM 5056A-R, AUG 94

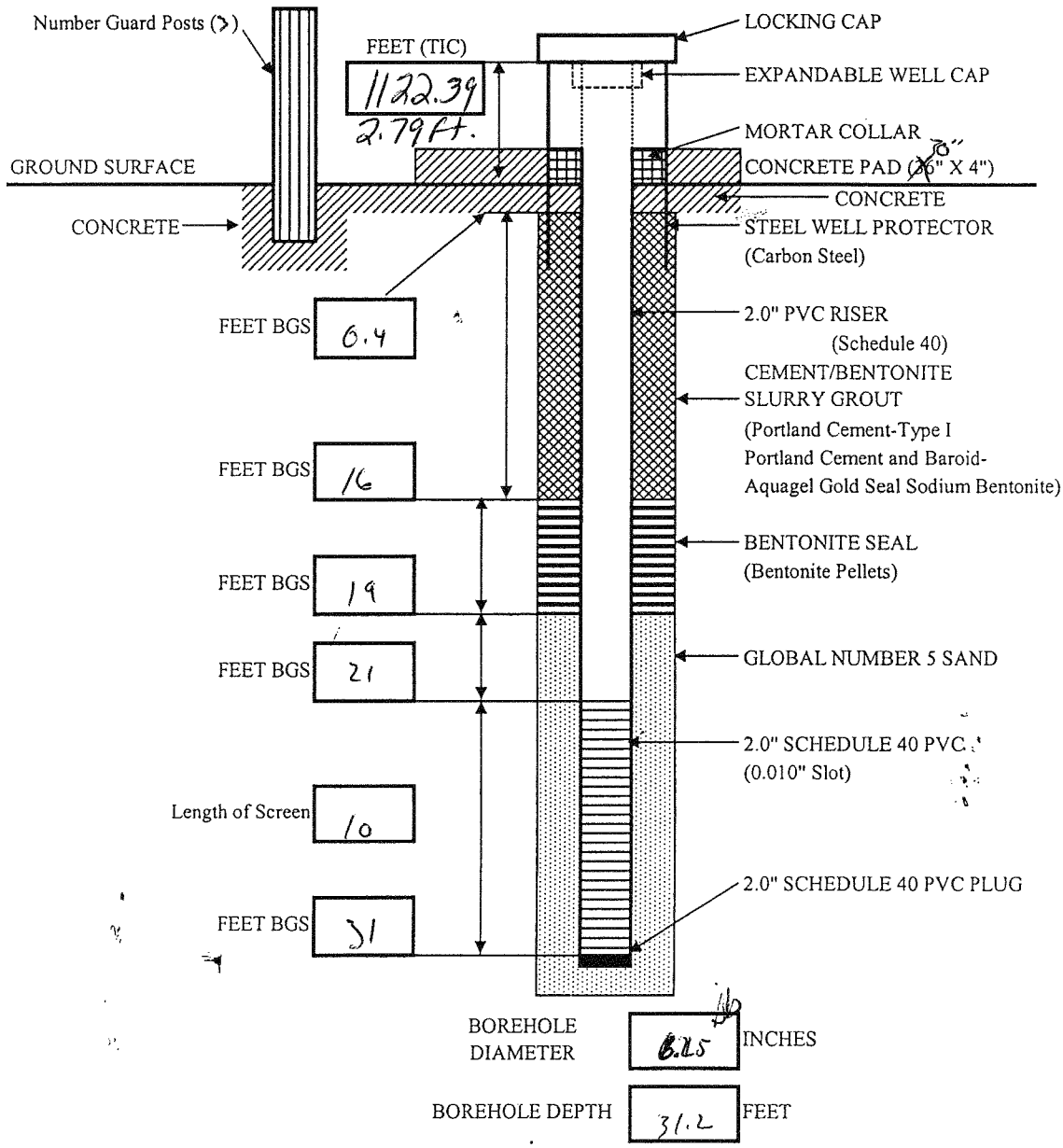
(Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: L10 mw-004	Begin: 05Jan05	End: 08Jan05
Coordinates: N: 555236.59 E: 2355438.20	Elevation: 1119.60	Reference Point:
Logged By: MJ Daly		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM Engineers	DISTRICT: Louisville	HOLE NUMBER: L10mw-005
2. DRILL SUBCONTRACTOR: A&D Drilling Contractors		SHEET 1 OF 5 SHEETS
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 10	
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME LC-60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 6.25 ID HSA; 2" Split Spoon; 3" Shelby Tube; 6.25 OD Air Rotary Hammer; 2" ID Core Barrel	8. HOLE LOCATION: South of PE-33	
	9. SURFACE ELEVATION: 1122.90 ASL	
	10. DATE STARTED: 07 Jan 05	11. DATE COMPLETED: 10 Jan 05
12. OVERBURDEN THICKNESS: 12.5	15. DEPTH GROUNDWATER ENCOUNTERED: ~19	
13. DEPTH DRILLED INTO ROCK: 14.5	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 10.90 @ 1343 01/12/05	
14. TOTAL DEPTH OF HOLE: 27.0	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —	

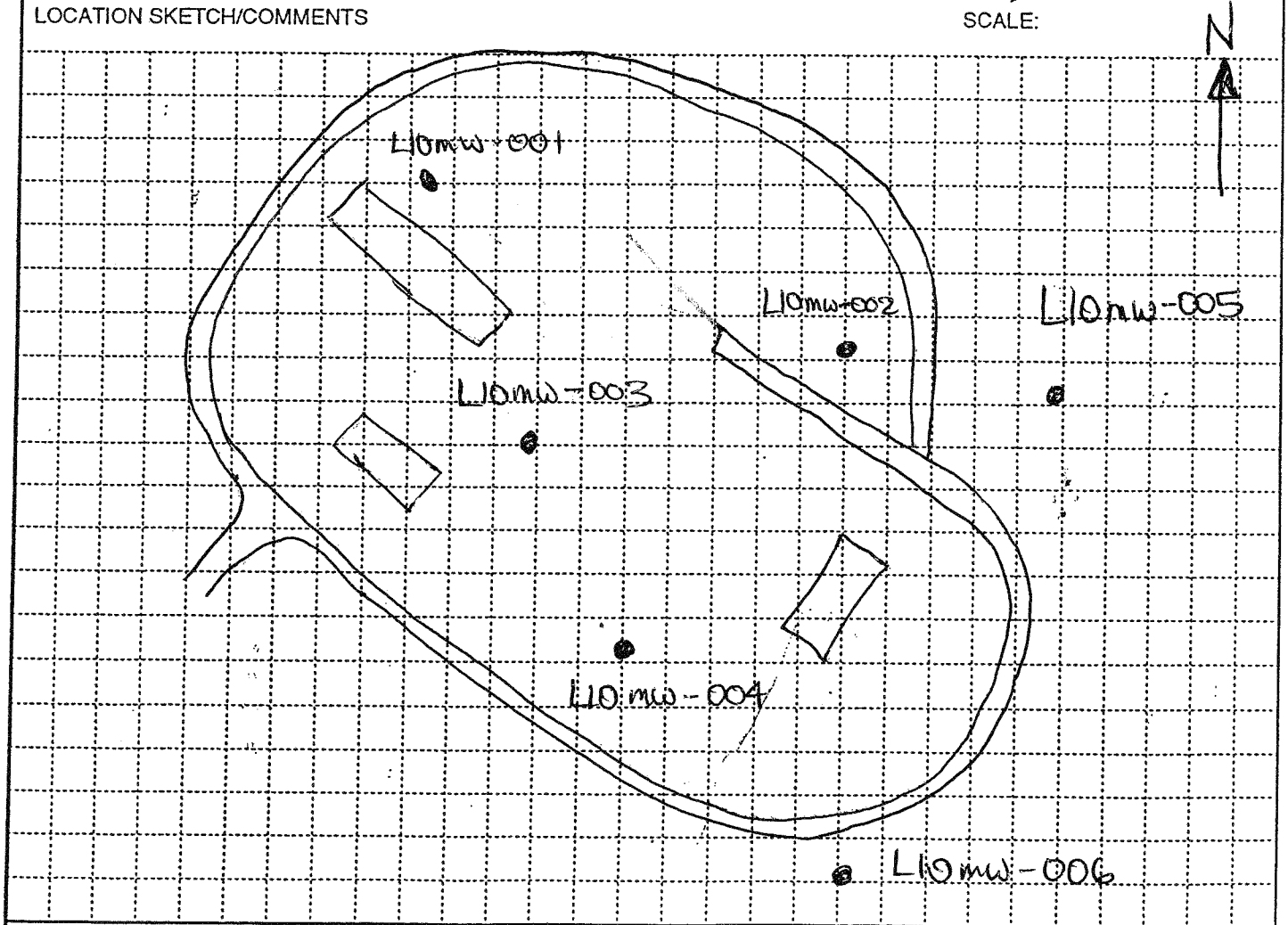
18. GEOTECHNICAL SAMPLES	DISTRIBUTED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 4-6'	—	X	1

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	—	—	—	—	—	89 %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	L10mw-005

ENG FORM 5056-R, AUG 94

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: L/OMW-005

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. Recovery	ANALYTICAL SAMPLE NO. USGS	BLOW COUNT - (g)	REMARKS (h)
1350		DK. Br. SILT 70% w/Sand wet No Odor No Staining No Plasticity	0.0	1.7	ML	Weight	7.5yr 4/3
	2	Red/Br. SILT 65% w/Sand Damp No Odor No Plasticity Grey Mottling	0.0	1.5	ML	1-2 4-6	5yr 5/6
	4	1405 0 Inches Shelby Tube					
	6	Br. SILT 65% w/Sand Dry No Odor No Plasticity No Staining	0.0	1.6	ML	1-7 10-8	7.5yr 4/4
	8	SAA	0.0	1.5	ML	5-6 5-7	SAA
	10	SAA Changes to wet @ 11.5	0.0	1.0	ML	1-3 15-16	SAA
	12	Changes to dry @ 12.1 SAA	0.0	1.0	M	1-2 13-18	SAA
1330	14	weathered SS Bedrock Split Spoon Refusal @ 14.1					
0845		Top of Core #1 @ 15.2					Recovery = 108/122.4 = 88.2%
	16	Weathered Br/Gray Sandstone * Fine Grained Horizontal Bedding w/ layers Iron Stained layers Present					RQD = 556/108 = 51.6% 7.5y 6/4
	18						
VI		Saturated/wet Fractured Pieces of SS					
	20	Grey Fine Grained SS w/ Horizontal Bedding Layers w/ Iron Staining					7.5y 6/2

PROJECT: RVAAP RI 14

HOLE NO.: L/OMW-005

ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: 410mw-005

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT - (g)	REMARKS (h)
	20	Br Fine/Med. Grained Sandstone Black Striations Present Horizontal to 36° Bedding Planes					7.5y-5/8
	22	Grey Fine Grained Sandstone Highly Cemented Horizontal Bedding Planes					7.5y-6/2
	24						
0920		Bottom of Core #1 @ 25.4					
	26						
		BOH 27.0					BOH 27 Sand to 26.5 Screen from 26.5 to 16.5 Sand to 13 Bentonite to 10 Grout to Surface Stick up well Completion No Hydration water used
	28						
	30						

PROJECT: RVAAP RI 14

HOLE NO. 410MW-005

ENG FORM 5056A-R, AUG 94

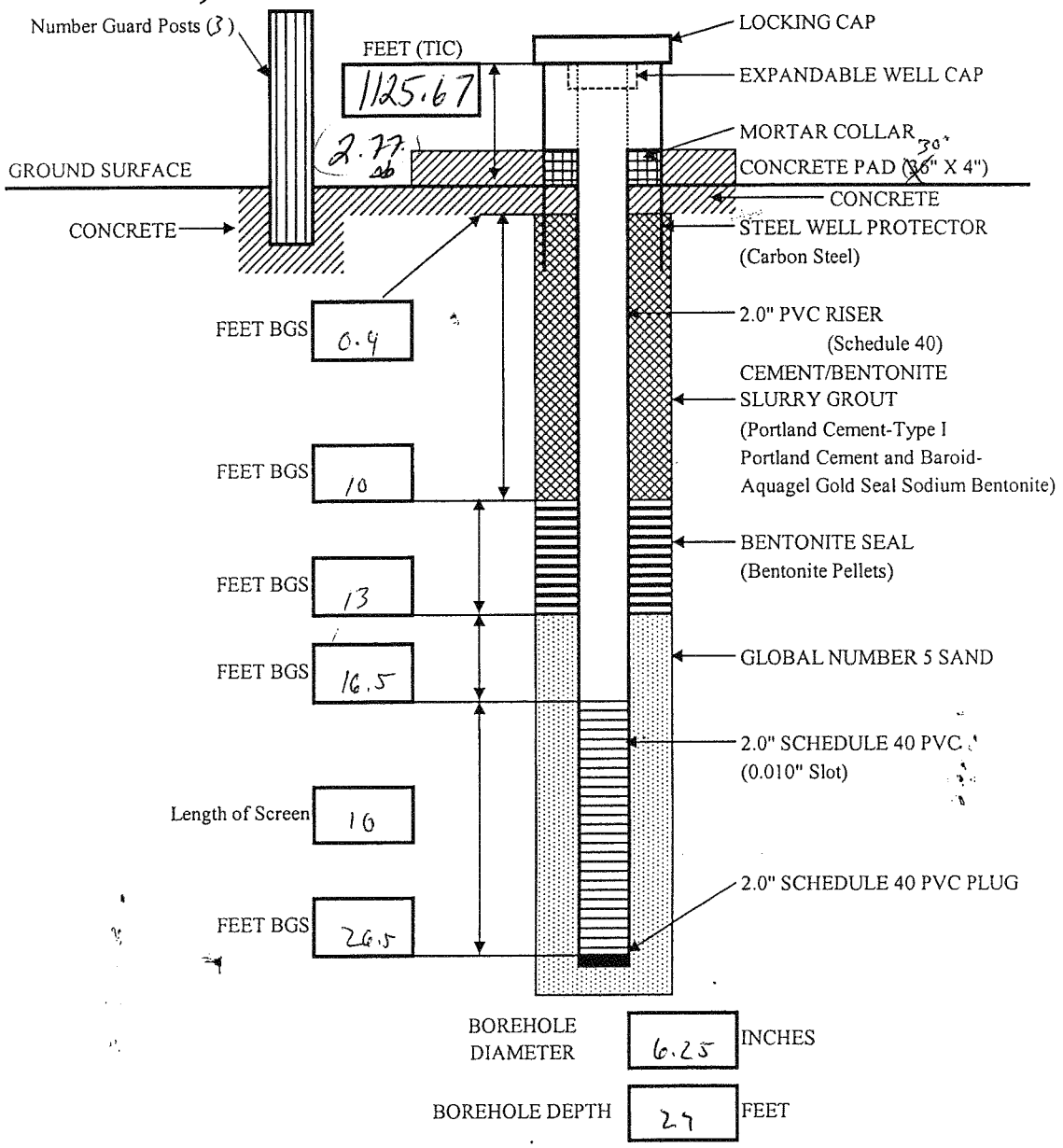
(Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP12Z 14

Well Number: L10MW-005	Begin: 07 Jan 05	End: 10 Jan 05
Coordinates: N: 555380.53 E: 2355943.55	Elevation: 1122.90	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

	DISTRICT: Louisville	HOLE NUMBER: L10mw-006
1. COMPANY NAME: MK In Engineers Inc	2. DRILL SUBCONTRACTOR: HAD Drilling Contractors	SHEET 1 OF 3
3. PROJECT: RVAAP RI 14	4. LOCATION: Load Line 10	
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC 60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 10.25 OD HSA; 2" Split Spoons	8. HOLE LOCATION: SouthEast PE10	
	9. SURFACE ELEVATION: 1121.20 ASL	
	10. DATE STARTED: 04Jan05	11. DATE COMPLETED: 05Jan05
12. OVERBURDEN THICKNESS: 23	15. DEPTH GROUNDWATER ENCOUNTERED: 15.21	
13. DEPTH DRILLED INTO ROCK: 1	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 7.4' @0835 01/07/05	
14. TOTAL DEPTH OF HOLE: 24ft	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

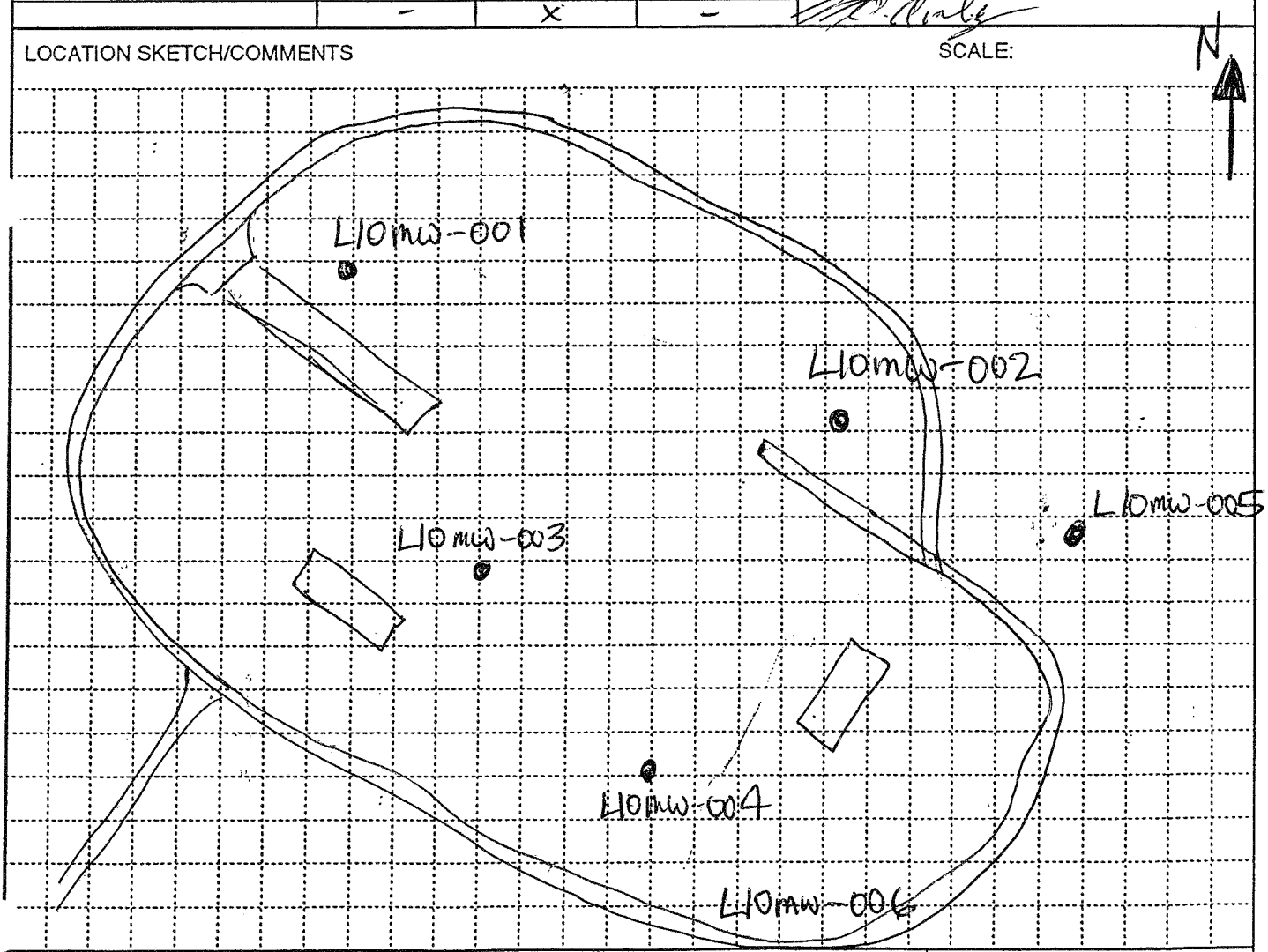
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	-	-	-

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY - %
	-	-	-	-	-	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	-	X	-	

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	L10mw-006

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LiOmw-006

PROJECT: RVAAP RI 14 | INSPECTOR: Mark Dunlay | SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT - (g)	REMARKS (h)
1435		6" Topsoil Moist/wet				Push 1	
		Reddish/Gray/Br. SILT 65% w/ Sand No Odor No Plasticity Damp Red staining	0.0	1.5	ML	2-3	7.5y-6/6
	2						
		Br. SILT 70% w/ sand Slight Dry No odor No Plasticity Grey staining/Mottling	0.0	1.4	ML	Push 1 3-3	7.5y-5/4
	4						
		Grey SILT 60% w/ Clay Damp No odor No staining Med. Plasticity No	0.0	1.9	ML	1-4 7-10	7.5y-5/2
	6	Br. SILT 75% w/ Clay + Sand Dry Very Slight No Odor White staining White					7.5y-5/4
			0.0	1.6	ML	2-9 10-11	
	8	Br. SILT 65% w/ sand Dry No Odor, No staining No Plasticity	0.0	1.6	ML	1-3 5-6	SAA
	10		0.0	1.1	ML	2-4 5-6	SAA
	12	Br. SAND 85% Fine-Med Grained Wet			SM		
		Br. SILT 65% w/ sand Damp No odor No staining No Plasticity	0.0	1.4	ML	1-4 11-24	SAA
	14	Becomes Dry @ 13.5				4-7	
V		Br/red Saturated SAND 85% No odor No Plasticity from staining	0.0	1.1	SM	13-6	5yr 4/6
		Br. SILT 65% w/ Sand No Odor No staining No Plasticity			ML		7.5yr-5/4
	16	Red/Br. SAND 85% Damp No odor No staining No Plasticity			SM	2-4	5yr 4/6
		Br. Champlain Clay SILT 65% w/ sand and Small Gravel Damp No odor No staining No Plasticity	0.0	1.7	ML	10-24	7.5yr-5/4
	18						7.5y-5/2
		Lt Br/Tan SAND 75% w/ Large Rock Frag. Dry	0.0	1.8	SP	7 18 18 16	7.5y-6/4
	20						

PROJECT: RVAAP RI 14 | HOLE NO.: LiOmw-006

ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: LIOMW-006

PROJECT: RVAAP RE 14

INSPECTOR: Mark Dunlay

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT - (g)	REMARKS (h)
	20	Changes to Br.					
▽		Saturated	0.0	1.0	SP	1-4	7.5y-5/4
		changes Back to Dry				6-9	
	22	SS Bedrock Frag					
		Weathered Bedrock			SP		
1550	24	BOH 24 Ft.					BOH 24 Sand to 23.5 Screen from 23.5 to 13.5 Sand to 11 Bentonite to 8 Grout to Surface No Hydration water Used
	26						

PROJECT: RVAAP RE 14

HOLE NO. LIOMW-006

ENG FORM 5056A-R, AUG 94

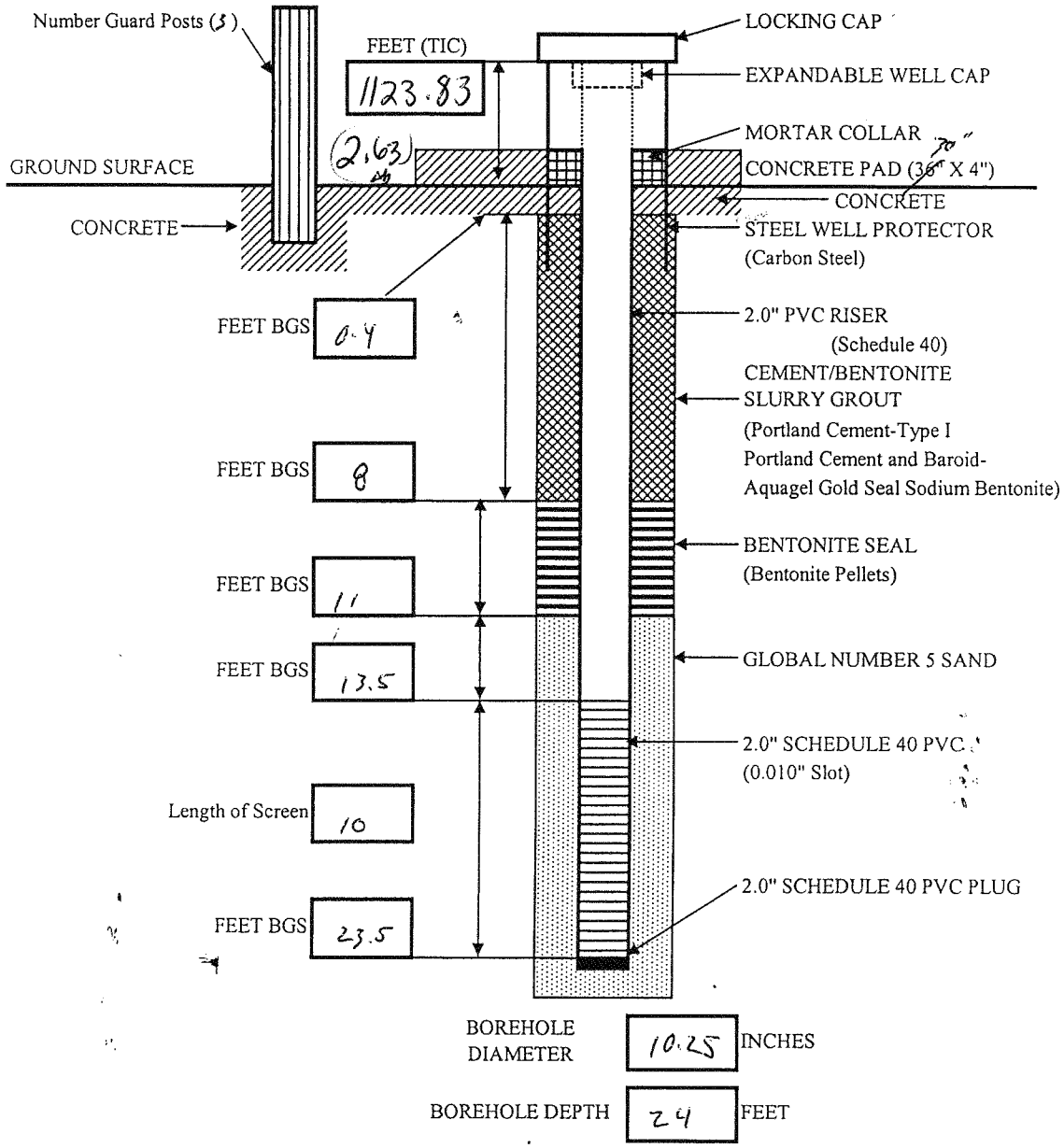
(Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: L10mw-006	Begin: 04 Jan 05	End: 05 Jan 05
Coordinates: N: 554995.25 E: 2355654.80	Elevation: 1121.20	Reference Point:
Logged By: M.O. Daly		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM ENGINEERS	DISTRICT: LOUISVILLE	HOLE NUMBER: ASYmw-001
2. DRILL SUBCONTRACTOR: HAD DRILLING		SHEET 1 OF 3 SHEETS

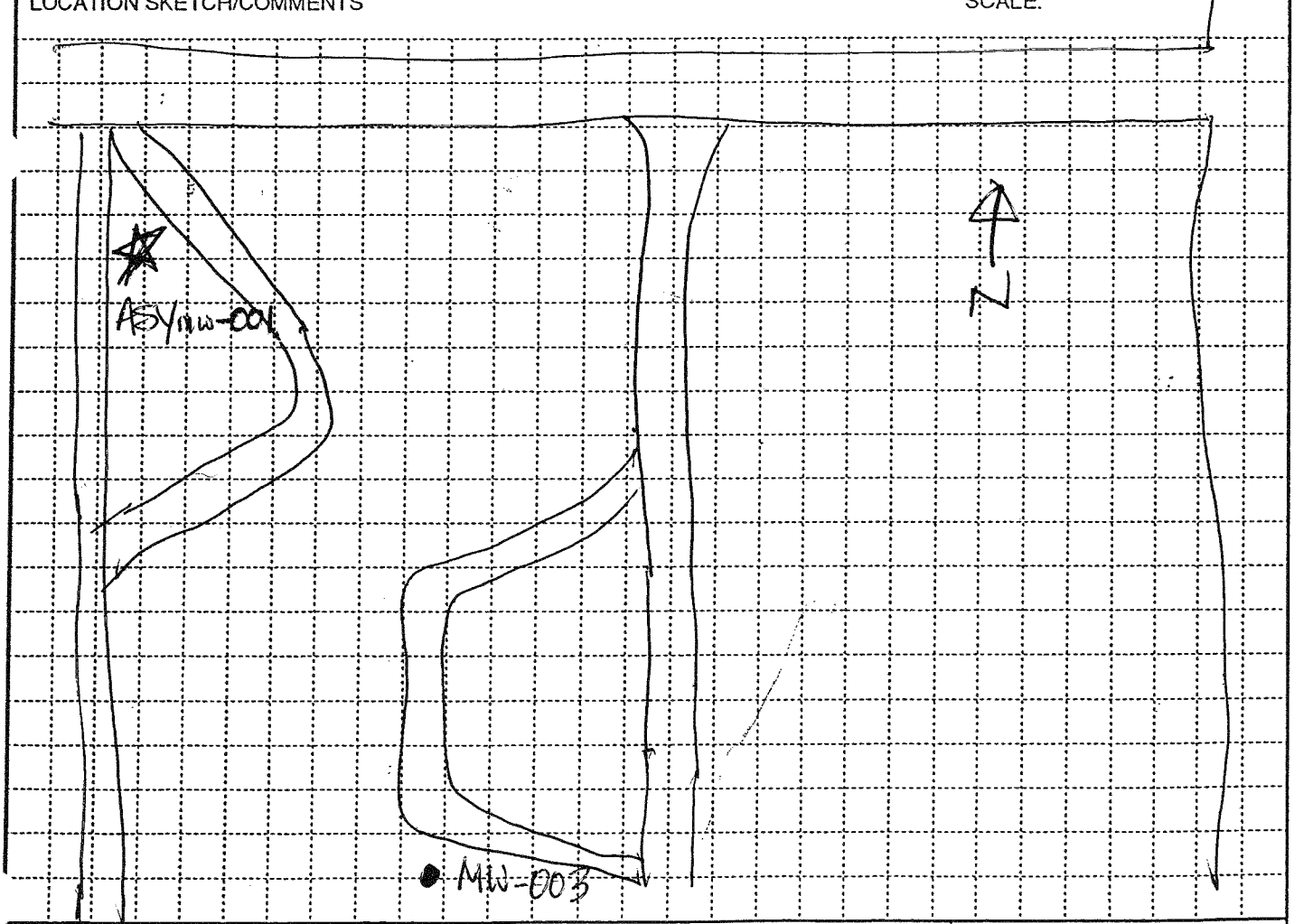
3. PROJECT: RVAAP-RI 14	4. LOCATION: RAVENNA, OH ATLAS SCRAP YARD
5. NAME OF DRILLER: SCOTT HEISER	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME-55; 4¼" ID HSA; 2' SPLIT SPOON	8. HOLE LOCATION: NORTH WESTERN CORNER OF SITE
	9. SURFACE ELEVATION: 978.40 ASL
	10. DATE STARTED: 11/15/04 — 11. DATE COMPLETED: 11/15/04
12. OVERBURDEN THICKNESS: 16'	15. DEPTH GROUNDWATER ENCOUNTERED: ~18' BGS
13. DEPTH DRILLED INTO ROCK: 6'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 11.24 @ 0842 11/23/04
14. TOTAL DEPTH OF HOLE: 22' BGS	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
4-6' BGS		X	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	Donald Kennedy

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP-RI 14	ASYmw-001

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: ASV mw-001

PROJECT: RVAAP-RI 14

INSPECTOR: DK EARNEST

SHEET 2 OF 3 SHEETS

200

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY (e)	~~ANALYTICAL SAMPLE NO.~~ USCS (f)	BLOW COUNT (g)	REMARKS (h)
	0	2" TOPSOIL 6" DEBRIS & SOIL DK GREY (20%) SL CL SILT (75%) W/ SAND (5%)	7.2	1.4	ML	4/6 5/4	
	2	LT BRN MOTTLED W/ LT GREY CLAY (80%) NO ODOR TRACE RED SILT (70%) MED PLASTIC STIFF TO V. S.	6.0	1.6	ML/CL	4/6 9/10	DAMP TO MOIST
	4	SHELBY TUBE	—	—	—	~~4/6~~ —	1415
	6	SAA MED BRN LOW PLASTIC	7.6	1.4	ML	1/4 5/6	WET ON SPOON
	8	SAA	9.5	2.0	ML	1/4 6/10	
	10	SAA GREY SL CL SILT (20%) (80%)	7.8	1.5	ML	1/4 6/7	SAND LENS AT 10.5 MOIST TO WET AT END
	12	SAA LOW PLASTIC	8.6	~~1.5~~ 1.4	ML	1/4 4/6	SAND LENS @ 13'
	14	SAA	3.6	1.0	ML	1/12 21/50+	SPOON REFUSAL @ 15.5 SATURATED
	16	WEATHERED SANDSTONE GREY FINE TO MED GRAINED	—	/	SS	—	DRILLED THRU WEATHERED
	18	SAA	—	—	SS	—	ROCK TO 21'
	20						

PROJECT: RVAAP - RI 14

HOLE NO.: ASV mw - 001

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: ASYmw-001

PROJECT: RVAAP-R114

INSPECTOR: DK EARNEST

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		GRAY WEATHERED SANDSTONE					DRILLED TO 22'
300	22	BOH- 22' DRILLED TO 22 WELL SET AT 21 SCREEN 11-21' SAND TO 9' SEAL TO 7' NO WATER ADDED					

PROJECT: RVAAP-R114

HOLE NO.: ASYmw-001

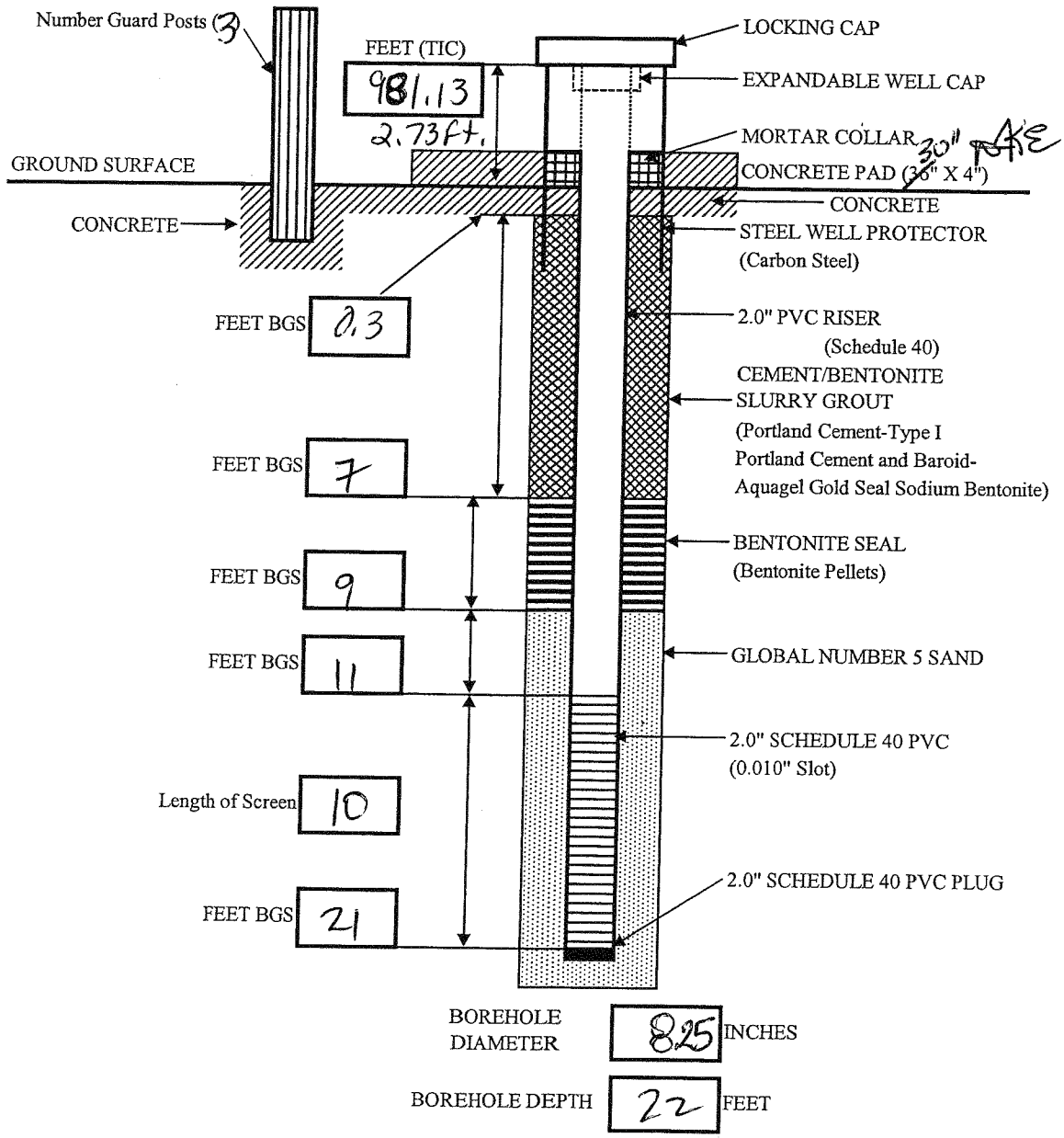
0 210

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: ASY MW -001	Begin: 11/15/04	End: 11/15/04
Coordinates: N: 558404.04 E: 2366260.85	Elevation: 978.40	Reference Point:
Logged By: DAVID K. EARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

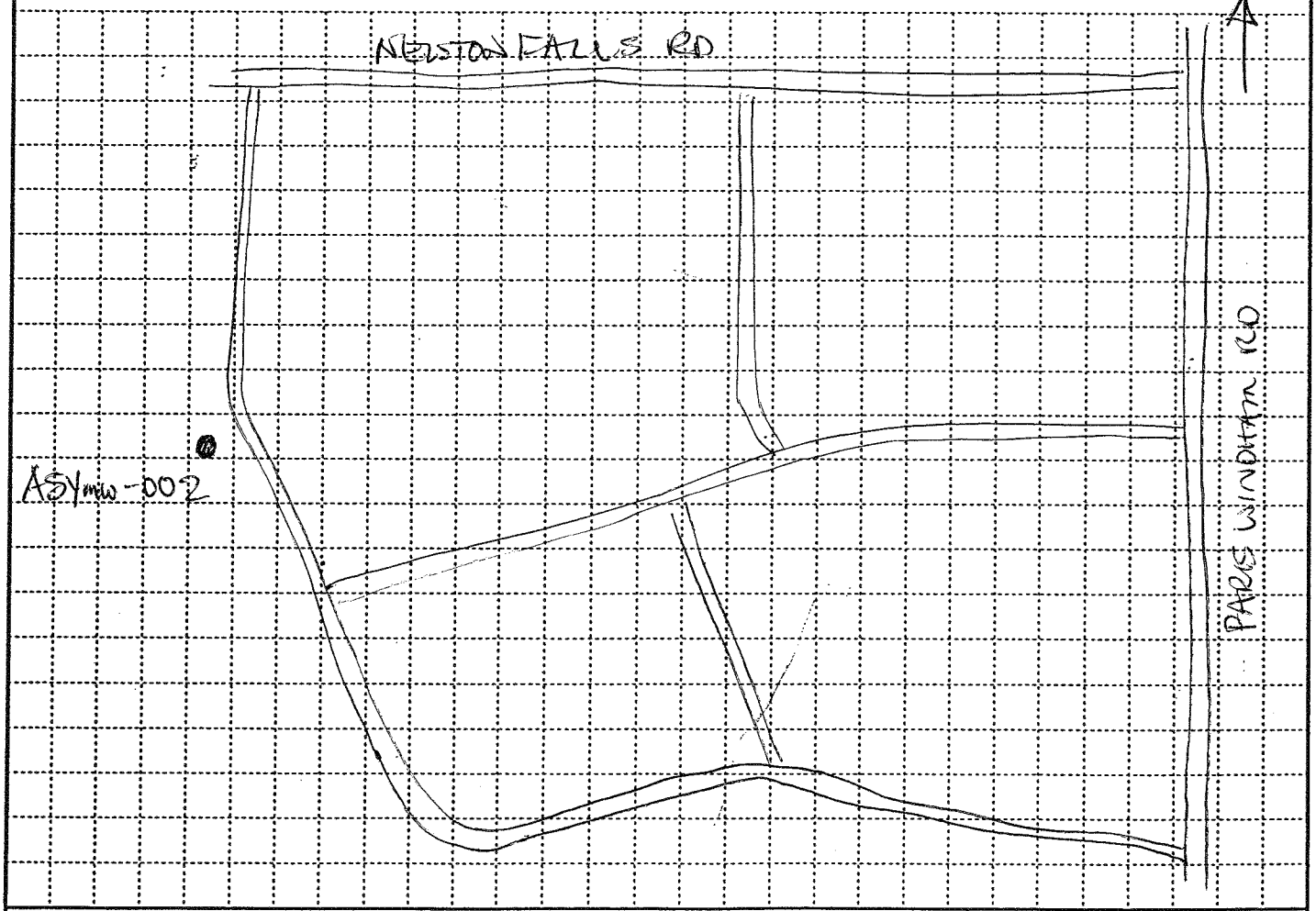
	DISTRICT: Louisville	HOLE NUMBER: ASYmw-002
1. COMPANY NAME: MKM Engineers Inc	2. DRILL SUBCONTRACTOR: Had Drilling	SHEET 1 OF 2 SHEETS
3. PROJECT: RVAAP RI 14	4. LOCATION: Atlas Scrap Yard	
5. NAME OF DRILLER: Sam Holler	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25 OD HSA; 2" Split Spoons	8. HOLE LOCATION: West Center	
	9. SURFACE ELEVATION: 982.00 ASL	
	10. DATE STARTED: 16 Nov 04	11. DATE COMPLETED: 16 Nov 04
12. OVERBURDEN THICKNESS: 18 Ft (Approx)	15. DEPTH GROUNDWATER ENCOUNTERED: 11.7	
13. DEPTH DRILLED INTO ROCK: 2 Ft. (Weathered SS)	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 14.58 @ 1302 11/22/04	
14. TOTAL DEPTH OF HOLE: 20 Ft	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	—	—	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY — %
	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
		X		

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP RI 14	ASYmw-002

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: AS/MW-002

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 2 OF 2 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT - (g)	REMARKS (h)
		2" Topsoil					Began Drilling 1030
		Br. SILT 70% w/ Sand Dry No odor No Staining No Plasticity Gray Mottles Present	0.0	1.4	ML	1-1 2-4	7.5YR 5/8
	2						
		Br. SILT 75% w/ Sand Dry No odor Mottles Stop No Plasticity	0.0	0.6	ML	1-4 5-10	7.5YR 5/4
	4						
		Br. SILT 75% w/ Clay - Dry No odor No Plasticity	0.0	1.8	ML	3-7 10-12	7.5YR 4/3 5YR 4/4
	6	Br/Red SAND 75% w/ Silt Damp No odor No Staining No Plasticity					
		Rock Fragments Pres.			SM	6-10	
		4" SILT Layer 70% w/ Sand Dry No odor No Staining	0.0	1.8	ML	7-11	7.5YR 4/4
	8	Red/Br. SAND 75% w/ Silt Dry No odor No Staining No Plasticity			SM		7.5YR 5/6
		8" Lyr Br. SILT w/ Sand Dry No Plasticity	0.0	1.8	ML	4-6	7.5YR 6/6
		Br. SAND 80% w/ Silt Dry No odor No Staining No Plasticity			SM	7-10	7.5YR 5/4
	10						
			0.0	1.7	SM	4-4 3-2	Same As Above
▽	12	Saturated @ 11.7					
		Same As Above → Wet	0.0	1.3	SM	1-2 2-2	Same As Above
	14						
		Same As Above	7.5	1.0	SM	2-2 3-2	7.5YR 4/6
	16						
		Same As Above	2.9	1.4	SM	2-2 Refusal	7.5YR 4/4
	18	Split Spoon Refusal @ 18ft.					
		Augured to 20ft	—	—		—	Bott 20 Sand to 8.5 Sand to 19.5 Bentonite to 5 Screen from 19.5 Grout to to 9.5 Surface
	20	Bott 20ft					

PROJECT: RVAAP RI 14

HOLE NO.: AS/MW-002

ENG FORM 5056A-R, AUG 94

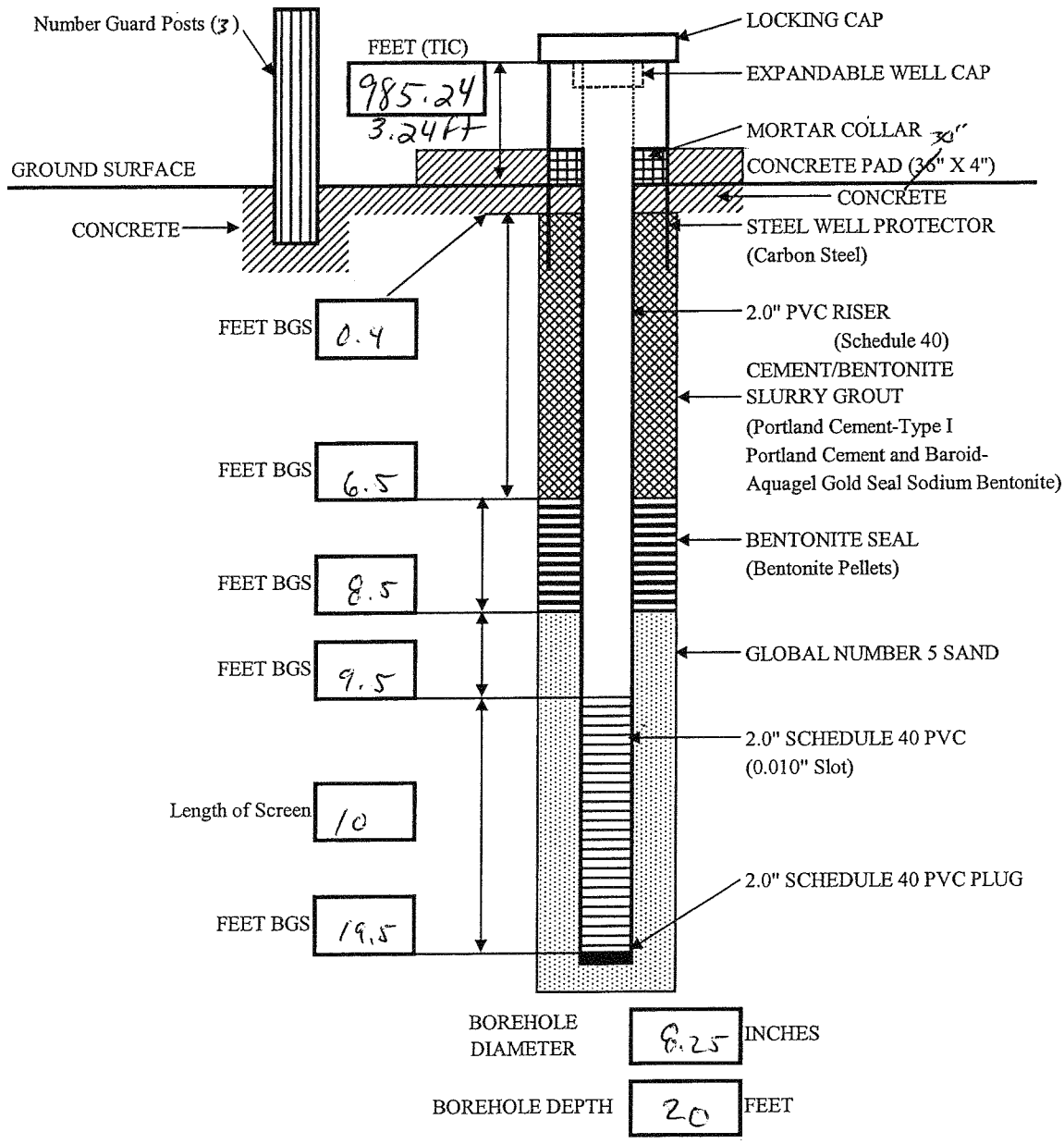
(Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI-14

Well Number: ASYmw-002	Begin: 16 Nov 04	End: 16 Nov 04
Coordinates: N: 557887.86 E: 2366170.86	Elevation: 982.00	Reference Point:
Logged By:		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

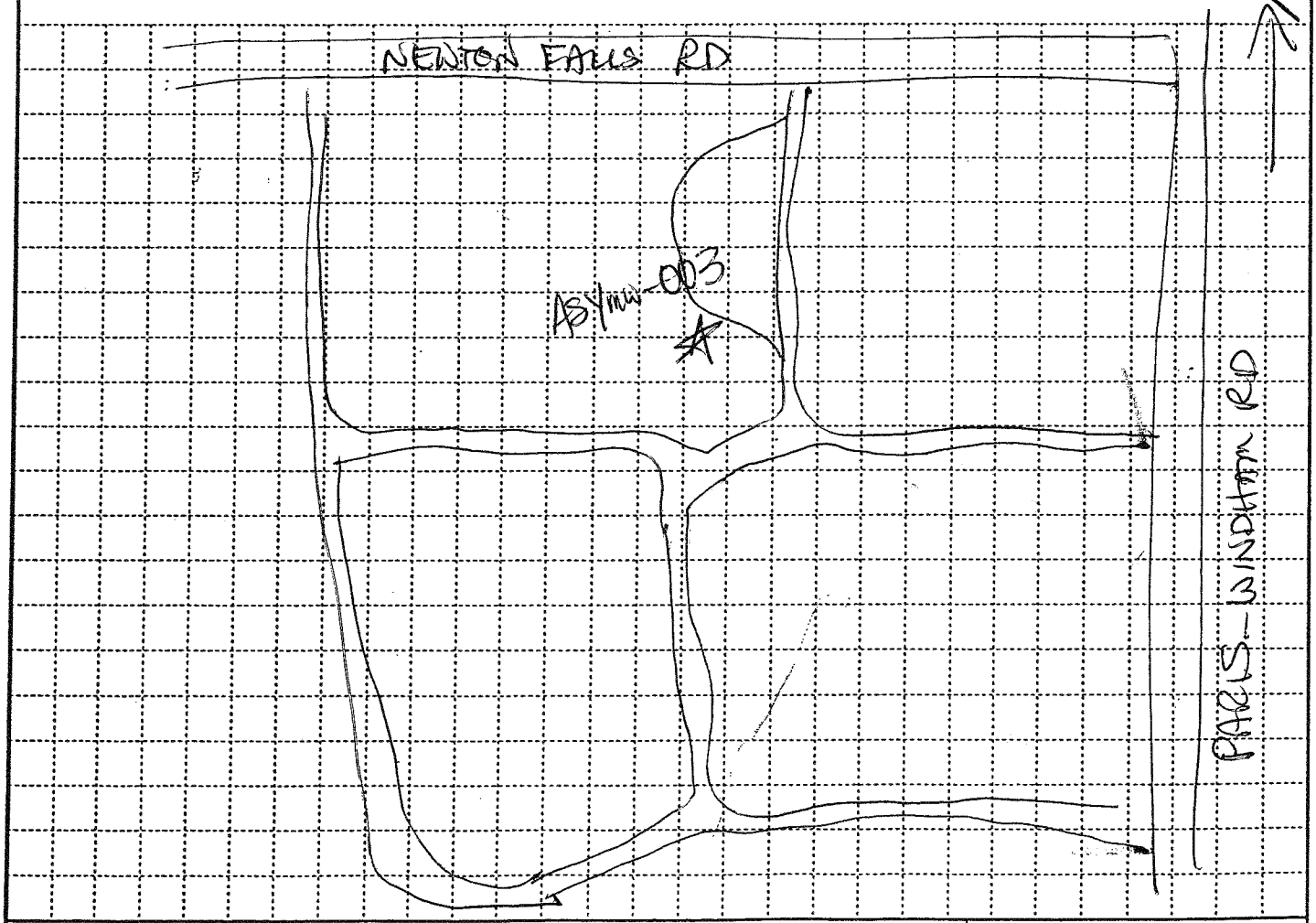
DISTRICT: LOUISVILLE		HOLE NUMBER: ASI/MW-003
1. COMPANY NAME: MKM ENGINEERS	2. DRILL SUBCONTRACTOR: HAD DRILLING	SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP-R114	4. LOCATION: RAVENNA, OH ATLAS SCRAP YARD	
5. NAME OF DRILLER: SCOTT HEISER	6. MANUFACTURER'S DESIGNATION OF DRILL: CME	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA; 2' – 1½" ID SPLITSPOON	8. HOLE LOCATION: NORTHERN CENTRAL AREA OF SITE	
	9. SURFACE ELEVATION: 979.70 ASL	
	10. DATE STARTED: 11/11/04	11. DATE COMPLETED: 11/11/04
12. OVERBURDEN THICKNESS: 20	15. DEPTH GROUNDWATER ENCOUNTERED: 15'	
13. DEPTH DRILLED INTO ROCK: 1.5	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 12.15 @ 0915 11/17/04	
14. TOTAL DEPTH OF HOLE: 21.5'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 6'-8' BGS		X	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
—	—	—	—	—	—	NA %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT: RVAAP-R114	HOLE NO: ASI/MW-003

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER ASYmw-003

PROJECT RVAAP-R114 | INSPECTOR DKEARNEST | SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. RECOVERY	ANALYTICAL SAMPLE NO. USCS	BLOW COUNT (g)	REMARKS (h)
1230		6" TOPSOIL W/ DEBRIS					
		BROWN SILT (80%) LOW PLASTIC MOTTLED W/GREY TRACE SAND (10%)	3.4	1.1	ML	6/5	7.5YR 4/3 DAMP
	2	BROWN W/GREY FINE GRAVEL (10%)				3/3	DRY
			3.3	1.5	ML	5/6	7.5YR 5/6
		LESS MOTTLING W/ STIFF DEPTH				7/9	25% MOTTLING DRY
	4		3.9	1.5	ML	1/4	
						7/11	
	6	SHELBY TUBE	—	—	—	—	1245
	8	2" SAND SEAM					
		BROWN CLAYEY SILT (80%) (20%) STIFF TO V.S. NO PLASTIC	3.4	1.5	ML	1/4	7.5YR 5/6
						8/10	DRY
	10	SAND SEAM 3" AT TOP ROCK FRAGS AT 10.5				2/3	
		FINE TO SMALL GRAVEL	2.3	1.5	ML	5/6	MOIST
	12		2.8	1.8	ML	2/6	
		GREY SILT (85%) TRACE PEBBLE				5/4	MOIST
	14	NON PLASTIC TRACE SAND MED DENSE	3.7	1.8	ML	1/3	7.5YR 4/1
						2/3	WET @ 15
	16	SAA SOME SAND				1/3	
		SAND SOME PEBBLES SEAM AT 17"	2.8	1.7	ML	5/7	
	18	(20%) SANDY SILT (80%)					
		DK GREY CLAYEY SILT (20%) (80%)	4	1.6	ML	2/11	10YR 3/1
1194		5" ROCK FRAGS & PEBBLES SAND SEAM			SM	37/50+	SPOON REFUSAL

PROJECT RVAAP-R114 | HOLE NO. ASYmw-003

ASY mw-003

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: ASY mw ~~-008~~

PROJECT: RVAAP-RI 14

INSPECTOR: DK EARNEST

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	DRILLED INTO SS TO 21.5'					
	21	BOH/ED 21.5'					
		~~DR~~ WELL TO BE SET AT 21.0'					
		6" SAND BELOW SCREEN					
		SCREEN AT 11-21' BGS					
		SAND TO 9'					
		SEAL TO 7'					

PROJECT: RVAAP-RI 14

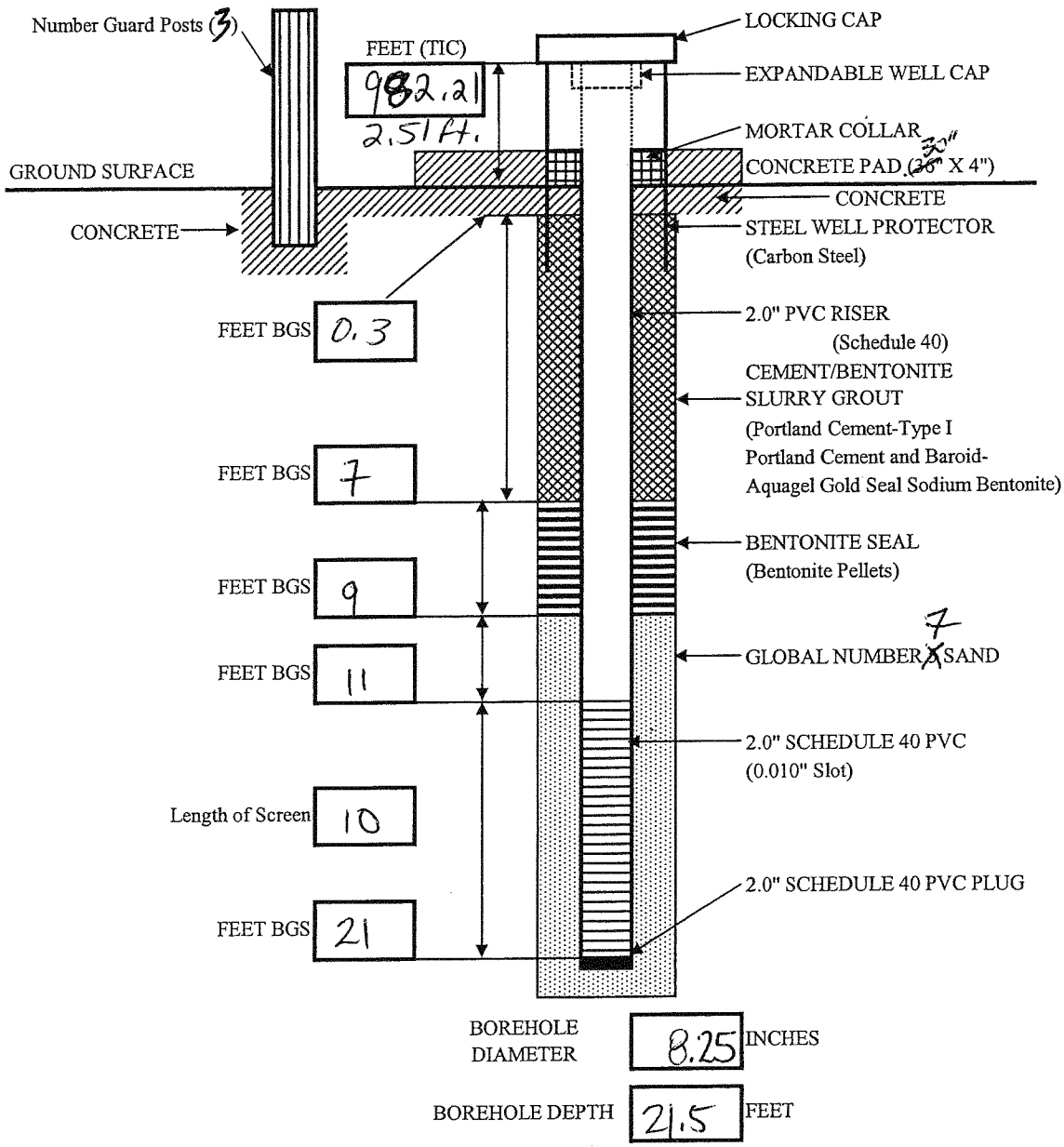
HOLE NO.: ASY mw-003

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: ASY mw-008 HSE	Begin: 11/11/04	End: 11/11/04
Coordinates: N: 558015.94 E: 2366651.49	Elevation: 979.70	Reference Point:
Logged By: DK LEARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

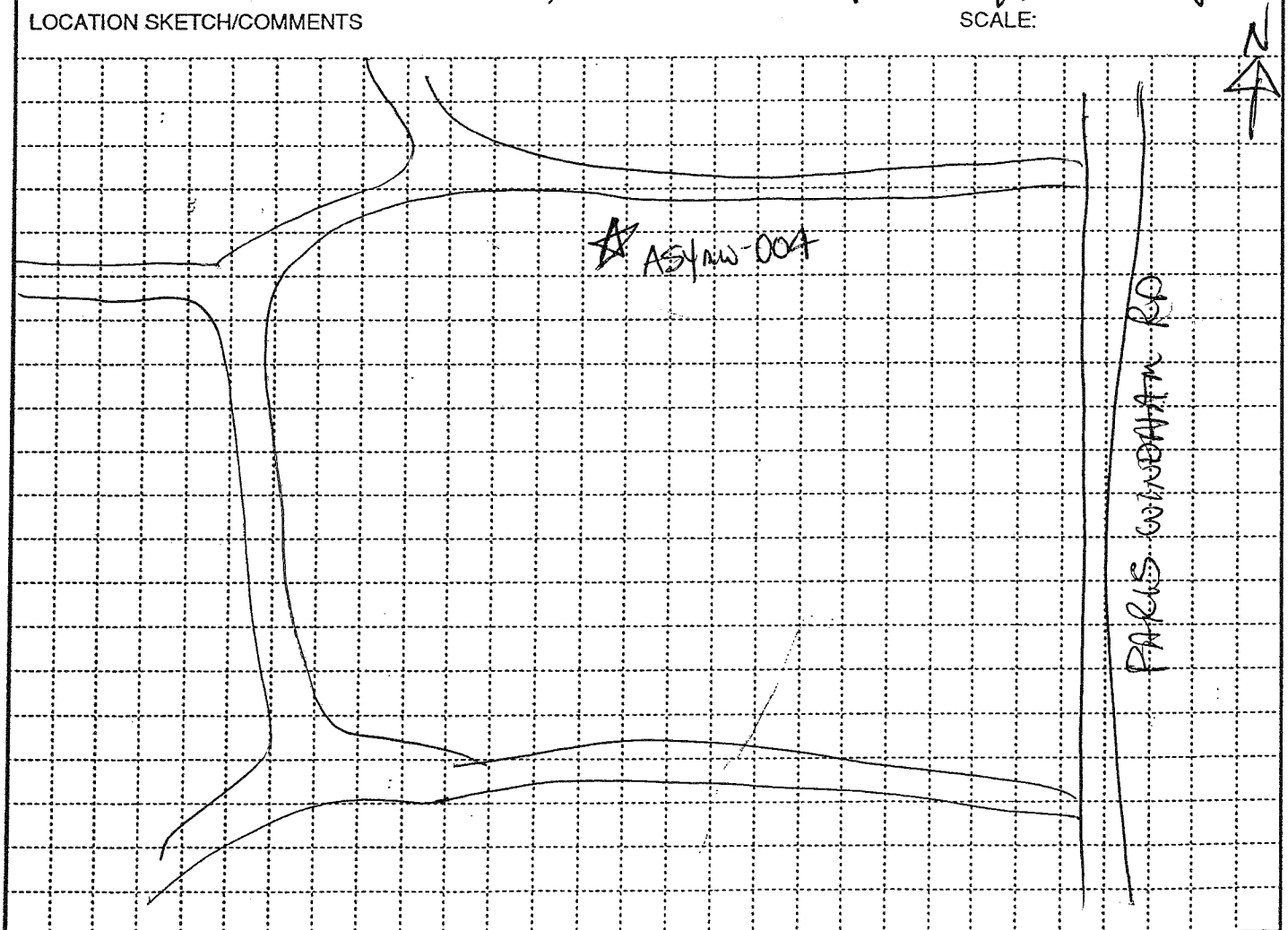
DISTRICT: LOUISVILLE	HOLE NUMBER: ASYMW-004	
1. COMPANY NAME: MKM ENGINEERS	2. DRILL SUBCONTRACTOR: HAD DRILLING	SHEET 1 OF 3
3. PROJECT: RVAAP - R114	4. LOCATION: RAVENNA, OH ATLAS SCRAP YARD	
5. NAME OF DRILLER: SCOTT HETSER	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-55	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4 1/4" ID HSA; 1 1/2" ID 2' SPLITSPOON	8. HOLE LOCATION: CENTER OF SITE	
	9. SURFACE ELEVATION: 977.10 ASL	
	10. DATE STARTED: 11/10/04	11. DATE COMPLETED: 11/11/04
12. OVERBURDEN THICKNESS: 27.5	15. DEPTH GROUNDWATER ENCOUNTERED: 16'	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 9.15 @ 0950 11/17/04	
14. TOTAL DEPTH OF HOLE: 27.8'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —	

18. GEOTECHNICAL SAMPLES	DISTRIBUTED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	—	—	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
—	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP - R114	ASYMW-004

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: ASYMW-004

PROJECT: RVAAP-R1 14

INSPECTOR: DREARNEST

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
730	0	~~0'~~ GREY TOPSOIL					930 AM
		LT GREY W/ ORANGE CLAY, SILT (60%) (30%) MED TO LOW PLASTIC TRACE SAND (10%)	3.9	1.3	CL	3/5 7/11	~~7.5 YR~~ 6/2 DRY WITH 5/6 30%
	2	BROWN W/ GREY MOTTLED TRACE SMALL PEBBLES	7.6	1.4	CL	8/11 11/13	~~7.5 YR 4/3~~ DRY
	4	LESS MOTTLING W/ DEPTH	4.8	1.4	CL	1/6 12/13	7.5 YR 4/3 DRY
	6	SAA	7.7	1.5	CL	2/7 11/17	DRY
	8	SAA	6.2	1.6	CL	4/10 13/21	DRY
	10	GREY SILT, SL CLAY (80%) (20%) LOW TO NO PLASTIC STIFF NO ODOR	6.5	1.4 BLOW	ML	2/5 8/10	11' DAMP TO WET 7.5 YR 5/1
	12	SAA MED TO STIFF	5.7	1.7	ML	1/3 4/5	
	14	SAA	6.1	2.0	ML	1/2 3/5	
	16	SAA	3.3	2.0	ML	1/3 4/6	16-16.5 SAT
	18	SAA	3.8	1.8	ML	1/3 5/7	18-18.5 SAT
	20						

PROJECT: RVAAP-R1 14

HOLE NO.: ASYMW-004

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: ASYmw-004

PROJECT: RVAAP-RI 14

INSPECTOR: DKEARNEST

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	SAA				1/2	
			4.1	1.8	ML	3/6	1"SAND @ 21.5' 2.5Y 4/2
	22	SILT, SANDY					
		OLIVE GRAY LOW PLASTIC			ML	1/4	22.5' 4" COARSE SAND SEAM
		SOME COARSE SAND TO SMALL ~~PEBBLES~~ GRAVEL	2.7	2.0		8/12	
	24	NONPLASTIC					
						4/8	7.5 YR 4/1
		DK GREY AT 25'	8.2	1.8	ML	12/13	7.5YR 2.5/1
	26						
		SOME SS ROCK FRAGS	7.7	1.3	ML	2/11	
		SANDSTONE				50T	27.5 REFUSAL
	28	BOH 27.8'					
	30						
		REFUSAL 27.8'					
		SCREEN 17-27					
		SAND TO 14'	8 BAGS #7 SAND				
		SEAL TO 11'					

PROJECT: RVAAP-RI 14

HOLE NO: ASYmw-004

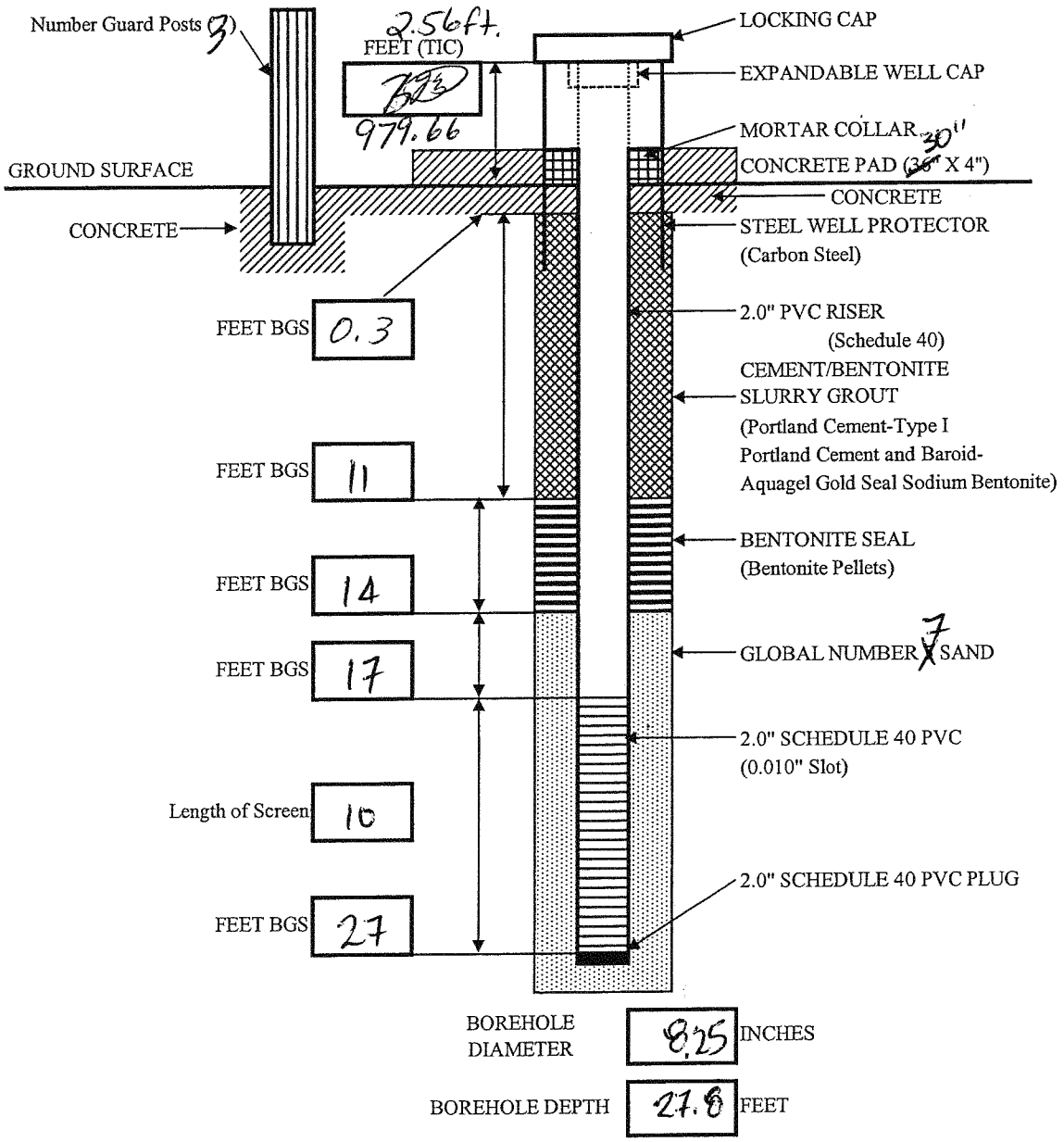
ENG FORM 5056A-R, AUG 94 (Proponent CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: ASY mw -004	Begin: 11/11/04	End: 11/11/04
Coordinates: N: 557640.81 E: 2367166.04	Elevation: 977.10	Reference Point:
Logged By: DK EARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM ENGINEERS	DISTRICT: LOUISVILLE	HOLE NUMBER: ASYmw-005
2. DRILL SUBCONTRACTOR: HAD DRILLING		SHEET 1 OF 3 SHEETS

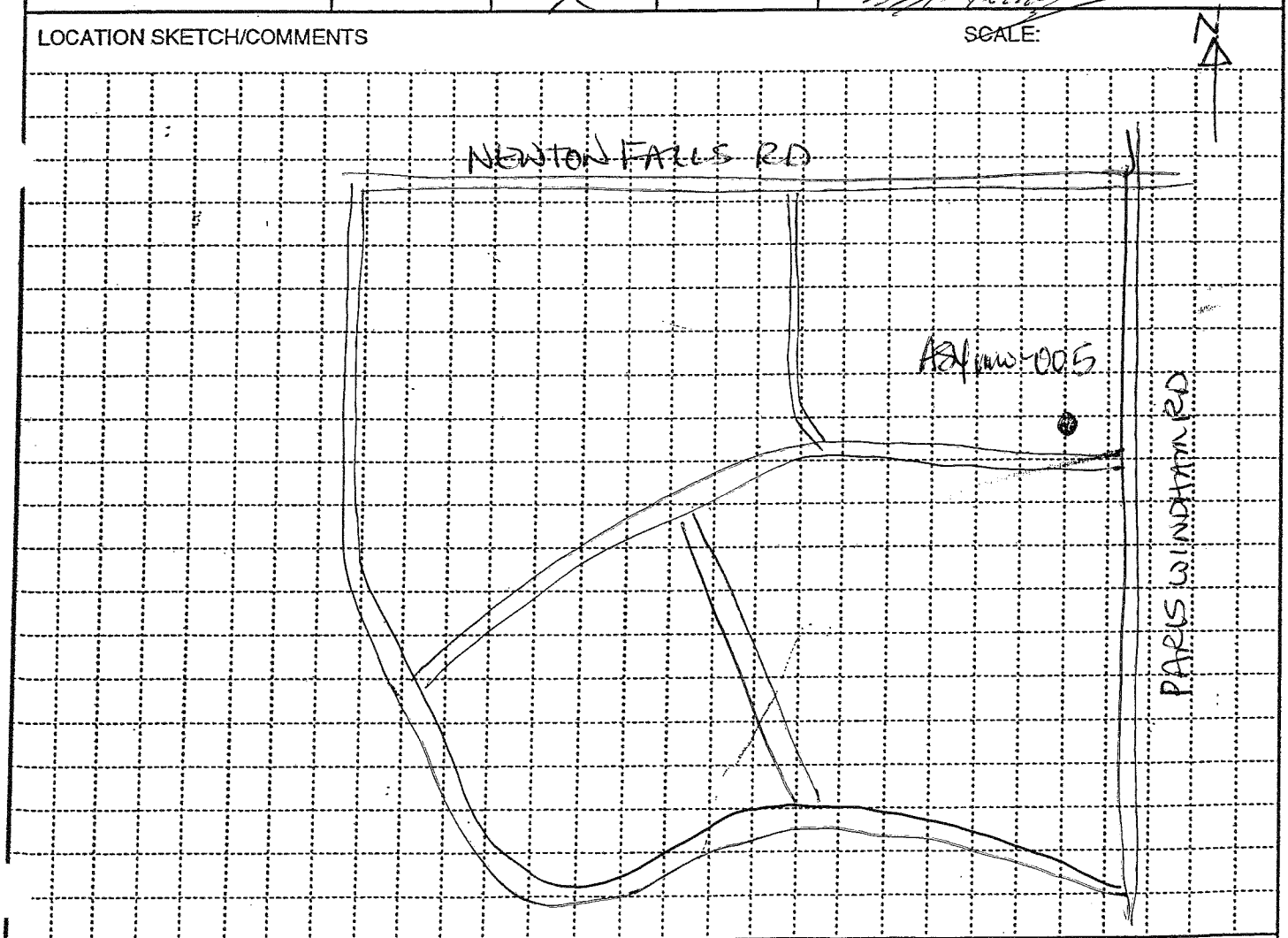
3. PROJECT: RVAAP-RI 14	4. LOCATION: ATLAS SCRAP YARD
5. NAME OF DRILLER: SAM HOFFER	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25" OD HSA; 2" SPLIT SPOON	8. HOLE LOCATION: EAST CENTER OF SITE
	9. SURFACE ELEVATION: 977.60 ASL
	10. DATE STARTED: 15 NOV 04 / 11. DATE COMPLETED: 16 NOV 04
12. OVERBURDEN THICKNESS:	15. DEPTH GROUNDWATER ENCOUNTERED: ~14.5'
13. DEPTH DRILLED INTO ROCK:	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 7.4 @ 1055 11/19/04
14. TOTAL DEPTH OF HOLE: 25'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	—	—	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
—	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	—	X	—	

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP-RI 14	ASYmw-005

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: ASYmw-005

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlay

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ Recovery	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	0.7 Topsoil					
		Br. SILT 70% w/ Sand 20% Damp No Odor No Plasticity Grey Mottles	1.5	1.6	ML	WT-1 1-3	7.5YR-5/6
	2	Rock in end of Split Spoon	0.9	0		1-5 5-5	
	4	Br. SILT 70% w/ Sand 20% Dry No Odor No Plas Rocky Grey Mottles	0.9	1.4	ML	1-2 5-7	7.5YR 5/6
	6	Same As Above	0.0	1.6	ML	3-6 10-11	7.5YR-5/6
	8	Same As Above	0.0	1.6	ML	4-6 10-13	7.5YR-5/6
	10	Same As Above	0.0	1.8	ML	7-5 10-11	7.5YR-4/4
	12	Grey SILT 75% w/ Clay wet/Sat. No Plasticity No Odor No Staining	0.0	1.6	ML	5-16 11-10	7.5YR 5/1
	14	4" Sand w/ Silt Saturated					
		~~Same As Above~~	0.0	1.0	ML	1-3 5-7	SAA
	16	Grey/Br. SILT 70% w/ Sand Dry No Plasticity No Odor No Staining					
	18	1" Dry Sand Layer	0.0	1.2	ML	1-3 5-8	SAA
		Grey SILT 70% w/ Sand Dry No Plasticity No Odor No Staining	0.0	1.3	ML	1-3 5-8	SAA
	20						

PROJECT: RVAAP RI 14

HOLE NO. ASYmw-005

ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: ASYmw-005

PROJECT: RVAAP RI 14

INSPECTOR: Mark Donlevy

SHEET 3 OF SHEETS 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		Same As Above w/ rock frag beginning @ 21 Ft.	0.0	1.4	ML	1-3 6-7	SAA
	22	Same As Above	0.0	1.7	ML	2-7 10-11	SAA
	24	Gray SILT 70% w/ Sand 20% Dry Stiff No Odor No Staining No Plasticity	0.0	1.8	ML	~~2-7~~ 6-16 21-22 ~~10-11~~	MDD MDD SAA
	26	Split spoon Refusal @ 26 Ft			ML		
	28						
	30	BOH 29 ft					BOH 29 Ft - waited over night to check water level - 13 Ft. of Silt in borehole in morning - cleaned out/redrilled hole to 28 Ft. BOH 25 Sand to 24 Screen from 24 to 14 Sand to 11 Bentonite to 8 Grout to Surface Completion

PROJECT: RVAAPRI 14

HOLE NO.: ASYmw-005

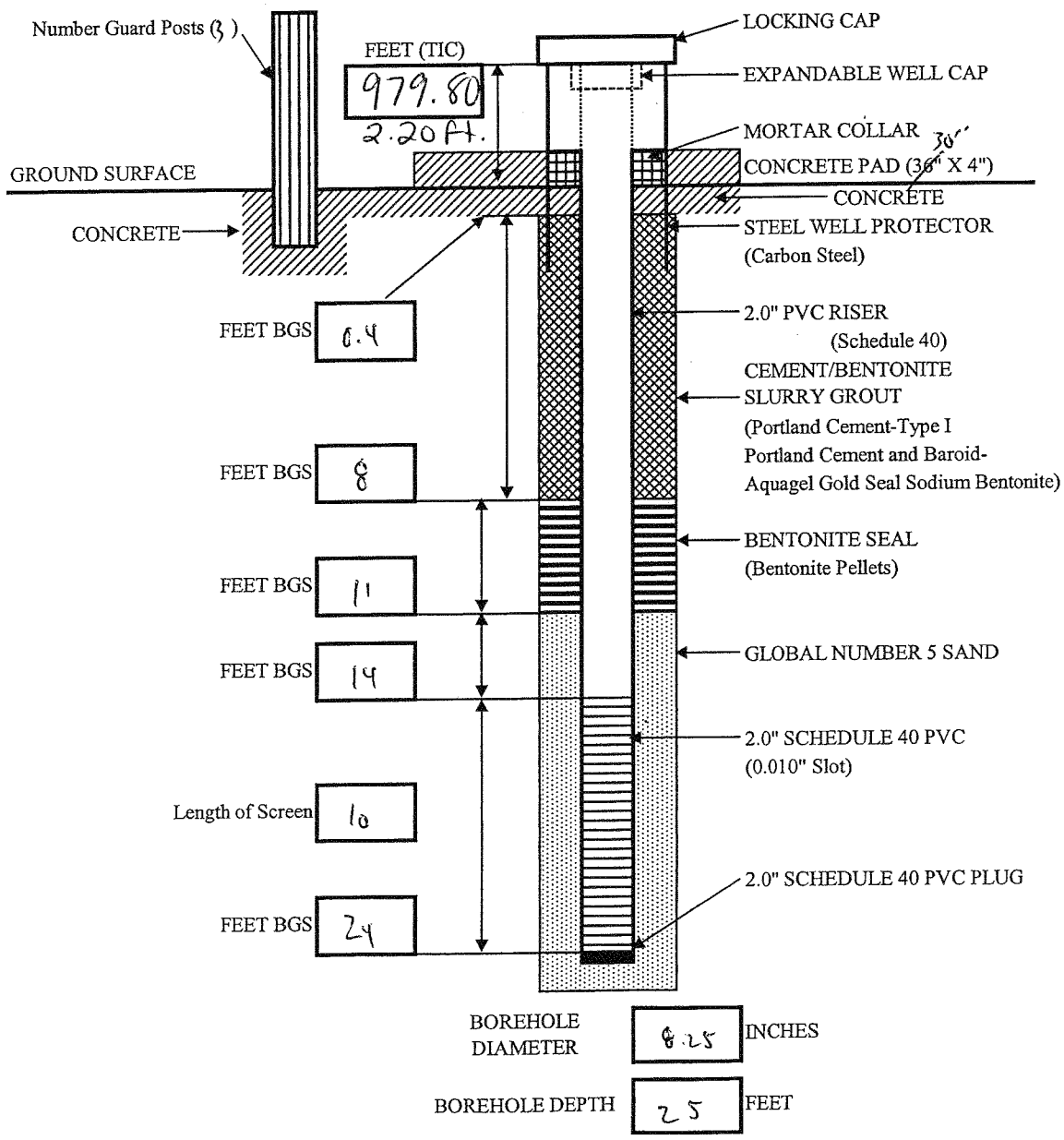
ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: ASYmw-005	Begin: 15 Nov 04	End: 16 Nov 04
Coordinates: N: 557783.01 E: 2367448.16	Elevation: 977.60	Reference Point:
Logged By: Mark Dunlay		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

MW Const Dia 05Nov04.xls

HTRW DRILLING LOG

1. COMPANY NAME: MKM ENGINEERS	DISTRICT: LOUISVILLE	HOLE NUMBER: ASY mw-006
2. DRILL SUBCONTRACTOR: HAD DRILLING		SHEET 1 OF SHEETS 3
3. PROJECT: RVAAP-RI 14	4. LOCATION: RAVENNA, OH ATLAS SCRAP YARD	
5. NAME OF DRILLER: SCOTT HEISER	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-55	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME-55, 4 1/4" ID HSA, 2' SPLIT SPOON	8. HOLE LOCATION: SOUTH WESTERN PORTION OF SITE	
	9. SURFACE ELEVATION: 980.20 ASL	
	10. DATE STARTED: 11/15/04	11. DATE COMPLETED: 11/15/04
12. OVERBURDEN THICKNESS:	15. DEPTH GROUNDWATER ENCOUNTERED: 12'	
13. DEPTH DRILLED INTO ROCK:	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 13.45 @ 1442 11/18/04	
14. TOTAL DEPTH OF HOLE: 27' BGS	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):	

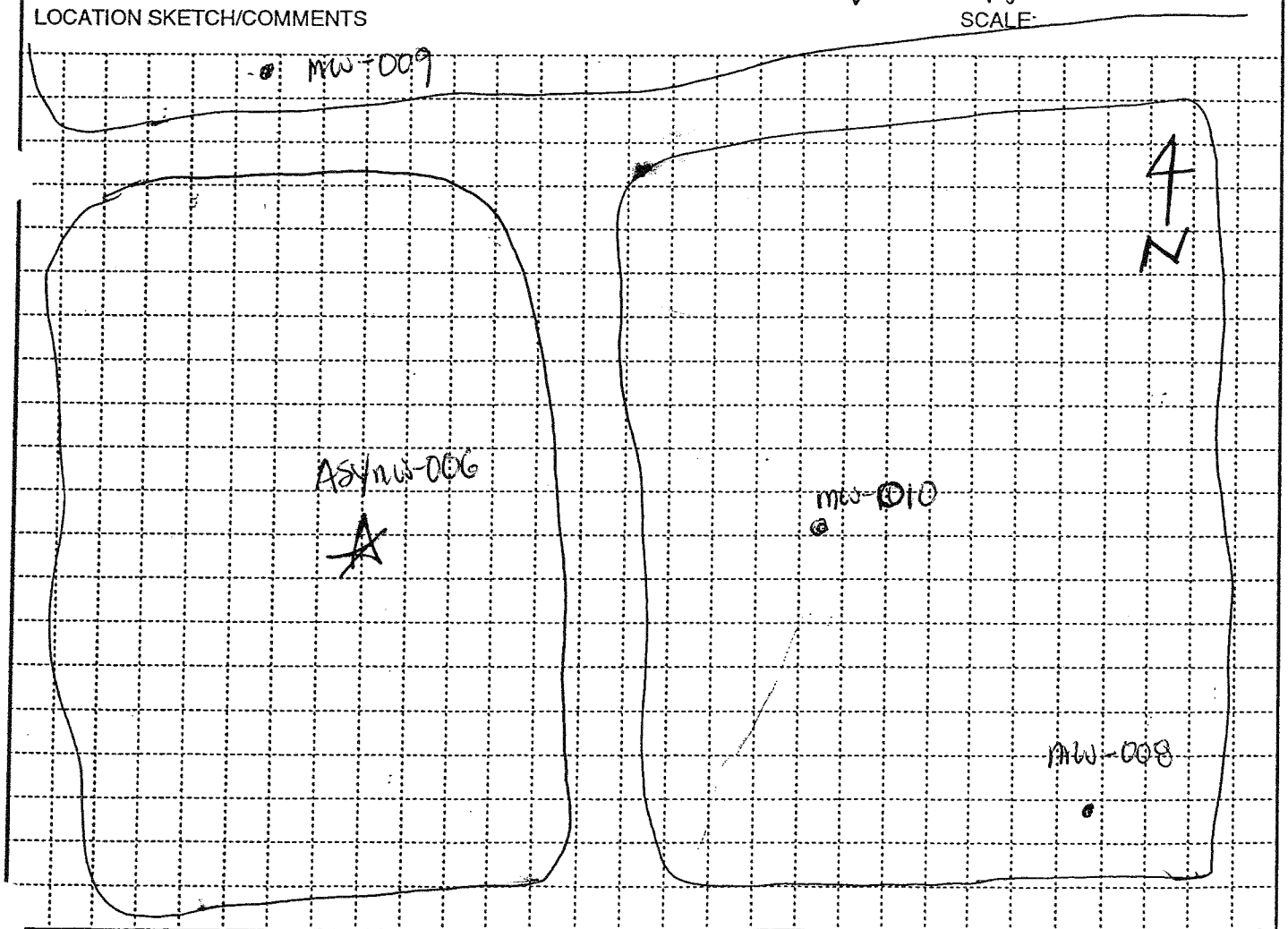
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE			NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
		X		David Kleinert

LOCATION SKETCH/COMMENTS

SCALE:



PROJECT	HOLE NO.
RVAAP-RI 14	ASY mw-006

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER ASYMW-006

PROJECT RVAAP - RI 14

INSPECTOR DK EARNEST

SHEET 2 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	ANALYTICAL SAMPLE NO. USCS	BLOW COUNT (g)	REMARKS (h)
915		TOPSOIL - GRASS & ROOTS					
		DK BROWN CLAYEY SILT (80%) (20%)	5.4	0.2	ML	4/3	
		MED DENSE LOW PLASTIC				3/3	
	2	MED BRN MOTTLED W/ LT GREY					
		(30%) CLAYEY SILT (80%)	7.6	0.3	ML	4/6	
		STIFF TO V.S.				8/11	10YR 4/6 10YR 6/1 30%
	4	SAA SMALL GRAVEL ~~PEBBLES~~	(12.4) 219 ~~684~~	1.2	ML	1/3	*
						7/9	
	6	~~SAA~~	676 (7.4)	1.7	ML	2/4	*
						9/17	
	8	LESS MOTTLING W/ DEPTH VERY STIFF					
		~~SAA~~	10.8	1.7	ML	2/10	
						12/17	WET @ 9.5
	10	~~SAA~~ BROWN SL CL SILT (90%) (10%)				1/5	10YR 4/3 DRY
		LOW PLASTIC STIFF TO V.S.	6.2	1.7	ML	7/9	WET @ 11.5
	12	GREY SL CL SILT (80%) (10%)				1/3	7.5YR 4/1
		LITTLE FINE (10%) SAND LOW PLASTIC MED DENSE	11.5	1.7	ML	4/5	SAT
	14	SAA	6.9	1.8	ML	1/3	
						3/3	SAT
	16	SAA	4.2	1.8	ML	1/2	
						2/3	SAT
	18	SAA	6.1	2.0	ML	1/1	SAT
						1/2	

PROJECT RVAAP - RI 14

HOLE NO ASYmw - 006

ENG. FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

* INITIAL PID READINGS WERE ~~THOUGHT~~ AND THOUGHT TO BE ANNOMOLUS, RECHECK OF SOIL AFTER SEVERAL MINUTES RESULTS IN SUBSTANCIALLY REDUCED READINGS (IN PARA).

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: ASYmw-006

PROJECT: RUAAP - RI 14

INSPECTOR: DK Gurnett

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		SAA			ML	1/1	
		GREY SANDY SILT (40%) SOFT (60%)	8.6	1.1			SAT
	22				ML/SM	1/3	
		SAA	4.7	2.0	ML	1/2	
						9/11	DRY
	24	DK GREY SANDY SILT (40%) ROCK FRAG (60%)				9/11	7.5YR 2.5/1
		DENSE WEATHERED SANDSTONE	10.3	1.0	ML/SM		DRY
	26					27/32	
			10.5	0.3	SM	8/50/3	SPOON REFUSAL
040		BOH 27'					
	28	AUGER REFUSAL @ 27'					
		SET WELL @ 26'					
		SCREEN 16-26'					
	30	SAND TO 13'					
		BENT. SEAL TO 10'					

PROJECT: RUAAP - RI 14

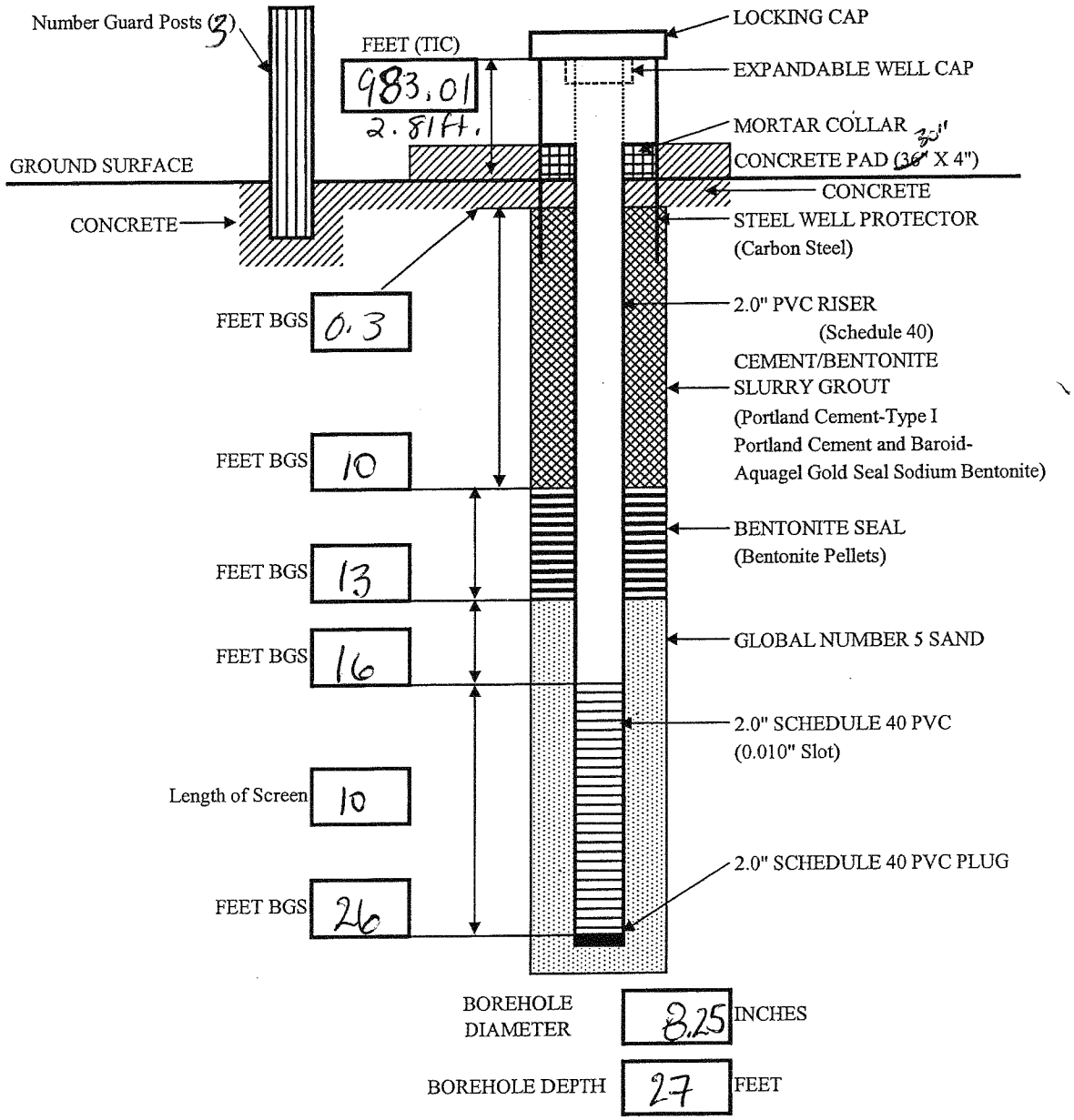
HOLE NO: ASYmw-006

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: ASYmw-006	Begin: 11/15/04	End: 11/15/04
Coordinates: N: 557257.72 E: 2366746.73	Elevation: 980.20	Reference Point:
Logged By: DAVID K. EARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM ENGINEERS	DISTRICT: LOUISVILLE	HOLE NUMBER: ASYmw-007
2. DRILL SUBCONTRACTOR: HAD DRILLING		SHEET 1 OF 3

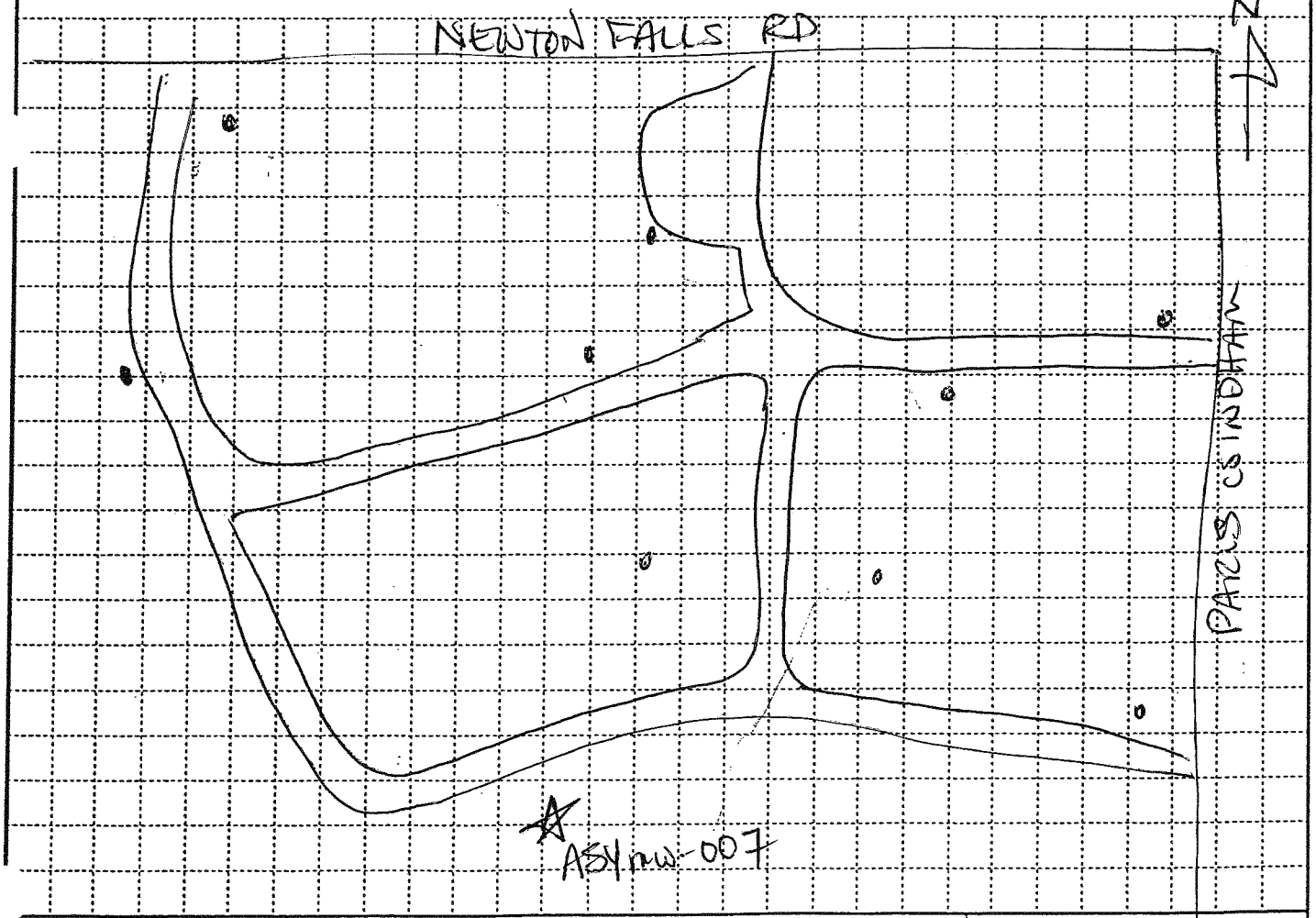
3. PROJECT: RVAAP-R1 14	4. LOCATION: RAVENNA, OH ATLAS SCRAP YARD
5. NAME OF DRILLER: SCOTT HEISER	6. MANUFACTURER'S DESIGNATION OF DRILL: CME
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA; 1½" ID 2' SPLIT SPOON	8. HOLE LOCATION: SOUTH WESTERN PORTION OF SITE
	9. SURFACE ELEVATION: 981.40 ASL
	10. DATE STARTED: 11/12/04 — 11. DATE COMPLETED: 11/12/04
12. OVERBURDEN THICKNESS:	15. DEPTH GROUNDWATER ENCOUNTERED: 17'
13. DEPTH DRILLED INTO ROCK:	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 14.5 @ 1025 11/17/04
14. TOTAL DEPTH OF HOLE: 28'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
SHELBY TUBE 8-10' BGS		X	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
—	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
—	—	X	—	

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP-R1 14	ASYmw-007

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: AS4MW-007

PROJECT: RVAAP-RI 14

INSPECTOR: DK EARNEST

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
200		6" TOPSOIL DK BRN SANDY SILT					
		2" DEBRIS				4/6	DRY
		LT BROWN MOTTLED W/ LT GREY (20%) CLAYEY SILT (70%) TRACE SAND (10%) LOW PLASTIC	7.4	1.4	ML	2/4	MOIST
	2						
			8.4	1.5	ML	4/5	10YR 6/6
						6/6	
	4						
		FINE ROOTS @ 5.5'	5.4	1.3	ML	1/4	
						8/11	
	6	MED BROWN CLAYEY SILT 10% MOTTLING RED @ 6.5' MED TO LOW PLASTIC	8.8	1.8	ML	2/5	10YR 5/4
						8/10	
	8						
		SHELBY TUBE	—	—	—	~~5/13~~	1230 PM
						~~12/15~~	
	10						
		SAA NO ODOR				5/13	
		SAND, MED BRN (80%) MED TO FINE GRAIN SILTY (20%) MED TO DENSE NO PLASTIC	10.6	1.4	SM/SP	12/15	WET SAND 10YR 5/4
	12						
			7.2	1.3	SM	3/6	
						7/11	MOIST TO WET
		~~SILT~~ VF SAND					
	14						
			5.2	1.3	SM	3/7	
						5/7	
	16	MED GRAIN					
			7.2	1.8	SM	1/3	7.5YR 5/1
		GREY SILT (90%) TRACE SAND (10%) LOW PLASTIC NO ODOR			ML	3/5	WET
	18						
			5.4	1.6	ML	1/1	SAT
						2/4	
	20						

PROJECT: RVAAP-RI 14

HOLE NO: AS4MW-007

ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: ASYmw-007

PROJECT: RVAAP-R114

INSPECTOR: DK EARNEST

SHEET 3 OF 3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. RECOVER (e)	ANALYTICAL SAMPLE NO. USES (f)	BLOW COUNT (g)	REMARKS (h)
		GREY SILT (90%) ~~TRACE~~ SAND (10%) LOW PLASTIC	6.3	1.5	ML	1/1 3/4	7.5YR 5/1
	22	SAA	8.4	1.8	ML	1/1 2/2	SAT
	24	SAA	6.1	1.5	ML	2/4 6/9	SAT
	26	SANDY & ROCK FRAG	5.2	1.5	ML	2/5 7/10	WET
	28	~~SAA~~ ~~BOH~~ ~~28'~~ ~~NOTE~~ SAA BOH 28' 30% SAND	5.7	1.4	ML/SM	1/7 7/10	WET
	30	DARK GREY ROCK FRAG					

SAMPLED TO 30'
DRILLED TO 28'
SET WELL AT 26'
SCREEN AT 16-26
SAND TO 13'
SEAL TO 10' (6 GALS)

PROJECT: RVAAP-R114

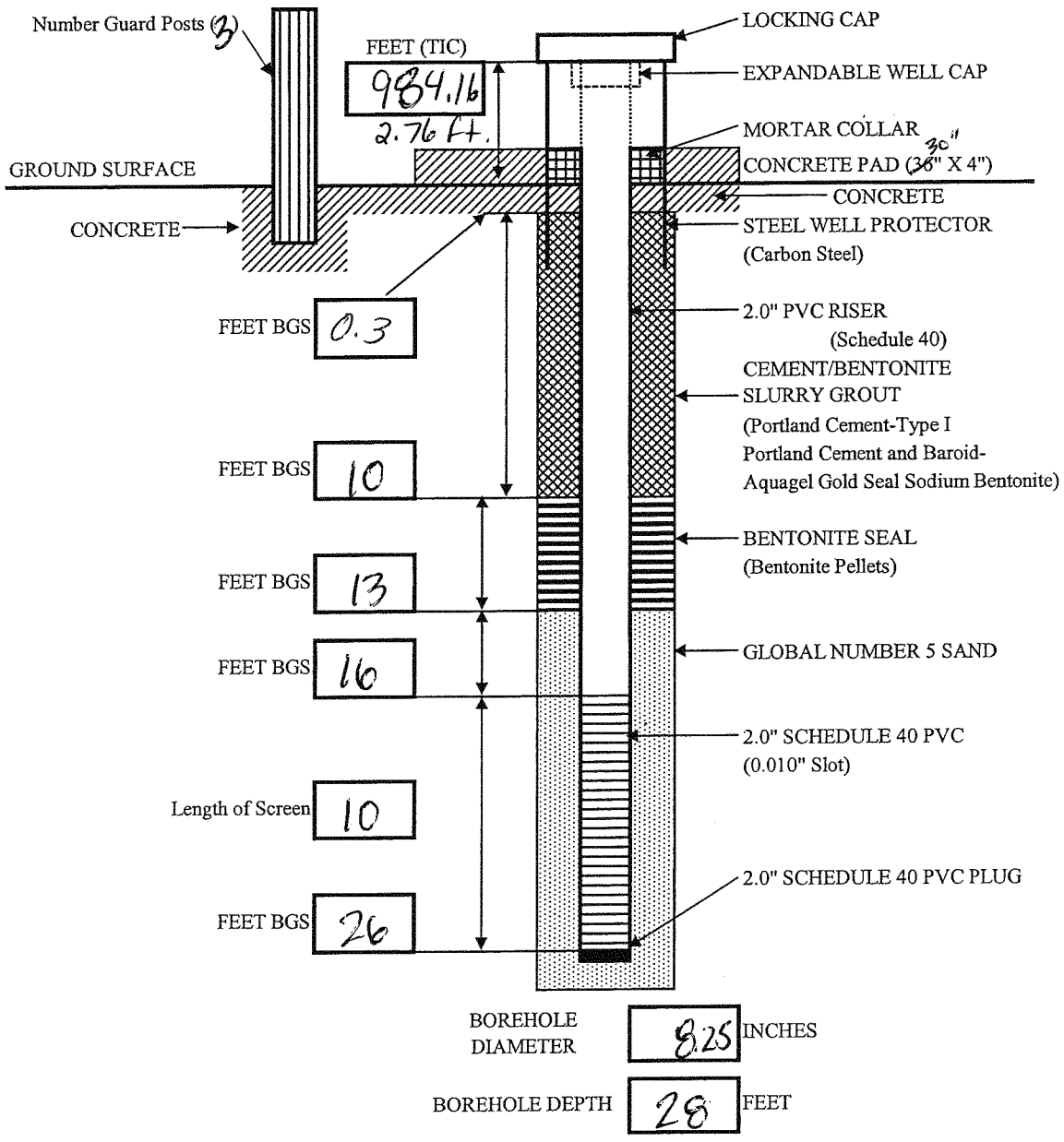
HOLE NO: ASYmw-007

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: A54mw-007	Begin: 11/12/04	End: 11/12/04
Coordinates: N: 556818.08 E: 2366834.49	Elevation: 981.40	Reference Point:
Logged By: David K. Earnest		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM ENGINEERS	DISTRICT: LOUISVILLE	HOLE NUMBER: ASYmw-008
2. DRILL SUBCONTRACTOR: HAD DRILLING		SHEET 1 OF SHEETS 3

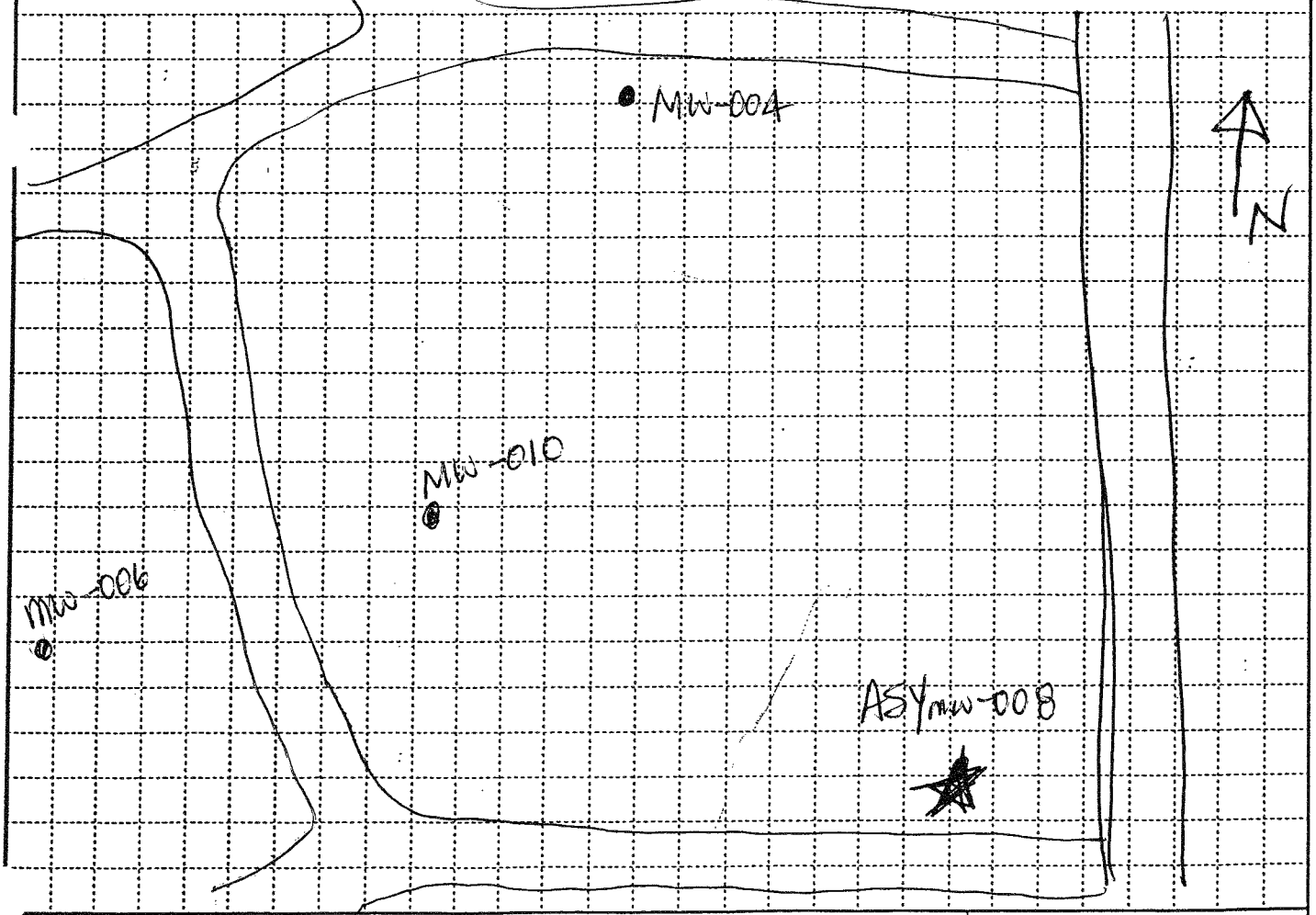
3. PROJECT: RVAAP - RI 14	4. LOCATION: RAVENNA, OH ATLAS SCRAPYARD
5. NAME OF DRILLER: SCOTT	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-55
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME-55; 4¼" ID HSA; 2" DIA 2' SPLIT SPOON	8. HOLE LOCATION: SOUTH EASTERN CORNER OF SITE
	9. SURFACE ELEVATION: 976.20 ASL
	10. DATE STARTED: 11/16/04 — 11. DATE COMPLETED: 11/16/04
12. OVERBURDEN THICKNESS:	15. DEPTH GROUNDWATER ENCOUNTERED: 15'
13. DEPTH DRILLED INTO ROCK:	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 4.7' @ 1015 11/19/04
14. TOTAL DEPTH OF HOLE: 26' BGS	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE			NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
		X		David Glenn

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP - RI 14	ASYmw-008

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: ASY-MW-008

PROJECT: RVAAP - R1 14

INSPECTOR: DK EARNEST

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOXING~~ RECOVERY	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
	0	2" TOPSOIL TOP 10" DRK BRN CL SILT W/DEBRIS NO TO LOW PLASTIC LT BRN MOTTLED W/LT GREY CL SILT (30%) LOW PLASTIC COHESIVE	5.0	1.5	ML	4/3 4/4	DAMP
	2	SAA	16.9	1.1	ML	4/7 7/6	MANGANESE
	4	MED BROWN W/GREY CL SILT (30%) BLK IRON OXIDES @ 3' W/SM GRAVEL SAA LESS GREY MOTTLING W/DEPTH GRAVEL @ 4' COHESIVE ~~STIFF~~ TO V.S.	3.9	1.6	ML	1/4 7/12	DAMP
	6	SAA	3.6	2.0	ML	2/9 11/13	DRY TO DAMP
	8	GREY SL CLAYEY SILT (20%) (80%) LOW PLASTIC STIFF	7.2	1.8	ML	1/4 6/8	MOIST TO WET AT BOTTOM
	10	SAA @ 10.5 & 11.0 THIN SANDY SEAMS	2.4	2.0	ML	1/4 6/7	MOIST TO WET WET AT SAND
	12	SAA	6.5	2.0	ML	1/3 5/5	~~SAT~~
	14	SAA LESS DENSE	2.5	2.0	ML	1/4 3/5	WET SAT
	16	SAA	4.1	2.0	ML	1/1 2/4	~~WET~~ SAT
	18	SAA	3.1	2.0	ML	1/1 2/3	~~WET TO~~ SAT
	20						

PROJECT: RVAAP - R1 14

HOLE NO.: ASY-MW-008

ENG. FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: ASYmw-008

PROJECT: RVAAP-R114

INSPECTOR: DK EARNEST

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
		SAA	3.8	2.0	ML	1/2 3/5	WET TO SAT
	22	SAA	4.8	2.0	ML	1/1 2/4	23
15	24	~~SAA~~ GREY SILTY CLAY (30%) (70%) MED PLASTIC SEVERAL THIN SILT SEAMS	6.4	2.0	CL	1/4 4/7	7.5YR 5/1 DAMP TO MOIST
	26	GREY SILTY CLAY MED PLASTIC	5.0	2.0	CL	1/4 4/4	
930	28	BOH 26' SAMPLE TO 28' DRILLED TO 26' SET WELL AT 25' SCREEN 15'-25' SAND TO 12' SEAL TO 9'					8 BAGS #7 ADDED ~5 GALS TO HYDRATE
	30						

PROJECT: RVAAP-R114

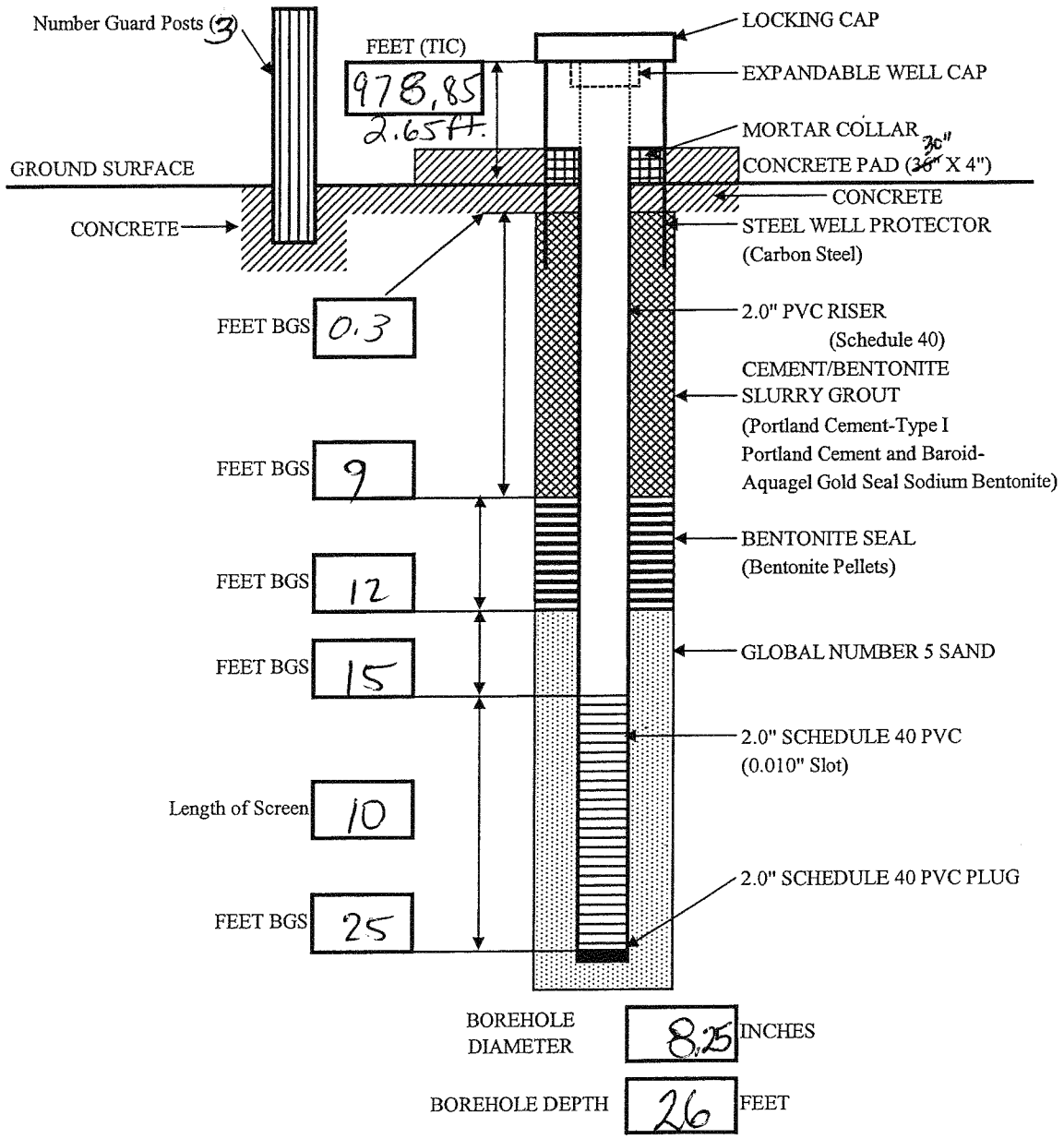
HOLE NO: ASYmw-008

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: ASY MW-008	Begin: 11/16/04	End: 11/16/04
Coordinates: N: 557087.66 E: 2367475.07	Elevation: 976.20	Reference Point:
Logged By: DAVID K. EARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

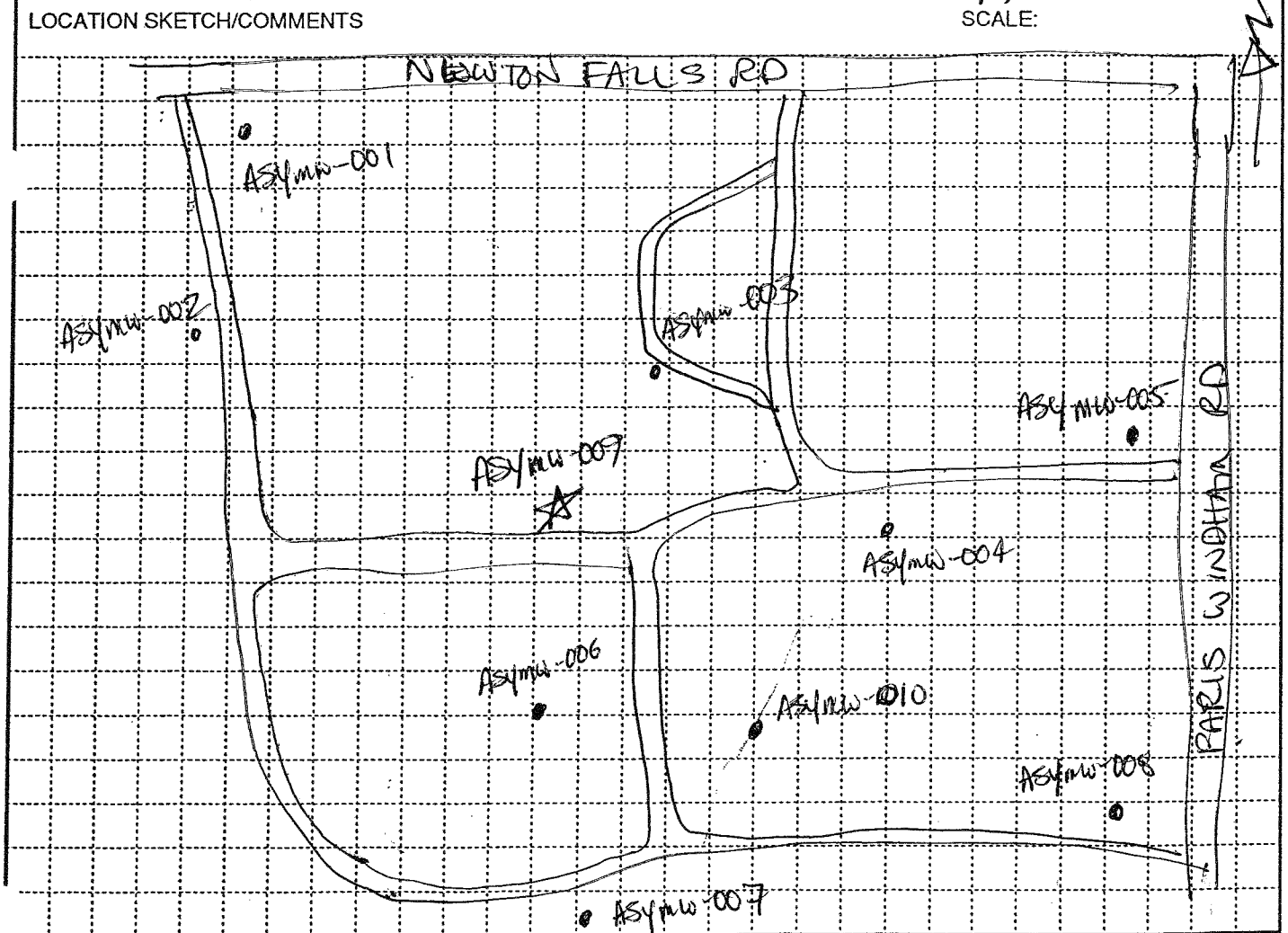
DISTRICT: LOUISVILLE		HOLE NUMBER: ASY/mw-009
1. COMPANY NAME: MKM ENGINEERS	2. DRILL SUBCONTRACTOR: HAD DRILLING	SHEET 1 OF 3 SHEETS
3. PROJECT: RVAAP - R1 14	4. LOCATION: RAVENNA, OH ATLAS SCRAP YARD	
5. NAME OF DRILLER: SCOTT HEISER	6. MANUFACTURER'S DESIGNATION OF DRILL: CME - 55	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4¼" ID HSA; 1½" ID 2' SPLIT SPOON	8. HOLE LOCATION: WEST CENTRAL	
	9. SURFACE ELEVATION: 979.90 ASL	
	10. DATE STARTED: 11/12/04	11. DATE COMPLETED: 11/12/04
12. OVERBURDEN THICKNESS:	15. DEPTH GROUNDWATER ENCOUNTERED: 14'	
13. DEPTH DRILLED INTO ROCK: 0.5'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 12.45 @1010 11/18/04	
14. TOTAL DEPTH OF HOLE: 22'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE			NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
		X		

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO
RVAAP - R1 14	ASY/mw-009

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: ASYmw-009

PROJECT: RVAAP-R1 14

INSPECTOR: DK EARNEST

SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
845	0	4" TOP SOIL, GRASS & ROOTS					
		MED BROWN CLAYEY SILT (70%) (20%) LOW PLASTIC MOTTLED SOME ROCK FRAG & DEBRIS (10%) MED DENSE	1.2	0.6	ML	2/3 3/3	DAMP 10YR 5/3
	2	LT BROWN MOTTLED W/LT GREY	2.9	1.6	ML	2/3 3/5	MOIST @ 2.5 10YR 6/3
	4	~~LESS~~ SAA LESS GREY MOTTLING REDDISH 4-4.5 TRACE ROCK FRAG	8.6	1.5	ML	1/4 6/6	DAMP
	6	SAA TRACE GREY	8.8	1.8	ML	3/5 9/10	DRY 10YR 4/3
	8	SAA	8.6	1.5	ML	3/7 10/15	
	10	GREY SILT (80%) NO PLASTIC DRY TRACE SAND (10%)	4.4	1.5	ML	4/6 10/12	7.5YR 5/1
	12	SAND (80%) IMED BROWN (20%) SILTY MED TO FINE 3" GREY CLAY SEAM @ 13' LOOSE TO MED DENSE	9.6	1.2	SM	1/4 5/5	10YR 5/4 MOIST TO WET
▽	14	SAA	6.5	1.3	SM	2/3 4/5	SAT SAND
	16	SILT (80%) GREY SMALL ROCK FRAGS (10%) SOME SAND (10%)	10.3	1.5	ML	1/1 2/2	7.5YR 5/1 SAT
	18		7.6	1.8	ML	2/7 10/13	SAT
	20						

PROJECT: RVAAP-R1 14

HOLE NO.: ASYmw-009

ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER ASYmw-009

PROJECT RVAAP-R1 14

INSPECTOR DK EARNEST

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ RECOVERY	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20					1/7	~~TOTR~~ 3/1
		DK GREY SILT, 90% SOME SAND 10% ROCK FRAG NO PLASTIC	11.0	1.5		11/50T	10YR 3/1 SPOON REFUSAL
	22	BOH 22'					
		BED ROCK @ ~22'					
		SET WELL @ 21.5					
		SCREEN 11.5 - 21.5					
		SAND TO 9.5					
		SEAL TO 7.5					
		7 BAGS #7 SAND					

PROJECT RVAAP-R1 14

HOLE NO. ASYmw-009

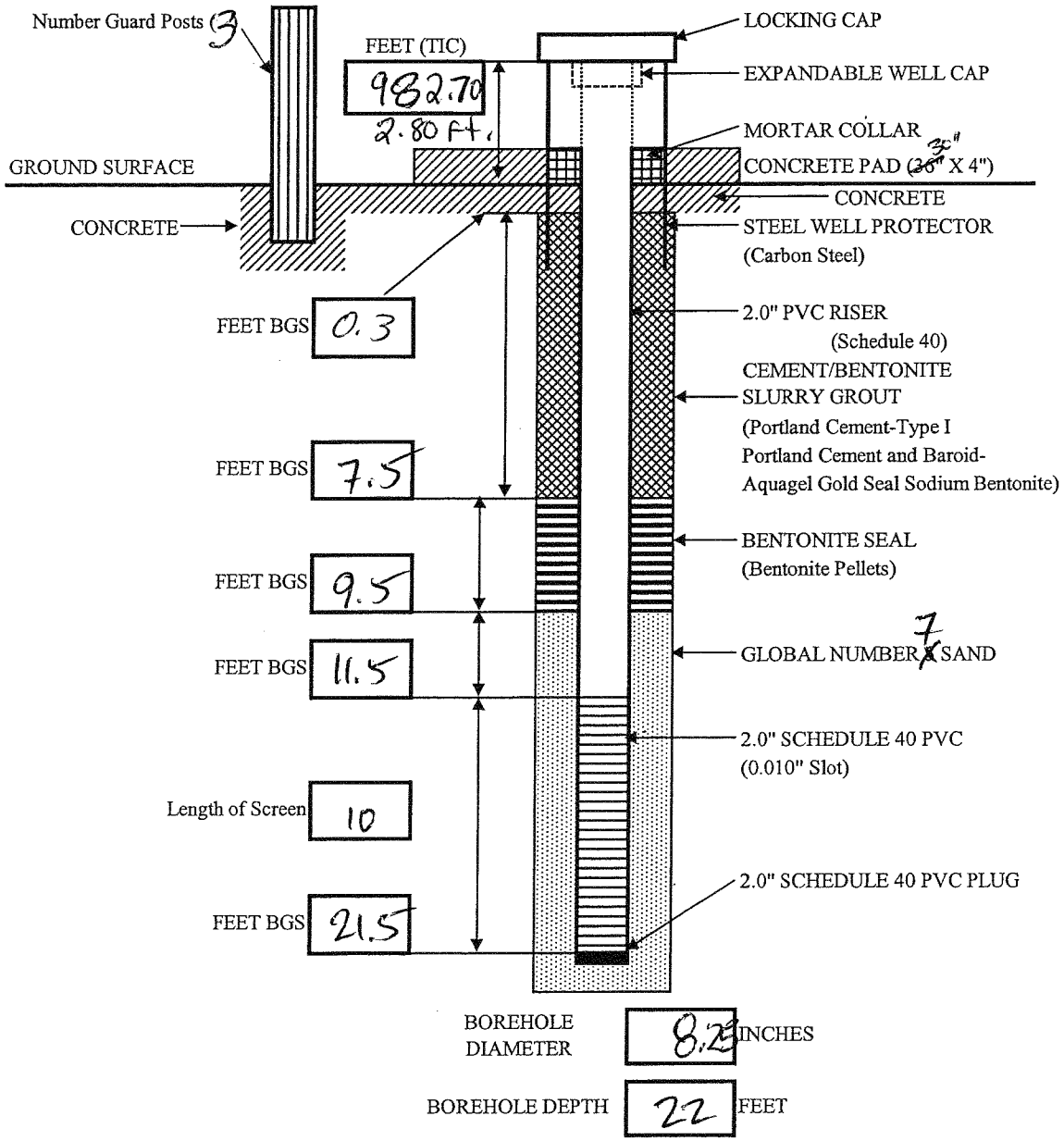
ENG. FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: ASYmw-009 ~~RE~~	Begin: 11/12/04	End: 11/12/04
Coordinates: N: 557603.68 E: 2366631.94	Elevation: 979.90	Reference Point:
Logged By: D KEARNEST		



Notes:

1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

1. COMPANY NAME: MKM Engineers Inc	DISTRICT: Louisville	HOLE NUMBER: ASYmw-010
2. DRILL SUBCONTRACTOR: HAD Drilling		SHEET 1 OF 3

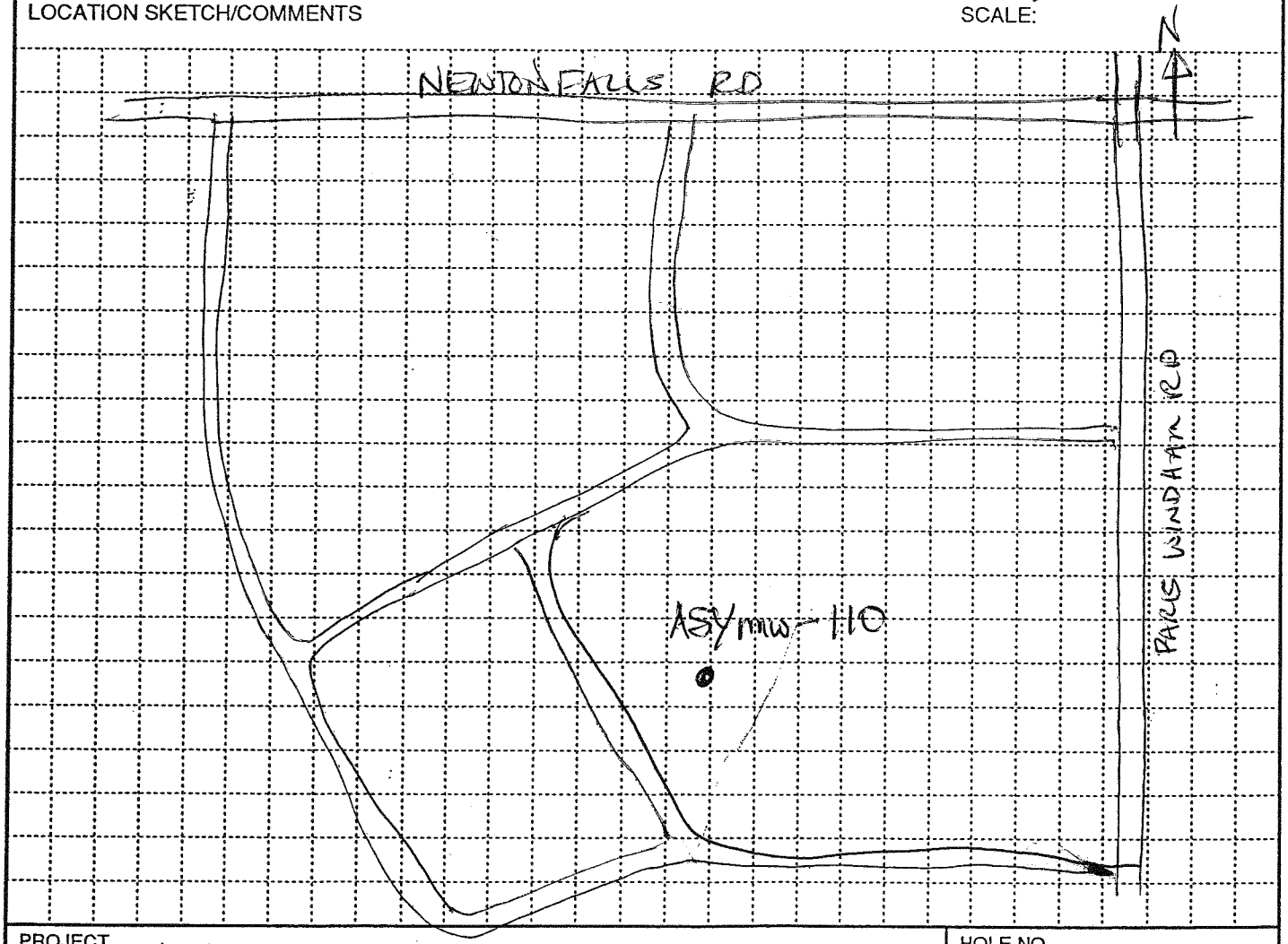
3. PROJECT: RVAAP RT 14	4. LOCATION: 4Has Scrap Yard
5. NAME OF DRILLER: Sean Heller	6. MANUFACTURER'S DESIGNATION OF DRILL: CME-LC60
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 8.25" OD HSA; 2" Splitspoons	8. HOLE LOCATION: West of PW Road/East of 1st road in 4Has
	9. SURFACE ELEVATION: 978.20 ASL
	10. DATE STARTED: 15Nov04 / 11. DATE COMPLETED: 15 NOV 04
12. OVERBURDEN THICKNESS	15. DEPTH GROUNDWATER ENCOUNTERED: ~13' BGS
13. DEPTH DRILLED INTO ROCK	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 11.5' @ 1319 11/18/04
14. TOTAL DEPTH OF HOLE: 28' BGS	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	—	—	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY — %
—	—	—	—	—	—	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
		X		

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
RVAAP RT 14	ASYmw-010

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: ASYmw-016
PROJECT: RVAAP RI 14
INSPECTOR: Mark Dunlay
SHEET 2 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	~~GEOTECH SAMPLE OR CORE BOX NO.~~ Recovery	~~ANALYTICAL SAMPLE NO.~~ USCS	BLOW COUNT (g)	REMARKS (h)
		0.6 Topsoil					
		Br. SILT 70% w/ Sand 15% Dry Grey Mottles No Staining No Plasticity	0.2	1.5	ML	2-3 3-5	7.5yr-5/6
	2						
		Same As Above	0.5	1.65	ML	1-5 7-8	7.5yr-5/6
	4						
		Br. SILT 75% w/ Clay 20% Dry Stiff Grey Mottles No Staining No Plasticity	0.0	2.0	ML	2-6 8-8	7.5yr-5/4
	6						
		Br. SILT 70% w/ Sand 20% Dry No Staining No Plasticity	0.0	2.0	ML	3-7 15-16	7.5yr-5/4
	8	↓					
		Grey SILT 75% w/ Clay 15% Dry Stiff No Plasticity No Staining	0.0	2.0	ML	2-11 16-18	7.5yr-4/1
	16						
		Br. SILT 70% w/ Sand 25% Dry Crumbled in Split Spoon No Plasticity No Staining	0.0	1.7	ML	2-8 8-6	7.5yr-5/1 7.5yr-5/1
	12	Grey SILT 75% w/ Clay 15% Dry Stiff No Plasticity No Staining					
		Grey SILT 85% w/ Clay Wet/Saturated No Plasticity No Staining	0.0	1.3	ML	1-2 5-5	7.5yr 5/1
	17						
		Same As Above	0.0	1.8	ML	1-2 2-3	7.5yr 5/1
	16						
		Same As Above	0.0	1.7	ML	1-1 1-2	7.5yr 5/1
	18						
		Same As Above	0.0	1.6	ML	1-1 2	7.5yr 5/1
	20						

PROJECT: RVAAP RI 14
HOLE NO.: ASYmw-010

ENG FORM 5056A-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: ASY MW-016

PROJECT: RVAAP RI 14

INSPECTOR: Mark Dunlavy

SHEET 3 OF 3 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		Same As Above	0.0	1.7	ML	1-1 3-3	7.5yr 5/1
	22	Grey SAND 70% w/ Silt wet/saturated No Plasticity No odor No Staining			SM		
		Grey SILT 70% w/ clay Damp No Plasticity No Odor No Staining	0.0	1.4	ML	2-3 6-8	7.5yr 5/2
	24						
			0.0	1.6	ML	4-8 10-11	7.5yr 5/2
	26						
		Grey SAND 90% Dry No odor No staining No Plasticity → Grey weathered S	0.0	1.5	ML SP/SM	4-10 18-21	
	28	BGH 28					BGH 28 Sand 27 Screen 27-17 Sand up to 14 Bentonite to 11 Grout to Surface Stick up Completion

PROJECT: RVAAP RI 14

HOLE NO.: ASY MW-016

ENG FORM 5056A-R, AUG 94

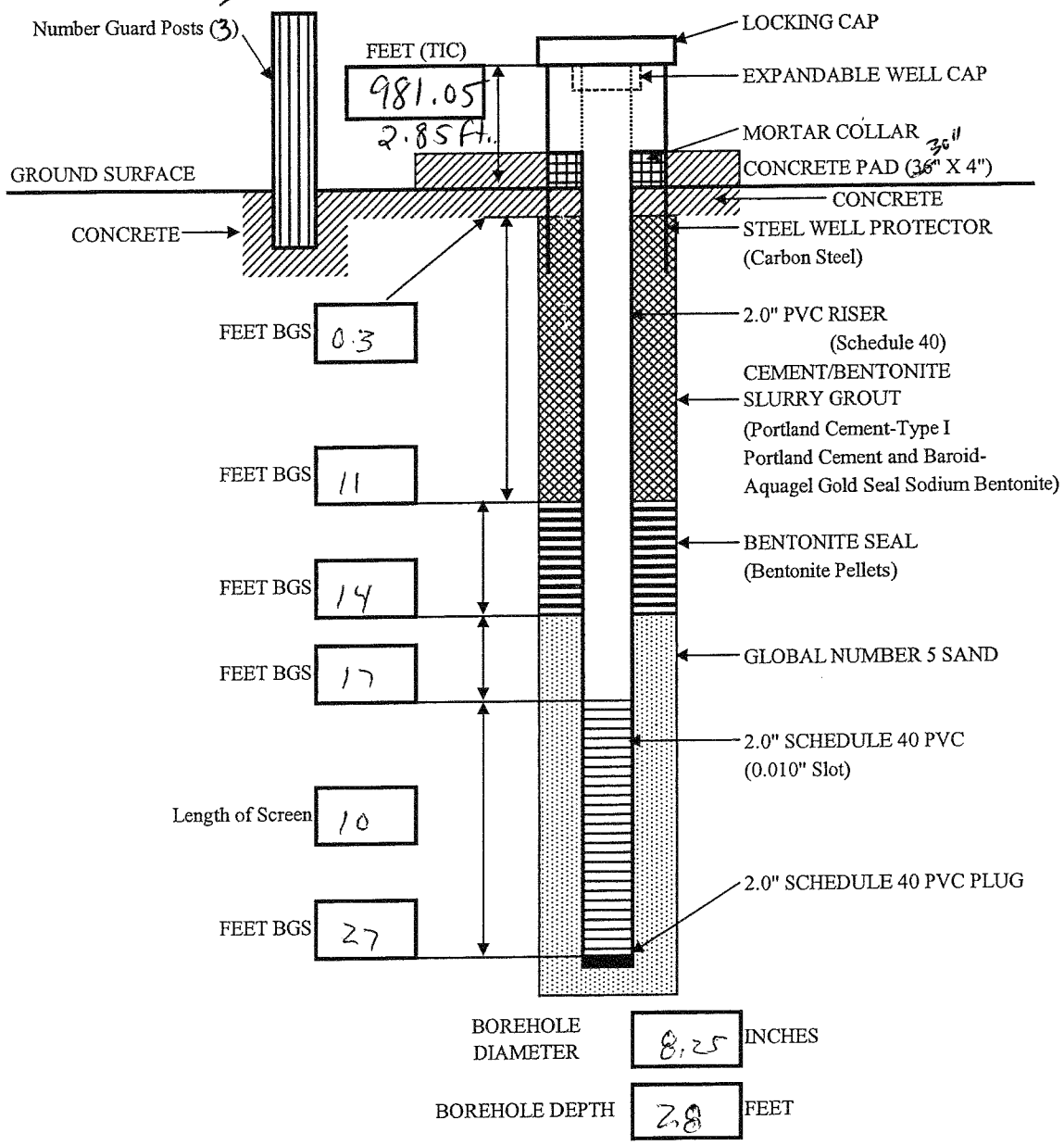
(Proponent: CECW-EG)

MONITORING WELL CONSTRUCTION DIAGRAM

RAVENNA ARMY AMMUNITION PLANT

Project: RVAAP RI 14

Well Number: ASYMW-010	Begin: 15Nov04	End: 15Nov04
Coordinates: N: 557270.61 E: 236,985.37	Elevation: 978.20	Reference Point:
Logged By:		



Notes:

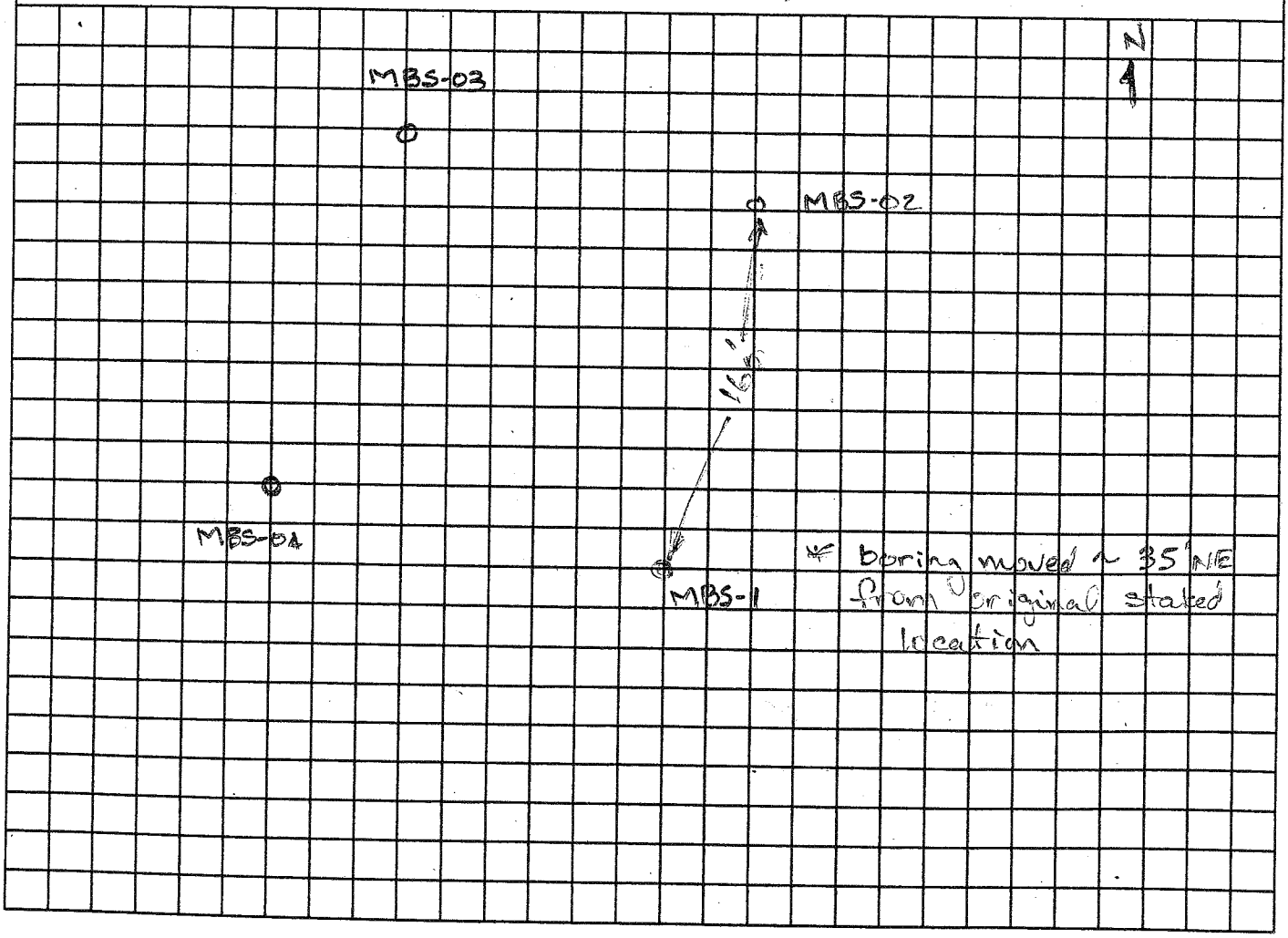
1) Figure not drawn to scale.
2) BGS = Below Ground Surface.
3) Well head protected with three guard posts set in triangle configuration about the concrete pad.

HTRW DRILLING LOG

	DISTRICT: Louisville	HOLE NUMBER MBS-1
1. COMPANY NAME: Specpro, Inc.	2. DRILL SUBCONTRACTOR: NORTHCOAST DRILLING	SHEET 1 OF 1
3. PROJECT: Suspected Mustard Agent Burial Site (AOC-28)	4. LOCATION: RVAAP AOC-28	
5. NAME OF DRILLER: NORTHCOAST DRILLING (M. BENTLEY)	6. MANUFACTURERS DESIGNATION OF DRILL: CME-75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" SS; 4.25" hollow-stem auger	8. HOLE LOCATION: MBS-1	
Schonstedt GA-72cd used for UXO readings 0 to 12 ft. Drilling equipment checked for CWA using M256 chemical detector kit at first groundwater. Readings: negative = 0 or OK; positive = + or actual NO.	9. SURFACE ELEVATION: 1079.68	
	10. DATE STARTED: 11-1-04	11. DATE COMPLETED: 11-04-02
12. OVERBURDEN THICKNESS	15. DEPTH GROUNDWATER ENCOUNTERED: 22 ft.	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 12.15 bgs (below ground surface) 11-5-04	
14. TOTAL DEPTH OF HOLE: 30 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED (Shelby tube) 2	19. TOTAL NUMBER OF CORE BOXES N/A			
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
All readings for UXO: CWA were negative (See column G of boring log)						
22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR		

LOCATION SKETCH/COMMENTS — SCALE:



11/1/04 2:15-

SE Well 10

HTRW DRILLING LOG

HOLE NUMBER MBS-1

PROJECT: MBS (RVAAP-28) INSPECTOR Al Bullington SHEET 1 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	(Rec= 1.0') Upper 0.1' - Black org Clay & silt w/ roots Rest (0.9'). Brown mtl gray (mottled) very fine SAND and Clay		1-1-2-3		
	1	UXO rdg = OK				
	2	Brown and gray (mottled) very fine to medium SAND tr. clay, becomes very fine SAND w/ Clay & silt		2-3-3-3		
	3	UXO rdg = OK (TILL)				
	4	(2.0' REC) Gray and brown CLAY, with very fine SAND & silt (CL)		3-3-4-4		- UXO rdg = OK
	5	(TILL)				
	6	(2.0' REC) Brown & gray mottled silty CLAY, soft to firm, become less mottled (more brown) with depth (CL)		4-4-4-4		UXO rdg = OK
	7	(TILL)				- water depth on morning of 11-2-04 ~ 7' bgs
	8	(REC=2.0') Brown, some orange-brown Silty CLAY (CL)		4-6-6-7		UXO rdg = OK
	9	Wet silty seam ~ 0.1' thick @ 9.0-9.1' depth				

SE WELL

HTRW DRILLING LOG

HOLE NUMBER MBS-1

PROJECT: MBS (RVAAP-28) | INSPECTOR Al Billings | SHEET 2 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	10	Brown Gray CLAY, some silty clay seams (orange-brown & gray) (CL) (7.5YR 5/3 & 4/3)		4-6-5-4		UXO rdg = OK
	11					
	12	REC = 2.0' (TILL) upper 0.9' - same as above becomes gray (GLEY 2, 6/1) CLAY, w/ orange-brown silt seams (iron staining) (CL)		3-4-4-4		
	13					
	14	REC = 2.0' (TILL) Gray CLAY, some silt (CL)		5-6-6-6		
	15					
	16	REC = 2.0' Gray plastic CLAY, damp (CL) (CH)		4-5-7-7		
	17					
	18	REC = 2.0' same as above		3-3-3-3		
	19					

SE WELL 12

HTRW DRILLING LOG

HOLE NUMBER MBS-1

PROJECT: MBS (RVAAP-28) INSPECTOR Al Bullington SHEET 3 OF 3

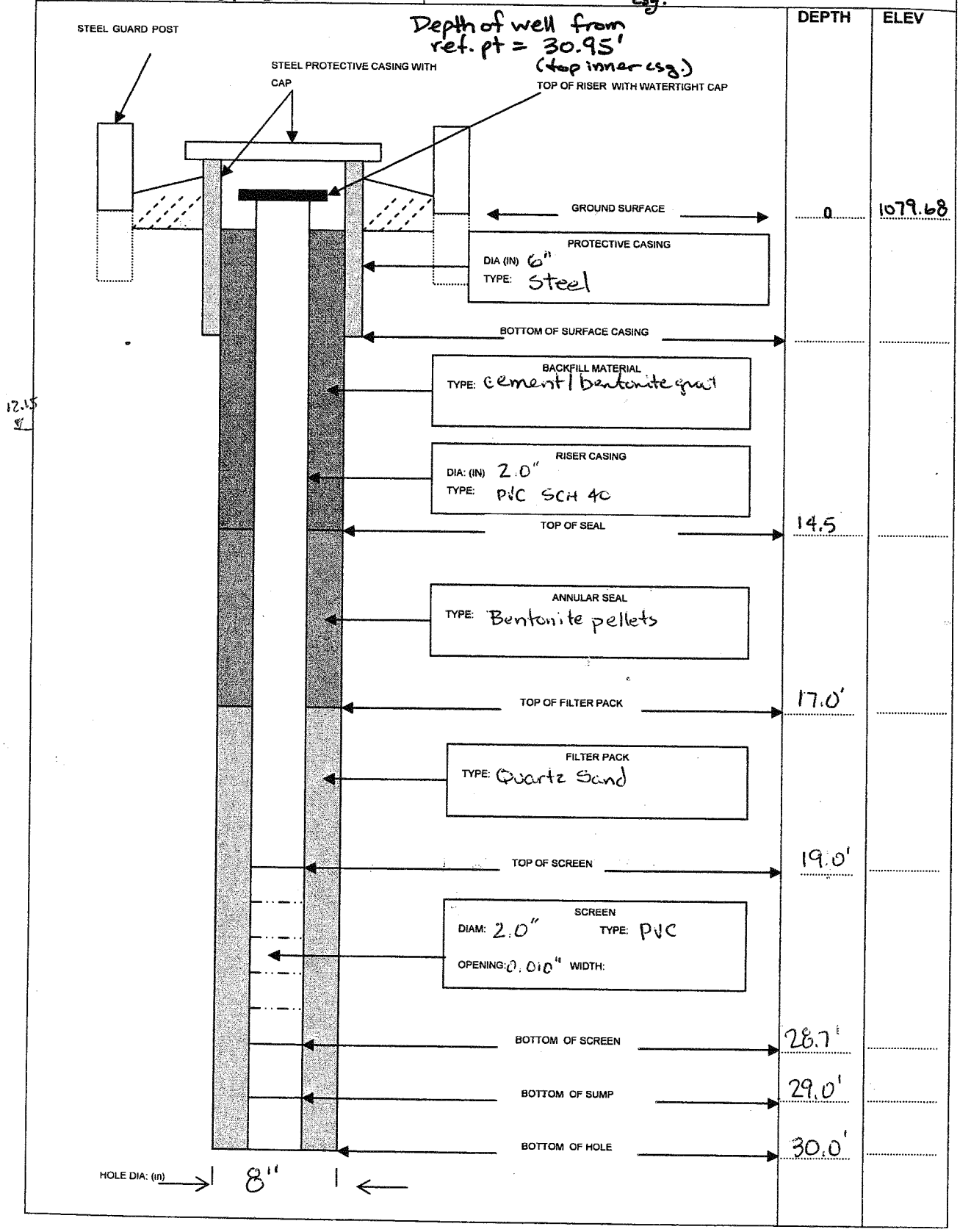
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		TOP 1.8' same as above - Gray CLAY - plastic (CL-CH)		2-2-3-3		
		Bottom 0.2' Brown, wet, fine to coarse SAND				
	21					
	22	REC = 2.0'		Shelby tube		- stop for day 11-1-04 OVA RDG = 0.0 ppm
	23	tip had ~ 1" dia rock frag. gray SILT		NO SAMPLE		refusal of Shelby tube @ 23.5'
	24	Top 1.0' - Brown med to coarse SAND, Grv. up to 1" dia., wet (SW)		10-7-8-8		OVA RDG = 0.0 ppm
	25	Bottom 0.2 - Gray silty CLAY, wet (CL)				
	26	REC. = 1.2'		SHELBY TUBE		ONLY ABLE TO PUSH SHELBY TUBE ~ 1'
	27	Tip of Shelby tube med to coarse SAND, CLAY & SILT, wet		NO SAMPLE (?)		
1045	28	Gray mostly fine to med. SAND, some coarse SAND with trace to some CLAY and SILT., wet (SW)		10-19-23-29		Set bottom of well screen @ 29'
	29					
	30	REC: 2.0' (TILL)				

17

MONITORING WELL CONSTRUCTION DIAGRAM

PROJECT NAME: Suspected Mustard Agent Burial Site

WELL NUMBER: MBSmw-001	**BEGIN:** 11-1-04	**END:** 11-4-04
COORDINATES: N: 556759.5 E: 2345823.0	**REFERENCE POINT:** Top inner csg.	**ELEVATION:** 1082.20

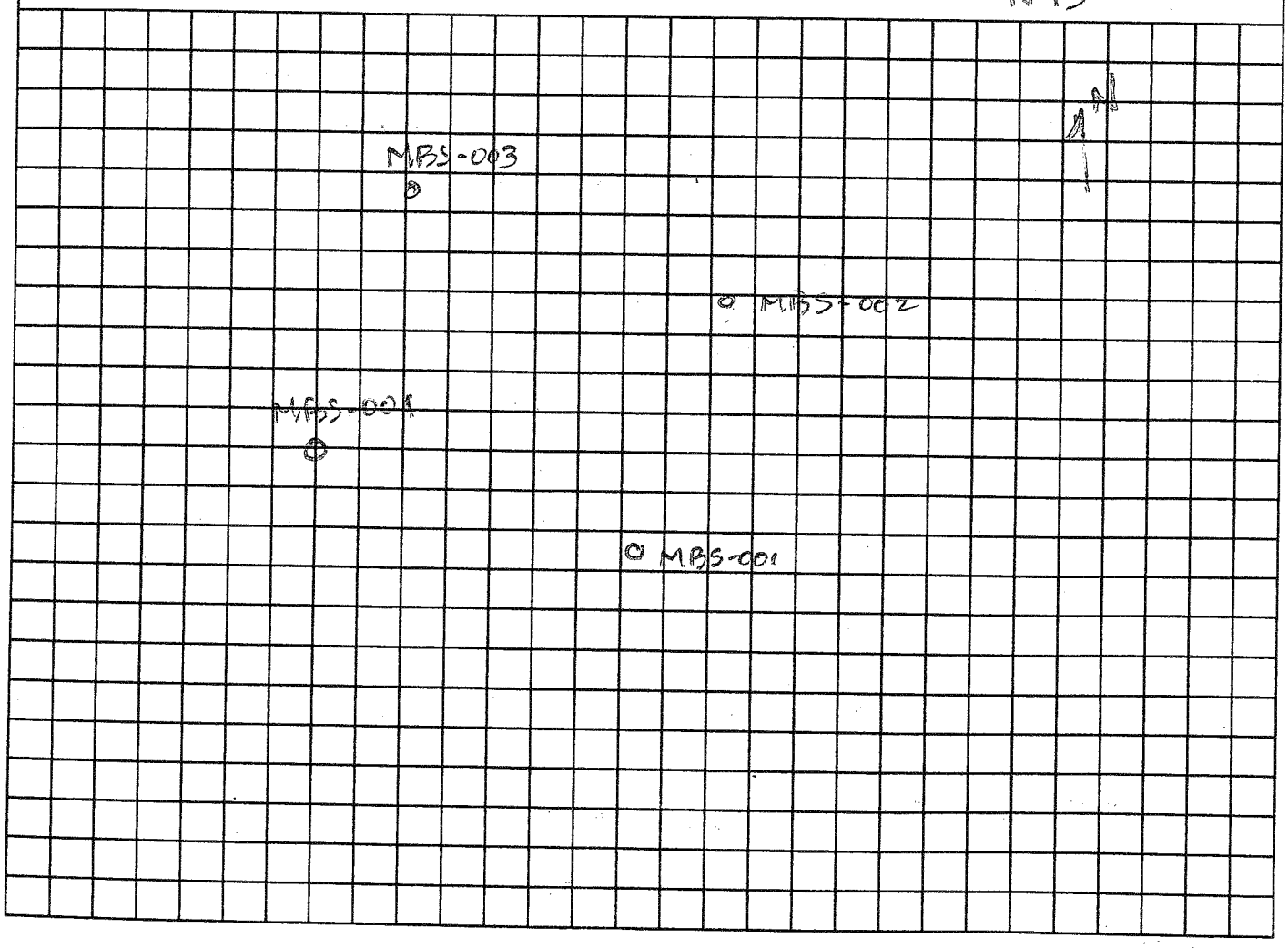


HTRW DRILLING LOG

DISTRICT: Louisville		HOLE NUMBER: MBS-002
1. COMPANY NAME: SpecPro, Inc.	2. DRILL SUBCONTRACTOR: Northwest Drilling, Inc	SHEET ___ OF ___
3. PROJECT: AOC-28	4. LOCATION: RVAAP - AOC-28	
5. NAME OF DRILLER: Mike Bentley	6. MANUFACTURERS DESIGNATION OF DRILL: CME-75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" split spoon; 4.25 hollow-stem auger	8. HOLE LOCATION: MBS-002	
Schonstedt GA-72cd used for UXO readings 0 to 12 ft. Drilling equipment checked for CWA using M256 chemical Detector kit at first groundwater. Readings: negative = 0 or ok; positive = + or actual number	9. SURFACE ELEVATION: 1080.50	
	10. DATE STARTED: 11-02-04	11. DATE COMPLETED: 11-04-03
12. OVERBURDEN THICKNESS	15. DEPTH GROUNDWATER ENCOUNTERED: 23 ft	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED:	
14. TOTAL DEPTH OF HOLE: 30 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED: Shelby tube	19. TOTAL NUMBER OF CORE BOXES: N/A			
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
All readings for UXO & CWA were negative (see column G of boring log)						
22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: Al Brellenger		

LOCATION SKETCH/COMMENTS — SCALE: NTS



HTRW DRILLING LOG

PROJECT: MBS (RVAAP-28) | INSPECTOR Al Bullington | HOLE NUMBER MBS-002 | SHEET 1 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Top 0.2'- Dark brown to black org. CLAY, SILT, Roots		2-1-1-1		UXO rdg = OK
	1	Grades to orange-brown silty CLAY w/ very fine SAND (CL)				
	2	REC = 1.2'				UXO rdg = ok
	3	Brown fine to med SAND with SILT & some CLAY (iron staining) (SM) becomes brown silty CLAY (CL)				
	4	Rec = 1.8'		4-4-4-4		UXO rdg = OK
	5	Brown silty CLAY, some sand (CL)				
	6	Brown silty CLAY, some gray CLAY seams (CL)		4-5-7-7		UXO RDG = OK
	7					
	8	Mostly brown, some orange-brown silty CLAY, with very fine SAND (CL)		6-11-8-9		11-2-04 END DRILLING FOR THE DAY
	9					

HTRW DRILLING LOG

PROJECT: MBS (RVAAP-28) | INSPECTOR Al Bullington | HOLE NUMBER MBS-06 | SHEET 2 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11	Mostly brown silty CLAY with trace to some very fine SAND, occasional orange-brown very thin silt seams (iron staining) (CL)	0.0	3-4-6-6		UXO RDG = OK
	12	REC = 1.7'				
		Gray plastic CLAY with orange-brown silt seams (CL-CH)	0.0	4-5-8-9		UXO RDG = OK
	13					
	14	REC = 1.1'				
		Top 1.1 same as above	0.0	5-7-7-9		
		Bottom 0.9' - Gray plastic CLAY, trace silt				
	15					
	16	REC = 2.0'				
		Gray plastic CLAY, trace SILT (CH)	0.0	3-3-3-3		
	17					
	18	REC = 1.6'		SHELBY TUBE		
	19					

HTRW DRILLING LOG

PROJECT: MBS (RVAAP-28) | INSPECTOR W. Bulloy | HOLE NUMBER MBS-002 | SHEET 3 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	21	Gray plastic CLAY, trace SILT (CH-CL)		WOH-1-2-2		
	22	REC = 2.0'				
		TOP 0.5' Gray plastic CLAY, trace SILT (same as above) (CH-CL)		3-4-5-6		
	23	bottom 0.2' - Gravel (~1" dia) fine to coarse SAND, loose wet (SW)				
	24	REC = 0.7' NO RECOVERY		SHELBY TUBE		- No recovery with shelby tube. Shelby tube end was bent as if it pushed against rock. Split spoon for 26-28 dropped to depth (i.e. no material in hole from 24-26)
	25					
	26	Top 0.2' - loose med to coarse SAND (SW)		15-13-8-9		
	27	Next 0.3' - Gray silty CLAY with fine to coarse SAND (CL) Next 0.1' - ROCK - sandstone rest: 0.1' - Gray fine to coarse SAND, rounded quartz, sandstone				
	28	REC = 0.9' Gray medium to coarse SAND, rock fragments (Sandstone) up to 1" dia) wedged in spoon, wet		SHELBY TUBE 45-25-31-29		- attempted shelby tube 28-30'. AP 11-3-04 Couldn't push tube past 28'. will split spoon sample 28-30' - augur to 30' - set well screen 29-19'
	29					
	30	REC = 0.8'				

MONITORING WELL CONSTRUCTION DIAGRAM

PROJECT NAME: Suspected Mustard Agent Burial Site

WELL NUMBER: MBS-002	**BEGIN:** 11-2-04	**END:** 11-4-04
COORDINATES: N:550836.2 E: 2345322.3	**REFERENCE POINT:** S.S = 1080.50 top inner csg =	**ELEVATION:** 1083.22

Depth to bottom from ref. pt. = 30.67' (Top inner csg.)

	DEPTH	ELEV
STEEL GUARD POST		
STEEL PROTECTIVE CASING WITH CAP		
TOP OF RISER WITH WATERTIGHT CAP		
GROUND SURFACE	0	1080.50
PROTECTIVE CASING — DIA (IN): 6" — TYPE: Steel		
BOTTOM OF SURFACE CASING		
BACKFILL MATERIAL — TYPE: cement / bentonite		
RISER CASING — DIA: (IN) 2" — TYPE: PVC		
TOP OF SEAL	13.5'	
ANNULAR SEAL — TYPE: VOLCLAY 3/8" pellets bentonite		
TOP OF FILTER PACK	16.2'	
FILTER PACK — TYPE: Global Quartz Filter pack SAND		
TOP OF SCREEN	18.0'	
SCREEN — DIAM: 2" — TYPE: PVC — OPENING: Slot — WIDTH: 0.01"		
BOTTOM OF SCREEN	27.3' ~~28.0~~ AB 11-4-04	
BOTTOM OF SUMP	28.0'	
BOTTOM OF HOLE	30'	
HOLE DIA: (in) 8"		

NW well 47

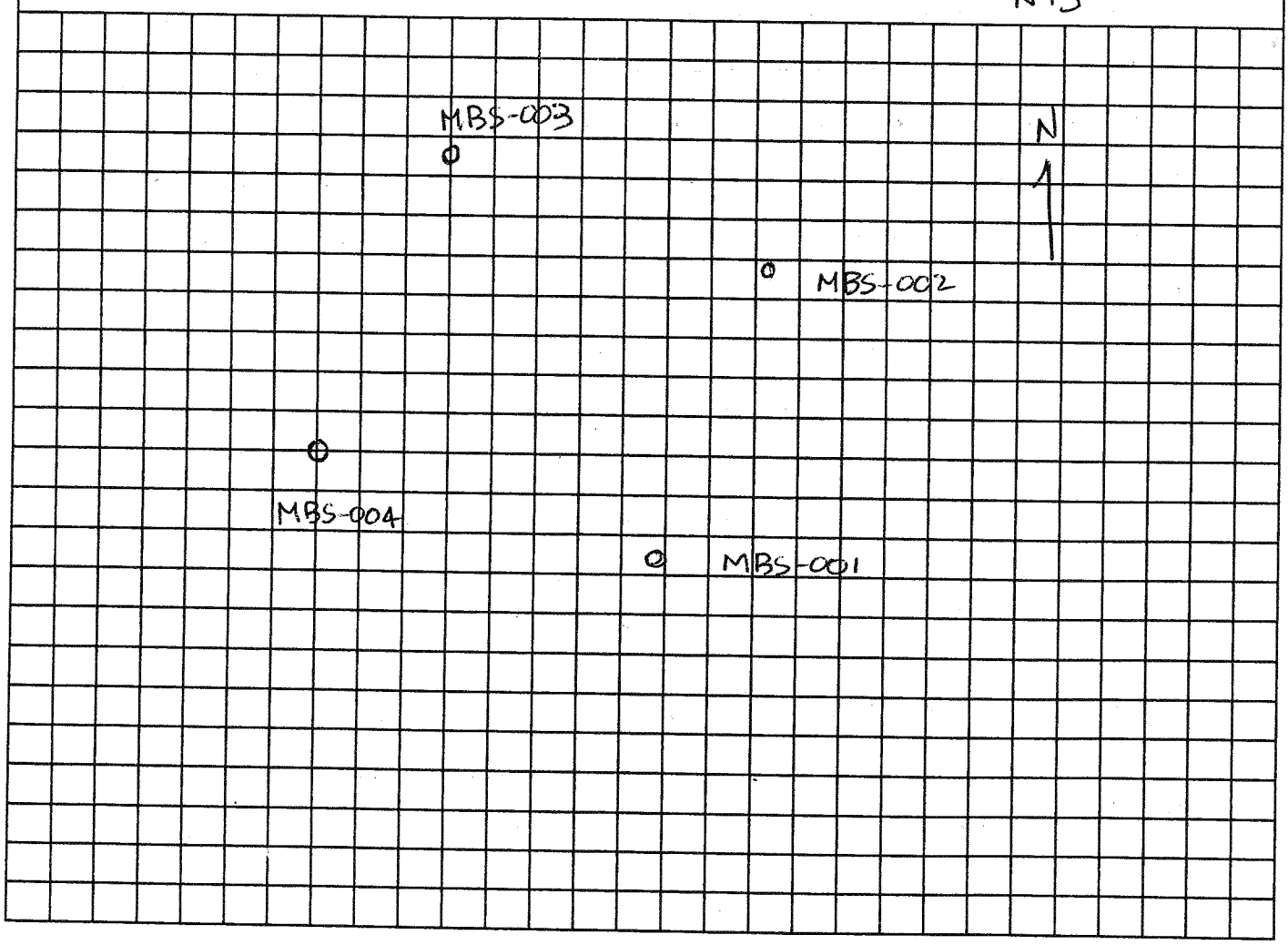
HTRW DRILLING LOG

	DISTRICT: Louisville	HOLE NUMBER MBS-003
1. COMPANY NAME: SpecPro	2. DRILL SUBCONTRACTOR: Northcoast Drilling Co	SHEET 1 OF 1

3. PROJECT: AOC-28	4. LOCATION: RVAAP AOC-28
5. NAME OF DRILLER: Mike Bentley	6. MANUFACTURERS DESIGNATION OF DRILL: CME-75
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" split spoon; 4.25" Hollow stem auger	8. HOLE LOCATION: MBS-003
Schonstedt GA-72cd used for UXO readings 0 to 12 ft. Drilling equipment checked for CWA using M256 Chemical Detector kit at first groundwater. Readings: negative = 0 or OK; positive = + or actual number.	9. SURFACE ELEVATION: 1082.45
	10. DATE STARTED: 11-4-04 / 11. DATE COMPLETED: 11-05-04
12. OVERBURDEN THICKNESS	15. DEPTH GROUNDWATER ENCOUNTERED: 22 ft.
13. DEPTH DRILLED INTO ROCK: 0'	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 15.4 ft below ground surface 11-08-04
14. TOTAL DEPTH OF HOLE: 30 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):

18. GEOTECHNICAL SAMPLES	DISTRICT	UNDISTURBED (Shelby tube)	19. TOTAL NUMBER OF CORE BOXES			
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
All readings for UXO & CWA were	negative	(see column G of boring log)				
22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: W. Bullington		

LOCATION SKETCH/COMMENTS — SCALE: NTS



HTRW DRILLING LOG

HOLE NUMBER MBS-003 (48)

PROJECT: MBS RVAAP-28 | INSPECTOR JL Bullington | SHEET 1 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Top 0.2' Dark gray silty CLAY, with leaves, roots, org. matl		1-2-2-2		UXO RDG = OK
	1	Bottom 1.1' - Gray to orange-brown (mottled) silty CLAY with very fine to med. SAND (CL)				
	2	REC = 1.3' Mostly orange-brown and gray (mottled) silty CLAY, with very fine to med. SAND, some roots (CL)	0.0 ppm	3-5-6-7		UXO RDG = OK
	3					
	4	REC = 2.0' Brown and orange-brown silty CLAY, trace to some very fine SAND (CL)	0.0 ppm	5-6-5-8		UXO RDG = OK OVA RDG = 0.0 ppm
	5					
	6	REC = 2.0' Brown and orange-brown silty CLAY and clayey SILT, trace to some very fine to med. SAND (TILL) (CL-ML)	0.0	7-8-8-9		UXO RDG = OK
	7					
	8	REC = 2.0' Brown and orange-brown silty CLAY, with very fine to coarse SAND (CL)	0.0 ppm	3-5-6-8		UXO RDG = OK
	9					

HTRW DRILLING LOG

HOLE NUMBER MBS-003

PROJECT: MBS RVAAP-28 | INSPECTOR Al Bullington | SHEET 2 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Top 0.3' Brown and Orange brown silty CLAY, with fine to med. SAND (CL)	0 0	3-5-7-8		UXO RDG = OK
		Next 0.5' - Brown and orange-brown SILT (ML)				
	11	Next 0.3' - Brown and orange-brown fine SAND (SP)				
		Rest: Brown and orange-brown sandy, silty CLAY (TILL) (CL)				
	12	REC = 1.7'				
		TOP 0.5' - Gray silty CLAY with very fine to coarse SAND (TILL) (SW)	0.0	7-9-10-12		UXO RDG = OK
		Next 0.2' - Brown; orange-brown Sandy CLAY (CL)				
	13	Next 0.4 Gray silty CLAY with very fine to coarse SAND (SW)				
		Last 0.9' Gray silty CLAY, (CL) some gray med. Sand seems up to 0.05' thick				
	14	REC = 2.0'				
		TOP 0.6' Brown silty CLAY with very fine to coarse SAND (CL)		7-18-20-17		
		Next 0.6' - Brown fine to medium SAND, some coarse SAND (SW)				
	15	Bottom 0.6' Whitish fine to medium SAND (SS frags) (SW)				
		Tip: Brown silty CLAY w/ V. fine to coarse SAND (CL)				
	16	REC = 1.8'		10-11-13-12		
		Top 1.0' Brown and orange-brown clayey, silty SAND (CL)				
	17	Bottom 0.8' - Gray silty CLAY with fine to coarse SAND, some (CL) shale & SS frags up to				
	18	Rec = 1.8' 1" dia.				
		Gray sandy silty CLAY, sand v. fine to coarse, up to 1" dia, increasing silt content bottom (CL)		8-10-8-7		
	19	0.4' - tip of spoon mostly gray SILT w/ (ML) CLAY				
	20	REC: 2.0 (TILL)				

HTRW DRILLING LOG

HOLE NUMBER MBS-003 50

PROJECT: AOC-28 | INSPECTOR Al Bullinger | SHEET 3 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
		Gray clayey SILT with fine to coarse SAND (ML)		3-6-4-5		
	21	Sand seam 0.1' thick @ 21'-21.1', increasing clay content with depth, clay				
	22	Gray clayey SILT with fine to coarse SAND GRV up to 1" dia. @ 23' SILT content increases w/ depth- wet @ 22.2 ft (ML)		3-5-6-11		
	23					
	24		0.0	shelby tube		End of day 11-4-04 overnight water level - no water in augers
	25					
	26	21" push til refusal				
		Gray sandy SILT, w/ GRV up to 1", wet seams of gray fine to med. Sand @ 27.2' (ML)		8-10-20-24		
	27					
	28	REC: 2.0'				
		Top 1.0 - Gray fine to med SAND, wet (SW)		21-18-20-28		
	29	Bottom 1.0' - Gray till, Gray sandy SILT, trace to some clay, sand v.fine to coarse (ML-CL)				
	30	REC: 2.0'				

MONITORING WELL CONSTRUCTION DIAGRAM

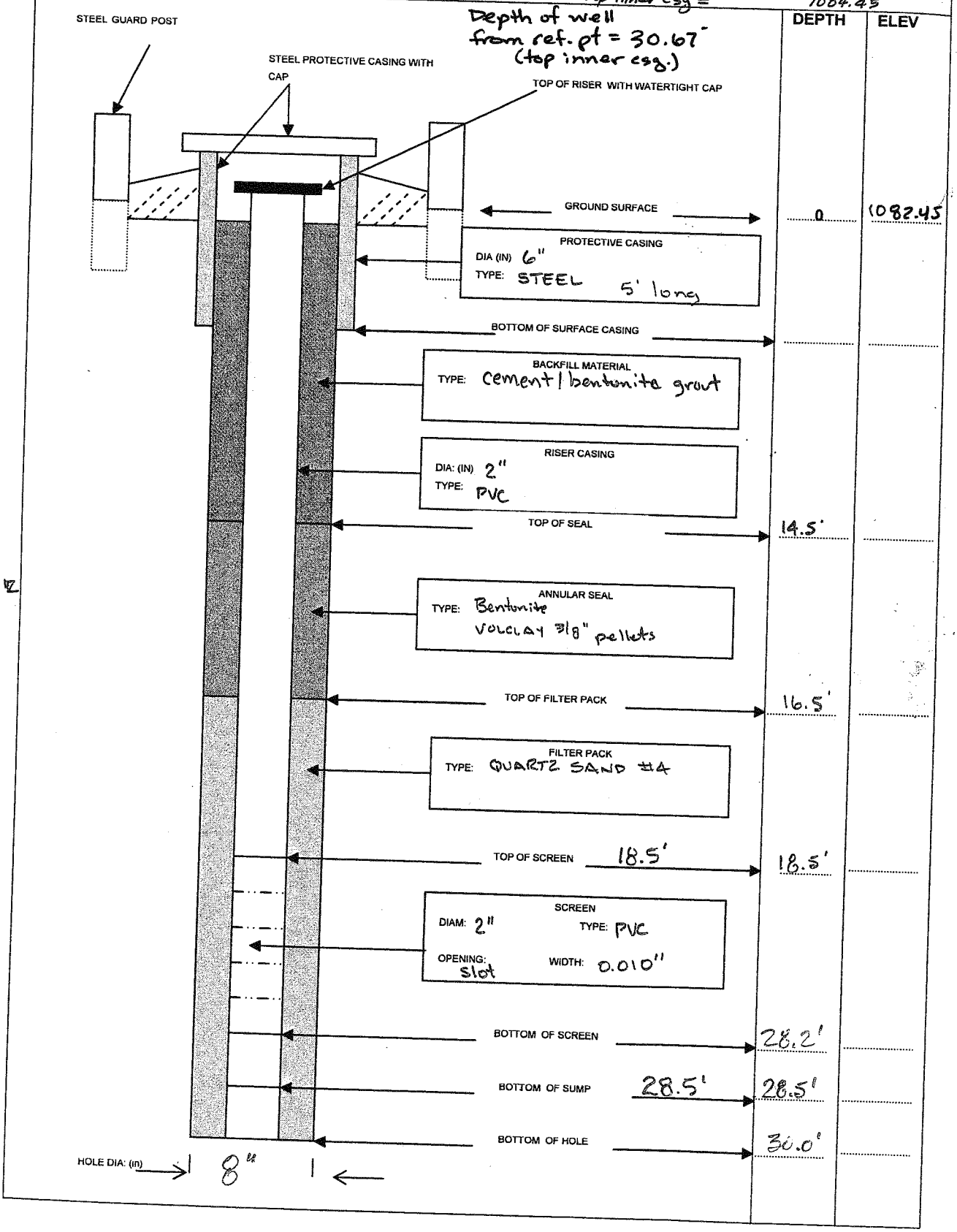
PROJECT NAME: Suspected Mustard Agent Burial Site

WELL NUMBER: MBS-003 | **BEGIN:** 11-4-05 | **END:** 11-5-05

COORDINATES: N: 550922.8 E: 2345172.4

REFERENCE POINT: top inner csg = | **ELEVATION:** GS = 1082.45, 1084.45

Depth of well from ref. pt = 30.67' (top inner csg.)



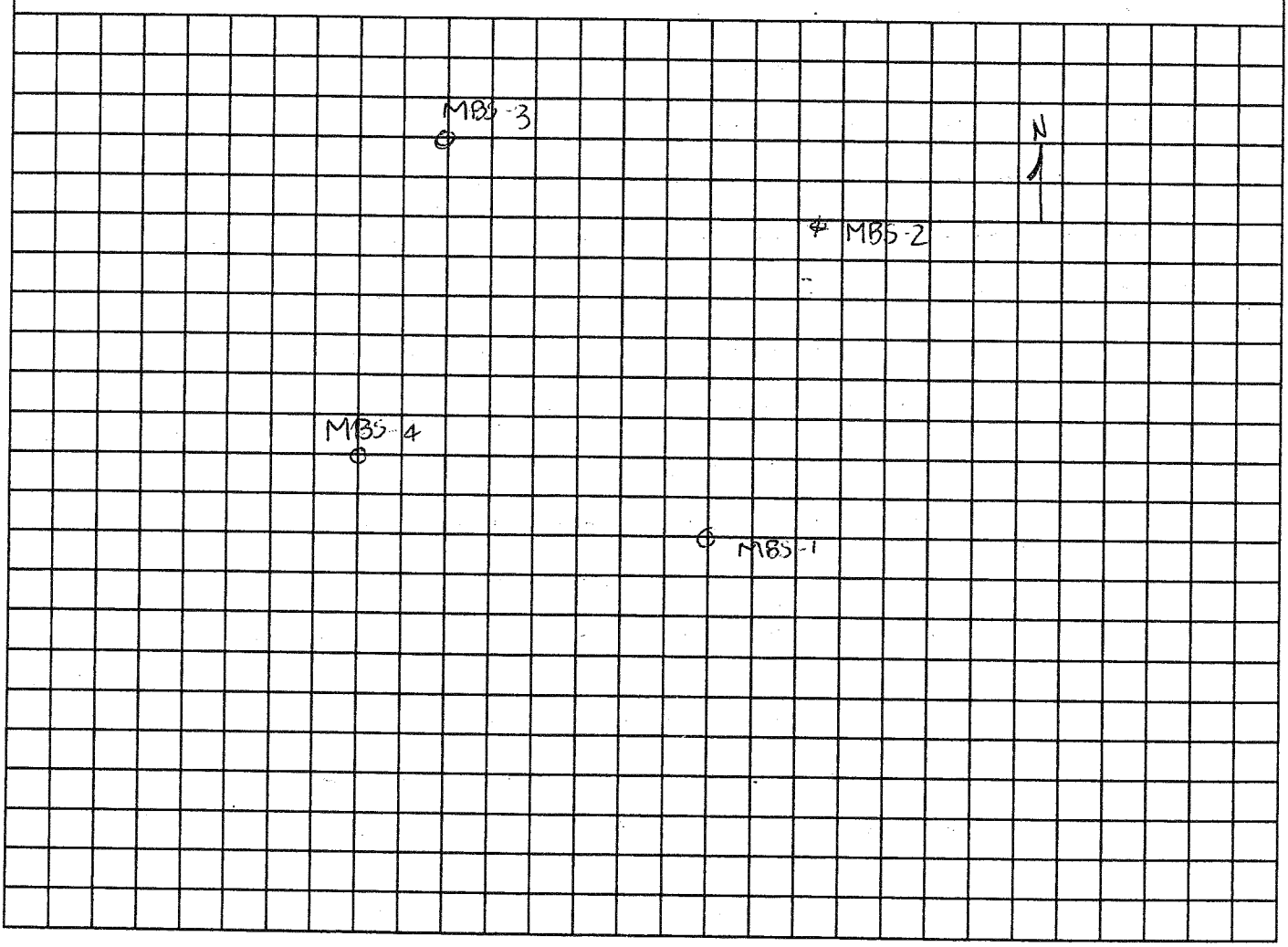
	DEPTH	ELEV
GROUND SURFACE	0	1082.45
BOTTOM OF SURFACE CASING		
TOP OF SEAL	14.5'	
TOP OF FILTER PACK	16.5'	
TOP OF SCREEN	18.5'	18.5'
BOTTOM OF SCREEN	28.2'	
BOTTOM OF SUMP	28.5'	28.5'
BOTTOM OF HOLE	30.0'	

HTRW DRILLING LOG

	DISTRICT: Louisville	HOLE NUMBER MBS-04
1. COMPANY NAME: SpecPro Inc	2. DRILL SUBCONTRACTOR: Northcoast Drilling Co	SHEET 1 OF 1
3. PROJECT: AOC-28	4. LOCATION: RVAAP AOC-28	
5. NAME OF DRILLER: MIKE BENTLEY	6. MANUFACTURERS DESIGNATION OF DRILL: CME-75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" Split spoon, 4.25" Hollow-stem augers	8. HOLE LOCATION: MBS-004	
Schonstedt GA-72cd used for UXO readings 0 to 12 ft. Drilling equipment checked for CWA using M256 chemical Detector kit at first groundwater. Readings: negative = 0 or OK; positive = + or actual number.	9. SURFACE ELEVATION: 1079.55 ft	
	10. DATE STARTED: 11-5-04	11. DATE COMPLETED: 11-08-04
12. OVERBURDEN THICKNESS	15. DEPTH GROUNDWATER ENCOUNTERED: 16 ft.	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 14.2 ft below ground surface 11-09-04	
14. TOTAL DEPTH OF HOLE: 26 ft	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY):	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED (Shelby tubes) 2	19. TOTAL NUMBER OF CORE BOXES N/A			
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
All readings for UXO & CWA were negative (See column 9 for Boring log)						
22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR: DO Bullington		

LOCATION SKETCH/COMMENTS — SCALE: N.TS



HTRW DRILLING LOG

HOLE NUMBER MBS-04-67

PROJECT: MBS RVAAP-28 | INSPECTOR A. Bullengi | SHEET 1 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	0	Gray and orange-brown clayey SILT w/ v. fine Sand (mottled) (ML)	0.0	4-5-6-6		UXO RDG = OK
	1					
	2	1.2' Gray and orange-brown clayey SILT with very fine SAND (SM-ML)	0.0	5-5-5-5		UXO RDG = OK
	3					
	4	REC = 1.8' Gray and orange-brown clayey SILT (ML) (middle 0.5' - orange-brown SILT)	0.0	6-4-5-5		UXO RDG = OK
	5					
	6	Recovery = 2.0' Gray and orange-brown clayey SILT (ML)	0.0	6-7-8-10		UXO RDG = OK
	7					
	8	Brown and orange-brown clayey SILT and silty CLAY, with fine to coarse SAND, GRVC ~0.75" dia. @ 9.7', damp to wet (SM, CL, ML)	0.0	6-7-8-8		11-5-04 quit for the day 1600 HRS UXO RDG = OK · wet spoon - mustard wipe test = OK
	9					

68

HTRW DRILLING LOG

HOLE NUMBER MBS-04

PROJECT: MBS RVAAP-28 | INSPECTOR Al Bullinger | SHEET 2 OF 3

ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	11	Brown and orange-brown clayey SILT, with fine to coarse SAND, Grv ~ 0.75" (ML)	0.0	3-5-6-7		UXO RDG = OK
	12	REC = 2.0'	0.0.	8-10-11-13		
		Brown and orange-brown clayey SILT, with fine to coarse SAND (ML)				
	13					
	14	REC = 2.0'	0.0	3-6-8-9		
		Top 1.2' - Brown and orange-brown clayey SILT, with v. fine SAND (ML)				
	15	Bottom 0.8' Brown very fine to medium SAND, with SILT (SW)				
	16	REC = 2.0'	0.0	6-8-8-10		mustard wipe test on drill pipe: OK
		Brown fine to medium SAND, wet, trace SILT (SM, SW)				
	17					
	18	2.0 REC	0.0	SHELBY TUBE		
	19					
	20	16" PUSH AB 11-8-04				

HTRW DRILLING LOG

HOLE NUMBER MBS-04 69

PROJECT: MBS RVAAP-28 | INSPECTOR Al Bullinger | SHEET 3 OF 3

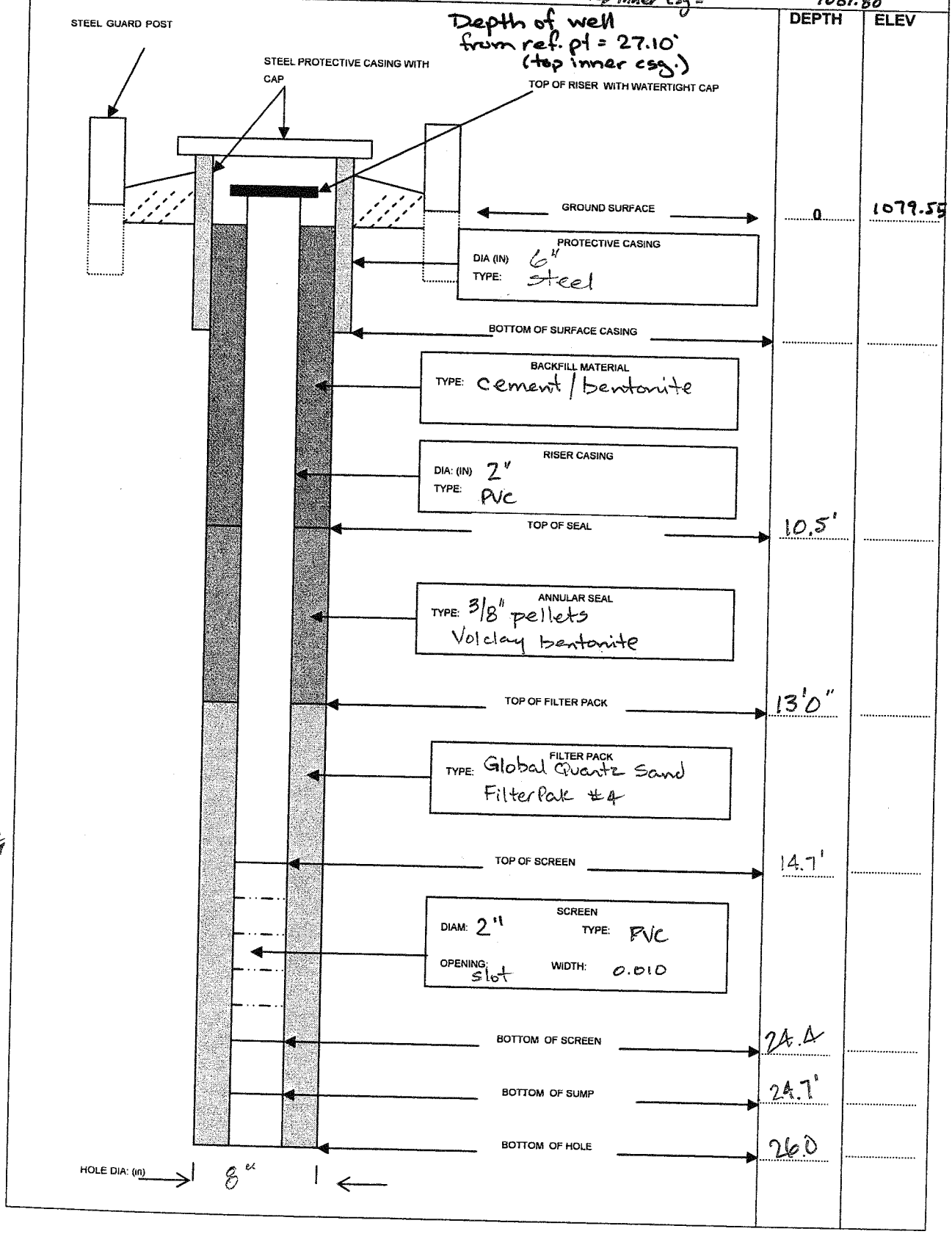
ELEV. (A)	DEPTH (B)	DESCRIPTION OF MATERIALS (C)	HEADSPACE SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX	ANALYTICAL SAMPLE NO. (F)	REMARKS (G)
	21	TOP 0.9' Gray SILT, with CLAY (ML) Bottom 1.1 - Brown fine SAND, wet	0.0	13-15-17-14		
	22	REC=2.0'		SHELBY TUBE		
	23					
	24	16" push Gray fine to medium SAND, wet (SW)		50/4		
	25					
	26	REC= 0.8'				-rig chatter -- final depth
	27					
	28					
	29					
	30					

14

MONITORING WELL CONSTRUCTION DIAGRAM

PROJECT NAME: Suspected Mustard Agent Burial Site

WELL NUMBER: MBS-004	**BEGIN:** 11-5-04	**END:** 11-8-04
COORDINATES: N: 550767.9 E: 2345134.2	**REFERENCE POINT:** g.s = top inner csg =	**ELEVATION:** 1079.55 1081.80



APPENDIX F

TIME TREND GRAPHS

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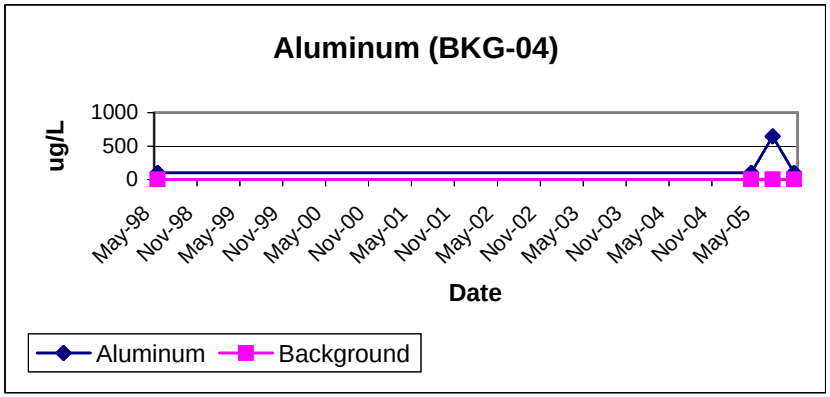
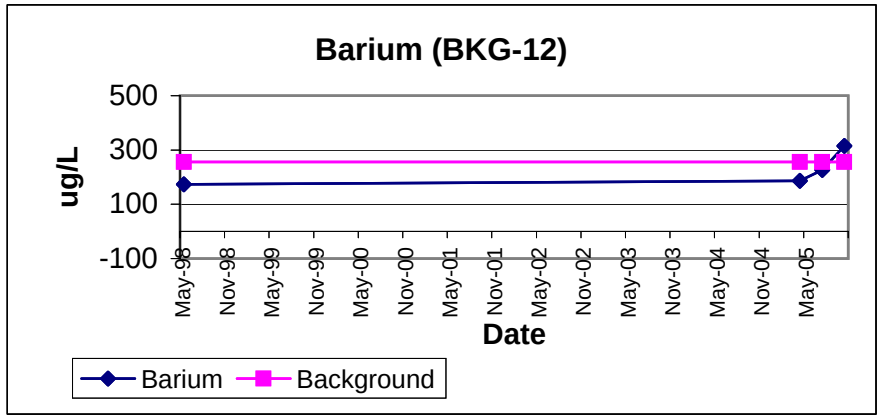
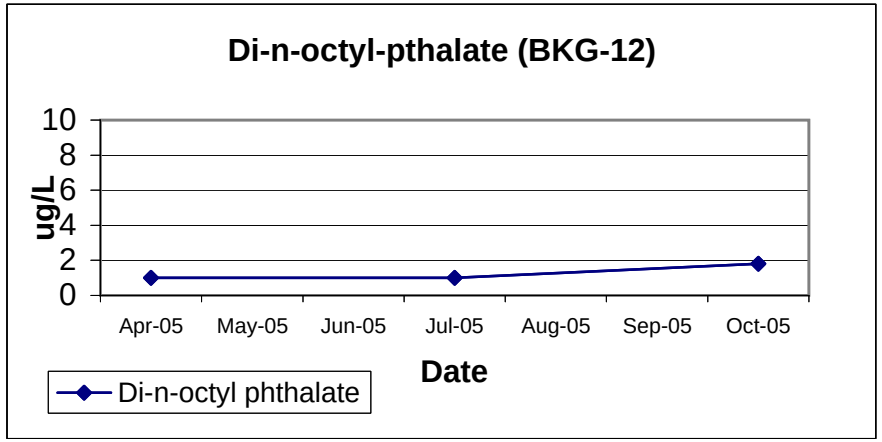


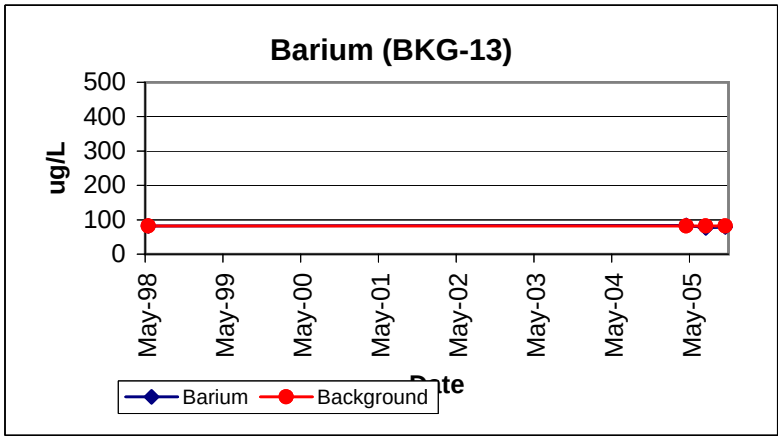
Date	5/19/1998	4/13/2005	7/13/2005	10/5/2005
Aluminum	100	100	644	100
Background	0	0	0	0



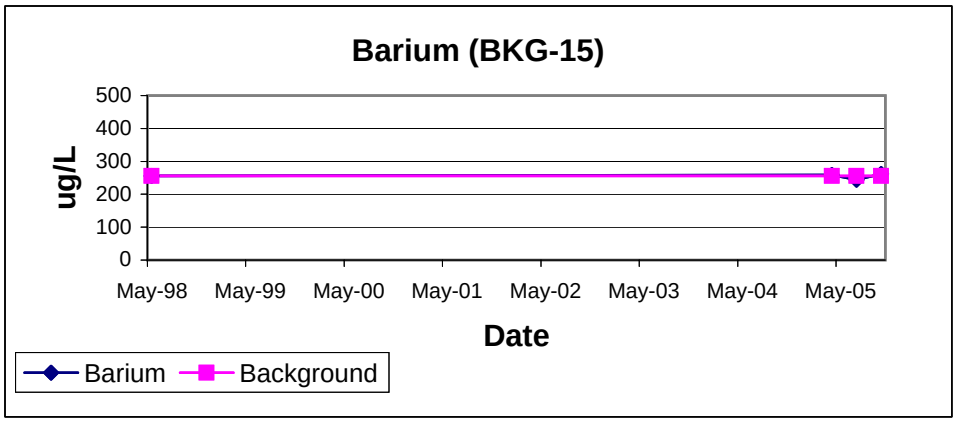
Date	5/18/1998	4/13/2005	7/14/2005	10/3/2005
Sample	173	187	227	315
Background	256	256	256	256



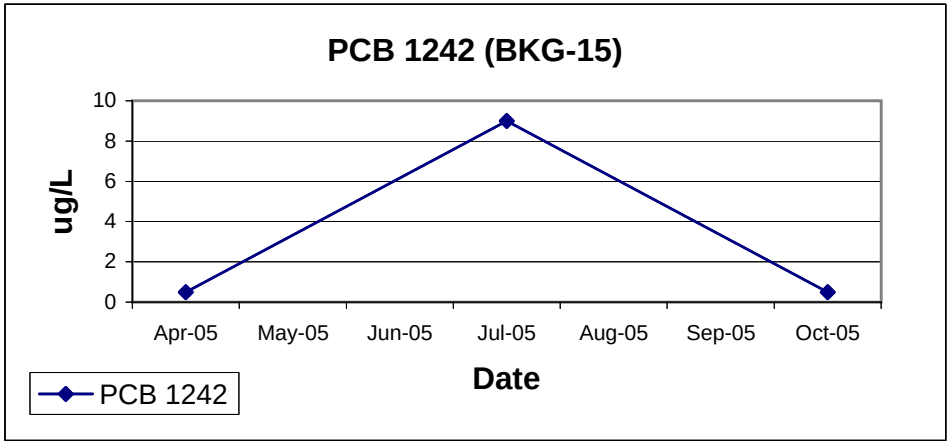
Date	4/13/2005	7/14/2005	10/3/2005
Sample	1	1	1.8



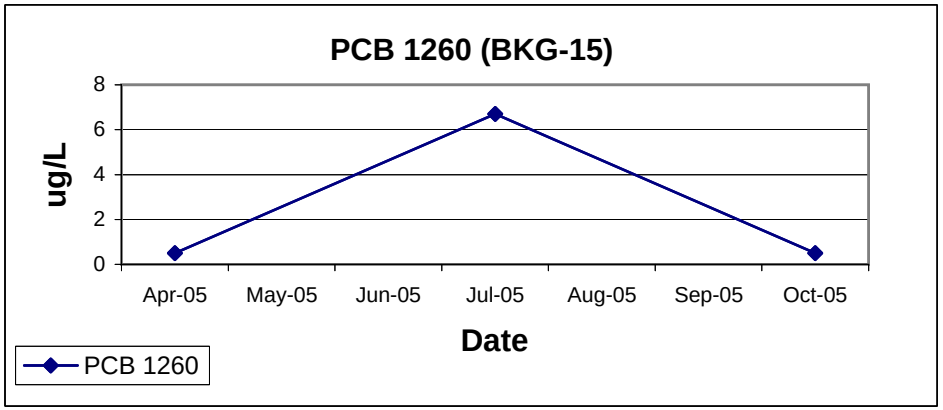
Date	5/16/1998	4/14/2005	7/12/2005	10/5/2005
Barium	82.1	83.6	75.9	78.7
Background	82.1	82.1	82.1	82.1



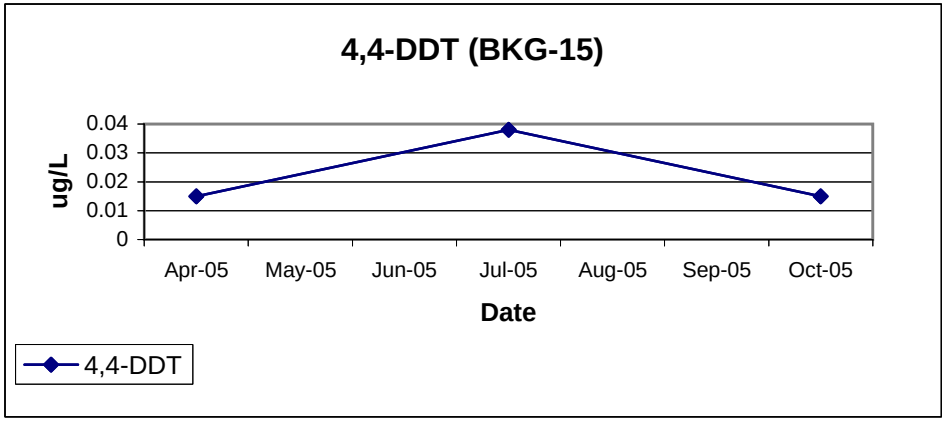
Date	5/21/98	4/14/05	7/12/05	10/5/05
Barium	256	259	244	262
Background	256	256	256	256



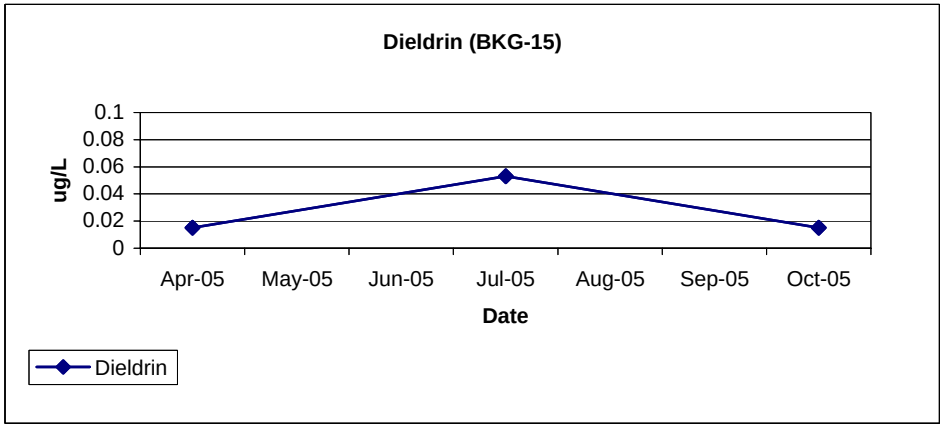
Date	4/14/05	7/12/05	10/5/05
PCB 1242	0.5	9	0.5



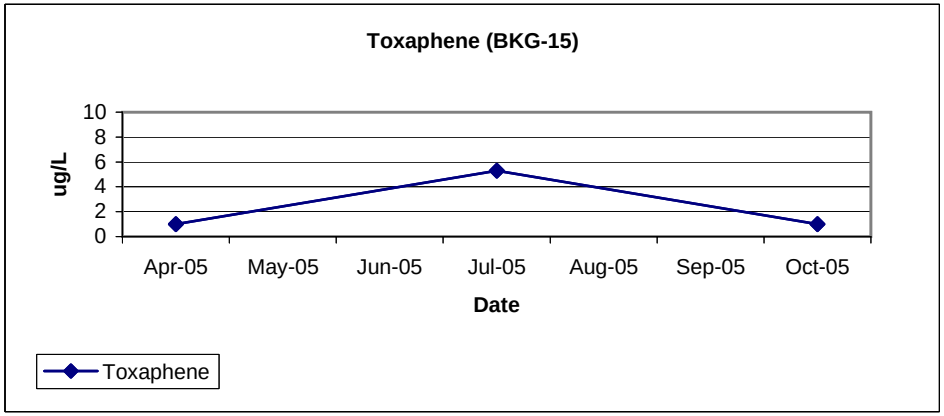
Date	4/14/05	7/12/05	10/5/05
PCB 1260	0.5	6.7	0.5



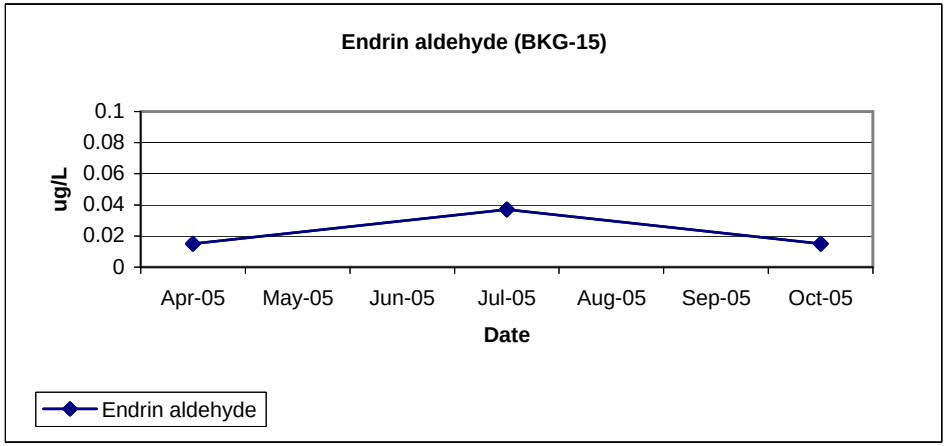
Date	4/14/05	7/12/05	10/5/05
4,4-DDT	0.015	0.038	0.015



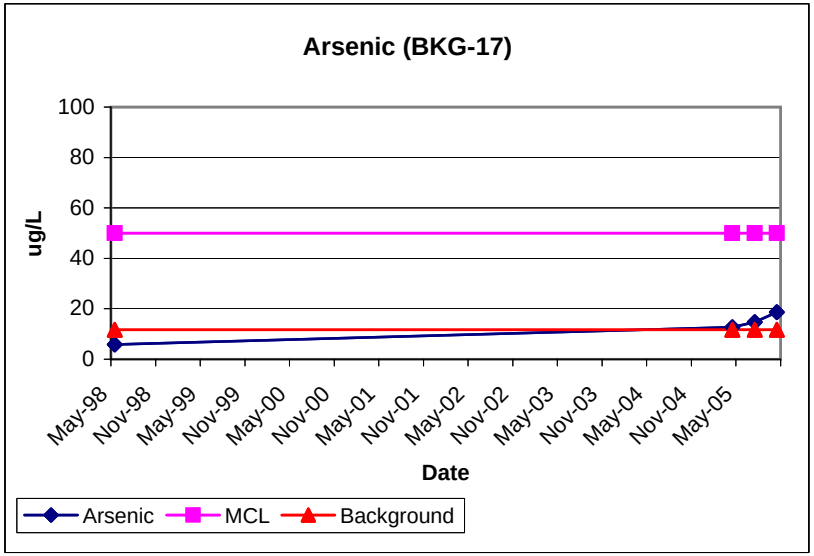
Date	4/14/05	7/12/05	10/5/05
Dieldrin	0.015	0.053	0.015



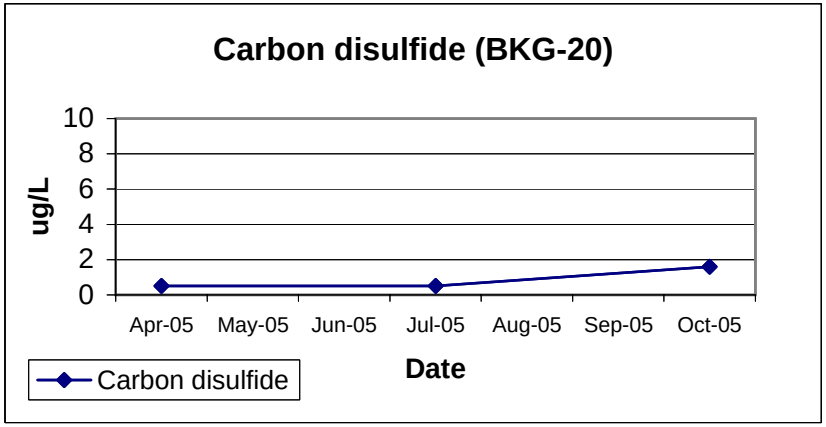
Date	4/14/05	7/12/05	10/5/05
Toxaphene	1	5.3	1



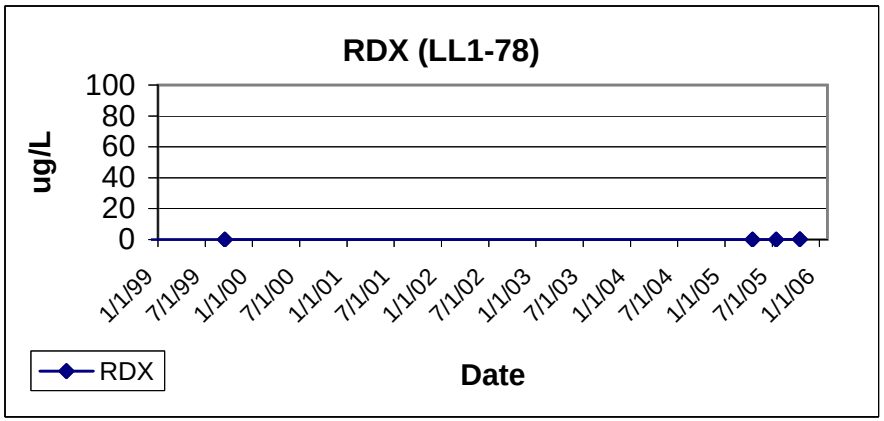
Date	4/14/05	7/12/05	10/5/05
Endrin aldehy	0.015	0.037	0.015



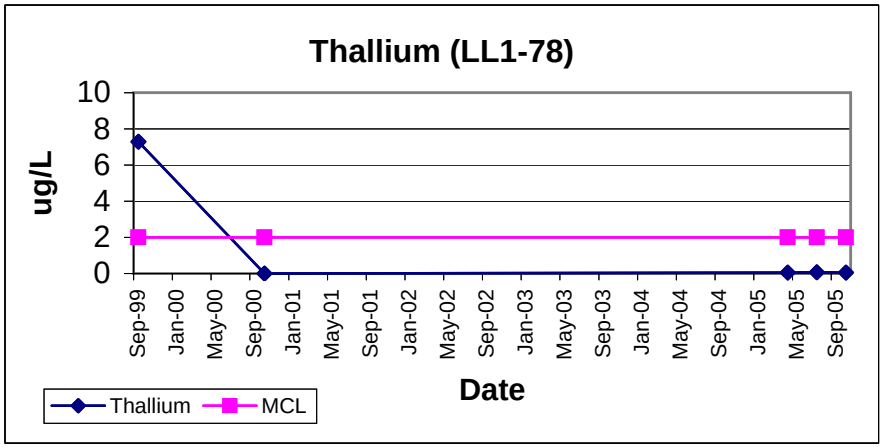
Date	5/19/98	4/14/05	7/12/05	10/4/05
Arsenic	5.85	12.7	14.7	18.6
MCL	50	50	50	50
Background	11.7	11.7	11.7	11.7



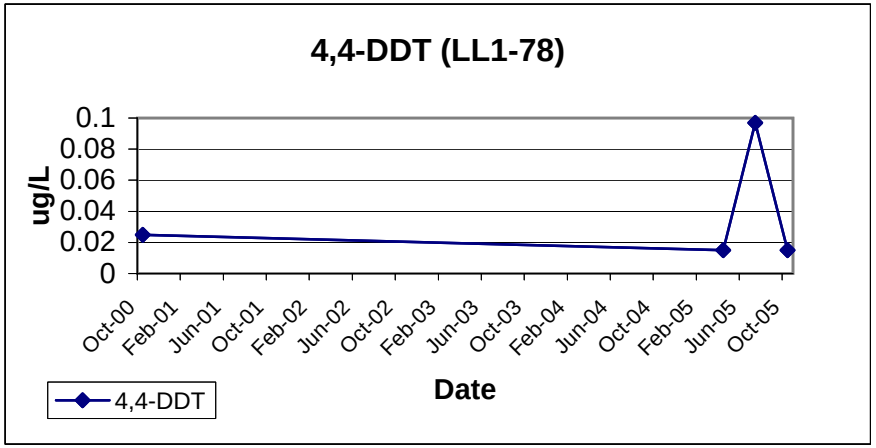
Date	4/13/05	7/13/05	10/4/05
Carbon disulfide	0.5	0.5	1.6



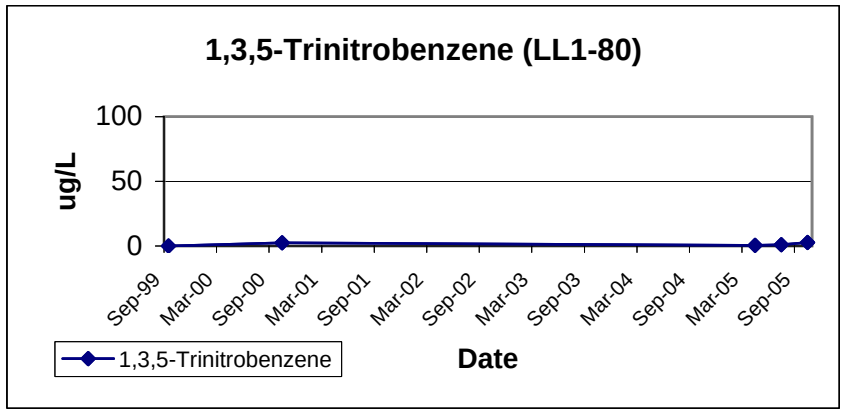
Date	9/1/1999	10/3/1900	4/11/2005	7/11/2005	10/5/2005
RDX	0.05	0.05	0.05	0.05	0.17



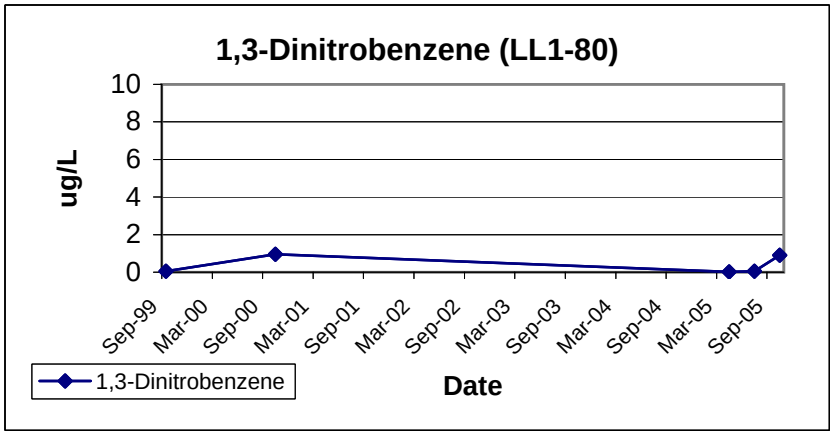
DATE	9/1/1999	10/3/2000	4/11/2005	7/11/2005	10/5/2005
Thallium	7.3	0.002	0.059	0.066	0.053
MCL	2	2	2	2	2



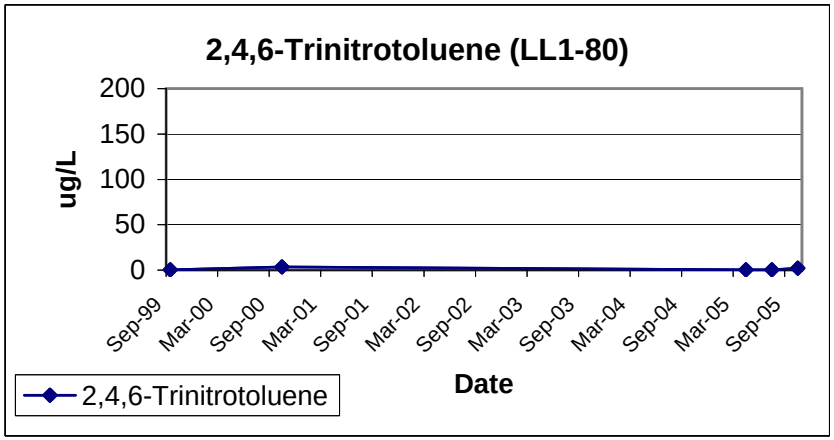
DATE	10/3/2000	4/11/2005	7/11/2005	10/5/2005
4,4-DDT	0.025	0.015	0.097	0.015



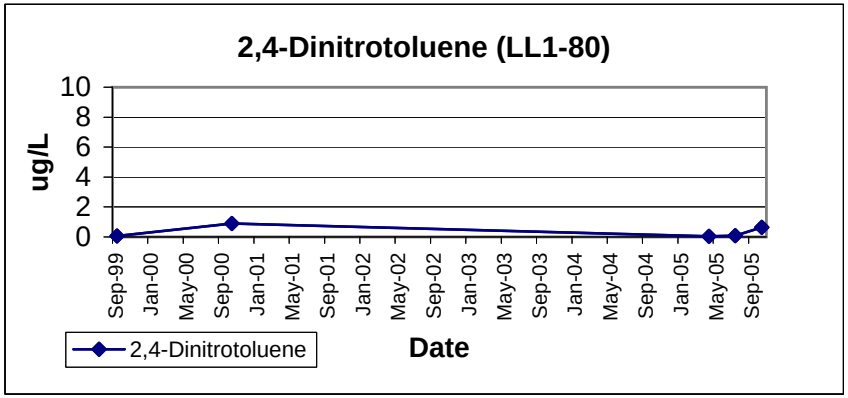
DATE	9/6/1999	10/4/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	0.1	2.5	0.61	0.9	2.7



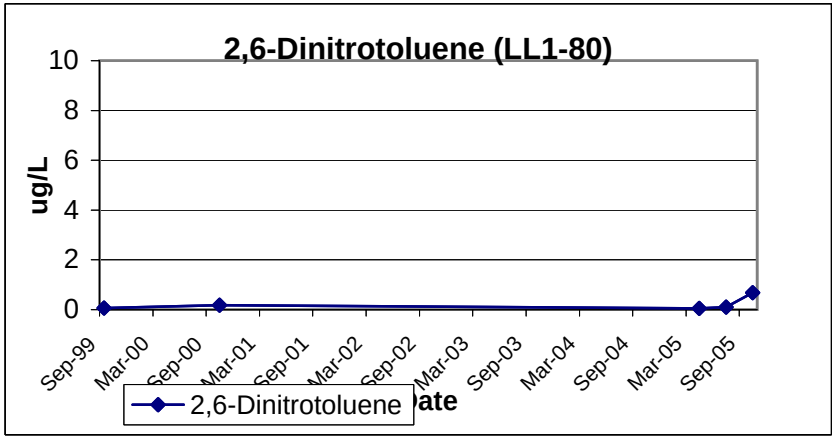
DATE	9/6/1999	10/4/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	0.05	0.95	0.019	0.046	0.91



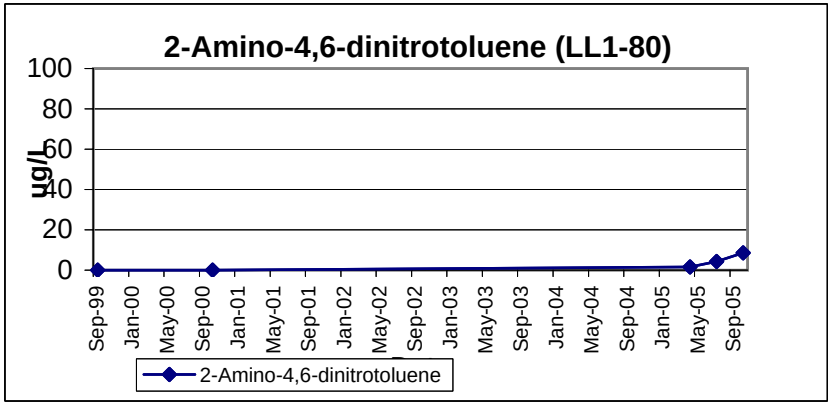
DATE	9/6/1999	10/4/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	0.18	3.6	0.26	0.42	2.2



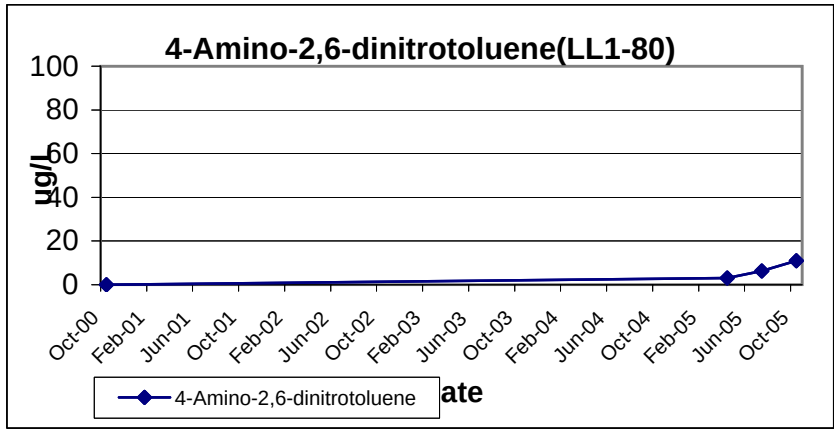
DATE	9/6/1999	10/4/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	0.065	0.9	0.05	0.087	0.65



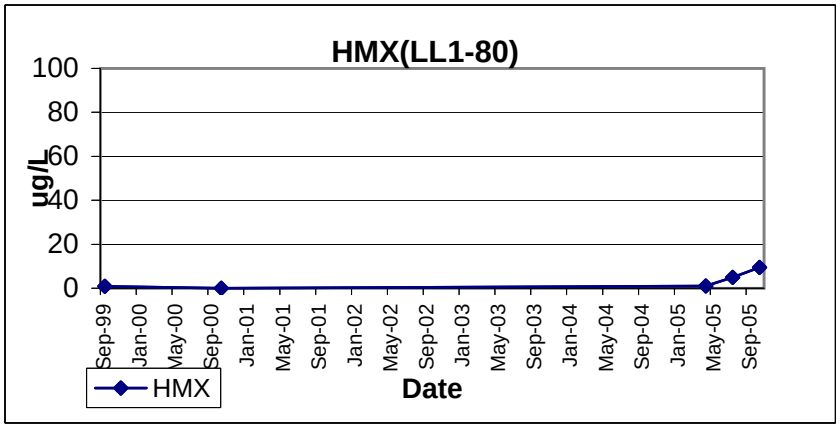
DATE	9/6/1999	10/4/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	0.065	0.185	0.05	0.097	0.68



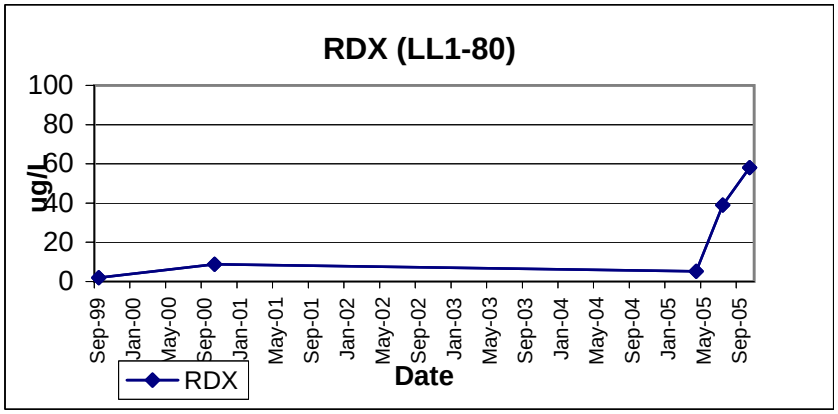
DATE	9/6/1999	10/4/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	NA	0.01	1.6	4.3	8.6



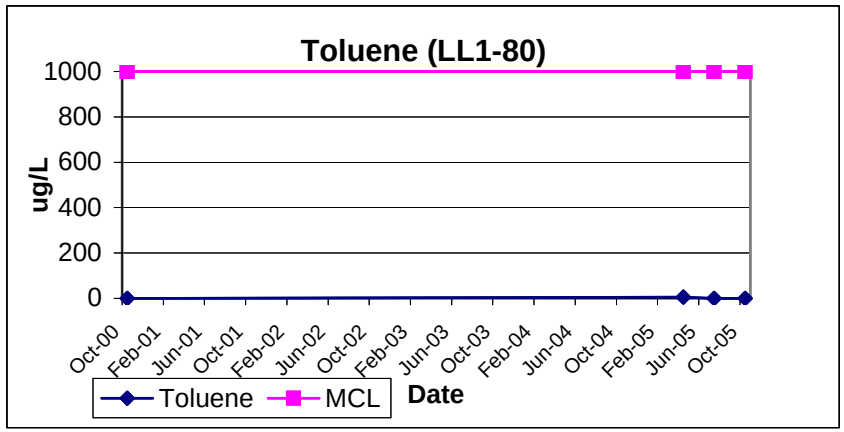
DATE	9/6/1999	10/4/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	NA	0.01	3.1	6.3	11



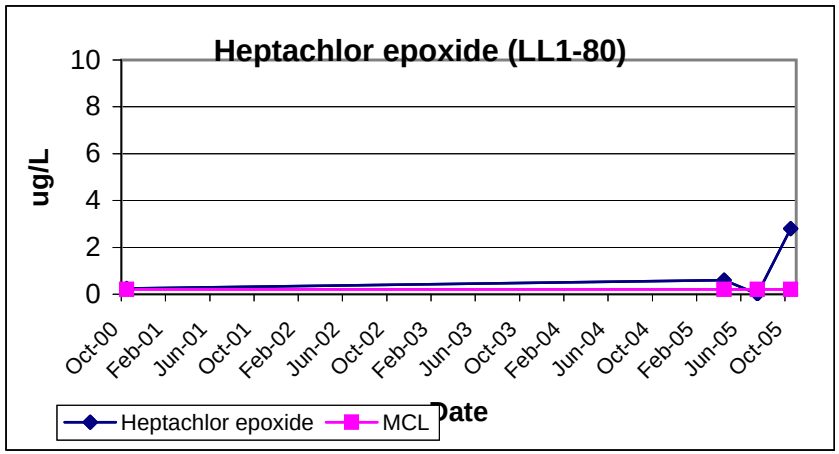
DATE	9/6/1999	10/4/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	0.92	0.012	1	5	9.5



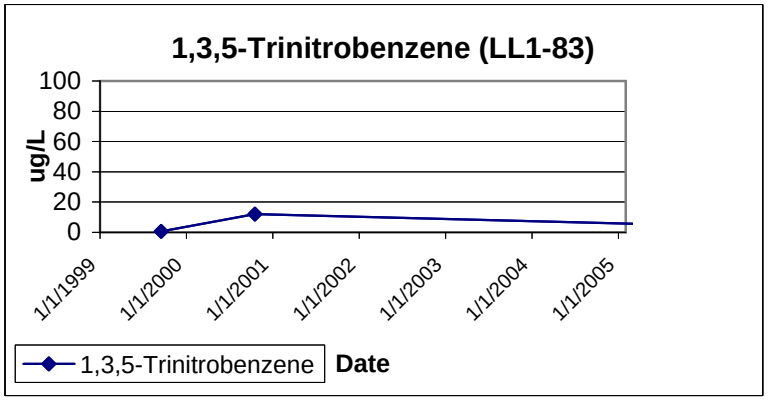
DATE	9/6/1999	10/4/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	1.9	8.8	5.3	39	58



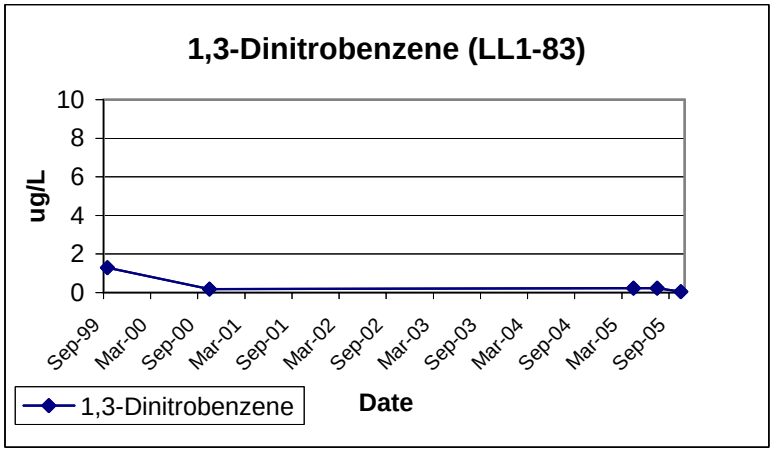
DATE	10/4/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	0.5	5.0	0.5	0.5
MCL	1000	1000	1000	1000



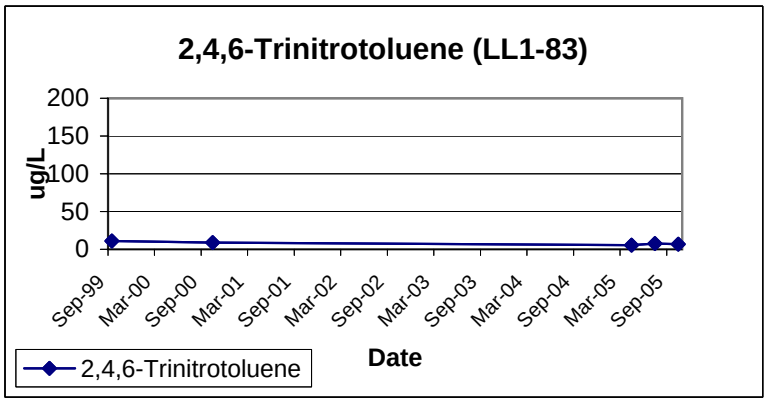
DATE	10/4/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	0.25	0.6	0.015	2.8
MCL	0.2	0.2	0.2	0.2



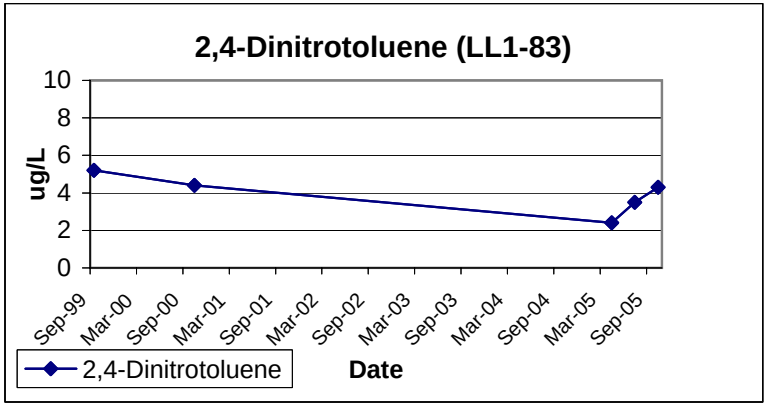
DATE	9/1/1999	10/3/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	0.53	12	5.6	7.2	6.8



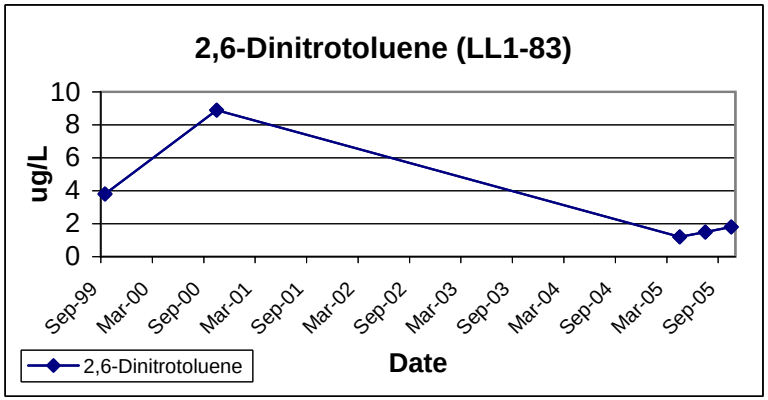
DATE	9/1/1999	10/3/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	1.3	0.19	0.24	0.23	0.05



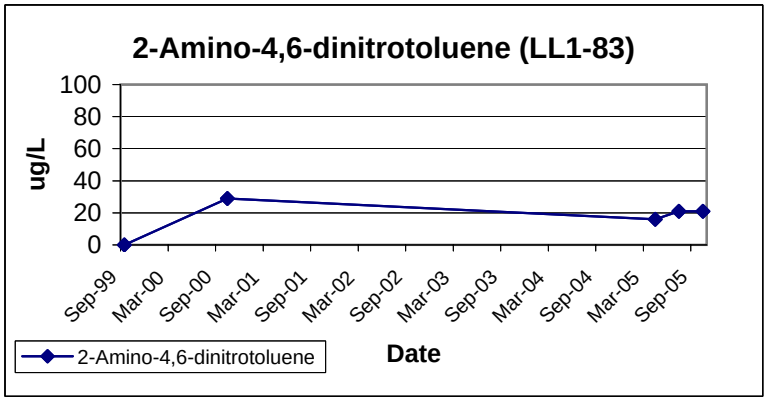
DATE	9/1/1999	10/3/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	11	8.9	5.7	7.7	6.8



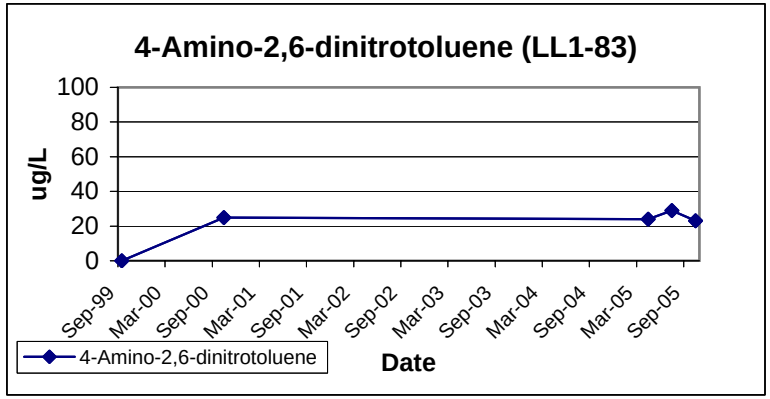
DATE	9/1/1999	10/3/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	5.2	4.4	2.4	3.5	4.3



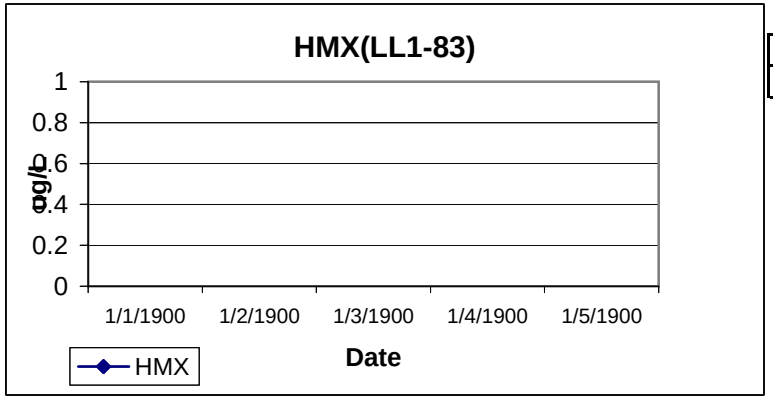
DATE	9/1/1999	10/3/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	3.8	8.9	1.2	1.5	1.8



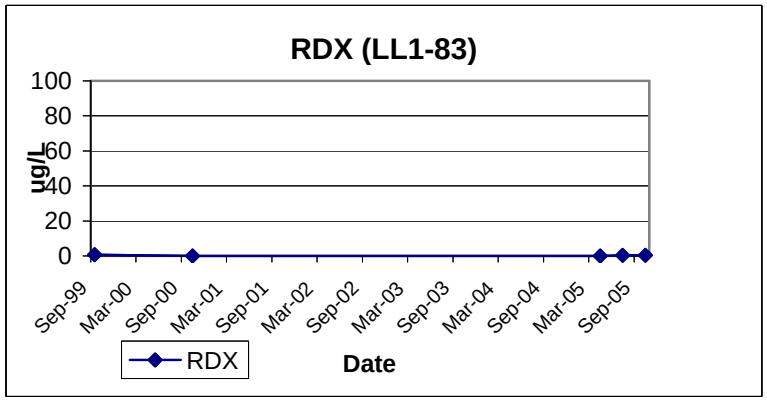
DATE	9/1/1999	10/3/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	NA	29	16	21	21



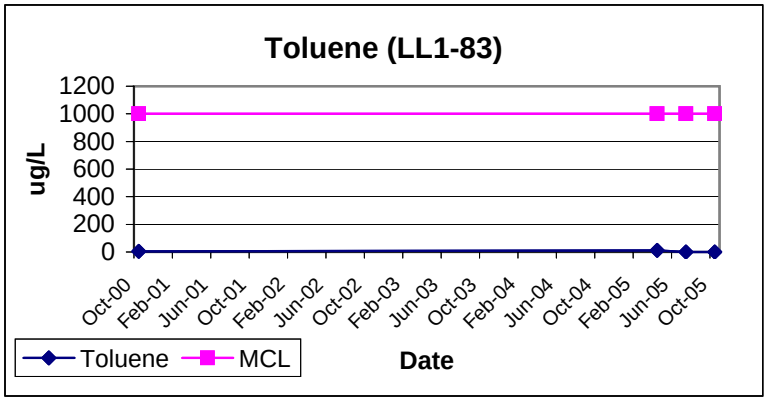
DATE	9/1/1999	10/3/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	NA	25	24	29	23



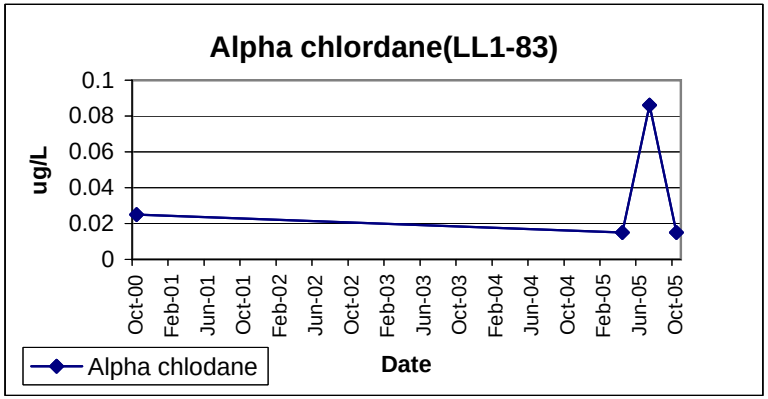
DATE	9/1/1999	10/3/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	0.05	0.05	0.05	0.05	0.44



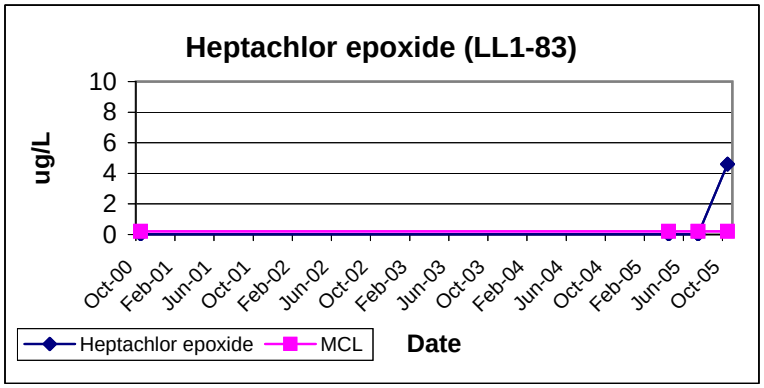
DATE	9/1/1999	10/3/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	0.66	0.0012	0.05	0.36	0.32



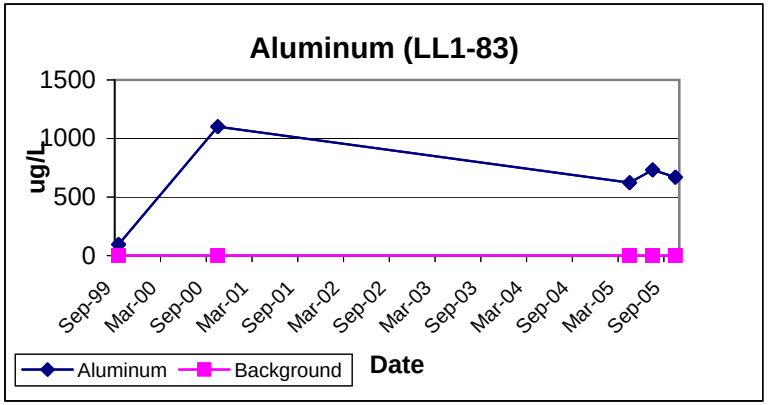
DATE	10/3/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	5	11	0.5	0.5
MCL	1000	1000	1000	1000



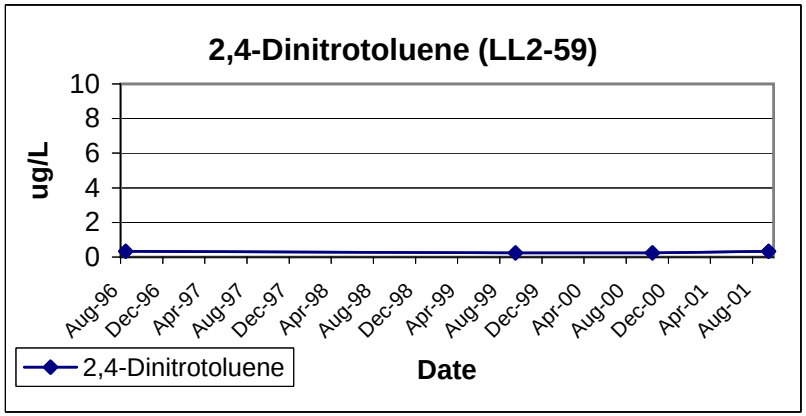
DATE	10/3/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	0.025	0.015	0.086	0.015



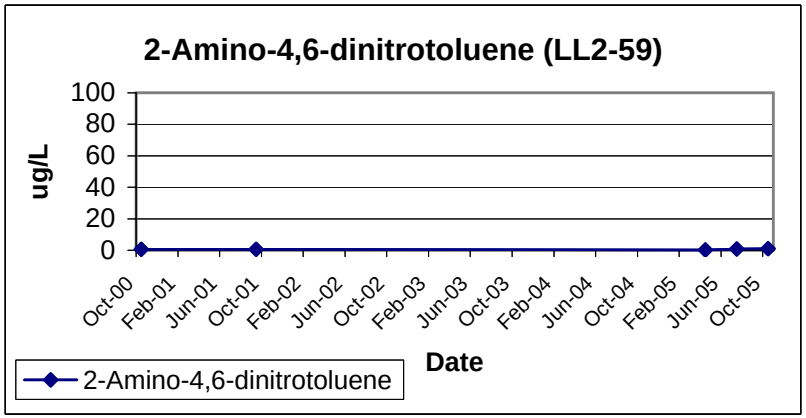
DATE	10/3/2000	4/11/2005	7/11/2005	10/4/2005
SAMPLE	0.025	0.015	0.015	4.6
MCL	0.2	0.2	0.2	0.2



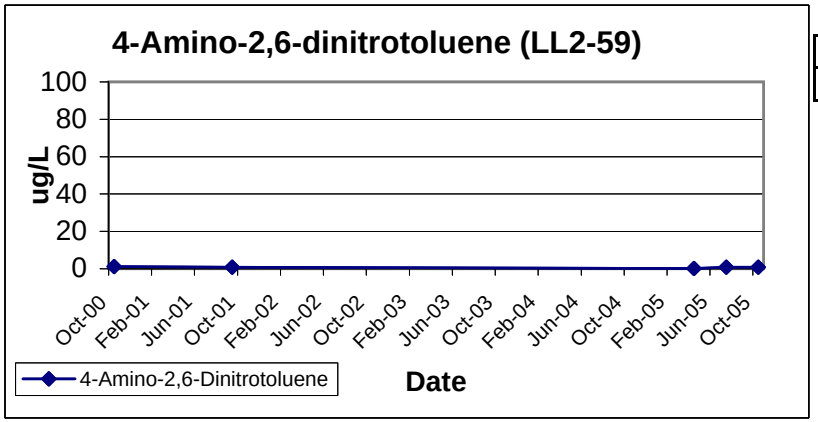
Date	10/3/2000	9/1/1999	4/11/2005	7/11/2005	10/4/2005
SAMPLE	1100	96	623	733	670
Background	0	0	0	0	0



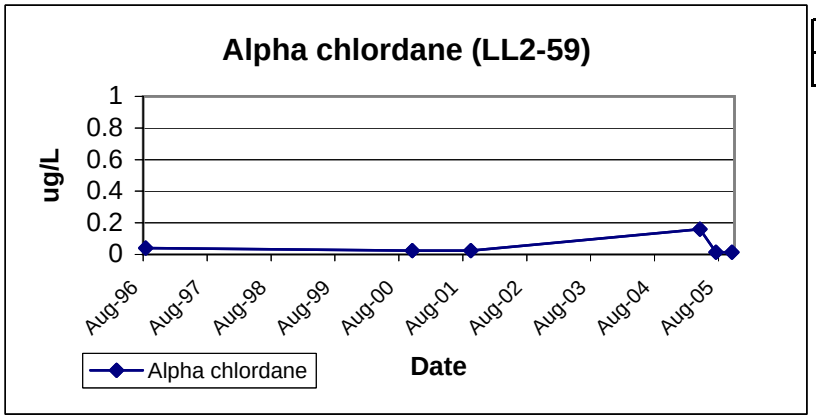
DATE	8/19/1996	9/3/1999	10/1/2000	9/20/2001
SAMPLE	0.34	0.24	0.24	0.33
DATE	4/12/2005	7/12/2005	10/4/2005	
SAMPLE	0.04	0.47	0.47	



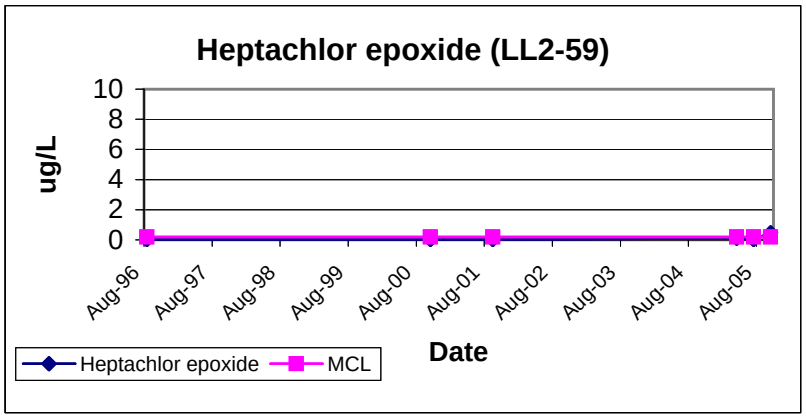
DATE	10/1/2000	9/20/2001	4/12/2005	7/12/2005	10/4/2005
SAMPLE	0.65	0.55	0.17	0.91	0.96



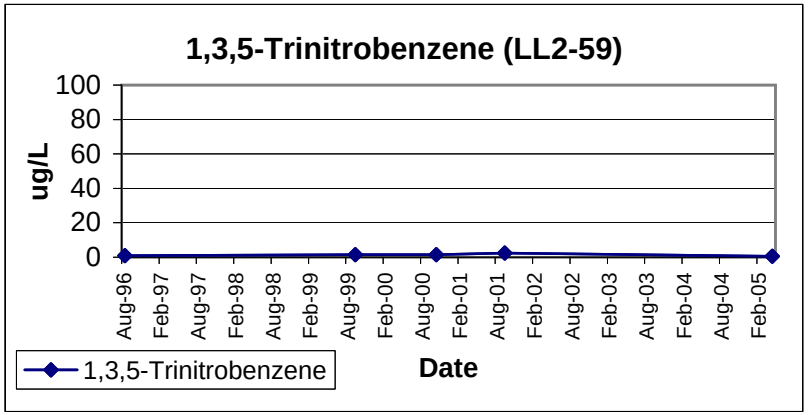
DATE	10/1/2000	9/20/2001	4/12/2005	7/12/2005	10/4/2005
SAMPLE	1.2	0.87	0.16	0.87	0.91



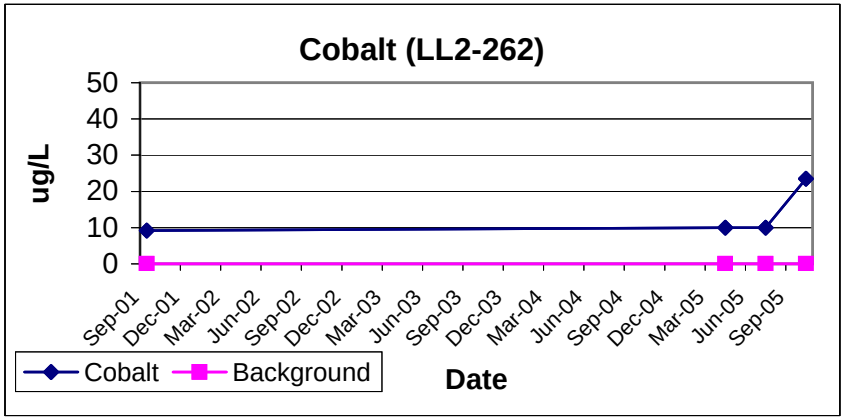
DATE	8/19/1996	10/1/2000	9/20/2001	4/12/2005	7/12/2005	10/4/2005
SAMPLE	0.04	0.025	0.025	0.16	0.015	0.015



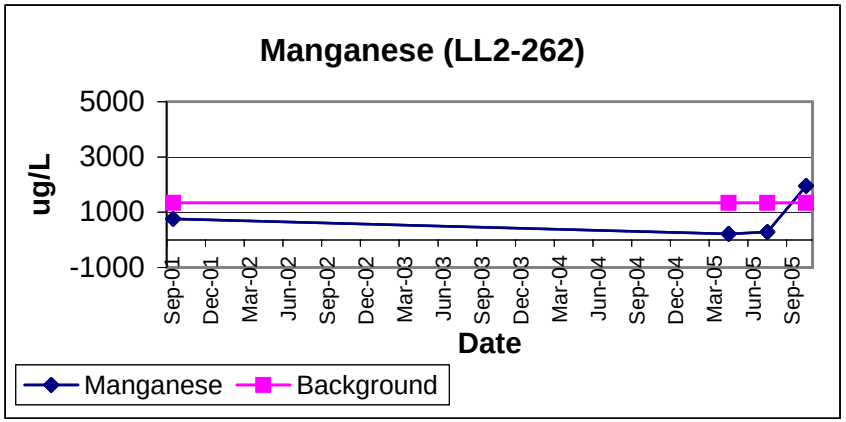
DATE	8/19/1996	10/1/2000	9/20/2001	4/12/2005	7/12/2005	10/4/2005
SAMPLE	0.02	0.025	0.025	0.097	0.015	0.46
MCL	0.2	0.2	0.2	0.2	0.2	0.2



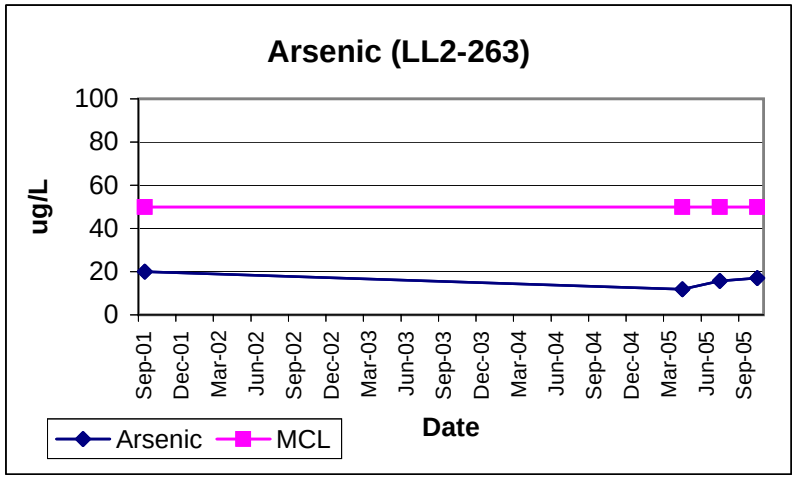
DATE	8/19/1996	9/3/1999	10/1/2000	9/20/2001	4/12/2005
SAMPLE	1	1.5	1.5	2.4	0.47
DATE	7/12/2005	10/4/2005			
SAMPLE	2.2	2.5			



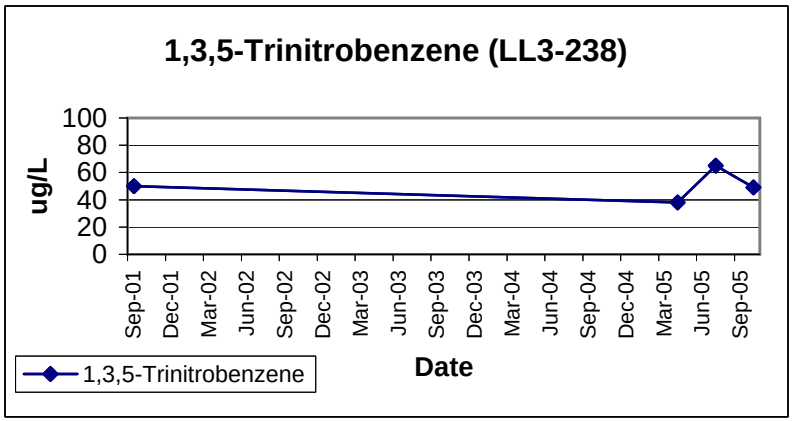
DATE	9/7/2001	4/15/2005	7/11/2005	10/4/2005
SAMPLE	9.2	10	10	23.5
Background	0	0	0	0



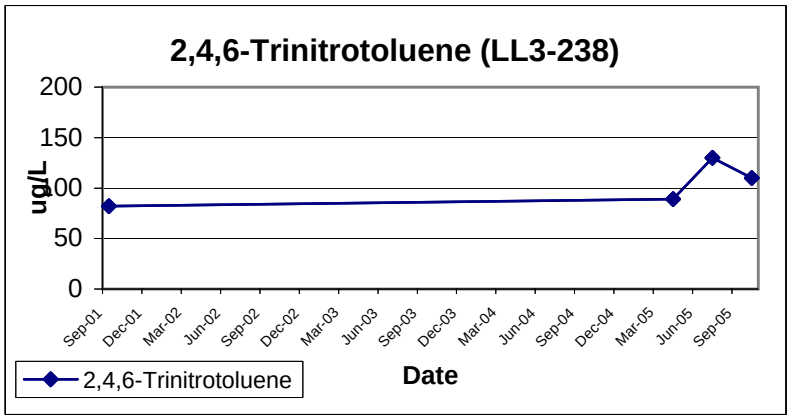
DATE	9/7/2001	4/15/2005	7/11/2005	10/4/2005
SAMPLE	760	216	284	1950
Background	1340	1340	1340	1340



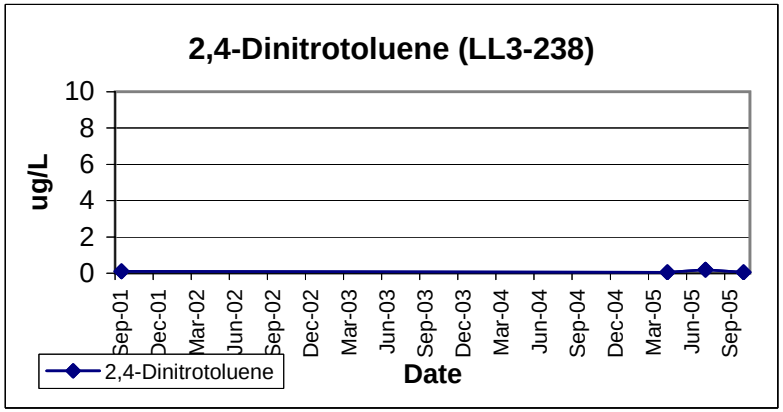
DATE	9/7/2001	4/15/2005	7/15/2005	10/4/2005
SAMPLE	20	11.8	15.7	17
MCL	50	50	50	50



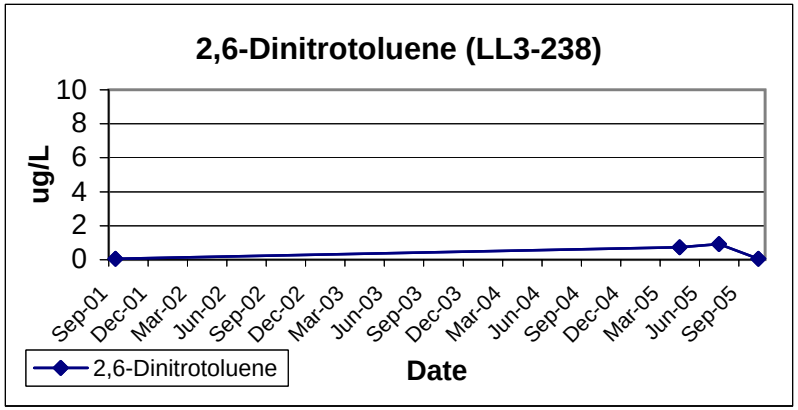
DATE	9/18/2001	4/12/2005	7/14/2005	10/5/2005
SAMPLE	50	38	65	49



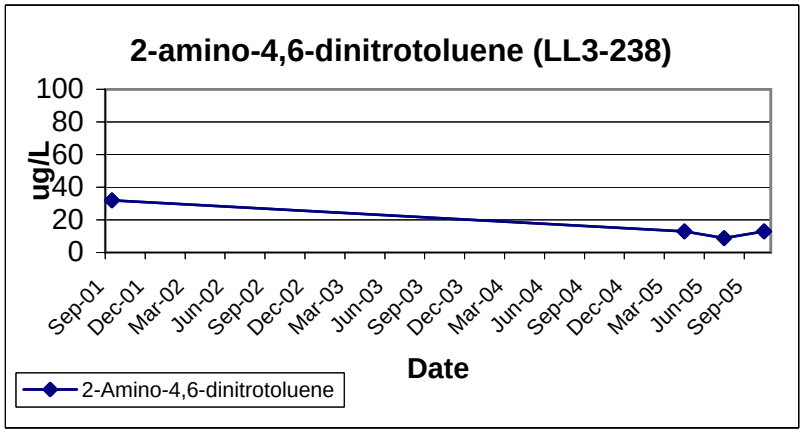
DATE	9/18/2001	4/12/2005	7/14/2005	10/5/2005
SAMPLE	82	89	130	110



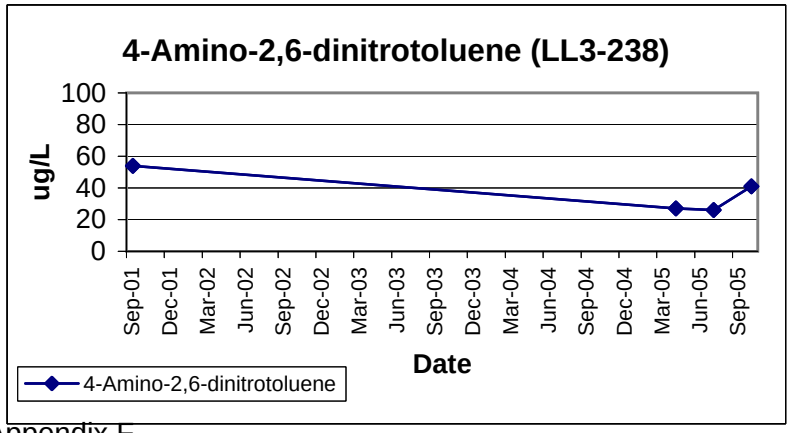
DATE	9/18/2001	4/12/2005	7/14/2005	10/5/2005
SAMPLE	0.1	0.05	0.19	0.05



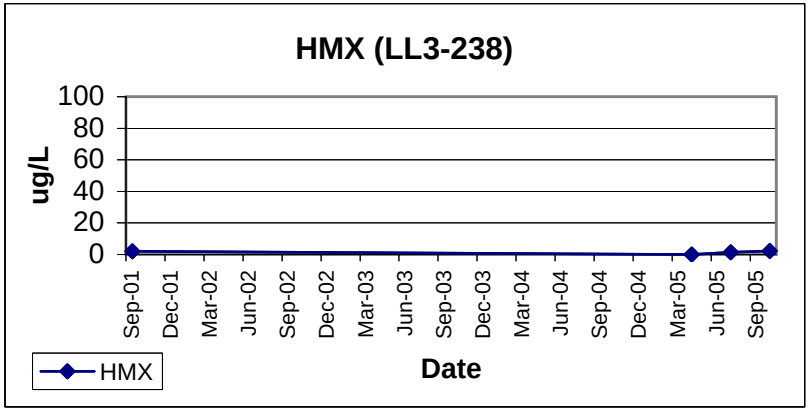
DATE	9/18/2001	4/12/2005	7/14/2005	10/5/2005
SAMPLE	0.065	0.74	0.92	0.05



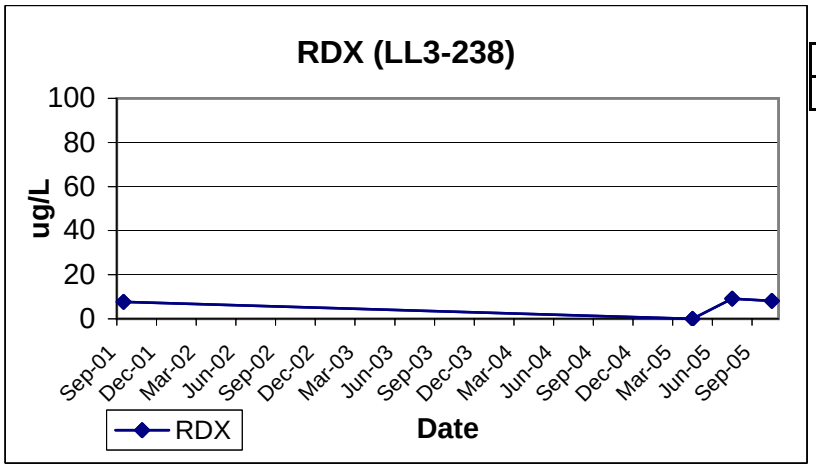
DATE	9/18/2001	4/12/2005	7/14/2005	10/5/2005
SAMPLE	32	13	8.8	13



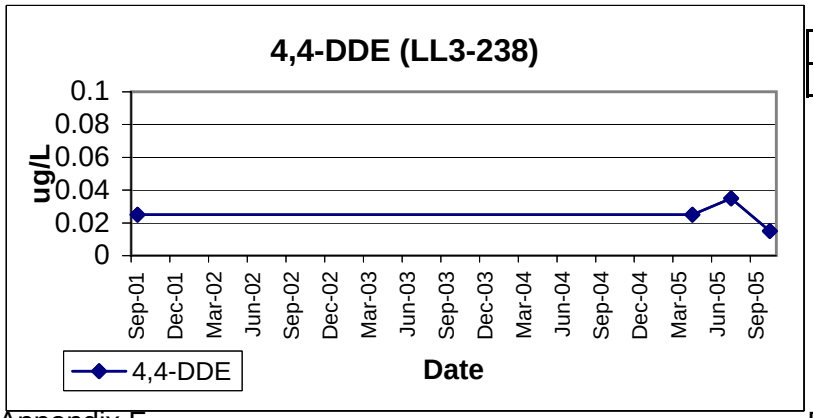
DATE	9/18/2001	4/12/2005	7/14/2005	10/5/2005
SAMPLE	54	27	26	41



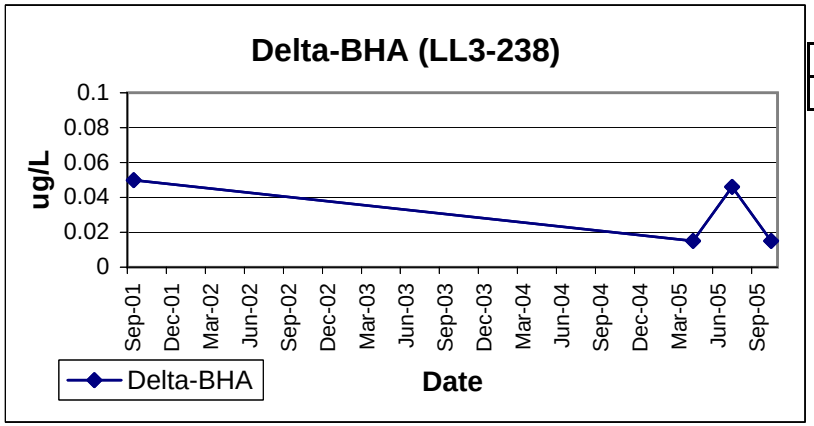
DATE	9/18/2001	4/12/2005	7/14/2005	10/5/2005
SAMPLE	2	0.05	1.5	2.2



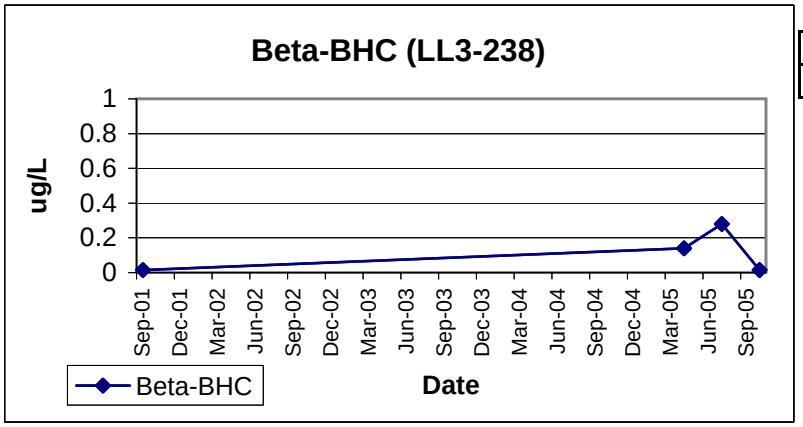
DATE	9/18/2001	4/12/2005	7/14/2005	10/5/2005
SAMPLE	7.7	0.05	9.1	8.2



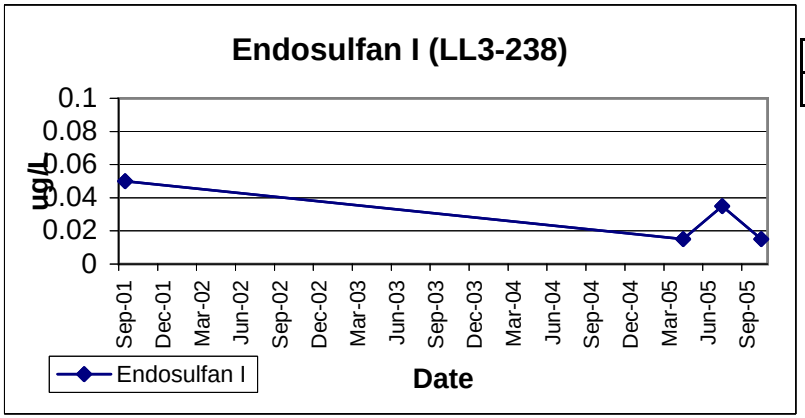
DATE	9/18/2001	4/12/2005	7/14/2005	10/5/2005
SAMPLE	0.025	0.025	0.035	0.015



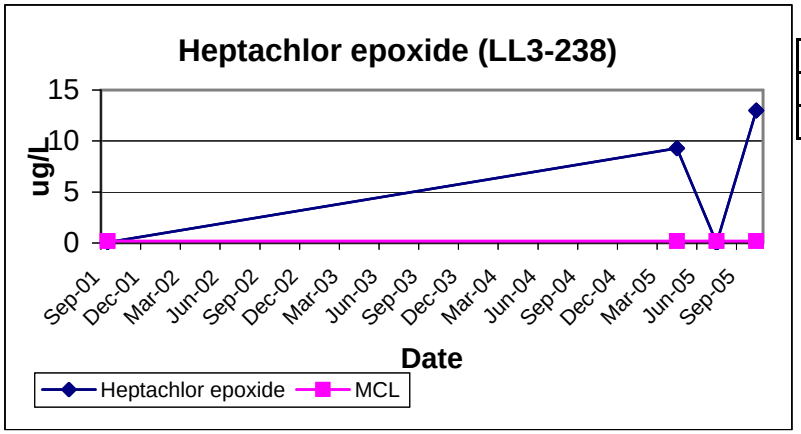
DATE	9/18/2001	4/12/2005	7/14/2005	10/5/2005
SAMPLE	0.05	0.015	0.046	0.015



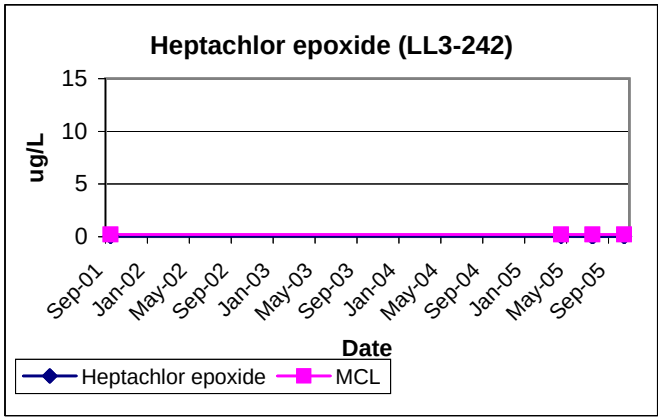
DATE	9/18/2001	4/12/2005	7/14/2005	10/5/2005
SAMPLE	0.015	0.14	0.28	0.015



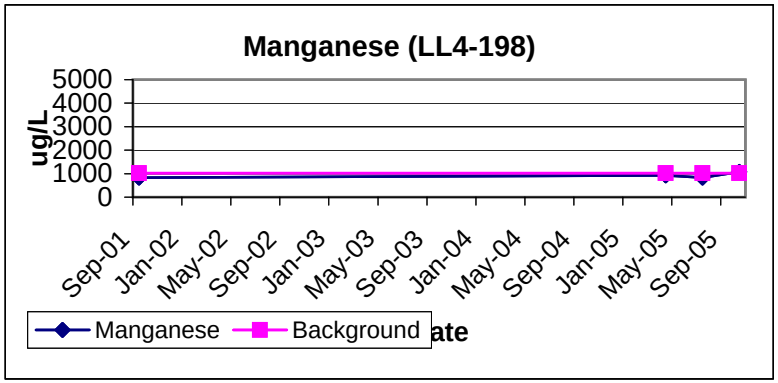
DATE	9/18/2001	4/12/2005	7/14/2005	10/5/2005
SAMPLE	0.05	0.015	0.035	0.015



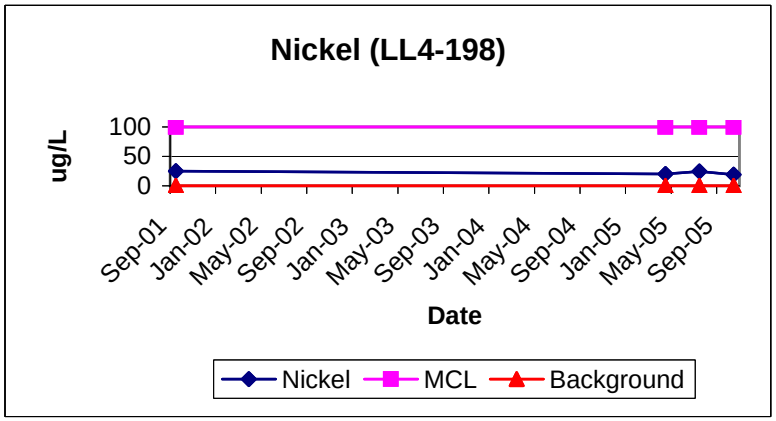
DATE	9/18/2001	4/12/2005	7/14/2005	10/5/2005
SAMPLE	0.05	9.3	0.015	13
MCL	0.2	0.2	0.2	0.2



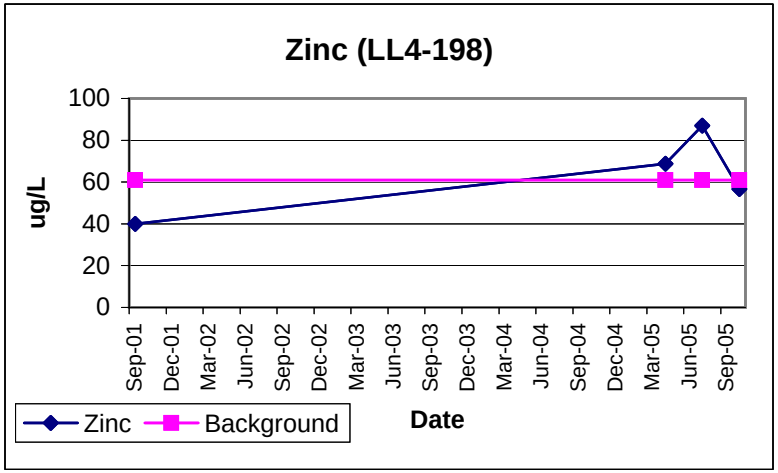
DATE	9/20/2001	4/12/2005	7/14/2005	10/4/2005
SAMPLE	0.05	0.051	0.015	0.038
MCL	0.2	0.2	0.2	0.2



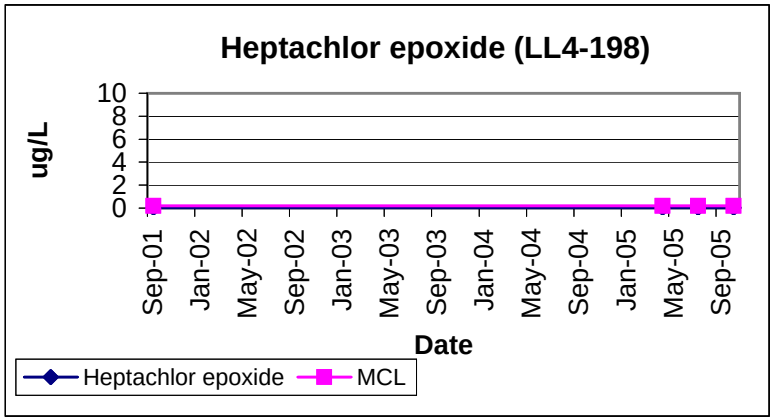
DATE	9/6/2001	4/13/2005	7/13/2005	10/5/2005
SAMPLE	830	929	828	1070
Background	1020	1020	1020	1020



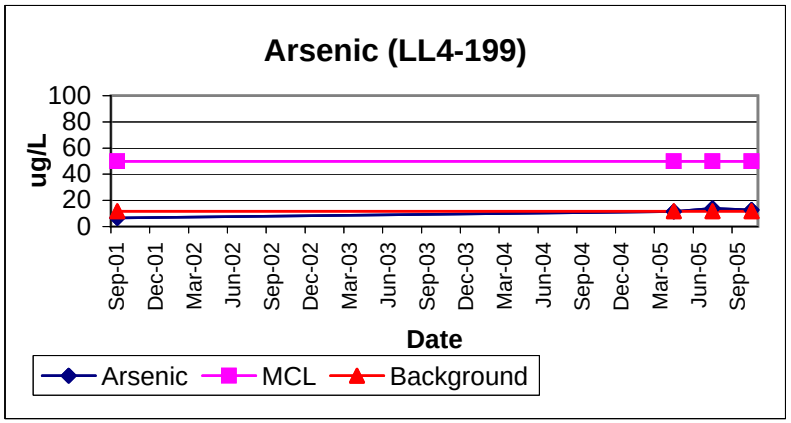
DATE	9/6/2001	4/13/2005	7/13/2005	10/5/2005
SAMPLE	25	20.3	24.4	19
Background	0	0	0	0
MCL	100	100	100	100



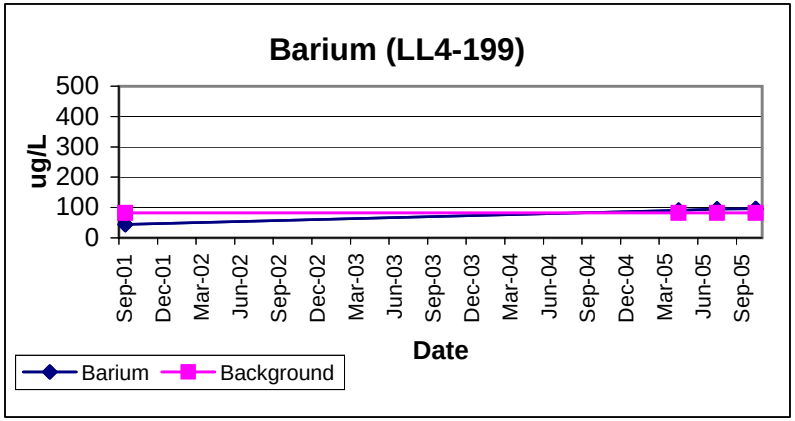
DATE	9/6/2001	4/13/2005	7/13/2005	10/5/2005
SAMPLE	40	68.8	87	56.7
Background	60.9	60.9	60.9	60.9



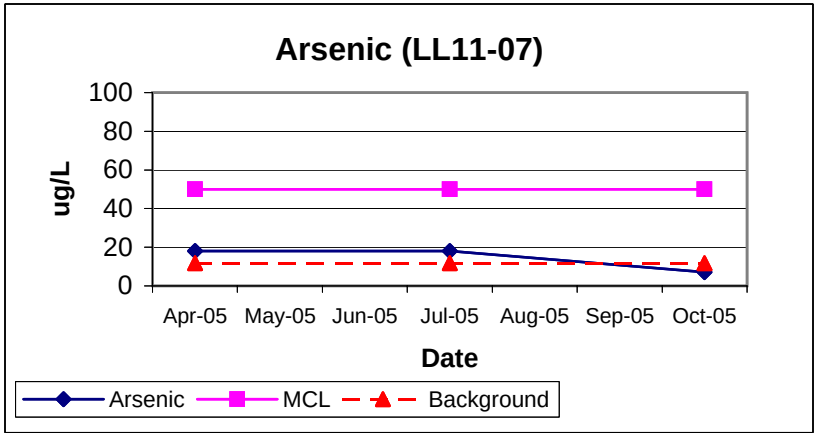
DATE	9/6/2001	4/13/2005	7/13/2005	10/4/2005
SAMPLE	0.025	0.015	0.015	0.038
MCL	0.2	0.2	0.2	0.2



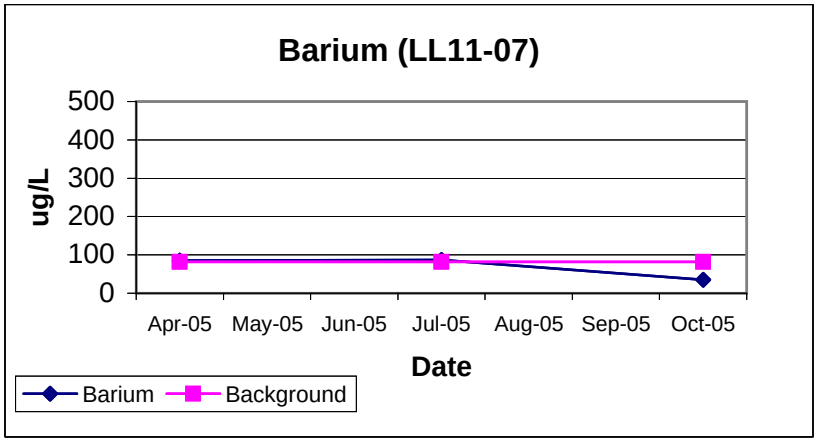
DATE	9/6/2001	4/13/2005	7/13/2005	10/5/2005
SAMPLE	6.5	11.5	13.9	12.7
MCL	50	50	50	50
Background	11.7	11.7	11.7	11.7



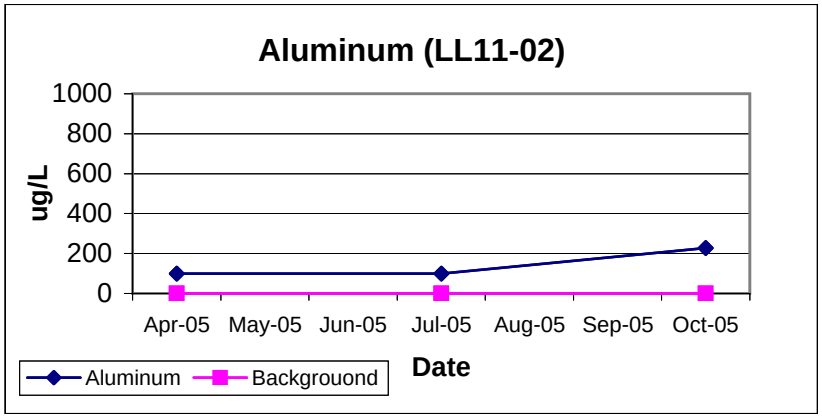
DATE	9/6/2001	4/13/2005	7/13/2005	10/5/2005
SAMPLE	44	91.1	95.1	95.7
Background	82.1	82.1	82.1	82.1



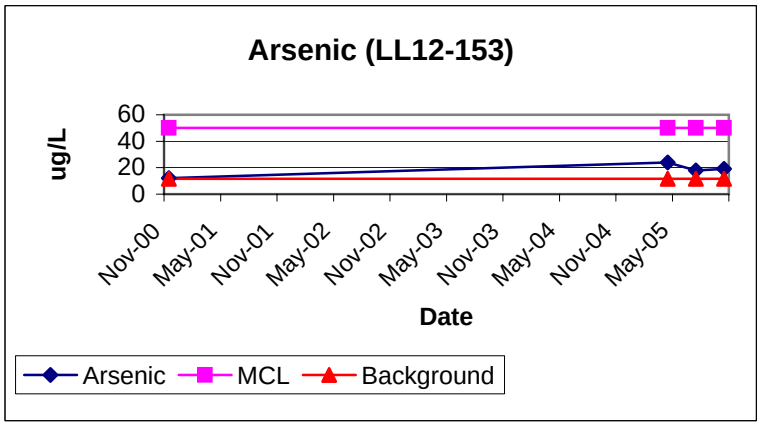
DATE	4/13/2005	7/13/2005	10/6/2005
SAMPLE	18	18.1	7.1
MCL	50	50	50
Background	11.7	11.7	11.7



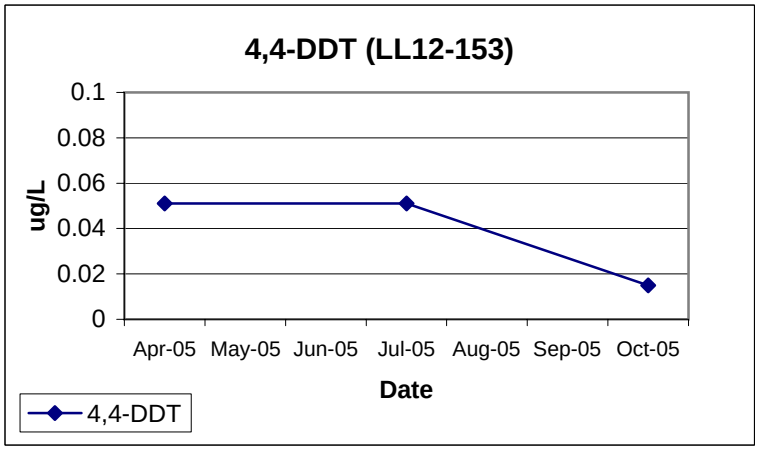
DATE	4/13/2005	7/13/2005	10/6/2005
SAMPLE	85	86.8	34.7
Background	82.1	82.1	82.1



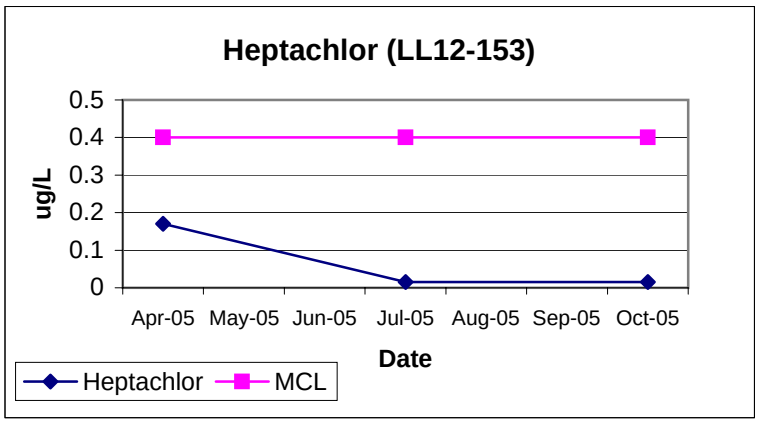
DATE	4/13/2005	7/13/2005	10/6/2005
SAMPLE	100	100	228
Backgroun	0	0	0



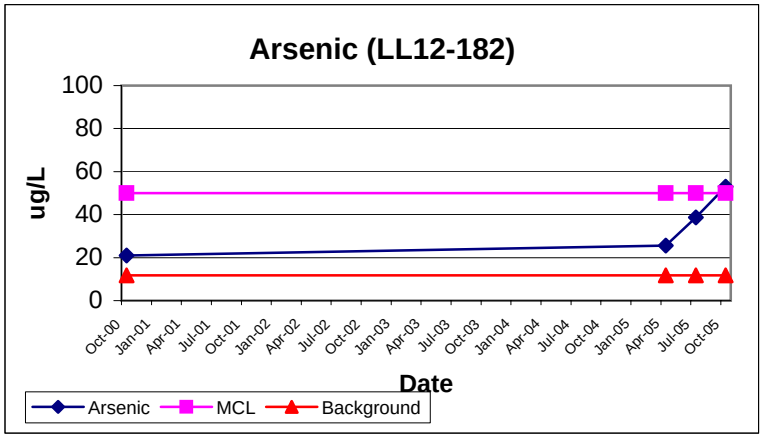
DATE	11/6/2000	4/12/2005	7/14/2005	10/4/2005
SAMPLE	12	24	17.8	19
MCL	50	50	50	50
Background	11.7	11.7	11.7	11.7



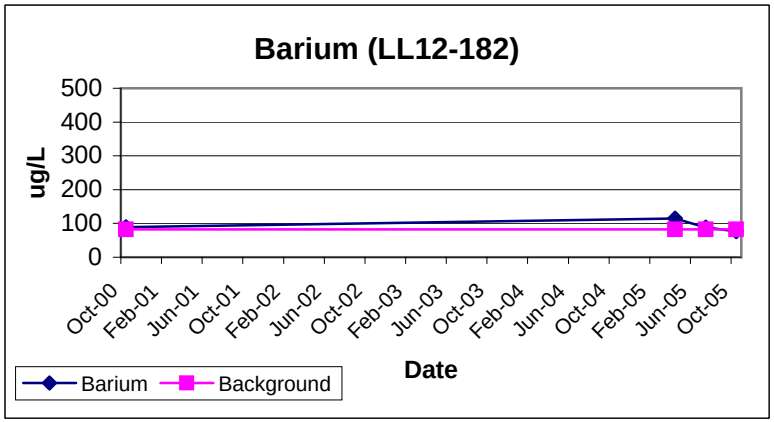
DATE	4/12/2005	7/14/2005	10/4/2005
SAMPLE	0.051	0.051	0.015



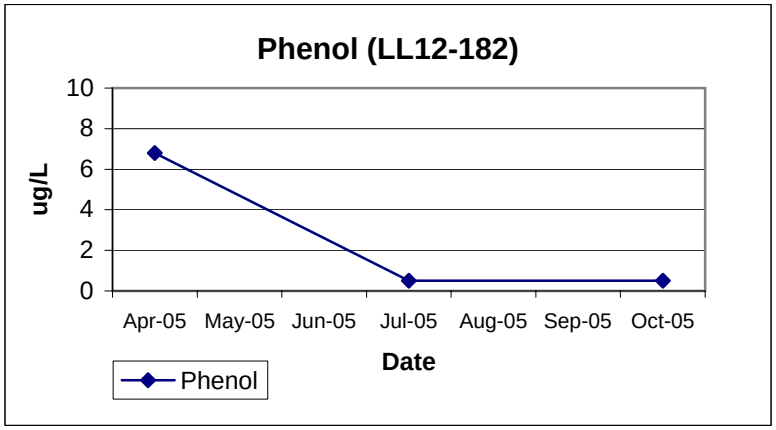
DATE	4/12/2005	7/14/2005	10/4/2005
SAMPLE	0.17	0.015	0.015
MCL	0.4	0.4	0.4



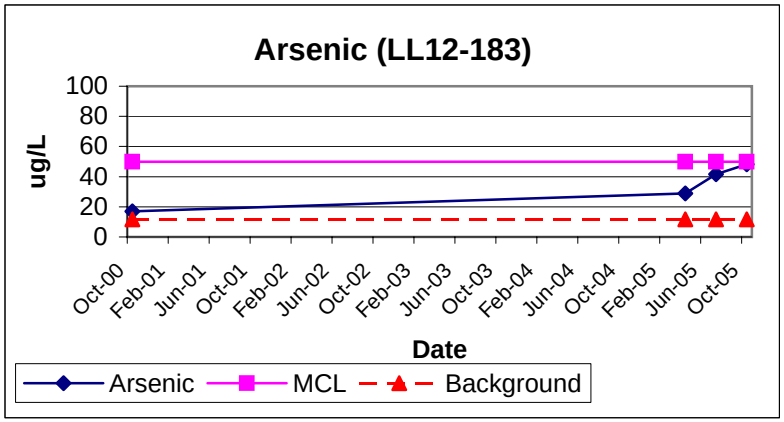
DATE	10/30/2000	4/12/2005	7/14/2005	10/3/2005
SAMPLE	21	25.6	38.7	53
MCL	50	50	50	50
Background	11.7	11.7	11.7	11.7



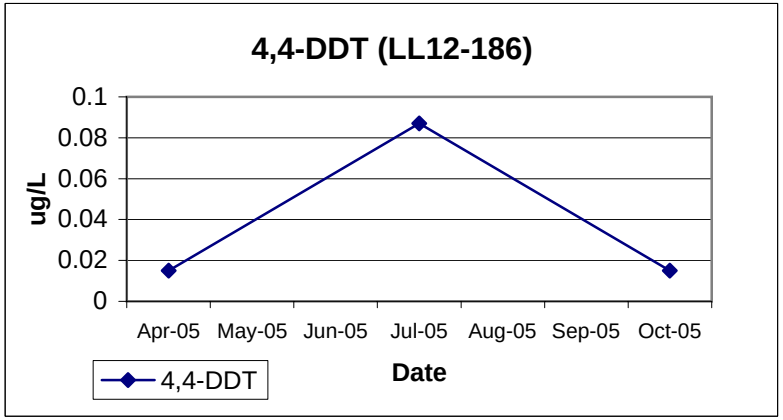
DATE	10/30/2000	4/12/2005	7/14/2005	10/3/2005
SAMPLE	89	115	87.8	76.3
Background	82.1	82.1	82.1	82.1



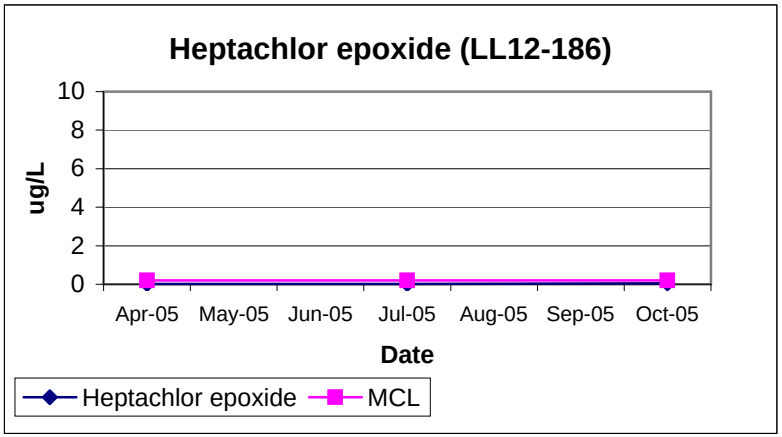
DATE	4/12/2005	7/14/2005	10/3/2005
SAMPLE	6.8	0.5	0.5



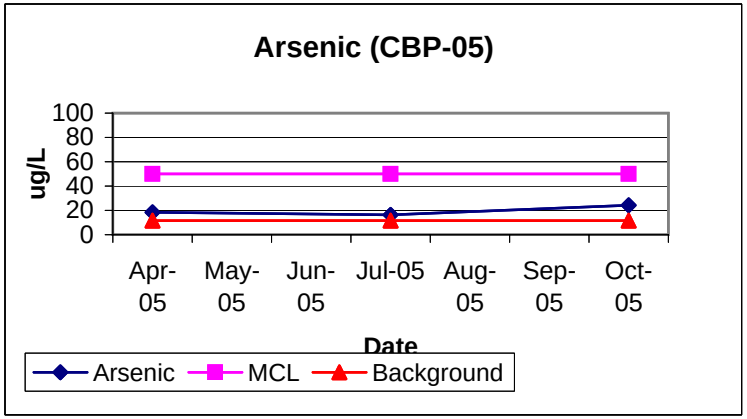
DATE	10/30/2000	4/12/2005	7/14/2005	10/3/2005
SAMPLE	17	28.8	41.7	48.2
MCL	50	50	50	50
Background	11.7	11.7	11.7	11.7



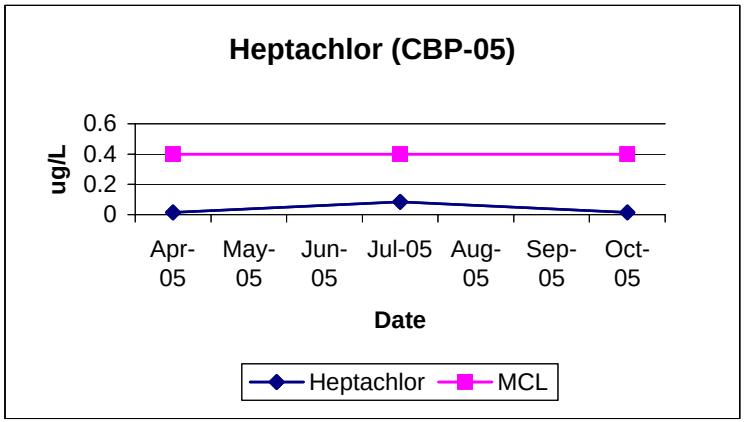
DATE	4/13/2005	7/13/2005	10/3/2005
SAMPLE	0.015	0.087	0.015



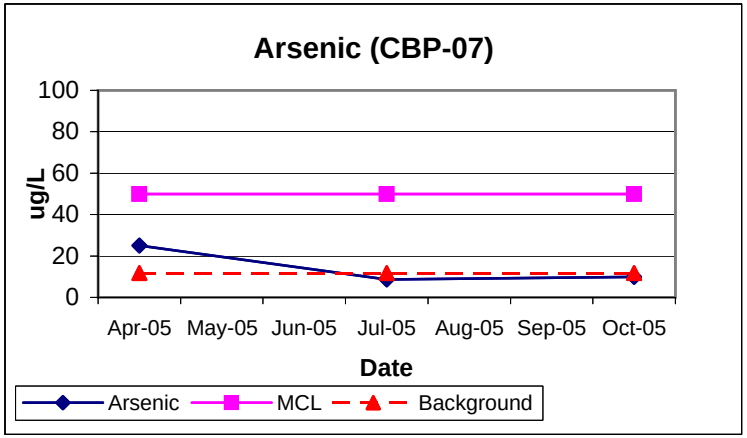
DATE	4/13/2005	7/13/2005	10/3/2005
SAMPLE	0.015	0.015	0.053
MCL	0.2	0.2	0.2



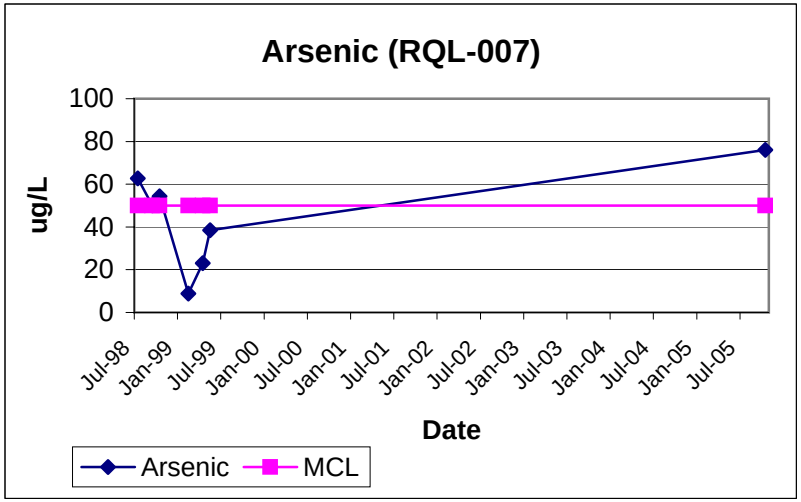
Date	4/14/2005	7/14/2005	10/3/2005
Arsenic	18.4	16.4	24.2
Background	11.7	11.7	11.7
MCL	50	50	50



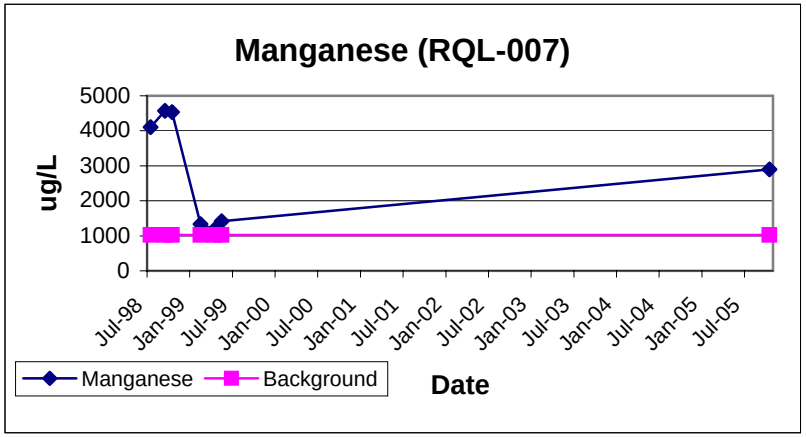
Date	4/14/2005	7/14/2005	10/3/2005
Heptachlor	0.015	0.085	0.015
MCL	0.4	0.4	0.4



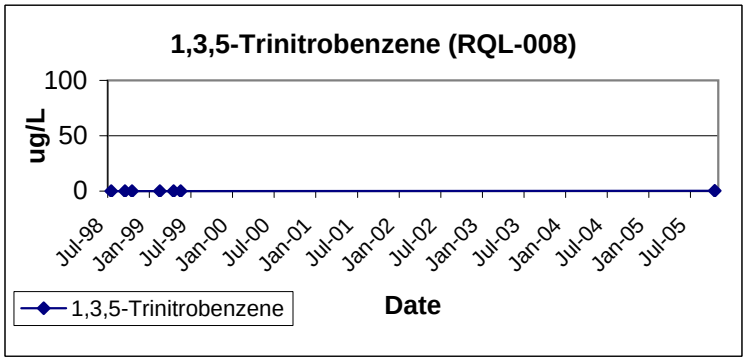
Date	4/12/2005	7/14/2005	10/3/2005
Arsenic	25.1	8.6	9.9
MCL	50	50	50
Backgroun	11.7	11.7	11.7



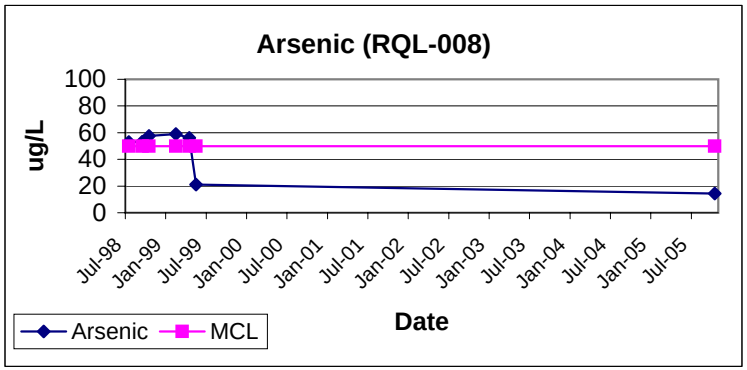
DATE	7/22/1998	9/20/1998	10/20/1998	2/14/1999	4/11/1999	5/28/1999	10/3/2005
SAMPLE	62.7	50.2	54.3	8.9	23.1	38.5	76.1
MCL	50	50	50	50	50	50	50



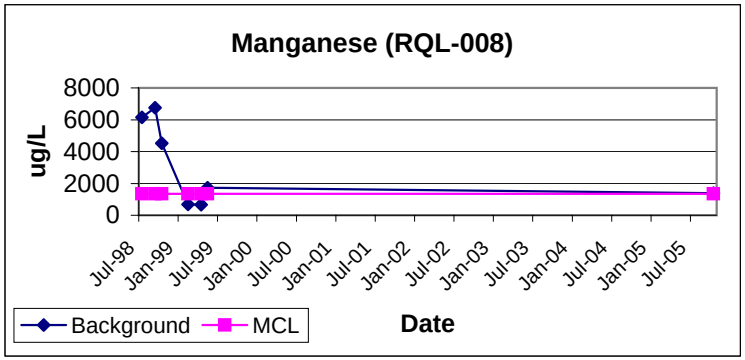
DATE	7/22/1998	9/20/1998	10/20/1998	2/14/1999	4/11/1999	5/28/1999	10/3/2005
SAMPLE	4100	4570	4530	1330	1180	1420	2900
Background	1020	1020	1020	1020	1020	1020	1020



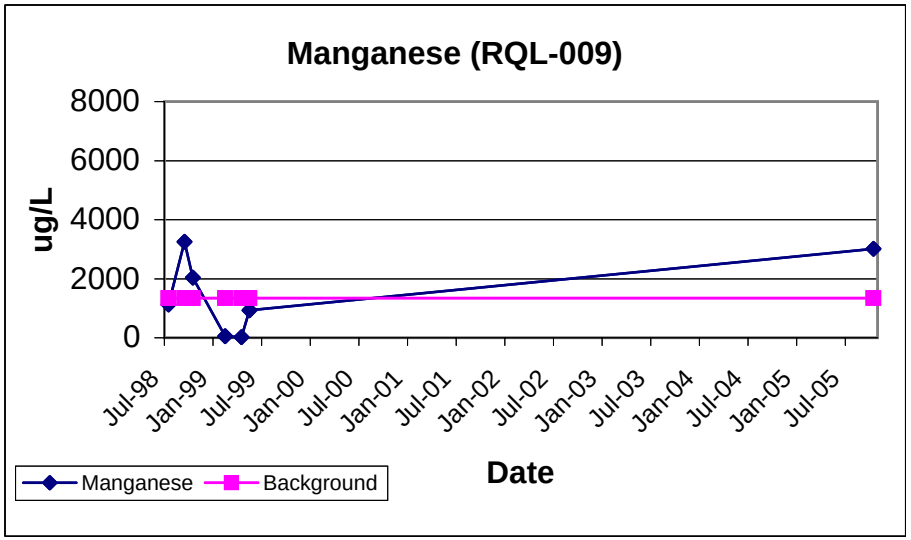
DATE	7/22/1998	9/19/1998	10/20/1998	2/14/1999	4/11/1999	5/28/1999	10/3/2005
SAMPLE	0.1	0.1	0.1	0.1	0.1	0.1	0.32



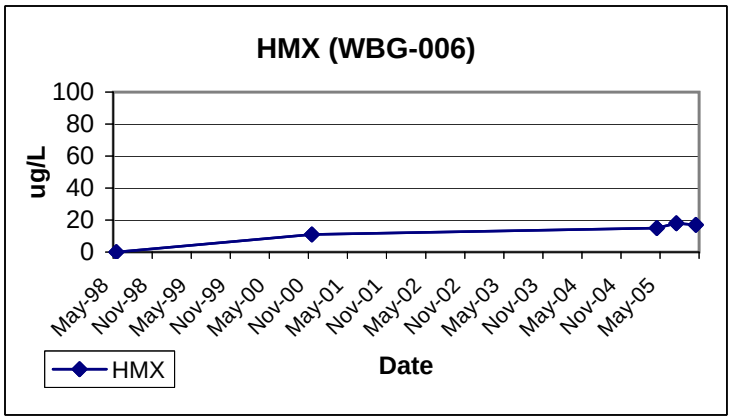
DATE	7/22/1998	9/19/1998	10/20/1998	2/14/1999	4/11/1999	5/28/1999	10/3/2005
SAMPLE	53	53.2	57.5	59	56	21.1	14.3
MCL	50	50	50	50	50	50	50



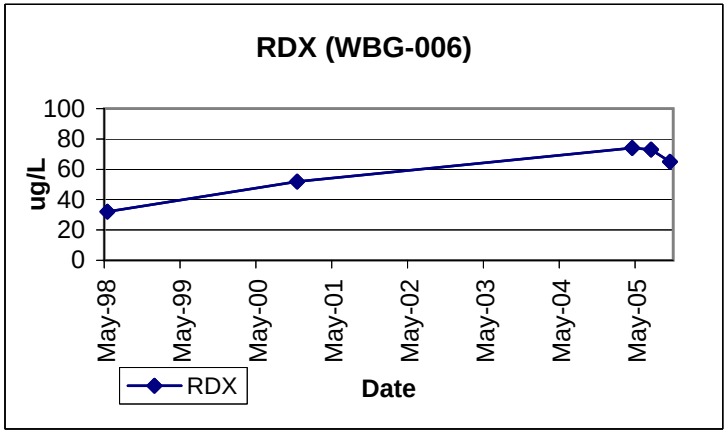
DATE	7/22/1998	9/19/1998	10/20/1998	2/14/1999	4/11/1999	5/28/1999	10/3/2005
SAMPLE	6160	6760	4520	674	660	1730	1390
Backgroun	1340	1340	1340	1340	1340	1340	1340



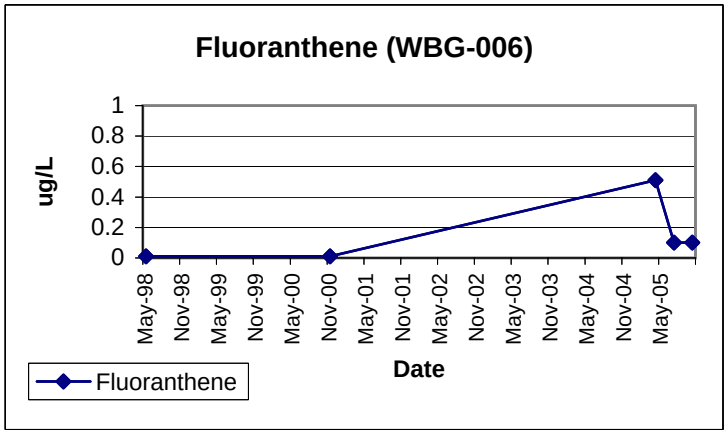
DATE	7/17/1998	9/19/1998	10/20/1998	2/14/1999	4/11/1999	5/28/1999	10/3/2005
SAMPLE	1130	3250	2040	53.9	21.2	936	3010
Background	1340	1340	1340	1340	1340	1340	1340



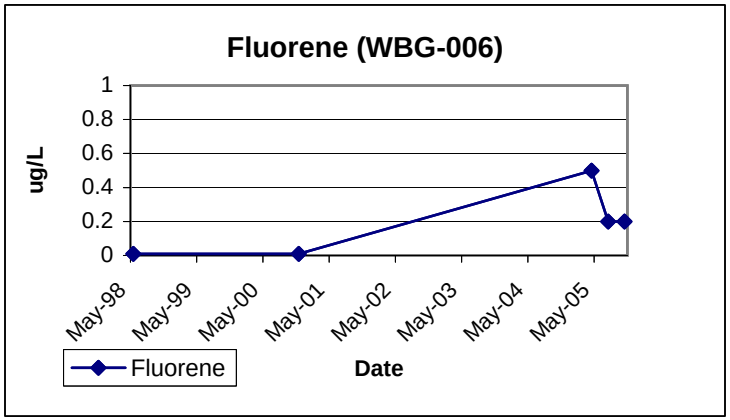
DATE	5/20/1998	11/3/2000	4/15/2005	7/14/2005	10/6/2005
SAMPLE	NA	**11**	**15**	**18**	**17**



Date	5/20/1998	11/3/2000	4/15/2005	7/14/2005	10/6/2005
Sample	**32**	**52**	**74**	**73**	**65**



DATE	5/20/1998	11/3/2000	4/15/2005	7/14/2005	10/6/2005
SAMPLE	0.01	0.01	0.51	0.1	0.1



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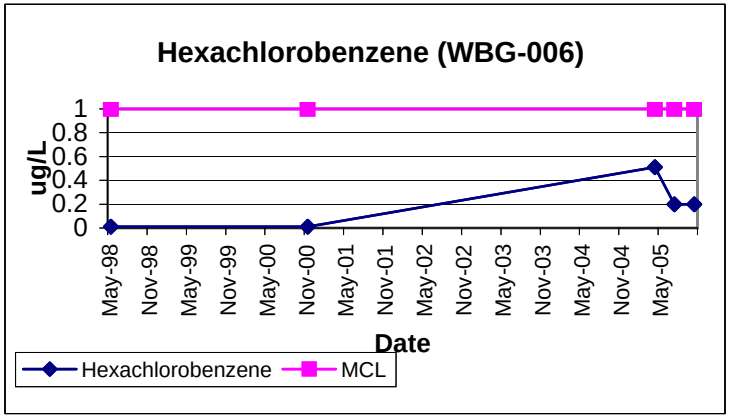
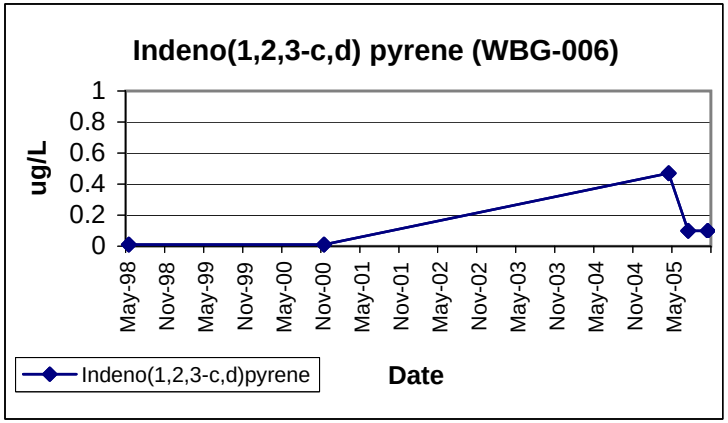
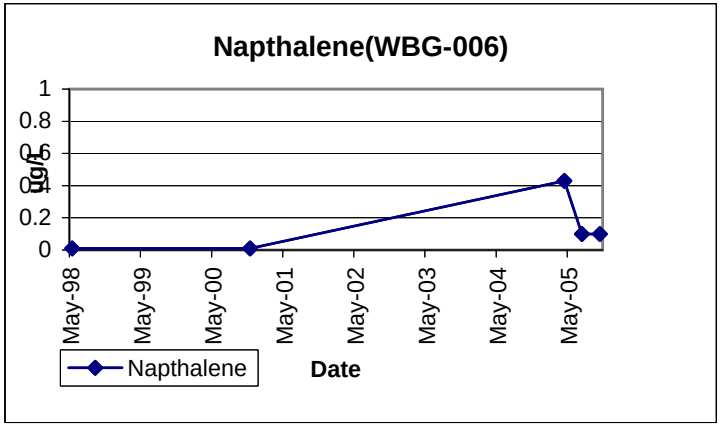
SAMPLE	0.01	0.01	0.5	0.2	0.2



DATE	5/20/1998	11/3/2000	4/15/2005	7/14/2005	10/6/2005
SAMPLE	0.01	0.01	0.51	0.2	0.2
MCL	1	1	1	1	1



DATE	5/20/1998	11/3/2000	4/15/2005	7/14/2005	10/6/2005
SAMPLE	0.01	0.01	**0.47**	0.1	0.1



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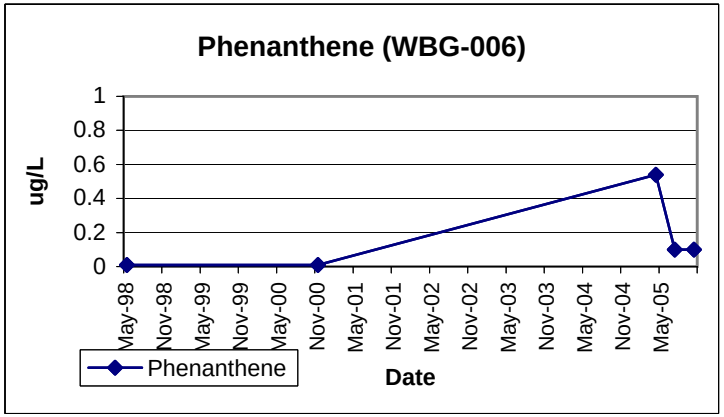
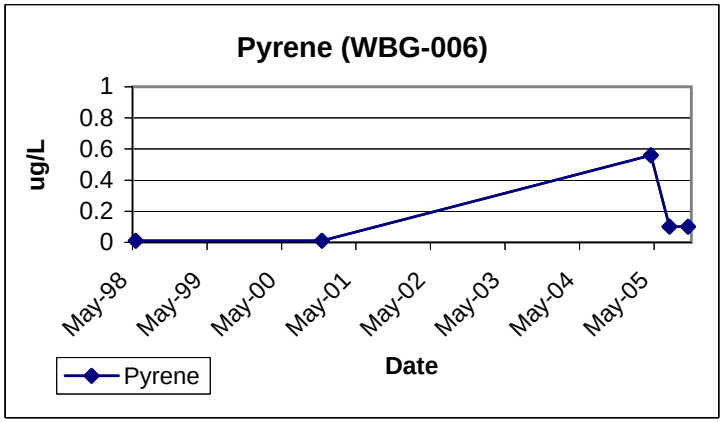
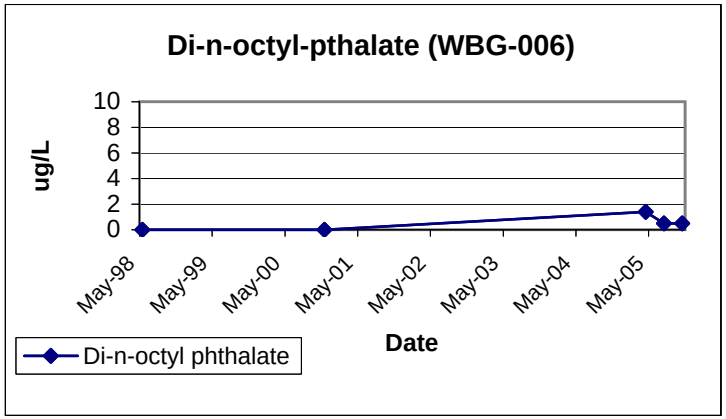
SAMPLE	0.01	0.01	0.43	0.1	0.1



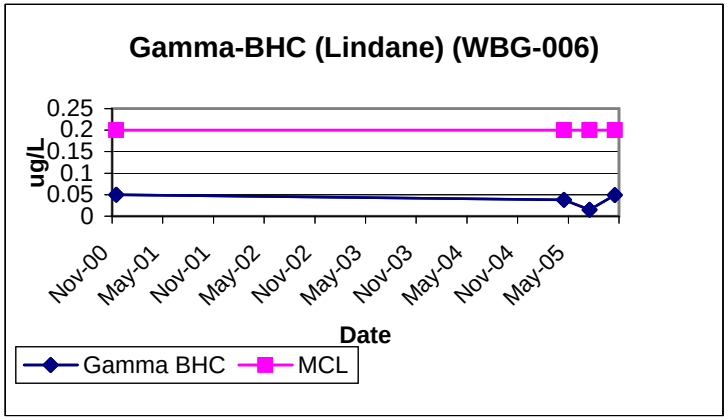
DATE	5/20/1998	11/3/2000	4/15/2005	7/14/2005	10/6/2005
SAMPLE	0.01	0.01	**0.54**	0.1	0.1



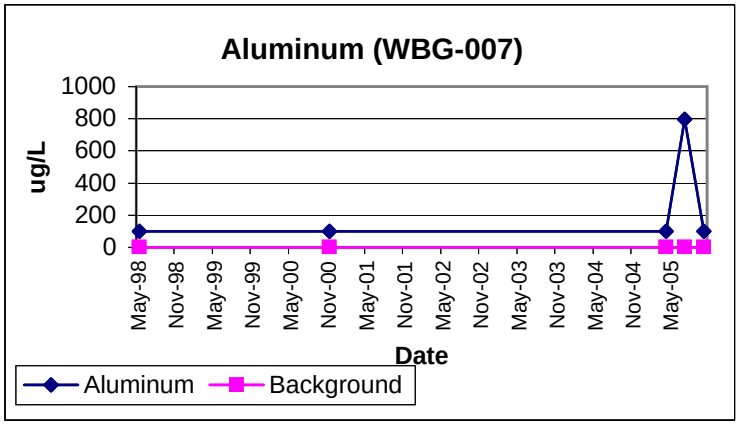
DATE	5/20/1998	11/3/2000	4/15/2005	7/14/2005	10/6/2005
SAMPLE	0.01	0.01	**0.56**	0.1	0.1



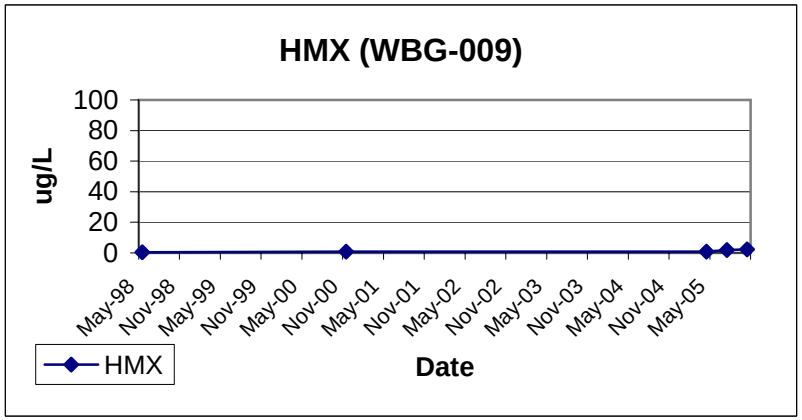
DATE	5/20/1998	11/3/2000	4/15/2005	7/14/2005	10/6/2005
SAMPLE	0.01	0.01	**1.4**	0.5	0.5



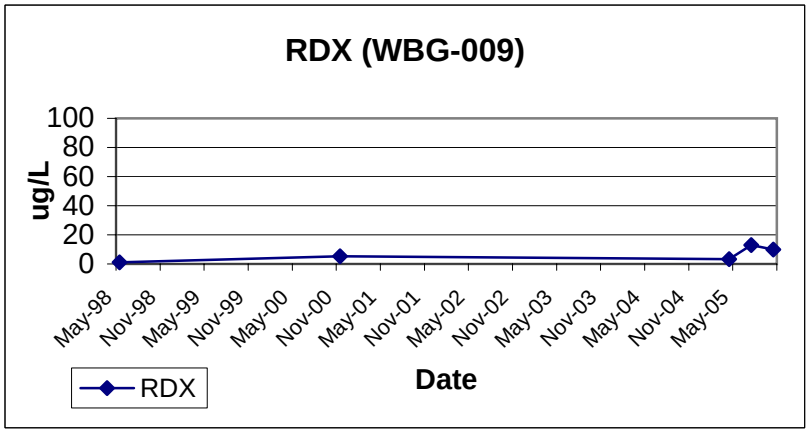
DATE	11/3/2000	4/15/2005	7/14/2005	10/6/2005
SAMPLE	0.05	0.038	0.015	0.049
MCL	0.2	0.2	0.2	0.2



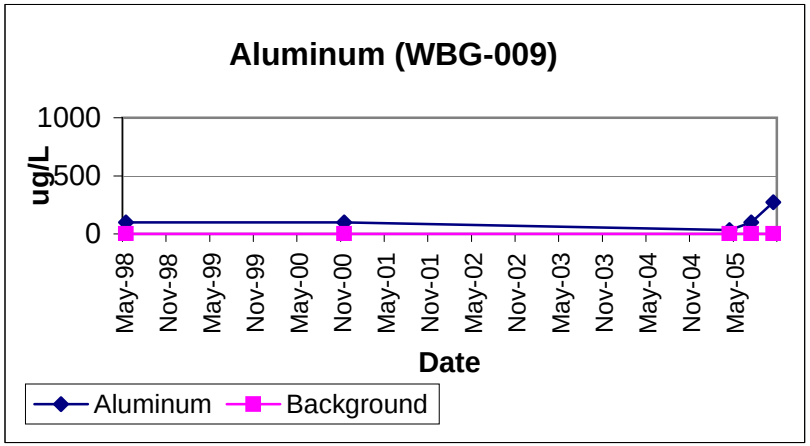
DATE	11/3/2000	5/19/1998	4/15/2005	7/15/2005	10/6/2005
SAMPLE	100	100	100	797	100
Background	0	0	0	0	0



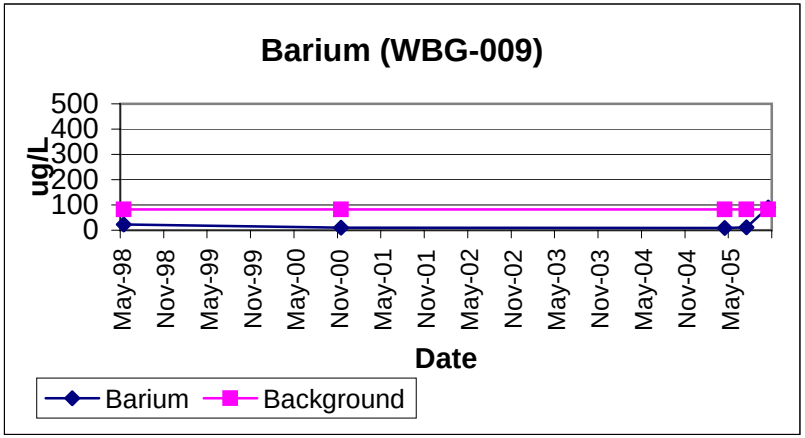
DATE	5/20/1998	11/4/2000	4/15/2005	7/15/2005	10/6/2005
SAMPLE	0.5	0.74	0.8	1.8	2.3



DATE	5/20/1998	11/4/2000	4/15/2005	7/15/2005	10/6/2005
SAMPLE	1.1	5.3	3.4	13	9.9



DATE	5/20/1998	11/4/2000	4/15/2005	7/15/2005	10/6/2005
SAMPLE	100	100	32.7	100	274
Backgroun	0	0	0	0	0



DATE	5/20/1998	11/4/2000	4/15/2005	7/15/2005	10/6/2005
SAMPLE	22.8	10	9.2	11.2	89.6
Backgroun	82.1	82.1	82.1	82.1	82.1

APPENDIX G

LABORATORY DATA SHEETS

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SEVERN TRENT STL®

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www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 001074.0001

FWGWMP RVAAP

Lot #: A5J040187

Chantelle Carroll

Spec Pro
8451 State Route 5
Ravenna, OH 44266

SEVERN TRENT LABORATORIES, INC.

Frank J. Calovini
Project Manager

October 27, 2005

SEVERN TRENT STL

CASE NARRATIVE

CASE NARRATIVE

A5J040187

The following report contains the analytical results for eighteen water samples and one quality control sample submitted to STL North Canton by Spec Pro from the FWGWMP RVAAP Site, project number 001074.0001. The samples were received October 04, 2005, according to documented sample acceptance procedures.

The Nitroguanidine, Nitrocellulose as N, and Explosives analyses were performed at the STL Sacramento laboratory.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Frank J. Calovini, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The coolers were received at temperatures ranging from 1.9 to 5.2°C.

See STL's Cooler Receipt Form for additional information.

CASE NARRATIVE (continued)

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

GC/MS SEMIVOLATILES

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

The matrix spike/matrix spike duplicate(s) for FWGCBPmw-007C-0125-GW had RPD's outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

For sample(s) FWGBKGmw-012C-0099-GW, associated with batch 5285047, the recovery for one surrogate compound is outside acceptance criteria. Since the method criterion is that one of two surrogate compounds must meet acceptance criteria, no corrective action was required.

The surrogate recovery was out in the LCS associated with batch 5277374. Reextraction and/or reanalysis performed in accordance with exceeded criteria corrective action required by QAPjP. Reextraction and/or reanalysis resulted in all surrogate recoveries within QC limits, but the reextraction was performed outside of holding time. Both sets of data have been reported.

POLYCHLORINATED BIPHENYLS-8082

The analytical results met the requirements of the laboratory's QA/QC program.

CASE NARRATIVE (continued)

METALS

The sample(s) that contain results between the MDL and the RL were flagged with "B". There is the possibility of false positive of mis-identification at these quantitation levels. The acceptance criteria for the ICB, CCB, and Method Blank are +/- the standard reporting limit (SRL).

Serial dilution of a sample in this lot indicates that physical and chemical interferences were present. Refer to the sample report pages for the affected analytes flagged with "E".

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "J". Refer to the sample report pages for the affected analyte(s).

Matrix spike recovery and relative percent difference (RPD) data were not calculated for some analytes for FWGCBPmw-007C-0125-GF due to the sample concentration reading greater than four times the spike amount. See the Matrix Spike Report for the affected analytes which will be flagged with "NC, MSB".

The matrix spike/matrix spike duplicate(s) for FWGCBPmw-007C-0125-GF had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

GENERAL CHEMISTRY

The sample(s) that contain results between the MDL and the RL were flagged with "B". There is the possibility of false positive of mis-identification at these quantitation levels. The acceptance criteria for the ICB, CCB, and Method Blank are +/- the standard reporting limit (SRL).

STL SACRAMENTO – 8330

Sample(s) FWGRQLmw-007C-0132-GW, FWGLL12mw-186C-0123-GW, FWGCBPmw-005C-0124-GW, and FWGRQLmw-008C-0133-GW had excessive silt/sediment. The samples were filtered prior to extraction. A Filter Blank was extracted with this batch 5279209.

CASE NARRATIVE (continued)

STL SACRAMENTO – 8330 (continued)

For sample(s) FWGRQLmw-009C-0134-GW, FWGBKGmw-012C-0099-GW, FWGRQLmw-007C-0132-GW, FWGLL12mw-186C-0123-GW, FWGCBPmw-005C-0124-GW, FWGRQLmw-008C-0133-GW, FWGLL12mw-182C-0121-GW, FWGLL12mw-183C-0122-GW, and FWGCBPmw-007C-0125-GW, all raw data has the method name NGu_Amino_9348_09.13.2005.mth associated with it. This calibration is actually the exact same calibration as Ngu_Amino_9348_08.23.2005.mth. Apparently, a new calibration was to be run on 9/13/2005, but was not run, as no run log was ever created on the instrument for the new calibration. So, although the name is different, the 8/23/05 calibration was used.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#200004), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), North Carolina (#39702), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

Y:\Barb\STL headers\Qc846-Narrative_060204.doc, Revised06/02/04 DJL

SEVERN TRENT STL

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY - Detection Highlights

A5J040187

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGRQLmw-009C-0134-GW 10/03/05 14:55	**001**			
Di-n-butyl phthalate	1.5 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	4.0 B	1.0	ug/L	SW846 8270C
FWGRQLmw-009C-0134-GF 10/03/05 14:55	**002**			
Thallium	0.27 B	1.0	ug/L	SW846 6020
Arsenic	19.0	10.0	ug/L	SW846 6010B
Barium	69.3	10.0	ug/L	SW846 6010B
Calcium	49500	1000	ug/L	SW846 6010B
Cobalt	5.5 B	20.0	ug/L	SW846 6010B
Iron	16600	1000	ug/L	SW846 6010B
Magnesium	55000	1000	ug/L	SW846 6010B
Manganese	3010 J	100	ug/L	SW846 6010B
Nickel	4.8 B	20.0	ug/L	SW846 6010B
Potassium	8560	5000	ug/L	SW846 6010B
Sodium	2760	1000	ug/L	SW846 6010B
FWGBKGmw-012C-0099-GW 10/03/05 11:52	**003**			
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.6 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	14 B	1.0	ug/L	SW846 8270C
Di-n-octyl phthalate	1.8	1.0	ug/L	SW846 8270C
Carbon disulfide	0.59 J	1.0	ug/L	SW846 8260B
Nitrocellulose	0.16 B	0.50	mg/L	MCAWW 353.2
FWGBKGmw-012C-0099-GF 10/03/05 11:52	**004**			
Barium	315	10.0	ug/L	SW846 6010B
Calcium	34100	1000	ug/L	SW846 6010B
Iron	341 B	1000	ug/L	SW846 6010B
Magnesium	11000	1000	ug/L	SW846 6010B
Manganese	52.6 B,J	100	ug/L	SW846 6010B
Potassium	5440	5000	ug/L	SW846 6010B
Sodium	38900	1000	ug/L	SW846 6010B
FWGRQLmw-007C-0132-GW 10/03/05 14:46	**005**			
Di-n-butyl phthalate	1.7 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	8.2 B	1.0	ug/L	SW846 8270C

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5J040187

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGRQLmw-007C-0132-GW 10/03/05 14:46 005				
1,2-Dichloroethene (total)	0.38 J	1.0	ug/L	SW846 8260B
Nitrocellulose	0.15 B	0.50	mg/L	MCAWW 353.2
FWGRQLmw-007C-0132-GF 10/03/05 14:46 006				
Thallium	0.039 B	1.0	ug/L	SW846 6020
Arsenic	76.1	10.0	ug/L	SW846 6010B
Barium	53.0	10.0	ug/L	SW846 6010B
Calcium	169000	1000	ug/L	SW846 6010B
Cobalt	12.1 B	20.0	ug/L	SW846 6010B
Iron	16300	1000	ug/L	SW846 6010B
Magnesium	90400	1000	ug/L	SW846 6010B
Manganese	2900 J	100	ug/L	SW846 6010B
Nickel	18.9 B	20.0	ug/L	SW846 6010B
Potassium	12000	5000	ug/L	SW846 6010B
Sodium	12100	1000	ug/L	SW846 6010B
Zinc	10.6 B	100	ug/L	SW846 6010B
FWGLL12mw-186C-0123-GW 10/03/05 10:32 007				
Heptachlor epoxide	0.053	0.030	ug/L	SW846 8081A
Di-n-butyl phthalate	1.5 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.6 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	4.0 B	1.0	ug/L	SW846 8270C
Di-n-octyl phthalate	2.1	1.0	ug/L	SW846 8270C
Chloromethane	0.15 J	1.0	ug/L	SW846 8260B
Nitrate-Nitrite	0.03 B	0.1	mg/L	MCAWW 353.2
Nitrocellulose	0.14 B	0.50	mg/L	MCAWW 353.2
FWGLL12mw-186C-0123-GF 10/03/05 10:32 008				
Barium	44.1	10.0	ug/L	SW846 6010B
Calcium	130000	1000	ug/L	SW846 6010B
Cobalt	1.5 B	20.0	ug/L	SW846 6010B
Iron	326 B	1000	ug/L	SW846 6010B
Magnesium	55500	1000	ug/L	SW846 6010B
Manganese	220 J	100	ug/L	SW846 6010B
Nickel	2.2 B	20.0	ug/L	SW846 6010B
Potassium	1600 B	5000	ug/L	SW846 6010B
Sodium	13400	1000	ug/L	SW846 6010B
Zinc	6.7 B	100	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5J040187

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGCBPmw-005C-0124-GW 10/03/05 12:00	**009**			
Benzoic acid	5.4 J	10	ug/L	SW846 8270C
Di-n-butyl phthalate	1.5 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	2.8 B	1.0	ug/L	SW846 8270C
Carbon disulfide	0.62 J	1.0	ug/L	SW846 8260B
Nitrocellulose	0.16 B	0.50	mg/L	MCAWW 353.2
FWGCBPmw-005C-0124-GF 10/03/05 12:00	**010**			
Arsenic	24.2	10.0	ug/L	SW846 6010B
Barium	32.0	10.0	ug/L	SW846 6010B
Calcium	78000	1000	ug/L	SW846 6010B
Iron	1100	1000	ug/L	SW846 6010B
Magnesium	37600	1000	ug/L	SW846 6010B
Manganese	53.9 B,J	100	ug/L	SW846 6010B
Potassium	3150 B	5000	ug/L	SW846 6010B
Sodium	26000	1000	ug/L	SW846 6010B
FWGRQLmw-008C-0133-GW 10/03/05 15:04	**011**			
Nitroguanidine	14 J	20	ug/L	NONE UV/HPLC per
4-Nitrotoluene	0.096 J	0.50	ug/L	SW846 8330
Tetryl	0.093 J	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	0.32 PG	0.10	ug/L	SW846 8330
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	4.7 B	1.0	ug/L	SW846 8270C
Acetone	1.0 J	10	ug/L	SW846 8260B
FWGRQLmw-008C-0133-GF 10/03/05 15:04	**012**			
Arsenic	14.3	10.0	ug/L	SW846 6010B
Barium	160	10.0	ug/L	SW846 6010B
Cadmium	0.58 B	10.0	ug/L	SW846 6010B
Calcium	77900	1000	ug/L	SW846 6010B
Cobalt	5.6 B	20.0	ug/L	SW846 6010B
Iron	135000	1000	ug/L	SW846 6010B
Magnesium	59100	1000	ug/L	SW846 6010B
Manganese	1390 J	100	ug/L	SW846 6010B
Nickel	10.5 B	20.0	ug/L	SW846 6010B
Potassium	9150	5000	ug/L	SW846 6010B
Sodium	25600	1000	ug/L	SW846 6010B
Zinc	14.6 B	100	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5J040187

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGLL12mw-182C-0121-GW 10/03/05 12:30 013				
1,3,5-Trinitrobenzene	0.031 J	0.10	ug/L	SW846 8330
Di-n-butyl phthalate	1.6 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.5 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	4.1 B	1.0	ug/L	SW846 8270C
Acetone	0.93 J	10	ug/L	SW846 8260B
FWGLL12mw-182C-0121-GF 10/03/05 12:30 014				
Arsenic	53.0	10.0	ug/L	SW846 6010B
Barium	84.5	10.0	ug/L	SW846 6010B
Calcium	90200	1000	ug/L	SW846 6010B
Iron	1410	1000	ug/L	SW846 6010B
Magnesium	72600	1000	ug/L	SW846 6010B
Manganese	57.0 B,J	100	ug/L	SW846 6010B
Potassium	4900 B	5000	ug/L	SW846 6010B
Sodium	26800	1000	ug/L	SW846 6010B
FWGLL12mw-183C-0122-GW 10/03/05 015				
Di-n-butyl phthalate	2.0 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.6 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	4.0 B	1.0	ug/L	SW846 8270C
Di-n-octyl phthalate	1.5	1.0	ug/L	SW846 8270C
Chloromethane	0.17 J	1.0	ug/L	SW846 8260B
FWGLL12mw-183C-0122-GF 10/03/05 016				
Arsenic	48.2	10.0	ug/L	SW846 6010B
Barium	76.3	10.0	ug/L	SW846 6010B
Calcium	120000	1000	ug/L	SW846 6010B
Iron	1930	1000	ug/L	SW846 6010B
Magnesium	47900	1000	ug/L	SW846 6010B
Manganese	72.9 B,J	100	ug/L	SW846 6010B
Potassium	3720 B	5000	ug/L	SW846 6010B
Sodium	16500	1000	ug/L	SW846 6010B
FWGCBPmw-007C-0125-GW 10/03/05 10:26 017				
2,6-Dinitrotoluene	0.082 J	0.10	ug/L	SW846 8330
Di-n-butyl phthalate	1.5 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.5 B	1.0	ug/L	SW846 8270C

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5J040187

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGCBPmw-007C-0125-GW 10/03/05 10:26	**017**			
bis(2-Ethylhexyl) phthalate	6.0 B	1.0	ug/L	SW846 8270C
FWGCBPmw-007C-0125-GF 10/03/05 10:26	**018**			
Arsenic	9.9 B	10.0	ug/L	SW846 6010B
Barium	13.3	10.0	ug/L	SW846 6010B
Calcium	208000	1000	ug/L	SW846 6010B
Iron	1270	1000	ug/L	SW846 6010B
Magnesium	108000	1000	ug/L	SW846 6010B
Manganese	65.4 B,J	100	ug/L	SW846 6010B
Nickel	1.6 B	20.0	ug/L	SW846 6010B
Potassium	6330 E	5000	ug/L	SW846 6010B
Sodium	143000	1000	ug/L	SW846 6010B

SEVERN TRENT STL

METHOD SUMMARY

ANALYTICAL METHODS SUMMARY

A5J040187

PARAMETER	ANALYTICAL METHOD
Cyanide, Total	SW846 9012A
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
ICP-MS (6020)	SW846 6020
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Nitrate-Nitrite	MCAWW 353.2
Nitroaromatics and Nitramines by HPLC	SW846 8330
Nitrocellulose as N, 353.2	MCAWW 353.2
Organics by UV/HPLC	NONE UV/HPLC per SOP
Organochlorine Pesticides	SW846 8081A
PCBs by SW-846 8082	SW846 8082
Semivolatile Organic Compounds by GC/MS	SW846 8270C
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

NONE

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SEVERN TRENT STL

SAMPLE SUMMARY

SAMPLE SUMMARY

A5J040187

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HL0MV	001	FWGRQLmw-009C-0134-GW	10/03/05	14:55
HL00T	002	FWGRQLmw-009C-0134-GF	10/03/05	14:55
HL002	003	FWGBKGmw-012C-0099-GW	10/03/05	11:52
HL01C	004	FWGBKGmw-012C-0099-GF	10/03/05	11:52
HL01E	005	FWGRQLmw-007C-0132-GW	10/03/05	14:46
HL01J	006	FWGRQLmw-007C-0132-GF	10/03/05	14:46
HL01L	007	FWGLL12mw-186C-0123-GW	10/03/05	10:32
HL01X	008	FWGLL12mw-186C-0123-GF	10/03/05	10:32
HL010	009	FWGCBPmw-005C-0124-GW	10/03/05	12:00
HL013	010	FWGCBPmw-005C-0124-GF	10/03/05	12:00
HL019	011	FWGRQLmw-008C-0133-GW	10/03/05	15:04
HL03A	012	FWGRQLmw-008C-0133-GF	10/03/05	15:04
HL03H	013	FWGLL12mw-182C-0121-GW	10/03/05	12:30
HL03Q	014	FWGLL12mw-182C-0121-GF	10/03/05	12:30
HL033	015	FWGLL12mw-183C-0122-GW	10/03/05	
HL044	016	FWGLL12mw-183C-0122-GF	10/03/05	
HL046	017	FWGCBPmw-007C-0125-GW	10/03/05	10:26
HL05D	018	FWGCBPmw-007C-0125-GF	10/03/05	10:26
HL074	019	FWGW-tb-0140-GW	10/03/05	18:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

SHIPPING AND RECEIVING DOCUMENTS

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 4 6 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57256

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-3-05
Address: 8451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll	Page 46 of 46
Project Number/Name: Ravenna	Carrier/Waybill Number:	
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :	QUOTE: 63240	

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments
~~FWGRQLmw-009C-0134-GW~~	10-3-05	1455	WATER	1L	AMBER	2	None	
~~FWGRQLmw-009C-0134-GW~~			WATER	1L	AMBER	2	None	
~~FWGRQLmw-009C-0134-GW~~			WATER	1L	AMBER	2	None	
~~FWGRQLmw-009C-0134-GW~~			WATER	1L	AMBER	2	None	
~~FWGRQLmw-009C-0134-GW~~			WATER	1L	AMBER	2	None	
~~FWGRQLmw-009C-0134-GW~~			WATER	40mL	40ML VIA	3	HCL	
~~FWGRQLmw-009C-0134-GW~~			WATER	250mL	PLASTIC	1	NaOH	
~~FWGRQLmw-009C-0134-GF~~			WATER	1000mL	PLASTIC	1	Conc HNO3	
FWGRQLmw-007C-0132-gw		1440	water	40ml	VIA	3	HCL	
FWGRQLmw-008C-0133-gw		1504						
FWGRQLGmw-012C-0099-gw		1152						
FWGLL12mw-186C-0123-gw		1032						
FWGLL12mw-192C-0121-gw		1230						
FWGCBPmw-005C-0124-gw		~~1200~~						
FWGCBPmw-007C-0125-gw		1026						
FWGCBPmw-008C-0125-MS/MSD		1026						
		1800						

Analysis: MMGBLNLONN / SSCGGCCNBO / 882881ENI03 / 267 31 I00 / 002DDLLQ2 / C I L / LLASL / XX X X X X X

Special Instructions: FWGW-46-0140-gw

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-3-05	1800	1. Received By: [signature]	10-3-05	1800
2. Relinquished By: A.H.	10-3-05	1858	2. Received By: Diane Meter	10/4/05	8:00
3. Relinquished By:	Date	Time	3. Received By:	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 0 7 *

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

57217

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-3-05	Page 1 of 1
Address: 6451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments
~~FWGBKGmw-012C-0099-GW~~	10-3-05	1152	WATER	1L	AMBER	2	None	
~~FWGBKGmw-012C-0099-GW~~			WATER	1L	AMBER	2	None	
~~FWGBKGmw-012C-0099-GW~~			WATER	1L	AMBER	2	None	
~~FWGBKGmw-012C-0099-GW~~			WATER	1L	AMBER	2	None	
~~FWGBKGmw-012C-0099-GW~~			WATER	1L	AMBER	2	None	
~~FWGBKGmw-012C-0099-GW~~			~~WATER~~	~~40mL~~	~~40mL VOA~~	~~3~~	~~HCl~~	
~~FWGBKGmw-012C-0099-GW~~			WATER	250mL	PLASTIC	1	NaOH	
~~FWGBKGmw-012C-0099-GF~~			WATER	1000mL	PLASTIC	1	Conc HNO3	

* Only 7 AMBERS

Analysis: NSS 8270 SIM 1,4-Dioxane; NSS 8270 Target Compounds; GC/MS VOA 8260; GC/MS SVOA 8270; Low Level Hg 1631; Nitrate 353.2; Nitrite 353.2; Cyanide 335.4; Total Metals 6010; Dissolved Metals 6010; Total Metals 6020; Dissolved Metals 6020

Special Instructions:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For_____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other_____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-3-05	1800	1. Received By: Al Haidet	10-3-05	1800
2. Relinquished By: A. H.	10-3-05	1858	2. Received By: Diana Miller	10/4/05	8:00
3. Relinquished By:			3. Received By:		

Comments:

DISTRIBUTION: WHITE - Stays with the Sample. CANARY - Returned to Client with Report: PINK - Field Copy

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 4 4 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57254

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/28/2005~~ 10-3-05
Address: 8451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll	
Project Number/Name: Ravenna	Carrier/Waybill Number:	
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :	QUOTE: 63240	

Page ~~44~~ 1 of ~~46~~ 1

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments
~~FWGRQLmw-007C-0132-GW~~	10-3-05	1446	WATER	1L	AMBER	2	None	
~~FWGRQLmw-007C-0132-GW~~			WATER	1L	AMBER	2	None	
~~FWGRQLmw-007C-0132-GW~~			WATER	1L	AMBER	2	None	
~~FWGRQLmw-007C-0132-GW~~			WATER	1L	AMBER	2	None	
~~FWGRQLmw-007C-0132-GW~~			WATER	1L	AMBER	2	None	
~~[redacted]~~			~~WATER~~	~~40mL~~	~~[redacted]~~		~~HCL~~	
~~FWGRQLmw-007C-0132-GW~~			WATER	250mL	PLASTIC	1	NaOH	
~~FWGRQLmw-007C-0132-GF~~			WATER	1000mL	PLASTIC	1	Conc HNO3	

Analysis: MS/MSD; 8260 BTEX; 8270 BNA; 8082 PCB; 8081 Pest; Cl, F, SO4; NO3-N; TKN; Total P; Metals (Diss.); 8015 GRO; 8015 DRO; Hardness

* only 8 samples

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-3-05	1800	1. Received By: Al Haislet	10-3-05	1800
2. Relinquished By: A H.	10-3-05	1858	2. Received By: Diana Miller	10/4/05	8:00
3. Relinquished By:	Date	Time	3. Received By:	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

RTLS/RVAAP Facility Wide Groundwater Monitoring Program Annual Report for 2005
FWGWMP 2005 Annual Report
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Appendix C
STL North Canton
22

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 3 3 *

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

57243

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-3-05
Address: 8451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll	
Project Number/Name: Ravenna	Carrier/Waybill Number:	

Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # : QUOTE: 63240

Page 1 of 1

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments	Analysis
~~FWGLL12mw-186C-0123-GW~~	10-3-05	10:32	~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		
~~FWGLL12mw-186C-0123-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		
~~FWGLL12mw-186C-0123-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		
~~FWGLL12mw-186C-0123-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		
~~FWGLL12mw-186C-0123-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		
~~[illegible]~~			~~WATER~~	~~40ml~~	~~40ml-VIAL~~	~~3~~	~~HCL~~		
~~FWGLL12mw-186C-0123-GW~~			~~WATER~~	~~250mL~~	~~PLASTIC~~		~~NaOH~~		
~~[illegible]~~			~~WATER~~	~~500mL~~	~~PLASTIC~~		~~Conc HNO3~~		
~~FWGLL12mw-186C-0123-GF~~			~~WATER~~	~~1000mL~~	~~PLASTIC~~		~~Conc HNO3~~		

* only 8 Ambers

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-3-05	1800	1. Received By: Al Haidet	10-3-05	1800
2. Relinquished By: A.H.	10.3.05	1838	2. Received By: Diana Miller	10/4/05	8:00
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

SEVERN TRENT **STL**
Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
SpecPro	Chantelle Carroll	10-3-05	247530
Address: 8451 St. Rt 5	Telephone Number (Area Code)/Fax Number	Lab Number	Page 1 of 1
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chantelle Carroll	Lab Contact	
Project Name and Location (State): Ravenna	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: Explos	Pest/PCB	propellant	SVOC	TAL metal	Cyn.	Special Instructions/ Conditions of Receipt
WSCBPmw-005C-0124-gw	10-3-05	1200		K			8				1		2	2	2	2		1	
WSCBPmw-005C-0124-gf	10-3-05	1200							1								1		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.	Chantelle Carroll	10-3-05	1800	Al Haidet	10-3-05	1800
2.	A H.	10-3-05	1858	Dana Miller	10/4/05	8:00
3.						

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 4 5 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57255

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-3-05	Page ~~45~~ 1 of ~~46~~ 1
Address: 8451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Analysis

Sample I.D. Number and Description	Date	Time	Sample Type	Containers Volume	Containers Type	Containers No.	Preservative	Condition on Receipt/Comments	MS8260	MS8270	GC8082	BOD	LC8330	NCEL	CCNG	CN1	HG010	MO3N02
~~FWGRQLmw-008C-0133-GW~~	10-3-05	15:44	~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~							X	X			
~~FWGRQLmw-008C-0133-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~						X					
~~FWGRQLmw-008C-0133-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~					X						
~~FWGRQLmw-008C-0133-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~				X							
~~FWGRQLmw-008C-0133-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~			X								
~~FWGRQLmw-008C-0133-GW~~			~~WATER~~	~~40mL~~	~~40mL~~	~~2~~	~~None~~		X									
~~FWGRQLmw-008C-0133-GW~~			~~WATER~~	~~250mL~~	~~PLASTIC~~	~~1~~	~~NaOH~~									X		
~~FWGRQLmw-008C-0133-GF~~			~~WATER~~	~~1000mL~~	~~PLASTIC~~	~~1~~	~~Conc HNO3~~										X	

* only 8 Ambers

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-3-05	1800	1. Received By: [signature]	10-3-05	1800
2. Relinquished By: A.H.	10-3-05	1858	2. Received By: Diana Miller	10/4/05	8:00
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

57241

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 3 1 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

TL4149 (1202)

Client	Project Manager	Date	Page
Spec Pro	Chantelle Carroll	~~09/26/2005~~ 10-3-05	1 of 1

Address	Telephone Number (Area Code)/Fax Number	Lab Location
8451 State Route 5	(000) / (000)	STL North Canton

City	State	Zip Code	Site Contact
Ravenna	OH	44266	Chantelle Carroll

Project Number/Name	Carrier/Waybill Number
Ravenna	

Contract/Purchase Order/Quote Number
CONTRACT / PURCHASE ORDER # :

QUOTE: 53240

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments	Analysis
~~FWGLL12mw-182C-0121-GW~~	10-3-05	1230	~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGLL12mw-182C-0121-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGLL12mw-182C-0121-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGLL12mw-182C-0121-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGLL12mw-182C-0121-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~[illegible]~~			~~WATER~~	~~[illegible]~~					
FWGLL12mw-182C-0121-GW			WATER	250mL	PLASTIC	1	NaOH		
~~FWGLL12mw-182C-0121-GW~~			~~WATER~~	~~500mL~~	~~PLASTIC~~	1	~~Conc HCl~~		
FWGLL12mw-182C-0121-GW			WATER	1000mL	PLASTIC		Conc HNO3		

* only 8 samples

Special Instructions

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ Normal ☐ Rush ☐ Other _____

QC Level
☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-3-05	1800	1. Received By: Al Waidet	10-3-05	1800
2. Relinquished By: A H.	10-3-05	1858	2. Received By: Diana Miller	10/4/05	8:00
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 3 2 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57242

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-5-03
Address: 8451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll	
Project Number/Name: Ravenna	Carrier/Waybill Number:	
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :	QUOTE: 63240	

Page ~~32~~ 1 of ~~46~~ 1

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments	Analysis
~~FWGLL12MW-183C-0122-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		
~~FWGLL12MW-183C-0122-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		
~~FWGLL12MW-183C-0122-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		
~~FWGLL12MW-183C-0122-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		
~~FWGLL12MW-183C-0122-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		
~~FWGLL12MW-183C-0122-GW~~			~~WATER~~	~~40mL~~	~~40ML VIA~~	~~3~~	~~HCL~~		
FWGLL12MW-183C-0122-GW			WATER	250mL	PLASTIC	1	NaOH		
~~FWGLL12MW-183C-0122-GW~~			~~WATER~~	~~500mL~~	~~PLASTIC~~	~~1~~	~~Conc H2SO4~~		
FWGLL12MW-183C-0122-GF			WATER	1000mL	PLASTIC	1	Conc HNO3		

* only 8 Ambers

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☑ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-3-05	1800	1. Received By: Lil Haight	10-3-05	1800
2. Relinquished By: A. H.	10-3-05	1838	2. Received By: Diana Miller	10/4/05	8:00
3. Relinquished By:	Date	Time	3. Received By:	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 3 6 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57246

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-3-05	Page ~~36~~ 1 of ~~46~~ 1
Address: 8451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Analysis

Sample I.D. Number and Description	Date	Time	Sample Type	Containers Volume	Containers Type	Containers No.	Preservative	Condition on Receipt/Comments	MS8260	MS8270	GC8082	SO8	LC8330	NCEL	LCNG	CN1	M6010	NO3
FWGCBPmw-007C-0125-GW	10-3-05	10:26	WATER	1L	AMBER	2	None							X	X			
FWGCBPmw-007C-0125-GW			WATER	1L	AMBER	2	None						X					
FWGCBPmw-007C-0125-GW			WATER	1L	AMBER	2	None					X						
FWGCBPmw-007C-0125-GW			WATER	1L	AMBER	2	None				X							
FWGCBPmw-007C-0125-GW			WATER	1L	AMBER	2	None			X								
~~FWGCBPmw-007C-0125-GW~~			~~WATER~~	~~40mL~~	~~40ML VIA~~	~~3~~	~~HCL~~		X									
FWGCBPmw-007C-0125-GW			WATER	250mL	PLASTIC	1	NaOH									X		
~~FWGCBPmw-007C-0125-GW~~			~~WATER~~	~~500mL~~	~~PLASTIC~~	~~1~~	~~Conc H2SO4~~										X	
FWGCBPmw-007C-0125-GF			WATER	1000mL	PLASTIC	1	Conc HNO3										X	

* only 8 Ambers not 10

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-3-05	1800	1. Received By: [signature]	10-3-05	1800
2. Relinquished By: A. H.	10-3-05	1858	2. Received By: Diana Miter	10/4/05	8:10
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

SEVERN TRENT **STL**
Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
Spec Pro	Chantelle Carroll	10-3-05	247531
Address 8451 St Rt 5	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
City Ravenna	**State** OH	**Zip Code** 44266	**Site Contact** Chantelle Carroll	**Lab Contact**
Project Name and Location (State) Ravenna	**Carrier/Waybill Number**
Contract/Purchase Order/Quote No.

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): Explos	Pest/PCB	Propell	SVOC	TAL Metal	Cyanide	Special Instructions/ Conditions of Receipt
2006CBPmw-007C-0505-ms/msd	10-3-05	10:26		X			8		1	●	1		2	2	2	2	1	1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.	Chantelle Carroll	10-3-05	1800	Al Waidt	10-3-05	1800
2.	A H.	10-3-05	1858	Diana Miller	10/4/05	8:00
3.						

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL Cooler Receipt Form/Narrative **Lot Number:** A5S040187

North Canton Facility

Client: Specro Project: Ravenna Quote# 103240

Cooler Received on: 10/3/05 Opened on: 10/4/05 by: Diana Miles (Signature)

Fedx ☐ Client Drop Off ☐ UPS ☐ DHL ☐ FAS ☐ STL Courier ☑

Stetson ☐ US Cargo ☐ Other: _____

STL Cooler No# Seback Foam Box ☐ Client Cooler ☐ Other _____

1. Were custody seals on the outside of the cooler? Yes ☑ No ☐ Intact? Yes ☑ No ☐ NA ☐
   If YES, Quantity 20
   Were the custody seals signed and dated? Yes ☑ No ☐ NA ☐
2. Shipper's packing slip attached to this form? Yes ☐ No ☐ NA ☑
3. Did custody papers accompany the samples? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Did you sign the custody papers in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☑ Foam ☐ None ☐ Other: _____
6. Cooler temperature upon receipt _____ °C (see back of form for multiple coolers/temp)

METHOD: Temp Vial ☐ Coolant & Sample ☐ Against Bottles ☐ IR ☑ ICE/H_2O Slurry ☐

COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐

7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels and/or tags be reconciled with the COC? Yes ☑ ~~No~~ ~~DM~~
9. Were samples at the correct pH? (record below/on back) Yes ☐ No ☑ NA ☐
10. Were correct bottles used for the tests indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☑ No ☐ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a Trip Blank present in the cooler? Yes ☑ No ☐ Were VOAs on the COC? Yes ☑ No ☐
14. Does the trip blank number match the cooler number in which it was received? Yes ☐ No ☐ NA ☑

Contacted PM FJC Date: 10/4 by: DM via Voice Mail ☐ Verbal ☐ Other ☑ EMAIL

Concerning: #1 & #3 & #4

√

1. CHAIN OF CUSTODY

The following discrepancies occurred:

√ -0133 label = 1446 COC = 1504 >Will log per COC

-0124 label = 1026 COC = 1200

2. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

3. SAMPLE PRESERVATION (Nitric 1X250 w/ NaOH)

√ Sample(s) 0132 & 0133 (1X) were further preserved in sample receiving to meet recommended pH level(s) (Nitric Acid Lot # 091305-HNO3; Sulfuric Acid Lot # 041305-H2SO4; Sodium Hydroxide Lot # 041305 -NaOH; Hydrochloric Acid Lot # 100504-HCl; Sodium Hydroxide and Zinc Acetate Lot # 071604 CH3COO2ZN/NaOH

Sample(s) Trip Blank were received with bubble > 6 mm in diameter (cc: PM)

4. Other (see below or back)

Rec'd 1X250 preserved w/ Sulfuric acid labeled for test NO2 NO3 for samples 0122, 0123 & 0121. COC is scratched out for these samples. Will log NO2/NO3 per FJC.

Client ID	pH		Date	Initials
125	<2 <2	7 12 7 12	10/4/05	DM
0099	<2	7 12		
132	<2	7 12		
0123	<2 <2	7 12		

STL Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials
124	<2 712	10/4/05	UM
133	<2 712		
134	<2 712		
121	<2 <2 712		
122	<2 <2 712		

Cooler	Temp	Method	Coolant
STL 4161	1.9°C	IR	ICE
K754	3.4		
K627	4.3		
K635	3.2		
K653	4.1		
241-175	4.7		
111	2.3		
K990	3.6		

Discrepancies Cont.

STL no #	3.4		
K667	2.1		

SEVERN TRENT STL

GCMS VOLATILE DATA

SpecPro Inc

Client Sample ID: FWGRQLmw-009C-0134-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-001 **Work Order #...:** HL0MV1AA **Matrix.....:** WG
Date Sampled...: 10/03/05 14:55 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGRQLmw-009C-0134-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-001 Work Order #...: HL0MV1AA Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

SpecPro Inc

FWGRQLmw-009C-0134-GW

GC/MS Volatiles

Lot-Sample #: A5J040187-001 **Work Order #:** HL0MV1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGBKGmw-012C-0099-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-003 **Work Order #...:** HL0021AA **Matrix.....:** WG
Date Sampled...: 10/03/05 11:52 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	**0.59 J**	**1.0**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGmw-012C-0099-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-003 **Work Order #...:** HL0021AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

FWGBKGmw-012C-0099-GW

GC/MS Volatiles

Lot-Sample #: A5J040187-003 **Work Order #:** HL0021AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGRQLmw-007C-0132-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-005 **Work Order #...:** HL01E1AA **Matrix.....:** WG
Date Sampled...: 10/03/05 14:46 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	**0.38 J**	**1.0**	**ug/L**
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGRQLmw-007C-0132-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-005 **Work Order #...:** HL01E1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

FWGRQLmw-007C-0132-GW

GC/MS Volatiles

Lot-Sample #: A5J040187-005 **Work Order #:** HL01E1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGLL12mw-186C-0123-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-007 **Work Order #...:** HL01L1AA **Matrix.....:** WG
Date Sampled...: 10/03/05 10:32 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	**0.15 J**	**1.0**	**ug/L**
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL12mw-186C-0123-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-007 **Work Order #...:** HL01L1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

FWGLL12mw-186C-0123-GW

GC/MS Volatiles

Lot-Sample #: A5J040187-007 **Work Order #:** HL01L1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGCBPmw-005C-0124-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-009 **Work Order #...:** HL0101AA **Matrix.....:** WG
Date Sampled...: 10/03/05 12:00 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	**0.62 J**	**1.0**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGCBPmw-005C-0124-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-009 **Work Order #...:** HL0101AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

FWGCBPmw-005C-0124-GW

GC/MS Volatiles

Lot-Sample #: A5J040187-009 **Work Order #:** HL0101AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGRQLmw-008C-0133-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-011 **Work Order #...:** HL0191AA **Matrix.....:** WG
Date Sampled...: 10/03/05 15:04 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	**1.0 J**	**10**	**ug/L**
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGRQLmw-008C-0133-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-011 Work Order #...: HL0191AA Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

FWGRQLmw-008C-0133-GW

GC/MS Volatiles

Lot-Sample #: A5J040187-011 **Work Order #:** HL0191AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Ethyl Ether		6.1	Q	2.476	ug/L

NOTE(S):

Q: Result was quantitated against the response factor of a calibration standard.

SpecPro Inc

Client Sample ID: FWGLL12mw-182C-0121-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-013 **Work Order #...:** HL03H1AA **Matrix.....:** WG
Date Sampled...: 10/03/05 12:30 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	**0.93 J**	**10**	**ug/L**
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGLL12mw-182C-0121-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-013 Work Order #...: HL03H1AA Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

FWGLL12mw-182C-0121-GW

GC/MS Volatiles

Lot-Sample #: A5J040187-013 **Work Order #:** HL03H1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGLL12mw-183C-0122-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-015	**Work Order #...:** HL0331AA	**Matrix.....:** WG	
Date Sampled...: 10/03/05	**Date Received..:** 10/04/05		
Prep Date.....: 10/12/05	**Analysis Date..:** 10/12/05		
Prep Batch #...: 5286162			
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	**0.17 J**	**1.0**	**ug/L**
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL12mw-183C-0122-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-015 Work Order #...: HL0331AA Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

FWGLL12mw-183C-0122-GW

GC/MS Volatiles

Lot-Sample #: A5J040187-015 **Work Order #:** HL0331AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGCBPmw-007C-0125-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-017 **Work Order #...:** HL0461AA **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGCBPmw-007C-0125-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-017 Work Order #...: HL0461AA Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

SpecPro Inc

FWGCBPmw-007C-0125-GW

GC/MS Volatiles

Lot-Sample #: A5J040187-017 **Work Order #:** HL0461AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGW-tb-0140-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-019 **Work Order #...:** HL0741AA **Matrix.....:** WQ
Date Sampled...: 10/03/05 18:00 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGW-tb-0140-GW

GC/MS Volatiles

Lot-Sample #...: A5J040187-019 **Work Order #...:** HL0741AA **Matrix.....:** WQ

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

SpecPro Inc

FWGW-tb-0140-GW

GC/MS Volatiles

Lot-Sample #: A5J040187-019 **Work Order #:** HL0741AA **Matrix:** WQ

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Acetaldehyde	75-07-0	5.1 NJ	M	1.8019	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5J040187
MB Lot-Sample #: A5J130000-162

Work Order #...: HMLXD1AA
Prep Date.....: 10/12/05
Prep Batch #...: 5286162
Initial Wgt/Vol: 5 mL

Matrix.....: WATER
Final Wgt/Vol..: 5 mL

Analysis Date..: 10/12/05
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	2.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethene (total)	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	10	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	10	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5J040187 **Work Order #...:** HMLXD1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Toluene-d8	92	(76 - 110)		
4-Bromofluorobenzene	91	(74 - 116)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SpecPro Inc

Method Blank Report

GC/MS Volatiles

Lot-Sample #: A5J130000-162 B **Work Order #:** HMLXD1AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5J040187
Work Order #...: HMLXD1AC-LCS HMLXD1AD-LCSD
Matrix.....: WATER
LCS Lot-Sample#: A5J130000-162
Prep Date.....: 10/12/05
Analysis Date..: 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1
Final Wgt/Vol..: 5 mL
Initial Wgt/Vol: 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**102**	**(63 - 130)**			**SW846 8260B**
	104	**(63 - 130)**	**1.4**	**(0-20)**	**SW846 8260B**
Trichloroethene	**101**	**(75 - 122)**			**SW846 8260B**
	99	**(75 - 122)**	**1.5**	**(0-20)**	**SW846 8260B**
Benzene	**88**	**(80 - 116)**			**SW846 8260B**
	91	**(80 - 116)**	**2.7**	**(0-20)**	**SW846 8260B**
Toluene	**95**	**(74 - 119)**			**SW846 8260B**
	93	**(74 - 119)**	**2.2**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**96**	**(76 - 117)**			**SW846 8260B**
	94	**(76 - 117)**	**2.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
	106	(61 - 128)
Toluene-d8	95	(76 - 110)
	93	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)
	94	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5J040187 **Work Order #...:** HMLXD1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A5J130000-162 HMLXD1AD-LCSD
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 5 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	10	10	ug/L	102		SW846 8260B
	10	10	ug/L	104	1.4	SW846 8260B
Trichloroethene	10	10	ug/L	101		SW846 8260B
	10	9.9	ug/L	99	1.5	SW846 8260B
Benzene	10	8.8	ug/L	88		SW846 8260B
	10	9.1	ug/L	91	2.7	SW846 8260B
Toluene	10	9.5	ug/L	95		SW846 8260B
	10	9.3	ug/L	93	2.2	SW846 8260B
Chlorobenzene	10	9.6	ug/L	96		SW846 8260B
	10	9.4	ug/L	94	2.0	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
	106	(61 - 128)
Toluene-d8	95	(76 - 110)
	93	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)
	94	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5J040187 **Work Order #...:** HL0461AK-MS **Matrix.....:** WG
MS Lot-Sample #: A5J040187-017 HL0461AL-MSD
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**103**	**(62 - 130)**			**SW846 8260B**
	105	**(62 - 130)**	**1.3**	**(0-20)**	**SW846 8260B**
Trichloroethene	**92**	**(62 - 130)**			**SW846 8260B**
	97	**(62 - 130)**	**5.0**	**(0-20)**	**SW846 8260B**
Benzene	**81**	**(78 - 118)**			**SW846 8260B**
	85	**(78 - 118)**	**4.9**	**(0-20)**	**SW846 8260B**
Toluene	**85**	**(70 - 119)**			**SW846 8260B**
	89	**(70 - 119)**	**5.0**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**85**	**(76 - 117)**			**SW846 8260B**
	91	**(76 - 117)**	**7.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
	104	(61 - 128)
Toluene-d8	96	(76 - 110)
	93	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)
	97	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5J040187 **Work Order #...:** HL0461AK-MS **Matrix.....:** WG
MS Lot-Sample #: A5J040187-017 HL0461AL-MSD
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	ND	10	10	ug/L	103		SW846 8260B
	ND	10	10	ug/L	105	1.3	SW846 8260B
Trichloroethene	ND	10	9.2	ug/L	92		SW846 8260B
	ND	10	9.7	ug/L	97	5.0	SW846 8260B
Benzene	ND	10	8.1	ug/L	81		SW846 8260B
	ND	10	8.5	ug/L	85	4.9	SW846 8260B
Toluene	ND	10	8.5	ug/L	85		SW846 8260B
	ND	10	8.9	ug/L	89	5.0	SW846 8260B
Chlorobenzene	ND	10	8.5	ug/L	85		SW846 8260B
	ND	10	9.1	ug/L	91	7.0	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
	104	(61 - 128)
Toluene-d8	96	(76 - 110)
	93	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)
	97	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SEVERN TRENT STL

GCMS SEMIVOLATILE DATA

SpecPro Inc

Client Sample ID: FWGRQLmw-009C-0134-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-001	**Work Order #...:** HL0MV1AC	**Matrix.....:** WG	
Date Sampled...: 10/03/05 14:55	**Date Received..:** 10/04/05		
Prep Date.....: 10/05/05	**Analysis Date..:** 10/10/05		
Prep Batch #...: 5278036			
Dilution Factor: 1	**Initial Wgt/Vol:** 1040 mL	**Final Wgt/Vol..:** 2 mL	
	Method.....: SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGRQLmw-009C-0134-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-001 **Work Order #...:** HL0MV1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.5 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**4.0 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGRQLmw-009C-0134-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-001 Work Order #...: HL0MV1AC Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	66	(32 - 112)
2-Fluorobiphenyl	51	(30 - 110)
Terphenyl-d14	79	(51 - 135)
Phenol-d5	48	(10 - 117)
2-Fluorophenol	21	(19 - 108)
2,4,6-Tribromophenol	63	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGRQLmw-009C-0134-GW

GC/MS Semivolatiles

Lot-Sample #: A5J040187-001 **Work Order #:** HL0MV1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown Organic Acid		1.2 J	M	4.0168	ug/L
Unknown		3.6 J	M	7.9433	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGBKGmw-012C-0099-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-003 Work Order #...: HL0021AC Matrix.....: WG
Date Sampled...: 10/03/05 11:52 Date Received..: 10/04/05
Prep Date.....: 10/05/05 Analysis Date..: 10/10/05
Prep Batch #...: 5278036
Dilution Factor: 1 Initial Wgt/Vol: 1020 mL Final Wgt/Vol..: 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGBKGmw-012C-0099-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-003 Work Order #...: HL0021AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.6 B**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**14 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	**1.8**	**1.0**	**ug/L**
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGBKGmw-012C-0099-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-003 Work Order #...: HL0021AC Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	77	(32 - 112)
2-Fluorobiphenyl	58	(30 - 110)
Terphenyl-d14	80	(51 - 135)
Phenol-d5	56	(10 - 117)
2-Fluorophenol	33	(19 - 108)
2,4,6-Tribromophenol	63	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGBKGmw-012C-0099-GW

GC/MS Semivolatiles

Lot-Sample #: A5J040187-003 **Work Order #:** HL0021AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Butylated Hydroxytoluene	128-37-0	2.3 NJ	M	5.4959	ug/L
Sulfur, mol. (S8)	10544-50-0	19 NJ	M	7.2215	ug/L
Unknown		21 J	M	10.827	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGRQLmw-007C-0132-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-005 **Work Order #...:** HL01E1AC **Matrix.....:** WG
Date Sampled...: 10/03/05 14:46 **Date Received..:** 10/04/05
Prep Date.....: 10/05/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5278036
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGRQLmw-007C-0132-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-005 **Work Order #...:** HL01E1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.7 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**8.2 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGRQLmw-007C-0132-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-005 Work Order #...: HL01E1AC Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	73	(32 - 112)
2-Fluorobiphenyl	56	(30 - 110)
Terphenyl-d14	73	(51 - 135)
Phenol-d5	56	(10 - 117)
2-Fluorophenol	39	(19 - 108)
2,4,6-Tribromophenol	63	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGRQLmw-007C-0132-GW

GC/MS Semivolatiles

Lot-Sample #: A5J040187-005 **Work Order #:** HL01E1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		1.1 J	M	2.9776	ug/L
Unknown Organic Acid		1.1 J	M	4.014	ug/L
Unknown Organic Acid		0.99 J	M	4.8687	ug/L
Unknown		7.1 J	M	5.6326	ug/L
Diethyltoluamide	134-62-3	1.8 NJ	M	5.7715	ug/L
Unknown		1.2 J	M	6.1829	ug/L
Unknown Organic Acid		2.8 J	M	6.3164	ug/L
Oxybenzone	131-57-7	0.94 NJ	M	7.2887	ug/L
Unknown Organic Acid		1.8 J	M	7.465	ug/L
Unknown		1.4 J	M	7.9404	ug/L
Unknown		5.7 J	M	8.1327	ug/L
Unknown		0.89 J	M	9.1477	ug/L
Unknown		1.6 J	M	9.8048	ug/L
Unknown		3.2 J	M	10.68	ug/L
Unknown		2.0 J	M	10.862	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL12mw-186C-0123-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-007 **Work Order #...:** HL01L1AC **Matrix.....:** WG
Date Sampled...: 10/03/05 10:32 **Date Received..:** 10/04/05
Prep Date.....: 10/05/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5278036
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGLL12mw-186C-0123-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-007 Work Order #...: HL01L1AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.5 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.6 B**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**4.0 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	**2.1**	**1.0**	**ug/L**
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGLL12mw-186C-0123-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-007 Work Order #...: HL01L1AC Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	71	(32 - 112)
2-Fluorobiphenyl	55	(30 - 110)
Terphenyl-d14	65	(51 - 135)
Phenol-d5	53	(10 - 117)
2-Fluorophenol	36	(19 - 108)
2,4,6-Tribromophenol	66	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL12mw-186C-0123-GW

GC/MS Semivolatiles

Lot-Sample #: A5J040187-007 **Work Order #:** HL01L1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Butylated Hydroxytoluene	128-37-0	1.2 NJ	M	5.5306	ug/L
Diethyltoluamide	134-62-3	2.0 NJ	M	5.8084	ug/L
Unknown		1.6 J	M	9.0297	ug/L
Unknown Hydrocarbon		1.3 J	M	9.222	ug/L
Unknown		2.3 J	M	9.3235	ug/L
Unknown Organic Acid		0.98 J	M	9.4143	ug/L
Unknown Hydrocarbon		0.81 J	M	9.5425	ug/L
Unknown Phthalate		1.9 J	M	9.6921	ug/L
Unknown		4.8 J	M	10.135	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGCBPmw-005C-0124-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-009 Work Order #...: HL0101AC Matrix.....: WG
Date Sampled...: 10/03/05 12:00 Date Received..: 10/04/05
Prep Date.....: 10/05/05 Analysis Date..: 10/10/05
Prep Batch #...: 5278036
Dilution Factor: 1 Initial Wgt/Vol: 1050 mL Final Wgt/Vol..: 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	**5.4 J**	**10**	**ug/L**
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGCBPmw-005C-0124-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-009 Work Order #...: HL0101AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.5 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**2.8 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGCBPmw-005C-0124-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-009 Work Order #...: HL0101AC Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	74	(32 - 112)
2-Fluorobiphenyl	54	(30 - 110)
Terphenyl-d14	80	(51 - 135)
Phenol-d5	59	(10 - 117)
2-Fluorophenol	43	(19 - 108)
2,4,6-Tribromophenol	64	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGCBPmw-005C-0124-GW

GC/MS Semivolatiles

Lot-Sample #: A5J040187-009 **Work Order #:** HL0101AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown Organic Acid		0.85 J	M	5.6266	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGRQLmw-008C-0133-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-011 Work Order #...: HL0191AC Matrix.....: WG
Date Sampled...: 10/03/05 15:04 Date Received..: 10/04/05
Prep Date.....: 10/05/05 Analysis Date..: 10/10/05
Prep Batch #...: 5278036 Initial Wgt/Vol: 1050 mL Final Wgt/Vol..: 2 mL
Dilution Factor: 1 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	2.0	ug/L
Isophorone	ND	2.0	ug/L
2-Nitrophenol	ND	1.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	0.20	ug/L
1,2,4-Trichloro-benzene	ND	2.0	ug/L
Naphthalene	ND	1.0	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	0.20	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Methylnaphthalene	ND	5.0	ug/L
Hexachlorocyclopenta-diene	ND	5.0	ug/L
2,4,6-Trichloro-phenol	ND	1.0	ug/L
2,4,5-Trichloro-phenol	ND	2.0	ug/L
2-Chloronaphthalene	ND		
2-Nitroaniline			

(Continued on next page)

STL North Canton

SpecPro Inc

Client Sample ID: FWGRQLmw-008C-0133-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-011 Work Order #...: HL0191AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**4.7 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGRQLmw-008C-0133-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-011 Work Order #...: HL0191AC Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	69	(32 - 112)
2-Fluorobiphenyl	58	(30 - 110)
Terphenyl-d14	74	(51 - 135)
Phenol-d5	60	(10 - 117)
2-Fluorophenol	51	(19 - 108)
2,4,6-Tribromophenol	63	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGRQLmw-008C-0133-GW

GC/MS Semivolatiles

Lot-Sample #: A5J040187-011 **Work Order #:** HL0191AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Diethyltoluamide	134-62-3	0.96 NJ	M	5.7739	ug/L
Benzenesulfonamide, 2-methy	88-19-7	0.86 NJ	M	5.9823	ug/L
Unknown		0.94 J	M	8.1085	ug/L
Unknown		0.95 J	M	9.225	ug/L
Unknown		86 J	M	10.854	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL12mw-182C-0121-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-013 **Work Order #...:** HL03H1AC **Matrix.....:** WG
Date Sampled...: 10/03/05 12:30 **Date Received..:** 10/04/05
Prep Date.....: 10/05/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5278036
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGLL12mw-182C-0121-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-013 **Work Order #...:** HL03H1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.6 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.5 B**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**4.1 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL12mw-182C-0121-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-013 Work Order #...: HL03H1AC Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	72	(32 - 112)
2-Fluorobiphenyl	54	(30 - 110)
Terphenyl-d14	82	(51 - 135)
Phenol-d5	55	(10 - 117)
2-Fluorophenol	26	(19 - 108)
2,4,6-Tribromophenol	65	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Spectrum Inc

FWGLL12mw-182C-0121-GW

GC/MS Semivolatiles

Lot-Sample #: A5J040187-013 **Work Order #:** HL03H1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		1.1 J	M	2.6947	ug/L
Unknown Organic Acid		4.1 J	M	4.0196	ug/L
Unknown		1.9 J	M	5.3124	ug/L
Diethyltoluamide	134-62-3	13 NJ	M	5.7718	ug/L
Unknown		40 J	M	7.9407	ug/L
Unknown		0.87 J	M	9.2923	ug/L
Unknown		16 J	M	10.82	ug/L
Unknown		5.4 J	M	11.482	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL12mw-183C-0122-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-015 Work Order #...: HL0331AC Matrix.....: WG
Date Sampled...: 10/03/05 Date Received..: 10/04/05
Prep Date.....: 10/05/05 Analysis Date..: 10/10/05
Prep Batch #...: 5278036
Dilution Factor: 1

Initial Wgt/Vol: 1030 mL Final Wgt/Vol..: 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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STL North Canton

SpecPro Inc

Client Sample ID: FWGLL12mw-183C-0122-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-015 Work Order #...: HL0331AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**2.0 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.6 B**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**4.0 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	**1.5**	**1.0**	**ug/L**
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL12mw-183C-0122-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-015 **Work Order #...:** HL0331AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	79	(32 - 112)
2-Fluorobiphenyl	60	(30 - 110)
Terphenyl-d14	82	(51 - 135)
Phenol-d5	61	(10 - 117)
2-Fluorophenol	50	(19 - 108)
2,4,6-Tribromophenol	68	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL12mw-183C-0122-GW

GC/MS Semivolatiles

Lot-Sample #: A5J040187-015 **Work Order #:** HL0331AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		1.5 J	M	2.6926	ug/L
Unknown		0.88 J	M	2.8849	ug/L
Unknown		1.9 J	M	4.0121	ug/L
Unknown		1.1 J	M	4.1617	ug/L
Diethyltoluamide	134-62-3	1.6 NJ	M	5.7697	ug/L
Unknown		24 J	M	7.9225	ug/L
Unknown Hydrocarbon		0.97 J	M	8.4087	ug/L
Unknown Hydrocarbon		1.1 J	M	8.6597	ug/L
Unknown Hydrocarbon		1.6 J	M	8.9215	ug/L
Unknown Hydrocarbon		2.0 J	M	9.2046	ug/L
Unknown Hydrocarbon		1.7 J	M	9.5252	ug/L
Unknown Hydrocarbon		1.1 J	M	10.315	ug/L
Unknown		4.4 J	M	10.818	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGCBPmw-007C-0125-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-017 Work Order #...: HL0461AC Matrix.....: WG
Date Sampled...: 10/03/05 10:26 Date Received..: 10/04/05
Prep Date.....: 10/05/05 Analysis Date..: 10/10/05
Prep Batch #...: 5278036
Dilution Factor: 1 Initial Wgt/Vol: 1050 mL Final Wgt/Vol..: 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	1.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	2.0	ug/L
2,4-Dichlorophenol	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	2.0	ug/L
Naphthalene	ND	1.0	ug/L
4-Chloroaniline	ND	0.20	ug/L
Hexachlorobutadiene	ND	2.0	ug/L
4-Chloro-3-methylphenol	ND	1.0	ug/L
2-Methylnaphthalene	ND	2.0	ug/L
Hexachlorocyclopenta-diene	ND	0.20	ug/L
2,4,6-Trichloro-phenol	ND	10	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	5.0	ug/L
2-Nitroaniline	ND	1.0	ug/L
	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGCBPmw-007C-0125-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-017 **Work Order #...:** HL0461AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.5 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.5 B**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**6.0 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGCBPmw-007C-0125-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J040187-017 Work Order #...: HL0461AC Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	77	(32 - 112)
2-Fluorobiphenyl	58	(30 - 110)
Terphenyl-d14	83	(51 - 135)
Phenol-d5	60	(10 - 117)
2-Fluorophenol	39	(19 - 108)
2,4,6-Tribromophenol	63	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGCBPmw-007C-0125-GW

GC/MS Semivolatiles

Lot-Sample #: A5J040187-017 **Work Order #:** HL0461AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown Organic Acid		1.2 J	M	5.6252	ug/L
Diethyltoluamide	134-62-3	5.1 NJ	M	5.7694	ug/L
Unknown		1.2 J	M	7.917	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL19V1AA **Matrix.....:** WATER
MB Lot-Sample #: A5J050000-036

Prep Date.....: 10/05/05 **Final Wgt/Vol..:** 2 mL
Analysis Date..: 10/10/05 **Prep Batch #...:** 5278036
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzoic acid	ND	10	ug/L	SW846 8270C
Benzyl alcohol	ND	5.0	ug/L	SW846 8270C
Phenol	ND	1.0	ug/L	SW846 8270C
bis(2-Chloroethyl)-ether	ND	1.0	ug/L	SW846 8270C
2-Chlorophenol	ND	1.0	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
2-Methylphenol	ND	1.0	ug/L	SW846 8270C
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L	SW846 8270C
4-Methylphenol	ND	1.0	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L	SW846 8270C
Hexachloroethane	ND	1.0	ug/L	SW846 8270C
Nitrobenzene	ND	1.0	ug/L	SW846 8270C
Isophorone	ND	1.0	ug/L	SW846 8270C
2-Nitrophenol	ND	2.0	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	2.0	ug/L	SW846 8270C
bis(2-Chloroethoxy) methane	ND	1.0	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	2.0	ug/L	SW846 8270C
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8270C
Naphthalene	ND	0.20	ug/L	SW846 8270C
4-Chloroaniline	ND	2.0	ug/L	SW846 8270C
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	2.0	ug/L	SW846 8270C
2-Methylnaphthalene	ND	0.20	ug/L	SW846 8270C
Hexachlorocyclopenta-diene	ND	10	ug/L	SW846 8270C
2,4,6-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2,4,5-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2-Chloronaphthalene	ND	1.0	ug/L	SW846 8270C
2-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Dimethyl phthalate	ND	1.0	ug/L	SW846 8270C
Acenaphthylene	ND	0.20	ug/L	SW846 8270C
2,6-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL19V1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
3-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Acenaphthene	ND	0.20	ug/L	SW846 8270C
2,4-Dinitrophenol	ND	5.0	ug/L	SW846 8270C
4-Nitrophenol	ND	5.0	ug/L	SW846 8270C
Dibenzofuran	ND	1.0	ug/L	SW846 8270C
2,4-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C
Diethyl phthalate	**0.41 J**	**1.0**	**ug/L**	**SW846 8270C**
4-Chlorophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Fluorene	ND	0.20	ug/L	SW846 8270C
4-Nitroaniline	ND	2.0	ug/L	SW846 8270C
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L	SW846 8270C
N-Nitrosodiphenylamine	ND	1.0	ug/L	SW846 8270C
4-Bromophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Hexachlorobenzene	ND	0.20	ug/L	SW846 8270C
Pentachlorophenol	ND	5.0	ug/L	SW846 8270C
Phenanthrene	ND	0.20	ug/L	SW846 8270C
Anthracene	ND	0.20	ug/L	SW846 8270C
Carbazole	ND	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	**1.7**	**1.0**	**ug/L**	**SW846 8270C**
Fluoranthene	ND	0.20	ug/L	SW846 8270C
Pyrene	ND	0.20	ug/L	SW846 8270C
Butyl benzyl phthalate	**1.6**	**1.0**	**ug/L**	**SW846 8270C**
3,3'-Dichlorobenzidine	ND	5.0	ug/L	SW846 8270C
Benzo(a)anthracene	ND	0.20	ug/L	SW846 8270C
Chrysene	ND	0.20	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	**3.0**	**1.0**	**ug/L**	**SW846 8270C**
Di-n-octyl phthalate	ND	1.0	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(a)pyrene	ND	0.20	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	0.20	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	0.20	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	71	(32 - 112)
2-Fluorobiphenyl	54	(30 - 110)
Terphenyl-d14	80	(51 - 135)
Phenol-d5	53	(10 - 117)
2-Fluorophenol	40	(19 - 108)

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL19V1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,4,6-Tribromophenol	56	(42 - 124)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

SpecPro Inc

Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: A5J050000-036 B **Work Order #:** HL19V1AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		3.3 J	M	2.6928	ug/L
Unknown		1.6 J	M	4.1565	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL19V1AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J050000-036
Prep Date.....: 10/05/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5278036
Dilution Factor: 1 **Final Wgt/Vol..:** 2 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Phenol	**65**	**(10 - 116)**	**SW846 8270C**
2-Chlorophenol	**52**	**(37 - 106)**	**SW846 8270C**
1,4-Dichlorobenzene	**49**	**(32 - 98)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**82**	**(30 - 115)**	**SW846 8270C**
1,2,4-Trichloro-benzene	**52**	**(31 - 110)**	**SW846 8270C**
4-Chloro-3-methylphenol	**73**	**(47 - 111)**	**SW846 8270C**
Acenaphthene	**68**	**(39 - 118)**	**SW846 8270C**
4-Nitrophenol	**71**	**(10 - 123)**	**SW846 8270C**
2,4-Dinitrotoluene	**75**	**(47 - 131)**	**SW846 8270C**
Pentachlorophenol	**60**	**(38 - 117)**	**SW846 8270C**
Pyrene	**86**	**(46 - 130)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	75	(32 - 112)
2-Fluorobiphenyl	62	(30 - 110)
Terphenyl-d14	82	(51 - 135)
Phenol-d5	57	(10 - 117)
2-Fluorophenol	43	(19 - 108)
2,4,6-Tribromophenol	65	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL19V1AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J050000-036
Prep Date.....: 10/05/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5278036
Dilution Factor: 1 **Final Wgt/Vol..:** 2 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Phenol	**20**	**13**	**ug/L**	**65**	**SW846 8270C**
2-Chlorophenol	**20**	**10**	**ug/L**	**52**	**SW846 8270C**
1,4-Dichlorobenzene	**20**	**9.9**	**ug/L**	**49**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**20**	**16**	**ug/L**	**82**	**SW846 8270C**
1,2,4-Trichloro-benzene	**20**	**10**	**ug/L**	**52**	**SW846 8270C**
4-Chloro-3-methylphenol	**20**	**15**	**ug/L**	**73**	**SW846 8270C**
Acenaphthene	**20**	**14**	**ug/L**	**68**	**SW846 8270C**
4-Nitrophenol	**20**	**14**	**ug/L**	**71**	**SW846 8270C**
2,4-Dinitrotoluene	**20**	**15**	**ug/L**	**75**	**SW846 8270C**
Pentachlorophenol	**20**	**12**	**ug/L**	**60**	**SW846 8270C**
Pyrene	**20**	**17**	**ug/L**	**86**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	75	(32 - 112)
2-Fluorobiphenyl	62	(30 - 110)
Terphenyl-d14	82	(51 - 135)
Phenol-d5	57	(10 - 117)
2-Fluorophenol	43	(19 - 108)
2,4,6-Tribromophenol	65	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J040187 Work Order #...: HL0461AM-MS Matrix.....: WG
MS Lot-Sample #: A5J040187-017 HL0461AN-MSD
Date Sampled...: 10/03/05 10:26 Date Received..: 10/04/05
Prep Date.....: 10/05/05 Analysis Date..: 10/10/05
Prep Batch #...: 5278036
Dilution Factor: 1 Initial Wgt/Vol: 500 mL Final Wgt/Vol..: 2 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Phenol	58	(10 - 116)			SW846 8270C
	79	(10 - 116)	32	(0-43)	SW846 8270C
2-Chlorophenol	51	(37 - 106)			SW846 8270C
	58	(37 - 106)	14	(0-43)	SW846 8270C
1,4-Dichlorobenzene	54	(32 - 98)			SW846 8270C
	55	(32 - 98)	1.2	(0-36)	SW846 8270C
N-Nitrosodi-n-propyl-amine	81	(18 - 115)			SW846 8270C
	89	(18 - 115)	9.3	(0-36)	SW846 8270C
1,2,4-Trichloro-benzene	50	(22 - 110)			SW846 8270C
	59	(22 - 110)	17	(0-37)	SW846 8270C
4-Chloro-3-methylphenol	72	(47 - 111)			SW846 8270C
	77	(47 - 111)	6.7	(0-55)	SW846 8270C
Acenaphthene	69	(26 - 118)			SW846 8270C
	76	(26 - 118)	9.8	(0-35)	SW846 8270C
4-Nitrophenol	71	(10 - 123)			SW846 8270C
	77	(10 - 123)	7.6	(0-34)	SW846 8270C
2,4-Dinitrotoluene	76	(31 - 131)			SW846 8270C
	80	(31 - 131)	5.0	(0-32)	SW846 8270C
Pentachlorophenol	62	(38 - 137)			SW846 8270C
	65	(38 - 137)	3.6	(0-56)	SW846 8270C
Pyrene	87	(27 - 138)			SW846 8270C
	91	(27 - 138)	4.5	(0-31)	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	74	(32 - 112)
	84	(32 - 112)
2-Fluorobiphenyl	60	(30 - 110)
	68	(30 - 110)
Terphenyl-d14	85	(51 - 135)
	86	(51 - 135)
Phenol-d5	56	(10 - 117)
	62	(10 - 117)
2-Fluorophenol	35	(19 - 108)
	45	(19 - 108)

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL0461AM-MS **Matrix.....:** WG
MS Lot-Sample #: A5J040187-017 HL0461AN-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	65	(42 - 124)
	68	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL0461AM-MS **Matrix.....:** WG
MS Lot-Sample #: A5J040187-017 HL0461AN-MSD
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/05/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5278036
Dilution Factor: 1 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 2 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Phenol	ND	40	23	ug/L	58		SW846 8270C
	ND	40	32	ug/L	79	32	SW846 8270C
2-Chlorophenol	ND	40	20	ug/L	51		SW846 8270C
	ND	40	23	ug/L	58	14	SW846 8270C
1,4-Dichlorobenzene	ND	40	22	ug/L	54		SW846 8270C
	ND	40	22	ug/L	55	1.2	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	40	32	ug/L	81		SW846 8270C
	ND	40	35	ug/L	89	9.3	SW846 8270C
1,2,4-Trichloro-benzene	ND	40	20	ug/L	50		SW846 8270C
	ND	40	24	ug/L	59	17	SW846 8270C
4-Chloro-3-methylphenol	ND	40	29	ug/L	72		SW846 8270C
	ND	40	31	ug/L	77	6.7	SW846 8270C
Acenaphthene	ND	40	28	ug/L	69		SW846 8270C
	ND	40	30	ug/L	76	9.8	SW846 8270C
4-Nitrophenol	ND	40	28	ug/L	71		SW846 8270C
	ND	40	31	ug/L	77	7.6	SW846 8270C
2,4-Dinitrotoluene	ND	40	31	ug/L	76		SW846 8270C
	ND	40	32	ug/L	80	5.0	SW846 8270C
Pentachlorophenol	ND	40	25	ug/L	62		SW846 8270C
	ND	40	26	ug/L	65	3.6	SW846 8270C
Pyrene	ND	40	35	ug/L	87		SW846 8270C
	ND	40	37	ug/L	91	4.5	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	74	(32 - 112)
	84	(32 - 112)
2-Fluorobiphenyl	60	(30 - 110)
	68	(30 - 110)
Terphenyl-d14	85	(51 - 135)
	86	(51 - 135)
Phenol-d5	56	(10 - 117)
	62	(10 - 117)
2-Fluorophenol	35	(19 - 108)
	45	(19 - 108)

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL0461AM-MS **Matrix.....:** WG
MS Lot-Sample #: A5J040187-017 HL0461AN-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	65	(42 - 124)
	68	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

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PESTICIDE DATA

SpecPro Inc

Client Sample ID: FWGRQLmw-009C-0134-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-001 **Work Order #...:** HL0MV1AD **Matrix.....:** WG
Date Sampled...: 10/03/05 14:55 **Date Received..:** 10/04/05
Prep Date.....: 10/04/05 **Analysis Date..:** 10/09/05
Prep Batch #...: 5277374
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	77	(39 - 130)
Decachlorobiphenyl	19	(10 - 147)

SpecPro Inc

Client Sample ID: FWGRQLmw-009C-0134-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-001 **Work Order #...:** HL0MV2AD **Matrix.....:** WG
Date Sampled...: 10/03/05 14:55 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5285047
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	65	(39 - 130)
Decachlorobiphenyl	18	(10 - 147)

SpecPro Inc

Client Sample ID: FWGBKGmw-012C-0099-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-003 **Work Order #...:** HL0021AD **Matrix.....:** WG
Date Sampled...: 10/03/05 11:52 **Date Received..:** 10/04/05
Prep Date.....: 10/04/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5277374
Dilution Factor: 1 **Initial Wgt/Vol:** 1030 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	31 *	(39 - 130)
Decachlorobiphenyl	21	(10 - 147)

NOTE(S):

* Surrogate recovery is outside stated control limits.

SpecPro Inc

Client Sample ID: FWGBKGmw-012C-0099-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-003 **Work Order #...:** HL0022AD **Matrix.....:** WG
Date Sampled...: 10/03/05 11:52 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5285047
Dilution Factor: 1 **Initial Wgt/Vol:** 1020 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	77	(39 - 130)
Decachlorobiphenyl	31	(10 - 147)

SpecPro Inc

Client Sample ID: FWGRQLmw-007C-0132-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-005 **Work Order #...:** HL01E1AD **Matrix.....:** WG
Date Sampled...: 10/03/05 14:46 **Date Received..:** 10/04/05
Prep Date.....: 10/04/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5277374
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	59	(39 - 130)
Decachlorobiphenyl	15	(10 - 147)

SpecPro Inc

Client Sample ID: FWGRQLmw-007C-0132-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-005 **Work Order #...:** HL01E2AD **Matrix.....:** WG
Date Sampled...: 10/03/05 14:46 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5285047
Dilution Factor: 1 **Initial Wgt/Vol:** 1030 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	55	(39 - 130)
Decachlorobiphenyl	19	(10 - 147)

SpecPro Inc

Client Sample ID: FWGLL12mw-186C-0123-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-007 **Work Order #...:** HL01L1AD **Matrix.....:** WG
Date Sampled...: 10/03/05 10:32 **Date Received..:** 10/04/05
Prep Date.....: 10/04/05 **Analysis Date..:** 10/09/05
Prep Batch #...: 5277374
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	**0.053**	**0.030**	**ug/L**
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	47	(39 - 130)
Decachlorobiphenyl	9.4 *	(10 - 147)

NOTE(S):

* Surrogate recovery is outside stated control limits.

SpecPro Inc

Client Sample ID: FWGLL12mw-186C-0123-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-007 **Work Order #...:** HL01L2AD **Matrix.....:** WG
Date Sampled...: 10/03/05 10:32 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5285047
Dilution Factor: 1 **Initial Wgt/Vol:** 1030 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	37 *	(39 - 130)
Decachlorobiphenyl	25	(10 - 147)

NOTE(S):

* Surrogate recovery is outside stated control limits.

SpecPro Inc

Client Sample ID: FWGCBPmw-005C-0124-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-009 **Work Order #...:** HL0101AD **Matrix.....:** WG
Date Sampled...: 10/03/05 12:00 **Date Received..:** 10/04/05
Prep Date.....: 10/04/05 **Analysis Date..:** 10/09/05
Prep Batch #...: 5277374
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	109	(39 - 130)
Decachlorobiphenyl	30	(10 - 147)

SpecPro Inc

Client Sample ID: FWGCBPmw-005C-0124-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-009 **Work Order #...:** HL0102AD **Matrix.....:** WG
Date Sampled...: 10/03/05 12:00 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5285047
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	56	(39 - 130)
Decachlorobiphenyl	21	(10 - 147)

SpecPro Inc

Client Sample ID: FWGRQLmw-008C-0133-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-011 **Work Order #...:** HL0191AD **Matrix.....:** WG
Date Sampled...: 10/03/05 15:04 **Date Received..:** 10/04/05
Prep Date.....: 10/04/05 **Analysis Date..:** 10/09/05
Prep Batch #...: 5277374
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	57	(39 - 130)
Decachlorobiphenyl	25	(10 - 147)

SpecPro Inc

Client Sample ID: FWGRQLmw-008C-0133-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-011 **Work Order #...:** HL0192AD **Matrix.....:** WG
Date Sampled...: 10/03/05 15:04 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5285047
Dilution Factor: 1 **Initial Wgt/Vol:** 990 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	51	(39 - 130)
Decachlorobiphenyl	12	(10 - 147)

SpecPro Inc

Client Sample ID: FWGLL12mw-182C-0121-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-013 **Work Order #...:** HL03H1AD **Matrix.....:** WG
Date Sampled...: 10/03/05 12:30 **Date Received..:** 10/04/05
Prep Date.....: 10/04/05 **Analysis Date..:** 10/09/05
Prep Batch #...: 5277374
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	76	(39 - 130)
Decachlorobiphenyl	41	(10 - 147)

SpecPro Inc

Client Sample ID: FWGLL12mw-182C-0121-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-013 **Work Order #...:** HL03H2AD **Matrix.....:** WG
Date Sampled...: 10/03/05 12:30 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5285047
Dilution Factor: 1 **Initial Wgt/Vol:** 1020 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	75	(39 - 130)
Decachlorobiphenyl	23	(10 - 147)

SpecPro Inc

Client Sample ID: FWGLL12mw-183C-0122-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-015 **Work Order #...:** HL0331AD **Matrix.....:** WG
Date Sampled...: 10/03/05 **Date Received..:** 10/04/05
Prep Date.....: 10/04/05 **Analysis Date..:** 10/09/05
Prep Batch #...: 5277374
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	89	(39 - 130)
Decachlorobiphenyl	27	(10 - 147)

SpecPro Inc

Client Sample ID: FWGLL12mw-183C-0122-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-015 **Work Order #...:** HL0332AD **Matrix.....:** WG
Date Sampled...: 10/03/05 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5285047
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	60	(39 - 130)
Decachlorobiphenyl	22	(10 - 147)

SpecPro Inc

Client Sample ID: FWGCBPmw-007C-0125-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-017 **Work Order #...:** HL0461AD **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/04/05 **Analysis Date..:** 10/09/05
Prep Batch #...: 5277374
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	85	(39 - 130)
Decachlorobiphenyl	33	(10 - 147)

SpecPro Inc

Client Sample ID: FWGCBPmw-007C-0125-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-017 **Work Order #...:** HL0462AD **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5285047
Dilution Factor: 1 **Initial Wgt/Vol:** 1020 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	52	(39 - 130)
Decachlorobiphenyl	30	(10 - 147)

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL08M1AA **Matrix.....:** WATER
MB Lot-Sample #: A5J040000-374

Prep Date.....: 10/04/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/09/05 **Prep Batch #...:** 5277374
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
alpha-BHC	ND	0.030	ug/L	SW846 8081A
beta-BHC	ND	0.030	ug/L	SW846 8081A
delta-BHC	ND	0.030	ug/L	SW846 8081A
gamma-BHC (Lindane)	ND	0.030	ug/L	SW846 8081A
Heptachlor	ND	0.030	ug/L	SW846 8081A
Aldrin	ND	0.030	ug/L	SW846 8081A
Heptachlor epoxide	ND	0.030	ug/L	SW846 8081A
Endosulfan I	ND	0.030	ug/L	SW846 8081A
Dieldrin	ND	0.030	ug/L	SW846 8081A
4,4'-DDE	ND	0.030	ug/L	SW846 8081A
Endrin	ND	0.030	ug/L	SW846 8081A
Endosulfan II	ND	0.030	ug/L	SW846 8081A
4,4'-DDD	ND	0.030	ug/L	SW846 8081A
Endosulfan sulfate	ND	0.030	ug/L	SW846 8081A
4,4'-DDT	ND	0.030	ug/L	SW846 8081A
Methoxychlor	ND	0.10	ug/L	SW846 8081A
Endrin ketone	ND	0.030	ug/L	SW846 8081A
Endrin aldehyde	ND	0.030	ug/L	SW846 8081A
alpha-Chlordane	ND	0.030	ug/L	SW846 8081A
gamma-Chlordane	ND	0.030	ug/L	SW846 8081A
Toxaphene	ND	2.0	ug/L	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	86	(39 - 130)
Decachlorobiphenyl	56	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HMHGW1AA **Matrix.....:** WATER
MB Lot-Sample #: A5J120000-047

Prep Date.....: 10/12/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/14/05 **Prep Batch #...:** 5285047
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
alpha-BHC	ND	0.030	ug/L	SW846 8081A
beta-BHC	ND	0.030	ug/L	SW846 8081A
delta-BHC	ND	0.030	ug/L	SW846 8081A
gamma-BHC (Lindane)	ND	0.030	ug/L	SW846 8081A
Heptachlor	ND	0.030	ug/L	SW846 8081A
Aldrin	ND	0.030	ug/L	SW846 8081A
Heptachlor epoxide	ND	0.030	ug/L	SW846 8081A
Endosulfan I	ND	0.030	ug/L	SW846 8081A
Dieldrin	ND	0.030	ug/L	SW846 8081A
4,4'-DDE	ND	0.030	ug/L	SW846 8081A
Endrin	ND	0.030	ug/L	SW846 8081A
Endosulfan II	ND	0.030	ug/L	SW846 8081A
4,4'-DDD	ND	0.030	ug/L	SW846 8081A
Endosulfan sulfate	ND	0.030	ug/L	SW846 8081A
4,4'-DDT	ND	0.030	ug/L	SW846 8081A
Methoxychlor	ND	0.10	ug/L	SW846 8081A
Endrin ketone	ND	0.030	ug/L	SW846 8081A
Endrin aldehyde	ND	0.030	ug/L	SW846 8081A
alpha-Chlordane	ND	0.030	ug/L	SW846 8081A
gamma-Chlordane	ND	0.030	ug/L	SW846 8081A
Toxaphene	ND	2.0	ug/L	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	81	(39 - 130)
Decachlorobiphenyl	36	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL08M1AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J040000-374
Prep Date.....: 10/04/05 **Analysis Date..:** 10/09/05
Prep Batch #...: 5277374
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
gamma-BHC (Lindane)	**81**	**(49 - 137)**	**SW846 8081A**
Heptachlor	**76**	**(57 - 124)**	**SW846 8081A**
Aldrin	**78**	**(62 - 120)**	**SW846 8081A**
Dieldrin	**78**	**(68 - 130)**	**SW846 8081A**
Endrin	**83**	**(46 - 137)**	**SW846 8081A**
4,4'-DDT	**66**	**(60 - 140)**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	0.0 *	(39 - 130)
Decachlorobiphenyl	0.0 *	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

* Surrogate recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL08M1AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J040000-374
Prep Date.....: 10/04/05 **Analysis Date..:** 10/09/05
Prep Batch #...: 5277374
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
gamma-BHC (Lindane)	**1.0**	**0.81**	**ug/L**	**81**	**SW846 8081A**
Heptachlor	**1.0**	**0.76**	**ug/L**	**76**	**SW846 8081A**
Aldrin	**1.0**	**0.78**	**ug/L**	**78**	**SW846 8081A**
Dieldrin	**1.0**	**0.78**	**ug/L**	**78**	**SW846 8081A**
Endrin	**1.0**	**0.83**	**ug/L**	**83**	**SW846 8081A**
4,4'-DDT	**1.0**	**0.66**	**ug/L**	**66**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	0.0 *	(39 - 130)
Decachlorobiphenyl	0.0 *	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

* Surrogate recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HMHGW1AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J120000-047
Prep Date.....: 10/12/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5285047
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
gamma-BHC (Lindane)	**81**	**(49 - 137)**	**SW846 8081A**
Heptachlor	**75**	**(57 - 124)**	**SW846 8081A**
Aldrin	**82**	**(62 - 120)**	**SW846 8081A**
Dieldrin	**78**	**(68 - 130)**	**SW846 8081A**
Endrin	**81**	**(46 - 137)**	**SW846 8081A**
4,4'-DDT	**80**	**(60 - 140)**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	78	(39 - 130)
Decachlorobiphenyl	35	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HMHGW1AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J120000-047
Prep Date.....: 10/12/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5285047
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
gamma-BHC (Lindane)	**1.0**	**0.81**	**ug/L**	**81**	**SW846 8081A**
Heptachlor	**1.0**	**0.75**	**ug/L**	**75**	**SW846 8081A**
Aldrin	**1.0**	**0.82**	**ug/L**	**82**	**SW846 8081A**
Dieldrin	**1.0**	**0.78**	**ug/L**	**78**	**SW846 8081A**
Endrin	**1.0**	**0.81**	**ug/L**	**81**	**SW846 8081A**
4,4'-DDT	**1.0**	**0.80**	**ug/L**	**80**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	78	(39 - 130)
Decachlorobiphenyl	35	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL0461AP-MS **Matrix.....:** WG
MS Lot-Sample #: A5J040187-017 HL0461AQ-MSD
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/04/05 **Analysis Date..:** 10/09/05
Prep Batch #...: 5277374
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
gamma-BHC (Lindane)	**76**	**(30 - 148)**			**SW846 8081A**
	78	**(30 - 148)**	**3.9**	**(0-22)**	**SW846 8081A**
Heptachlor	**74**	**(30 - 150)**			**SW846 8081A**
	80	**(30 - 150)**	**7.0**	**(0-32)**	**SW846 8081A**
Aldrin	**75**	**(30 - 150)**			**SW846 8081A**
	81	**(30 - 150)**	**7.4**	**(0-33)**	**SW846 8081A**
Dieldrin	**73**	**(35 - 141)**			**SW846 8081A**
	78	**(35 - 141)**	**6.6**	**(0-37)**	**SW846 8081A**
Endrin	**79**	**(30 - 150)**			**SW846 8081A**
	84	**(30 - 150)**	**6.4**	**(0-40)**	**SW846 8081A**
4,4'-DDT	**60**	**(30 - 150)**			**SW846 8081A**
	67	**(30 - 150)**	**9.7**	**(0-50)**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	79	(39 - 130)
	82	(39 - 130)
Decachlorobiphenyl	54	(10 - 147)
	65	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL0461AP-MS **Matrix.....:** WG
MS Lot-Sample #: A5J040187-017 HL0461AQ-MSD
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/04/05 **Analysis Date..:** 10/09/05
Prep Batch #...: 5277374
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
gamma-BHC (Lindane)	ND	2.0	1.5	ug/L	76		SW846 8081A
	ND	2.0	1.6	ug/L	78	3.9	SW846 8081A
Heptachlor	ND	2.0	1.5	ug/L	74		SW846 8081A
	ND	2.0	1.6	ug/L	80	7.0	SW846 8081A
Aldrin	ND	2.0	1.5	ug/L	75		SW846 8081A
	ND	2.0	1.6	ug/L	81	7.4	SW846 8081A
Dieldrin	ND	2.0	1.5	ug/L	73		SW846 8081A
	ND	2.0	1.6	ug/L	78	6.6	SW846 8081A
Endrin	ND	2.0	1.6	ug/L	79		SW846 8081A
	ND	2.0	1.7	ug/L	84	6.4	SW846 8081A
4,4'-DDT	ND	2.0	1.2	ug/L	60		SW846 8081A
	ND	2.0	1.3	ug/L	67	9.7	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	79	(39 - 130)
	82	(39 - 130)
Decachlorobiphenyl	54	(10 - 147)
	65	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL0461A4-MS **Matrix.....:** WG
MS Lot-Sample #: A5J040187-017 HL0461A5-MSD
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5285047
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
gamma-BHC (Lindane)	**73**	**(30 - 148)**			**SW846 8081A**
	49 p	**(30 - 148)**	**40**	**(0-22)**	**SW846 8081A**
Heptachlor	**66**	**(30 - 150)**			**SW846 8081A**
	43 p	**(30 - 150)**	**42**	**(0-32)**	**SW846 8081A**
Aldrin	**70**	**(30 - 150)**			**SW846 8081A**
	46 p	**(30 - 150)**	**41**	**(0-33)**	**SW846 8081A**
Dieldrin	**68**	**(35 - 141)**			**SW846 8081A**
	45 p	**(35 - 141)**	**41**	**(0-37)**	**SW846 8081A**
Endrin	**55**	**(30 - 150)**			**SW846 8081A**
	45	**(30 - 150)**	**21**	**(0-40)**	**SW846 8081A**
4,4'-DDT	**59**	**(30 - 150)**			**SW846 8081A**
	41	**(30 - 150)**	**36**	**(0-50)**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	70	(39 - 130)
	46	(39 - 130)
Decachlorobiphenyl	49	(10 - 147)
	31	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J040187 Work Order #...: HL0461A4-MS Matrix.....: WG
MS Lot-Sample #: A5J040187-017 HL0461A5-MSD
Date Sampled...: 10/03/05 10:26 Date Received..: 10/04/05
Prep Date.....: 10/12/05 Analysis Date..: 10/14/05
Prep Batch #...: 5285047
Dilution Factor: 2 Initial Wgt/Vol: 500 mL Final Wgt/Vol..: 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
gamma-BHC (Lindane)	ND	2.0	1.5	ug/L	73		SW846 8081A
	ND	2.0	0.97	ug/L	49 p	40	SW846 8081A
Heptachlor	ND	2.0	1.3	ug/L	66		SW846 8081A
	ND	2.0	0.86	ug/L	43 p	42	SW846 8081A
Aldrin	ND	2.0	1.4	ug/L	70		SW846 8081A
	ND	2.0	0.92	ug/L	46 p	41	SW846 8081A
Dieldrin	ND	2.0	1.4	ug/L	68		SW846 8081A
	ND	2.0	0.90	ug/L	45 p	41	SW846 8081A
Endrin	ND	2.0	1.1	ug/L	55		SW846 8081A
	ND	2.0	0.89	ug/L	45	21	SW846 8081A
4,4'-DDT	ND	2.0	1.2	ug/L	59		SW846 8081A
	ND	2.0	0.82	ug/L	41	36	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	70	(39 - 130)
	46	(39 - 130)
Decachlorobiphenyl	49	(10 - 147)
	31	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

SEVERN TRENT STL

POLYCHLORINATED BIPHENYLS DATA

SpecPro Inc

Client Sample ID: FWGRQLmw-009C-0134-GW

GC Semivolatiles

Lot-Sample #...:	A5J040187-001	**Work Order #...:**	HL0MV1AE	**Matrix.....:**	WG
Date Sampled...:	10/03/05 14:55	**Date Received..:**	10/04/05		
Prep Date.....:	10/04/05	**Analysis Date..:**	10/20/05		
Prep Batch #...:	5277376				
Dilution Factor:	1	**Initial Wgt/Vol:**	1040 mL	**Final Wgt/Vol..:**	5 mL
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	96	(35 - 130)
Decachlorobiphenyl	24	(10 - 110)

SpecPro Inc

Client Sample ID: FWGBKGmw-012C-0099-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-003 **Work Order #...:** HL0021AE **Matrix.....:** WG
Date Sampled...: 10/03/05 11:52 **Date Received..:** 10/04/05
Prep Date.....: 10/04/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5277376
Dilution Factor: 1 **Initial Wgt/Vol:** 1030 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	85	(35 - 130)
Decachlorobiphenyl	27	(10 - 110)

SpecPro Inc

Client Sample ID: FWGRQLmw-007C-0132-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-005	**Work Order #...:** HL01E1AE	**Matrix.....:** WG	
Date Sampled...: 10/03/05 14:46	**Date Received..:** 10/04/05		
Prep Date.....: 10/04/05	**Analysis Date..:** 10/20/05		
Prep Batch #...: 5277376			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	82	(35 - 130)
Decachlorobiphenyl	31	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL12mw-186C-0123-GW

GC Semivolatiles

Lot-Sample #...:	A5J040187-007	**Work Order #...:**	HL01L1AE	**Matrix.....:**	WG
Date Sampled...:	10/03/05 10:32	**Date Received..:**	10/04/05		
Prep Date.....:	10/04/05	**Analysis Date..:**	10/20/05		
Prep Batch #...:	5277376				
Dilution Factor:	1	**Initial Wgt/Vol:**	1050 mL	**Final Wgt/Vol..:**	5 mL
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	51	(35 - 130)
Decachlorobiphenyl	13	(10 - 110)

SpecPro Inc

Client Sample ID: FWGCBPmw-005C-0124-GW

GC Semivolatiles

Lot-Sample #...:	A5J040187-009	**Work Order #...:**	HL0101AE	**Matrix.....:**	WG
Date Sampled...:	10/03/05 12:00	**Date Received..:**	10/04/05		
Prep Date.....:	10/04/05	**Analysis Date..:**	10/20/05		
Prep Batch #...:	5277376				
Dilution Factor:	1	**Initial Wgt/Vol:**	1040 mL	**Final Wgt/Vol..:**	5 mL
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	114	(35 - 130)
Decachlorobiphenyl	40	(10 - 110)

SpecPro Inc

Client Sample ID: FWGRQLmw-008C-0133-GW

GC Semivolatiles

Lot-Sample #...:	A5J040187-011	**Work Order #...:**	HL0191AE	**Matrix.....:**	WG
Date Sampled...:	10/03/05 15:04	**Date Received..:**	10/04/05		
Prep Date.....:	10/04/05	**Analysis Date..:**	10/20/05		
Prep Batch #...:	5277376				
Dilution Factor:	1	**Initial Wgt/Vol:**	1050 mL	**Final Wgt/Vol..:**	5 mL
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	81	(35 - 130)
Decachlorobiphenyl	33	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL12mw-182C-0121-GW

GC Semivolatiles

Lot-Sample #...:	A5J040187-013	**Work Order #...:**	HL03H1AE	**Matrix.....:**	WG
Date Sampled...:	10/03/05 12:30	**Date Received..:**	10/04/05		
Prep Date.....:	10/04/05	**Analysis Date..:**	10/20/05		
Prep Batch #...:	5277376				
Dilution Factor:	1	**Initial Wgt/Vol:**	1050 mL	**Final Wgt/Vol..:**	5 mL
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	86	(35 - 130)
Decachlorobiphenyl	52	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL12mw-183C-0122-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-015	**Work Order #...:** HL0331AE	**Matrix.....:** WG	
Date Sampled...: 10/03/05	**Date Received..:** 10/04/05		
Prep Date.....: 10/04/05	**Analysis Date..:** 10/20/05		
Prep Batch #...: 5277376			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	92	(35 - 130)
Decachlorobiphenyl	32	(10 - 110)

SpecPro Inc

Client Sample ID: FWGCBPmw-007C-0125-GW

GC Semivolatiles

Lot-Sample #...: A5J040187-017	**Work Order #...:** HL0461AE	**Matrix.....:** WG	
Date Sampled...: 10/03/05 10:26	**Date Received..:** 10/04/05		
Prep Date.....: 10/04/05	**Analysis Date..:** 10/20/05		
Prep Batch #...: 5277376			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	94	(35 - 130)
Decachlorobiphenyl	40	(10 - 110)

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL08Q1AA **Matrix.....:** WATER
MB Lot-Sample #: A5J040000-376

Prep Date.....: 10/04/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/20/05 **Prep Batch #...:** 5277376
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	1.0	ug/L	SW846 8082
Aroclor 1221	ND	1.0	ug/L	SW846 8082
Aroclor 1232	ND	1.0	ug/L	SW846 8082
Aroclor 1242	ND	1.0	ug/L	SW846 8082
Aroclor 1248	ND	1.0	ug/L	SW846 8082
Aroclor 1254	ND	1.0	ug/L	SW846 8082
Aroclor 1260	ND	1.0	ug/L	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	93	(35 - 130)
Decachlorobiphenyl	67	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL08Q1AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J040000-376
Prep Date.....: 10/04/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5277376
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Aroclor 1016	**96**	**(50 - 115)**	**SW846 8082**
Aroclor 1260	**94**	**(45 - 112)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	97	(35 - 130)
Decachlorobiphenyl	56	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL08Q1AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J040000-376
Prep Date.....: 10/04/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5277376
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Aroclor 1016	**10**	**9.6**	**ug/L**	**96**	**SW846 8082**
Aroclor 1260	**10**	**9.4**	**ug/L**	**94**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	97	(35 - 130)
Decachlorobiphenyl	56	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL0461AR-MS **Matrix.....:** WG
MS Lot-Sample #: A5J040187-017 HL0461AT-MSD
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/04/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5277376
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aroclor 1016	**96**	**(10 - 200)**			**SW846 8082**
	97	**(10 - 200)**	**0.51**	**(0-30)**	**SW846 8082**
Aroclor 1260	**96**	**(10 - 150)**			**SW846 8082**
	90	**(10 - 150)**	**5.4**	**(0-30)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	96	(35 - 130)
	98	(35 - 130)
Decachlorobiphenyl	86	(10 - 110)
	79	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J040187 **Work Order #...:** HL0461AR-MS **Matrix.....:** WG
MS Lot-Sample #: A5J040187-017 HL0461AT-MSD
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/04/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5277376
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Aroclor 1016	**ND**	**20**	**19**	**ug/L**	**96**		**SW846 8082**
	ND	**20**	**19**	**ug/L**	**97**	**0.51**	**SW846 8082**
Aroclor 1260	**ND**	**20**	**19**	**ug/L**	**96**		**SW846 8082**
	ND	**20**	**18**	**ug/L**	**90**	**5.4**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	96	(35 - 130)
	98	(35 - 130)
Decachlorobiphenyl	86	(10 - 110)
	79	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SEVERN TRENT STL

METALS DATA

SpecPro Inc

Client Sample ID: FWGRQLmw-009C-0134-GF

TOTAL Metals

Lot-Sample #...: A5J040187-002 **Matrix.....:** WG
Date Sampled...: 10/03/05 14:55 **Date Received..:** 10/04/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285026						
Aluminum	ND	200	ug/L	SW846 6010B	10/12-10/13/05	HL00T1AE
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	**19.0**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL00T1AA**
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL00T1AC
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL00T1AF
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**69.3**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL00T1AG**
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL00T1AD
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL00T1AH
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL00T1AJ
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**49500**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL00T1AK**
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL00T1AL
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGRQLmw-009C-0134-GF

TOTAL Metals

Lot-Sample #...: A5J040187-002 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	**5.5 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL00T1AM**
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL00T1AN
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**16600**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL00T1AP**
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**55000**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL00T1AQ**
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**3010 J**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL00T1AR**
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**4.8 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL00T1AT**
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**8560**	**5000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL00T1AU**
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL00T1AV
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**2760**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL00T1AW**
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL00T1AX
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGRQLmw-009C-0134-GF

TOTAL Metals

Lot-Sample #...: A5J040187-002 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL00T1A0
		Dilution Factor: 1		Analysis Time..: 01:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL00T1A2
		Dilution Factor: 1		Analysis Time..: 17:48	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	**0.27 B**	**1.0**	**ug/L**	**SW846 6020**	**10/12-10/17/05**	**HL00T1A1**
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

Client Sample ID: FWGBKGmw-012C-0099-GF

TOTAL Metals

Lot-Sample #...: A5J040187-004 **Matrix.....:** WG
Date Sampled...: 10/03/05 11:52 **Date Received..:** 10/04/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285026						
Aluminum	ND	200 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 01:39	10/12-10/13/05 Analyst ID.....: 001619	HL01C1AH
Arsenic	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 01:39	10/12-10/13/05 Analyst ID.....: 001619	HL01C1AE
Lead	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 01:39	10/12-10/13/05 Analyst ID.....: 001619	HL01C1AF
Antimony	ND	100 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 01:39	10/12-10/13/05 Analyst ID.....: 001619	HL01C1AJ
Barium	**315**	**10.0** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 01:39	**10/12-10/13/05** Analyst ID.....: 001619	**HL01C1AK**
Selenium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 01:39	10/12-10/13/05 Analyst ID.....: 001619	HL01C1AG
Beryllium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 01:39	10/12-10/13/05 Analyst ID.....: 001619	HL01C1AL
Cadmium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 01:39	10/12-10/13/05 Analyst ID.....: 001619	HL01C1AM
Calcium	**34100**	**1000** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 01:39	**10/12-10/13/05** Analyst ID.....: 001619	**HL01C1AN**
Chromium	ND	20.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 01:39	10/12-10/13/05 Analyst ID.....: 001619	HL01C1AP

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SpecPro Inc

Client Sample ID: FWGBKGmw-012C-0099-GF

TOTAL Metals

Lot-Sample #...: A5J040187-004 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL01C1AQ
		Dilution Factor: 1		Analysis Time..: 01:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL01C1AR
		Dilution Factor: 1		Analysis Time..: 01:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**341 B**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL01C1AT**
		Dilution Factor: 1		Analysis Time..: 01:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**11000**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL01C1AU**
		Dilution Factor: 1		Analysis Time..: 01:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**52.6 B,J**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL01C1AV**
		Dilution Factor: 1		Analysis Time..: 01:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL01C1AW
		Dilution Factor: 1		Analysis Time..: 01:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**5440**	**5000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL01C1AX**
		Dilution Factor: 1		Analysis Time..: 01:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL01C1A0
		Dilution Factor: 1		Analysis Time..: 01:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**38900**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL01C1A1**
		Dilution Factor: 1		Analysis Time..: 01:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL01C1A2
		Dilution Factor: 1		Analysis Time..: 01:39	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGmw-012C-0099-GF

TOTAL Metals

Lot-Sample #...: A5J040187-004 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL01C1AA
		Dilution Factor: 1		Analysis Time..: 01:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL01C1AD
		Dilution Factor: 1		Analysis Time..: 17:51	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL01C1AC
		Dilution Factor: 1		Analysis Time..: 15:09	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

Client Sample ID: FWGRQLmw-007C-0132-GF

TOTAL Metals

Lot-Sample #...: A5J040187-006 **Matrix.....:** WG
Date Sampled...: 10/03/05 14:46 **Date Received..:** 10/04/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285026						
Aluminum	ND	200 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 01:44	10/12-10/13/05 Analyst ID.....: 001619	HL01J1AH
Arsenic	**76.1**	**10.0** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 01:44	**10/12-10/13/05** Analyst ID.....: 001619	**HL01J1AE**
Lead	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 01:44	10/12-10/13/05 Analyst ID.....: 001619	HL01J1AF
Antimony	ND	100 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 01:44	10/12-10/13/05 Analyst ID.....: 001619	HL01J1AJ
Barium	**53.0**	**10.0** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 01:44	**10/12-10/13/05** Analyst ID.....: 001619	**HL01J1AK**
Selenium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 01:44	10/12-10/13/05 Analyst ID.....: 001619	HL01J1AG
Beryllium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 01:44	10/12-10/13/05 Analyst ID.....: 001619	HL01J1AL
Cadmium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 01:44	10/12-10/13/05 Analyst ID.....: 001619	HL01J1AM
Calcium	**169000**	**1000** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 01:44	**10/12-10/13/05** Analyst ID.....: 001619	**HL01J1AN**
Chromium	ND	20.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 01:44	10/12-10/13/05 Analyst ID.....: 001619	HL01J1AP

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SpecPro Inc

Client Sample ID: FWGRQLmw-007C-0132-GF

TOTAL Metals

Lot-Sample #...: A5J040187-006 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	12.1 B	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL01J1AQ
		Dilution Factor: 1		Analysis Time..: 01:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL01J1AR
		Dilution Factor: 1		Analysis Time..: 01:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	16300	1000	ug/L	SW846 6010B	10/12-10/13/05	HL01J1AT
		Dilution Factor: 1		Analysis Time..: 01:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	90400	1000	ug/L	SW846 6010B	10/12-10/13/05	HL01J1AU
		Dilution Factor: 1		Analysis Time..: 01:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	2900 J	100	ug/L	SW846 6010B	10/12-10/13/05	HL01J1AV
		Dilution Factor: 1		Analysis Time..: 01:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	18.9 B	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL01J1AW
		Dilution Factor: 1		Analysis Time..: 01:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	12000	5000	ug/L	SW846 6010B	10/12-10/13/05	HL01J1AX
		Dilution Factor: 1		Analysis Time..: 01:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL01J1A0
		Dilution Factor: 1		Analysis Time..: 01:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	12100	1000	ug/L	SW846 6010B	10/12-10/13/05	HL01J1A1
		Dilution Factor: 1		Analysis Time..: 01:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL01J1A2
		Dilution Factor: 1		Analysis Time..: 01:44	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGRQLmw-007C-0132-GF

TOTAL Metals

Lot-Sample #...: A5J040187-006 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	**10.6 B**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL01J1AA**
		Dilution Factor: 1		Analysis Time..: 01:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL01J1AD
		Dilution Factor: 1		Analysis Time..: 17:52	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	**0.039 B**	**1.0**	**ug/L**	**SW846 6020**	**10/12-10/17/05**	**HL01J1AC**
		Dilution Factor: 1		Analysis Time..: 15:13	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

Client Sample ID: FWGLL12mw-186C-0123-GF

TOTAL Metals

Lot-Sample #...: A5J040187-008 **Matrix.....:** WG
Date Sampled...: 10/03/05 10:32 **Date Received..:** 10/04/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285026						
Aluminum	ND	200	ug/L	SW846 6010B	10/12-10/13/05	HL01X1AH
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL01X1AE
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL01X1AF
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL01X1AJ
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**44.1**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL01X1AK**
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL01X1AG
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL01X1AL
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL01X1AM
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**130000**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL01X1AN**
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL01X1AP
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL12mw-186C-0123-GF

TOTAL Metals

Lot-Sample #...: A5J040187-008 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	1.5 B	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL01X1AQ
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL01X1AR
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	326 B	1000	ug/L	SW846 6010B	10/12-10/13/05	HL01X1AT
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	55500	1000	ug/L	SW846 6010B	10/12-10/13/05	HL01X1AU
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	220 J	100	ug/L	SW846 6010B	10/12-10/13/05	HL01X1AV
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	2.2 B	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL01X1AW
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	1600 B	5000	ug/L	SW846 6010B	10/12-10/13/05	HL01X1AX
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL01X1A0
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	13400	1000	ug/L	SW846 6010B	10/12-10/13/05	HL01X1A1
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL01X1A2
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL12mw-186C-0123-GF

TOTAL Metals

Lot-Sample #...: A5J040187-008 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	**6.7 B**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL01X1AA**
		Dilution Factor: 1		Analysis Time..: 02:03	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL01X1AD
		Dilution Factor: 1		Analysis Time..: 17:55	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL01X1AC
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

Client Sample ID: FWGCBPmw-005C-0124-GF

TOTAL Metals

Lot-Sample #...: A5J040187-010 **Matrix.....:** WG
Date Sampled...: 10/03/05 12:00 **Date Received..:** 10/04/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285026						
Aluminum	ND	200 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:08	10/12-10/13/05 Analyst ID.....: 001619	HL0131AH
Arsenic	**24.2**	**10.0** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 02:08	**10/12-10/13/05** Analyst ID.....: 001619	**HL0131AE**
Lead	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:08	10/12-10/13/05 Analyst ID.....: 001619	HL0131AF
Antimony	ND	100 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:08	10/12-10/13/05 Analyst ID.....: 001619	HL0131AJ
Barium	**32.0**	**10.0** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 02:08	**10/12-10/13/05** Analyst ID.....: 001619	**HL0131AK**
Selenium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:08	10/12-10/13/05 Analyst ID.....: 001619	HL0131AG
Beryllium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:08	10/12-10/13/05 Analyst ID.....: 001619	HL0131AL
Cadmium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:08	10/12-10/13/05 Analyst ID.....: 001619	HL0131AM
Calcium	**78000**	**1000** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 02:08	**10/12-10/13/05** Analyst ID.....: 001619	**HL0131AN**
Chromium	ND	20.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:08	10/12-10/13/05 Analyst ID.....: 001619	HL0131AP

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SpecPro Inc

Client Sample ID: FWGCBPmw-005C-0124-GF

TOTAL Metals

Lot-Sample #...: A5J040187-010 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL0131AQ
		Dilution Factor: 1		Analysis Time..: 02:08	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL0131AR
		Dilution Factor: 1		Analysis Time..: 02:08	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**1100**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL0131AT**
		Dilution Factor: 1		Analysis Time..: 02:08	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**37600**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL0131AU**
		Dilution Factor: 1		Analysis Time..: 02:08	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**53.9 B,J**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL0131AV**
		Dilution Factor: 1		Analysis Time..: 02:08	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL0131AW
		Dilution Factor: 1		Analysis Time..: 02:08	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**3150 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL0131AX**
		Dilution Factor: 1		Analysis Time..: 02:08	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL0131A0
		Dilution Factor: 1		Analysis Time..: 02:08	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**26000**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL0131A1**
		Dilution Factor: 1		Analysis Time..: 02:08	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL0131A2
		Dilution Factor: 1		Analysis Time..: 02:08	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGCBPmw-005C-0124-GF

TOTAL Metals

Lot-Sample #...: A5J040187-010 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL0131AA
		Dilution Factor: 1		Analysis Time..: 02:08	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL0131AD
		Dilution Factor: 1		Analysis Time..: 17:49	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL0131AC
		Dilution Factor: 1		Analysis Time..: 15:20	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

Client Sample ID: FWGRQLmw-008C-0133-GF

TOTAL Metals

Lot-Sample #...: A5J040187-012 **Matrix.....:** WG
Date Sampled...: 10/03/05 15:04 **Date Received..:** 10/04/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285026						
Aluminum	ND	200	ug/L	SW846 6010B	10/12-10/13/05	HL03A1AH
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	**14.3**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03A1AE**
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL03A1AF
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL03A1AJ
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**160**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03A1AK**
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL03A1AG
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL03A1AL
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	**0.58 B**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03A1AM**
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**77900**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03A1AN**
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL03A1AP
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGRQLmw-008C-0133-GF

TOTAL Metals

Lot-Sample #...: A5J040187-012 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	**5.6 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03A1AQ**
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL03A1AR
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**135000**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03A1AT**
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**59100**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03A1AU**
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**1390 J**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03A1AV**
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**10.5 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03A1AW**
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**9150**	**5000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03A1AX**
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL03A1A0
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**25600**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03A1A1**
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL03A1A2
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGRQLmw-008C-0133-GF

TOTAL Metals

Lot-Sample #...: A5J040187-012 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	**14.6 B**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03A1AA**
		Dilution Factor: 1		Analysis Time..: 02:13	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL03A1AD
		Dilution Factor: 1		Analysis Time..: 17:57	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL03A1AC
		Dilution Factor: 1		Analysis Time..: 15:38	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

Client Sample ID: FWGLL12mw-182C-0121-GF

TOTAL Metals

Lot-Sample #...: A5J040187-014 **Matrix.....:** WG
Date Sampled...: 10/03/05 12:30 **Date Received..:** 10/04/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285026						
Aluminum	ND	200 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:18	10/12-10/13/05 Analyst ID.....: 001619	HL03Q1AH
Arsenic	**53.0**	**10.0** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 02:18	**10/12-10/13/05** Analyst ID.....: 001619	**HL03Q1AE**
Lead	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:18	10/12-10/13/05 Analyst ID.....: 001619	HL03Q1AF
Antimony	ND	100 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:18	10/12-10/13/05 Analyst ID.....: 001619	HL03Q1AJ
Barium	**84.5**	**10.0** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 02:18	**10/12-10/13/05** Analyst ID.....: 001619	**HL03Q1AK**
Selenium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:18	10/12-10/13/05 Analyst ID.....: 001619	HL03Q1AG
Beryllium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:18	10/12-10/13/05 Analyst ID.....: 001619	HL03Q1AL
Cadmium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:18	10/12-10/13/05 Analyst ID.....: 001619	HL03Q1AM
Calcium	**90200**	**1000** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 02:18	**10/12-10/13/05** Analyst ID.....: 001619	**HL03Q1AN**
Chromium	ND	20.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:18	10/12-10/13/05 Analyst ID.....: 001619	HL03Q1AP

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SpecPro Inc

Client Sample ID: FWGLL12mw-182C-0121-GF

TOTAL Metals

Lot-Sample #...: A5J040187-014 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL03Q1AQ
		Dilution Factor: 1		Analysis Time..: 02:18	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL03Q1AR
		Dilution Factor: 1		Analysis Time..: 02:18	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**1410**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03Q1AT**
		Dilution Factor: 1		Analysis Time..: 02:18	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**72600**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03Q1AU**
		Dilution Factor: 1		Analysis Time..: 02:18	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**57.0 B,J**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03Q1AV**
		Dilution Factor: 1		Analysis Time..: 02:18	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL03Q1AW
		Dilution Factor: 1		Analysis Time..: 02:18	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**4900 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03Q1AX**
		Dilution Factor: 1		Analysis Time..: 02:18	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL03Q1A0
		Dilution Factor: 1		Analysis Time..: 02:18	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**26800**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL03Q1A1**
		Dilution Factor: 1		Analysis Time..: 02:18	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL03Q1A2
		Dilution Factor: 1		Analysis Time..: 02:18	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL12mw-182C-0121-GF

TOTAL Metals

Lot-Sample #...: A5J040187-014 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL03Q1AA
		Dilution Factor: 1		Analysis Time..: 02:18	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL03Q1AD
		Dilution Factor: 1		Analysis Time..: 17:59	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL03Q1AC
		Dilution Factor: 1		Analysis Time..: 15:42	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

Client Sample ID: FWGLL12mw-183C-0122-GF

TOTAL Metals

Lot-Sample #...: A5J040187-016 **Matrix.....:** WG
Date Sampled...: 10/03/05 **Date Received..:** 10/04/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285026						
Aluminum	ND	200 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:23	10/12-10/13/05 Analyst ID.....: 001619	HL0441AH
Arsenic	**48.2**	**10.0** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 02:23	**10/12-10/13/05** Analyst ID.....: 001619	**HL0441AE**
Lead	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:23	10/12-10/13/05 Analyst ID.....: 001619	HL0441AF
Antimony	ND	100 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:23	10/12-10/13/05 Analyst ID.....: 001619	HL0441AJ
Barium	**76.3**	**10.0** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 02:23	**10/12-10/13/05** Analyst ID.....: 001619	**HL0441AK**
Selenium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:23	10/12-10/13/05 Analyst ID.....: 001619	HL0441AG
Beryllium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:23	10/12-10/13/05 Analyst ID.....: 001619	HL0441AL
Cadmium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:23	10/12-10/13/05 Analyst ID.....: 001619	HL0441AM
Calcium	**120000**	**1000** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 02:23	**10/12-10/13/05** Analyst ID.....: 001619	**HL0441AN**
Chromium	ND	20.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:23	10/12-10/13/05 Analyst ID.....: 001619	HL0441AP

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SpecPro Inc

Client Sample ID: FWGLL12mw-183C-0122-GF

TOTAL Metals

Lot-Sample #...: A5J040187-016 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL0441AQ
		Dilution Factor: 1		Analysis Time..: 02:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL0441AR
		Dilution Factor: 1		Analysis Time..: 02:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**1930**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL0441AT**
		Dilution Factor: 1		Analysis Time..: 02:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**47900**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL0441AU**
		Dilution Factor: 1		Analysis Time..: 02:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**72.9 B,J**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL0441AV**
		Dilution Factor: 1		Analysis Time..: 02:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL0441AW
		Dilution Factor: 1		Analysis Time..: 02:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**3720 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL0441AX**
		Dilution Factor: 1		Analysis Time..: 02:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL0441A0
		Dilution Factor: 1		Analysis Time..: 02:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**16500**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL0441A1**
		Dilution Factor: 1		Analysis Time..: 02:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL0441A2
		Dilution Factor: 1		Analysis Time..: 02:23	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL12mw-183C-0122-GF

TOTAL Metals

Lot-Sample #...: A5J040187-016 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL0441AA
		Dilution Factor: 1		Analysis Time..: 02:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL0441AD
		Dilution Factor: 1		Analysis Time..: 18:00	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL0441AC
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

Client Sample ID: FWGCBPmw-007C-0125-GF

TOTAL Metals

Lot-Sample #...: A5J040187-018 **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285026						
Aluminum	ND	200 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:28	10/12-10/13/05 Analyst ID.....: 001619	HL05D1AW
Arsenic	**9.9 B**	**10.0** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 02:28	**10/12-10/13/05** Analyst ID.....: 001619	**HL05D1AL**
Lead	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:28	10/12-10/13/05 Analyst ID.....: 001619	HL05D1AP
Antimony	ND	100 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:28	10/12-10/13/05 Analyst ID.....: 001619	HL05D1A1
Barium	**13.3**	**10.0** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 02:28	**10/12-10/13/05** Analyst ID.....: 001619	**HL05D1A4**
Selenium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:28	10/12-10/13/05 Analyst ID.....: 001619	HL05D1AT
Beryllium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:28	10/12-10/13/05 Analyst ID.....: 001619	HL05D1A7
Cadmium	ND	10.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:28	10/12-10/13/05 Analyst ID.....: 001619	HL05D1CA
Calcium	**208000**	**1000** Dilution Factor: 1 Instrument ID..: I6	**ug/L**	**SW846 6010B** Analysis Time..: 02:28	**10/12-10/13/05** Analyst ID.....: 001619	**HL05D1CE**
Chromium	ND	20.0 Dilution Factor: 1 Instrument ID..: I6	ug/L	SW846 6010B Analysis Time..: 02:28	10/12-10/13/05 Analyst ID.....: 001619	HL05D1CH

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SpecPro Inc

Client Sample ID: FWGCBPmw-007C-0125-GF

TOTAL Metals

Lot-Sample #...: A5J040187-018 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL05D1CL
		Dilution Factor: 1		Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL05D1CP
		Dilution Factor: 1		Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**1270**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL05D1CT**
		Dilution Factor: 1		Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**108000**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL05D1CW**
		Dilution Factor: 1		Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**65.4 B,J**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL05D1C1**
		Dilution Factor: 1		Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**1.6 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL05D1C4**
		Dilution Factor: 1		Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**6330 E**	**5000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL05D1C7**
		Dilution Factor: 1		Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL05D1DA
		Dilution Factor: 1		Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**143000**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL05D1DE**
		Dilution Factor: 1		Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL05D1DH
		Dilution Factor: 1		Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGCBPmw-007C-0125-GF

TOTAL Metals

Lot-Sample #...: A5J040187-018 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL05D1AA
		Dilution Factor: 1		Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL05D1AH
		Dilution Factor: 1		Analysis Time..: 18:01	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL05D1AE
		Dilution Factor: 1		Analysis Time..: 15:50	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E Matrix interference.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A5J040187 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A5J120000-026 **Prep Batch #...:** 5285026						
Aluminum	ND	200	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AH
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AE
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Antimony	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AJ
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Lead	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AF
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Barium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AK
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Selenium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AG
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AL
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AM
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Calcium	ND	1000	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AN
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Chromium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AP
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AQ
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A5J040187 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AR
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Iron	ND	1000	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AT
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Magnesium	ND	1000	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AU
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Manganese	**0.54 B**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HMHFX1AV**
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Nickel	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AW
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Potassium	ND	5000	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AX
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1A0
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Sodium	ND	1000	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1A1
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1A2
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Zinc	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HMHFX1AA
		Dilution Factor: 1				
		Analysis Time..: 01:23		Analyst ID.....: 001619	Instrument ID..: I6	
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HMHFX1AD
		Dilution Factor: 1				
		Analysis Time..: 17:46		Analyst ID.....: 001644	Instrument ID..: H1	
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HMHFX1AC
		Dilution Factor: 1				
		Analysis Time..: 14:56		Analyst ID.....: 001644	Instrument ID..: I7	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A5J040187 Matrix.....: WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J040187 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A5J120000-026 **Prep Batch #...:** 5285026					
Arsenic	94	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1A6
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Aluminum	98	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1A9
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Lead	92	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1A7
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Antimony	88	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1CA
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Selenium	95	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1A8
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Barium	92	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1CC
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Beryllium	94	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1CD
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Cadmium	94	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1CE
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Calcium	93	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1CF
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Chromium	103	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1CG
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J040187 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	94	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1CH
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Copper	98	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1CJ
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Iron	100	(77 - 127)	SW846 6010B	10/12-10/13/05	HMHFX1CK
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Magnesium	94	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1CL
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Manganese	93	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1CM
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Nickel	96	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1CN
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Potassium	97	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1CP
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Silver	110	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1CQ
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Sodium	93	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1CR
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Vanadium	95	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1CT
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			
Zinc	97	(80 - 120)	SW846 6010B	10/12-10/13/05	HMHFX1A3
		Dilution Factor: 1	Analysis Time..: 01:28	Analyst ID.....: 001619	
		Instrument ID..: I6			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J040187 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	97	(69 - 114)	SW846 6020	10/12-10/17/05	HMHFX1A4
		Dilution Factor: 1	Analysis Time..: 14:59		Analyst ID.....: 001644
		Instrument ID..: I7			
Mercury	100	(82 - 131)	SW846 7470A	10/12/05	HMHFX1A5
		Dilution Factor: 1	Analysis Time..: 17:47		Analyst ID.....: 001644
		Instrument ID..: H1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J040187 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A5J120000-026 **Prep Batch #...:** 5285026							
Arsenic	2000	1890	ug/L	94	SW846 6010B	10/12-10/13/05	HMHFX1A6
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Aluminum	2000	1960	ug/L	98	SW846 6010B	10/12-10/13/05	HMHFX1A9
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Lead	500	458	ug/L	92	SW846 6010B	10/12-10/13/05	HMHFX1A7
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Antimony	500	442	ug/L	88	SW846 6010B	10/12-10/13/05	HMHFX1CA
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Selenium	2000	1890	ug/L	95	SW846 6010B	10/12-10/13/05	HMHFX1A8
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Barium	2000	1840	ug/L	92	SW846 6010B	10/12-10/13/05	HMHFX1CC
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Beryllium	50.0	47.1	ug/L	94	SW846 6010B	10/12-10/13/05	HMHFX1CD
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Cadmium	50.0	47.2	ug/L	94	SW846 6010B	10/12-10/13/05	HMHFX1CE
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Calcium	50000	46400	ug/L	93	SW846 6010B	10/12-10/13/05	HMHFX1CF
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Chromium	200	205	ug/L	103	SW846 6010B	10/12-10/13/05	HMHFX1CG
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J040187 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	500	472	ug/L	94	SW846 6010B	10/12-10/13/05	HMHFX1CH
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Copper	250	244	ug/L	98	SW846 6010B	10/12-10/13/05	HMHFX1CJ
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Iron	1000	1000	ug/L	100	SW846 6010B	10/12-10/13/05	HMHFX1CK
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Magnesium	50000	46900	ug/L	94	SW846 6010B	10/12-10/13/05	HMHFX1CL
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Manganese	500	467	ug/L	93	SW846 6010B	10/12-10/13/05	HMHFX1CM
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Nickel	500	480	ug/L	96	SW846 6010B	10/12-10/13/05	HMHFX1CN
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Potassium	50000	48400	ug/L	97	SW846 6010B	10/12-10/13/05	HMHFX1CP
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Silver	50.0	55.2	ug/L	110	SW846 6010B	10/12-10/13/05	HMHFX1CQ
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Sodium	50000	46400	ug/L	93	SW846 6010B	10/12-10/13/05	HMHFX1CR
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Vanadium	500	475	ug/L	95	SW846 6010B	10/12-10/13/05	HMHFX1CT
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				
Zinc	500	483	ug/L	97	SW846 6010B	10/12-10/13/05	HMHFX1A3
			Dilution Factor: 1		Analysis Time..: 01:28	Analyst ID.....: 001619	
			Instrument ID..: I6				

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J040187 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	100	97.2	ug/L	97	SW846 6020	10/12-10/17/05	HMHFX1A4
			Dilution Factor: 1		Analysis Time..: 14:59	Analyst ID.....: 001644	
			Instrument ID..: I7				
Mercury	5.0	5.0	ug/L	100	SW846 7470A	10/12/05	HMHFX1A5
			Dilution Factor: 1		Analysis Time..: 17:47	Analyst ID.....: 001644	
			Instrument ID..: H1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J040187 **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A5J040187-018 **Prep Batch #...:** 5285026					
Aluminum	112	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1AX
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Arsenic	108	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1AM
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Antimony	102	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1A2
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Lead	102	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1AQ
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Barium	105	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1A5
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Selenium	107	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1AU
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Beryllium	106	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1A8
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Cadmium	104	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1CC
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Calcium	NC,MSB	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1CF
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Chromium	115	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1CJ
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J040187 **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	106	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1CM
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Copper	111	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1CQ
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Iron	107	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1CU
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Magnesium	105	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1CX
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Manganese	106	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1C2
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Nickel	106	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1C5
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Potassium	113	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1C8
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Silver	127 N	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1DC
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Sodium	103	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1DF
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Vanadium	107	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1DJ
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			
Zinc	109	(75 - 125)	SW846 6010B	10/12-10/13/05	HL05D1AC
		Dilution Factor: 1	Analysis Time..: 02:28	Instrument ID..: I6	
		Analyst ID.....: 001619			

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J040187 **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Mercury	114	(68 - 149)	SW846 7470A	10/12/05	HL05D1AJ
		Dilution Factor: 1	Analysis Time..: 18:01		Instrument ID..: H1
		Analyst ID.....: 001644			
Thallium	93	(70 - 130)	SW846 6020	10/12-10/17/05	HL05D1AF
		Dilution Factor: 1	Analysis Time..: 15:50		Instrument ID..: I7
		Analyst ID.....: 001644			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J040187 **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A5J040187-018 **Prep Batch #...:** 5285026								
Aluminum	ND	2000	2240	ug/L	112	SW846 6010B	10/12-10/13/05	HL05D1AX
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Arsenic	9.9	2000	2180	ug/L	108	SW846 6010B	10/12-10/13/05	HL05D1AM
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Antimony	ND	500	509	ug/L	102	SW846 6010B	10/12-10/13/05	HL05D1A2
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Lead	ND	500	508	ug/L	102	SW846 6010B	10/12-10/13/05	HL05D1AQ
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Barium	13.3	2000	2110	ug/L	105	SW846 6010B	10/12-10/13/05	HL05D1A5
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Selenium	ND	2000	2140	ug/L	107	SW846 6010B	10/12-10/13/05	HL05D1AU
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Beryllium	ND	50.0	52.8	ug/L	106	SW846 6010B	10/12-10/13/05	HL05D1A8
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Cadmium	ND	50.0	52.2	ug/L	104	SW846 6010B	10/12-10/13/05	HL05D1CC
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Calcium	208000	50000	261000	ug/L		SW846 6010B	10/12-10/13/05	HL05D1CF
			Qualifiers: NC,MSB					
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Chromium	ND	200	230	ug/L	115	SW846 6010B	10/12-10/13/05	HL05D1CJ
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J040187 **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	500	531	ug/L	106	SW846 6010B	10/12-10/13/05	HL05D1CM
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Copper	ND	250	279	ug/L	111	SW846 6010B	10/12-10/13/05	HL05D1CQ
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Iron	1270	1000	2340	ug/L	107	SW846 6010B	10/12-10/13/05	HL05D1CU
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Magnesium	108000	50000	160000	ug/L	105	SW846 6010B	10/12-10/13/05	HL05D1CX
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Manganese	65.4	500	596	ug/L	106	SW846 6010B	10/12-10/13/05	HL05D1C2
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Nickel	1.6	500	533	ug/L	106	SW846 6010B	10/12-10/13/05	HL05D1C5
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Potassium	6330	50000	63000	ug/L	113	SW846 6010B	10/12-10/13/05	HL05D1C8
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Silver	ND	50.0	63.4 N	ug/L	127	SW846 6010B	10/12-10/13/05	HL05D1DC
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Sodium	143000	50000	195000	ug/L	103	SW846 6010B	10/12-10/13/05	HL05D1DF
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Vanadium	ND	500	534	ug/L	107	SW846 6010B	10/12-10/13/05	HL05D1DJ
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					
Zinc	ND	500	543	ug/L	109	SW846 6010B	10/12-10/13/05	HL05D1AC
			Dilution Factor: 1		Analysis Time..: 02:28		Instrument ID..: I6	
			Analyst ID.....: 001619					

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J040187 **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Mercury	ND	1.0	1.1	ug/L	114	SW846 7470A	10/12/05	HL05D1AJ
			Dilution Factor: 1		Analysis Time..: 18:01		Instrument ID..: H1	
			Analyst ID.....: 001644					
Thallium	ND	100	93.0	ug/L	93	SW846 6020	10/12-10/17/05	HL05D1AF
			Dilution Factor: 1		Analysis Time..: 15:50		Instrument ID..: I7	
			Analyst ID.....: 001644					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

SAMPLE DUPLICATE EVALUATION REPORT

Metals

Client Lot #...: A5J040187 **Work Order #...:** HL05D-SMP HL05D-DUP **Matrix.....:** WG

Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Aluminum						SD Lot-Sample #: A5J040187-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285026
		Dilution Factor: 1				Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6						
Arsenic						SD Lot-Sample #: A5J040187-018		
	9.9 B	10.7	ug/L	7.2	(0-20)	SW846 6010B	10/12-10/13/05	5285026
		Dilution Factor: 1				Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6						
Lead						SD Lot-Sample #: A5J040187-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285026
		Dilution Factor: 1				Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6						
Antimony						SD Lot-Sample #: A5J040187-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285026
		Dilution Factor: 1				Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6						
Barium						SD Lot-Sample #: A5J040187-018		
	13.3	12.7	ug/L	4.2	(0-20)	SW846 6010B	10/12-10/13/05	5285026
		Dilution Factor: 1				Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6						
Selenium						SD Lot-Sample #: A5J040187-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285026
		Dilution Factor: 1				Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6						
Beryllium						SD Lot-Sample #: A5J040187-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285026
		Dilution Factor: 1				Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6						
Cadmium						SD Lot-Sample #: A5J040187-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285026
		Dilution Factor: 1				Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6						
Calcium						SD Lot-Sample #: A5J040187-018		
	208000	201000	ug/L	3.6	(0-20)	SW846 6010B	10/12-10/13/05	5285026
		Dilution Factor: 1				Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6						

(Continued on next page)

SAMPLE DUPLICATE EVALUATION REPORT

Metals

Lot-Sample #...: A5J040187-000 **Work Order #...:** HL05D-SMP HL05D-DUP **Matrix.....:** WG

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chromium						SD Lot-Sample #: A5J040187-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285026
			Dilution Factor: 1			Analysis Time..: 02:28	Analyst ID.....: 001619	
			Instrument ID..: I6					
Cobalt						SD Lot-Sample #: A5J040187-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285026
			Dilution Factor: 1			Analysis Time..: 02:28	Analyst ID.....: 001619	
			Instrument ID..: I6					
Copper						SD Lot-Sample #: A5J040187-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285026
			Dilution Factor: 1			Analysis Time..: 02:28	Analyst ID.....: 001619	
			Instrument ID..: I6					
Iron						SD Lot-Sample #: A5J040187-018		
	1270	1190	ug/L	6.6	(0-20)	SW846 6010B	10/12-10/13/05	5285026
			Dilution Factor: 1			Analysis Time..: 02:28	Analyst ID.....: 001619	
			Instrument ID..: I6					
Magnesium						SD Lot-Sample #: A5J040187-018		
	108000	104000	ug/L	3.4	(0-20)	SW846 6010B	10/12-10/13/05	5285026
			Dilution Factor: 1			Analysis Time..: 02:28	Analyst ID.....: 001619	
			Instrument ID..: I6					
Manganese						SD Lot-Sample #: A5J040187-018		
	65.4 B,J	62.9 B	ug/L	4.0	(0-20)	SW846 6010B	10/12-10/13/05	5285026
			Dilution Factor: 1			Analysis Time..: 02:28	Analyst ID.....: 001619	
			Instrument ID..: I6					
Nickel						SD Lot-Sample #: A5J040187-018		
	1.6 B	1.4 B	ug/L	7.6	(0-20)	SW846 6010B	10/12-10/13/05	5285026
			Dilution Factor: 1			Analysis Time..: 02:28	Analyst ID.....: 001619	
			Instrument ID..: I6					
Potassium						SD Lot-Sample #: A5J040187-018		
	6330 E	6070	ug/L	4.1	(0-20)	SW846 6010B	10/12-10/13/05	5285026
			Dilution Factor: 1			Analysis Time..: 02:28	Analyst ID.....: 001619	
			Instrument ID..: I6					
Silver						SD Lot-Sample #: A5J040187-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285026
			Dilution Factor: 1			Analysis Time..: 02:28	Analyst ID.....: 001619	
			Instrument ID..: I6					

(Continued on next page)

SAMPLE DUPLICATE EVALUATION REPORT

Metals

Lot-Sample #...: A5J040187-000 **Work Order #...:** HL05D-SMP HL05D-DUP **Matrix.....:** WG

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Sodium						SD Lot-Sample #: A5J040187-018		
	143000	138000	ug/L	3.6	(0-20)	SW846 6010B	10/12-10/13/05	5285026
		Dilution Factor: 1				Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6						
Vanadium						SD Lot-Sample #: A5J040187-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285026
		Dilution Factor: 1				Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6						
Zinc						SD Lot-Sample #: A5J040187-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285026
		Dilution Factor: 1				Analysis Time..: 02:28	Analyst ID.....: 001619	
		Instrument ID..: I6						
Mercury						SD Lot-Sample #: A5J040187-018		
	ND	ND	ug/L	0	(0-20)	SW846 7470A	10/12/05	5285026
		Dilution Factor: 1				Analysis Time..: 18:01	Analyst ID.....: 001644	
		Instrument ID..: H1						
Thallium						SD Lot-Sample #: A5J040187-018		
	ND	ND	ug/L	0	(0-20)	SW846 6020	10/12-10/17/05	5285026
		Dilution Factor: 1				Analysis Time..: 15:50	Analyst ID.....: 001644	
		Instrument ID..: I7						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E Matrix interference.

SEVERN TRENT STL

GENERAL CHEMISTRY DATA

SpecPro Inc

Client Sample ID: FWGRQLmw-009C-0134-GW

General Chemistry

Lot-Sample #...: A5J040187-001 **Work Order #...:** HL0MV **Matrix.....:** WG
Date Sampled...: 10/03/05 14:55 **Date Received..:** 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGmw-012C-0099-GW

General Chemistry

Lot-Sample #...: A5J040187-003 Work Order #...: HL002 Matrix.....: WG
Date Sampled...: 10/03/05 11:52 Date Received..: 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
	Dilution Factor: 1					
Nitrocellulose	**0.16 B**	**0.50**	**mg/L**	**MCAWW 353.2**	**10/17-10/18/05**	**5286614**
	Dilution Factor: 1					

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGRQLmw-007C-0132-GW

General Chemistry

Lot-Sample #...: A5J040187-005 Work Order #...: HL01E Matrix.....: WG
Date Sampled...: 10/03/05 14:46 Date Received..: 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
	Dilution Factor: 1					
Nitrocellulose	**0.15 B**	**0.50**	**mg/L**	**MCAWW 353.2**	**10/17-10/18/05**	**5286614**
	Dilution Factor: 1					

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL12mw-186C-0123-GW

General Chemistry

Lot-Sample #...: A5J040187-007 Work Order #...: HL01L Matrix.....: WG
Date Sampled...: 10/03/05 10:32 Date Received..: 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
		Dilution Factor: 1				
Nitrate-Nitrite	**0.03 B**	**0.1**	**mg/L**	**MCAWW 353.2**	**10/14/05**	**5290597**
		Dilution Factor: 1				
Nitrocellulose	**0.14 B**	**0.50**	**mg/L**	**MCAWW 353.2**	**10/17-10/18/05**	**5286614**
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGCBPmw-005C-0124-GW

General Chemistry

Lot-Sample #...: A5J040187-009 Work Order #...: HL010 Matrix.....: WG
Date Sampled...: 10/03/05 12:00 Date Received..: 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
	Dilution Factor: 1					
Nitrocellulose	**0.16 B**	**0.50**	**mg/L**	**MCAWW 353.2**	**10/17-10/18/05**	**5286614**
	Dilution Factor: 1					

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGRQLmw-008C-0133-GW

General Chemistry

Lot-Sample #...: A5J040187-011 **Work Order #...:** HL019 **Matrix.....:** WG
Date Sampled...: 10/03/05 15:04 **Date Received..:** 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL12mw-182C-0121-GW

General Chemistry

Lot-Sample #...: A5J040187-013 **Work Order #...:** HL03H **Matrix.....:** WG
Date Sampled...: 10/03/05 12:30 **Date Received..:** 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
	Dilution Factor: 1					
Nitrate-Nitrite	ND	0.1	mg/L	MCAWW 353.2	10/14/05	5290597
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGLL12mw-183C-0122-GW

General Chemistry

Lot-Sample #...: A5J040187-015 **Work Order #...:** HL033 **Matrix.....:** WG
Date Sampled...: 10/03/05 **Date Received..:** 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
		Dilution Factor: 1				
Nitrate-Nitrite	ND	0.1	mg/L	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGCBPmw-007C-0125-GW

General Chemistry

Lot-Sample #...: A5J040187-017 **Work Order #...:** HL046 **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
	Dilution Factor: 1					

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A5J040187 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: HMTDX1AA		MB Lot-Sample #:	A5J140000-548	
	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
		Dilution Factor: 1				
Nitrate-Nitrite		Work Order #: HMXKV1AA		MB Lot-Sample #:	A5J170000-597	
	ND	0.1	mg/L	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1				
Nitrocellulose		Work Order #: HMPF91AA		MB Lot-Sample #:	G5J130000-614	
	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J040187 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: HMTDX1AC	LCS Lot-Sample#: A5J140000-548		
	99	(69 - 118)	SW846 9012A	10/14/05	5287548
		Dilution Factor: 1			
Nitrate-Nitrite		Work Order #: HMXKV1AC	LCS Lot-Sample#: A5J170000-597		
	111	(79 - 117)	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1			
Nitrocellulose		Work Order #: HMPF91AC	LCS Lot-Sample#: G5J130000-614		
	104	(56 - 111)	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J040187 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			Work Order #: HMTDX1AC	LCS Lot-Sample#: A5J140000-548			
	0.17	0.16	mg/L	99	SW846 9012A	10/14/05	5287548
			Dilution Factor: 1				
Nitrate-Nitrite			Work Order #: HMXKV1AC	LCS Lot-Sample#: A5J170000-597			
	2.2	2.4	mg/L	111	MCAWW 353.2	10/14/05	5290597
			Dilution Factor: 1				
Nitrocellulose			Work Order #: HMPF91AC	LCS Lot-Sample#: G5J130000-614			
	2.0	2.1	mg/L	104	MCAWW 353.2	10/17-10/18/05	5286614
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J040187 **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		WO#: HL0461A8-MS/HL0461A9-MSD				MS Lot-Sample #: A5J040187-017	
	100	(42 - 140)			SW846 9012A	10/14/05	5287548
	94	(42 - 140)	6.7	(0-20)	SW846 9012A	10/14/05	5287548
		Dilution Factor: 1					
Nitrocellulose		WO#: HL0461A0-MS/HL0461A1-MSD				MS Lot-Sample #: A5J040187-017	
	100	(56 - 111)			MCAWW 353.2	10/17-10/18/05	5286614
	103	(56 - 111)	2.4	(0-15)	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J040187 **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: HL0461A8-MS/HL0461A9-MSD				MS Lot-Sample #: A5J040187-017		
	ND	0.040	0.040	mg/L	100		SW846 9012A	10/14/05	5287548
	ND	0.040	0.038	mg/L	94	6.7	SW846 9012A	10/14/05	5287548
			Dilution Factor: 1						
Nitrocellulose			WO#: HL0461A0-MS/HL0461A1-MSD				MS Lot-Sample #: A5J040187-017		
	ND	2.0	2.1	mg/L	100		MCAWW 353.2	10/17-10/18/05	5286614
	ND	2.0	2.1	mg/L	103	2.4	MCAWW 353.2	10/17-10/18/05	5286614
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J040187 **Matrix.....:** WATER
Date Sampled...: 10/03/05 13:30 **Date Received..:** 10/05/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		WO#: HL22V1EU-MS/HL22V1EV-MSD				MS Lot-Sample #: A5J050177-007	
	124	(42 - 140)			SW846 9012A	10/14/05	5287548
	124	(42 - 140)	0.40	(0-20)	SW846 9012A	10/14/05	5287548
		Dilution Factor: 1					
Nitrate-Nitrite		WO#: HL22L1CG-MS/HL22L1CH-MSD				MS Lot-Sample #: A5J050177-002	
	63	(34 - 125)			MCAWW 353.2	10/14/05	5290597
	63	(34 - 125)	0.98	(0-20)	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J040187 **Matrix.....:** WATER
Date Sampled...: 10/03/05 13:30 **Date Received..:** 10/05/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: HL22V1EU-MS/HL22V1EV-MSD				MS Lot-Sample #: A5J050177-007		
	ND	0.040	0.049	mg/L	124		SW846 9012A	10/14/05	5287548
	ND	0.040	0.050	mg/L	124	0.40	SW846 9012A	10/14/05	5287548
			Dilution Factor: 1						
Nitrate-Nitrite			WO#: HL22L1CG-MS/HL22L1CH-MSD				MS Lot-Sample #: A5J050177-002		
	ND	0.5	0.3	mg/L	63		MCAWW 353.2	10/14/05	5290597
	ND	0.5	0.3	mg/L	63	0.98	MCAWW 353.2	10/14/05	5290597
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SEVERN TRENT STL

STL WEST SACRAMENTO DATA

CASE NARRATIVE

STL SACRAMENTO PROJECT NUMBER A5J040187

WATER, 8330, Explosives (SAC)
Sample(s): 5, 7, 9 and 11
The samples had excessive silt/sediment and required filtration prior to the solid phase extraction (SPE). A filter blank was processed with the batch.

There were no other anomalies associated with this project.

SEVERN TRENT STL

ACCREDITED IN ACCORDANCE WITH nelac

STL Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	Oregon*	CA 200005
Arizona	AZ0616	Pennsylvania	68-1272
Arkansas	04-067-0	South Carolina	87014002
California*	01119CA	Texas	TX 270-2004A
Colorado	NA	Utah*	QUAN1
Connecticut	PH-0691	Virginia	00178
Florida*	E87570	Washington	C087
Georgia	960	West Virginia	9930C, 334
Hawaii	NA	Wisconsin	998204680
Louisiana*	01944	NFESC	NA
Michigan	9947	USACE	NA
Nevada	CA44	USDA Foreign Plant	37-82605
New Jersey*	CA005	USDA Foreign Soil	S-46613
New York*	11666		

*NELAP accredited. A more detailed parameter list is available upon request. Update 1/27/05

QC Parameter Definitions

QC Batch: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

Method Blank: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD): An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also used to evaluate the precision of the process.

Duplicate Sample (DU): Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

Surrogates: Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

Isotope Dilution: For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

Control Limits: The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

SpecPro Inc

Client Sample ID: FWGRQLmw-009C-0134-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J040187-001 Work Order #...: HL0MV1AJ Matrix.....: WG
Date Sampled...: 10/03/05 14:55 Date Received..: 10/04/05
Prep Date.....: 10/13/05 Analysis Date..: 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGRQLmw-009C-0134-GW

HPLC

Lot-Sample #...: A5J040187-001 **Work Order #...:** HL0MV1AG **Matrix.....:** WG
Date Sampled...: 10/03/05 14:55 **Date Received..:** 10/04/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5279209
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	111	(84 - 125)

SpecPro Inc

Client Sample ID: FWGRQLmw-009C-0134-GW

General Chemistry

Lot-Sample #...: A5J040187-001 **Work Order #...:** HL0MV **Matrix.....:** WG
Date Sampled...: 10/03/05 14:55 **Date Received..:** 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGmw-012C-0099-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J040187-003 **Work Order #...:** HL0021AJ **Matrix.....:** WG
Date Sampled...: 10/03/05 11:52 **Date Received..:** 10/04/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGBKGmw-012C-0099-GW

HPLC

Lot-Sample #...: A5J040187-003 **Work Order #...:** HL0021AG **Matrix.....:** WG
Date Sampled...: 10/03/05 11:52 **Date Received..:** 10/04/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5279209
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	112	(84 - 125)

SpecPro Inc

Client Sample ID: FWGBKGmw-012C-0099-GW

General Chemistry

Lot-Sample #...: A5J040187-003 Work Order #...: HL002 Matrix.....: WG
Date Sampled...: 10/03/05 11:52 Date Received..: 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
	Dilution Factor: 1					
Nitrocellulose	**0.16 B**	**0.50**	**mg/L**	**MCAWW 353.2**	**10/17-10/18/05**	**5286614**
	Dilution Factor: 1					

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGRQLmw-007C-0132-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J040187-005 **Work Order #...:** HL01E1AJ **Matrix.....:** WG
Date Sampled...: 10/03/05 14:46 **Date Received..:** 10/04/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGRQLmw-007C-0132-GW

HPLC

Lot-Sample #...: A5J040187-005 **Work Order #...:** HL01E1AG **Matrix.....:** WG
Date Sampled...: 10/03/05 14:46 **Date Received..:** 10/04/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5279209
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	111	(84 - 125)

SpecPro Inc

Client Sample ID: FWGRQLmw-007C-0132-GW

General Chemistry

Lot-Sample #...: A5J040187-005 Work Order #...: HL01E Matrix.....: WG
Date Sampled...: 10/03/05 14:46 Date Received..: 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
	Dilution Factor: 1					
Nitrocellulose	**0.15 B**	**0.50**	**mg/L**	**MCAWW 353.2**	**10/17-10/18/05**	**5286614**
	Dilution Factor: 1					

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL12mw-186C-0123-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J040187-007 Work Order #...: HL01L1AJ Matrix.....: WG
Date Sampled...: 10/03/05 10:32 Date Received..: 10/04/05
Prep Date.....: 10/13/05 Analysis Date..: 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL12mw-186C-0123-GW

HPLC

Lot-Sample #...: A5J040187-007 **Work Order #...:** HL01L1AG **Matrix.....:** WG
Date Sampled...: 10/03/05 10:32 **Date Received..:** 10/04/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5279209
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	111	(84 - 125)

SpecPro Inc

Client Sample ID: FWGLL12mw-186C-0123-GW

General Chemistry

Lot-Sample #...: A5J040187-007 Work Order #...: HL01L Matrix.....: WG
Date Sampled...: 10/03/05 10:32 Date Received..: 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010 Dilution Factor: 1	mg/L	SW846 9012A	10/14/05	5287548
Nitrate-Nitrite	0.03 B	0.1 Dilution Factor: 1	mg/L	MCAWW 353.2	10/14/05	5290597
Nitrocellulose	0.14 B	0.50 Dilution Factor: 1	mg/L	MCAWW 353.2	10/17-10/18/05	5286614

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGCBPmw-005C-0124-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J040187-009 **Work Order #...:** HL0101AJ **Matrix.....:** WG
Date Sampled...: 10/03/05 12:00 **Date Received..:** 10/04/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGCBPmw-005C-0124-GW

HPLC

Lot-Sample #...: A5J040187-009 **Work Order #...:** HL0101AG **Matrix.....:** WG
Date Sampled...: 10/03/05 12:00 **Date Received..:** 10/04/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5279209
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	116	(84 - 125)

SpecPro Inc

Client Sample ID: FWGCBPmw-005C-0124-GW

General Chemistry

Lot-Sample #...: A5J040187-009 Work Order #...: HL010 Matrix.....: WG
Date Sampled...: 10/03/05 12:00 Date Received..: 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
	Dilution Factor: 1					
Nitrocellulose	**0.16 B**	**0.50**	**mg/L**	**MCAWW 353.2**	**10/17-10/18/05**	**5286614**
	Dilution Factor: 1					

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGRQLmw-008C-0133-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J040187-011 Work Order #...: HL0191AJ Matrix.....: WG
Date Sampled...: 10/03/05 15:04 Date Received..: 10/04/05
Prep Date.....: 10/13/05 Analysis Date..: 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	14 J	20	ug/L	NONE UV/HPLC per

NOTE(S):
J Estimated result. Result is less than the reporting limit.

SpecPro Inc

Client Sample ID: FWGRQLmw-008C-0133-GW

HPLC

Lot-Sample #...: A5J040187-011	**Work Order #...:** HL0191AG	**Matrix.....:** WG	
Date Sampled...: 10/03/05 15:04	**Date Received..:** 10/04/05		
Prep Date.....: 10/06/05	**Analysis Date..:** 10/13/05		
Prep Batch #...: 5279209			
Dilution Factor: 1	**Method.....:** SW846 8330		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	**0.096 J**	**0.50**	**ug/L**
RDX	ND	0.10	ug/L
Tetryl	**0.093 J**	**0.10**	**ug/L**
1,3,5-Trinitrobenzene	**0.32 PG**	**0.10**	**ug/L**
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	110	(84 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

SpecPro Inc

Client Sample ID: FWGRQLmw-008C-0133-GW

General Chemistry

Lot-Sample #...: A5J040187-011 **Work Order #...:** HL019 **Matrix.....:** WG
Date Sampled...: 10/03/05 15:04 **Date Received..:** 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL12mw-182C-0121-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J040187-013 **Work Order #...:** HL03H1AJ **Matrix.....:** WG
Date Sampled...: 10/03/05 12:30 **Date Received..:** 10/04/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL12mw-182C-0121-GW

HPLC

Lot-Sample #...: A5J040187-013 **Work Order #...:** HL03H1AG **Matrix.....:** WG
Date Sampled...: 10/03/05 12:30 **Date Received..:** 10/04/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5279209
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	**0.031 J**	**0.10**	**ug/L**
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	110	(84 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL12mw-182C-0121-GW

General Chemistry

Lot-Sample #...: A5J040187-013 **Work Order #...:** HL03H **Matrix.....:** WG
Date Sampled...: 10/03/05 12:30 **Date Received..:** 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
		Dilution Factor: 1				
Nitrate-Nitrite	ND	0.1	mg/L	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL12mw-183C-0122-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J040187-015 **Work Order #...:** HL0331AJ **Matrix.....:** WG
Date Sampled...: 10/03/05 **Date Received..:** 10/04/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL12mw-183C-0122-GW

HPLC

Lot-Sample #...: A5J040187-015	**Work Order #...:** HL0331AG	**Matrix.....:** WG
Date Sampled...: 10/03/05	**Date Received..:** 10/04/05	
Prep Date.....: 10/06/05	**Analysis Date..:** 10/13/05	
Prep Batch #...: 5279209		
Dilution Factor: 1	**Method.....:** SW846 8330	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	113	(84 - 125)

SpecPro Inc

Client Sample ID: FWGLL12mw-183C-0122-GW

General Chemistry

Lot-Sample #...: A5J040187-015 **Work Order #...:** HL033 **Matrix.....:** WG
Date Sampled...: 10/03/05 **Date Received..:** 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
		Dilution Factor: 1				
Nitrate-Nitrite	ND	0.1	mg/L	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGCBPmw-007C-0125-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J040187-017 **Work Order #...:** HL0461AJ **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGCBPmw-007C-0125-GW

HPLC

Lot-Sample #...: A5J040187-017 **Work Order #...:** HL0461AG **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5279209
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	**0.082 J**	**0.10**	**ug/L**
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	111	(84 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGCBPmw-007C-0125-GW

General Chemistry

Lot-Sample #...: A5J040187-017 **Work Order #...:** HL046 **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

METHOD BLANK REPORT

Trace Level Organic Compounds

Client Lot #...: A5J040187 **Work Order #...:** HMPEX1AA **Matrix.....:** WATER
MB Lot-Sample #: G5J130000-584

Prep Date.....: 10/13/05
Analysis Date..: 10/14/05 **Prep Batch #...:** 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

HPLC

Client Lot #...: A5J040187 **Work Order #...:** HL5E01AA **Matrix.....:** WATER
MB Lot-Sample #: G5J060000-209

Prep Date.....: 10/06/05
Analysis Date..: 10/13/05 **Prep Batch #...:** 5279209
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.50	ug/L	SW846 8330
3-Nitrotoluene	ND	0.50	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4,6-Trinitrotoluene	ND	0.10	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	113	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

HPLC

Client Lot #...: A5J040187 **Work Order #...:** HL5E01AD **Matrix.....:** WATER
MB Lot-Sample #: G5J060000-209

Prep Date.....: 10/06/05
Analysis Date..: 10/13/05 **Prep Batch #...:** 5279209
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.50	ug/L	SW846 8330
3-Nitrotoluene	ND	0.50	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4,6-Trinitrotoluene	ND	0.10	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	112	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A5J040187 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: HMTDX1AA		MB Lot-Sample #:	A5J140000-548	
	ND	0.010	mg/L	SW846 9012A	10/14/05	5287548
		Dilution Factor: 1				
Nitrate-Nitrite		Work Order #: HMXKV1AA		MB Lot-Sample #:	A5J170000-597	
	ND	0.1	mg/L	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1				
Nitrocellulose		Work Order #: HMPF91AA		MB Lot-Sample #:	G5J130000-614	
	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: A5J040187 **Work Order #...:** HMPEX1AC **Matrix.....:** WATER
LCS Lot-Sample#: G5J130000-584
Prep Date.....: 10/13/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Nitroguanidine	**106**	**(79 - 119)**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: A5J040187 **Work Order #...:** HMPEX1AC **Matrix.....:** WATER
LCS Lot-Sample#: G5J130000-584
Prep Date.....: 10/13/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Nitroguanidine	**250**	**260**	**ug/L**	**106**	**NONE UV/HPLC per**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: A5J040187 Work Order #...: HL5E01AC Matrix.....: WATER
LCS Lot-Sample#: G5J060000-209
Prep Date.....: 10/06/05 Analysis Date..: 10/13/05
Prep Batch #...: 5279209
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
2-Amino-4,6-dinitrotoluene	**109**	**(82 - 125)**	**SW846 8330**
4-Amino-2,6-dinitrotoluene	**107**	**(85 - 123)**	**SW846 8330**
1,3-Dinitrobenzene	**115**	**(89 - 130)**	**SW846 8330**
2,4-Dinitrotoluene	**113**	**(86 - 128)**	**SW846 8330**
2,6-Dinitrotoluene	**111**	**(86 - 127)**	**SW846 8330**
HMX	**118**	**(82 - 121)**	**SW846 8330**
Nitrobenzene	**113**	**(81 - 125)**	**SW846 8330**
2-Nitrotoluene	**108**	**(90 - 120)**	**SW846 8330**
3-Nitrotoluene	**109**	**(87 - 122)**	**SW846 8330**
4-Nitrotoluene	**109**	**(87 - 124)**	**SW846 8330**
RDX	**117**	**(94 - 124)**	**SW846 8330**
Tetryl	**108**	**(81 - 126)**	**SW846 8330**
1,3,5-Trinitrobenzene	**109**	**(81 - 132)**	**SW846 8330**
2,4,6-Trinitrotoluene	**111**	**(86 - 126)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	114	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: A5J040187 Work Order #...: HL5E01AC Matrix.....: WATER
LCS Lot-Sample#: G5J060000-209
Prep Date.....: 10/06/05 Analysis Date..: 10/13/05
Prep Batch #...: 5279209
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
2-Amino-4,6-dinitrotoluene	1.0	1.1	ug/L	109	SW846 8330
4-Amino-2,6-dinitrotoluene	1.0	1.1	ug/L	107	SW846 8330
1,3-Dinitrobenzene	1.0	1.2	ug/L	115	SW846 8330
2,4-Dinitrotoluene	1.0	1.1	ug/L	113	SW846 8330
2,6-Dinitrotoluene	1.0	1.1	ug/L	111	SW846 8330
HMX	1.0	1.2	ug/L	118	SW846 8330
Nitrobenzene	1.0	1.1	ug/L	113	SW846 8330
2-Nitrotoluene	1.0	1.1	ug/L	108	SW846 8330
3-Nitrotoluene	1.0	1.1	ug/L	109	SW846 8330
4-Nitrotoluene	1.0	1.1	ug/L	109	SW846 8330
RDX	1.0	1.2	ug/L	117	SW846 8330
Tetryl	1.0	1.1	ug/L	108	SW846 8330
1,3,5-Trinitrobenzene	1.0	1.1	ug/L	109	SW846 8330
2,4,6-Trinitrotoluene	1.0	1.1	ug/L	111	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	114	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J040187 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: HMTDX1AC	LCS Lot-Sample#: A5J140000-548		
	99	(69 - 118)	SW846 9012A	10/14/05	5287548
		Dilution Factor: 1			
Nitrate-Nitrite		Work Order #: HMXKV1AC	LCS Lot-Sample#: A5J170000-597		
	111	(79 - 117)	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1			
Nitrocellulose		Work Order #: HMPF91AC	LCS Lot-Sample#: G5J130000-614		
	104	(56 - 111)	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J040187 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			Work Order #: HMTDX1AC	LCS Lot-Sample#: A5J140000-548			
	0.17	0.16	mg/L	99	SW846 9012A	10/14/05	5287548
			Dilution Factor: 1				
Nitrate-Nitrite			Work Order #: HMXKV1AC	LCS Lot-Sample#: A5J170000-597			
	2.2	2.4	mg/L	111	MCAWW 353.2	10/14/05	5290597
			Dilution Factor: 1				
Nitrocellulose			Work Order #: HMPF91AC	LCS Lot-Sample#: G5J130000-614			
	2.0	2.1	mg/L	104	MCAWW 353.2	10/17-10/18/05	5286614
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: A5J040187 Work Order #...: HL0461A2-MS Matrix.....: WG
MS Lot-Sample #: A5J040187-017 HL0461A3-MSD
Date Sampled...: 10/03/05 10:26 Date Received..: 10/04/05
Prep Date.....: 10/13/05 Analysis Date..: 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Nitroguanidine	**108**	**(79 - 119)**			**NONE UV/HPLC per SOP**
	109	**(79 - 119)**	**1.4**	**(0-15)**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: A5J040187 **Work Order #...:** HL0461A2-MS **Matrix.....:** WG
MS Lot-Sample #: A5J040187-017 HL0461A3-MSD
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Nitroguanidine	**ND**	**250**	**270**	**ug/L**	**108**		**NONE UV/HPLC per SOP**
	ND	**250**	**270**	**ug/L**	**109**	**1.4**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: A5J040187 **Work Order #...:** HL0461AW-MS **Matrix.....:** WG
MS Lot-Sample #: A5J040187-017 HL0461AX-MSD
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5279209
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2-Amino-4,6-dinitrotoluene	**102**	**(82 - 125)**			**SW846 8330**
	102	**(82 - 125)**	**0.77**	**(0-15)**	**SW846 8330**
4-Amino-2,6-dinitrotoluene	**100**	**(85 - 123)**			**SW846 8330**
	100	**(85 - 123)**	**0.31**	**(0-15)**	**SW846 8330**
1,3-Dinitrobenzene	**108**	**(89 - 130)**			**SW846 8330**
	108	**(89 - 130)**	**0.14**	**(0-15)**	**SW846 8330**
2,4-Dinitrotoluene	**106**	**(86 - 128)**			**SW846 8330**
	106	**(86 - 128)**	**0.15**	**(0-15)**	**SW846 8330**
2,6-Dinitrotoluene	**100**	**(86 - 127)**			**SW846 8330**
	100	**(86 - 127)**	**0.40**	**(0-15)**	**SW846 8330**
HMX	**109**	**(82 - 121)**			**SW846 8330**
	110	**(82 - 121)**	**0.73**	**(0-15)**	**SW846 8330**
Nitrobenzene	**105**	**(81 - 125)**			**SW846 8330**
	106	**(81 - 125)**	**1.1**	**(0-15)**	**SW846 8330**
2-Nitrotoluene	**102**	**(90 - 120)**			**SW846 8330**
	101	**(90 - 120)**	**0.69**	**(0-15)**	**SW846 8330**
3-Nitrotoluene	**102**	**(87 - 122)**			**SW846 8330**
	102	**(87 - 122)**	**0.20**	**(0-15)**	**SW846 8330**
4-Nitrotoluene	**102**	**(87 - 124)**			**SW846 8330**
	102	**(87 - 124)**	**0.23**	**(0-15)**	**SW846 8330**
RDX	**107**	**(94 - 124)**			**SW846 8330**
	108	**(94 - 124)**	**0.91**	**(0-15)**	**SW846 8330**
Tetryl	**98**	**(81 - 126)**			**SW846 8330**
	95	**(81 - 126)**	**3.3**	**(0-15)**	**SW846 8330**
1,3,5-Trinitrobenzene	**100**	**(81 - 132)**			**SW846 8330**
	96	**(81 - 132)**	**4.1**	**(0-16)**	**SW846 8330**
2,4,6-Trinitrotoluene	**103**	**(86 - 126)**			**SW846 8330**
	100	**(86 - 126)**	**2.5**	**(0-15)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	111	(84 - 125)
	109	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: A5J040187 **Work Order #...:** HL0461AW-MS **Matrix.....:** WG
MS Lot-Sample #: A5J040187-017 HL0461AX-MSD
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5279209
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
2-Amino-4,6-dinitrotoluene	ND	1.0	1.0	ug/L	102		SW846 8330
	ND	1.0	1.0	ug/L	102	0.77	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	1.0	1.0	ug/L	100		SW846 8330
	ND	1.0	1.0	ug/L	100	0.31	SW846 8330
1,3-Dinitrobenzene	ND	1.0	1.1	ug/L	108		SW846 8330
	ND	1.0	1.1	ug/L	108	0.14	SW846 8330
2,4-Dinitrotoluene	ND	1.0	1.1	ug/L	106		SW846 8330
	ND	1.0	1.1	ug/L	106	0.15	SW846 8330
2,6-Dinitrotoluene	0.082	1.0	1.1	ug/L	100		SW846 8330
	0.082	1.0	1.1	ug/L	100	0.40	SW846 8330
HMX	ND	1.0	1.1	ug/L	109		SW846 8330
	ND	1.0	1.1	ug/L	110	0.73	SW846 8330
Nitrobenzene	ND	1.0	1.1	ug/L	105		SW846 8330
	ND	1.0	1.1	ug/L	106	1.1	SW846 8330
2-Nitrotoluene	ND	1.0	1.0	ug/L	102		SW846 8330
	ND	1.0	1.0	ug/L	101	0.69	SW846 8330
3-Nitrotoluene	ND	1.0	1.0	ug/L	102		SW846 8330
	ND	1.0	1.0	ug/L	102	0.20	SW846 8330
4-Nitrotoluene	ND	1.0	1.0	ug/L	102		SW846 8330
	ND	1.0	1.0	ug/L	102	0.23	SW846 8330
RDX	ND	1.0	1.1	ug/L	107		SW846 8330
	ND	1.0	1.1	ug/L	108	0.91	SW846 8330
Tetryl	ND	1.0	0.98	ug/L	98		SW846 8330
	ND	1.0	0.95	ug/L	95	3.3	SW846 8330
1,3,5-Trinitrobenzene	ND	1.0	1.0	ug/L	100		SW846 8330
	ND	1.0	0.96	ug/L	96	4.1	SW846 8330
2,4,6-Trinitrotoluene	ND	1.0	1.0	ug/L	103		SW846 8330
	ND	1.0	1.0	ug/L	100	2.5	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	111	(84 - 125)
	109	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J040187 **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		WO#: HL0461A8-MS/HL0461A9-MSD				MS Lot-Sample #: A5J040187-017	
	100	(42 - 140)			SW846 9012A	10/14/05	5287548
	94	(42 - 140)	6.7	(0-20)	SW846 9012A	10/14/05	5287548
		Dilution Factor: 1					
Nitrocellulose		WO#: HL0461A0-MS/HL0461A1-MSD				MS Lot-Sample #: A5J040187-017	
	100	(56 - 111)			MCAWW 353.2	10/17-10/18/05	5286614
	103	(56 - 111)	2.4	(0-15)	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J040187 **Matrix.....:** WG
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: HL0461A8-MS/HL0461A9-MSD				MS Lot-Sample #: A5J040187-017		
	ND	0.040	0.040	mg/L	100		SW846 9012A	10/14/05	5287548
	ND	0.040	0.038	mg/L	94	6.7	SW846 9012A	10/14/05	5287548
			Dilution Factor: 1						
Nitrocellulose			WO#: HL0461A0-MS/HL0461A1-MSD				MS Lot-Sample #: A5J040187-017		
	ND	2.0	2.1	mg/L	100		MCAWW 353.2	10/17-10/18/05	5286614
	ND	2.0	2.1	mg/L	103	2.4	MCAWW 353.2	10/17-10/18/05	5286614
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J040187 **Matrix.....:** WATER
Date Sampled...: 10/03/05 13:30 **Date Received..:** 10/05/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		WO#: HL22V1EU-MS/HL22V1EV-MSD				MS Lot-Sample #: A5J050177-007	
	124	(42 - 140)			SW846 9012A	10/14/05	5287548
	124	(42 - 140)	0.40	(0-20)	SW846 9012A	10/14/05	5287548
		Dilution Factor: 1					
Nitrate-Nitrite		WO#: HL22L1CG-MS/HL22L1CH-MSD				MS Lot-Sample #: A5J050177-002	
	63	(34 - 125)			MCAWW 353.2	10/14/05	5290597
	63	(34 - 125)	0.98	(0-20)	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J040187 **Matrix.....:** WATER
Date Sampled...: 10/03/05 13:30 **Date Received..:** 10/05/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: HL22V1EU-MS/HL22V1EV-MSD				MS Lot-Sample #: A5J050177-007		
	ND	0.040	0.049	mg/L	124		SW846 9012A	10/14/05	5287548
	ND	0.040	0.050	mg/L	124	0.40	SW846 9012A	10/14/05	5287548
			Dilution Factor: 1						
Nitrate-Nitrite			WO#: HL22L1CG-MS/HL22L1CH-MSD				MS Lot-Sample #: A5J050177-002		
	ND	0.5	0.3	mg/L	63		MCAWW 353.2	10/14/05	5290597
	ND	0.5	0.3	mg/L	63	0.98	MCAWW 353.2	10/14/05	5290597
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SEVERN TRENT STL

END OF REPORT

SEVERN TRENT STL®

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ANALYTICAL REPORT

REVISED

PROJECT NO. 001074.0001

FWGWMP RVAAP

Lot #: A5J050103

Chantelle Carroll

Spec Pro
8451 State Route 5
Ravenna, OH 44266

SEVERN TRENT LABORATORIES, INC.

Frank J. Calovini/jad

Frank J. Calovini
Project Manager

November 3, 2005

CASE NARRATIVE

CASE NARRATIVE

A5J050103

The following report contains the analytical results for twenty-four water samples and three quality control samples submitted to STL North Canton by Spec Pro from the FWGWMP RVAAP Site, project number 001074.0001. The samples were received October 05, 2005, according to documented sample acceptance procedures.

The Nitroguanidine, Nitrocellulose as N, and Explosives analyses were performed at the STL Sacramento laboratory.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Chantelle Carroll and Valarie Ann Mariola on October 25, 2005. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Frank J. Calovini, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The coolers were received at temperatures ranging from 0.6 to 5.4°C.

CASE NARRATIVE (continued)

GC/MS VOLATILES

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

GC/MS SEMIVOLATILES

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

The matrix spike/matrix spike duplicate data for batch(es) 5284329 are not included in this report. The batch QC samples, which document the effect of a specific sample matrix on method performance, were not associated with a sample reported in this lot. The data, therefore, has no bearing on the samples reported herein. In order to document compliance with the QC requirement for an MS/MSD per 20 environmental samples, a summary of sample/QC associations has been provided following this case narrative.

The internal standard recoveries for the MS associated with sample(s) FWGLL2MW-263C-0113-GW were outside acceptance criteria. Corrective action is not taken in this situation.

CASE NARRATIVE (continued)

PESTICIDES-8081

The analyses reported herein were performed using an instrument that has two columns(GC) or detectors(HPLC), one of which is used to confirm the results of the other. Peak interferences may result in some cases, which cause a quantitation difference between the two columns/detectors. If the difference between the two results is greater than 40%, the higher of the two results or the primary column/detector is normally reported. The reported results are flagged with "PG".

POLYCHLORINATED BIPHENYLS-8082

The analytical results met the requirements of the laboratory's QA/QC program.

METALS

The sample(s) that contain results between the MDL and the RL were flagged with "B". There is the possibility of false positive of mis-identification at these quantitation levels. The acceptance criteria for the ICB, CCB, and Method Blank are +/- the standard reporting limit (SRL).

Matrix spike recovery and relative percent difference (RPD) data were not calculated for some analytes for FWGLL2MW-263C-0113-GF due to the sample concentration reading greater than four times the spike amount. See the Matrix Spike Report for the affected analytes which will be flagged with "NC, MSB".

GENERAL CHEMISTRY

The sample(s) that contain results between the MDL and the RL were flagged with "B". There is the possibility of false positive of mis-identification at these quantitation levels. The acceptance criteria for the ICB, CCB, and Method Blank are +/- the standard reporting limit (SRL).

The matrix spike/matrix spike duplicate(s) for FWGLL2MW-263C-0113-GW had RPD's outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

CASE NARRATIVE (continued)

STL SACRAMENTO - 8330

All raw data has the method name NGu_Amino_9348_09.13.2005.mth associated with it. This calibration is actually the exact same calibration as Ngu_Amino_9348_08.23.2005.mth. Apparently, a new calibration was to be run on 9/13/2005, but was not run, as no run log was ever created on the instrument for the new calibration. So, although the name is different, the 8/23/05 calibration was used.

SEVERN TRENT LABORATORIES, INC.

MS RUN NUMBER REVIEW

Lot ID	Smp#	Work Order	Batch#	MS Run#	SDG Number	Prep Date	Quote#	PM	Method	SAC	Sample Receipt
A5J050263	005	HL3L41AE	5284043	5284020	5J05263	10/11/05	40284	ALM	SW846 8270C	XX-I-49-QL-01	10/05/05
A5I240181	002	HLC5W2AN	5284043	5284020	5I23274	10/11/05	44895	KJK	SW846 8270C	XX-I-49-QL-01	9/24/05
A5J050103	011	HL2CK2AC	5284329	5284020		10/11/05	63240	FJC	SW846 8270C	XX-I-49-QL-36	10/05/05
A5J050263	005 D	HL3L41CC	5284043	5284020	5J05263	10/11/05	40284	ALM	SW846 8270C	XX-I-49-QL-01	10/05/05
A5J050263	005 S	HL3L41CA	5284043	5284020	5J05263	10/11/05	40284	ALM	SW846 8270C	XX-I-49-QL-01	10/05/05

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	**Semivolatile (GC/MS)**	**Metals**
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#200004), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), North Carolina (#39702), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY - Detection Highlights

A5J050103

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGLL2MW-059C-0111-GW 10/04/05 15:00	**001**			
Heptachlor epoxide	0.46 PG	0.030	ug/L	SW846 8081A
2-Amino-4,6-dinitrotoluene	0.96	0.10	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	0.91	0.10	ug/L	SW846 8330
1,3-Dinitrobenzene	0.089 J	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	0.47	0.10	ug/L	SW846 8330
HMX	0.067 J	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	2.5	0.10	ug/L	SW846 8330
Di-n-butyl phthalate	1.5 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	4.1 B	1.0	ug/L	SW846 8270C
FWGLL2MW-059C-0111-GF 10/04/05 15:00	**002**			
Thallium	0.034 B	1.0	ug/L	SW846 6020
Barium	10.8	10.0	ug/L	SW846 6010B
Calcium	22300	1000	ug/L	SW846 6010B
Cobalt	2.9 B	20.0	ug/L	SW846 6010B
Iron	42.8 B	1000	ug/L	SW846 6010B
Magnesium	8070	1000	ug/L	SW846 6010B
Manganese	339	100	ug/L	SW846 6010B
Nickel	5.1 B	20.0	ug/L	SW846 6010B
Potassium	805 B	5000	ug/L	SW846 6010B
Sodium	5250	1000	ug/L	SW846 6010B
FWGLL1MW-080C-0109-GW 10/04/05 08:56	**003**			
Heptachlor epoxide	2.8	0.15	ug/L	SW846 8081A
2-Amino-4,6-dinitrotoluene	8.6	0.50	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	11	0.50	ug/L	SW846 8330
1,3-Dinitrobenzene	0.91	0.50	ug/L	SW846 8330
2,4-Dinitrotoluene	0.65	0.50	ug/L	SW846 8330
2,6-Dinitrotoluene	0.68	0.50	ug/L	SW846 8330
HMX	9.5	0.50	ug/L	SW846 8330
RDX	58	0.50	ug/L	SW846 8330
1,3,5-Trinitrobenzene	2.7	0.50	ug/L	SW846 8330
2,4,6-Trinitrotoluene	2.2	0.50	ug/L	SW846 8330
Diethyl phthalate	0.45 J	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	1.6 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.5 B	1.0	ug/L	SW846 8270C

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EXECUTIVE SUMMARY - Detection Highlights

A5J050103

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGLL1MW-080C-0109-GW 10/04/05 08:56 003				
bis(2-Ethylhexyl) phthalate	10 B	1.0	ug/L	SW846 8270C
Chloromethane	0.18 J	1.0	ug/L	SW846 8260B
FWGLL1MW-080C-0109-GF 10/04/05 08:56 004				
Thallium	0.39 B	1.0	ug/L	SW846 6020
Barium	17.9	10.0	ug/L	SW846 6010B
Calcium	97000	1000	ug/L	SW846 6010B
Magnesium	4660	1000	ug/L	SW846 6010B
Manganese	860	100	ug/L	SW846 6010B
Nickel	3.3 B	20.0	ug/L	SW846 6010B
Potassium	3450 B	5000	ug/L	SW846 6010B
Sodium	2440	1000	ug/L	SW846 6010B
FWGLL2MW-080C-0135-GW 10/04/05 08:56 005				
Heptachlor epoxide	2.3	0.15	ug/L	SW846 8081A
2-Amino-4,6-dinitrotoluene	8.2	0.50	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	11	0.50	ug/L	SW846 8330
1,3-Dinitrobenzene	0.44 J	0.50	ug/L	SW846 8330
2,4-Dinitrotoluene	0.45 J	0.50	ug/L	SW846 8330
2,6-Dinitrotoluene	0.33 J	0.50	ug/L	SW846 8330
HMX	10	0.50	ug/L	SW846 8330
RDX	64	0.50	ug/L	SW846 8330
1,3,5-Trinitrobenzene	2.8	0.50	ug/L	SW846 8330
2,4,6-Trinitrotoluene	1.8	0.50	ug/L	SW846 8330
Diethyl phthalate	0.33 J	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	1.5 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.5 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	6.6 B	1.0	ug/L	SW846 8270C
FWGLL2MW-080C-0135-GF 10/04/05 08:56 006				
Thallium	0.28 B	1.0	ug/L	SW846 6020
Selenium	2.4 B	10.0	ug/L	SW846 6010B
Barium	22.7	10.0	ug/L	SW846 6010B
Calcium	87600	1000	ug/L	SW846 6010B
Magnesium	4190	1000	ug/L	SW846 6010B
Manganese	297	100	ug/L	SW846 6010B

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EXECUTIVE SUMMARY - Detection Highlights

A5J050103

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGLL2MW-080C-0135-GF 10/04/05 08:56	**006**			
Nickel	2.1 B	20.0	ug/L	SW846 6010B
Potassium	3280 B	5000	ug/L	SW846 6010B
Sodium	2320	1000	ug/L	SW846 6010B
FWGLL1MW-083C-0110-GW 10/04/05 12:20	**007**			
Heptachlor epoxide	4.6	0.30	ug/L	SW846 8081A
2-Amino-4,6-dinitrotoluene	21	0.50	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	23	0.50	ug/L	SW846 8330
2,4-Dinitrotoluene	4.3	0.50	ug/L	SW846 8330
2,6-Dinitrotoluene	1.8	0.50	ug/L	SW846 8330
HMX	0.44 J	0.50	ug/L	SW846 8330
RDX	0.32 J	0.50	ug/L	SW846 8330
1,3,5-Trinitrobenzene	6.8	0.50	ug/L	SW846 8330
2,4,6-Trinitrotoluene	6.8	0.50	ug/L	SW846 8330
2,6-Dinitrotoluene	2.4 J	5.0	ug/L	SW846 8270C
2,4-Dinitrotoluene	3.1 J	5.0	ug/L	SW846 8270C
Di-n-butyl phthalate	1.5 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.5 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	2.3 B	1.0	ug/L	SW846 8270C
Di-n-octyl phthalate	1.5	1.0	ug/L	SW846 8270C
Cyanide, Total	0.0033 B	0.010	mg/L	SW846 9012A
Nitrocellulose	0.21 B	0.50	mg/L	MCAWW 353.2
FWGLL1MW-083C-0110-GF 10/04/05 12:20	**008**			
Thallium	0.059 B	1.0	ug/L	SW846 6020
Aluminum	670	200	ug/L	SW846 6010B
Barium	15.0	10.0	ug/L	SW846 6010B
Cadmium	0.64 B	10.0	ug/L	SW846 6010B
Calcium	12600	1000	ug/L	SW846 6010B
Cobalt	9.8 B	20.0	ug/L	SW846 6010B
Copper	2.5 B	20.0	ug/L	SW846 6010B
Iron	62.9 B	1000	ug/L	SW846 6010B
Magnesium	3630	1000	ug/L	SW846 6010B
Manganese	352	100	ug/L	SW846 6010B
Nickel	26.5	20.0	ug/L	SW846 6010B
Potassium	2340 B	5000	ug/L	SW846 6010B
Sodium	17000	1000	ug/L	SW846 6010B
Zinc	31.4 B	100	ug/L	SW846 6010B

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EXECUTIVE SUMMARY - Detection Highlights

A5J050103

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGLL1MW-083C-0137-GW 10/04/05 12:20	**009**			
Heptachlor epoxide	6.1	0.30	ug/L	SW846 8081A
2-Amino-4,6-dinitrotoluene	21	0.50	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	23	0.50	ug/L	SW846 8330
2,4-Dinitrotoluene	4.3	0.50	ug/L	SW846 8330
2,6-Dinitrotoluene	1.8	0.50	ug/L	SW846 8330
HMX	0.47 J	0.50	ug/L	SW846 8330
RDX	0.38 J	0.50	ug/L	SW846 8330
1,3,5-Trinitrobenzene	7.0	0.50	ug/L	SW846 8330
2,4,6-Trinitrotoluene	7.3	0.50	ug/L	SW846 8330
2,4-Dinitrotoluene	3.5 J	5.0	ug/L	SW846 8270C
Diethyl phthalate	0.39 J	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	1.8 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.7 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	3.9 B	1.0	ug/L	SW846 8270C
FWGLL1MW-083C-0137-GF 10/04/05 09:11	**010**			
Thallium	0.069 B	1.0	ug/L	SW846 6020
Aluminum	755	200	ug/L	SW846 6010B
Barium	16.1	10.0	ug/L	SW846 6010B
Cadmium	0.62 B	10.0	ug/L	SW846 6010B
Calcium	14200	1000	ug/L	SW846 6010B
Cobalt	11.1 B	20.0	ug/L	SW846 6010B
Copper	2.7 B	20.0	ug/L	SW846 6010B
Iron	61.2 B	1000	ug/L	SW846 6010B
Magnesium	4060	1000	ug/L	SW846 6010B
Manganese	419	100	ug/L	SW846 6010B
Nickel	30.6	20.0	ug/L	SW846 6010B
Potassium	2580 B	5000	ug/L	SW846 6010B
Sodium	19000	1000	ug/L	SW846 6010B
Zinc	42.7 B	100	ug/L	SW846 6010B
FWGLL3MW-242C-0115-GW 10/04/05 09:11	**011**			
Heptachlor epoxide	0.038	0.030	ug/L	SW846 8081A
Diethyl phthalate	0.58 J	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	1.9 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	2.1 B	1.0	ug/L	SW846 8270C

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EXECUTIVE SUMMARY - Detection Highlights

A5J050103

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGLL3MW-242C-0115-GF 10/04/05 09:11 012				
Barium	5.2 B	10.0	ug/L	SW846 6010B
Calcium	17300	1000	ug/L	SW846 6010B
Magnesium	7070	1000	ug/L	SW846 6010B
Manganese	157	100	ug/L	SW846 6010B
Nickel	5.2 B	20.0	ug/L	SW846 6010B
Potassium	1180 B	5000	ug/L	SW846 6010B
Sodium	12300	1000	ug/L	SW846 6010B
FWGLL3MW-242C-0136-GW 10/04/05 09:11 013				
Diethyl phthalate	0.59 J	1.0	ug/L	SW846 8270C
Pentachlorophenol	3.0 J	5.0	ug/L	SW846 8270C
Di-n-butyl phthalate	1.8 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.5 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	3.7 B	1.0	ug/L	SW846 8270C
FWGLL3MW-242C-0136-GF 10/04/05 09:11 014				
Barium	5.3 B	10.0	ug/L	SW846 6010B
Calcium	16600	1000	ug/L	SW846 6010B
Magnesium	6720	1000	ug/L	SW846 6010B
Manganese	273	100	ug/L	SW846 6010B
Nickel	5.0 B	20.0	ug/L	SW846 6010B
Potassium	1140 B	5000	ug/L	SW846 6010B
Sodium	11900	1000	ug/L	SW846 6010B
FWGLL12MW-153C-0120-GW 10/04/05 11:35 015				
Diethyl phthalate	0.74 J	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	2.5 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.6 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	3.1 B	1.0	ug/L	SW846 8270C
FWGLL12MW-153C-0120-GF 10/04/05 11:35 016				
Arsenic	19.0	10.0	ug/L	SW846 6010B
Barium	75.0	10.0	ug/L	SW846 6010B
Calcium	134000	1000	ug/L	SW846 6010B
Iron	2520	1000	ug/L	SW846 6010B
Magnesium	73200	1000	ug/L	SW846 6010B
Manganese	175	100	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5J050103

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGLL12MW-153C-0120-GF 10/04/05 11:35 016				
Potassium	2910 B	5000	ug/L	SW846 6010B
Sodium	24300	1000	ug/L	SW846 6010B
FWGLL2MW-262C-0112-GW 10/04/05 11:10 017				
Diethyl phthalate	0.60 J	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	1.8 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.5 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	2.7 B	1.0	ug/L	SW846 8270C
FWGLL2MW-262C-0112-GF 10/04/05 11:10 018				
Barium	20.7	10.0	ug/L	SW846 6010B
Calcium	65000	1000	ug/L	SW846 6010B
Cobalt	23.5	20.0	ug/L	SW846 6010B
Iron	2180	1000	ug/L	SW846 6010B
Magnesium	38500	1000	ug/L	SW846 6010B
Manganese	1950	100	ug/L	SW846 6010B
Nickel	25.8	20.0	ug/L	SW846 6010B
Potassium	2560 B	5000	ug/L	SW846 6010B
Sodium	8590	1000	ug/L	SW846 6010B
FWGLL2MW-263C-0113-GW 10/04/05 09:20 019				
Di-n-butyl phthalate	1.7 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.5 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	2.6 B	1.0	ug/L	SW846 8270C
FWGLL2MW-263C-0113-GF 10/04/05 09:20 020				
Arsenic	17.0	10.0	ug/L	SW846 6010B
Barium	22.2	10.0	ug/L	SW846 6010B
Calcium	31800	1000	ug/L	SW846 6010B
Cobalt	2.3 B	20.0	ug/L	SW846 6010B
Iron	4560	1000	ug/L	SW846 6010B
Magnesium	14400	1000	ug/L	SW846 6010B
Manganese	1200	100	ug/L	SW846 6010B
Nickel	4.8 B	20.0	ug/L	SW846 6010B
Potassium	810 B	5000	ug/L	SW846 6010B
Sodium	4600	1000	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5J050103

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGBKGMW-017C-0103-GW 10/04/05 14:54 021				
Diethyl phthalate	0.44 J	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	1.7 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.6 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	22 B	1.0	ug/L	SW846 8270C
Di-n-octyl phthalate	1.6	1.0	ug/L	SW846 8270C
FWGBKGMW-017C-0103-GF 10/04/05 14:54 022				
Arsenic	18.6	10.0	ug/L	SW846 6010B
Barium	30.9	10.0	ug/L	SW846 6010B
Calcium	102000	1000	ug/L	SW846 6010B
Iron	1410	1000	ug/L	SW846 6010B
Magnesium	43800	1000	ug/L	SW846 6010B
Manganese	197	100	ug/L	SW846 6010B
Potassium	2490 B	5000	ug/L	SW846 6010B
Sodium	21800	1000	ug/L	SW846 6010B
FWGBKGMW-020C-0106-GW 10/04/05 13:35 023				
Benzoic acid	5.5 J	10	ug/L	SW846 8270C
Diethyl phthalate	0.75 J	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	1.9 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.5 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	7.7 B	1.0	ug/L	SW846 8270C
Carbon disulfide	1.6	1.0	ug/L	SW846 8260B
Benzene	0.23 J	1.0	ug/L	SW846 8260B
FWGBKGMW-020C-0106-GF 10/04/05 13:35 024				
Barium	135	10.0	ug/L	SW846 6010B
Calcium	47400	1000	ug/L	SW846 6010B
Iron	2550	1000	ug/L	SW846 6010B
Magnesium	15100	1000	ug/L	SW846 6010B
Manganese	695	100	ug/L	SW846 6010B
Potassium	2920 B	5000	ug/L	SW846 6010B
Sodium	7630	1000	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5J050103

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGW-TB-0141-GW 10/04/05 18:00 025				
Methylene chloride	0.79 J,B	2.0	ug/L	SW846 8260B
FWGBKGMW-016C-0102-GW 10/04/05 14:46 026				
Diethyl phthalate	0.52 J	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	1.8 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	2.8 B	1.0	ug/L	SW846 8270C
FWGBKGMW-016C-0102-GF 10/04/05 14:46 027				
Barium	14.8	10.0	ug/L	SW846 6010B
Calcium	9450	1000	ug/L	SW846 6010B
Magnesium	4760	1000	ug/L	SW846 6010B
Manganese	20.0 B	100	ug/L	SW846 6010B
Nickel	2.5 B	20.0	ug/L	SW846 6010B
Potassium	634 B	5000	ug/L	SW846 6010B
Sodium	3620	1000	ug/L	SW846 6010B

METHOD SUMMARY

ANALYTICAL METHODS SUMMARY

A5J050103

PARAMETER	ANALYTICAL METHOD
Cyanide, Total	SW846 9012A
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
ICP-MS (6020)	SW846 6020
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Nitrate-Nitrite	MCAWW 353.2
Nitroaromatics and Nitramines by HPLC	SW846 8330
Nitrocellulose as N, 353.2	MCAWW 353.2
Organics by UV/HPLC	NONE UV/HPLC per SOP
Organochlorine Pesticides	SW846 8081A
PCBs by SW-846 8082	SW846 8082
Semivolatile Organic Compounds by GC/MS	SW846 8270C
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

NONE

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

SAMPLE SUMMARY

A5J050103

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HL2A3	001	FWGLL2MW-059C-0111-GW	10/04/05	15:00
HL2A5	002	FWGLL2MW-059C-0111-GF	10/04/05	15:00
HL2A7	003	FWGLL1MW-080C-0109-GW	10/04/05	08:56
HL2A8	004	FWGLL1MW-080C-0109-GF	10/04/05	08:56
HL2CA	005	FWGLL2MW-080C-0135-GW	10/04/05	08:56
HL2CD	006	FWGLL2MW-080C-0135-GF	10/04/05	08:56
HL2CE	007	FWGLL1MW-083C-0110-GW	10/04/05	12:20
HL2CF	008	FWGLL1MW-083C-0110-GF	10/04/05	12:20
HL2CH	009	FWGLL1MW-083C-0137-GW	10/04/05	12:20
HL2CJ	010	FWGLL1MW-083C-0137-GF	10/04/05	09:11
HL2CK	011	FWGLL3MW-242C-0115-GW	10/04/05	09:11
HL2CL	012	FWGLL3MW-242C-0115-GF	10/04/05	09:11
HL2CN	013	FWGLL3MW-242C-0136-GW	10/04/05	09:11
HL2CQ	014	FWGLL3MW-242C-0136-GF	10/04/05	09:11
HL2CR	015	FWGLL12MW-153C-0120-GW	10/04/05	11:35
HL2CW	016	FWGLL12MW-153C-0120-GF	10/04/05	11:35
HL2CX	017	FWGLL2MW-262C-0112-GW	10/04/05	11:10
HL2C0	018	FWGLL2MW-262C-0112-GF	10/04/05	11:10
HL2C1	019	FWGLL2MW-263C-0113-GW	10/04/05	09:20
HL2C4	020	FWGLL2MW-263C-0113-GF	10/04/05	09:20
HL2C5	021	FWGBKGMW-017C-0103-GW	10/04/05	14:54
HL2C6	022	FWGBKGMW-017C-0103-GF	10/04/05	14:54
HL2C7	023	FWGBKGMW-020C-0106-GW	10/04/05	13:35
HL2C8	024	FWGBKGMW-020C-0106-GF	10/04/05	13:35
HL2C9	025	FWGW-TB-0141-GW	10/04/05	18:00
HL2DA	026	FWGBKGMW-016C-0102-GW	10/04/05	14:46
HL2DE	027	FWGBKGMW-016C-0102-GF	10/04/05	14:46

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SHIPPING AND RECEIVING DOCUMENTS

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
Spec Pro	Chandle Carroll	10-5-05	200968
Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page 1 of 2
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chandle Carroll	Lab Contact	
Project Name and Location (State): Ravenna	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: Explo	Prep	SVOC	PCB/Pest	TAL Metal	Cyanide	VOC	Special Instructions/ Conditions of Receipt
EWGLL2mw-059C-0111-gw	10-4	1500		X			8			3	1		22	22	22		1	3		
EWGLL2mw-059C-0111-gf	10-4	1500		X					1								1			
EWGLL1mw-080C-0109-gw	10-4	856		X						3								3		
EWGLL1mw-080C-0135-gw	10-4	856		X						3								3		
EWGLL1mw-083C-0110-gw	10-4	1220		X						3								3		
EWGLL1mw-083C-0137-gw	10-4	1220		X						3								3		
EWGLL3mw-242C-0115-gw	10-4	9:11		X						3								3		
EWGLL3mw-242C-0136-gw	10-4	9:11		X						3								3		
EWGLL2mw-153C-0120-gw	10-4	1135		X						3								3		
EWGLL2mw-262C-0112-gw	10-4	11:10		X						3								3		
EWGLL2mw-263C-0113-gw	10-4	920		X						3								3		
EWGLL2mw-263C-0113-ms/msd	10-4	920		X						3								3		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.	Chandle Carroll	10-4-05	1800	H. H.	10-4-05	1800
2.	H. H.	10-4-05	1900	Chris Sanders	10/5/05	0840
3.						

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL North Canton
Appendix C WGWMP 2005 Annual Report
Page 298
Manitoba Project Annual Report for 2005
Figure 1 Site Map
SAP Facility ID: 76

[redacted]

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

TL-4124 (0901)

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: 10-5-05	Chain of Custody Number: 200969
Address:	Telephone Number (Area Code)/Fax Number:	Lab Number:	Page 2 of 2
City: Ravenna; State: ; Zip Code: 44266	Site Contact: Chantelle Carroll	Lab Contact:	
Project Name and Location (State): Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): VOC	Special Instructions/ Conditions of Receipt
WGBKGmw-017C-0103-gw	10-4	1454		X						3			3	
WGBKGmw-020C-0106-gw	10-4	1335		X						3			3	
WGW-tb-0141-gw	10-4	1800		X						1			1	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-4-05	1800	1. Received By: A H	10-4-05	1800
2. Relinquished By: A.H.	10-4-05	1900	2. Received By: Anne Sanders	10/5/05	8AM
3. Relinquished By:			3. Received By:		

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 1 7 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57227

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: 09/26/2005 10-4-05	Page 1 of 1
Address: 8151 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments	Analysis
FWGLL1mw-080C-0109-GW	10-4-05	8:56	WATER	1L	AMBER	2	None		
FWGLL1mw-080C-0109-GW			WATER	1L	AMBER	2	None		
FWGLL1mw-080C-0109-GW			WATER	1L	AMBER	2	None		
FWGLL1mw-080C-0109-GW			WATER	1L	AMBER	2	None		
FWGLL1mw-080C-0109-GW			WATER	1L	AMBER	2	None		
[illegible]			[illegible]	40mL	[illegible]	[illegible]	HCl		
FWGLL1mw-080C-0109-GW			WATER	250mL	PLASTIC	1	NaOH		
FWGLL1mw-080C-0109-GP			WATER	1000mL	PLASTIC	1	Conc HNO3		

Analysis: MS/MSD; GC 8260C; SL 8260C; NL 8260C; LC 8260C; MN 8260C; NO 8260C; FWGWMP 2004 Annual Report

* only 8 ambers

Special Instructions

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☒ Normal ☐ Rush ☐ Other____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-4-05	1800	1. Received By: A.H.	10-4-05	1800
2. Relinquished By: A.H.	10-4-05	1900	2. Received By: [signature]	10/5/05	8AM
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

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STL North Canton

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: 10-4-05	Chain of Custody Number: 247529
Address: 8451 St. Rt 5	Telephone Number (Area Code)/Fax Number:	Lab Number:	Page 1 of 1
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chantelle Carroll; Lab Contact:		
Project Name and Location (State): Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): Explosive	Propellants	SVOC	PCB/Pest	Cyanide	TAL metals	Special Instructions/ Conditions of Receipt
FWGLL1mw-080C-0135-gw	10-4-05	8:56		X			8				1		2	2	2	2	1		
FWGLL1mw-080C-0135-gw	10-4-05	8:56		X					1		1							1	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-4-05	1800	1. Received By: A H	10-4-05	1800
2. Relinquished By: A. H.	10-4-05	1900	2. Received By: Cyme Sanders	10/5/05	8AM
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 1 8 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57228

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/20/2005~~ 10-4-05	Page ~~18~~ 1 of ~~18~~ 1
Address: 8451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Analysis

Sample I.D. Number and Description	Date	Time	Sample Type	Containers Volume	Containers Type	Containers No.	Preservative	Condition on Receipt/Comments	MS8260	MS8270	GC8082	8081	LC8330	NCEL	LCNG	CN:LIQ	MN6010	NO3N02
FWGLL1mw-083C-0110-GW	10-5-05	1220	WATER	1L	AMBER	2	None							X	X			
FWGLL1mw-083C-0110-GW			WATER	1L	AMBER	2	None						X					
FWGLL1mw-083C-0110-GW			WATER	1L	AMBER	2	None					X						
FWGLL1mw-083C-0110-GW			WATER	1L	AMBER	2	None				X							
FWGLL1mw-083C-0110-GW			WATER	1L	AMBER	2	None			X								
~~FWGLL1mw-083C-0110-GW~~			~~WATER~~	~~40ML~~	~~[illegible]~~	~~2~~	~~HCL~~		X									
FWGLL1mw-083C-0110-GW			WATER	250ML	PLASTIC	1	NaOH									X		
FWGLL1mw-083C-0110-GF			WATER	1000ML	PLASTIC	1	Conc HNO3										X	

* Only 8 Ambers

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-4-05	1800	1. Received By: A. H.	10-4-05	1800
2. Relinquished By: A. H.	10-4-05	1900	2. Received By: Ann Sanders	10/5/05	8AM
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client: Spoc Pro	Project Manager: Chantelle Carroll	Date: 10-4-05	Chain of Custody Number: 200963
Address:	Telephone Number (Area Code)/Fax Number:	Lab Number:	Page 1 of 1
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chantelle Carroll	Lab Contact:	
Project Name and Location (State): Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): Explos	Propell	PCB/Pest	SVOC	Cyanide	TAL metal	Special Instructions/ Conditions of Receipt
~~WGLLmw-0137-gw~~													2	2	2	2	1		
WGLLmw-083C-0137-gw	10-4-05	1220		X			8				1							1	
WGLLmw-083C-0137-gf	10-4-05	1220		X					1										

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-4-05	1800	1. Received By: A. H.	10-4-05	1800
2. Relinquished By: A. H.	10-4-05	1900	2. Received By: [signature]	10/5/05	8:00
3. Relinquished By:			3. Received By:		

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 2 4 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57234

Client	Project Manager	Date	Page / of
Spec Pro	Chantelle Carroll	09/26/2005	Page 24 of 48
Address: 8451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments	Analysis
FWGLL3mw-242C-0115-GW	10-4-05	9:11	WATER	1L	AMBER	2	None		X X X X X
FWGLL3mw-242C-0115-GW			WATER	1L	AMBER	2	None		X
FWGLL3mw-242C-0115-GW			WATER	1L	AMBER	2	None		X
FWGLL3mw-242C-0115-GW			WATER	1L	AMBER	2	None		X
FWGLL3mw-242C-0115-GW			WATER	1L	AMBER	2	None		X
[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	HCl		X
FWGLL3mw-242C-0115-GW			WATER	250mL	PLASTIC	1	NaOH		X
FWGLL3mw-242C-0115-GF			WATER	1000mL	PLASTIC	1	Conc HNO3		X

* only 8 Ambers

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-4-05	800	1. Received By: A.H.	10-4-05	1800
2. Relinquished By: A.H.	10-4-05	1900	2. Received By: [signature]	10/5/05	0800
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

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Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

TL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
Spec Fe	Chantelle Carnell	10-4-05	200958
Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page 1 of 1
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chantelle Carnell	Lab Contact	Analysis (Attach list if more space is needed)
Project Name and Location (State): Ravenna	Carrier/Waybill Number		Special Instructions/ Conditions of Receipt
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Explos	Propell	8260	PCB/Pest	Cyanide	TAL metal
SWGL13-242C-0136-gw	10-4-05	9:11		X			8				1		2	2	2	2	1	
SWGL13-242C-0136-gf	10-4-05	9:11		X					1									1

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carnell	10-4-05	1800	1. Received By: A. H.	10-4-05	1800
2. Relinquished By: A. H.	10-4-05	1900	2. Received By: [signature]	10/5/05	8:00
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 3 0 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57240

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-4-05	Page 30 of ~~48~~
Address: 8251 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna	State: OH	Zip Code: 44266	Site Contact: Chantelle Carroll
Project Number/Name: Ravenna			Carrier/Waybill Number:
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :			QUOTE: 63240

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments
FWGLL12MW-153C-0120-GW	10-4	1135	WATER	1L	AMBER	2	None	
FWGLL12MW-153C-0120-GW			WATER	1L	AMBER	2	None	
FWGLL12MW-153C-0120-GW			WATER	1L	AMBER	2	None	
FWGLL12MW-153C-0120-GW			WATER	1L	AMBER	2	None	
FWGLL12MW-153C-0120-GW			WATER	1L	AMBER	2	None	
~~FWGLL12MW-153C-0120-GW~~			~~WATER~~	~~40mL~~	~~40ML VIAL~~	~~6~~	~~HCL~~	
FWGLL12MW-153C-0120-GW			WATER	250ML	PLASTIC	1	NaOH	
FWGLL12MW-153C-0120-GW			WATER	500ML	PLASTIC	1	Conc H2SO4	
FWGLL12MW-153C-0120-GF			WATER	1000ML	PLASTIC	1	Conc HNO3	

* Only 8 Ambers

Analysis: MS0822 (2), MS0822 (2), CL0123 (1), NH3 (1), TKN (1), TOC (1), NO3NO2 (1), MS8260 (3), MS8270 (1), NO2 (1)

Special Instructions

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For_____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☒ Normal ☐ Rush ☐ Other_____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

1. Relinquished By: Chantelle Carroll	Date: 10-4	Time: 1800	1. Received By: A.H.			Date: 10-4-05	Time: 1800
2. Relinquished By: A.H.	Date: 10-4-05	Time: 1900	2. Received By: Anne Sanders			Date: 10/5/05	Time: 8AM
3. Relinquished By	Date:	Time:	3. Received By			Date:	Time:

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

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Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 2 0 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57230

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-4-05	Page ~~20~~ 1 of ~~46~~ 1
Address: 4451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Analysis: MS8260 (L), MS8270 (E), GC8082 (A), 8081 (B), LC8330 (E), NCEL (L), LCNG (L), CN:LIQ (L), M6010 (L), NO3NO2 (L)

Sample I.D. Number and Description	Date	Time	Sample Type	Containers Volume	Containers Type	Containers No.	Preservative	Condition on Receipt/Comments
FWGLL2mw-262C-0112-GW	10-4-05	11:10	WATER	1L	AMBER	2	None	
FWGLL2mw-262C-0112-GW			WATER	1L	AMBER	2	None	
FWGLL2mw-262C-0112-GW			WATER	1L	AMBER	2	None	
FWGLL2mw-262C-0112-GW			WATER	1L	AMBER	2	None	
FWGLL2mw-262C-0112-GW			WATER	1L	AMBER	2	None	
~~FWGLL2mw-262C-0112-GW~~			~~WATER~~	~~40mL~~	~~40mL VIA~~	~~2~~	~~HCL~~	
FWGLL2mw-262C-0112-GW			WATER	250mL	PLASTIC	1	NaOH	
FWGLL2mw-262C-0112-GF			WATER	1000mL	PLASTIC	1	Conc HNO3	

* Only 8 Ambers

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-4	1800	1. Received By: A.H.	10-4-05	1800
2. Relinquished By: A.H.	10-4-05	1900	2. Received By: [signature]	10/5/05	8:00
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: 10-4-05	Chain of Custody Number: 247528
Address: 8451 St. Rt 5	Telephone Number (Area Code)/Fax Number:	Lab Number:	Page 1 of
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chantelle Carroll; Lab Contact:		
Project Name and Location (State): Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): Explos	Propell	PCB/Pest	5VOC	TAL Metal	Cyanide	Special Instructions/ Conditions of Receipt
WGLL2mw-263C-0113-gw	10-4-05	9:20		X			8				1		2	2	2	2		1	
WGLL2mw-263C-0113-gf	10-4-05			X					1								1		

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-4-05	1800	1. Received By: A. H.	10-4-05	1800
2. Relinquished By: A. H.	10-4-05	1900	2. Received By: Anne Sanders	10/5/05	8AM
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 2 2 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57232

TL4149 (1202)

Client	Project Manager	Date	Page / of
Spec Pro	Chantelle Carroll	09/26/2005	22 of 40

Address	Telephone Number (Area Code)/Fax Number	Lab Location
3751 State Route 5	(000) / (000)	STL North Canton

City	State	Zip Code	Site Contact
Sevenna	OH	44266	Chantelle Carroll

Project Number/Name	Carrier/Waybill Number
Sevenna	

Contract/Purchase Order/Quote Number

CONTRACT / PURCHASE ORDER # :

QUOTE: 63240

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments	Analysis
FWGLL2mw-263C-0113-GW MSD	10-4-05	9:20	WATER	1L	AMBER	2	None		
FWGLL2mw-263C-0113-GW MSD			WATER	1L	AMBER	2	None		
FWGLL2mw-263C-0113-GW MSD			WATER	1L	AMBER	2	None		
FWGLL2mw-263C-0113-GW MSD			WATER	1L	AMBER	2	None		
FWGLL2mw-263C-0113-GW MSD			WATER	1L	AMBER	2	None		
~~FWGLL2mw-2630-0113-GW MSD~~			~~WATER~~	~~40ML~~	~~40ML VIA~~	~~3~~	~~HCL~~		
FWGLL2mw-263C-0113-GW MSD			WATER	250ML	PLASTIC	1	NaOH		
FWGLL2mw-263C-0113-GF MSD			WATER	1000ML	PLASTIC	1	Conc HNO3		

Analysis: MS MS GC 8L NL LG MN 8260 8260 8260 8260 8260 ENV 3 LGL 1 3 LGL 1 NO 678 3 1 1 E 0 0 002 DO LLG 1 2 C 1 1 L LLA 5L

Any 8 Ambers

Special Instructions

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For_____ Months

(A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required

☐ Normal ☐ Rush ☐ Other_____

QC Level

☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-4-05	1800	1. Received By: A. H.	10-4-05	1800
2. Relinquished By: A. H.	10-4-05	1900	2. Received By: Ann Sanders	10/5/05	8AM
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

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Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 1 1 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57221

Client	Project Manager	Date	Page / of
Spec Pro	Chantelle Carroll	09/26/2005 10-4-05	1 / 1
Address: 8251 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna — State: OH — Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments	Analysis: MS/MSD	MS/MSD	GRO	BTEX	Lead	NAPL	Lead	GRO	MTBE	Naphthalene
FWGBKGmw-017C-0103-GW	10-4-05	1454	WATER	1L	AMBER	2	None								X	X		
FWGBKGmw-017C-0103-GW			WATER	1L	AMBER	2	None									X		
FWGBKGmw-017C-0103-GW			WATER	1L	AMBER	2	None										X	
FWGBKGmw-017C-0103-GW			WATER	1L	AMBER	2	None											X
FWGBKGmw-017C-0103-GW			WATER	1L	AMBER	2	None											
~~FWGBKGmw-017C-0103-GW~~			~~WATER~~	~~40mL~~	~~40ML-VIAL~~	~~3~~	~~HCl~~								X			
FWGBKGmw-017C-0103-GW			WATER	250mL	PLASTIC	1	NaOH										X	
FWGBKGmw-017C-0103-GF			WATER	1000mL	PLASTIC	1	Conc. HNO3											X

* Only 4 Ambers

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

		Date	Time
1. Relinquished By		10-4-05	1800
2. Relinquished By	A. H.	10-4-05	1900
3. Relinquished By			
1. Received By	A. H.	10.4.05	1800
2. Received By		10/5/05	8AM
3. Received By			

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

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Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 1 4 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57224

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-4-05	Page ~~14~~ of ~~46~~
Address: 8451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Analysis

Sample I.D. Number and Description	Date	Time	Sample Type	Containers Volume	Containers Type	Containers No.	Preservative	Condition on Receipt/Comments
FWGBKGMW-020C-0106-GW	10-4-05	1335	WATER	1L	AMBER	2	None	
FWGBKGMW-020C-0106-GW			WATER	1L	AMBER	2	None	
FWGBKGMW-020C-0106-GW			WATER	1L	AMBER	2	None	
FWGBKGMW-020C-0106-GW			WATER	1L	AMBER	2	None	
FWGBKGMW-020C-0106-GW			WATER	1L	AMBER	2	None	
~~FWGBKGMW-020C-0106-GW~~			~~WATER~~	~~40ML~~	~~[illegible]~~	~~3~~	~~HCl~~	
FWGBKGMW-020C-0106-GW			WATER	250ML	PLASTIC	1	NaOH	
FWGBKGMW-020C-0106-GF			WATER	1000ML	PLASTIC	1	Conc HNO3	

* only 8 Ambers

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-4	1800	1. Received By: A.H.	10-4-05	1800
2. Relinquished By: A.H.	10-4-05	1900	2. Received By: Anne Sanders	10/5/05	8AM
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 1 0 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57220

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-4-05	Page ~~10~~ 1 of ~~46~~ 1
Address: 8451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Analysis

Sample I.D. Number and Description	Date	Time	Sample Type	Containers Volume	Containers Type	Containers No.	Preservative	Condition on Receipt/Comments	MS8260	MS8270	GC8082	8081	LC8330	NCEL	LCNG	CN:LIQ	MS6010	NO3NO2
FWGBKGmw-016C-0102-GW	10-4-05	1446	WATER	1L	AMBER	2	None							X	X			
FWGBKGmw-016C-0102-GW			WATER	1L	AMBER	2	None						X					
FWGBKGmw-016C-0102-GW			WATER	1L	AMBER	2	None					X						
FWGBKGmw-016C-0102-GW			WATER	1L	AMBER	2	None				X							
FWGBKGmw-016C-0102-GW			WATER	1L	AMBER	2	None			X								
~~FWGBKGmw-016C-0102-GW~~			~~WATER~~	~~40mL~~	~~40mL VIAL~~	~~3~~	~~HCL~~		X									
FWGBKGmw-016C-0102-GW			WATER	250mL	PLASTIC	1	NaOH									X		
FWGBKGmw-016C-0102-GF			WATER	1000mL	PLASTIC	1	Conc HNO3										X	

* only 8 Ambers

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-4	1800	1. Received By: A.H.	10-4-05	1800
2. Relinquished By: A.H.	10-4-05	1900	2. Received By: Anne Sanders	10/5/05	8AM
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL Cooler Receipt Form/Narrative **Lot Number:** 46.5050103
North Canton Facility

Client: SPECPRO Project: RAVENNA Quote#:
Cooler Received on: 10/5/05 Opened on: 10/5/05 by: (Signature)
Fedx ☐ Client Drop Off ☐ UPS ☐ DHL ☐ FAS ☐ STL Courier ☑
Stetson ☐ US Cargo ☐ Other:
STL Cooler No# See attached Foam Box ☐ Client Cooler ☐ Other
1. Were custody seals on the outside of the cooler? Yes ☑ No ☐ Intact? Yes ☑ No ☐ NA ☐
If YES, Quantity 27
Were the custody seals signed and dated? Yes ☑ No ☐ NA ☐
2. Shipper's packing slip attached to this form? ~~Yes~~ ☑ No ☐ ~~NA~~ ☐
3. Did custody papers accompany the samples? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Did you sign the custody papers in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☑ Foam ☑ None ☐ Other :
6. Cooler temperature upon receipt _____ °C (see back of form for multiple coolers/temp)
METHOD: Temp Vial ☐ Coolant & Sample ☐ Against Bottles ☐ IR ☑ ICE/H_2O Slurry ☐
COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels and/or tags be reconciled with the COC? Yes ☐ No ☑
9. Were samples at the correct pH? (record below/on back) Yes ☑ No ☐ NA ☐
10. Were correct bottles used for the tests indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☑ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐ gm
13. Was a Trip Blank present in the cooler? Yes ☒ ~~No~~ ☑ Were VOAs on the COC? Yes ☒ ~~No~~ ☑ gm
14. Does the trip blank number match the cooler number in which it was received? Yes ☐ No ☑ ~~NA~~ ☑ gm
Contacted PM PSC Date: 10/5/05 by: AMS via Voice Mail ☑ Verbal ☑ Other ☐
Concerning: #1

√

1. CHAIN OF CUSTODY

√ The following discrepancies occurred:
Rec'd 1 EC-102 GW + 1 EC-102 GF, not on COC.
8 Amber Liters ICN, 1 Metals, 3 x 40, 10 VOA Like Other samples
will log for all

2. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.

3. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in sample receiving to meet recommended pH level(s). *Nitric Acid Lot #* 091305-*HNO3; Sulfuric Acid Lot #* 041305-*H2SO4; Sodium Hydroxide Lot #* -041305 -*NaOH; Hydrochloric Acid Lot #* 100504-*HCl; Sodium Hydroxide and Zinc Acetate Lot #* 071604-*CH3COO2ZN/NaOH*
Sample(s) _____ were received with bubble > 6 mm in diameter (cc: PM)

4. Other (see below or back)

Client ID	pH	Date	Initials
103 GW	>12	10/5/05	gm
106 GW	>12		
103 GF	<2		
106 GF	<2		

STL North Canton Multiple Cooler Receipt Form/Narrative

Client ID	pH		Date	Initials
113 GW	2 1 2 2 1 2		10/5/05	gm
113 GF	< 2 < 2		"	"

STL North Canton Multiple Cooler Form

Cooler	Temp	Method	Coolant	Comments
STL	1.9	IR	ICE	
STL	1.7			
	0.0			
	5.1			
460-000	2.6			
241-183	1.9			
Client cooler	4.0			
STL Nott	2.4			
	4.1			
	5.4			
680-132	4.4			
STL Nott	3.6			
	4.2			
K6060	3.1			

Revision 0, 09/19/01 DJL \\QCANOH01\public\QAQC\LAB_FORM\STL North Canton Multiple Cooler Form.doc

STL Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials
109 GW	>12	10/5/05	[illegible]
109 GF	<2		
135 GW	>12		
135 GF	<2		
110 GW	>12		
110 GF	<2		
137 GW	>12		
137 GF	<2		
115 GW	>12		
115 GF	<2		
136 GW	>12		
136 GF	<2		
120 GW	>12 <2		
120 GF	<2		
112 GW	>12		
112 GF	<2		

Cooler	Temp	Method	Coolant
	See attached sheet		

Discrepancies Cont.

SOP: NC-SC-0005, Sample Receiving
N:\QAQC\NARRATIV\STL\Cooler Receipt STL\COOLER_STL_Rev 51 092005.doc

GCMS VOLATILE DATA

SpecPro Inc

Client Sample ID: FWGLL2MW-059C-0111-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-001 **Work Order #...:** HL2A31AA **Matrix.....:** WG
Date Sampled...: 10/04/05 15:00 **Date Received..:** 10/05/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGLL2MW-059C-0111-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-001 **Work Order #...:** HL2A31AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

SpecPro Inc

FWGLL2MW-059C-0111-GW

GC/MS Volatiles

Lot-Sample #: A5J050103-001 **Work Order #:** HL2A31AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGLL1MW-080C-0109-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-003 **Work Order #...:** HL2A71AA **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	**0.18 J**	**1.0**	**ug/L**
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL1MW-080C-0109-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-003 **Work Order #...:** HL2A71AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

FWGLL1MW-080C-0109-GW

GC/MS Volatiles

Lot-Sample #: A5J050103-003 **Work Order #:** HL2A71AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGLL2MW-080C-0135-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-005 **Work Order #...:** HL2CA1AA **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL2MW-080C-0135-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-005 **Work Order #...:** HL2CA1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

SpecPro Inc

FWGLL2MW-080C-0135-GW

GC/MS Volatiles

Lot-Sample #: A5J050103-005 **Work Order #:** HL2CA1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0110-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-007 **Work Order #...:** HL2CE1AA **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0110-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-007 **Work Order #...:** HL2CE1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

SpecPro Inc

FWGLL1MW-083C-0110-GW

GC/MS Volatiles

Lot-Sample #: A5J050103-007 **Work Order #:** HL2CE1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0137-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-009 **Work Order #...:** HL2CH1AA **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0137-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-009 **Work Order #...:** HL2CH1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

SpecPro Inc

FWGLL1MW-083C-0137-GW

GC/MS Volatiles

Lot-Sample #: A5J050103-009 **Work Order #:** HL2CH1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0115-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-011 **Work Order #...:** HL2CK1AA **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0115-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-011 **Work Order #...:** HL2CK1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)

SpecPro Inc

FWGLL3MW-242C-0115-GW

GC/MS Volatiles

Lot-Sample #: A5J050103-011 **Work Order #:** HL2CK1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0136-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-013 **Work Order #...:** HL2CN1AA **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0136-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-013 **Work Order #...:** HL2CN1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

SpecPro Inc

FWGLL3MW-242C-0136-GW

GC/MS Volatiles

Lot-Sample #: A5J050103-013 **Work Order #:** HL2CN1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGLL12MW-153C-0120-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-015 **Work Order #...:** HL2CR1AA **Matrix.....:** WG
Date Sampled...: 10/04/05 11:35 **Date Received..:** 10/05/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL12MW-153C-0120-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-015 **Work Order #...:** HL2CR1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

SpecPro Inc

FWGLL12MW-153C-0120-GW

GC/MS Volatiles

Lot-Sample #: A5J050103-015 **Work Order #:** HL2CR1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGLL2MW-262C-0112-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-017 **Work Order #...:** HL2CX1AA **Matrix.....:** WG
Date Sampled...: 10/04/05 11:10 **Date Received..:** 10/05/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL2MW-262C-0112-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-017 **Work Order #...:** HL2CX1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

SpecPro Inc

FWGLL2MW-262C-0112-GW

GC/MS Volatiles

Lot-Sample #: A5J050103-017 **Work Order #:** HL2CX1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGLL2MW-263C-0113-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-019 **Work Order #...:** HL2C11AA **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL2MW-263C-0113-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-019 **Work Order #...:** HL2C11AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

SpecPro Inc

FWGLL2MW-263C-0113-GW

GC/MS Volatiles

Lot-Sample #: A5J050103-019 **Work Order #:** HL2C11AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGBKGMW-017C-0103-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-021 **Work Order #...:** HL2C51AA **Matrix.....:** WG
Date Sampled...: 10/04/05 14:54 **Date Received..:** 10/05/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-017C-0103-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-021 **Work Order #...:** HL2C51AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

SpecPro Inc

FWGBKGMW-017C-0103-GW

GC/MS Volatiles

Lot-Sample #: A5J050103-021 **Work Order #:** HL2C51AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGBKGMW-020C-0106-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-023 **Work Order #...:** HL2C71AA **Matrix.....:** WG
Date Sampled...: 10/04/05 13:35 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	**1.6**	**1.0**	**ug/L**
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	**0.23 J**	**1.0**	**ug/L**
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-020C-0106-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-023 **Work Order #...:** HL2C71AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

FWGBKGMW-020C-0106-GW

GC/MS Volatiles

Lot-Sample #: A5J050103-023 **Work Order #:** HL2C71AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGW-TB-0141-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-025 **Work Order #...:** HL2C91AA **Matrix.....:** WQ
Date Sampled...: 10/04/05 18:00 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	**0.79 J,B**	**2.0**	**ug/L**
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGW-TB-0141-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-025 **Work Order #...:** HL2C91AA **Matrix.....:** WQ

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGW-TB-0141-GW

GC/MS Volatiles

Lot-Sample #: A5J050103-025 **Work Order #:** HL2C91AA **Matrix:** WQ

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGBKGMW-016C-0102-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-026 **Work Order #...:** HL2DA1AA **Matrix.....:** WQ
Date Sampled...: 10/04/05 14:46 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-016C-0102-GW

GC/MS Volatiles

Lot-Sample #...: A5J050103-026 **Work Order #...:** HL2DA1AA **Matrix.....:** WQ

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)

SpecPro Inc

FWGBKGMW-016C-0102-GW

GC/MS Volatiles

Lot-Sample #: A5J050103-026 **Work Order #:** HL2DA1AA **Matrix:** WQ

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5J050103 **Work Order #...:** HMLXD1AA **Matrix.....:** WATER
MB Lot-Sample #: A5J130000-162

Prep Date.....: 10/12/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/12/05 **Prep Batch #...:** 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	2.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethene (total)	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	10	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	10	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5J050103 **Work Order #...:** HMLXD1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Toluene-d8	92	(76 - 110)		
4-Bromofluorobenzene	91	(74 - 116)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SpecPro Inc

Method Blank Report

GC/MS Volatiles

Lot-Sample #: A5J130000-162 B **Work Order #:** HMLXD1AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5J050103 **Work Order #...:** HMPL71AA **Matrix.....:** WATER
MB Lot-Sample #: A5J140000-104

Prep Date.....: 10/13/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/13/05 **Prep Batch #...:** 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Methylene chloride	**0.32 J**	**2.0**	**ug/L**	**SW846 8260B**
Acetone	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethene (total)	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	10	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	10	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5J050103 **Work Order #...:** HMPL71AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Toluene-d8	93	(76 - 110)		
4-Bromofluorobenzene	93	(74 - 116)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

SpecPro Inc

Method Blank Report

GC/MS Volatiles

Lot-Sample #: A5J140000-104 B **Work Order #:** HMPL71AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5J050103 **Work Order #...:** HMLXD1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A5J130000-162 HMLXD1AD-LCSD
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**102**	**(63 - 130)**			**SW846 8260B**
	104	**(63 - 130)**	**1.4**	**(0-20)**	**SW846 8260B**
Trichloroethene	**101**	**(75 - 122)**			**SW846 8260B**
	99	**(75 - 122)**	**1.5**	**(0-20)**	**SW846 8260B**
Benzene	**88**	**(80 - 116)**			**SW846 8260B**
	91	**(80 - 116)**	**2.7**	**(0-20)**	**SW846 8260B**
Toluene	**95**	**(74 - 119)**			**SW846 8260B**
	93	**(74 - 119)**	**2.2**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**96**	**(76 - 117)**			**SW846 8260B**
	94	**(76 - 117)**	**2.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
	106	(61 - 128)
Toluene-d8	95	(76 - 110)
	93	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)
	94	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5J050103 **Work Order #...:** HMLXD1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A5J130000-162 HMLXD1AD-LCSD
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 5 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**10**	**10**	**ug/L**	**102**		**SW846 8260B**
	10	**10**	**ug/L**	**104**	**1.4**	**SW846 8260B**
Trichloroethene	**10**	**10**	**ug/L**	**101**		**SW846 8260B**
	10	**9.9**	**ug/L**	**99**	**1.5**	**SW846 8260B**
Benzene	**10**	**8.8**	**ug/L**	**88**		**SW846 8260B**
	10	**9.1**	**ug/L**	**91**	**2.7**	**SW846 8260B**
Toluene	**10**	**9.5**	**ug/L**	**95**		**SW846 8260B**
	10	**9.3**	**ug/L**	**93**	**2.2**	**SW846 8260B**
Chlorobenzene	**10**	**9.6**	**ug/L**	**96**		**SW846 8260B**
	10	**9.4**	**ug/L**	**94**	**2.0**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
	106	(61 - 128)
Toluene-d8	95	(76 - 110)
	93	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)
	94	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5J050103 **Work Order #...:** HMPL71AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A5J140000-104 HMPL71AD-LCSD
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**109**	**(63 - 130)**			**SW846 8260B**
	105	**(63 - 130)**	**3.7**	**(0-20)**	**SW846 8260B**
Trichloroethene	**105**	**(75 - 122)**			**SW846 8260B**
	100	**(75 - 122)**	**5.0**	**(0-20)**	**SW846 8260B**
Benzene	**91**	**(80 - 116)**			**SW846 8260B**
	89	**(80 - 116)**	**2.3**	**(0-20)**	**SW846 8260B**
Toluene	**96**	**(74 - 119)**			**SW846 8260B**
	97	**(74 - 119)**	**0.89**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(76 - 117)**			**SW846 8260B**
	98	**(76 - 117)**	**0.42**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	109	(61 - 128)
	104	(61 - 128)
Toluene-d8	96	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	100	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5J050103 **Work Order #...:** HMPL71AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A5J140000-104 HMPL71AD-LCSD
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 5 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**10**	**11**	**ug/L**	**109**		**SW846 8260B**
	10	**11**	**ug/L**	**105**	**3.7**	**SW846 8260B**
Trichloroethene	**10**	**11**	**ug/L**	**105**		**SW846 8260B**
	10	**10**	**ug/L**	**100**	**5.0**	**SW846 8260B**
Benzene	**10**	**9.1**	**ug/L**	**91**		**SW846 8260B**
	10	**8.9**	**ug/L**	**89**	**2.3**	**SW846 8260B**
Toluene	**10**	**9.6**	**ug/L**	**96**		**SW846 8260B**
	10	**9.7**	**ug/L**	**97**	**0.89**	**SW846 8260B**
Chlorobenzene	**10**	**9.8**	**ug/L**	**98**		**SW846 8260B**
	10	**9.8**	**ug/L**	**98**	**0.42**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	109	(61 - 128)
	104	(61 - 128)
Toluene-d8	96	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	100	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5J050103 **Work Order #...:** HL0461AK-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J040187-017 HL0461AL-MSD
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**103**	**(62 - 130)**			**SW846 8260B**
	105	**(62 - 130)**	**1.3**	**(0-20)**	**SW846 8260B**
Trichloroethene	**92**	**(62 - 130)**			**SW846 8260B**
	97	**(62 - 130)**	**5.0**	**(0-20)**	**SW846 8260B**
Benzene	**81**	**(78 - 118)**			**SW846 8260B**
	85	**(78 - 118)**	**4.9**	**(0-20)**	**SW846 8260B**
Toluene	**85**	**(70 - 119)**			**SW846 8260B**
	89	**(70 - 119)**	**5.0**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**85**	**(76 - 117)**			**SW846 8260B**
	91	**(76 - 117)**	**7.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
	104	(61 - 128)
Toluene-d8	96	(76 - 110)
	93	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)
	97	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5J050103 **Work Order #...:** HL0461AK-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J040187-017 HL0461AL-MSD
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/12/05 **Analysis Date..:** 10/12/05
Prep Batch #...: 5286162
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**ND**	**10**	**10**	**ug/L**	**103**		**SW846 8260B**
	ND	**10**	**10**	**ug/L**	**105**	**1.3**	**SW846 8260B**
Trichloroethene	**ND**	**10**	**9.2**	**ug/L**	**92**		**SW846 8260B**
	ND	**10**	**9.7**	**ug/L**	**97**	**5.0**	**SW846 8260B**
Benzene	**ND**	**10**	**8.1**	**ug/L**	**81**		**SW846 8260B**
	ND	**10**	**8.5**	**ug/L**	**85**	**4.9**	**SW846 8260B**
Toluene	**ND**	**10**	**8.5**	**ug/L**	**85**		**SW846 8260B**
	ND	**10**	**8.9**	**ug/L**	**89**	**5.0**	**SW846 8260B**
Chlorobenzene	**ND**	**10**	**8.5**	**ug/L**	**85**		**SW846 8260B**
	ND	**10**	**9.1**	**ug/L**	**91**	**7.0**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
	104	(61 - 128)
Toluene-d8	96	(76 - 110)
	93	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)
	97	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5J050103 **Work Order #...:** HL41C1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J060101-017 HL41C1AD-MSD
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**105**	**(62 - 130)**			**SW846 8260B**
	106	**(62 - 130)**	**1.2**	**(0-20)**	**SW846 8260B**
Trichloroethene	**99**	**(62 - 130)**			**SW846 8260B**
	100	**(62 - 130)**	**1.3**	**(0-20)**	**SW846 8260B**
Benzene	**89**	**(78 - 118)**			**SW846 8260B**
	89	**(78 - 118)**	**0.46**	**(0-20)**	**SW846 8260B**
Toluene	**92**	**(70 - 119)**			**SW846 8260B**
	92	**(70 - 119)**	**0.19**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**91**	**(76 - 117)**			**SW846 8260B**
	92	**(76 - 117)**	**1.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
	105	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
	108	(61 - 128)
Toluene-d8	92	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)
	102	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5J050103 **Work Order #...:** HL41C1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J060101-017 HL41C1AD-MSD
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**ND**	**10**	**11**	**ug/L**	**105**		**SW846 8260B**
	ND	**10**	**11**	**ug/L**	**106**	**1.2**	**SW846 8260B**
Trichloroethene	**ND**	**10**	**9.9**	**ug/L**	**99**		**SW846 8260B**
	ND	**10**	**10**	**ug/L**	**100**	**1.3**	**SW846 8260B**
Benzene	**ND**	**10**	**8.9**	**ug/L**	**89**		**SW846 8260B**
	ND	**10**	**8.9**	**ug/L**	**89**	**0.46**	**SW846 8260B**
Toluene	**ND**	**10**	**9.2**	**ug/L**	**92**		**SW846 8260B**
	ND	**10**	**9.2**	**ug/L**	**92**	**0.19**	**SW846 8260B**
Chlorobenzene	**ND**	**10**	**9.1**	**ug/L**	**91**		**SW846 8260B**
	ND	**10**	**9.2**	**ug/L**	**92**	**1.0**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
	105	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
	108	(61 - 128)
Toluene-d8	92	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)
	102	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5J050103 **Work Order #...:** HL2C11AC-MS **Matrix.....:** WG
MS Lot-Sample #: A5J050103-019 HL2C11AD-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**104**	**(62 - 130)**			**SW846 8260B**
	105	**(62 - 130)**	**0.16**	**(0-20)**	**SW846 8260B**
Trichloroethene	**98**	**(62 - 130)**			**SW846 8260B**
	100	**(62 - 130)**	**1.4**	**(0-20)**	**SW846 8260B**
Benzene	**87**	**(78 - 118)**			**SW846 8260B**
	86	**(78 - 118)**	**0.70**	**(0-20)**	**SW846 8260B**
Toluene	**89**	**(70 - 119)**			**SW846 8260B**
	92	**(70 - 119)**	**3.6**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**90**	**(76 - 117)**			**SW846 8260B**
	93	**(76 - 117)**	**3.2**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
	108	(61 - 128)
Toluene-d8	94	(76 - 110)
	94	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)
	98	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5J050103 **Work Order #...:** HL2C11AC-MS **Matrix.....:** WG
MS Lot-Sample #: A5J050103-019 HL2C11AD-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**ND**	**10**	**10**	**ug/L**	**104**		**SW846 8260B**
	ND	**10**	**10**	**ug/L**	**105**	**0.16**	**SW846 8260B**
Trichloroethene	**ND**	**10**	**9.8**	**ug/L**	**98**		**SW846 8260B**
	ND	**10**	**10**	**ug/L**	**100**	**1.4**	**SW846 8260B**
Benzene	**ND**	**10**	**8.7**	**ug/L**	**87**		**SW846 8260B**
	ND	**10**	**8.6**	**ug/L**	**86**	**0.70**	**SW846 8260B**
Toluene	**ND**	**10**	**8.9**	**ug/L**	**89**		**SW846 8260B**
	ND	**10**	**9.2**	**ug/L**	**92**	**3.6**	**SW846 8260B**
Chlorobenzene	**ND**	**10**	**9.0**	**ug/L**	**90**		**SW846 8260B**
	ND	**10**	**9.3**	**ug/L**	**93**	**3.2**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
	108	(61 - 128)
Toluene-d8	94	(76 - 110)
	94	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)
	98	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

GCMS SEMIVOLATILE DATA

SpecPro Inc

Client Sample ID: FWGLL2MW-059C-0111-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-001 **Work Order #...:** HL2A31AC **Matrix.....:** WG
Date Sampled...: 10/04/05 15:00 **Date Received..:** 10/05/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5279017
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL2MW-059C-0111-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-001 **Work Order #...:** HL2A31AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.5 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**4.1 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL2MW-059C-0111-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-001 **Work Order #...:** HL2A31AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	72	(32 - 112)
2-Fluorobiphenyl	55	(30 - 110)
Terphenyl-d14	80	(51 - 135)
Phenol-d5	50	(10 - 117)
2-Fluorophenol	31	(19 - 108)
2,4,6-Tribromophenol	60	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL2MW-059C-0111-GW

GC/MS Semivolatiles

Lot-Sample #: A5J050103-001 **Work Order #:** HL2A31AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		0.95 J	M	5.7793	ug/L
Unknown		0.78 J	M	6.1639	ug/L
Unknown		1.0 J	M	7.3499	ug/L
Unknown		1.1 J	M	7.9161	ug/L
Unknown		11 J	M	10.816	ug/L
Unknown		3.2 J	M	2.6969	ug/L
Unknown		0.97 J	M	2.8571	ug/L
Unknown		1.4 J	M	4.1606	ug/L
Unknown		1.4 J	M	4.4651	ug/L
Unknown		3.5 J	M	5.5763	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL1MW-080C-0109-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-003 **Work Order #...:** HL2A71AC **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5279017
Dilution Factor: 1 **Initial Wgt/Vol:** 1030 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL1MW-080C-0109-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-003 **Work Order #...:** HL2A71AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	**0.45 J**	**1.0**	**ug/L**
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.6 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.5 B**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**10 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL1MW-080C-0109-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-003 **Work Order #...:** HL2A71AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	72	(32 - 112)
2-Fluorobiphenyl	54	(30 - 110)
Terphenyl-d14	76	(51 - 135)
Phenol-d5	53	(10 - 117)
2-Fluorophenol	38	(19 - 108)
2,4,6-Tribromophenol	62	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL1MW-080C-0109-GW

GC/MS Semivolatiles

Lot-Sample #: A5J050103-003 **Work Order #:** HL2A71AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		4.7 J	M	2.6965	ug/L
Unknown		0.80 J	M	3.0277	ug/L
Unknown		1.7 J	M	3.2788	ug/L
Unknown		1.9 J	M	4.1549	ug/L
Unknown		2.1 J	M	4.4647	ug/L
Unknown		2.5 J	M	5.5759	ug/L
Unknown		2.4 J	M	7.1144	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL2MW-080C-0135-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-005 **Work Order #...:** HL2CA1AC **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5279017
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL2MW-080C-0135-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-005 **Work Order #...:** HL2CA1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	**0.33 J**	**1.0**	**ug/L**
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.5 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.5 B**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**6.6 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL2MW-080C-0135-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-005 **Work Order #...:** HL2CA1AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	71	(32 - 112)
2-Fluorobiphenyl	54	(30 - 110)
Terphenyl-d14	77	(51 - 135)
Phenol-d5	51	(10 - 117)
2-Fluorophenol	32	(19 - 108)
2,4,6-Tribromophenol	60	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL2MW-080C-0135-GW

GC/MS Semivolatiles

Lot-Sample #: A5J050103-005 **Work Order #:** HL2CA1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		4.1 J	M	2.6942	ug/L
Unknown		0.78 J	M	2.8545	ug/L
Unknown		1.4 J	M	4.158	ug/L
Unknown		1.4 J	M	4.4625	ug/L
Unknown		2.4 J	M	5.579	ug/L
Unknown		1.1 J	M	6.1773	ug/L
Unknown		2.6 J	M	7.1122	ug/L
Unknown		5.1 J	M	12.379	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0110-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-007 **Work Order #...:** HL2CE1AC **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5279017
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0110-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-007 **Work Order #...:** HL2CE1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	**2.4 J**	**5.0**	**ug/L**
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	**3.1 J**	**5.0**	**ug/L**
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.5 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.5 B**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**2.3 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	**1.5**	**1.0**	**ug/L**
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0110-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-007 **Work Order #...:** HL2CE1AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	73	(32 - 112)
2-Fluorobiphenyl	55	(30 - 110)
Terphenyl-d14	70	(51 - 135)
Phenol-d5	53	(10 - 117)
2-Fluorophenol	33	(19 - 108)
2,4,6-Tribromophenol	56	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL1MW-083C-0110-GW

GC/MS Semivolatiles

Lot-Sample #: A5J050103-007 **Work Order #:** HL2CE1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		2.0 J	M	2.6921	ug/L
Unknown		0.81 J	M	4.1559	ug/L
Unknown		1.4 J	M	5.7799	ug/L
Unknown		2.7 J	M	6.1806	ug/L
Unknown		0.87 J	M	6.9926	ug/L
Unknown		6.5 J	M	7.1101	ug/L
Unknown		7.6 J	M	10.026	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0137-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-009 **Work Order #...:** HL2CH1AC **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5279017
Dilution Factor: 1 **Initial Wgt/Vol:** 970 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0137-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-009 **Work Order #...:** HL2CH1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	**3.5 J**	**5.0**	**ug/L**
Diethyl phthalate	**0.39 J**	**1.0**	**ug/L**
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.8 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.7 B**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**3.9 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0137-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-009 **Work Order #...:** HL2CH1AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	78	(32 - 112)
2-Fluorobiphenyl	60	(30 - 110)
Terphenyl-d14	83	(51 - 135)
Phenol-d5	57	(10 - 117)
2-Fluorophenol	34	(19 - 108)
2,4,6-Tribromophenol	65	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL1MW-083C-0137-GW

GC/MS Semivolatiles

Lot-Sample #: A5J050103-009 **Work Order #:** HL2CH1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		3.8 J	M	2.6912	ug/L
Unknown		0.84 J	M	2.8514	ug/L
Unknown		1.5 J	M	4.1602	ug/L
Unknown		1.3 J	M	6.1582	ug/L
Unknown		2.0 J	M	6.1796	ug/L
Unknown		7.6 J	M	6.9328	ug/L
Unknown		8.0 J	M	7.1091	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0115-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-011 **Work Order #...:** HL2CK2AC **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05
Prep Date.....: 10/11/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5284329
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0115-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-011 **Work Order #...:** HL2CK2AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	**0.58 J**	**1.0**	**ug/L**
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.9 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**2.1 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0115-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-011 **Work Order #...:** HL2CK2AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	69	(32 - 112)
2-Fluorobiphenyl	59	(30 - 110)
Terphenyl-d14	84	(51 - 135)
Phenol-d5	45	(10 - 117)
2-Fluorophenol	27	(19 - 108)
2,4,6-Tribromophenol	61	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL3MW-242C-0115-GW

GC/MS Semivolatiles

Lot-Sample #: A5J050103-011 **Work Order #:** HL2CK2AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		9.5 J	M	2.7285	ug/L
Unknown		1.9 J	M	4.1922	ug/L
Unknown Organic Acid		1.2 J	M	8.1507	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0136-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-013 **Work Order #...:** HL2CN1AC **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5279017
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0136-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-013 **Work Order #...:** HL2CN1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	**0.59 J**	**1.0**	**ug/L**
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	**3.0 J**	**5.0**	**ug/L**
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.8 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.5 B**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**3.7 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0136-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-013 **Work Order #...:** HL2CN1AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	73	(32 - 112)
2-Fluorobiphenyl	58	(30 - 110)
Terphenyl-d14	80	(51 - 135)
Phenol-d5	52	(10 - 117)
2-Fluorophenol	37	(19 - 108)
2,4,6-Tribromophenol	61	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL3MW-242C-0136-GW

GC/MS Semivolatiles

Lot-Sample #: A5J050103-013 **Work Order #:** HL2CN1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		7.1 J	M	2.6939	ug/L
Unknown		1.4 J	M	2.8542	ug/L
Unknown Organic Acid		0.94 J	M	3.0305	ug/L
Unknown Organic Acid		0.87 J	M	4.0081	ug/L
Unknown		2.4 J	M	4.1576	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL12MW-153C-0120-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-015 **Work Order #...:** HL2CR1AC **Matrix.....:** WG
Date Sampled...: 10/04/05 11:35 **Date Received..:** 10/05/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5279017
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGLL12MW-153C-0120-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-015 **Work Order #...:** HL2CR1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	**0.74 J**	**1.0**	**ug/L**
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**2.5 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.6 B**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**3.1 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL12MW-153C-0120-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-015 **Work Order #...:** HL2CR1AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	76	(32 - 112)
2-Fluorobiphenyl	60	(30 - 110)
Terphenyl-d14	80	(51 - 135)
Phenol-d5	56	(10 - 117)
2-Fluorophenol	38	(19 - 108)
2,4,6-Tribromophenol	64	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL12MW-153C-0120-GW

GC/MS Semivolatiles

Lot-Sample #: A5J050103-015 **Work Order #:** HL2CR1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		7.2 J	M	2.6916	ug/L
Unknown		1.3 J	M	2.8572	ug/L
Unknown		1.1 J	M	3.0281	ug/L
Unknown		0.93 J	M	3.2792	ug/L
2-Pyrrolidinone, 1-methyl-	872-50-4	5.1 NJ	M	3.4502	ug/L
Unknown Organic Acid		3.5 J	M	4.0164	ug/L
Unknown		2.8 J	M	4.1553	ug/L
Unknown		2.3 J	M	4.8658	ug/L
Unknown		1.2 J	M	4.9246	ug/L
Unknown		0.85 J	M	5.3146	ug/L
Unknown		13 J	M	5.6351	ug/L
Unknown Organic Acid		2.5 J	M	6.3135	ug/L
Unknown		2.5 J	M	7.4621	ug/L
Unknown		4.6 J	M	7.9162	ug/L
Unknown		6.9 J	M	10.822	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL2MW-262C-0112-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-017 **Work Order #...:** HL2CX1AC **Matrix.....:** WG
Date Sampled...: 10/04/05 11:10 **Date Received..:** 10/05/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5279017
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL2MW-262C-0112-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-017 **Work Order #...:** HL2CX1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	**0.60 J**	**1.0**	**ug/L**
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.8 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.5 B**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**2.7 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL2MW-262C-0112-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-017 **Work Order #...:** HL2CX1AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	75	(32 - 112)
2-Fluorobiphenyl	55	(30 - 110)
Terphenyl-d14	80	(51 - 135)
Phenol-d5	55	(10 - 117)
2-Fluorophenol	40	(19 - 108)
2,4,6-Tribromophenol	58	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL2MW-262C-0112-GW

GC/MS Semivolatiles

Lot-Sample #: A5J050103-017 **Work Order #:** HL2CX1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		7.2 J	M	2.6972	ug/L
Unknown		1.2 J	M	2.8575	ug/L
Unknown Organic Acid		0.86 J	M	3.0284	ug/L
Unknown Organic Acid		1.2 J	M	4.0114	ug/L
Unknown		2.4 J	M	4.1556	ug/L
Unknown		0.85 J	M	4.9249	ug/L
Unknown		1.6 J	M	10.037	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL2MW-263C-0113-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-019 **Work Order #...:** HL2C11AE **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5279017
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL2MW-263C-0113-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-019 **Work Order #...:** HL2C11AE **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.7 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.5 B**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**2.6 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL2MW-263C-0113-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-019 **Work Order #...:** HL2C11AE **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	71	(32 - 112)
2-Fluorobiphenyl	53	(30 - 110)
Terphenyl-d14	77	(51 - 135)
Phenol-d5	52	(10 - 117)
2-Fluorophenol	34	(19 - 108)
2,4,6-Tribromophenol	60	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL2MW-263C-0113-GW

GC/MS Semivolatiles

Lot-Sample #: A5J050103-019 **Work Order #:** HL2C11AE **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		1.7 J	M	2.6967	ug/L
Unknown		0.77 J	M	3.2844	ug/L
Unknown		0.97 J	M	4.1605	ug/L
Unknown		0.96 J	M	5.7791	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGBKGMW-017C-0103-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-021 **Work Order #...:** HL2C51AC **Matrix.....:** WG
Date Sampled...: 10/04/05 14:54 **Date Received..:** 10/05/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5279017
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGBKGMW-017C-0103-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-021 **Work Order #...:** HL2C51AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	**0.44 J**	**1.0**	**ug/L**
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.7 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.6 B**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**22 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	**1.6**	**1.0**	**ug/L**
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-017C-0103-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-021 **Work Order #...:** HL2C51AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	75	(32 - 112)
2-Fluorobiphenyl	57	(30 - 110)
Terphenyl-d14	79	(51 - 135)
Phenol-d5	55	(10 - 117)
2-Fluorophenol	37	(19 - 108)
2,4,6-Tribromophenol	64	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGBKGMW-017C-0103-GW

GC/MS Semivolatiles

Lot-Sample #: A5J050103-021 **Work Order #:** HL2C51AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		5.1 J	M	2.6949	ug/L
Unknown		1.0 J	M	2.8551	ug/L
Unknown		2.0 J	M	4.1586	ug/L
Unknown		1.9 J	M	5.5796	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGBKGMW-020C-0106-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-023 **Work Order #...:** HL2C71AC **Matrix.....:** WG
Date Sampled...: 10/04/05 13:35 **Date Received..:** 10/05/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5279017
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	**5.5 J**	**10**	**ug/L**
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGBKGMW-020C-0106-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-023 **Work Order #...:** HL2C71AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	**0.75 J**	**1.0**	**ug/L**
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.9 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.5 B**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**7.7 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-020C-0106-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-023 **Work Order #...:** HL2C71AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	74	(32 - 112)
2-Fluorobiphenyl	57	(30 - 110)
Terphenyl-d14	85	(51 - 135)
Phenol-d5	53	(10 - 117)
2-Fluorophenol	32	(19 - 108)
2,4,6-Tribromophenol	70	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGBKGMW-020C-0106-GW

GC/MS Semivolatiles

Lot-Sample #: A5J050103-023 **Work Order #:** HL2C71AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		4.1 J	M	2.6927	ug/L
Unknown		0.85 J	M	2.8583	ug/L
Unknown		1.0 J	M	3.2804	ug/L
Unknown		1.9 J	M	4.1565	ug/L
Unknown		2.4 J	M	4.461	ug/L
Unknown		0.84 J	M	4.9257	ug/L
Butylated Hydroxytoluene	128-37-0	3.1 NJ	M	5.4974	ug/L
Unknown		3.1 J	M	5.5668	ug/L
Unknown Organic Acid		7.3 J	M	5.6363	ug/L
Unknown		0.77 J	M	5.9461	ug/L
Unknown Organic Acid		0.94 J	M	6.3147	ug/L
Unknown		1.2 J	M	6.5391	ug/L
Unknown		2.4 J	M	6.8382	ug/L
Unknown		1.3 J	M	7.1214	ug/L
Oxybenzone	131-57-7	8.6 NJ	M	7.2923	ug/L
Unknown		3.6 J	M	7.3511	ug/L
Unknown		5.2 J	M	7.9227	ug/L
Unknown		0.86 J	M	8.0028	ug/L
Unknown		5.8 J	M	10.866	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGBKGMW-016C-0102-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-026 **Work Order #...:** HL2DA1AC **Matrix.....:** WQ
Date Sampled...: 10/04/05 14:46 **Date Received..:** 10/05/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5279017
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-016C-0102-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-026 **Work Order #...:** HL2DA1AC **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	**0.52 J**	**1.0**	**ug/L**
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.8 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**2.8 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-016C-0102-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J050103-026 **Work Order #...:** HL2DA1AC **Matrix.....:** WQ

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	80	(32 - 112)
2-Fluorobiphenyl	62	(30 - 110)
Terphenyl-d14	81	(51 - 135)
Phenol-d5	57	(10 - 117)
2-Fluorophenol	36	(19 - 108)
2,4,6-Tribromophenol	59	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGBKGMW-016C-0102-GW

GC/MS Semivolatiles

Lot-Sample #: A5J050103-026 **Work Order #:** HL2DA1AC **Matrix:** WQ

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		6.5 J	M	2.7263	ug/L
Unknown		0.95 J	M	2.8171	ug/L
Unknown		1.0 J	M	3.0041	ug/L
Unknown		3.6 J	M	3.0629	ug/L
Unknown		4.9 J	M	3.2979	ug/L
Unknown		2.2 J	M	3.4742	ug/L
Unknown		1.2 J	M	3.6933	ug/L
Unknown		2.2 J	M	3.7253	ug/L
Unknown		1.8 J	M	4.1901	ug/L
Unknown		0.94 J	M	7.9403	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL4V61AA **Matrix.....:** WATER
MB Lot-Sample #: A5J060000-017

Prep Date.....: 10/06/05 **Final Wgt/Vol..:** 2 mL
Analysis Date..: 10/10/05 **Prep Batch #...:** 5279017
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzoic acid	ND	10	ug/L	SW846 8270C
Benzyl alcohol	ND	5.0	ug/L	SW846 8270C
Phenol	ND	1.0	ug/L	SW846 8270C
bis(2-Chloroethyl)-ether	ND	1.0	ug/L	SW846 8270C
2-Chlorophenol	ND	1.0	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
2-Methylphenol	ND	1.0	ug/L	SW846 8270C
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L	SW846 8270C
4-Methylphenol	ND	1.0	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L	SW846 8270C
Hexachloroethane	ND	1.0	ug/L	SW846 8270C
Nitrobenzene	ND	1.0	ug/L	SW846 8270C
Isophorone	ND	1.0	ug/L	SW846 8270C
2-Nitrophenol	ND	2.0	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	2.0	ug/L	SW846 8270C
bis(2-Chloroethoxy) methane	ND	1.0	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	2.0	ug/L	SW846 8270C
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8270C
Naphthalene	ND	0.20	ug/L	SW846 8270C
4-Chloroaniline	ND	2.0	ug/L	SW846 8270C
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	2.0	ug/L	SW846 8270C
2-Methylnaphthalene	ND	0.20	ug/L	SW846 8270C
Hexachlorocyclopenta-diene	ND	10	ug/L	SW846 8270C
2,4,6-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2,4,5-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2-Chloronaphthalene	ND	1.0	ug/L	SW846 8270C
2-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Dimethyl phthalate	ND	1.0	ug/L	SW846 8270C
Acenaphthylene	ND	0.20	ug/L	SW846 8270C
2,6-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL4V61AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
3-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Acenaphthene	ND	0.20	ug/L	SW846 8270C
2,4-Dinitrophenol	ND	5.0	ug/L	SW846 8270C
4-Nitrophenol	ND	5.0	ug/L	SW846 8270C
Dibenzofuran	ND	1.0	ug/L	SW846 8270C
2,4-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C
Diethyl phthalate	ND	1.0	ug/L	SW846 8270C
4-Chlorophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Fluorene	ND	0.20	ug/L	SW846 8270C
4-Nitroaniline	ND	2.0	ug/L	SW846 8270C
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L	SW846 8270C
N-Nitrosodiphenylamine	ND	1.0	ug/L	SW846 8270C
4-Bromophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Hexachlorobenzene	ND	0.20	ug/L	SW846 8270C
Pentachlorophenol	ND	5.0	ug/L	SW846 8270C
Phenanthrene	ND	0.20	ug/L	SW846 8270C
Anthracene	ND	0.20	ug/L	SW846 8270C
Carbazole	ND	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	**1.6**	**1.0**	**ug/L**	**SW846 8270C**
Fluoranthene	ND	0.20	ug/L	SW846 8270C
Pyrene	ND	0.20	ug/L	SW846 8270C
Butyl benzyl phthalate	**1.6**	**1.0**	**ug/L**	**SW846 8270C**
3,3'-Dichlorobenzidine	ND	5.0	ug/L	SW846 8270C
Benzo(a)anthracene	ND	0.20	ug/L	SW846 8270C
Chrysene	ND	0.20	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	**3.2**	**1.0**	**ug/L**	**SW846 8270C**
Di-n-octyl phthalate	ND	1.0	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(a)pyrene	ND	0.20	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	0.20	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	0.20	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	71	(32 - 112)
2-Fluorobiphenyl	54	(30 - 110)
Terphenyl-d14	79	(10 - 144)
Phenol-d5	50	(13 - 113)
2-Fluorophenol	33	(13 - 110)

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL4V61AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,4,6-Tribromophenol	51	(21 - 122)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SpecPro Inc

Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: A5J060000-017 B **Work Order #:** HL4V61AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		1.8 J	M	2.6963	ug/L
Unknown		0.81 J	M	4.1601	ug/L
Unknown		0.96 J	M	5.7841	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HMF571AA **Matrix.....:** WATER
MB Lot-Sample #: A5J110000-329

Prep Date.....: 10/11/05 **Final Wgt/Vol..:** 2 mL
Analysis Date..: 10/14/05 **Prep Batch #...:** 5284329
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzoic acid	ND	10	ug/L	SW846 8270C
Benzyl alcohol	ND	5.0	ug/L	SW846 8270C
Phenol	ND	1.0	ug/L	SW846 8270C
bis(2-Chloroethyl)-ether	ND	1.0	ug/L	SW846 8270C
2-Chlorophenol	ND	1.0	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
2-Methylphenol	ND	1.0	ug/L	SW846 8270C
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L	SW846 8270C
4-Methylphenol	ND	1.0	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L	SW846 8270C
Hexachloroethane	ND	1.0	ug/L	SW846 8270C
Nitrobenzene	ND	1.0	ug/L	SW846 8270C
Isophorone	ND	1.0	ug/L	SW846 8270C
2-Nitrophenol	ND	2.0	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	2.0	ug/L	SW846 8270C
bis(2-Chloroethoxy) methane	ND	1.0	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	2.0	ug/L	SW846 8270C
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8270C
Naphthalene	ND	0.20	ug/L	SW846 8270C
4-Chloroaniline	ND	2.0	ug/L	SW846 8270C
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	2.0	ug/L	SW846 8270C
2-Methylnaphthalene	ND	0.20	ug/L	SW846 8270C
Hexachlorocyclopenta-diene	ND	10	ug/L	SW846 8270C
2,4,6-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2,4,5-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2-Chloronaphthalene	ND	1.0	ug/L	SW846 8270C
2-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Dimethyl phthalate	ND	1.0	ug/L	SW846 8270C
Acenaphthylene	ND	0.20	ug/L	SW846 8270C
2,6-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HMF571AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
3-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Acenaphthene	ND	0.20	ug/L	SW846 8270C
2,4-Dinitrophenol	ND	5.0	ug/L	SW846 8270C
4-Nitrophenol	ND	5.0	ug/L	SW846 8270C
Dibenzofuran	ND	1.0	ug/L	SW846 8270C
2,4-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C
Diethyl phthalate	ND	1.0	ug/L	SW846 8270C
4-Chlorophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Fluorene	ND	0.20	ug/L	SW846 8270C
4-Nitroaniline	ND	2.0	ug/L	SW846 8270C
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L	SW846 8270C
N-Nitrosodiphenylamine	ND	1.0	ug/L	SW846 8270C
4-Bromophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Hexachlorobenzene	ND	0.20	ug/L	SW846 8270C
Pentachlorophenol	ND	5.0	ug/L	SW846 8270C
Phenanthrene	ND	0.20	ug/L	SW846 8270C
Anthracene	ND	0.20	ug/L	SW846 8270C
Carbazole	ND	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	**1.6**	**1.0**	**ug/L**	**SW846 8270C**
Fluoranthene	ND	0.20	ug/L	SW846 8270C
Pyrene	ND	0.20	ug/L	SW846 8270C
Butyl benzyl phthalate	ND	1.0	ug/L	SW846 8270C
3,3'-Dichlorobenzidine	ND	5.0	ug/L	SW846 8270C
Benzo(a)anthracene	ND	0.20	ug/L	SW846 8270C
Chrysene	ND	0.20	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	**1.5**	**1.0**	**ug/L**	**SW846 8270C**
Di-n-octyl phthalate	ND	1.0	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(a)pyrene	ND	0.20	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	0.20	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	0.20	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	60	(32 - 112)
2-Fluorobiphenyl	37	(30 - 110)
Terphenyl-d14	78	(51 - 135)
Phenol-d5	48	(10 - 117)
2-Fluorophenol	40	(19 - 108)

(Continued on next page)

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HMF571AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,4,6-Tribromophenol	50	(42 - 124)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SpecPro Inc

Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: A5J110000-329 B **Work Order #:** HMF571AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		1.9 J	M	5.8186	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL4V61AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J060000-017
Prep Date.....: 10/06/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5279017
Dilution Factor: 1 **Final Wgt/Vol..:** 2 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Phenol	**63**	**(10 - 116)**	**SW846 8270C**
2-Chlorophenol	**53**	**(37 - 106)**	**SW846 8270C**
1,4-Dichlorobenzene	**58**	**(32 - 98)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**86**	**(30 - 115)**	**SW846 8270C**
1,2,4-Trichloro-benzene	**60**	**(31 - 110)**	**SW846 8270C**
4-Chloro-3-methylphenol	**75**	**(47 - 111)**	**SW846 8270C**
Acenaphthene	**72**	**(39 - 118)**	**SW846 8270C**
4-Nitrophenol	**77**	**(10 - 123)**	**SW846 8270C**
2,4-Dinitrotoluene	**82**	**(47 - 131)**	**SW846 8270C**
Pentachlorophenol	**67**	**(38 - 117)**	**SW846 8270C**
Pyrene	**91**	**(46 - 130)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	80	(32 - 112)
2-Fluorobiphenyl	62	(30 - 110)
Terphenyl-d14	84	(10 - 144)
Phenol-d5	55	(13 - 113)
2-Fluorophenol	34	(13 - 110)
2,4,6-Tribromophenol	66	(21 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL4V61AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J060000-017
Prep Date.....: 10/06/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5279017
Dilution Factor: 1 **Final Wgt/Vol..:** 2 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Phenol	**20**	**13**	**ug/L**	**63**	**SW846 8270C**
2-Chlorophenol	**20**	**11**	**ug/L**	**53**	**SW846 8270C**
1,4-Dichlorobenzene	**20**	**12**	**ug/L**	**58**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**20**	**17**	**ug/L**	**86**	**SW846 8270C**
1,2,4-Trichloro-benzene	**20**	**12**	**ug/L**	**60**	**SW846 8270C**
4-Chloro-3-methylphenol	**20**	**15**	**ug/L**	**75**	**SW846 8270C**
Acenaphthene	**20**	**14**	**ug/L**	**72**	**SW846 8270C**
4-Nitrophenol	**20**	**15**	**ug/L**	**77**	**SW846 8270C**
2,4-Dinitrotoluene	**20**	**16**	**ug/L**	**82**	**SW846 8270C**
Pentachlorophenol	**20**	**13**	**ug/L**	**67**	**SW846 8270C**
Pyrene	**20**	**18**	**ug/L**	**91**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	80	(32 - 112)
2-Fluorobiphenyl	62	(30 - 110)
Terphenyl-d14	84	(10 - 144)
Phenol-d5	55	(13 - 113)
2-Fluorophenol	34	(13 - 110)
2,4,6-Tribromophenol	66	(21 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HMF571AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J110000-329
Prep Date.....: 10/11/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5284329
Dilution Factor: 1 **Final Wgt/Vol..:** 2 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Phenol	**57**	**(10 - 116)**	**SW846 8270C**
2-Chlorophenol	**45**	**(37 - 106)**	**SW846 8270C**
1,4-Dichlorobenzene	**37**	**(32 - 98)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**95**	**(30 - 115)**	**SW846 8270C**
1,2,4-Trichloro-benzene	**37**	**(31 - 110)**	**SW846 8270C**
4-Chloro-3-methylphenol	**71**	**(47 - 111)**	**SW846 8270C**
Acenaphthene	**66**	**(39 - 118)**	**SW846 8270C**
4-Nitrophenol	**64**	**(10 - 123)**	**SW846 8270C**
2,4-Dinitrotoluene	**73**	**(47 - 131)**	**SW846 8270C**
Pentachlorophenol	**58**	**(38 - 117)**	**SW846 8270C**
Pyrene	**86**	**(46 - 130)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	87	(32 - 112)
2-Fluorobiphenyl	60	(30 - 110)
Terphenyl-d14	87	(51 - 135)
Phenol-d5	53	(10 - 117)
2-Fluorophenol	24	(19 - 108)
2,4,6-Tribromophenol	68	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HMF571AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J110000-329
Prep Date.....: 10/11/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5284329
Dilution Factor: 1 **Final Wgt/Vol..:** 2 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Phenol	**20**	**11**	**ug/L**	**57**	**SW846 8270C**
2-Chlorophenol	**20**	**9.0**	**ug/L**	**45**	**SW846 8270C**
1,4-Dichlorobenzene	**20**	**7.5**	**ug/L**	**37**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**20**	**19**	**ug/L**	**95**	**SW846 8270C**
1,2,4-Trichloro-benzene	**20**	**7.4**	**ug/L**	**37**	**SW846 8270C**
4-Chloro-3-methylphenol	**20**	**14**	**ug/L**	**71**	**SW846 8270C**
Acenaphthene	**20**	**13**	**ug/L**	**66**	**SW846 8270C**
4-Nitrophenol	**20**	**13**	**ug/L**	**64**	**SW846 8270C**
2,4-Dinitrotoluene	**20**	**15**	**ug/L**	**73**	**SW846 8270C**
Pentachlorophenol	**20**	**12**	**ug/L**	**58**	**SW846 8270C**
Pyrene	**20**	**17**	**ug/L**	**86**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	87	(32 - 112)
2-Fluorobiphenyl	60	(30 - 110)
Terphenyl-d14	87	(51 - 135)
Phenol-d5	53	(10 - 117)
2-Fluorophenol	24	(19 - 108)
2,4,6-Tribromophenol	68	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL2C11AF-MS **Matrix.....:** WG
MS Lot-Sample #: A5J050103-019 HL2C11AG-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5279017
Dilution Factor: 1 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 2 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Phenol	**58**	**(10 - 116)**			**SW846 8270C**
	68	**(10 - 116)**	**15**	**(0-43)**	**SW846 8270C**
2-Chlorophenol	**52**	**(37 - 106)**			**SW846 8270C**
	53	**(37 - 106)**	**3.0**	**(0-43)**	**SW846 8270C**
1,4-Dichlorobenzene	**63**	**(32 - 98)**			**SW846 8270C**
	52	**(32 - 98)**	**19**	**(0-36)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**77**	**(18 - 115)**			**SW846 8270C**
	90	**(18 - 115)**	**16**	**(0-36)**	**SW846 8270C**
1,2,4-Trichloro-benzene	**58**	**(22 - 110)**			**SW846 8270C**
	58	**(22 - 110)**	**0.60**	**(0-37)**	**SW846 8270C**
4-Chloro-3-methylphenol	**68**	**(47 - 111)**			**SW846 8270C**
	79	**(47 - 111)**	**15**	**(0-55)**	**SW846 8270C**
Acenaphthene	**73**	**(26 - 118)**			**SW846 8270C**
	74	**(26 - 118)**	**1.4**	**(0-35)**	**SW846 8270C**
4-Nitrophenol	**60**	**(10 - 123)**			**SW846 8270C**
	78	**(10 - 123)**	**27**	**(0-34)**	**SW846 8270C**
2,4-Dinitrotoluene	**76**	**(31 - 131)**			**SW846 8270C**
	83	**(31 - 131)**	**8.4**	**(0-32)**	**SW846 8270C**
Pentachlorophenol	**57**	**(38 - 137)**			**SW846 8270C**
	72	**(38 - 137)**	**22**	**(0-56)**	**SW846 8270C**
Pyrene	**90**	**(27 - 138)**			**SW846 8270C**
	93	**(27 - 138)**	**3.3**	**(0-31)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	76	(32 - 112)
	81	(32 - 112)
2-Fluorobiphenyl	62	(30 - 110)
	62	(30 - 110)
Terphenyl-d14	82	(10 - 144)
	85	(10 - 144)
Phenol-d5	49	(13 - 113)
	58	(13 - 113)
2-Fluorophenol	38	(13 - 110)
	34	(13 - 110)

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL2C11AF-MS **Matrix.....:** WG
MS Lot-Sample #: A5J050103-019 HL2C11AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	62	(21 - 122)
	66	(21 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL2C11AF-MS **Matrix.....:** WG
MS Lot-Sample #: A5J050103-019 HL2C11AG-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/06/05 **Analysis Date..:** 10/10/05
Prep Batch #...: 5279017
Dilution Factor: 1 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 2 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Phenol	**ND**	**40**	**23**	**ug/L**	**58**		**SW846 8270C**
	ND	**40**	**27**	**ug/L**	**68**	**15**	**SW846 8270C**
2-Chlorophenol	**ND**	**40**	**21**	**ug/L**	**52**		**SW846 8270C**
	ND	**40**	**21**	**ug/L**	**53**	**3.0**	**SW846 8270C**
1,4-Dichlorobenzene	**ND**	**40**	**25**	**ug/L**	**63**		**SW846 8270C**
	ND	**40**	**21**	**ug/L**	**52**	**19**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**ND**	**40**	**31**	**ug/L**	**77**		**SW846 8270C**
	ND	**40**	**36**	**ug/L**	**90**	**16**	**SW846 8270C**
1,2,4-Trichloro-benzene	**ND**	**40**	**23**	**ug/L**	**58**		**SW846 8270C**
	ND	**40**	**23**	**ug/L**	**58**	**0.60**	**SW846 8270C**
4-Chloro-3-methylphenol	**ND**	**40**	**27**	**ug/L**	**68**		**SW846 8270C**
	ND	**40**	**31**	**ug/L**	**79**	**15**	**SW846 8270C**
Acenaphthene	**ND**	**40**	**29**	**ug/L**	**73**		**SW846 8270C**
	ND	**40**	**29**	**ug/L**	**74**	**1.4**	**SW846 8270C**
4-Nitrophenol	**ND**	**40**	**24**	**ug/L**	**60**		**SW846 8270C**
	ND	**40**	**31**	**ug/L**	**78**	**27**	**SW846 8270C**
2,4-Dinitrotoluene	**ND**	**40**	**30**	**ug/L**	**76**		**SW846 8270C**
	ND	**40**	**33**	**ug/L**	**83**	**8.4**	**SW846 8270C**
Pentachlorophenol	**ND**	**40**	**23**	**ug/L**	**57**		**SW846 8270C**
	ND	**40**	**29**	**ug/L**	**72**	**22**	**SW846 8270C**
Pyrene	**ND**	**40**	**36**	**ug/L**	**90**		**SW846 8270C**
	ND	**40**	**37**	**ug/L**	**93**	**3.3**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	76	(32 - 112)
	81	(32 - 112)
2-Fluorobiphenyl	62	(30 - 110)
	62	(30 - 110)
Terphenyl-d14	82	(10 - 144)
	85	(10 - 144)
Phenol-d5	49	(13 - 113)
	58	(13 - 113)
2-Fluorophenol	38	(13 - 110)
	34	(13 - 110)

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL2C11AF-MS **Matrix.....:** WG
MS Lot-Sample #: A5J050103-019 HL2C11AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	62	(21 - 122)
	66	(21 - 122)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

PESTICIDE DATA

SpecPro Inc

Client Sample ID: FWGLL2MW-059C-0111-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-001 **Work Order #...:** HL2A31AD **Matrix.....:** WG
Date Sampled...: 10/04/05 15:00 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	**0.46 PG**	**0.030**	**ug/L**
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	68	(39 - 130)
Decachlorobiphenyl	64	(10 - 147)

NOTE(S):

PG The percent difference between the original and confirmation analyses is greater than 40%.

SpecPro Inc

Client Sample ID: FWGLL1MW-080C-0109-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-003 **Work Order #...:** HL2A71AD **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280013
Dilution Factor: 5 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.15	ug/L
beta-BHC	ND	0.15	ug/L
delta-BHC	ND	0.15	ug/L
gamma-BHC (Lindane)	ND	0.15	ug/L
Heptachlor	ND	0.15	ug/L
Aldrin	ND	0.15	ug/L
Heptachlor epoxide	**2.8**	**0.15**	**ug/L**
Endosulfan I	ND	0.15	ug/L
Dieldrin	ND	0.15	ug/L
4,4'-DDE	ND	0.15	ug/L
Endrin	ND	0.15	ug/L
Endosulfan II	ND	0.15	ug/L
4,4'-DDD	ND	0.15	ug/L
Endosulfan sulfate	ND	0.15	ug/L
4,4'-DDT	ND	0.15	ug/L
Methoxychlor	ND	0.50	ug/L
Endrin ketone	ND	0.15	ug/L
Endrin aldehyde	ND	0.15	ug/L
alpha-Chlordane	ND	0.15	ug/L
gamma-Chlordane	ND	0.15	ug/L
Toxaphene	ND	10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	74 DIL	(39 - 130)
Decachlorobiphenyl	59 DIL	(10 - 147)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

SpecPro Inc

Client Sample ID: FWGLL2MW-080C-0135-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-005 **Work Order #...:** HL2CA1AD **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280013
Dilution Factor: 5 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.15	ug/L
beta-BHC	ND	0.15	ug/L
delta-BHC	ND	0.15	ug/L
gamma-BHC (Lindane)	ND	0.15	ug/L
Heptachlor	ND	0.15	ug/L
Aldrin	ND	0.15	ug/L
Heptachlor epoxide	**2.3**	**0.15**	**ug/L**
Endosulfan I	ND	0.15	ug/L
Dieldrin	ND	0.15	ug/L
4,4'-DDE	ND	0.15	ug/L
Endrin	ND	0.15	ug/L
Endosulfan II	ND	0.15	ug/L
4,4'-DDD	ND	0.15	ug/L
Endosulfan sulfate	ND	0.15	ug/L
4,4'-DDT	ND	0.15	ug/L
Methoxychlor	ND	0.50	ug/L
Endrin ketone	ND	0.15	ug/L
Endrin aldehyde	ND	0.15	ug/L
alpha-Chlordane	ND	0.15	ug/L
gamma-Chlordane	ND	0.15	ug/L
Toxaphene	ND	10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	61 DIL	(39 - 130)
Decachlorobiphenyl	60 DIL	(10 - 147)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0110-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-007 **Work Order #...:** HL2CE1AD **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280013
Dilution Factor: 10 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.30	ug/L
beta-BHC	ND	0.30	ug/L
delta-BHC	ND	0.30	ug/L
gamma-BHC (Lindane)	ND	0.30	ug/L
Heptachlor	ND	0.30	ug/L
Aldrin	ND	0.30	ug/L
Heptachlor epoxide	**4.6**	**0.30**	**ug/L**
Endosulfan I	ND	0.30	ug/L
Dieldrin	ND	0.30	ug/L
4,4'-DDE	ND	0.30	ug/L
Endrin	ND	0.30	ug/L
Endosulfan II	ND	0.30	ug/L
4,4'-DDD	ND	0.30	ug/L
Endosulfan sulfate	ND	0.30	ug/L
4,4'-DDT	ND	0.30	ug/L
Methoxychlor	ND	1.0	ug/L
Endrin ketone	ND	0.30	ug/L
Endrin aldehyde	ND	0.30	ug/L
alpha-Chlordane	ND	0.30	ug/L
gamma-Chlordane	ND	0.30	ug/L
Toxaphene	ND	20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	0.0 DIL,*	(39 - 130)
Decachlorobiphenyl	0.0 DIL,*	(10 - 147)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0137-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-009 **Work Order #...:** HL2CH1AD **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280013
Dilution Factor: 10 **Initial Wgt/Vol:** 970 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.30	ug/L
beta-BHC	ND	0.30	ug/L
delta-BHC	ND	0.30	ug/L
gamma-BHC (Lindane)	ND	0.30	ug/L
Heptachlor	ND	0.30	ug/L
Aldrin	ND	0.30	ug/L
Heptachlor epoxide	**6.1**	**0.30**	**ug/L**
Endosulfan I	ND	0.30	ug/L
Dieldrin	ND	0.30	ug/L
4,4'-DDE	ND	0.30	ug/L
Endrin	ND	0.30	ug/L
Endosulfan II	ND	0.30	ug/L
4,4'-DDD	ND	0.30	ug/L
Endosulfan sulfate	ND	0.30	ug/L
4,4'-DDT	ND	0.30	ug/L
Methoxychlor	ND	1.0	ug/L
Endrin ketone	ND	0.30	ug/L
Endrin aldehyde	ND	0.30	ug/L
alpha-Chlordane	ND	0.30	ug/L
gamma-Chlordane	ND	0.30	ug/L
Toxaphene	ND	20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	102 DIL	(39 - 130)
Decachlorobiphenyl	0.0 DIL,*	(10 - 147)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0115-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-011 **Work Order #...:** HL2CK1AD **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	**0.038**	**0.030**	**ug/L**
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	75	(39 - 130)
Decachlorobiphenyl	36	(10 - 147)

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0136-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-013 **Work Order #...:** HL2CN1AD **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	52	(39 - 130)
Decachlorobiphenyl	34	(10 - 147)

SpecPro Inc

Client Sample ID: FWGLL12MW-153C-0120-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-015 **Work Order #...:** HL2CR1AD **Matrix.....:** WG
Date Sampled...: 10/04/05 11:35 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	65	(39 - 130)
Decachlorobiphenyl	19	(10 - 147)

SpecPro Inc

Client Sample ID: FWGLL2MW-262C-0112-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-017 **Work Order #...:** HL2CX1AD **Matrix.....:** WG
Date Sampled...: 10/04/05 11:10 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	77	(39 - 130)
Decachlorobiphenyl	46	(10 - 147)

SpecPro Inc

Client Sample ID: FWGLL2MW-263C-0113-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-019 **Work Order #...:** HL2C11AH **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	63	(39 - 130)
Decachlorobiphenyl	34	(10 - 147)

SpecPro Inc

Client Sample ID: FWGBKGMW-017C-0103-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-021 **Work Order #...:** HL2C51AD **Matrix.....:** WG
Date Sampled...: 10/04/05 14:54 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	76	(39 - 130)
Decachlorobiphenyl	28	(10 - 147)

SpecPro Inc

Client Sample ID: FWGBKGMW-020C-0106-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-023 **Work Order #...:** HL2C71AD **Matrix.....:** WG
Date Sampled...: 10/04/05 13:35 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	84	(39 - 130)
Decachlorobiphenyl	46	(10 - 147)

SpecPro Inc

Client Sample ID: FWGBKGMW-016C-0102-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-026 **Work Order #...:** HL2DA1AD **Matrix.....:** WQ
Date Sampled...: 10/04/05 14:46 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	86	(39 - 130)
Decachlorobiphenyl	82	(10 - 147)

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL7V31AA **Matrix.....:** WATER
MB Lot-Sample #: A5J070000-013

Prep Date.....: 10/07/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/16/05 **Prep Batch #...:** 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
alpha-BHC	ND	0.030	ug/L	SW846 8081A
beta-BHC	ND	0.030	ug/L	SW846 8081A
delta-BHC	ND	0.030	ug/L	SW846 8081A
gamma-BHC (Lindane)	ND	0.030	ug/L	SW846 8081A
Heptachlor	ND	0.030	ug/L	SW846 8081A
Aldrin	ND	0.030	ug/L	SW846 8081A
Heptachlor epoxide	ND	0.030	ug/L	SW846 8081A
Endosulfan I	ND	0.030	ug/L	SW846 8081A
Dieldrin	ND	0.030	ug/L	SW846 8081A
4,4'-DDE	ND	0.030	ug/L	SW846 8081A
Endrin	ND	0.030	ug/L	SW846 8081A
Endosulfan II	ND	0.030	ug/L	SW846 8081A
4,4'-DDD	ND	0.030	ug/L	SW846 8081A
Endosulfan sulfate	ND	0.030	ug/L	SW846 8081A
4,4'-DDT	ND	0.030	ug/L	SW846 8081A
Methoxychlor	ND	0.10	ug/L	SW846 8081A
Endrin ketone	ND	0.030	ug/L	SW846 8081A
Endrin aldehyde	ND	0.030	ug/L	SW846 8081A
alpha-Chlordane	ND	0.030	ug/L	SW846 8081A
gamma-Chlordane	ND	0.030	ug/L	SW846 8081A
Toxaphene	ND	2.0	ug/L	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	85	(39 - 130)
Decachlorobiphenyl	62	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL7V31AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J070000-013
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
gamma-BHC (Lindane)	**94**	**(49 - 137)**	**SW846 8081A**
Heptachlor	**87**	**(57 - 124)**	**SW846 8081A**
Aldrin	**94**	**(62 - 120)**	**SW846 8081A**
Dieldrin	**95**	**(68 - 130)**	**SW846 8081A**
Endrin	**99**	**(46 - 137)**	**SW846 8081A**
4,4'-DDT	**102**	**(60 - 140)**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	96	(39 - 130)
Decachlorobiphenyl	67	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL7V31AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J070000-013
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
gamma-BHC (Lindane)	**1.0**	**0.94**	**ug/L**	**94**	**SW846 8081A**
Heptachlor	**1.0**	**0.87**	**ug/L**	**87**	**SW846 8081A**
Aldrin	**1.0**	**0.94**	**ug/L**	**94**	**SW846 8081A**
Dieldrin	**1.0**	**0.95**	**ug/L**	**95**	**SW846 8081A**
Endrin	**1.0**	**0.99**	**ug/L**	**99**	**SW846 8081A**
4,4'-DDT	**1.0**	**1.0**	**ug/L**	**102**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	96	(39 - 130)
Decachlorobiphenyl	67	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL2C11AJ-MS **Matrix.....:** WG
MS Lot-Sample #: A5J050103-019 HL2C11AK-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 2 **Initial Wgt/Vol:** 525 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
gamma-BHC (Lindane)	**82**	**(30 - 148)**			**SW846 8081A**
	82	**(30 - 148)**	**0.51**	**(0-22)**	**SW846 8081A**
Heptachlor	**77**	**(30 - 150)**			**SW846 8081A**
	77	**(30 - 150)**	**0.20**	**(0-32)**	**SW846 8081A**
Aldrin	**82**	**(30 - 150)**			**SW846 8081A**
	82	**(30 - 150)**	**0.70**	**(0-33)**	**SW846 8081A**
Dieldrin	**80**	**(35 - 141)**			**SW846 8081A**
	80	**(35 - 141)**	**0.32**	**(0-37)**	**SW846 8081A**
Endrin	**85**	**(30 - 150)**			**SW846 8081A**
	85	**(30 - 150)**	**0.24**	**(0-40)**	**SW846 8081A**
4,4'-DDT	**84**	**(30 - 150)**			**SW846 8081A**
	81	**(30 - 150)**	**3.8**	**(0-50)**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	88	(39 - 130)
	87	(39 - 130)
Decachlorobiphenyl	52	(10 - 147)
	61	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL2C11AJ-MS **Matrix.....:** WG
MS Lot-Sample #: A5J050103-019 HL2C11AK-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 2 **Initial Wgt/Vol:** 525 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
gamma-BHC (Lindane)	**ND**	**1.9**	**1.6**	**ug/L**	**82**		**SW846 8081A**
	ND	**1.9**	**1.6**	**ug/L**	**82**	**0.51**	**SW846 8081A**
Heptachlor	**ND**	**1.9**	**1.5**	**ug/L**	**77**		**SW846 8081A**
	ND	**1.9**	**1.5**	**ug/L**	**77**	**0.20**	**SW846 8081A**
Aldrin	**ND**	**1.9**	**1.6**	**ug/L**	**82**		**SW846 8081A**
	ND	**1.9**	**1.6**	**ug/L**	**82**	**0.70**	**SW846 8081A**
Dieldrin	**ND**	**1.9**	**1.5**	**ug/L**	**80**		**SW846 8081A**
	ND	**1.9**	**1.5**	**ug/L**	**80**	**0.32**	**SW846 8081A**
Endrin	**ND**	**1.9**	**1.6**	**ug/L**	**85**		**SW846 8081A**
	ND	**1.9**	**1.6**	**ug/L**	**85**	**0.24**	**SW846 8081A**
4,4'-DDT	**ND**	**1.9**	**1.6**	**ug/L**	**84**		**SW846 8081A**
	ND	**1.9**	**1.5**	**ug/L**	**81**	**3.8**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	88	(39 - 130)
	87	(39 - 130)
Decachlorobiphenyl	52	(10 - 147)
	61	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SEVERN TRENT STL

POLYCHLORINATED BIPHENYLS DATA

SpecPro Inc

Client Sample ID: FWGLL2MW-059C-0111-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-001 **Work Order #...:** HL2A31AE **Matrix.....:** WG
Date Sampled...: 10/04/05 15:00 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	72	(35 - 130)
Decachlorobiphenyl	60	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL1MW-080C-0109-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-003 **Work Order #...:** HL2A71AE **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	73	(35 - 130)
Decachlorobiphenyl	53	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL2MW-080C-0135-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-005 **Work Order #...:** HL2CA1AE **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	60	(35 - 130)
Decachlorobiphenyl	47	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0110-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-007 **Work Order #...:** HL2CE1AE **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	77	(35 - 130)
Decachlorobiphenyl	20	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0137-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-009 **Work Order #...:** HL2CH1AE **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 970 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	80	(35 - 130)
Decachlorobiphenyl	52	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0115-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-011 **Work Order #...:** HL2CK1AE **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	84	(35 - 130)
Decachlorobiphenyl	41	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0136-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-013 **Work Order #...:** HL2CN1AE **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	79	(35 - 130)
Decachlorobiphenyl	69	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL12MW-153C-0120-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-015 **Work Order #...:** HL2CR1AE **Matrix.....:** WG
Date Sampled...: 10/04/05 11:35 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	81	(35 - 130)
Decachlorobiphenyl	24	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL2MW-262C-0112-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-017 **Work Order #...:** HL2CX1AE **Matrix.....:** WG
Date Sampled...: 10/04/05 11:10 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	81	(35 - 130)
Decachlorobiphenyl	50	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL2MW-263C-0113-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-019 **Work Order #...:** HL2C11AL **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	80	(35 - 130)
Decachlorobiphenyl	44	(10 - 110)

SpecPro Inc

Client Sample ID: FWGBKGMW-017C-0103-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-021 **Work Order #...:** HL2C51AE **Matrix.....:** WG
Date Sampled...: 10/04/05 14:54 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	82	(35 - 130)
Decachlorobiphenyl	30	(10 - 110)

SpecPro Inc

Client Sample ID: FWGBKGMW-020C-0106-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-023 **Work Order #...:** HL2C71AE **Matrix.....:** WG
Date Sampled...: 10/04/05 13:35 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	97	(35 - 130)
Decachlorobiphenyl	56	(10 - 110)

SpecPro Inc

Client Sample ID: FWGBKGMW-016C-0102-GW

GC Semivolatiles

Lot-Sample #...: A5J050103-026 **Work Order #...:** HL2DA1AE **Matrix.....:** WQ
Date Sampled...: 10/04/05 14:46 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	81	(35 - 130)
Decachlorobiphenyl	81	(10 - 110)

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL7V41AA **Matrix.....:** WATER
MB Lot-Sample #: A5J070000-014

Prep Date.....: 10/07/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/20/05 **Prep Batch #...:** 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	1.0	ug/L	SW846 8082
Aroclor 1221	ND	1.0	ug/L	SW846 8082
Aroclor 1232	ND	1.0	ug/L	SW846 8082
Aroclor 1242	ND	1.0	ug/L	SW846 8082
Aroclor 1248	ND	1.0	ug/L	SW846 8082
Aroclor 1254	ND	1.0	ug/L	SW846 8082
Aroclor 1260	ND	1.0	ug/L	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(35 - 130)
Decachlorobiphenyl	70	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL7V41AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J070000-014
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Aroclor 1016	**96**	**(50 - 115)**	**SW846 8082**
Aroclor 1260	**89**	**(45 - 112)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(35 - 130)
Decachlorobiphenyl	37	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL7V41AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J070000-014
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Aroclor 1016	**10**	**9.6**	**ug/L**	**96**	**SW846 8082**
Aroclor 1260	**10**	**8.9**	**ug/L**	**89**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(35 - 130)
Decachlorobiphenyl	37	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL2C11AM-MS **Matrix.....:** WG
MS Lot-Sample #: A5J050103-019 HL2C11AN-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 2 **Initial Wgt/Vol:** 525 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aroclor 1016	**94**	**(10 - 200)**			**SW846 8082**
	95	**(10 - 200)**	**1.8**	**(0-30)**	**SW846 8082**
Aroclor 1260	**94**	**(10 - 150)**			**SW846 8082**
	97	**(10 - 150)**	**3.5**	**(0-30)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(35 - 130)
	90	(35 - 130)
Decachlorobiphenyl	65	(10 - 110)
	75	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J050103 **Work Order #...:** HL2C11AM-MS **Matrix.....:** WG
MS Lot-Sample #: A5J050103-019 HL2C11AN-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 2 **Initial Wgt/Vol:** 525 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Aroclor 1016	**ND**	**19**	**18**	**ug/L**	**94**		**SW846 8082**
	ND	**19**	**18**	**ug/L**	**95**	**1.8**	**SW846 8082**
Aroclor 1260	**ND**	**19**	**18**	**ug/L**	**94**		**SW846 8082**
	ND	**19**	**18**	**ug/L**	**97**	**3.5**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(35 - 130)
	90	(35 - 130)
Decachlorobiphenyl	65	(10 - 110)
	75	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METALS DATA

SpecPro Inc

Client Sample ID: FWGLL2MW-059C-0111-GF

TOTAL Metals

Lot-Sample #...: A5J050103-002 **Matrix.....:** WG
Date Sampled...: 10/04/05 15:00 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285025						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL2A51AE
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2A51AA
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2A51AC
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL2A51AF
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**10.8**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2A51AG**
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2A51AD
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2A51AH
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2A51AJ
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**22300**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2A51AK**
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2A51AL
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGLL2MW-059C-0111-GF

TOTAL Metals

Lot-Sample #...: A5J050103-002 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	**2.9 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2A51AM**
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2A51AN
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**42.8 B**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2A51AP**
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**8070**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2A51AQ**
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**339**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2A51AR**
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**5.1 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2A51AT**
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**805 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2A51AU**
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2A51AV
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**5250**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2A51AW**
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2A51AX
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL2MW-059C-0111-GF

TOTAL Metals

Lot-Sample #...: A5J050103-002 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL2A51A0
		Dilution Factor: 1		Analysis Time..: 21:12	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL2A51A2
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	**0.034 B**	**1.0**	**ug/L**	**SW846 6020**	**10/12-10/17/05**	**HL2A51A1**
		Dilution Factor: 1		Analysis Time..: 18:28	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL1MW-080C-0109-GF

TOTAL Metals

Lot-Sample #...: A5J050103-004 **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285025						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL2A81AH
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2A81AE
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2A81AF
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL2A81AJ
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**17.9**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2A81AK**
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2A81AG
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2A81AL
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2A81AM
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**97000**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2A81AN**
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2A81AP
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL1MW-080C-0109-GF

TOTAL Metals

Lot-Sample #...: A5J050103-004 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2A81AQ
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2A81AR
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	ND	1000	ug/L	SW846 6010B	10/12/05	HL2A81AT
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**4660**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2A81AU**
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**860**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2A81AV**
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**3.3 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2A81AW**
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**3450 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2A81AX**
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2A81A0
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**2440**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2A81A1**
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2A81A2
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL1MW-080C-0109-GF

TOTAL Metals

Lot-Sample #...: A5J050103-004 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL2A81AA
		Dilution Factor: 1		Analysis Time..: 21:32	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL2A81AD
		Dilution Factor: 1		Analysis Time..: 18:12	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	**0.39 B**	**1.0**	**ug/L**	**SW846 6020**	**10/12-10/17/05**	**HL2A81AC**
		Dilution Factor: 1		Analysis Time..: 18:31	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL2MW-080C-0135-GF

TOTAL Metals

Lot-Sample #...: A5J050103-006 **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285025						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL2CD1AH
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CD1AE
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CD1AF
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL2CD1AJ
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**22.7**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CD1AK**
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	**2.4 B**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CD1AG**
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CD1AL
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CD1AM
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**87600**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CD1AN**
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CD1AP
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL2MW-080C-0135-GF

TOTAL Metals

Lot-Sample #...: A5J050103-006 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CD1AQ
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CD1AR
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	ND	1000	ug/L	SW846 6010B	10/12/05	HL2CD1AT
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**4190**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CD1AU**
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**297**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CD1AV**
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**2.1 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CD1AW**
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**3280 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CD1AX**
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CD1A0
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**2320**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CD1A1**
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CD1A2
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL2MW-080C-0135-GF

TOTAL Metals

Lot-Sample #...: A5J050103-006 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL2CD1AA
		Dilution Factor: 1		Analysis Time..: 21:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL2CD1AD
		Dilution Factor: 1		Analysis Time..: 18:22	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	**0.28 B**	**1.0**	**ug/L**	**SW846 6020**	**10/12-10/17/05**	**HL2CD1AC**
		Dilution Factor: 1		Analysis Time..: 18:59	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0110-GF

TOTAL Metals

Lot-Sample #...: A5J050103-008 **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285025						
Aluminum	**670**	**200**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CF1AH**
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CF1AE
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CF1AF
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL2CF1AJ
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**15.0**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CF1AK**
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CF1AG
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CF1AL
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	**0.64 B**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CF1AM**
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**12600**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CF1AN**
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CF1AP
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0110-GF

TOTAL Metals

Lot-Sample #...: A5J050103-008 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	**9.8 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CF1AQ**
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	**2.5 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CF1AR**
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**62.9 B**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CF1AT**
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**3630**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CF1AU**
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**352**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CF1AV**
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**26.5**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CF1AW**
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**2340 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CF1AX**
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CF1A0
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**17000**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CF1A1**
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CF1A2
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0110-GF

TOTAL Metals

Lot-Sample #...: A5J050103-008 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	**31.4 B**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CF1AA**
		Dilution Factor: 1		Analysis Time..: 21:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL2CF1AD
		Dilution Factor: 1		Analysis Time..: 18:29	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	**0.059 B**	**1.0**	**ug/L**	**SW846 6020**	**10/12-10/17/05**	**HL2CF1AC**
		Dilution Factor: 1		Analysis Time..: 19:03	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0137-GF

TOTAL Metals

Lot-Sample #...: A5J050103-010 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285025						
Aluminum	**755**	**200**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CJ1AH**
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CJ1AE
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CJ1AF
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL2CJ1AJ
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**16.1**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CJ1AK**
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CJ1AG
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CJ1AL
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	**0.62 B**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CJ1AM**
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**14200**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CJ1AN**
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CJ1AP
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0137-GF

TOTAL Metals

Lot-Sample #...: A5J050103-010 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	**11.1 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CJ1AQ**
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	**2.7 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CJ1AR**
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**61.2 B**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CJ1AT**
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**4060**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CJ1AU**
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**419**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CJ1AV**
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**30.6**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CJ1AW**
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**2580 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CJ1AX**
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CJ1A0
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**19000**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CJ1A1**
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CJ1A2
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0137-GF

TOTAL Metals

Lot-Sample #...: A5J050103-010 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	**42.7 B**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CJ1AA**
		Dilution Factor: 1		Analysis Time..: 21:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL2CJ1AD
		Dilution Factor: 1		Analysis Time..: 18:30	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	**0.069 B**	**1.0**	**ug/L**	**SW846 6020**	**10/12-10/17/05**	**HL2CJ1AC**
		Dilution Factor: 1		Analysis Time..: 19:33	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0115-GF

TOTAL Metals

Lot-Sample #...: A5J050103-012 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285025						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL2CL1AH
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CL1AE
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CL1AF
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL2CL1AJ
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**5.2 B**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CL1AK**
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CL1AG
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CL1AL
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CL1AM
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**17300**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CL1AN**
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CL1AP
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0115-GF

TOTAL Metals

Lot-Sample #...: A5J050103-012 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CL1AQ
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CL1AR
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	ND	1000	ug/L	SW846 6010B	10/12/05	HL2CL1AT
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**7070**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CL1AU**
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**157**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CL1AV**
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**5.2 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CL1AW**
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**1180 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CL1AX**
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CL1A0
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**12300**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CL1A1**
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CL1A2
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0115-GF

TOTAL Metals

Lot-Sample #...: A5J050103-012 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL2CL1AA
		Dilution Factor: 1		Analysis Time..: 21:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL2CL1AD
		Dilution Factor: 1		Analysis Time..: 18:31	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL2CL1AC
		Dilution Factor: 1		Analysis Time..: 19:36	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0136-GF

TOTAL Metals

Lot-Sample #...: A5J050103-014 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285025						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL2CQ1AH
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CQ1AE
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CQ1AF
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL2CQ1AJ
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**5.3 B**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CQ1AK**
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CQ1AG
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CQ1AL
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CQ1AM
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**16600**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CQ1AN**
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CQ1AP
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0136-GF

TOTAL Metals

Lot-Sample #...: A5J050103-014 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CQ1AQ
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CQ1AR
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	ND	1000	ug/L	SW846 6010B	10/12/05	HL2CQ1AT
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**6720**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CQ1AU**
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**273**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CQ1AV**
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**5.0 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CQ1AW**
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**1140 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CQ1AX**
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CQ1A0
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**11900**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CQ1A1**
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CQ1A2
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0136-GF

TOTAL Metals

Lot-Sample #...: A5J050103-014 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL2CQ1AA
		Dilution Factor: 1		Analysis Time..: 21:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL2CQ1AD
		Dilution Factor: 1		Analysis Time..: 18:32	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL2CQ1AC
		Dilution Factor: 1		Analysis Time..: 19:40	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL12MW-153C-0120-GF

TOTAL Metals

Lot-Sample #...: A5J050103-016 **Matrix.....:** WG
Date Sampled...: 10/04/05 11:35 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285025						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL2CW1AH
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	**19.0**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CW1AE**
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CW1AF
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL2CW1AJ
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**75.0**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CW1AK**
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CW1AG
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CW1AL
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2CW1AM
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**134000**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CW1AN**
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CW1AP
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL12MW-153C-0120-GF

TOTAL Metals

Lot-Sample #...: A5J050103-016 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CW1AQ
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CW1AR
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**2520**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CW1AT**
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**73200**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CW1AU**
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**175**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CW1AV**
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CW1AW
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**2910 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CW1AX**
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CW1A0
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**24300**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2CW1A1**
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2CW1A2
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL12MW-153C-0120-GF

TOTAL Metals

Lot-Sample #...: A5J050103-016 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL2CW1AA
		Dilution Factor: 1		Analysis Time..: 22:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL2CW1AD
		Dilution Factor: 1		Analysis Time..: 18:34	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL2CW1AC
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL2MW-262C-0112-GF

TOTAL Metals

Lot-Sample #...: A5J050103-018 **Matrix.....:** WG
Date Sampled...: 10/04/05 11:10 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285025						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL2C01AH
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C01AE
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C01AF
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL2C01AJ
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**20.7**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C01AK**
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C01AG
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C01AL
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C01AM
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**65000**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C01AN**
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C01AP
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL2MW-262C-0112-GF

TOTAL Metals

Lot-Sample #...: A5J050103-018 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	**23.5**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C01AQ**
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C01AR
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**2180**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C01AT**
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**38500**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C01AU**
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**1950**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C01AV**
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**25.8**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C01AW**
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**2560 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C01AX**
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C01A0
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**8590**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C01A1**
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C01A2
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL2MW-262C-0112-GF

TOTAL Metals

Lot-Sample #...: A5J050103-018 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL2C01AA
		Dilution Factor: 1		Analysis Time..: 22:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL2C01AD
		Dilution Factor: 1		Analysis Time..: 18:13	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL2C01AC
		Dilution Factor: 1		Analysis Time..: 19:48	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL2MW-263C-0113-GF

TOTAL Metals

Lot-Sample #...: A5J050103-020 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285025						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL2C41AW
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	**17.0**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C41AL**
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C41AP
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL2C41A1
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**22.2**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C41A4**
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C41AT
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C41A7
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C41CA
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**31800**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C41CE**
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C41CH
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL2MW-263C-0113-GF

TOTAL Metals

Lot-Sample #...: A5J050103-020 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	**2.3 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C41CL**
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C41CP
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**4560**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C41CT**
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**14400**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C41CW**
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**1200**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C41C1**
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**4.8 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C41C4**
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**810 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C41C7**
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C41DA
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**4600**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C41DE**
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C41DH
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL2MW-263C-0113-GF

TOTAL Metals

Lot-Sample #...: A5J050103-020 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL2C41AA
		Dilution Factor: 1		Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL2C41AH
		Dilution Factor: 1		Analysis Time..: 18:14	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL2C41AE
		Dilution Factor: 1		Analysis Time..: 19:51	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGBKGMW-017C-0103-GF

TOTAL Metals

Lot-Sample #...: A5J050103-022 **Matrix.....:** WG
Date Sampled...: 10/04/05 14:54 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285025						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL2C61AH
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	**18.6**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C61AE**
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C61AF
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL2C61AJ
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**30.9**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C61AK**
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C61AG
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C61AL
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C61AM
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**102000**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C61AN**
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C61AP
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-017C-0103-GF

TOTAL Metals

Lot-Sample #...: A5J050103-022 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C61AQ
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C61AR
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**1410**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C61AT**
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**43800**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C61AU**
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**197**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C61AV**
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C61AW
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**2490 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C61AX**
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C61A0
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**21800**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C61A1**
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C61A2
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-017C-0103-GF

TOTAL Metals

Lot-Sample #...: A5J050103-022 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL2C61AA
		Dilution Factor: 1		Analysis Time..: 22:47	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL2C61AD
		Dilution Factor: 1		Analysis Time..: 18:19	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL2C61AC
		Dilution Factor: 1		Analysis Time..: 20:09	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGBKGMW-020C-0106-GF

TOTAL Metals

Lot-Sample #...: A5J050103-024 **Matrix.....:** WG
Date Sampled...: 10/04/05 13:35 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285025						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL2C81AE
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C81AA
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C81AC
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL2C81AF
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**135**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C81AG**
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C81AD
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C81AH
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2C81AJ
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**47400**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C81AK**
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C81AL
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-020C-0106-GF

TOTAL Metals

Lot-Sample #...: A5J050103-024 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C81AM
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C81AN
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**2550**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C81AP**
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**15100**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C81AQ**
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**695**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C81AR**
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C81AT
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**2920 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C81AU**
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C81AV
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**7630**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2C81AW**
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2C81AX
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-020C-0106-GF

TOTAL Metals

Lot-Sample #...: A5J050103-024 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL2C81A0
		Dilution Factor: 1		Analysis Time..: 22:52	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL2C81A2
		Dilution Factor: 1		Analysis Time..: 18:21	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL2C81A1
		Dilution Factor: 1		Analysis Time..: 20:27	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGBKGMW-016C-0102-GF

TOTAL Metals

Lot-Sample #...: A5J050103-027 **Matrix.....:** WQ
Date Sampled...: 10/04/05 14:46 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285025						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL2DE1AH
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2DE1AE
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2DE1AF
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL2DE1AJ
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**14.8**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2DE1AK**
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2DE1AG
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2DE1AL
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL2DE1AM
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**9450**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2DE1AN**
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2DE1AP
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-016C-0102-GF

TOTAL Metals

Lot-Sample #...: A5J050103-027 **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2DE1AQ
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2DE1AR
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	ND	1000	ug/L	SW846 6010B	10/12/05	HL2DE1AT
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**4760**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2DE1AU**
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**20.0 B**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2DE1AV**
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**2.5 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2DE1AW**
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**634 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2DE1AX**
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2DE1A0
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**3620**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL2DE1A1**
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL2DE1A2
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-016C-0102-GF

TOTAL Metals

Lot-Sample #...: A5J050103-027 **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL2DE1AA
		Dilution Factor: 1		Analysis Time..: 22:57	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL2DE1AD
		Dilution Factor: 1		Analysis Time..: 18:35	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL2DE1AC
		Dilution Factor: 1		Analysis Time..: 20:31	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A5J050103 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A5J120000-025 **Prep Batch #...:** 5285025						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HMHFV1AH
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619		Instrument ID..: I6	
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFV1AE
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619		Instrument ID..: I6	
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HMHFV1AJ
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619		Instrument ID..: I6	
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFV1AF
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619		Instrument ID..: I6	
Barium	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFV1AK
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619		Instrument ID..: I6	
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFV1AG
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619		Instrument ID..: I6	
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFV1AL
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619		Instrument ID..: I6	
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFV1AM
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619		Instrument ID..: I6	
Calcium	ND	1000	ug/L	SW846 6010B	10/12/05	HMHFV1AN
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619		Instrument ID..: I6	
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HMHFV1AP
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619		Instrument ID..: I6	
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HMHFV1AQ
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619		Instrument ID..: I6	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A5J050103 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HMHFV1AR
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619	Instrument ID..: I6		
Iron	ND	1000	ug/L	SW846 6010B	10/12/05	HMHFV1AT
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619	Instrument ID..: I6		
Magnesium	ND	1000	ug/L	SW846 6010B	10/12/05	HMHFV1AU
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619	Instrument ID..: I6		
Manganese	ND	100	ug/L	SW846 6010B	10/12/05	HMHFV1AV
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619	Instrument ID..: I6		
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HMHFV1AW
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619	Instrument ID..: I6		
Potassium	ND	5000	ug/L	SW846 6010B	10/12/05	HMHFV1AX
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619	Instrument ID..: I6		
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HMHFV1A0
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619	Instrument ID..: I6		
Sodium	ND	1000	ug/L	SW846 6010B	10/12/05	HMHFV1A1
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619	Instrument ID..: I6		
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HMHFV1A2
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619	Instrument ID..: I6		
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HMHFV1AA
		Dilution Factor: 1				
		Analysis Time..: 21:01	Analyst ID.....: 001619	Instrument ID..: I6		
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HMHFV1AD
		Dilution Factor: 1				
		Analysis Time..: 18:06	Analyst ID.....: 001644	Instrument ID..: H1		
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HMHFV1AC
		Dilution Factor: 1				
		Analysis Time..: 18:18	Analyst ID.....: 001644	Instrument ID..: I7		

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A5J050103 **Matrix.....:** WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J050103 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A5J120000-025 **Prep Batch #...:** 5285025					
Arsenic	95	(80 - 120)	SW846 6010B	10/12/05	HMHFV1A6
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Aluminum	98	(80 - 120)	SW846 6010B	10/12/05	HMHFV1A9
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Lead	92	(80 - 120)	SW846 6010B	10/12/05	HMHFV1A7
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Antimony	89	(80 - 120)	SW846 6010B	10/12/05	HMHFV1CA
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Selenium	95	(80 - 120)	SW846 6010B	10/12/05	HMHFV1A8
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Barium	93	(80 - 120)	SW846 6010B	10/12/05	HMHFV1CC
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Beryllium	95	(80 - 120)	SW846 6010B	10/12/05	HMHFV1CD
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Cadmium	95	(80 - 120)	SW846 6010B	10/12/05	HMHFV1CE
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Calcium	93	(80 - 120)	SW846 6010B	10/12/05	HMHFV1CF
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Chromium	103	(80 - 120)	SW846 6010B	10/12/05	HMHFV1CG
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J050103 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	95	(80 - 120)	SW846 6010B	10/12/05	HMHFV1CH
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Copper	99	(80 - 120)	SW846 6010B	10/12/05	HMHFV1CJ
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Iron	102	(77 - 127)	SW846 6010B	10/12/05	HMHFV1CK
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Magnesium	94	(80 - 120)	SW846 6010B	10/12/05	HMHFV1CL
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Manganese	94	(80 - 120)	SW846 6010B	10/12/05	HMHFV1CM
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Nickel	97	(80 - 120)	SW846 6010B	10/12/05	HMHFV1CN
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Potassium	98	(80 - 120)	SW846 6010B	10/12/05	HMHFV1CP
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Silver	113	(80 - 120)	SW846 6010B	10/12/05	HMHFV1CQ
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Sodium	94	(80 - 120)	SW846 6010B	10/12/05	HMHFV1CR
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Vanadium	96	(80 - 120)	SW846 6010B	10/12/05	HMHFV1CT
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			
Zinc	97	(80 - 120)	SW846 6010B	10/12/05	HMHFV1A3
		Dilution Factor: 1	Analysis Time..: 21:06		Analyst ID.....: 001619
		Instrument ID..: I6			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J050103 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	94	(69 - 114)	SW846 6020	10/12-10/17/05	HMHFV1A4
		Dilution Factor: 1	Analysis Time..: 18:22	Analyst ID.....: 001644	
		Instrument ID..: I7			
Mercury	102	(82 - 131)	SW846 7470A	10/12/05	HMHFV1A5
		Dilution Factor: 1	Analysis Time..: 18:07	Analyst ID.....: 001644	
		Instrument ID..: H1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J050103 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A5J120000-025 **Prep Batch #...:** 5285025							
Arsenic	2000	1890	ug/L	95	SW846 6010B	10/12/05	HMHFV1A6
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Aluminum	2000	1970	ug/L	98	SW846 6010B	10/12/05	HMHFV1A9
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Lead	500	459	ug/L	92	SW846 6010B	10/12/05	HMHFV1A7
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Antimony	500	446	ug/L	89	SW846 6010B	10/12/05	HMHFV1CA
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Selenium	2000	1910	ug/L	95	SW846 6010B	10/12/05	HMHFV1A8
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Barium	2000	1860	ug/L	93	SW846 6010B	10/12/05	HMHFV1CC
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Beryllium	50.0	47.4	ug/L	95	SW846 6010B	10/12/05	HMHFV1CD
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Cadmium	50.0	47.5	ug/L	95	SW846 6010B	10/12/05	HMHFV1CE
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Calcium	50000	46700	ug/L	93	SW846 6010B	10/12/05	HMHFV1CF
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Chromium	200	207	ug/L	103	SW846 6010B	10/12/05	HMHFV1CG
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J050103 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	500	474	ug/L	95	SW846 6010B	10/12/05	HMHFV1CH
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Copper	250	247	ug/L	99	SW846 6010B	10/12/05	HMHFV1CJ
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Iron	1000	1020	ug/L	102	SW846 6010B	10/12/05	HMHFV1CK
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Magnesium	50000	47200	ug/L	94	SW846 6010B	10/12/05	HMHFV1CL
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Manganese	500	471	ug/L	94	SW846 6010B	10/12/05	HMHFV1CM
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Nickel	500	483	ug/L	97	SW846 6010B	10/12/05	HMHFV1CN
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Potassium	50000	49200	ug/L	98	SW846 6010B	10/12/05	HMHFV1CP
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Silver	50.0	56.3	ug/L	113	SW846 6010B	10/12/05	HMHFV1CQ
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Sodium	50000	46800	ug/L	94	SW846 6010B	10/12/05	HMHFV1CR
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Vanadium	500	480	ug/L	96	SW846 6010B	10/12/05	HMHFV1CT
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				
Zinc	500	483	ug/L	97	SW846 6010B	10/12/05	HMHFV1A3
			Dilution Factor: 1		Analysis Time..: 21:06	Analyst ID.....: 001619	
			Instrument ID..: I6				

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J050103 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	100	93.8	ug/L	94	SW846 6020	10/12-10/17/05	HMHFV1A4
			Dilution Factor: 1		Analysis Time..: 18:22	Analyst ID.....: 001644	
			Instrument ID..: I7				
Mercury	5.0	5.1	ug/L	102	SW846 7470A	10/12/05	HMHFV1A5
			Dilution Factor: 1		Analysis Time..: 18:07	Analyst ID.....: 001644	
			Instrument ID..: H1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J050103 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A5J050103-020 **Prep Batch #...:** 5285025					
Aluminum	107	(75 - 125)	SW846 6010B	10/12/05	HL2C41AX
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Arsenic	103	(75 - 125)	SW846 6010B	10/12/05	HL2C41AM
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Antimony	97	(75 - 125)	SW846 6010B	10/12/05	HL2C41A2
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Lead	99	(75 - 125)	SW846 6010B	10/12/05	HL2C41AQ
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Barium	100	(75 - 125)	SW846 6010B	10/12/05	HL2C41A5
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Selenium	102	(75 - 125)	SW846 6010B	10/12/05	HL2C41AU
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Beryllium	103	(75 - 125)	SW846 6010B	10/12/05	HL2C41A8
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Cadmium	102	(75 - 125)	SW846 6010B	10/12/05	HL2C41CC
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Calcium	99	(75 - 125)	SW846 6010B	10/12/05	HL2C41CF
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Chromium	112	(75 - 125)	SW846 6010B	10/12/05	HL2C41CJ
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J050103 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	103	(75 - 125)	SW846 6010B	10/12/05	HL2C41CM
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Copper	106	(75 - 125)	SW846 6010B	10/12/05	HL2C41CQ
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Iron	NC,MSB	(75 - 125)	SW846 6010B	10/12/05	HL2C41CU
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Magnesium	102	(75 - 125)	SW846 6010B	10/12/05	HL2C41CX
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Manganese	92	(75 - 125)	SW846 6010B	10/12/05	HL2C41C2
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Nickel	104	(75 - 125)	SW846 6010B	10/12/05	HL2C41C5
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Potassium	105	(75 - 125)	SW846 6010B	10/12/05	HL2C41C8
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Silver	121	(75 - 125)	SW846 6010B	10/12/05	HL2C41DC
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Sodium	101	(75 - 125)	SW846 6010B	10/12/05	HL2C41DF
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Vanadium	103	(75 - 125)	SW846 6010B	10/12/05	HL2C41DJ
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			
Zinc	104	(75 - 125)	SW846 6010B	10/12/05	HL2C41AC
		Dilution Factor: 1	Analysis Time..: 22:11		Instrument ID..: I6
		Analyst ID.....: 001619			

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J050103 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Mercury	98	(68 - 149)	SW846 7470A	10/12/05	HL2C41AJ
		Dilution Factor: 1	Analysis Time..: 18:14		Instrument ID..: H1
		Analyst ID.....: 001644			
Thallium	96	(70 - 130)	SW846 6020	10/12-10/17/05	HL2C41AF
		Dilution Factor: 1	Analysis Time..: 19:51		Instrument ID..: I7
		Analyst ID.....: 001644			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J050103 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A5J050103-020 **Prep Batch #...:** 5285025								
Aluminum	ND	2000	2130	ug/L	107	SW846 6010B	10/12/05	HL2C41AX
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Arsenic	17.0	2000	2080	ug/L	103	SW846 6010B	10/12/05	HL2C41AM
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Antimony	ND	500	483	ug/L	97	SW846 6010B	10/12/05	HL2C41A2
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Lead	ND	500	495	ug/L	99	SW846 6010B	10/12/05	HL2C41AQ
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Barium	22.2	2000	2020	ug/L	100	SW846 6010B	10/12/05	HL2C41A5
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Selenium	ND	2000	2050	ug/L	102	SW846 6010B	10/12/05	HL2C41AU
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Beryllium	ND	50.0	51.3	ug/L	103	SW846 6010B	10/12/05	HL2C41A8
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Cadmium	ND	50.0	51.0	ug/L	102	SW846 6010B	10/12/05	HL2C41CC
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Calcium	31800	50000	81100	ug/L	99	SW846 6010B	10/12/05	HL2C41CF
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Chromium	ND	200	224	ug/L	112	SW846 6010B	10/12/05	HL2C41CJ
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J050103 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	2.3	500	515	ug/L	103	SW846 6010B	10/12/05	HL2C41CM
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Copper	ND	250	265	ug/L	106	SW846 6010B	10/12/05	HL2C41CQ
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Iron	4560	1000	5470	ug/L		SW846 6010B	10/12/05	HL2C41CU
			Qualifiers: NC,MSB					
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Magnesium	14400	50000	65300	ug/L	102	SW846 6010B	10/12/05	HL2C41CX
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Manganese	1200	500	1660	ug/L	92	SW846 6010B	10/12/05	HL2C41C2
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Nickel	4.8	500	525	ug/L	104	SW846 6010B	10/12/05	HL2C41C5
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Potassium	810	50000	53100	ug/L	105	SW846 6010B	10/12/05	HL2C41C8
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Silver	ND	50.0	60.7	ug/L	121	SW846 6010B	10/12/05	HL2C41DC
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Sodium	4600	50000	55000	ug/L	101	SW846 6010B	10/12/05	HL2C41DF
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Vanadium	ND	500	515	ug/L	103	SW846 6010B	10/12/05	HL2C41DJ
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					
Zinc	ND	500	520	ug/L	104	SW846 6010B	10/12/05	HL2C41AC
			Dilution Factor: 1		Analysis Time..: 22:11		Instrument ID..: I6	
			Analyst ID.....: 001619					

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J050103 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Mercury	ND	1.0	0.98	ug/L	98	SW846 7470A	10/12/05	HL2C41AJ
			Dilution Factor: 1		Analysis Time..: 18:14		Instrument ID..: H1	
			Analyst ID.....: 001644					
Thallium	ND	100	96.5	ug/L	96	SW846 6020	10/12-10/17/05	HL2C41AF
			Dilution Factor: 1		Analysis Time..: 19:51		Instrument ID..: I7	
			Analyst ID.....: 001644					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

SAMPLE DUPLICATE EVALUATION REPORT

Metals

Client Lot #...: A5J050103 **Work Order #...:** HL2C4-SMP HL2C4-DUP **Matrix.....:** WG

Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Aluminum						SD Lot-Sample #: A5J050103-020		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Arsenic						SD Lot-Sample #: A5J050103-020		
	17.0	16.8	ug/L	0.89	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Lead						SD Lot-Sample #: A5J050103-020		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Antimony						SD Lot-Sample #: A5J050103-020		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Barium						SD Lot-Sample #: A5J050103-020		
	22.2	21.8	ug/L	2.1	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Selenium						SD Lot-Sample #: A5J050103-020		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Beryllium						SD Lot-Sample #: A5J050103-020		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Cadmium						SD Lot-Sample #: A5J050103-020		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Calcium						SD Lot-Sample #: A5J050103-020		
	31800	31300	ug/L	1.6	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						

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SAMPLE DUPLICATE EVALUATION REPORT

Metals

Lot-Sample #...: A5J050103-000 **Work Order #...:** HL2C4-SMP HL2C4-DUP **Matrix.....:** WG

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chromium						SD Lot-Sample #: A5J050103-020		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Cobalt						SD Lot-Sample #: A5J050103-020		
	2.3 B	2.4 B	ug/L	2.9	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Copper						SD Lot-Sample #: A5J050103-020		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Iron						SD Lot-Sample #: A5J050103-020		
	4560	4480	ug/L	1.8	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Magnesium						SD Lot-Sample #: A5J050103-020		
	14400	14100	ug/L	1.7	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Manganese						SD Lot-Sample #: A5J050103-020		
	1200	1180	ug/L	2.0	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Nickel						SD Lot-Sample #: A5J050103-020		
	4.8 B	4.6 B	ug/L	4.7	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Potassium						SD Lot-Sample #: A5J050103-020		
	810 B	792 B	ug/L	2.3	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Silver						SD Lot-Sample #: A5J050103-020		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						

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SAMPLE DUPLICATE EVALUATION REPORT

Metals

Lot-Sample #...: A5J050103-000 **Work Order #...:** HL2C4-SMP HL2C4-DUP **Matrix.....:** WG

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Sodium						SD Lot-Sample #: A5J050103-020		
	4600	4570	ug/L	0.64	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Vanadium						SD Lot-Sample #: A5J050103-020		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Zinc						SD Lot-Sample #: A5J050103-020		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 22:11	Analyst ID.....: 001619	
		Instrument ID..: I6						
Mercury						SD Lot-Sample #: A5J050103-020		
	ND	ND	ug/L	0	(0-20)	SW846 7470A	10/12/05	5285025
		Dilution Factor: 1				Analysis Time..: 18:14	Analyst ID.....: 001644	
		Instrument ID..: H1						
Thallium						SD Lot-Sample #: A5J050103-020		
	ND	ND	ug/L	0	(0-20)	SW846 6020	10/12-10/17/05	5285025
		Dilution Factor: 1				Analysis Time..: 19:51	Analyst ID.....: 001644	
		Instrument ID..: I7						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

GENERAL CHEMISTRY DATA

SpecPro Inc

Client Sample ID: FWGLL2MW-059C-0111-GW

General Chemistry

Lot-Sample #...: A5J050103-001 **Work Order #...:** HL2A3 **Matrix.....:** WG
Date Sampled...: 10/04/05 15:00 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGLL1MW-080C-0109-GW

General Chemistry

Lot-Sample #...: A5J050103-003 **Work Order #...:** HL2A7 **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL2MW-080C-0135-GW

General Chemistry

Lot-Sample #...: A5J050103-005 **Work Order #...:** HL2CA **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0110-GW

General Chemistry

Lot-Sample #...: A5J050103-007 **Work Order #...:** HL2CE **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	**0.0033 B**	**0.010**	**mg/L**	**SW846 9012A**	**10/14-10/15/05**	**5287541**
	Dilution Factor: 1					
Nitrocellulose	**0.21 B**	**0.50**	**mg/L**	**MCAWW 353.2**	**10/17-10/18/05**	**5286614**
	Dilution Factor: 1					

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0137-GW

General Chemistry

Lot-Sample #...: A5J050103-009 **Work Order #...:** HL2CH **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0115-GW

General Chemistry

Lot-Sample #...: A5J050103-011 **Work Order #...:** HL2CK **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0136-GW

General Chemistry

Lot-Sample #...: A5J050103-013 **Work Order #...:** HL2CN **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL12MW-153C-0120-GW

General Chemistry

Lot-Sample #...: A5J050103-015 **Work Order #...:** HL2CR **Matrix.....:** WG
Date Sampled...: 10/04/05 11:35 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrate-Nitrite	ND	0.1	mg/L	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL2MW-262C-0112-GW

General Chemistry

Lot-Sample #...: A5J050103-017 **Work Order #...:** HL2CX **Matrix.....:** WG
Date Sampled...: 10/04/05 11:10 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL2MW-263C-0113-GW

General Chemistry

Lot-Sample #...: A5J050103-019 **Work Order #...:** HL2C1 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGBKGMW-017C-0103-GW

General Chemistry

Lot-Sample #...: A5J050103-021 **Work Order #...:** HL2C5 **Matrix.....:** WG
Date Sampled...: 10/04/05 14:54 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGBKGMW-020C-0106-GW

General Chemistry

Lot-Sample #...: A5J050103-023 **Work Order #...:** HL2C7 **Matrix.....:** WG
Date Sampled...: 10/04/05 13:35 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGBKGMW-016C-0102-GW

General Chemistry

Lot-Sample #...: A5J050103-026 **Work Order #...:** HL2DA **Matrix.....:** WQ
Date Sampled...: 10/04/05 14:46 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1				

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A5J050103 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: HMTD91AA		MB Lot-Sample #:	A5J140000-541	
	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrate-Nitrite		Work Order #: HMXKV1AA		MB Lot-Sample #:	A5J170000-597	
	ND	0.1	mg/L	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1				
Nitrocellulose		Work Order #: HMPF91AA		MB Lot-Sample #:	G5J130000-614	
	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				
Nitrocellulose		Work Order #: HM1EJ1AA		MB Lot-Sample #:	G5J180000-405	
	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J050103 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: HMTD91AC	LCS Lot-Sample#: A5J140000-541		
	105	(69 - 118)	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1			
Nitrate-Nitrite		Work Order #: HMXKV1AC	LCS Lot-Sample#: A5J170000-597		
	111	(79 - 117)	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1			
Nitrocellulose		Work Order #: HMPF91AC	LCS Lot-Sample#: G5J130000-614		
	104	(56 - 111)	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1			
Nitrocellulose		Work Order #: HM1EJ1AC	LCS Lot-Sample#: G5J180000-405		
	102	(56 - 111)	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J050103 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			Work Order #: HMTD91AC	LCS Lot-Sample#: A5J140000-541			
	0.17	0.17	mg/L	105	SW846 9012A	10/14-10/15/05	5287541
			Dilution Factor: 1				
Nitrate-Nitrite			Work Order #: HMXKV1AC	LCS Lot-Sample#: A5J170000-597			
	2.2	2.4	mg/L	111	MCAWW 353.2	10/14/05	5290597
			Dilution Factor: 1				
Nitrocellulose			Work Order #: HMPF91AC	LCS Lot-Sample#: G5J130000-614			
	2.0	2.1	mg/L	104	MCAWW 353.2	10/17-10/18/05	5286614
			Dilution Factor: 1				
Nitrocellulose			Work Order #: HM1EJ1AC	LCS Lot-Sample#: G5J180000-405			
	2.0	2.0	mg/L	102	MCAWW 353.2	10/18-10/19/05	5291405
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J050103 **Matrix.....:** WATER
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate-Nitrite		WO#: HL22L1CG-MS/HL22L1CH-MSD				MS Lot-Sample #: A5J050177-002	
	63	(34 - 125)			MCAWW 353.2	10/14/05	5290597
	63	(34 - 125)	0.98	(0-20)	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1					
Nitrocellulose		WO#: HL0461A0-MS/HL0461A1-MSD				MS Lot-Sample #: A5J040187-017	
	100	(56 - 111)			MCAWW 353.2	10/17-10/18/05	5286614
	103	(56 - 111)	2.4	(0-15)	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1					
Nitrocellulose		WO#: HL41C1AX-MS/HL41C1A0-MSD				MS Lot-Sample #: A5J060101-017	
	98	(56 - 111)			MCAWW 353.2	10/18-10/19/05	5291405
	96	(56 - 111)	2.0	(0-15)	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J050103 **Matrix.....:** WATER
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate-Nitrite			WO#: HL22L1CG-MS/HL22L1CH-MSD		MS Lot-Sample #: A5J050177-002				
	ND	0.5	0.3	mg/L	63		MCAWW 353.2	10/14/05	5290597
	ND	0.5	0.3	mg/L	63	0.98	MCAWW 353.2	10/14/05	5290597
			Dilution Factor: 1						
Nitrocellulose			WO#: HL0461A0-MS/HL0461A1-MSD		MS Lot-Sample #: A5J040187-017				
	ND	2.0	2.1	mg/L	100		MCAWW 353.2	10/17-10/18/05	5286614
	ND	2.0	2.1	mg/L	103	2.4	MCAWW 353.2	10/17-10/18/05	5286614
			Dilution Factor: 1						
Nitrocellulose			WO#: HL41C1AX-MS/HL41C1A0-MSD		MS Lot-Sample #: A5J060101-017				
	ND	2.0	2.0	mg/L	98		MCAWW 353.2	10/18-10/19/05	5291405
	ND	2.0	1.9	mg/L	96	2.0	MCAWW 353.2	10/18-10/19/05	5291405
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J050103 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		WO#: HL2C11A4-MS/HL2C11A5-MSD				MS Lot-Sample #: A5J050103-019	
	96	(42 - 140)			SW846 9012A	10/14-10/15/05	5287541
	95	(42 - 140)	0.51	(0-20)	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1					
Nitrocellulose		WO#: HL2C11AX-MS/HL2C11A0-MSD				MS Lot-Sample #: A5J050103-019	
	73	(56 - 111)			MCAWW 353.2	10/18-10/19/05	5291405
	98 *	(56 - 111)	29	(0-15)	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J050103 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: HL2C11A4-MS/HL2C11A5-MSD				MS Lot-Sample #: A5J050103-019		
	ND	0.040	0.039	mg/L	96		SW846 9012A	10/14-10/15/05	5287541
	ND	0.040	0.039	mg/L	95	0.51	SW846 9012A	10/14-10/15/05	5287541
			Dilution Factor: 1						
Nitrocellulose			WO#: HL2C11AX-MS/HL2C11A0-MSD				MS Lot-Sample #: A5J050103-019		
	ND	2.0	1.5	mg/L	73		MCAWW 353.2	10/18-10/19/05	5291405
	ND	2.0	2.0 *	mg/L	98	29	MCAWW 353.2	10/18-10/19/05	5291405
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

SEVERN TRENT STL

STL WEST SACRAMENTO DATA

CASE NARRATIVE

STL SACRAMENTO PROJECT NUMBER A5J050103

WATER, 8330, Explosives (SAC)
Samples: 3, 5, 7 and 9
The extracts of these samples required 5X dilutions due to high levels. All reporting limits have been adjusted accordingly.

There were no other anomalies associated with this project.

SEVERN TRENT STL

ACCREDITED IN ACCORDANCE WITH nelac

STL Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	Oregon*	CA 200005
Arizona	AZ0616	Pennsylvania	68-1272
Arkansas	04-067-0	South Carolina	87014002
California*	01119CA	Texas	TX 270-2004A
Colorado	NA	Utah*	QUAN1
Connecticut	PH-0691	Virginia	00178
Florida*	E87570	Washington	C087
Georgia	960	West Virginia	9930C, 334
Hawaii	NA	Wisconsin	998204680
Louisiana*	01944	NFESC	NA
Michigan	9947	USACE	NA
Nevada	CA44	USDA Foreign Plant	37-82605
New Jersey*	CA005	USDA Foreign Soil	S-46613
New York*	11666		

*NELAP accredited. A more detailed parameter list is available upon request. Update 1/27/05

QC Parameter Definitions

QC Batch: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

Method Blank: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD): An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also used to evaluate the precision of the process.

Duplicate Sample (DU): Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

Surrogates: Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

Isotope Dilution: For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

Control Limits: The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

SpecPro Inc

Client Sample ID: FWGLL2MW-059C-0111-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J050103-001 **Work Order #...:** HL2A31AJ **Matrix.....:** WG
Date Sampled...: 10/04/05 15:00 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL2MW-059C-0111-GW

HPLC

Lot-Sample #...: A5J050103-001 **Work Order #...:** HL2A31AG **Matrix.....:** WG
Date Sampled...: 10/04/05 15:00 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5283509
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	**0.96**	**0.10**	**ug/L**
4-Amino-2,6-dinitrotoluene	**0.91**	**0.10**	**ug/L**
1,3-Dinitrobenzene	**0.089 J**	**0.10**	**ug/L**
2,4-Dinitrotoluene	**0.47**	**0.10**	**ug/L**
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	**0.067 J**	**0.10**	**ug/L**
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	**2.5**	**0.10**	**ug/L**
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	115	(84 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL2MW-059C-0111-GW

General Chemistry

Lot-Sample #...: A5J050103-001 **Work Order #...:** HL2A3 **Matrix.....:** WG
Date Sampled...: 10/04/05 15:00 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGLL1MW-080C-0109-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J050103-003 **Work Order #...:** HL2A71AJ **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL1MW-080C-0109-GW

HPLC

Lot-Sample #...: A5J050103-003 **Work Order #...:** HL2A71AG **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283509
Dilution Factor: 5 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	**8.6**	**0.50**	**ug/L**
4-Amino-2,6-dinitrotoluene	**11**	**0.50**	**ug/L**
1,3-Dinitrobenzene	**0.91**	**0.50**	**ug/L**
2,4-Dinitrotoluene	**0.65**	**0.50**	**ug/L**
2,6-Dinitrotoluene	**0.68**	**0.50**	**ug/L**
HMX	**9.5**	**0.50**	**ug/L**
Nitrobenzene	ND	0.50	ug/L
2-Nitrotoluene	ND	2.5	ug/L
3-Nitrotoluene	ND	2.5	ug/L
4-Nitrotoluene	ND	2.5	ug/L
RDX	**58**	**0.50**	**ug/L**
Tetryl	ND	0.50	ug/L
1,3,5-Trinitrobenzene	**2.7**	**0.50**	**ug/L**
2,4,6-Trinitrotoluene	**2.2**	**0.50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	117	(84 - 125)

SpecPro Inc

Client Sample ID: FWGLL1MW-080C-0109-GW

General Chemistry

Lot-Sample #...: A5J050103-003 **Work Order #...:** HL2A7 **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL2MW-080C-0135-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J050103-005 **Work Order #...:** HL2CA1AJ **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL2MW-080C-0135-GW

HPLC

Lot-Sample #...: A5J050103-005 **Work Order #...:** HL2CA1AG **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283509
Dilution Factor: 5 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	**8.2**	**0.50**	**ug/L**
4-Amino-2,6-dinitrotoluene	**11**	**0.50**	**ug/L**
1,3-Dinitrobenzene	**0.44 J**	**0.50**	**ug/L**
2,4-Dinitrotoluene	**0.45 J**	**0.50**	**ug/L**
2,6-Dinitrotoluene	**0.33 J**	**0.50**	**ug/L**
HMX	**10**	**0.50**	**ug/L**
Nitrobenzene	ND	0.50	ug/L
2-Nitrotoluene	ND	2.5	ug/L
3-Nitrotoluene	ND	2.5	ug/L
4-Nitrotoluene	ND	2.5	ug/L
RDX	**64**	**0.50**	**ug/L**
Tetryl	ND	0.50	ug/L
1,3,5-Trinitrobenzene	**2.8**	**0.50**	**ug/L**
2,4,6-Trinitrotoluene	**1.8**	**0.50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	115	(84 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL2MW-080C-0135-GW

General Chemistry

Lot-Sample #...: A5J050103-005 **Work Order #...:** HL2CA **Matrix.....:** WG
Date Sampled...: 10/04/05 08:56 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0110-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J050103-007 **Work Order #...:** HL2CE1AJ **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0110-GW

HPLC

Lot-Sample #...: A5J050103-007 **Work Order #...:** HL2CE1AG **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283509
Dilution Factor: 5 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	**21**	**0.50**	**ug/L**
4-Amino-2,6-dinitrotoluene	**23**	**0.50**	**ug/L**
1,3-Dinitrobenzene	ND	0.50	ug/L
2,4-Dinitrotoluene	**4.3**	**0.50**	**ug/L**
2,6-Dinitrotoluene	**1.8**	**0.50**	**ug/L**
HMX	**0.44 J**	**0.50**	**ug/L**
Nitrobenzene	ND	0.50	ug/L
2-Nitrotoluene	ND	2.5	ug/L
3-Nitrotoluene	ND	2.5	ug/L
4-Nitrotoluene	ND	2.5	ug/L
RDX	**0.32 J**	**0.50**	**ug/L**
Tetryl	ND	0.50	ug/L
1,3,5-Trinitrobenzene	**6.8**	**0.50**	**ug/L**
2,4,6-Trinitrotoluene	**6.8**	**0.50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	117	(84 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0110-GW

General Chemistry

Lot-Sample #...: A5J050103-007 **Work Order #...:** HL2CE **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	**0.0033 B**	**0.010**	**mg/L**	**SW846 9012A**	**10/14-10/15/05**	**5287541**
	Dilution Factor: 1					
Nitrocellulose	**0.21 B**	**0.50**	**mg/L**	**MCAWW 353.2**	**10/17-10/18/05**	**5286614**
	Dilution Factor: 1					

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0137-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J050103-009 **Work Order #...:** HL2CH1AJ **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0137-GW

HPLC

Lot-Sample #...: A5J050103-009 **Work Order #...:** HL2CH1AG **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283509
Dilution Factor: 5 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	**21**	**0.50**	**ug/L**
4-Amino-2,6-dinitrotoluene	**23**	**0.50**	**ug/L**
1,3-Dinitrobenzene	ND	0.50	ug/L
2,4-Dinitrotoluene	**4.3**	**0.50**	**ug/L**
2,6-Dinitrotoluene	**1.8**	**0.50**	**ug/L**
HMX	**0.47 J**	**0.50**	**ug/L**
Nitrobenzene	ND	0.50	ug/L
2-Nitrotoluene	ND	2.5	ug/L
3-Nitrotoluene	ND	2.5	ug/L
4-Nitrotoluene	ND	2.5	ug/L
RDX	**0.38 J**	**0.50**	**ug/L**
Tetryl	ND	0.50	ug/L
1,3,5-Trinitrobenzene	**7.0**	**0.50**	**ug/L**
2,4,6-Trinitrotoluene	**7.3**	**0.50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	118	(84 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL1MW-083C-0137-GW

General Chemistry

Lot-Sample #...: A5J050103-009 **Work Order #...:** HL2CH **Matrix.....:** WG
Date Sampled...: 10/04/05 12:20 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0115-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J050103-011 **Work Order #...:** HL2CK1AJ **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0115-GW

HPLC

Lot-Sample #...: A5J050103-011 **Work Order #...:** HL2CK1AG **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5283509
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	109	(84 - 125)

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0115-GW

General Chemistry

Lot-Sample #...: A5J050103-011 **Work Order #...:** HL2CK **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0136-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J050103-013 **Work Order #...:** HL2CN1AJ **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0136-GW

HPLC

Lot-Sample #...: A5J050103-013 **Work Order #...:** HL2CN1AG **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5283509
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	111	(84 - 125)

SpecPro Inc

Client Sample ID: FWGLL3MW-242C-0136-GW

General Chemistry

Lot-Sample #...: A5J050103-013 **Work Order #...:** HL2CN **Matrix.....:** WG
Date Sampled...: 10/04/05 09:11 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL12MW-153C-0120-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J050103-015 **Work Order #...:** HL2CR1AK **Matrix.....:** WG
Date Sampled...: 10/04/05 11:35 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL12MW-153C-0120-GW

HPLC

Lot-Sample #...: A5J050103-015 **Work Order #...:** HL2CR1AH **Matrix.....:** WG
Date Sampled...: 10/04/05 11:35 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5283509
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	111	(84 - 125)

SpecPro Inc

Client Sample ID: FWGLL12MW-153C-0120-GW

General Chemistry

Lot-Sample #...: A5J050103-015 **Work Order #...:** HL2CR **Matrix.....:** WG
Date Sampled...: 10/04/05 11:35 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrate-Nitrite	ND	0.1	mg/L	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL2MW-262C-0112-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J050103-017 **Work Order #...:** HL2CX1AJ **Matrix.....:** WG
Date Sampled...: 10/04/05 11:10 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL2MW-262C-0112-GW

HPLC

Lot-Sample #...: A5J050103-017 **Work Order #...:** HL2CX1AG **Matrix.....:** WG
Date Sampled...: 10/04/05 11:10 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5283509
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	116	(84 - 125)

SpecPro Inc

Client Sample ID: FWGLL2MW-262C-0112-GW

General Chemistry

Lot-Sample #...: A5J050103-017 **Work Order #...:** HL2CX **Matrix.....:** WG
Date Sampled...: 10/04/05 11:10 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL2MW-263C-0113-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J050103-019 **Work Order #...:** HL2C11A1 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL2MW-263C-0113-GW

HPLC

Lot-Sample #...: A5J050103-019 **Work Order #...:** HL2C11AT **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5283509
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	109	(84 - 125)

SpecPro Inc

Client Sample ID: FWGLL2MW-263C-0113-GW

General Chemistry

Lot-Sample #...: A5J050103-019 **Work Order #...:** HL2C1 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGBKGMW-017C-0103-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J050103-021 **Work Order #...:** HL2C51AJ **Matrix.....:** WG
Date Sampled...: 10/04/05 14:54 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGBKGMW-017C-0103-GW

HPLC

Lot-Sample #...: A5J050103-021 **Work Order #...:** HL2C51AG **Matrix.....:** WG
Date Sampled...: 10/04/05 14:54 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5283509
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	109	(84 - 125)

SpecPro Inc

Client Sample ID: FWGBKGMW-017C-0103-GW

General Chemistry

Lot-Sample #...: A5J050103-021 **Work Order #...:** HL2C5 **Matrix.....:** WG
Date Sampled...: 10/04/05 14:54 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGBKGMW-020C-0106-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J050103-023 **Work Order #...:** HL2C71AJ **Matrix.....:** WG
Date Sampled...: 10/04/05 13:35 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGBKGMW-020C-0106-GW

HPLC

Lot-Sample #...: A5J050103-023 **Work Order #...:** HL2C71AG **Matrix.....:** WG
Date Sampled...: 10/04/05 13:35 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5283509
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	108	(84 - 125)

SpecPro Inc

Client Sample ID: FWGBKGMW-020C-0106-GW

General Chemistry

Lot-Sample #...: A5J050103-023 **Work Order #...:** HL2C7 **Matrix.....:** WG
Date Sampled...: 10/04/05 13:35 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGBKGMW-016C-0102-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J050103-026 **Work Order #...:** HL2DA1AJ **Matrix.....:** WQ
Date Sampled...: 10/04/05 14:46 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGBKGMW-016C-0102-GW

HPLC

Lot-Sample #...: A5J050103-026 **Work Order #...:** HL2DA1AG **Matrix.....:** WQ
Date Sampled...: 10/04/05 14:46 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5283509
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	112	(84 - 125)

SpecPro Inc

Client Sample ID: FWGBKGMW-016C-0102-GW

General Chemistry

Lot-Sample #...: A5J050103-026 **Work Order #...:** HL2DA **Matrix.....:** WQ
Date Sampled...: 10/04/05 14:46 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1				

METHOD BLANK REPORT

Trace Level Organic Compounds

Client Lot #...: A5J050103 **Work Order #...:** HMPEX1AA **Matrix.....:** WATER
MB Lot-Sample #: G5J130000-584
Prep Date.....: 10/13/05
Analysis Date..: 10/14/05 **Prep Batch #...:** 5286584
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

Trace Level Organic Compounds

Client Lot #...: A5J050103 **Work Order #...:** HMPE11AA **Matrix.....:** WATER
MB Lot-Sample #: G5J130000-586
Prep Date.....: 10/13/05
Analysis Date..: 10/15/05 **Prep Batch #...:** 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

HPLC

Client Lot #...: A5J050103 **Work Order #...:** HMENN1AA **Matrix.....:** WATER
MB Lot-Sample #: G5J100000-509
Prep Date.....: 10/10/05
Analysis Date..: 10/14/05 **Prep Batch #...:** 5283509
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.50	ug/L	SW846 8330
3-Nitrotoluene	ND	0.50	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4,6-Trinitrotoluene	ND	0.10	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	109	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A5J050103 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: HMTD91AA		MB Lot-Sample #:	A5J140000-541	
	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Nitrate-Nitrite		Work Order #: HMXKV1AA		MB Lot-Sample #:	A5J170000-597	
	ND	0.1	mg/L	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1				
Nitrocellulose		Work Order #: HMPF91AA		MB Lot-Sample #:	G5J130000-614	
	ND	0.50	mg/L	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1				
Nitrocellulose		Work Order #: HM1EJ1AA		MB Lot-Sample #:	G5J180000-405	
	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: A5J050103 **Work Order #...:** HMPEX1AC **Matrix.....:** WATER
LCS Lot-Sample#: G5J130000-584
Prep Date.....: 10/13/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Nitroguanidine	**106**	**(79 - 119)**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: A5J050103 **Work Order #...:** HMPEX1AC **Matrix.....:** WATER
LCS Lot-Sample#: G5J130000-584
Prep Date.....: 10/13/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Nitroguanidine	**250**	**260**	**ug/L**	**106**	**NONE UV/HPLC per**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: A5J050103 **Work Order #...:** HMPE11AC **Matrix.....:** WATER
LCS Lot-Sample#: G5J130000-586
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Nitroguanidine	**108**	**(79 - 119)**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: A5J050103 **Work Order #...:** HMPE11AC **Matrix.....:** WATER
LCS Lot-Sample#: G5J130000-586
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Nitroguanidine	**250**	**270**	**ug/L**	**108**	**NONE UV/HPLC per**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: A5J050103 **Work Order #...:** HMENN1AC **Matrix.....:** WATER
LCS Lot-Sample#: G5J100000-509
Prep Date.....: 10/10/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5283509
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
2-Amino-4,6-dinitrotoluene	**105**	**(82 - 125)**	**SW846 8330**
4-Amino-2,6-dinitrotoluene	**103**	**(85 - 123)**	**SW846 8330**
1,3-Dinitrobenzene	**110**	**(89 - 130)**	**SW846 8330**
2,4-Dinitrotoluene	**108**	**(86 - 128)**	**SW846 8330**
2,6-Dinitrotoluene	**106**	**(86 - 127)**	**SW846 8330**
HMX	**113**	**(82 - 121)**	**SW846 8330**
Nitrobenzene	**102**	**(81 - 125)**	**SW846 8330**
2-Nitrotoluene	**94**	**(90 - 120)**	**SW846 8330**
3-Nitrotoluene	**97**	**(87 - 122)**	**SW846 8330**
4-Nitrotoluene	**98**	**(87 - 124)**	**SW846 8330**
RDX	**112**	**(94 - 124)**	**SW846 8330**
Tetryl	**104**	**(81 - 126)**	**SW846 8330**
1,3,5-Trinitrobenzene	**104**	**(81 - 132)**	**SW846 8330**
2,4,6-Trinitrotoluene	**106**	**(86 - 126)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	114	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: A5J050103 **Work Order #...:** HMENN1AC **Matrix.....:** WATER
LCS Lot-Sample#: G5J100000-509
Prep Date.....: 10/10/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5283509
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
2-Amino-4,6-dinitrotoluene	**1.0**	**1.0**	**ug/L**	**105**	**SW846 8330**
4-Amino-2,6-dinitrotoluene	**1.0**	**1.0**	**ug/L**	**103**	**SW846 8330**
1,3-Dinitrobenzene	**1.0**	**1.1**	**ug/L**	**110**	**SW846 8330**
2,4-Dinitrotoluene	**1.0**	**1.1**	**ug/L**	**108**	**SW846 8330**
2,6-Dinitrotoluene	**1.0**	**1.1**	**ug/L**	**106**	**SW846 8330**
HMX	**1.0**	**1.1**	**ug/L**	**113**	**SW846 8330**
Nitrobenzene	**1.0**	**1.0**	**ug/L**	**102**	**SW846 8330**
2-Nitrotoluene	**1.0**	**0.94**	**ug/L**	**94**	**SW846 8330**
3-Nitrotoluene	**1.0**	**0.97**	**ug/L**	**97**	**SW846 8330**
4-Nitrotoluene	**1.0**	**0.98**	**ug/L**	**98**	**SW846 8330**
RDX	**1.0**	**1.1**	**ug/L**	**112**	**SW846 8330**
Tetryl	**1.0**	**1.0**	**ug/L**	**104**	**SW846 8330**
1,3,5-Trinitrobenzene	**1.0**	**1.0**	**ug/L**	**104**	**SW846 8330**
2,4,6-Trinitrotoluene	**1.0**	**1.1**	**ug/L**	**106**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	114	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J050103 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: HMTD91AC	LCS Lot-Sample#: A5J140000-541		
	105	(69 - 118)	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1			
Nitrate-Nitrite		Work Order #: HMXKV1AC	LCS Lot-Sample#: A5J170000-597		
	111	(79 - 117)	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1			
Nitrocellulose		Work Order #: HMPF91AC	LCS Lot-Sample#: G5J130000-614		
	104	(56 - 111)	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1			
Nitrocellulose		Work Order #: HM1EJ1AC	LCS Lot-Sample#: G5J180000-405		
	102	(56 - 111)	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J050103 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			Work Order #: HMTD91AC	LCS Lot-Sample#: A5J140000-541			
	0.17	0.17	mg/L	105	SW846 9012A	10/14-10/15/05	5287541
			Dilution Factor: 1				
Nitrate-Nitrite			Work Order #: HMXKV1AC	LCS Lot-Sample#: A5J170000-597			
	2.2	2.4	mg/L	111	MCAWW 353.2	10/14/05	5290597
			Dilution Factor: 1				
Nitrocellulose			Work Order #: HMPF91AC	LCS Lot-Sample#: G5J130000-614			
	2.0	2.1	mg/L	104	MCAWW 353.2	10/17-10/18/05	5286614
			Dilution Factor: 1				
Nitrocellulose			Work Order #: HM1EJ1AC	LCS Lot-Sample#: G5J180000-405			
	2.0	2.0	mg/L	102	MCAWW 353.2	10/18-10/19/05	5291405
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: A5J050103 **Work Order #...:** HL0461A2-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J040187-017 HL0461A3-MSD
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Nitroguanidine	**108**	**(79 - 119)**			**NONE UV/HPLC per SOP**
	109	**(79 - 119)**	**1.4**	**(0-15)**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: A5J050103 **Work Order #...:** HL0461A2-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J040187-017 HL0461A3-MSD
Date Sampled...: 10/03/05 10:26 **Date Received..:** 10/04/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/14/05
Prep Batch #...: 5286584
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Nitroguanidine	**ND**	**250**	**270**	**ug/L**	**108**		**NONE UV/HPLC per SOP**
	ND	**250**	**270**	**ug/L**	**109**	**1.4**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: A5J050103 **Work Order #...:** HL2C11A2-MS **Matrix.....:** WG
MS Lot-Sample #: A5J050103-019 HL2C11A3-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Nitroguanidine	**106**	**(79 - 119)**			**NONE UV/HPLC per SOP**
	105	**(79 - 119)**	**0.26**	**(0-15)**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: A5J050103 **Work Order #...:** HL2C11A2-MS **Matrix.....:** WG
MS Lot-Sample #: A5J050103-019 HL2C11A3-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Nitroguanidine	**ND**	**250**	**260**	**ug/L**	**106**		**NONE UV/HPLC per SOP**
	ND	**250**	**260**	**ug/L**	**105**	**0.26**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: A5J050103 **Work Order #...:** HL2C11AU-MS **Matrix.....:** WG
MS Lot-Sample #: A5J050103-019 HL2C11AV-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5283509
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2-Amino-4,6-dinitrotoluene	**104**	**(82 - 125)**			**SW846 8330**
	106	**(82 - 125)**	**2.0**	**(0-15)**	**SW846 8330**
4-Amino-2,6-dinitrotoluene	**102**	**(85 - 123)**			**SW846 8330**
	105	**(85 - 123)**	**2.6**	**(0-15)**	**SW846 8330**
1,3-Dinitrobenzene	**111**	**(89 - 130)**			**SW846 8330**
	112	**(89 - 130)**	**1.5**	**(0-15)**	**SW846 8330**
2,4-Dinitrotoluene	**108**	**(86 - 128)**			**SW846 8330**
	110	**(86 - 128)**	**2.0**	**(0-15)**	**SW846 8330**
2,6-Dinitrotoluene	**105**	**(86 - 127)**			**SW846 8330**
	107	**(86 - 127)**	**1.4**	**(0-15)**	**SW846 8330**
HMX	**114**	**(82 - 121)**			**SW846 8330**
	115	**(82 - 121)**	**1.2**	**(0-15)**	**SW846 8330**
Nitrobenzene	**108**	**(81 - 125)**			**SW846 8330**
	110	**(81 - 125)**	**1.9**	**(0-15)**	**SW846 8330**
2-Nitrotoluene	**104**	**(90 - 120)**			**SW846 8330**
	106	**(90 - 120)**	**1.9**	**(0-15)**	**SW846 8330**
3-Nitrotoluene	**105**	**(87 - 122)**			**SW846 8330**
	107	**(87 - 122)**	**1.5**	**(0-15)**	**SW846 8330**
4-Nitrotoluene	**104**	**(87 - 124)**			**SW846 8330**
	106	**(87 - 124)**	**2.0**	**(0-15)**	**SW846 8330**
RDX	**112**	**(94 - 124)**			**SW846 8330**
	112	**(94 - 124)**	**0.37**	**(0-15)**	**SW846 8330**
Tetryl	**92**	**(81 - 126)**			**SW846 8330**
	96	**(81 - 126)**	**4.3**	**(0-15)**	**SW846 8330**
1,3,5-Trinitrobenzene	**102**	**(81 - 132)**			**SW846 8330**
	104	**(81 - 132)**	**2.4**	**(0-16)**	**SW846 8330**
2,4,6-Trinitrotoluene	**107**	**(86 - 126)**			**SW846 8330**
	108	**(86 - 126)**	**1.3**	**(0-15)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	109	(84 - 125)
	111	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: A5J050103 **Work Order #...:** HL2C11AU-MS **Matrix.....:** WG
MS Lot-Sample #: A5J050103-019 HL2C11AV-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5283509
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
2-Amino-4,6-dinitrotoluene	**ND**	**1.0**	**1.0**	**ug/L**	**104**		**SW846 8330**
	ND	**1.0**	**1.1**	**ug/L**	**106**	**2.0**	**SW846 8330**
4-Amino-2,6-dinitrotoluene	**ND**	**1.0**	**1.0**	**ug/L**	**102**		**SW846 8330**
	ND	**1.0**	**1.0**	**ug/L**	**105**	**2.6**	**SW846 8330**
1,3-Dinitrobenzene	**ND**	**1.0**	**1.1**	**ug/L**	**111**		**SW846 8330**
	ND	**1.0**	**1.1**	**ug/L**	**112**	**1.5**	**SW846 8330**
2,4-Dinitrotoluene	**ND**	**1.0**	**1.1**	**ug/L**	**108**		**SW846 8330**
	ND	**1.0**	**1.1**	**ug/L**	**110**	**2.0**	**SW846 8330**
2,6-Dinitrotoluene	**ND**	**1.0**	**1.0**	**ug/L**	**105**		**SW846 8330**
	ND	**1.0**	**1.1**	**ug/L**	**107**	**1.4**	**SW846 8330**
HMX	**ND**	**1.0**	**1.1**	**ug/L**	**114**		**SW846 8330**
	ND	**1.0**	**1.2**	**ug/L**	**115**	**1.2**	**SW846 8330**
Nitrobenzene	**ND**	**1.0**	**1.1**	**ug/L**	**108**		**SW846 8330**
	ND	**1.0**	**1.1**	**ug/L**	**110**	**1.9**	**SW846 8330**
2-Nitrotoluene	**ND**	**1.0**	**1.0**	**ug/L**	**104**		**SW846 8330**
	ND	**1.0**	**1.1**	**ug/L**	**106**	**1.9**	**SW846 8330**
3-Nitrotoluene	**ND**	**1.0**	**1.0**	**ug/L**	**105**		**SW846 8330**
	ND	**1.0**	**1.1**	**ug/L**	**107**	**1.5**	**SW846 8330**
4-Nitrotoluene	**ND**	**1.0**	**1.0**	**ug/L**	**104**		**SW846 8330**
	ND	**1.0**	**1.1**	**ug/L**	**106**	**2.0**	**SW846 8330**
RDX	**ND**	**1.0**	**1.1**	**ug/L**	**112**		**SW846 8330**
	ND	**1.0**	**1.1**	**ug/L**	**112**	**0.37**	**SW846 8330**
Tetryl	**ND**	**1.0**	**0.92**	**ug/L**	**92**		**SW846 8330**
	ND	**1.0**	**0.96**	**ug/L**	**96**	**4.3**	**SW846 8330**
1,3,5-Trinitrobenzene	**ND**	**1.0**	**1.0**	**ug/L**	**102**		**SW846 8330**
	ND	**1.0**	**1.0**	**ug/L**	**104**	**2.4**	**SW846 8330**
2,4,6-Trinitrotoluene	**ND**	**1.0**	**1.1**	**ug/L**	**107**		**SW846 8330**
	ND	**1.0**	**1.1**	**ug/L**	**108**	**1.3**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	109	(84 - 125)
	111	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J050103 **Matrix.....:** WATER
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate-Nitrite		WO#: HL22L1CG-MS/HL22L1CH-MSD				MS Lot-Sample #: A5J050177-002	
	63	(34 - 125)			MCAWW 353.2	10/14/05	5290597
	63	(34 - 125)	0.98	(0-20)	MCAWW 353.2	10/14/05	5290597
		Dilution Factor: 1					
Nitrocellulose		WO#: HL0461A0-MS/HL0461A1-MSD				MS Lot-Sample #: A5J040187-017	
	100	(56 - 111)			MCAWW 353.2	10/17-10/18/05	5286614
	103	(56 - 111)	2.4	(0-15)	MCAWW 353.2	10/17-10/18/05	5286614
		Dilution Factor: 1					
Nitrocellulose		WO#: HL41C1AX-MS/HL41C1A0-MSD				MS Lot-Sample #: A5J060101-017	
	98	(56 - 111)			MCAWW 353.2	10/18-10/19/05	5291405
	96	(56 - 111)	2.0	(0-15)	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J050103 **Matrix.....:** WATER
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate-Nitrite			WO#: HL22L1CG-MS/HL22L1CH-MSD		MS Lot-Sample #: A5J050177-002				
	ND	0.5	0.3	mg/L	63		MCAWW 353.2	10/14/05	5290597
	ND	0.5	0.3	mg/L	63	0.98	MCAWW 353.2	10/14/05	5290597
			Dilution Factor: 1						
Nitrocellulose			WO#: HL0461A0-MS/HL0461A1-MSD		MS Lot-Sample #: A5J040187-017				
	ND	2.0	2.1	mg/L	100		MCAWW 353.2	10/17-10/18/05	5286614
	ND	2.0	2.1	mg/L	103	2.4	MCAWW 353.2	10/17-10/18/05	5286614
			Dilution Factor: 1						
Nitrocellulose			WO#: HL41C1AX-MS/HL41C1A0-MSD		MS Lot-Sample #: A5J060101-017				
	ND	2.0	2.0	mg/L	98		MCAWW 353.2	10/18-10/19/05	5291405
	ND	2.0	1.9	mg/L	96	2.0	MCAWW 353.2	10/18-10/19/05	5291405
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J050103 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		WO#: HL2C11A4-MS/HL2C11A5-MSD				MS Lot-Sample #: A5J050103-019	
	96	(42 - 140)			SW846 9012A	10/14-10/15/05	5287541
	95	(42 - 140)	0.51	(0-20)	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1					
Nitrocellulose		WO#: HL2C11AX-MS/HL2C11A0-MSD				MS Lot-Sample #: A5J050103-019	
	73	(56 - 111)			MCAWW 353.2	10/18-10/19/05	5291405
	98 *	(56 - 111)	29	(0-15)	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J050103 **Matrix.....:** WG
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: HL2C11A4-MS/HL2C11A5-MSD				MS Lot-Sample #: A5J050103-019		
	ND	0.040	0.039	mg/L	96		SW846 9012A	10/14-10/15/05	5287541
	ND	0.040	0.039	mg/L	95	0.51	SW846 9012A	10/14-10/15/05	5287541
			Dilution Factor: 1						
Nitrocellulose			WO#: HL2C11AX-MS/HL2C11A0-MSD				MS Lot-Sample #: A5J050103-019		
	ND	2.0	1.5	mg/L	73		MCAWW 353.2	10/18-10/19/05	5291405
	ND	2.0	2.0 *	mg/L	98	29	MCAWW 353.2	10/18-10/19/05	5291405
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

END OF REPORT

SEVERN TRENT STL®

STL North Canton
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ANALYTICAL REPORT

PROJECT NO. 001074.0001

FWGWMP RVAAP

Lot #: A5J060101

Chantelle Carroll

Spec Pro
8451 State Route 5
Ravenna, OH 44266

SEVERN TRENT LABORATORIES, INC.

Frank J. Calovini
Project Manager

October 27, 2005

SEVERN TRENT STL

CASE NARRATIVE

CASE NARRATIVE

A5J060101

The following report contains the analytical results for twenty-four water samples and one quality control sample submitted to STL North Canton by Spec Pro from the FWGWMP RVAAP Site, project number 001074.0001. The samples were received October 05, 2005, according to documented sample acceptance procedures.

The Nitroguanidine, Nitrocellulose as N, and Explosives analyses were performed at the STL Sacramento laboratory.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Frank J. Calovini, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The coolers were received at temperatures ranging from 3.1 to 5.8°C.

CASE NARRATIVE (continued)

GC/MS VOLATILES

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

GC/MS SEMIVOLATILES

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

The matrix spike/matrix spike duplicate(s) for FWGBKGMW-004C-0094-GW had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

Sample(s) FWGBKGMW-010C-0098-GW had up to one surrogate recovery per fraction outside acceptance limits. However, since the recovery was greater than 10% and all associated QC met criteria, no corrective action was taken.

PESTICIDES-8081

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

CASE NARRATIVE (continued)

PESTICIDES-8081 (continued)

For sample(s) FWGLL4MW-199C-0117-GW, the recovery for one surrogate compound is outside acceptance criteria. Since the method criterion is that one of two surrogate compounds must meet acceptance criteria, no corrective action was required.

POLYCHLORINATED BIPHENYLS-8082

The analytical results met the requirements of the laboratory's QA/QC program.

METALS

The sample(s) that contain results between the MDL and the RL were flagged with "B". There is the possibility of false positive of mis-identification at these quantitation levels. The acceptance criteria for the ICB, CCB, and Method Blank are +/- the standard reporting limit (SRL).

The LCS associated with batch 5285024 for Silver, was recovered high and outside of criteria. The analyte was not detected in any of the samples. The data has been reported. Slight positive bias is not believed to have impacted data quality.

GENERAL CHEMISTRY

The matrix spike/matrix spike duplicate(s) for FWGBKGMW-004C-0094-GW had RPD's outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

The matrix spike/matrix spike duplicate(s) for batch(es) 5291405 had RPD's outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

STL SACRAMENTO – 8330

Sample(s) FWGLL3MW-238C-0114-GW, FWGLL4MW-198C-0116-GW, FWGLL4MW-199C-0117-GW, FWGLL1MW-078C-0108-GW, and FWGBKGMW-005C-0095-GW had excessive silt/sediment. The samples were filtered prior to extraction. A Filter Blank was extracted with this batch 5284392.

CASE NARRATIVE (continued)

STL SACRAMENTO – 8330 (continued)

All raw data has the method name NGu_Amino_9348_09.13.2005.mth associated with it. This calibration is actually the exact same calibration as Ngu_Amino_9348_08.23.2005.mth. Apparently, a new calibration was to be run on 9/13/2005, but was not run, as no run log was ever created on the instrument for the new calibration. So, although the name is different, the 8/23/05 calibration was used.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#200004), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), North Carolina (#39702), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

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SEVERN TRENT STL

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY - Detection Highlights

A5J060101

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGLL3MW-238C-0114-GW 10/05/05 15:05	**001**			
Heptachlor epoxide	13	0.60	ug/L	SW846 8081A
2-Amino-4,6-dinitrotoluene	13	1.0	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	41	1.0	ug/L	SW846 8330
HMX	2.2	1.0	ug/L	SW846 8330
RDX	8.2	1.0	ug/L	SW846 8330
Tetryl	1.5	1.0	ug/L	SW846 8330
1,3,5-Trinitrobenzene	49	1.0	ug/L	SW846 8330
2,4,6-Trinitrotoluene	110	1.0	ug/L	SW846 8330
2,6-Dinitrotoluene	1.8 J	5.0	ug/L	SW846 8270C
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	21 B	1.0	ug/L	SW846 8270C
FWGLL3MW-238C-0114-GF 10/05/05 15:05	**002**			
Barium	6.7 B	10.0	ug/L	SW846 6010B
Calcium	37800	1000	ug/L	SW846 6010B
Magnesium	4080	1000	ug/L	SW846 6010B
Manganese	1.3 B	100	ug/L	SW846 6010B
Potassium	2350 B	5000	ug/L	SW846 6010B
Sodium	2190	1000	ug/L	SW846 6010B
FWGLL4MW-198C-0116-GW 10/05/05 13:21	**003**			
Heptachlor epoxide	0.069	0.030	ug/L	SW846 8081A
Benzoic acid	5.5 J	10	ug/L	SW846 8270C
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	1.8 B	1.0	ug/L	SW846 8270C
FWGLL4MW-198C-0116-GF 10/05/05 13:21	**004**			
Barium	12.3	10.0	ug/L	SW846 6010B
Calcium	24800	1000	ug/L	SW846 6010B
Iron	4100	1000	ug/L	SW846 6010B
Magnesium	11500	1000	ug/L	SW846 6010B
Manganese	1070	100	ug/L	SW846 6010B
Nickel	19.0 B	20.0	ug/L	SW846 6010B
Potassium	1330 B	5000	ug/L	SW846 6010B
Sodium	10900	1000	ug/L	SW846 6010B
Zinc	56.7 B	100	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5J060101

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGLL4MW-199C-0117-GW 10/05/05 11:09	**005**			
Heptachlor epoxide	0.022 J	0.030	ug/L	SW846 8081A
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	2.0 B	1.0	ug/L	SW846 8270C
FWGLL4MW-199C-0117-GF 10/05/05 11:09	**006**			
Arsenic	12.7	10.0	ug/L	SW846 6010B
Barium	95.7	10.0	ug/L	SW846 6010B
Calcium	77800	1000	ug/L	SW846 6010B
Iron	1190	1000	ug/L	SW846 6010B
Magnesium	21000	1000	ug/L	SW846 6010B
Manganese	457	100	ug/L	SW846 6010B
Potassium	1440 B	5000	ug/L	SW846 6010B
Sodium	9340	1000	ug/L	SW846 6010B
FWGLL1MW-078C-0108-GW 10/05/05 09:17	**007**			
RDX	0.17 PG	0.10	ug/L	SW846 8330
Di-n-butyl phthalate	1.5 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.5	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	2.8 B	1.0	ug/L	SW846 8270C
FWGLL1MW-078C-0108-GF 10/05/05 09:17	**008**			
Thallium	0.053 B	1.0	ug/L	SW846 6020
Barium	8.0 B	10.0	ug/L	SW846 6010B
Calcium	57100	1000	ug/L	SW846 6010B
Magnesium	8190	1000	ug/L	SW846 6010B
Manganese	1.9 B	100	ug/L	SW846 6010B
Potassium	2540 B	5000	ug/L	SW846 6010B
Sodium	5260	1000	ug/L	SW846 6010B
FWGBKGMW-013C-0100-GW 10/05/05 15:12	**009**			
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	3.8 B	1.0	ug/L	SW846 8270C

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5J060101

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGBKGMW-013C-0100-GF 10/05/05 15:12	**010**			
Arsenic	11.7	10.0	ug/L	SW846 6010B
Barium	78.7	10.0	ug/L	SW846 6010B
Calcium	74500	1000	ug/L	SW846 6010B
Iron	998 B	1000	ug/L	SW846 6010B
Magnesium	25100	1000	ug/L	SW846 6010B
Manganese	394	100	ug/L	SW846 6010B
Potassium	2030 B	5000	ug/L	SW846 6010B
Sodium	11800	1000	ug/L	SW846 6010B
FWGBKGMW-015C-0101-GW 10/05/05 09:15	**011**			
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	1.9 B	1.0	ug/L	SW846 8270C
FWGBKGMW-015C-0101-GF 10/05/05 09:15	**012**			
Barium	262	10.0	ug/L	SW846 6010B
Calcium	30200	1000	ug/L	SW846 6010B
Magnesium	12900	1000	ug/L	SW846 6010B
Manganese	9.4 B	100	ug/L	SW846 6010B
Nickel	3.4 B	20.0	ug/L	SW846 6010B
Potassium	5340	5000	ug/L	SW846 6010B
Sodium	12400	1000	ug/L	SW846 6010B
FWGBKGMW-010C-0098-GW 10/05/05 13:25	**013**			
Tetryl	0.079 J	0.10	ug/L	SW846 8330
Benzoic acid	5.4 J	10	ug/L	SW846 8270C
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	1.3 B	1.0	ug/L	SW846 8270C
FWGBKGMW-010C-0098-GF 10/05/05 13:25	**014**			
Aluminum	82.2 B	200	ug/L	SW846 6010B
Antimony	4.6 B	100	ug/L	SW846 6010B
Barium	14.3	10.0	ug/L	SW846 6010B
Calcium	11400	1000	ug/L	SW846 6010B
Iron	36.6 B	1000	ug/L	SW846 6010B
Magnesium	13800	1000	ug/L	SW846 6010B
Manganese	40.4 B	100	ug/L	SW846 6010B
Nickel	10.7 B	20.0	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5J060101

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGBKGMW-010C-0098-GF 10/05/05 13:25	**014**			
Potassium	754 B	5000	ug/L	SW846 6010B
Sodium	3720	1000	ug/L	SW846 6010B
FWGBKGMW-021C-0107-GW 10/05/05 10:27	**015**			
Di-n-butyl phthalate	2.1 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	2.0 B	1.0	ug/L	SW846 8270C
FWGBKGMW-021C-0107-GF 10/05/05 10:27	**016**			
Barium	38.9	10.0	ug/L	SW846 6010B
Calcium	77400	1000	ug/L	SW846 6010B
Magnesium	49400	1000	ug/L	SW846 6010B
Potassium	1070 B	5000	ug/L	SW846 6010B
Sodium	10200	1000	ug/L	SW846 6010B
FWGBKGMW-004C-0094-GW 10/05/05 08:53	**017**			
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	1.6 B	1.0	ug/L	SW846 8270C
FWGBKGMW-004C-0094-GF 10/05/05 08:53	**018**			
Barium	22.3	10.0	ug/L	SW846 6010B
Calcium	21500	1000	ug/L	SW846 6010B
Magnesium	7240	1000	ug/L	SW846 6010B
Manganese	0.40 B	100	ug/L	SW846 6010B
Potassium	710 B	5000	ug/L	SW846 6010B
Sodium	13200	1000	ug/L	SW846 6010B
FWGBKGMW-008C-0097-GW 10/05/05 12:25	**019**			
Di-n-butyl phthalate	1.7 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	2.5 B	1.0	ug/L	SW846 8270C
Acetone	1.0 J	10	ug/L	SW846 8260B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5J060101

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGBKGMW-008C-0097-GF 10/05/05 12:25	**020**			
Thallium	0.029 B	1.0	ug/L	SW846 6020
Barium	4.7 B	10.0	ug/L	SW846 6010B
Calcium	24200	1000	ug/L	SW846 6010B
Magnesium	9560	1000	ug/L	SW846 6010B
Manganese	21.8 B	100	ug/L	SW846 6010B
Potassium	508 B	5000	ug/L	SW846 6010B
Sodium	8540	1000	ug/L	SW846 6010B
FWGBKGMW-005C-0095-GW 10/05/05 14:00	**021**			
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	1.5 B	1.0	ug/L	SW846 8270C
FWGBKGMW-005C-0095-GF 10/05/05 14:00	**022**			
Barium	14.1	10.0	ug/L	SW846 6010B
Calcium	87400	1000	ug/L	SW846 6010B
Magnesium	18900	1000	ug/L	SW846 6010B
Manganese	0.45 B	100	ug/L	SW846 6010B
Potassium	1170 B	5000	ug/L	SW846 6010B
Sodium	7880	1000	ug/L	SW846 6010B
FWGBKGMW-018C-0104-GW 10/05/05 15:15	**023**			
Benzoic acid	5.3 J	10	ug/L	SW846 8270C
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	1.7 B	1.0	ug/L	SW846 8270C
FWGBKGMW-018C-0104-GF 10/05/05 15:15	**024**			
Barium	20.9	10.0	ug/L	SW846 6010B
Calcium	54000	1000	ug/L	SW846 6010B
Iron	106 B	1000	ug/L	SW846 6010B
Magnesium	5730	1000	ug/L	SW846 6010B
Manganese	229	100	ug/L	SW846 6010B
Potassium	1190 B	5000	ug/L	SW846 6010B
Sodium	1930	1000	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5J060101

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGW-TB-0143-GW 10/05/05 18:00 025				
Methylene chloride	0.51 J,B	2.0	ug/L	SW846 8260B

SEVERN TRENT STL

METHOD SUMMARY

ANALYTICAL METHODS SUMMARY

A5J060101

PARAMETER	ANALYTICAL METHOD
Cyanide, Total	SW846 9012A
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
ICP-MS (6020)	SW846 6020
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Nitroaromatics and Nitramines by HPLC	SW846 8330
Nitrocellulose as N, 353.2	MCAWW 353.2
Organics by UV/HPLC	NONE UV/HPLC per SOP
Organochlorine Pesticides	SW846 8081A
PCBs by SW-846 8082	SW846 8082
Semivolatile Organic Compounds by GC/MS	SW846 8270C
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

NONE

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SEVERN TRENT STL

SAMPLE SUMMARY

SAMPLE SUMMARY

A5J060101

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HL40E	001	FWGLL3MW-238C-0114-GW	10/05/05	15:05
HL40F	002	FWGLL3MW-238C-0114-GF	10/05/05	15:05
HL40G	003	FWGLL4MW-198C-0116-GW	10/05/05	13:21
HL40H	004	FWGLL4MW-198C-0116-GF	10/05/05	13:21
HL40J	005	FWGLL4MW-199C-0117-GW	10/05/05	11:09
HL40M	006	FWGLL4MW-199C-0117-GF	10/05/05	11:09
HL40N	007	FWGLL1MW-078C-0108-GW	10/05/05	09:17
HL40V	008	FWGLL1MW-078C-0108-GF	10/05/05	09:17
HL40W	009	FWGBKGMW-013C-0100-GW	10/05/05	15:12
HL40X	010	FWGBKGMW-013C-0100-GF	10/05/05	15:12
HL400	011	FWGBKGMW-015C-0101-GW	10/05/05	09:15
HL401	012	FWGBKGMW-015C-0101-GF	10/05/05	09:15
HL402	013	FWGBKGMW-010C-0098-GW	10/05/05	13:25
HL404	014	FWGBKGMW-010C-0098-GF	10/05/05	13:25
HL405	015	FWGBKGMW-021C-0107-GW	10/05/05	10:27
HL408	016	FWGBKGMW-021C-0107-GF	10/05/05	10:27
HL41C	017	FWGBKGMW-004C-0094-GW	10/05/05	08:53
HL41H	018	FWGBKGMW-004C-0094-GF	10/05/05	08:53
HL41K	019	FWGBKGMW-008C-0097-GW	10/05/05	12:25
HL41L	020	FWGBKGMW-008C-0097-GF	10/05/05	12:25
HL41M	021	FWGBKGMW-005C-0095-GW	10/05/05	14:00
HL41P	022	FWGBKGMW-005C-0095-GF	10/05/05	14:00
HL41Q	023	FWGBKGMW-018C-0104-GW	10/05/05	15:15
HL41T	024	FWGBKGMW-018C-0104-GF	10/05/05	15:15
HL41V	025	FWGW-TB-0143-GW	10/05/05	18:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

SHIPPING AND RECEIVING DOCUMENTS

[redacted]

Chain of Custody Record

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 2 3 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57233

L4149 (1202)

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~08/26/2005~~ 10-5-05	Page ~~23~~ 1 of ~~23~~ 2
Address: 3451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Analysis: MS8260 (L), MS8270 (L), GC8082 (A), SO8130 (S), LC8330 (L), CN (L), MG10 (Q), NO3NO2 (L)

Sample I.D. Number and Description	Date	Time	Sample Type	Containers Volume	Containers Type	Containers No.	Preservative	Condition on Receipt/Comments	MS8260 (L)	MS8270 (L)	GC8082 (A)	SO8130 (S)	LC8330 (L)	CN (L)	MG10 (Q)	NO3NO2 (L)
~~FWGLL3mw-238C-0114-GW~~	10-5	15:05	WATER	1L	AMBER	2	None						X	X		
~~FWGLL3mw-238C-0114-GW~~			WATER	1L	AMBER	2	None					X				
~~FWGLL3mw-238C-0114-GW~~			WATER	1L	AMBER	2	None				X					
~~FWGLL3mw-238C-0114-GW~~			WATER	1L	AMBER	2	None			X						
~~FWGLL3mw-238C-0114-GW~~			WATER	1L	AMBER	2	None		X							
~~[illegible]~~			~~[illegible]~~ water	~~[illegible]~~ 40ml	~~[illegible]~~ 40ml VIA		~~[illegible]~~ HCL		X							
~~FWGLL3mw-238C-0114-GW~~			WATER	250mL	PLASTIC		NaOH							X		
~~FWGLL3mw-238C-0114-GF~~			WATER	1000mL	PLASTIC		Conc HNO3								X	
FWGLL4mw-198C-0116-gw	10-5	1321		40ml	40ml via		HCL		X							
FWGLL4mw-199C-0117-gw		1109							X							
FWGLL1mw-078C-0108-gw		0917							X							
FWGBKGmw-013C-0100-gw		1512							X							
FWGBKGmw-015C-0101-gw		09:15							X							
FWGBKGmw-010C-0098-gw		1325							X							
FWGBKGmw-021C-0107-gw		1027							X							
FWGBKGmw-004C-0094-gw		0853							X							
FWGBKGmw-004C-0094-MS/MSD		0853							X							

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-5-05	1800	1. Received By: A.H	10-5-05	1800
2. Relinquished By: A H	10-5-05	1858	2. Received By: Anne Sandus	10/5/05	1858
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

TL-4124 (0901)

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: 10-5-05	Chain of Custody Number: 200925
Address: 8451 St. Rt 5	Telephone Number (Area Code)/Fax Number:	Lab Number:	Page 2 of 2
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chantelle Carroll; Lab Contact:		
Project Name and Location (State): Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): VOC	Special Instructions/Conditions of Receipt
FWGBKGmw-008C-0097-gw	10-5-05	1225		X						3			3	
FWGBKGmw-005C-0095-gw	10-5	1400		X						3			3	
FWGBKGmw-018C-0104-gw	10-5	1515		X						3			3	
FWGW-tb-0143-gw	10-5	1800		X						1			1	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-5-05	1800	1. Received By: A. H.	10-5-05	1800
2. Relinquished By: A. H.	10-5-05	1858	2. Received By:		
3. Relinquished By:			3. Received By:		

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

L4149 (1202)

CHAIN OF CUSTODY NUMBER
* 0 1 2 9 5 8 - 0 2 5 *

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

57235

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/28/2005~~ 10-5-05
Address: 1451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll	Page 25 of ~~25~~ 1
Project Number/Name: Ravenna	Carrier/Waybill Number:	
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :	QUOTE: 63240	

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments	Analysis
~~FWGLL4mw-198C-0116-GW~~	10-5	1381	~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		X X
~~FWGLL4mw-198C-0116-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		X
~~FWGLL4mw-198C-0116-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		X
~~FWGLL4mw-198C-0116-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		X
~~FWGLL4mw-198C-0116-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		X
~~[illegible]~~			~~WATER~~	~~[illegible]~~	~~[illegible]~~		~~[illegible]~~		X
~~FWGLL4mw-198C-0116-GW~~			~~WATER~~	~~250mL~~	~~PLASTIC~~		~~NaOH~~		X
~~FWGLL4mw-198C-0116-GF~~			~~WATER~~	~~1000mL~~	~~PLASTIC~~		~~Conc HNO3~~		X

* only 9 AMbers

Special Instructions

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ Normal ☐ Rush ☐ Other _____

QC Level
☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

1. Relinquished By: Chantelle Carroll	Date: 10-5-05	Time: 1700	1. Received By: A.H.	Date: 10-5-05	Time: 1800
2. Relinquished By: A.H.	Date: 10-5-05	Time: 1858	2. Received By: [signature]	Date: 10/5/05	Time: 1858
3. Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 2 6 *

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

57236

TL4149 (1202)

Client	Project Manager	Date
Spec Pro	Chantelle Carroll	09/26/2005 10-5-05
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Location**
1451 State Route 5	(000) / (000)	STL North Canton
City / **State** / **Zip Code**	**Site Contact**	
Ravenna / OH / 44266	Chantelle Carroll	
Project Number/Name	**Carrier/Waybill Number**	
Ravenna		

Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # : QUOTE: 63240

Page 1 of 2

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments
FWGLL4MW-199C-0117-GW	10-5-05	1109	WATER	1L	AMBER	2	None	
FWGLL4MW-199C-0117-GW			WATER	1L	AMBER	2	None	
FWGLL4MW-199C-0117-GW			WATER	1L	AMBER	2	None	
FWGLL4MW-199C-0117-GW			WATER	1L	AMBER	2	None	
FWGLL4MW-199C-0117-GW			WATER	1L	AMBER	2	None	
[illegible]			[illegible]	[illegible]	[illegible]		[illegible]	
FWGLL4MW-199C-0117-GW			WATER	250mL	PLASTIC	1	NaOH	
FWGLL4MW-199C-0117-GF			WATER	1000mL	PLASTIC	1	Conc HNO3	

* Only 8 Ambers

Analysis: MS/MSD; 8260B; 8270C; 8081; 8151; 6010B; 7470A; NO3NO2; TOC; 2 C; 1 L; 1 L; 1 L

Chain of Custody Record

L4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 1 6 *

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

57226

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: 09/26/2005 10-5-05
Address: 1451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll	
Project Number/Name: Ravenna	Carrier/Waybill Number:	
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :	QUOTE: 63240	

Page 1 of 1

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments	Analysis
FWGLL1MW-078C-0108-GW	10-5-05	9117	WATER	1L	AMBER	2	None		
FWGLL1MW-078C-0108-GW			WATER	1L	AMBER	2	None		
FWGLL1MW-078C-0108-GW			WATER	1L	AMBER	2	None		
FWGLL1MW-078C-0108-GW			WATER	1L	AMBER	2	None		
FWGLL1MW-078C-0108-GW			WATER	1L	AMBER	2	None		
[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
FWGLL1MW-078C-0108-GW			WATER	250ML	PLASTIC	1	NaOH		
FWGLL1MW-078C-0108-GF			WATER	1000ML	PLASTIC	1	CONC HNO3		

* Only 7 Ambers

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

		Date	Time		Date	Time
1. Relinquished By	Chantelle Carroll	10-5-05	1800	1. Received By: A.H.	10-5-05	1800
2. Relinquished By	A.H.	10-5-05	1858	2. Received By	10/5/05	1858
3. Relinquished By		Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report. PINK - Field Copy

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 0 8 *

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

57218

Client: ipec Pro	Project Manager: Chantelle Carroll	Date: ~~09/28/2005~~ 10-5-05	Page 1 of 1
Address: 1451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments
~~FWGBKGMW-013C-0100-GW~~	10-5-05	1562	WATER	1L	AMBER	2	None	
~~FWGBKGMW-013C-0100-GW~~			WATER	1L	AMBER	2	None	
~~FWGBKGMW-013C-0100-GW~~			WATER	1L	AMBER	2	None	
~~FWGBKGMW-013C-0100-GW~~			WATER	1L	AMBER	2	None	
~~FWGBKGMW-013C-0100-GW~~			WATER	1L	AMBER	2	None	
~~FWGBKGMW-013C-0100-GW~~			~~WATER~~	~~500mL~~	~~POLY~~	~~1~~	~~HCL~~	
~~FWGBKGMW-013C-0100-GW~~			WATER	250mL	PLASTIC	1	NaOH	
~~FWGBKGMW-013C-0100-GF~~			WATER	1000mL	PLASTIC	1	Conc HNO3	

Analysis: MNOSLNLCMN / SSCCCCNEOO / 88881:E:O3 / 22013LGL1N / 6783:::FOO / 00201LLQ:2 / :C:E:::E: / LLASL

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-5-05	1800	1. Received By: A. H.	10-5-05	1800
2. Relinquished By: A.H.	10-5-05	1858	2. Received By: Ann Sanders	10/5/05	1858
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

57219

CHAIN OF CUSTODY NUMBER
* 0 1 2 9 5 8 - 0 0 9 *

'L4149 (1202)

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-5-05
Address: 3451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll	
Project Number/Name: Ravenna	Carrier/Waybill Number:	
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :	QUOTE: 63240	

Page 1 of 2

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments	Analysis
~~FWGBKGmw-015C-0101-GW~~	10-5-05	9:15	WATER	1L	AMBER	2	None		
~~FWGBKGmw-015C-0101-GW~~			WATER	1L	AMBER	2	None		
~~FWGBKGmw-015C-0101-GW~~			WATER	1L	AMBER	2	None		
~~FWGBKGmw-015C-0101-GW~~			WATER	1L	AMBER	2	None		
~~FWGBKGmw-015C-0101-GW~~			WATER	1L	AMBER	2	None		
~~FWGBKGmw-0150-0101-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~HCl~~		
~~FWGBKGmw-015C-0101-GW~~			WATER	250mL	PLASTIC		NaOH		
~~FWGBKGmw-015C-0101-GF~~			WATER	1000mL	PLASTIC		Conc HNO3		

MS/MSD 8260 8270 8151 Lead TCL Metals TAL Metals 6010 Cyanide 300.0 Nitrate 353.2 Nitrite 300.0 Sulfate 300.0 Chloride 300.0 Alkalinity 310.1 TDS 160.1 TSS 160.2 Hardness 130.2

* only 8 Ambers

Special Instructions

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ Normal ☐ Rush ☐ Other _____

QC Level
☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-5-05	1800	1. Received By: A.H.	10-5-05	1800
2. Relinquished By: A.H.	10-5-05	1858	2. Received By: [signature]	10/5/05	1858
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample, CANARY - Returned to Client with Report: PINK - Field Copy

[redacted]

Chain of Custody Record

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 0 6 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57216

L4149 (1202)

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-5-05	Page 1 of 1
Address: 3451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Analysis

Sample I.D. Number and Description	Date	Time	Sample Type	Containers Volume	Containers Type	Containers No.	Preservative	Condition on Receipt/Comments	MS8260:L	MS8270:L	CO8082:A	CO8131:S	LO8330:L	NO8:L	LO8:L	CN:L	MO10:L	NO3:L				
FWGBKGMW-010C-0098-GW	10-5	13:25	WATER	1L	AMBER	2	None							X	X							
FWGBKGMW-010C-0098-GW			WATER	1L	AMBER	2	None						X									
FWGBKGMW-010C-0098-GW			WATER	1L	AMBER	2	None					X										
FWGBKGMW-010C-0098-GW			WATER	1L	AMBER	2	None				X											
FWGBKGMW-010C-0098-GW			WATER	1L	AMBER	2	None			X												
[redacted]			[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		X													
FWGBKGMW-010C-0098-GW			WATER	250mL	PLASTIC	1	NaOH									X						
FWGBKGMW-010C-0098-GF			WATER	1000mL	PLASTIC	1	Conc HNO3										X					

* only 8 Ambers

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-5-05	1800	1. Received By: A. H.	10-5-05	1800
2. Relinquished By: A. H.	10-5-05	1858	2. Received By: [signature]	10/5/05	1858
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

hain of Custody ecord

CHAIN OF CUSTODY NUMBER
* 0 1 2 9 5 8 - 0 1 5 *

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

57225

L4149 (1202)

ient: pec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-5-05
idress: 451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton
ity: avenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll	
roject Number/Name: avenna	Carrier/Waybill Number:	
ontract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :	QUOTE: 63240	

Page 1 of ~~1~~

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments	Analysis
~~FWGBKGmw-021C-0107-GW~~	10-5-05	19.27	~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGBKGmw-021C-0107-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGBKGmw-021C-0107-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGBKGmw-021C-0107-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGBKGmw-021C-0107-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~[illegible]-0107-GW~~			~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~HCL~~		
~~FWGBKGmw-021C-0107-GW~~			~~WATER~~	~~250mL~~	~~PLASTIC~~	1	NaOH		
~~FWGBKGmw-021C-0107-GF~~			~~WATER~~	~~1000mL~~	~~PLASTIC~~	1	Conc HNO3		

~~X~~ Samples only

Special Instructions

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ Normal ☐ Rush ☐ Other _____

QC Level
☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-5-05	1800	1. Received By: A.H.	10-5-05	1800
2. Relinquished By: A.H.	10-5-05	1858	2. Received By:		
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER
* 0 1 2 9 5 8 - 0 0 2 *

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

57212

Client	Project Manager	Date	Page / of
Spec Pro	Chantelle Carroll	~~09/26/2005~~ 10-5-05	Page 1 of 1

Address	Telephone Number (Area Code)/Fax Number	Lab Location
1451 State Route 5	(000) / (000)	STL North Canton

City	State	Zip Code	Site Contact
Navenna	OH	44266	Chantelle Carroll

Project Number/Name	Carrier/Waybill Number
Navenna	

Contract/Purchase Order/Quote Number
CONTRACT / PURCHASE ORDER # :
QUOTE: 63240

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments	Analysis
~~FWGBKGmw-004C-0094-GW MSD~~	10-5-05	8:53	~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGBKGmw-004C-0094-GW MSD~~			~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGBKGmw-004C-0094-GW MSD~~			~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGBKGmw-004C-0094-GW MSD~~			~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGBKGmw-004C-0094-GW MSD~~			~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGBKGmw-004C-0094-GW MSD~~			~~WATER~~	~~1L~~	~~AMBER~~	2	~~HCL~~		
~~FWGBKGmw-004C-0094-GW MSD~~			~~WATER~~	~~250mL~~	~~PLASTIC~~	1	~~NaOH~~		
~~FWGBKGmw-004C-0094-GW MSD~~			~~WATER~~	~~1000mL~~	~~PLASTIC~~	1	~~Conc HNO3~~		
Only 8 ambers									

Special Instructions

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ Normal ☐ Rush ☐ Other _____

QC Level
☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-5-05	1900	1. Received By: A.H.	10-5-05	1800
2. Relinquished By: A.H.	10-5-05	1858	2. Received By:	10/5/05	1858
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 0 1 *

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

57211

L4149 (1202)

Client	Project Manager	Date
Spec Pro	Chantelle Carroll	~~08/28/2005~~ 10-5-05
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Location**
1451 State Route 5	(000) / (000)	STL North Canton
City	**State** / **Zip Code**	**Site Contact**
Ravenna	OH / 44266	Chantelle Carroll
Project Number/Name	**Carrier/Waybill Number**	
Ravenna		
Contract/Purchase Order/Quote Number		
CONTRACT / PURCHASE ORDER # :	QUOTE: 63240	

Page 1 of 1

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments
~~FWGBKGmw-004C-0094-GW~~	10-5-05	8:53	~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGBKGmw-004C-0094-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGBKGmw-004C-0094-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGBKGmw-004C-0094-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGBKGmw-004C-0094-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGBKGmw-004C-0094-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGBKGmw-004C-0094-GW~~			~~WATER~~	~~40mL~~	~~40mL VIA~~	~~3~~	~~HCL~~	
FWGBKGmw-004C-0094-GW			WATER	250mL	PLASTIC	1	NaOH	
FWGBKGmw-004C-0094-GF			WATER	1000mL	PLASTIC	1	Conc HNO3	
~~FWGBKGmw-004C-0094-GW MS~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGBKGmw-004C-0094-GW MS~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGBKGmw-004C-0094-GW MS~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGBKGmw-004C-0094-GW MS~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGBKGmw-004C-0094-GW MS~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGBKGmw-004C-0094-GW MS~~			~~WATER~~	~~40mL~~	~~40mL VIA~~	~~3~~	~~HCL~~	
~~FWGBKGmw-004C-0094-GW MS~~			~~WATER~~	~~250mL~~	~~PLASTIC~~	~~1~~	~~NaOH~~	
FWGBKGmw-004C-0094-GF MS			WATER	1000mL	PLASTIC	1	Conc HNO3	

*only 8 AMBERS

Analysis: N N G S L N L C N N / S S C O C C C N 6 O / 8 8 8 8 8 E N I O 3 / 2 2 0 1 3 L G L 1 N / 6 7 8 3 I I O O / 0 0 2 D O L L Q I 2 / C L / L L A S L

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-5-05	1800	1. Received By: A. H.	10-5-05	1808
2. Relinquished By: A. H.	10-5-05	1838	2. Received By:		
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 0 5 *

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

57215

L4149 (1202)

Client: pec Pro	Project Manager: Chantelle Carroll	Date: ~~08/26/2005~~ 10-5-05	Page 1 of 1
Address: 451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: lavenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: lavenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments
~~FWGBKGmw-008C-0097-GW~~	10-5	1205	~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGBKGmw-008C-0097-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGBKGmw-008C-0097-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGBKGmw-008C-0097-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGBKGmw-008C-0097-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~[illegible]~~			~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	
~~FWGBKGmw-008C-0097-GW~~			WATER	250mL	PLASTIC	1	NaOH	
~~FWGBKGmw-008C-0097-GW~~			WATER	1000mL	PLASTIC	1	Conc HNO3	
~~FWGBKGmw-008C-0097-GF~~								

Analysis: NNO3, SSC, BOC, LCE, MCL, HCL, NO3, 2, 2, 0, 1, 3, L, G, L, 1, N, 6, 7, 8, 3, 1, 0, 0, 0, 0, 2, D, 0, L, L, Q, 2, C, L, L, L, A, S, L

* only 8 Ambers

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-5-05	1800	1. Received By: A. H.	10-5-05	1800
2. Relinquished By: A. H.	10-5-05	1858	2. Received By: Anne Sanders	10/5/05	1858
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

CHAIN OF CUSTODY NUMBER
* 0 1 2 9 5 8 - 0 0 3 *

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

57213

L4149 (1202)

Client: pec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-5-05	Page 1 of 1
Address: 451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	Analysis
City: lavenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: lavenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments
~~FWGBKGmw-005C-0095-GW~~	10-5-05	1400	WATER	1L	AMBER	2	None	
~~FWGBKGmw-005C-0095-GW~~			WATER	1L	AMBER	2	None	
~~FWGBKGmw-005C-0095-GW~~			WATER	1L	AMBER	2	None	
~~FWGBKGmw-005C-0095-GW~~			WATER	1L	AMBER	2	None	
~~FWGBKGmw-005C-0095-GW~~			WATER	1L	AMBER	2	None	
~~[illegible]~~			~~AMBER~~	~~1L~~	~~AMBER~~	~~2~~	~~HNO3~~	
~~FWGBKGmw-005C-0095-GW~~			WATER	250mL	PLASTIC	1	NaOH	
~~FWGBKGmw-005C-0095-GP~~			WATER	1000mL	PLASTIC	1	Conc HNO3	

* only 5 Ambers

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By			1. Received By	10-5-05	1800
2. Relinquished By A. H.	10-5-05	1858	2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

CHAIN OF CUSTODY NUMBER
* 0 1 2 9 5 8 - 0 1 2 *

SEVERN TRENT **STL**
Severn Trent Laboratories, Inc.

57222

L4149 (1202)

Client: pec Pro	Project Manager: Chantelle Carroll	Date: ~~09/20/2005~~ 10-5-05
Address: 451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton
City: lavenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll	
Project Number/Name: lavenna	Carrier/Waybill Number:	
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :	QUOTE: 63240	

Page 1 of 2

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments	Analysis
FWGBKGMW-018C-0104-GW	10-5-05	1515	WATER	1L	AMBER	2	None		
FWGBKGMW-018C-0104-GW			WATER	1L	AMBER	2	None		
FWGBKGMW-018C-0104-GW			WATER	1L	AMBER	2	None		
FWGBKGMW-018C-0104-GW			WATER	1L	AMBER	2	None		
FWGBKGMW-018C-0104-GW			WATER	1L	AMBER	2	None		
~~FWGBKGMW-018C-0104-GW~~			~~WATER~~	~~1000mL~~	~~PLASTIC~~	~~1~~	~~HCl~~		
FWGBKGMW-018C-0104-GW			WATER	250mL	PLASTIC	1	NaOH		
FWGBKGMW-018C-0104-GF			WATER	1000mL	PLASTIC	1	Conc HNO3		

* Only 8 Amigos

Analysis: NNOSSGGBBBBBBBBLLCCCCCCCCNNNN 88888888EEMMMMOO33 22013LLLLLLLLLLNN 67833IIIIIIIIOO 00200LLLLLLLLLLQQIIII2 CIIIIIII

STL Cooler Receipt Form/Narrative **Lot Number:** _____

North Canton Facility

Client: SPEC, PRO Project: _____ Quote#: _____

Cooler Received on: 10/5/05 Opened on: 10/6/05 by: Anne Sanders (Signature)

Fedx ☐ Client Drop Off ☐ UPS ☐ DHL ☐ FAS ☐ STL Courier ☒

Stetson ☐ US Cargo ☐ Other: _____

STL Cooler No# _____ Foam Box ☐ Client Cooler ☐ Other _____

1. Were custody seals on the outside of the cooler? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
   If YES, Quantity 2 PER COOLER
   Were the custody seals signed and dated? Yes ☒ No ☐ NA ☐ AMS
2. Shipper's packing slip attached to this form? Yes ☐ No ☐ NA ☒
3. Did custody papers accompany the samples? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Did you sign the custody papers in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☒ None ☐ Other: _____
6. Cooler temperature upon receipt _____ °C (see back of form for multiple coolers/temp)

METHOD: Temp Vial ☐ Coolant & Sample ☐ Against Bottles ☐ IR ☒ ICE/H_2O Slurry ☐

COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐

7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels and/or tags be reconciled with the COC? Yes ☒ No ☐
9. Were samples at the correct pH? (record below/on back) Yes ☒ No ☐ NA ☐
10. Were correct bottles used for the tests indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a Trip Blank present in the cooler? Yes ☒ No ☐ Were VOAs on the COC? Yes ☒ No ☐
14. Does the trip blank number match the cooler number in which it was received? Yes ☐ No ☐ NA ☒ Client TB

Contacted PM _____ Date: _____ by: _____ via Voice Mail ☐ Verbal ☐ Other ☐

Concerning: _____

√		
	1. CHAIN OF CUSTODY	
	The following discrepancies occurred:	
	2. SAMPLE CONDITION	
	Sample(s) _____ were received after the recommended holding time had expired.	
	Sample(s) _____ were received in a broken container.	
	3. SAMPLE PRESERVATION	
	Sample(s) _____ were further preserved in sample receiving to meet recommended pH level(s). *Nitric Acid Lot # 071805-HNO3; Sulfuric Acid Lot # 041305-H2SO4; Sodium Hydroxide Lot # -041305 -NaOH; Hydrochloric Acid Lot # 100504-HCl; Sodium Hydroxide and Zinc Acetate Lot # 071604-CH3COO2ZN/NaOH*	
	Sample(s) _____ were received with bubble > 6 mm in diameter (cc: PM)	
	4. Other (see below or back)	

Client ID	pH	Date	Initials

STL North Canton Multiple Cooler Receipt Form/Narrative

Client ID	pH	Date	Initials
0114-GW	>12	10/6/05	ANS
+ GF	<2		
0116 GW	>12		
+ GF	<2		
0117-GW	>12		
+ GF	<2		
0108-GW	>12		
+ GF	<2		
0100 GW	>12		
+ GF	<2		
0101-GW	>12		
+ GF	<2		
0098-GW	>12		
+ GF	<2		
0107-GW	>12		
+ GF	<2		
0094-GW	>12 >12		
+ GF	<2 <2		
0097-GW	>12		
+ GF	<2		
0095-GW	>12		
+ GF	<2		
0104-GW	>12		
+ GF	<2		

Revision 0. 09/19/01 DJL N:\QAQC\LAB_FORM\STL North Canton Multiple Cooler Receipt_Narrative.doc

STL North Canton Multiple Cooler Form

Cooler	Temp	Method	Coolant	Comments
241-070	4.3	IR	IQ	
24-102	4.7			
NO#	3.1			
241-180	5.8			
241-103	4.3			
241-059	4.7			
241-019	4.7			
461	3.6			
241-176	4.8			
NO#	3.4			
241-092	5.1			
NO#	5.1	↓	↓	

Revision 0, 09/19/01 DJL \\QCANOH01\public\QAQC\LAB_FORM\STL North Canton Multiple Cooler Form.doc

STL Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials
~~OH4-GW~~			
~~↓ GF~~			
~~OH4-GW~~	See		
~~↓ GF~~	attached		
	Sheet.		

Cooler	Temp	Method	Coolant
	See attached		
	Sheet		

Discrepancies Cont.

SEVERN TRENT STL

GCMS VOLATILE DATA

SpecPro Inc

Client Sample ID: FWGLL3MW-238C-0114-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-001 **Work Order #...:** HL40E1AA **Matrix.....:** WG
Date Sampled...: 10/05/05 15:05 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGLL3MW-238C-0114-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-001 **Work Order #...:** HL40E1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

SpecPro Inc

FWGLL3MW-238C-0114-GW

GC/MS Volatiles

Lot-Sample #: A5J060101-001 **Work Order #:** HL40E1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGLL4MW-198C-0116-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-003 **Work Order #...:** HL40G1AA **Matrix.....:** WG
Date Sampled...: 10/05/05 13:21 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGLL4MW-198C-0116-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-003 **Work Order #...:** HL40G1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

SpecPro Inc

FWGLL4MW-198C-0116-GW

GC/MS Volatiles

Lot-Sample #: A5J060101-003 **Work Order #:** HL40G1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGLL4MW-199C-0117-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-005 **Work Order #...:** HL40J1AA **Matrix.....:** WG
Date Sampled...: 10/05/05 11:09 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL4MW-199C-0117-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-005 Work Order #...: HL40J1AA Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)

SpecPro Inc

FWGLL4MW-199C-0117-GW

GC/MS Volatiles

Lot-Sample #: A5J060101-005 **Work Order #:** HL40J1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGLL1MW-078C-0108-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-007 **Work Order #...:** HL40N1AA **Matrix.....:** WG
Date Sampled...: 10/05/05 09:17 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL1MW-078C-0108-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-007 **Work Order #...:** HL40N1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

SpecPro Inc

FWGLL1MW-078C-0108-GW

GC/MS Volatiles

Lot-Sample #: A5J060101-007 **Work Order #:** HL40N1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGBKGMW-013C-0100-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-009 **Work Order #...:** HL40W1AA **Matrix.....:** WG
Date Sampled...: 10/05/05 15:12 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-013C-0100-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-009 **Work Order #...:** HL40W1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

SpecPro Inc

FWGBKGMW-013C-0100-GW

GC/MS Volatiles

Lot-Sample #: A5J060101-009 **Work Order #:** HL40W1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGBKGMW-015C-0101-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-011 **Work Order #...:** HL4001AA **Matrix.....:** WG
Date Sampled...: 10/05/05 09:15 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-015C-0101-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-011 **Work Order #...:** HL4001AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

SpecPro Inc

FWGBKGMW-015C-0101-GW

GC/MS Volatiles

Lot-Sample #: A5J060101-011 **Work Order #:** HL4001AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGBKGMW-010C-0098-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-013 **Work Order #...:** HL4021AA **Matrix.....:** WG
Date Sampled...: 10/05/05 13:25 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-010C-0098-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-013 **Work Order #...:** HL4021AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

SpecPro Inc

FWGBKGMW-010C-0098-GW

GC/MS Volatiles

Lot-Sample #: A5J060101-013 **Work Order #:** HL4021AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGBKGMW-021C-0107-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-015 **Work Order #...:** HL4051AA **Matrix.....:** WG
Date Sampled...: 10/05/05 10:27 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-021C-0107-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-015 **Work Order #...:** HL4051AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

SpecPro Inc

FWGBKGMW-021C-0107-GW

GC/MS Volatiles

Lot-Sample #: A5J060101-015 **Work Order #:** HL4051AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGBKGMW-004C-0094-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-017 **Work Order #...:** HL41C1AA **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-004C-0094-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-017 **Work Order #...:** HL41C1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

SpecPro Inc

FWGBKGMW-004C-0094-GW

GC/MS Volatiles

Lot-Sample #: A5J060101-017 **Work Order #:** HL41C1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGBKGMW-008C-0097-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-019	**Work Order #...:** HL41K1AA	**Matrix.....:** WG	
Date Sampled...: 10/05/05 12:25	**Date Received..:** 10/05/05		
Prep Date.....: 10/13/05	**Analysis Date..:** 10/13/05		
Prep Batch #...: 5287104			
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	**1.0 J**	**10**	**ug/L**
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-008C-0097-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-019 Work Order #...: HL41K1AA Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

FWGBKGMW-008C-0097-GW

GC/MS Volatiles

Lot-Sample #: A5J060101-019 **Work Order #:** HL41K1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGBKGMW-005C-0095-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-021 **Work Order #...:** HL41M1AA **Matrix.....:** WG
Date Sampled...: 10/05/05 14:00 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-005C-0095-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-021 **Work Order #...:** HL41M1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

SpecPro Inc

FWGBKGMW-005C-0095-GW

GC/MS Volatiles

Lot-Sample #: A5J060101-021 **Work Order #:** HL41M1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGBKGMW-018C-0104-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-023 **Work Order #...:** HL41Q1AA **Matrix.....:** WG
Date Sampled...: 10/05/05 15:15 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-018C-0104-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-023 **Work Order #...:** HL41Q1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

SpecPro Inc

FWGBKGMW-018C-0104-GW

GC/MS Volatiles

Lot-Sample #: A5J060101-023 **Work Order #:** HL41Q1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGW-TB-0143-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-025 **Work Order #...:** HL41V1AA **Matrix.....:** WQ
Date Sampled...: 10/05/05 18:00 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	**0.51 J,B**	**2.0**	**ug/L**
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGW-TB-0143-GW

GC/MS Volatiles

Lot-Sample #...: A5J060101-025 Work Order #...: HL41V1AA Matrix.....: WQ

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGW-TB-0143-GW

GC/MS Volatiles

Lot-Sample #: A5J060101-025 **Work Order #:** HL41V1AA **Matrix:** WQ

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5J060101 **Work Order #...:** HMPL71AA **Matrix.....:** WATER
MB Lot-Sample #: A5J140000-104

Prep Date.....: 10/13/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/13/05 **Prep Batch #...:** 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Methylene chloride	**0.32 J**	**2.0**	**ug/L**	**SW846 8260B**
Acetone	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethene (total)	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	10	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	10	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5J060101 **Work Order #...:** HMPL71AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Toluene-d8	93	(76 - 110)		
4-Bromofluorobenzene	93	(74 - 116)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

SpecPro Inc

Method Blank Report

GC/MS Volatiles

Lot-Sample #: A5J140000-104 B **Work Order #:** HMPL71AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5J060101 **Work Order #...:** HMPL71AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A5J140000-104 HMPL71AD-LCSD
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**109**	**(63 - 130)**			**SW846 8260B**
	105	**(63 - 130)**	**3.7**	**(0-20)**	**SW846 8260B**
Trichloroethene	**105**	**(75 - 122)**			**SW846 8260B**
	100	**(75 - 122)**	**5.0**	**(0-20)**	**SW846 8260B**
Benzene	**91**	**(80 - 116)**			**SW846 8260B**
	89	**(80 - 116)**	**2.3**	**(0-20)**	**SW846 8260B**
Toluene	**96**	**(74 - 119)**			**SW846 8260B**
	97	**(74 - 119)**	**0.89**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(76 - 117)**			**SW846 8260B**
	98	**(76 - 117)**	**0.42**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	109	(61 - 128)
	104	(61 - 128)
Toluene-d8	96	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	100	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5J060101 **Work Order #...:** HMPL71AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A5J140000-104 HMPL71AD-LCSD
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 5 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**10**	**11**	**ug/L**	**109**		**SW846 8260B**
	10	**11**	**ug/L**	**105**	**3.7**	**SW846 8260B**
Trichloroethene	**10**	**11**	**ug/L**	**105**		**SW846 8260B**
	10	**10**	**ug/L**	**100**	**5.0**	**SW846 8260B**
Benzene	**10**	**9.1**	**ug/L**	**91**		**SW846 8260B**
	10	**8.9**	**ug/L**	**89**	**2.3**	**SW846 8260B**
Toluene	**10**	**9.6**	**ug/L**	**96**		**SW846 8260B**
	10	**9.7**	**ug/L**	**97**	**0.89**	**SW846 8260B**
Chlorobenzene	**10**	**9.8**	**ug/L**	**98**		**SW846 8260B**
	10	**9.8**	**ug/L**	**98**	**0.42**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	109	(61 - 128)
	104	(61 - 128)
Toluene-d8	96	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	100	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5J060101 **Work Order #...:** HL41C1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A5J060101-017 HL41C1AD-MSD
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**105**	**(62 - 130)**			**SW846 8260B**
	106	**(62 - 130)**	**1.2**	**(0-20)**	**SW846 8260B**
Trichloroethene	**99**	**(62 - 130)**			**SW846 8260B**
	100	**(62 - 130)**	**1.3**	**(0-20)**	**SW846 8260B**
Benzene	**89**	**(78 - 118)**			**SW846 8260B**
	89	**(78 - 118)**	**0.46**	**(0-20)**	**SW846 8260B**
Toluene	**92**	**(70 - 119)**			**SW846 8260B**
	92	**(70 - 119)**	**0.19**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**91**	**(76 - 117)**			**SW846 8260B**
	92	**(76 - 117)**	**1.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
	105	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
	108	(61 - 128)
Toluene-d8	92	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)
	102	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5J060101 **Work Order #...:** HL41C1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A5J060101-017 HL41C1AD-MSD
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**ND**	**10**	**11**	**ug/L**	**105**		**SW846 8260B**
	ND	**10**	**11**	**ug/L**	**106**	**1.2**	**SW846 8260B**
Trichloroethene	**ND**	**10**	**9.9**	**ug/L**	**99**		**SW846 8260B**
	ND	**10**	**10**	**ug/L**	**100**	**1.3**	**SW846 8260B**
Benzene	**ND**	**10**	**8.9**	**ug/L**	**89**		**SW846 8260B**
	ND	**10**	**8.9**	**ug/L**	**89**	**0.46**	**SW846 8260B**
Toluene	**ND**	**10**	**9.2**	**ug/L**	**92**		**SW846 8260B**
	ND	**10**	**9.2**	**ug/L**	**92**	**0.19**	**SW846 8260B**
Chlorobenzene	**ND**	**10**	**9.1**	**ug/L**	**91**		**SW846 8260B**
	ND	**10**	**9.2**	**ug/L**	**92**	**1.0**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
	105	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
	108	(61 - 128)
Toluene-d8	92	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)
	102	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5J060101 **Work Order #...:** HL2C11AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J050103-019 HL2C11AD-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**104**	**(62 - 130)**			**SW846 8260B**
	105	**(62 - 130)**	**0.16**	**(0-20)**	**SW846 8260B**
Trichloroethene	**98**	**(62 - 130)**			**SW846 8260B**
	100	**(62 - 130)**	**1.4**	**(0-20)**	**SW846 8260B**
Benzene	**87**	**(78 - 118)**			**SW846 8260B**
	86	**(78 - 118)**	**0.70**	**(0-20)**	**SW846 8260B**
Toluene	**89**	**(70 - 119)**			**SW846 8260B**
	92	**(70 - 119)**	**3.6**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**90**	**(76 - 117)**			**SW846 8260B**
	93	**(76 - 117)**	**3.2**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
	108	(61 - 128)
Toluene-d8	94	(76 - 110)
	94	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)
	98	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5J060101 **Work Order #...:** HL2C11AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J050103-019 HL2C11AD-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5287104
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	ND	10	10	ug/L	104		SW846 8260B
	ND	10	10	ug/L	105	0.16	SW846 8260B
Trichloroethene	ND	10	9.8	ug/L	98		SW846 8260B
	ND	10	10	ug/L	100	1.4	SW846 8260B
Benzene	ND	10	8.7	ug/L	87		SW846 8260B
	ND	10	8.6	ug/L	86	0.70	SW846 8260B
Toluene	ND	10	8.9	ug/L	89		SW846 8260B
	ND	10	9.2	ug/L	92	3.6	SW846 8260B
Chlorobenzene	ND	10	9.0	ug/L	90		SW846 8260B
	ND	10	9.3	ug/L	93	3.2	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
	108	(61 - 128)
Toluene-d8	94	(76 - 110)
	94	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)
	98	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SEVERN TRENT STL

GCMS SEMIVOLATILE DATA

SpecPro Inc

Client Sample ID: FWGLL3MW-238C-0114-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-001 **Work Order #...:** HL40E1AC **Matrix.....:** WG
Date Sampled...: 10/05/05 15:05 **Date Received..:** 10/05/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 1030 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL3MW-238C-0114-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-001 Work Order #...: HL40E1AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	**1.8 J**	**5.0**	**ug/L**
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**21 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL3MW-238C-0114-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-001 **Work Order #...:** HL40E1AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	75	(32 - 112)
2-Fluorobiphenyl	53	(30 - 110)
Terphenyl-d14	73	(51 - 135)
Phenol-d5	58	(10 - 117)
2-Fluorophenol	51	(19 - 108)
2,4,6-Tribromophenol	61	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL3MW-238C-0114-GW

GC/MS Semivolatiles

Lot-Sample #: A5J060101-001 **Work Order #:** HL40E1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown Organic Acid		2.1 J	M	4.0425	ug/L
Unknown		1.6 J	M	5.8107	ug/L
Unknown		37 J	M	6.2167	ug/L
Unknown		12 J	M	6.9646	ug/L
Unknown		3.6 J	M	7.0234	ug/L
Unknown		5.3 J	M	7.1409	ug/L
Unknown		4.0 J	M	7.9476	ug/L
Unknown		35 J	M	10.987	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL4MW-198C-0116-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-003 **Work Order #...:** HL40G1AC **Matrix.....:** WG
Date Sampled...: 10/05/05 13:21 **Date Received..:** 10/05/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	**5.5 J**	**10**	**ug/L**
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL4MW-198C-0116-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-003 **Work Order #...:** HL40G1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**1.8 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL4MW-198C-0116-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-003 **Work Order #...:** HL40G1AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	78	(32 - 112)
2-Fluorobiphenyl	55	(30 - 110)
Terphenyl-d14	77	(51 - 135)
Phenol-d5	60	(10 - 117)
2-Fluorophenol	53	(19 - 108)
2,4,6-Tribromophenol	59	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL4MW-198C-0116-GW

GC/MS Semivolatiles

Lot-Sample #: A5J060101-003 **Work Order #:** HL40G1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown Organic Acid		1.2 J	M	5.8107	ug/L
2-Mercaptobenzothiazole	149-30-4	6.2 NJ	M	7.1409	ug/L
Unknown Organic Acid		1.6 J	M	7.5415	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL4MW-199C-0117-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-005 Work Order #...: HL40J1AC Matrix.....: WG
Date Sampled...: 10/05/05 11:09 Date Received..: 10/05/05
Prep Date.....: 10/08/05 Analysis Date..: 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 Initial Wgt/Vol: 1050 mL Final Wgt/Vol..: 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL4MW-199C-0117-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-005 **Work Order #...:** HL40J1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**2.0 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL4MW-199C-0117-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-005 **Work Order #...:** HL40J1AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	74	(32 - 112)
2-Fluorobiphenyl	51	(30 - 110)
Terphenyl-d14	74	(51 - 135)
Phenol-d5	58	(10 - 117)
2-Fluorophenol	51	(19 - 108)
2,4,6-Tribromophenol	57	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL4MW-199C-0117-GW

GC/MS Semivolatiles

Lot-Sample #: A5J060101-005 **Work Order #:** HL40J1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Butylated Hydroxytoluene	128-37-0	1.2 NJ	M	5.5248	ug/L
Unknown Organic Acid		2.4 J	M	5.808	ug/L
Unknown		1.2 J	M	7.9395	ug/L
Unknown Organic Acid		26 J	M	9.3178	ug/L
Unknown		2.5 J	M	10.957	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL1MW-078C-0108-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-007 **Work Order #...:** HL40N1AC **Matrix.....:** WG
Date Sampled...: 10/05/05 09:17 **Date Received..:** 10/05/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 1030 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL1MW-078C-0108-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-007 **Work Order #...:** HL40N1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.5 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.5**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**2.8 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL1MW-078C-0108-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-007 Work Order #...: HL40N1AC Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	81	(32 - 112)
2-Fluorobiphenyl	54	(30 - 110)
Terphenyl-d14	74	(51 - 135)
Phenol-d5	55	(10 - 117)
2-Fluorophenol	43	(19 - 108)
2,4,6-Tribromophenol	57	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL1MW-078C-0108-GW

GC/MS Semivolatiles

Lot-Sample #: A5J060101-007 **Work Order #:** HL40N1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown Organic Acid		2.5 J	M	4.0458	ug/L
Unknown Organic Acid		0.90 J	M	4.8258	ug/L
Unknown Organic Acid		2.4 J	M	5.8087	ug/L
Unknown		2.1 J	M	9.0461	ug/L
Unknown		1.4 J	M	9.3399	ug/L
Unknown		0.81 J	M	9.6764	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGBKGMW-013C-0100-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-009 **Work Order #...:** HL40W1AC **Matrix.....:** WG
Date Sampled...: 10/05/05 15:12 **Date Received..:** 10/05/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 1010 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-013C-0100-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-009 **Work Order #...:** HL40W1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**3.8 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-013C-0100-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-009 **Work Order #...:** HL40W1AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	78	(32 - 112)
2-Fluorobiphenyl	52	(30 - 110)
Terphenyl-d14	83	(51 - 135)
Phenol-d5	62	(10 - 117)
2-Fluorophenol	51	(19 - 108)
2,4,6-Tribromophenol	58	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGBKGMW-013C-0100-GW

GC/MS Semivolatiles

Lot-Sample #: A5J060101-009 **Work Order #:** HL40W1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Diethyltoluamide	134-62-3	4.7 NJ	M	5.7971	ug/L
Unknown		1.1 J	M	7.9447	ug/L
Unknown		11 J	M	8.2812	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGBKGMW-015C-0101-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-011 **Work Order #...:** HL4001AC **Matrix.....:** WG
Date Sampled...: 10/05/05 09:15 **Date Received..:** 10/05/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 1020 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-015C-0101-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-011 **Work Order #...:** HL4001AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**1.9 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-015C-0101-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-011 **Work Order #...:** HL4001AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	63	(32 - 112)
2-Fluorobiphenyl	46	(30 - 110)
Terphenyl-d14	77	(51 - 135)
Phenol-d5	50	(10 - 117)
2-Fluorophenol	46	(19 - 108)
2,4,6-Tribromophenol	54	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGBKGMW-015C-0101-GW

GC/MS Semivolatiles

Lot-Sample #: A5J060101-011 **Work Order #:** HL4001AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		1.6 J	M	5.8079	ug/L
Unknown		55 J	M	11	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGBKGMW-010C-0098-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-013 **Work Order #...:** HL4021AC **Matrix.....:** WG
Date Sampled...: 10/05/05 13:25 **Date Received..:** 10/05/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	**5.4 J**	**10**	**ug/L**
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-010C-0098-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-013 **Work Order #...:** HL4021AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**1.3 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-010C-0098-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-013 **Work Order #...:** HL4021AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	63	(32 - 112)
2-Fluorobiphenyl	44	(30 - 110)
Terphenyl-d14	79	(51 - 135)
Phenol-d5	32	(10 - 117)
2-Fluorophenol	19	(19 - 108)
2,4,6-Tribromophenol	46	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGBKGMW-010C-0098-GW

GC/MS Semivolatiles

Lot-Sample #: A5J060101-013 **Work Order #:** HL4021AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		0.84 J	M	2.8486	ug/L
Unknown Organic Acid		0.97 J	M	3.0089	ug/L
Unknown		1.5 J	M	5.8082	ug/L
Unknown		4.0 J	M	7.9397	ug/L
Unknown		1.3 J	M	10.172	ug/L
Unknown		1.6 J	M	11.518	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGBKGMW-021C-0107-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-015 **Work Order #...:** HL4051AC **Matrix.....:** WG
Date Sampled...: 10/05/05 10:27 **Date Received..:** 10/05/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGBKGMW-021C-0107-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-015 **Work Order #...:** HL4051AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**2.1 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**2.0 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-021C-0107-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-015 **Work Order #...:** HL4051AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	64	(32 - 112)
2-Fluorobiphenyl	44	(30 - 110)
Terphenyl-d14	75	(51 - 135)
Phenol-d5	49	(10 - 117)
2-Fluorophenol	43	(19 - 108)
2,4,6-Tribromophenol	56	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGBKGMW-021C-0107-GW

GC/MS Semivolatiles

Lot-Sample #: A5J060101-015 **Work Order #:** HL4051AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		0.88 J	M	3.0093	ug/L
Unknown Organic Acid		2.2 J	M	4.0457	ug/L
Unknown Organic Acid		2.7 J	M	4.8951	ug/L
Unknown		13 J	M	5.6697	ug/L
Diethyltoluamide	134-62-3	4.1 NJ	M	5.8032	ug/L
Unknown Organic Acid		1.4 J	M	6.3428	ug/L
Unknown		12 J	M	7.9454	ug/L
Unknown Organic Acid		1.3 J	M	8.1484	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGBKGMW-004C-0094-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-017 **Work Order #...:** HL41C1AE **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-004C-0094-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-017 **Work Order #...:** HL41C1AE **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**1.6 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-004C-0094-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-017 **Work Order #...:** HL41C1AE **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	69	(32 - 112)
2-Fluorobiphenyl	46	(30 - 110)
Terphenyl-d14	79	(51 - 135)
Phenol-d5	51	(10 - 117)
2-Fluorophenol	42	(19 - 108)
2,4,6-Tribromophenol	47	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGBKGMW-004C-0094-GW

GC/MS Semivolatiles

Lot-Sample #: A5J060101-017 **Work Order #:** HL41C1AE **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown Organic Acid		2.1 J	M	5.808	ug/L
Unknown		24 J	M	11.027	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGBKGMW-008C-0097-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-019 **Work Order #...:** HL41K1AC **Matrix.....:** WG
Date Sampled...: 10/05/05 12:25 **Date Received..:** 10/05/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-008C-0097-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-019 **Work Order #...:** HL41K1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.7 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**2.5 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-008C-0097-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-019 Work Order #...: HL41K1AC Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	71	(32 - 112)
2-Fluorobiphenyl	49	(30 - 110)
Terphenyl-d14	81	(51 - 135)
Phenol-d5	53	(10 - 117)
2-Fluorophenol	30	(19 - 108)
2,4,6-Tribromophenol	60	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGBKGMW-008C-0097-GW

GC/MS Semivolatiles

Lot-Sample #: A5J060101-019 **Work Order #:** HL41K1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown Organic Acid		2.2 J	M	4.0457	ug/L
Unknown Organic Acid		1.7 J	M	4.8951	ug/L
Unknown Organic Acid		13 J	M	5.6697	ug/L
Diethyltoluamide	134-62-3	7.2 NJ	M	5.8033	ug/L
Unknown Organic Acid		1.9 J	M	6.3482	ug/L
Unknown Organic Acid		0.89 J	M	7.5021	ug/L
Unknown		7.2 J	M	7.9561	ug/L
Unknown Organic Acid		12 J	M	8.1752	ug/L
Unknown Hydrocarbon		1.1 J	M	8.4583	ug/L
Unknown Hydrocarbon		0.87 J	M	8.7147	ug/L
Unknown Hydrocarbon		0.78 J	M	8.9765	ug/L
Unknown Hydrocarbon		1.6 J	M	9.8579	ug/L
Unknown		5.3 J	M	10.75	ug/L
Unknown		2.0 J	M	11.599	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGBKGMW-005C-0095-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-021 **Work Order #...:** HL41M1AC **Matrix.....:** WG
Date Sampled...: 10/05/05 14:00 **Date Received..:** 10/05/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGBKGMW-005C-0095-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-021 **Work Order #...:** HL41M1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**1.5 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-005C-0095-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-021 **Work Order #...:** HL41M1AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	57	(32 - 112)
2-Fluorobiphenyl	42	(30 - 110)
Terphenyl-d14	79	(51 - 135)
Phenol-d5	39	(10 - 117)
2-Fluorophenol	22	(19 - 108)
2,4,6-Tribromophenol	43	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGBKGMW-005C-0095-GW

GC/MS Semivolatiles

Lot-Sample #: A5J060101-021 **Work Order #:** HL41M1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		1.3 J	M	5.8103	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGBKGMW-018C-0104-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-023 **Work Order #...:** HL41Q1AC **Matrix.....:** WG
Date Sampled...: 10/05/05 15:15 **Date Received..:** 10/05/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	**5.3 J**	**10**	**ug/L**
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-018C-0104-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-023 **Work Order #...:** HL41Q1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**1.7 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-018C-0104-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J060101-023 Work Order #...: HL41Q1AC Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	69	(32 - 112)
2-Fluorobiphenyl	50	(30 - 110)
Terphenyl-d14	78	(51 - 135)
Phenol-d5	56	(10 - 117)
2-Fluorophenol	47	(19 - 108)
2,4,6-Tribromophenol	56	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGBKGMW-018C-0104-GW

GC/MS Semivolatiles

Lot-Sample #: A5J060101-023 **Work Order #:** HL41Q1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		1.5 J	M	5.8104	ug/L
Unknown Hydrocarbon		0.80 J	M	7.6534	ug/L
Unknown Hydrocarbon		1.1 J	M	7.9259	ug/L
Unknown		1.0 J	M	7.9793	ug/L
Unknown Hydrocarbon		0.99 J	M	8.1877	ug/L
Unknown Hydrocarbon		2.3 J	M	8.4494	ug/L
Unknown Hydrocarbon		1.2 J	M	8.9676	ug/L
Unknown Organic Acid		25 J	M	10.233	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HMA261AA **Matrix.....:** WATER
MB Lot-Sample #: A5J080000-013

Prep Date.....: 10/08/05 **Final Wgt/Vol..:** 2 mL
Analysis Date..: 10/11/05 **Prep Batch #...:** 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzoic acid	ND	10	ug/L	SW846 8270C
Benzyl alcohol	ND	5.0	ug/L	SW846 8270C
Phenol	ND	1.0	ug/L	SW846 8270C
bis(2-Chloroethyl)-ether	ND	1.0	ug/L	SW846 8270C
2-Chlorophenol	ND	1.0	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
2-Methylphenol	ND	1.0	ug/L	SW846 8270C
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L	SW846 8270C
4-Methylphenol	ND	1.0	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L	SW846 8270C
Hexachloroethane	ND	1.0	ug/L	SW846 8270C
Nitrobenzene	ND	1.0	ug/L	SW846 8270C
Isophorone	ND	1.0	ug/L	SW846 8270C
2-Nitrophenol	ND	2.0	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	2.0	ug/L	SW846 8270C
bis(2-Chloroethoxy) methane	ND	1.0	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	2.0	ug/L	SW846 8270C
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8270C
Naphthalene	ND	0.20	ug/L	SW846 8270C
4-Chloroaniline	ND	2.0	ug/L	SW846 8270C
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	2.0	ug/L	SW846 8270C
2-Methylnaphthalene	ND	0.20	ug/L	SW846 8270C
Hexachlorocyclopenta-diene	ND	10	ug/L	SW846 8270C
2,4,6-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2,4,5-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2-Chloronaphthalene	ND	1.0	ug/L	SW846 8270C
2-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Dimethyl phthalate	ND	1.0	ug/L	SW846 8270C
Acenaphthylene	ND	0.20	ug/L	SW846 8270C
2,6-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HMA261AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
3-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Acenaphthene	ND	0.20	ug/L	SW846 8270C
2,4-Dinitrophenol	ND	5.0	ug/L	SW846 8270C
4-Nitrophenol	ND	5.0	ug/L	SW846 8270C
Dibenzofuran	ND	1.0	ug/L	SW846 8270C
2,4-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C
Diethyl phthalate	ND	1.0	ug/L	SW846 8270C
4-Chlorophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Fluorene	ND	0.20	ug/L	SW846 8270C
4-Nitroaniline	ND	2.0	ug/L	SW846 8270C
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L	SW846 8270C
N-Nitrosodiphenylamine	ND	1.0	ug/L	SW846 8270C
4-Bromophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Hexachlorobenzene	ND	0.20	ug/L	SW846 8270C
Pentachlorophenol	ND	5.0	ug/L	SW846 8270C
Phenanthrene	ND	0.20	ug/L	SW846 8270C
Anthracene	ND	0.20	ug/L	SW846 8270C
Carbazole	ND	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	**1.5**	**1.0**	**ug/L**	**SW846 8270C**
Fluoranthene	ND	0.20	ug/L	SW846 8270C
Pyrene	ND	0.20	ug/L	SW846 8270C
Butyl benzyl phthalate	ND	1.0	ug/L	SW846 8270C
3,3'-Dichlorobenzidine	ND	5.0	ug/L	SW846 8270C
Benzo(a)anthracene	ND	0.20	ug/L	SW846 8270C
Chrysene	ND	0.20	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	**1.6**	**1.0**	**ug/L**	**SW846 8270C**
Di-n-octyl phthalate	ND	1.0	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(a)pyrene	ND	0.20	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	0.20	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	0.20	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	70	(32 - 112)
2-Fluorobiphenyl	51	(30 - 110)
Terphenyl-d14	79	(51 - 135)
Phenol-d5	53	(10 - 117)
2-Fluorophenol	48	(19 - 108)

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HMA261AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,4,6-Tribromophenol	49	(42 - 124)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SpecPro Inc

Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: A5J080000-013 B **Work Order #:** HMA261AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HMA261AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J080000-013
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Final Wgt/Vol..:** 2 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Phenol	**62**	**(10 - 116)**	**SW846 8270C**
2-Chlorophenol	**57**	**(37 - 106)**	**SW846 8270C**
1,4-Dichlorobenzene	**48**	**(32 - 98)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**79**	**(30 - 115)**	**SW846 8270C**
1,2,4-Trichloro-benzene	**50**	**(31 - 110)**	**SW846 8270C**
4-Chloro-3-methylphenol	**66**	**(47 - 111)**	**SW846 8270C**
Acenaphthene	**62**	**(39 - 118)**	**SW846 8270C**
4-Nitrophenol	**75**	**(10 - 123)**	**SW846 8270C**
2,4-Dinitrotoluene	**75**	**(47 - 131)**	**SW846 8270C**
Pentachlorophenol	**64**	**(38 - 117)**	**SW846 8270C**
Pyrene	**87**	**(46 - 130)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	76	(32 - 112)
2-Fluorobiphenyl	57	(30 - 110)
Terphenyl-d14	83	(51 - 135)
Phenol-d5	58	(10 - 117)
2-Fluorophenol	53	(19 - 108)
2,4,6-Tribromophenol	61	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HMA261AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J080000-013
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Final Wgt/Vol..:** 2 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Phenol	**20**	**12**	**ug/L**	**62**	**SW846 8270C**
2-Chlorophenol	**20**	**11**	**ug/L**	**57**	**SW846 8270C**
1,4-Dichlorobenzene	**20**	**9.5**	**ug/L**	**48**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**20**	**16**	**ug/L**	**79**	**SW846 8270C**
1,2,4-Trichloro-benzene	**20**	**10**	**ug/L**	**50**	**SW846 8270C**
4-Chloro-3-methylphenol	**20**	**13**	**ug/L**	**66**	**SW846 8270C**
Acenaphthene	**20**	**12**	**ug/L**	**62**	**SW846 8270C**
4-Nitrophenol	**20**	**15**	**ug/L**	**75**	**SW846 8270C**
2,4-Dinitrotoluene	**20**	**15**	**ug/L**	**75**	**SW846 8270C**
Pentachlorophenol	**20**	**13**	**ug/L**	**64**	**SW846 8270C**
Pyrene	**20**	**17**	**ug/L**	**87**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	76	(32 - 112)
2-Fluorobiphenyl	57	(30 - 110)
Terphenyl-d14	83	(51 - 135)
Phenol-d5	58	(10 - 117)
2-Fluorophenol	53	(19 - 108)
2,4,6-Tribromophenol	61	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL72R1AF-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J070109-007 HL72R1AG-MSD
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 525 mL **Final Wgt/Vol..:** 2 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Phenol	65	(10 - 116)			SW846 8270C
	59	(10 - 116)	8.4	(0-43)	SW846 8270C
2-Chlorophenol	60	(37 - 106)			SW846 8270C
	54	(37 - 106)	10	(0-43)	SW846 8270C
1,4-Dichlorobenzene	50	(32 - 98)			SW846 8270C
	41	(32 - 98)	20	(0-36)	SW846 8270C
N-Nitrosodi-n-propyl-amine	82	(18 - 115)			SW846 8270C
	78	(18 - 115)	5.0	(0-36)	SW846 8270C
1,2,4-Trichloro-benzene	50	(22 - 110)			SW846 8270C
	41	(22 - 110)	18	(0-37)	SW846 8270C
4-Chloro-3-methylphenol	67	(47 - 111)			SW846 8270C
	64	(47 - 111)	4.8	(0-55)	SW846 8270C
Acenaphthene	65	(26 - 118)			SW846 8270C
	62	(26 - 118)	4.0	(0-35)	SW846 8270C
4-Nitrophenol	70	(10 - 123)			SW846 8270C
	68	(10 - 123)	2.4	(0-34)	SW846 8270C
2,4-Dinitrotoluene	73	(31 - 131)			SW846 8270C
	71	(31 - 131)	2.7	(0-32)	SW846 8270C
Pentachlorophenol	61	(38 - 137)			SW846 8270C
	62	(38 - 137)	1.0	(0-56)	SW846 8270C
Pyrene	84	(27 - 138)			SW846 8270C
	84	(27 - 138)	0.68	(0-31)	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	78	(32 - 112)
	72	(32 - 112)
2-Fluorobiphenyl	58	(30 - 110)
	54	(30 - 110)
Terphenyl-d14	79	(51 - 135)
	78	(51 - 135)
Phenol-d5	61	(10 - 117)
	56	(10 - 117)
2-Fluorophenol	57	(19 - 108)
	51	(19 - 108)

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL72R1AF-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J070109-007 HL72R1AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	59	(42 - 124)
	59	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL72R1AF-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J070109-007 HL72R1AG-MSD
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 525 mL **Final Wgt/Vol..:** 2 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Phenol	ND	38	25	ug/L	65		SW846 8270C
	ND	38	23	ug/L	59	8.4	SW846 8270C
2-Chlorophenol	ND	38	23	ug/L	60		SW846 8270C
	ND	38	21	ug/L	54	10	SW846 8270C
1,4-Dichlorobenzene	ND	38	19	ug/L	50		SW846 8270C
	ND	38	16	ug/L	41	20	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	38	31	ug/L	82		SW846 8270C
	ND	38	30	ug/L	78	5.0	SW846 8270C
1,2,4-Trichloro-benzene	ND	38	19	ug/L	50		SW846 8270C
	ND	38	16	ug/L	41	18	SW846 8270C
4-Chloro-3-methylphenol	ND	38	26	ug/L	67		SW846 8270C
	ND	38	24	ug/L	64	4.8	SW846 8270C
Acenaphthene	ND	38	25	ug/L	65		SW846 8270C
	ND	38	24	ug/L	62	4.0	SW846 8270C
4-Nitrophenol	ND	38	27	ug/L	70		SW846 8270C
	ND	38	26	ug/L	68	2.4	SW846 8270C
2,4-Dinitrotoluene	ND	38	28	ug/L	73		SW846 8270C
	ND	38	27	ug/L	71	2.7	SW846 8270C
Pentachlorophenol	ND	38	23	ug/L	61		SW846 8270C
	ND	38	24	ug/L	62	1.0	SW846 8270C
Pyrene	ND	38	32	ug/L	84		SW846 8270C
	ND	38	32	ug/L	84	0.68	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	78	(32 - 112)
	72	(32 - 112)
2-Fluorobiphenyl	58	(30 - 110)
	54	(30 - 110)
Terphenyl-d14	79	(51 - 135)
	78	(51 - 135)
Phenol-d5	61	(10 - 117)
	56	(10 - 117)
2-Fluorophenol	57	(19 - 108)
	51	(19 - 108)

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL72R1AF-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J070109-007 HL72R1AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	59	(42 - 124)
	59	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL41C1AF-MS **Matrix.....:** WG
MS Lot-Sample #: A5J060101-017 HL41C1AG-MSD
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 520 mL **Final Wgt/Vol..:** 2 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Phenol	44	(10 - 116)			SW846 8270C
	58	(10 - 116)	27	(0-43)	SW846 8270C
2-Chlorophenol	41	(37 - 106)			SW846 8270C
	53	(37 - 106)	25	(0-43)	SW846 8270C
1,4-Dichlorobenzene	27 a	(32 - 98)			SW846 8270C
	39	(32 - 98)	36	(0-36)	SW846 8270C
N-Nitrosodi-n-propyl-amine	60	(18 - 115)			SW846 8270C
	75	(18 - 115)	22	(0-36)	SW846 8270C
1,2,4-Trichloro-benzene	31	(22 - 110)			SW846 8270C
	42	(22 - 110)	31	(0-37)	SW846 8270C
4-Chloro-3-methylphenol	49	(47 - 111)			SW846 8270C
	61	(47 - 111)	23	(0-55)	SW846 8270C
Acenaphthene	47	(26 - 118)			SW846 8270C
	58	(26 - 118)	22	(0-35)	SW846 8270C
4-Nitrophenol	54	(10 - 123)			SW846 8270C
	67	(10 - 123)	21	(0-34)	SW846 8270C
2,4-Dinitrotoluene	58	(31 - 131)			SW846 8270C
	69	(31 - 131)	18	(0-32)	SW846 8270C
Pentachlorophenol	51	(38 - 137)			SW846 8270C
	61	(38 - 137)	18	(0-56)	SW846 8270C
Pyrene	71	(27 - 138)			SW846 8270C
	81	(27 - 138)	14	(0-31)	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	56	(32 - 112)
	70	(32 - 112)
2-Fluorobiphenyl	42	(30 - 110)
	52	(30 - 110)
Terphenyl-d14	67	(51 - 135)
	75	(51 - 135)
Phenol-d5	40	(10 - 117)
	56	(10 - 117)
2-Fluorophenol	35	(19 - 108)
	49	(19 - 108)

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL41C1AF-MS **Matrix.....:** WG
MS Lot-Sample #: A5J060101-017 HL41C1AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	46	(42 - 124)
	55	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL41C1AF-MS **Matrix.....:** WG
MS Lot-Sample #: A5J060101-017 HL41C1AG-MSD
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 520 mL **Final Wgt/Vol..:** 2 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Phenol	ND	38	17	ug/L	44		SW846 8270C
	ND	38	22	ug/L	58	27	SW846 8270C
2-Chlorophenol	ND	38	16	ug/L	41		SW846 8270C
	ND	38	20	ug/L	53	25	SW846 8270C
1,4-Dichlorobenzene	ND	38	11	ug/L	27 a		SW846 8270C
	ND	38	15	ug/L	39	36	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	38	23	ug/L	60		SW846 8270C
	ND	38	29	ug/L	75	22	SW846 8270C
1,2,4-Trichloro-benzene	ND	38	12	ug/L	31		SW846 8270C
	ND	38	16	ug/L	42	31	SW846 8270C
4-Chloro-3-methylphenol	ND	38	19	ug/L	49		SW846 8270C
	ND	38	24	ug/L	61	23	SW846 8270C
Acenaphthene	ND	38	18	ug/L	47		SW846 8270C
	ND	38	22	ug/L	58	22	SW846 8270C
4-Nitrophenol	ND	38	21	ug/L	54		SW846 8270C
	ND	38	26	ug/L	67	21	SW846 8270C
2,4-Dinitrotoluene	ND	38	22	ug/L	58		SW846 8270C
	ND	38	26	ug/L	69	18	SW846 8270C
Pentachlorophenol	ND	38	19	ug/L	51		SW846 8270C
	ND	38	23	ug/L	61	18	SW846 8270C
Pyrene	ND	38	27	ug/L	71		SW846 8270C
	ND	38	31	ug/L	81	14	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	56	(32 - 112)
	70	(32 - 112)
2-Fluorobiphenyl	42	(30 - 110)
	52	(30 - 110)
Terphenyl-d14	67	(51 - 135)
	75	(51 - 135)
Phenol-d5	40	(10 - 117)
	56	(10 - 117)
2-Fluorophenol	35	(19 - 108)
	49	(19 - 108)

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL41C1AF-MS **Matrix.....:** WG
MS Lot-Sample #: A5J060101-017 HL41C1AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	46	(42 - 124)
	55	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

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SpecPro Inc

Client Sample ID: FWGLL3MW-238C-0114-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-001 **Work Order #...:** HL40E1AD **Matrix.....:** WG
Date Sampled...: 10/05/05 15:05 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280013
Dilution Factor: 20 **Initial Wgt/Vol:** 1020 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.60	ug/L
beta-BHC	ND	0.60	ug/L
delta-BHC	ND	0.60	ug/L
gamma-BHC (Lindane)	ND	0.60	ug/L
Heptachlor	ND	0.60	ug/L
Aldrin	ND	0.60	ug/L
Heptachlor epoxide	**13**	**0.60**	**ug/L**
Endosulfan I	ND	0.60	ug/L
Dieldrin	ND	0.60	ug/L
4,4'-DDE	ND	0.60	ug/L
Endrin	ND	0.60	ug/L
Endosulfan II	ND	0.60	ug/L
4,4'-DDD	ND	0.60	ug/L
Endosulfan sulfate	ND	0.60	ug/L
4,4'-DDT	ND	0.60	ug/L
Methoxychlor	ND	2.0	ug/L
Endrin ketone	ND	0.60	ug/L
Endrin aldehyde	ND	0.60	ug/L
alpha-Chlordane	ND	0.60	ug/L
gamma-Chlordane	ND	0.60	ug/L
Toxaphene	ND	40	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	0.0 DIL,*	(39 - 130)
Decachlorobiphenyl	0.0 DIL,*	(10 - 147)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

SpecPro Inc

Client Sample ID: FWGLL4MW-198C-0116-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-003 **Work Order #...:** HL40G1AD **Matrix.....:** WG
Date Sampled...: 10/05/05 13:21 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	**0.069**	**0.030**	**ug/L**
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	75	(39 - 130)
Decachlorobiphenyl	31	(10 - 147)

SpecPro Inc

Client Sample ID: FWGLL4MW-199C-0117-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-005 **Work Order #...:** HL40J1AD **Matrix.....:** WG
Date Sampled...: 10/05/05 11:09 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	**0.022 J**	**0.030**	**ug/L**
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	175 *	(39 - 130)
Decachlorobiphenyl	21	(10 - 147)

NOTE(S):

* Surrogate recovery is outside stated control limits.

J Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL1MW-078C-0108-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-007 **Work Order #...:** HL40N1AD **Matrix.....:** WG
Date Sampled...: 10/05/05 09:17 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	76	(39 - 130)
Decachlorobiphenyl	45	(10 - 147)

SpecPro Inc

Client Sample ID: FWGBKGMW-013C-0100-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-009 **Work Order #...:** HL40W1AD **Matrix.....:** WG
Date Sampled...: 10/05/05 15:12 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	78	(39 - 130)
Decachlorobiphenyl	41	(10 - 147)

SpecPro Inc

Client Sample ID: FWGBKGMW-015C-0101-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-011 **Work Order #...:** HL4001AD **Matrix.....:** WG
Date Sampled...: 10/05/05 09:15 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	64	(39 - 130)
Decachlorobiphenyl	65	(10 - 147)

SpecPro Inc

Client Sample ID: FWGBKGMW-010C-0098-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-013 **Work Order #...:** HL4021AD **Matrix.....:** WG
Date Sampled...: 10/05/05 13:25 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1020 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	65	(39 - 130)
Decachlorobiphenyl	58	(10 - 147)

SpecPro Inc

Client Sample ID: FWGBKGMW-021C-0107-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-015 **Work Order #...:** HL4051AD **Matrix.....:** WG
Date Sampled...: 10/05/05 10:27 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	88	(39 - 130)
Decachlorobiphenyl	63	(10 - 147)

SpecPro Inc

Client Sample ID: FWGBKGMW-004C-0094-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-017 **Work Order #...:** HL41C1AH **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	86	(39 - 130)
Decachlorobiphenyl	71	(10 - 147)

SpecPro Inc

Client Sample ID: FWGBKGMW-008C-0097-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-019 **Work Order #...:** HL41K1AD **Matrix.....:** WG
Date Sampled...: 10/05/05 12:25 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	89	(39 - 130)
Decachlorobiphenyl	73	(10 - 147)

SpecPro Inc

Client Sample ID: FWGBKGMW-005C-0095-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-021 **Work Order #...:** HL41M1AD **Matrix.....:** WG
Date Sampled...: 10/05/05 14:00 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	71	(39 - 130)
Decachlorobiphenyl	31	(10 - 147)

SpecPro Inc

Client Sample ID: FWGBKGMW-018C-0104-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-023 **Work Order #...:** HL41Q1AD **Matrix.....:** WG
Date Sampled...: 10/05/05 15:15 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	85	(39 - 130)
Decachlorobiphenyl	67	(10 - 147)

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL7V31AA **Matrix.....:** WATER
MB Lot-Sample #: A5J070000-013

Prep Date.....: 10/07/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/16/05 **Prep Batch #...:** 5280013
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
alpha-BHC	ND	0.030	ug/L	SW846 8081A
beta-BHC	ND	0.030	ug/L	SW846 8081A
delta-BHC	ND	0.030	ug/L	SW846 8081A
gamma-BHC (Lindane)	ND	0.030	ug/L	SW846 8081A
Heptachlor	ND	0.030	ug/L	SW846 8081A
Aldrin	ND	0.030	ug/L	SW846 8081A
Heptachlor epoxide	ND	0.030	ug/L	SW846 8081A
Endosulfan I	ND	0.030	ug/L	SW846 8081A
Dieldrin	ND	0.030	ug/L	SW846 8081A
4,4'-DDE	ND	0.030	ug/L	SW846 8081A
Endrin	ND	0.030	ug/L	SW846 8081A
Endosulfan II	ND	0.030	ug/L	SW846 8081A
4,4'-DDD	ND	0.030	ug/L	SW846 8081A
Endosulfan sulfate	ND	0.030	ug/L	SW846 8081A
4,4'-DDT	ND	0.030	ug/L	SW846 8081A
Methoxychlor	ND	0.10	ug/L	SW846 8081A
Endrin ketone	ND	0.030	ug/L	SW846 8081A
Endrin aldehyde	ND	0.030	ug/L	SW846 8081A
alpha-Chlordane	ND	0.030	ug/L	SW846 8081A
gamma-Chlordane	ND	0.030	ug/L	SW846 8081A
Toxaphene	ND	2.0	ug/L	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	85	(39 - 130)
Decachlorobiphenyl	62	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HMDD41AA **Matrix.....:** WATER
MB Lot-Sample #: A5J100000-022

Prep Date.....: 10/10/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/16/05 **Prep Batch #...:** 5283022
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
alpha-BHC	ND	0.030	ug/L	SW846 8081A
beta-BHC	ND	0.030	ug/L	SW846 8081A
delta-BHC	ND	0.030	ug/L	SW846 8081A
gamma-BHC (Lindane)	ND	0.030	ug/L	SW846 8081A
Heptachlor	ND	0.030	ug/L	SW846 8081A
Aldrin	ND	0.030	ug/L	SW846 8081A
Heptachlor epoxide	ND	0.030	ug/L	SW846 8081A
Endosulfan I	ND	0.030	ug/L	SW846 8081A
Dieldrin	ND	0.030	ug/L	SW846 8081A
4,4'-DDE	ND	0.030	ug/L	SW846 8081A
Endrin	ND	0.030	ug/L	SW846 8081A
Endosulfan II	ND	0.030	ug/L	SW846 8081A
4,4'-DDD	ND	0.030	ug/L	SW846 8081A
Endosulfan sulfate	ND	0.030	ug/L	SW846 8081A
4,4'-DDT	ND	0.030	ug/L	SW846 8081A
Methoxychlor	ND	0.10	ug/L	SW846 8081A
Endrin ketone	ND	0.030	ug/L	SW846 8081A
Endrin aldehyde	ND	0.030	ug/L	SW846 8081A
alpha-Chlordane	ND	0.030	ug/L	SW846 8081A
gamma-Chlordane	ND	0.030	ug/L	SW846 8081A
Toxaphene	ND	2.0	ug/L	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	83	(39 - 130)
Decachlorobiphenyl	75	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL7V31AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J070000-013
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
gamma-BHC (Lindane)	**94**	**(49 - 137)**	**SW846 8081A**
Heptachlor	**87**	**(57 - 124)**	**SW846 8081A**
Aldrin	**94**	**(62 - 120)**	**SW846 8081A**
Dieldrin	**95**	**(68 - 130)**	**SW846 8081A**
Endrin	**99**	**(46 - 137)**	**SW846 8081A**
4,4'-DDT	**102**	**(60 - 140)**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	96	(39 - 130)
Decachlorobiphenyl	67	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL7V31AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J070000-013
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
gamma-BHC (Lindane)	**1.0**	**0.94**	**ug/L**	**94**	**SW846 8081A**
Heptachlor	**1.0**	**0.87**	**ug/L**	**87**	**SW846 8081A**
Aldrin	**1.0**	**0.94**	**ug/L**	**94**	**SW846 8081A**
Dieldrin	**1.0**	**0.95**	**ug/L**	**95**	**SW846 8081A**
Endrin	**1.0**	**0.99**	**ug/L**	**99**	**SW846 8081A**
4,4'-DDT	**1.0**	**1.0**	**ug/L**	**102**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	96	(39 - 130)
Decachlorobiphenyl	67	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HMDD41AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J100000-022
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
gamma-BHC (Lindane)	**92**	**(49 - 137)**	**SW846 8081A**
Heptachlor	**85**	**(57 - 124)**	**SW846 8081A**
Aldrin	**91**	**(62 - 120)**	**SW846 8081A**
Dieldrin	**84**	**(68 - 130)**	**SW846 8081A**
Endrin	**82**	**(46 - 137)**	**SW846 8081A**
4,4'-DDT	**64**	**(60 - 140)**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(39 - 130)
Decachlorobiphenyl	56	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HMDD41AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J100000-022
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
gamma-BHC (Lindane)	**1.0**	**0.92**	**ug/L**	**92**	**SW846 8081A**
Heptachlor	**1.0**	**0.85**	**ug/L**	**85**	**SW846 8081A**
Aldrin	**1.0**	**0.91**	**ug/L**	**91**	**SW846 8081A**
Dieldrin	**1.0**	**0.84**	**ug/L**	**84**	**SW846 8081A**
Endrin	**1.0**	**0.82**	**ug/L**	**82**	**SW846 8081A**
4,4'-DDT	**1.0**	**0.64**	**ug/L**	**64**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(39 - 130)
Decachlorobiphenyl	56	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL2C11AJ-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J050103-019 HL2C11AK-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 2 **Initial Wgt/Vol:** 525 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
gamma-BHC (Lindane)	**82**	**(30 - 148)**			**SW846 8081A**
	82	**(30 - 148)**	**0.51**	**(0-22)**	**SW846 8081A**
Heptachlor	**77**	**(30 - 150)**			**SW846 8081A**
	77	**(30 - 150)**	**0.20**	**(0-32)**	**SW846 8081A**
Aldrin	**82**	**(30 - 150)**			**SW846 8081A**
	82	**(30 - 150)**	**0.70**	**(0-33)**	**SW846 8081A**
Dieldrin	**80**	**(35 - 141)**			**SW846 8081A**
	80	**(35 - 141)**	**0.32**	**(0-37)**	**SW846 8081A**
Endrin	**85**	**(30 - 150)**			**SW846 8081A**
	85	**(30 - 150)**	**0.24**	**(0-40)**	**SW846 8081A**
4,4'-DDT	**84**	**(30 - 150)**			**SW846 8081A**
	81	**(30 - 150)**	**3.8**	**(0-50)**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	88	(39 - 130)
	87	(39 - 130)
Decachlorobiphenyl	52	(10 - 147)
	61	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL2C11AJ-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J050103-019 HL2C11AK-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5280013
Dilution Factor: 2 **Initial Wgt/Vol:** 525 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
gamma-BHC (Lindane)	ND	1.9	1.6	ug/L	82		SW846 8081A
	ND	1.9	1.6	ug/L	82	0.51	SW846 8081A
Heptachlor	ND	1.9	1.5	ug/L	77		SW846 8081A
	ND	1.9	1.5	ug/L	77	0.20	SW846 8081A
Aldrin	ND	1.9	1.6	ug/L	82		SW846 8081A
	ND	1.9	1.6	ug/L	82	0.70	SW846 8081A
Dieldrin	ND	1.9	1.5	ug/L	80		SW846 8081A
	ND	1.9	1.5	ug/L	80	0.32	SW846 8081A
Endrin	ND	1.9	1.6	ug/L	85		SW846 8081A
	ND	1.9	1.6	ug/L	85	0.24	SW846 8081A
4,4'-DDT	ND	1.9	1.6	ug/L	84		SW846 8081A
	ND	1.9	1.5	ug/L	81	3.8	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	88	(39 - 130)
	87	(39 - 130)
Decachlorobiphenyl	52	(10 - 147)
	61	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL72R1AJ-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J070109-007 HL72R1AK-MSD
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
gamma-BHC (Lindane)	**86**	**(30 - 148)**			**SW846 8081A**
	96	**(30 - 148)**	**10**	**(0-22)**	**SW846 8081A**
Heptachlor	**79**	**(30 - 150)**			**SW846 8081A**
	89	**(30 - 150)**	**12**	**(0-32)**	**SW846 8081A**
Aldrin	**83**	**(30 - 150)**			**SW846 8081A**
	96	**(30 - 150)**	**14**	**(0-33)**	**SW846 8081A**
Dieldrin	**92**	**(35 - 141)**			**SW846 8081A**
	97	**(35 - 141)**	**5.0**	**(0-37)**	**SW846 8081A**
Endrin	**98**	**(30 - 150)**			**SW846 8081A**
	102	**(30 - 150)**	**4.4**	**(0-40)**	**SW846 8081A**
4,4'-DDT	**86**	**(30 - 150)**			**SW846 8081A**
	102	**(30 - 150)**	**17**	**(0-50)**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	84	(39 - 130)
	98	(39 - 130)
Decachlorobiphenyl	62	(10 - 147)
	90	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL72R1AJ-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J070109-007 HL72R1AK-MSD
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
gamma-BHC (Lindane)	ND	2.0	1.7	ug/L	86		SW846 8081A
	ND	2.0	1.9	ug/L	96	10	SW846 8081A
Heptachlor	ND	2.0	1.6	ug/L	79		SW846 8081A
	ND	2.0	1.8	ug/L	89	12	SW846 8081A
Aldrin	ND	2.0	1.7	ug/L	83		SW846 8081A
	ND	2.0	1.9	ug/L	96	14	SW846 8081A
Dieldrin	ND	2.0	1.8	ug/L	92		SW846 8081A
	ND	2.0	1.9	ug/L	97	5.0	SW846 8081A
Endrin	ND	2.0	2.0	ug/L	98		SW846 8081A
	ND	2.0	2.0	ug/L	102	4.4	SW846 8081A
4,4'-DDT	ND	2.0	1.7	ug/L	86		SW846 8081A
	ND	2.0	2.0	ug/L	102	17	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	84	(39 - 130)
	98	(39 - 130)
Decachlorobiphenyl	62	(10 - 147)
	90	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL41C1AJ-MS **Matrix.....:** WG
MS Lot-Sample #: A5J060101-017 HL41C1AK-MSD
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
gamma-BHC (Lindane)	93	(30 - 148)			SW846 8081A
	91	(30 - 148)	1.5	(0-22)	SW846 8081A
Heptachlor	88	(30 - 150)			SW846 8081A
	86	(30 - 150)	2.4	(0-32)	SW846 8081A
Aldrin	90	(30 - 150)			SW846 8081A
	91	(30 - 150)	1.4	(0-33)	SW846 8081A
Dieldrin	89	(35 - 141)			SW846 8081A
	90	(35 - 141)	2.0	(0-37)	SW846 8081A
Endrin	89	(30 - 150)			SW846 8081A
	96	(30 - 150)	7.1	(0-40)	SW846 8081A
4,4'-DDT	71	(30 - 150)			SW846 8081A
	96	(30 - 150)	31	(0-50)	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	95	(39 - 130)
	94	(39 - 130)
Decachlorobiphenyl	48	(10 - 147)
	86	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL41C1AJ-MS **Matrix.....:** WG
MS Lot-Sample #: A5J060101-017 HL41C1AK-MSD
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
gamma-BHC (Lindane)	**ND**	**2.0**	**1.9**	**ug/L**	**93**		**SW846 8081A**
	ND	**2.0**	**1.8**	**ug/L**	**91**	**1.5**	**SW846 8081A**
Heptachlor	**ND**	**2.0**	**1.8**	**ug/L**	**88**		**SW846 8081A**
	ND	**2.0**	**1.7**	**ug/L**	**86**	**2.4**	**SW846 8081A**
Aldrin	**ND**	**2.0**	**1.8**	**ug/L**	**90**		**SW846 8081A**
	ND	**2.0**	**1.8**	**ug/L**	**91**	**1.4**	**SW846 8081A**
Dieldrin	**ND**	**2.0**	**1.8**	**ug/L**	**89**		**SW846 8081A**
	ND	**2.0**	**1.8**	**ug/L**	**90**	**2.0**	**SW846 8081A**
Endrin	**ND**	**2.0**	**1.8**	**ug/L**	**89**		**SW846 8081A**
	ND	**2.0**	**1.9**	**ug/L**	**96**	**7.1**	**SW846 8081A**
4,4'-DDT	**ND**	**2.0**	**1.4**	**ug/L**	**71**		**SW846 8081A**
	ND	**2.0**	**1.9**	**ug/L**	**96**	**31**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	95	(39 - 130)
	94	(39 - 130)
Decachlorobiphenyl	48	(10 - 147)
	86	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SEVERN TRENT STL

POLYCHLORINATED BIPHENYLS DATA

SpecPro Inc

Client Sample ID: FWGLL3MW-238C-0114-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-001 **Work Order #...:** HL40E1AE **Matrix.....:** WG
Date Sampled...: 10/05/05 15:05 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1020 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	79	(35 - 130)
Decachlorobiphenyl	25	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL4MW-198C-0116-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-003 **Work Order #...:** HL40G1AE **Matrix.....:** WG
Date Sampled...: 10/05/05 13:21 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	77	(35 - 130)
Decachlorobiphenyl	30	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL4MW-199C-0117-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-005 **Work Order #...:** HL40J1AE **Matrix.....:** WG
Date Sampled...: 10/05/05 11:09 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	129	(35 - 130)
Decachlorobiphenyl	21	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL1MW-078C-0108-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-007 **Work Order #...:** HL40N1AE **Matrix.....:** WG
Date Sampled...: 10/05/05 09:17 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	78	(35 - 130)
Decachlorobiphenyl	41	(10 - 110)

SpecPro Inc

Client Sample ID: FWGBKGMW-013C-0100-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-009 **Work Order #...:** HL40W1AE **Matrix.....:** WG
Date Sampled...: 10/05/05 15:12 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	84	(35 - 130)
Decachlorobiphenyl	40	(10 - 110)

SpecPro Inc

Client Sample ID: FWGBKGMW-015C-0101-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-011	**Work Order #...:** HL4001AE	**Matrix.....:** WG	
Date Sampled...: 10/05/05 09:15	**Date Received..:** 10/05/05		
Prep Date.....: 10/07/05	**Analysis Date..:** 10/20/05		
Prep Batch #...: 5280014			
Dilution Factor: 1	**Initial Wgt/Vol:** 1000 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	74	(35 - 130)
Decachlorobiphenyl	72	(10 - 110)

SpecPro Inc

Client Sample ID: FWGBKGMW-010C-0098-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-013 **Work Order #...:** HL4021AE **Matrix.....:** WG
Date Sampled...: 10/05/05 13:25 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1020 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	76	(35 - 130)
Decachlorobiphenyl	72	(10 - 110)

SpecPro Inc

Client Sample ID: FWGBKGMW-021C-0107-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-015	**Work Order #...:** HL4051AE	**Matrix.....:** WG	
Date Sampled...: 10/05/05 10:27	**Date Received..:** 10/05/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/20/05		
Prep Batch #...: 5283023			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	99	(35 - 130)
Decachlorobiphenyl	72	(10 - 110)

SpecPro Inc

Client Sample ID: FWGBKGMW-004C-0094-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-017 **Work Order #...:** HL41C1AL **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5283023
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	88	(35 - 130)
Decachlorobiphenyl	72	(10 - 110)

SpecPro Inc

Client Sample ID: FWGBKGMW-008C-0097-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-019	**Work Order #...:** HL41K1AE	**Matrix.....:** WG	
Date Sampled...: 10/05/05 12:25	**Date Received..:** 10/05/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/20/05		
Prep Batch #...: 5283023			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	97	(35 - 130)
Decachlorobiphenyl	81	(10 - 110)

SpecPro Inc

Client Sample ID: FWGBKGMW-005C-0095-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-021	**Work Order #...:** HL41M1AE	**Matrix.....:** WG	
Date Sampled...: 10/05/05 14:00	**Date Received..:** 10/05/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/21/05		
Prep Batch #...: 5283023			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	89	(35 - 130)
Decachlorobiphenyl	45	(10 - 110)

SpecPro Inc

Client Sample ID: FWGBKGMW-018C-0104-GW

GC Semivolatiles

Lot-Sample #...: A5J060101-023	**Work Order #...:** HL41Q1AE	**Matrix.....:** WG	
Date Sampled...: 10/05/05 15:15	**Date Received..:** 10/05/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/21/05		
Prep Batch #...: 5283023			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	97	(35 - 130)
Decachlorobiphenyl	76	(10 - 110)

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL7V41AA **Matrix.....:** WATER
MB Lot-Sample #: A5J070000-014

Prep Date.....: 10/07/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/20/05 **Prep Batch #...:** 5280014
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	1.0	ug/L	SW846 8082
Aroclor 1221	ND	1.0	ug/L	SW846 8082
Aroclor 1232	ND	1.0	ug/L	SW846 8082
Aroclor 1242	ND	1.0	ug/L	SW846 8082
Aroclor 1248	ND	1.0	ug/L	SW846 8082
Aroclor 1254	ND	1.0	ug/L	SW846 8082
Aroclor 1260	ND	1.0	ug/L	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(35 - 130)
Decachlorobiphenyl	70	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HMDD71AA **Matrix.....:** WATER
MB Lot-Sample #: A5J100000-023

Prep Date.....: 10/10/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/21/05 **Prep Batch #...:** 5283023
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	1.0	ug/L	SW846 8082
Aroclor 1221	ND	1.0	ug/L	SW846 8082
Aroclor 1232	ND	1.0	ug/L	SW846 8082
Aroclor 1242	ND	1.0	ug/L	SW846 8082
Aroclor 1248	ND	1.0	ug/L	SW846 8082
Aroclor 1254	ND	1.0	ug/L	SW846 8082
Aroclor 1260	ND	1.0	ug/L	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	93	(35 - 130)
Decachlorobiphenyl	84	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL7V41AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J070000-014
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Aroclor 1016	**96**	**(50 - 115)**	**SW846 8082**
Aroclor 1260	**89**	**(45 - 112)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(35 - 130)
Decachlorobiphenyl	37	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL7V41AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J070000-014
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Aroclor 1016	**10**	**9.6**	**ug/L**	**96**	**SW846 8082**
Aroclor 1260	**10**	**8.9**	**ug/L**	**89**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(35 - 130)
Decachlorobiphenyl	37	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HMDD71AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J100000-023
Prep Date.....: 10/10/05 **Analysis Date..:** 10/21/05
Prep Batch #...: 5283023
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Aroclor 1016	**94**	**(50 - 115)**	**SW846 8082**
Aroclor 1260	**82**	**(45 - 112)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	95	(35 - 130)
Decachlorobiphenyl	33	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HMDD71AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J100000-023
Prep Date.....: 10/10/05 **Analysis Date..:** 10/21/05
Prep Batch #...: 5283023
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Aroclor 1016	**10**	**9.4**	**ug/L**	**94**	**SW846 8082**
Aroclor 1260	**10**	**8.2**	**ug/L**	**82**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	95	(35 - 130)
Decachlorobiphenyl	33	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...:	A5J060101	**Work Order #...:**	HL2C11AM-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	A5J050103-019		HL2C11AN-MSD		
Date Sampled...:	10/04/05 09:20	**Date Received..:**	10/05/05		
Prep Date.....:	10/07/05	**Analysis Date..:**	10/20/05		
Prep Batch #...:	5280014				
Dilution Factor:	2	**Initial Wgt/Vol:**	525 mL	**Final Wgt/Vol..:**	5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aroclor 1016	**94**	**(10 - 200)**			**SW846 8082**
	95	**(10 - 200)**	**1.8**	**(0-30)**	**SW846 8082**
Aroclor 1260	**94**	**(10 - 150)**			**SW846 8082**
	97	**(10 - 150)**	**3.5**	**(0-30)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(35 - 130)
	90	(35 - 130)
Decachlorobiphenyl	65	(10 - 110)
	75	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL2C11AM-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J050103-019 HL2C11AN-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/07/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5280014
Dilution Factor: 2 **Initial Wgt/Vol:** 525 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Aroclor 1016	**ND**	**19**	**18**	**ug/L**	**94**		**SW846 8082**
	ND	**19**	**18**	**ug/L**	**95**	**1.8**	**SW846 8082**
Aroclor 1260	**ND**	**19**	**18**	**ug/L**	**94**		**SW846 8082**
	ND	**19**	**18**	**ug/L**	**97**	**3.5**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(35 - 130)
	90	(35 - 130)
Decachlorobiphenyl	65	(10 - 110)
	75	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL72R1AM-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J070109-007 HL72R1AN-MSD
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/25/05
Prep Batch #...: 5283023
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aroclor 1016	**97**	**(10 - 200)**			**SW846 8082**
	105	**(10 - 200)**	**7.9**	**(0-30)**	**SW846 8082**
Aroclor 1260	**76**	**(10 - 150)**			**SW846 8082**
	103	**(10 - 150)**	**30**	**(0-30)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	97	(35 - 130)
	108	(35 - 130)
Decachlorobiphenyl	52	(10 - 110)
	88	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL72R1AM-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J070109-007 HL72R1AN-MSD
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/25/05
Prep Batch #...: 5283023
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Aroclor 1016	**ND**	**20**	**19**	**ug/L**	**97**		**SW846 8082**
	ND	**20**	**21**	**ug/L**	**105**	**7.9**	**SW846 8082**
Aroclor 1260	**ND**	**20**	**15**	**ug/L**	**76**		**SW846 8082**
	ND	**20**	**21**	**ug/L**	**103**	**30**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	97	(35 - 130)
	108	(35 - 130)
Decachlorobiphenyl	52	(10 - 110)
	88	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL41C1AM-MS **Matrix.....:** WG
MS Lot-Sample #: A5J060101-017 HL41C1AN-MSD
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5283023
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aroclor 1016	**101**	**(10 - 200)**			**SW846 8082**
	90	**(10 - 200)**	**12**	**(0-30)**	**SW846 8082**
Aroclor 1260	**71**	**(10 - 150)**			**SW846 8082**
	93	**(10 - 150)**	**26**	**(0-30)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	102	(35 - 130)
	85	(35 - 130)
Decachlorobiphenyl	38	(10 - 110)
	70	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J060101 **Work Order #...:** HL41C1AM-MS **Matrix.....:** WG
MS Lot-Sample #: A5J060101-017 HL41C1AN-MSD
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/20/05
Prep Batch #...: 5283023
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Aroclor 1016	**ND**	**20**	**20**	**ug/L**	**101**		**SW846 8082**
	ND	**20**	**18**	**ug/L**	**90**	**12**	**SW846 8082**
Aroclor 1260	**ND**	**20**	**14**	**ug/L**	**71**		**SW846 8082**
	ND	**20**	**19**	**ug/L**	**93**	**26**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	102	(35 - 130)
	85	(35 - 130)
Decachlorobiphenyl	38	(10 - 110)
	70	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SEVERN TRENT STL

METALS DATA

SpecPro Inc

Client Sample ID: FWGLL3MW-238C-0114-GF

TOTAL Metals

Lot-Sample #...: A5J060101-002 **Matrix.....:** WG
Date Sampled...: 10/05/05 15:05 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285024						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL40F1AE
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40F1AA
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40F1AC
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL40F1AF
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**6.7 B**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40F1AG**
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40F1AD
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40F1AH
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40F1AJ
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**37800**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40F1AK**
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40F1AL
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL3MW-238C-0114-GF

TOTAL Metals

Lot-Sample #...: A5J060101-002 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40F1AM
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40F1AN
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	ND	1000	ug/L	SW846 6010B	10/12/05	HL40F1AP
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**4080**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40F1AQ**
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**1.3 B**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40F1AR**
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40F1AT
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**2350 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40F1AU**
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40F1AV
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**2190**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40F1AW**
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40F1AX
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL3MW-238C-0114-GF

TOTAL Metals

Lot-Sample #...: A5J060101-002 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL40F1A0
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL40F1A2
		Dilution Factor: 1		Analysis Time..: 18:45	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL40F1A1
		Dilution Factor: 1		Analysis Time..: 16:17	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL4MW-198C-0116-GF

TOTAL Metals

Lot-Sample #...: A5J060101-004 **Matrix.....:** WG
Date Sampled...: 10/05/05 13:21 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285024						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL40H1AH
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40H1AE
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40H1AF
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL40H1AJ
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**12.3**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40H1AK**
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40H1AG
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40H1AL
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40H1AM
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**24800**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40H1AN**
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40H1AP
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL4MW-198C-0116-GF

TOTAL Metals

Lot-Sample #...: A5J060101-004 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40H1AQ
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40H1AR
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**4100**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40H1AT**
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**11500**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40H1AU**
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**1070**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40H1AV**
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**19.0 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40H1AW**
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**1330 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40H1AX**
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40H1A0
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**10900**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40H1A1**
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40H1A2
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL4MW-198C-0116-GF

TOTAL Metals

Lot-Sample #...: A5J060101-004 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	**56.7 B**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40H1AA**
		Dilution Factor: 1		Analysis Time..: 19:34	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL40H1AD
		Dilution Factor: 1		Analysis Time..: 18:46	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL40H1AC
		Dilution Factor: 1		Analysis Time..: 17:07	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL4MW-199C-0117-GF

TOTAL Metals

Lot-Sample #...: A5J060101-006 **Matrix.....:** WG
Date Sampled...: 10/05/05 11:09 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285024						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL40M1AH
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	**12.7**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40M1AE**
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40M1AF
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL40M1AJ
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**95.7**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40M1AK**
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40M1AG
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40M1AL
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40M1AM
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**77800**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40M1AN**
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40M1AP
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL4MW-199C-0117-GF

TOTAL Metals

Lot-Sample #...: A5J060101-006 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40M1AQ
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40M1AR
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**1190**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40M1AT**
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**21000**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40M1AU**
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**457**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40M1AV**
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40M1AW
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**1440 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40M1AX**
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40M1A0
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**9340**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40M1A1**
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40M1A2
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL4MW-199C-0117-GF

TOTAL Metals

Lot-Sample #...: A5J060101-006 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL40M1AA
		Dilution Factor: 1		Analysis Time..: 19:39	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL40M1AD
		Dilution Factor: 1		Analysis Time..: 18:47	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL40M1AC
		Dilution Factor: 1		Analysis Time..: 17:10	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL1MW-078C-0108-GF

TOTAL Metals

Lot-Sample #...: A5J060101-008 **Matrix.....:** WG
Date Sampled...: 10/05/05 09:17 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285024						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL40V1AH
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40V1AE
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40V1AF
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL40V1AJ
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**8.0 B**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40V1AK**
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40V1AG
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40V1AL
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40V1AM
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**57100**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40V1AN**
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40V1AP
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL1MW-078C-0108-GF

TOTAL Metals

Lot-Sample #...: A5J060101-008 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40V1AQ
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40V1AR
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	ND	1000	ug/L	SW846 6010B	10/12/05	HL40V1AT
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**8190**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40V1AU**
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**1.9 B**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40V1AV**
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40V1AW
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**2540 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40V1AX**
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40V1A0
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**5260**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40V1A1**
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40V1A2
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL1MW-078C-0108-GF

TOTAL Metals

Lot-Sample #...: A5J060101-008 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL40V1AA
		Dilution Factor: 1		Analysis Time..: 19:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL40V1AD
		Dilution Factor: 1		Analysis Time..: 18:49	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	**0.053 B**	**1.0**	**ug/L**	**SW846 6020**	**10/12-10/17/05**	**HL40V1AC**
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGBKGMW-013C-0100-GF

TOTAL Metals

Lot-Sample #...: A5J060101-010 **Matrix.....:** WG
Date Sampled...: 10/05/05 15:12 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285024						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL40X1AH
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	**11.7**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40X1AE**
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40X1AF
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL40X1AJ
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**78.7**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40X1AK**
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40X1AG
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40X1AL
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL40X1AM
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**74500**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40X1AN**
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40X1AP
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-013C-0100-GF

TOTAL Metals

Lot-Sample #...: A5J060101-010 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40X1AQ
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40X1AR
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**998 B**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40X1AT**
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**25100**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40X1AU**
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**394**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40X1AV**
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40X1AW
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**2030 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40X1AX**
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40X1A0
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**11800**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL40X1A1**
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL40X1A2
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-013C-0100-GF

TOTAL Metals

Lot-Sample #...: A5J060101-010 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL40X1AA
		Dilution Factor: 1		Analysis Time..: 19:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL40X1AD
		Dilution Factor: 1		Analysis Time..: 18:50	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL40X1AC
		Dilution Factor: 1		Analysis Time..: 17:18	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGBKGMW-015C-0101-GF

TOTAL Metals

Lot-Sample #...: A5J060101-012 **Matrix.....:** WG
Date Sampled...: 10/05/05 09:15 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285024						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL4011AH
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL4011AE
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL4011AF
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL4011AJ
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**262**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4011AK**
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL4011AG
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL4011AL
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL4011AM
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**30200**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4011AN**
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL4011AP
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-015C-0101-GF

TOTAL Metals

Lot-Sample #...: A5J060101-012 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL4011AQ
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL4011AR
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	ND	1000	ug/L	SW846 6010B	10/12/05	HL4011AT
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**12900**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4011AU**
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**9.4 B**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4011AV**
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**3.4 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4011AW**
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**5340**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4011AX**
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL4011A0
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**12400**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4011A1**
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL4011A2
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-015C-0101-GF

TOTAL Metals

Lot-Sample #...: A5J060101-012 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL4011AA
		Dilution Factor: 1		Analysis Time..: 19:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL4011AD
		Dilution Factor: 1		Analysis Time..: 18:39	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL4011AC
		Dilution Factor: 1		Analysis Time..: 17:21	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGBKGMW-010C-0098-GF

TOTAL Metals

Lot-Sample #...: A5J060101-014 **Matrix.....:** WG
Date Sampled...: 10/05/05 13:25 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285024						
Aluminum	**82.2 B**	**200**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4041AH**
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL4041AE
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL4041AF
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	**4.6 B**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4041AJ**
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**14.3**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4041AK**
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL4041AG
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL4041AL
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL4041AM
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**11400**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4041AN**
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL4041AP
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-010C-0098-GF

TOTAL Metals

Lot-Sample #...: A5J060101-014 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL4041AQ
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL4041AR
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**36.6 B**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4041AT**
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**13800**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4041AU**
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**40.4 B**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4041AV**
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**10.7 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4041AW**
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**754 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4041AX**
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL4041A0
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**3720**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4041A1**
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL4041A2
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-010C-0098-GF

TOTAL Metals

Lot-Sample #...: A5J060101-014 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL4041AA
		Dilution Factor: 1		Analysis Time..: 19:59	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL4041AD
		Dilution Factor: 1		Analysis Time..: 18:43	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL4041AC
		Dilution Factor: 1		Analysis Time..: 17:25	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGBKGMW-021C-0107-GF

TOTAL Metals

Lot-Sample #...: A5J060101-016 **Matrix.....:** WG
Date Sampled...: 10/05/05 10:27 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285024						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL4081AH
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL4081AE
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL4081AF
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL4081AJ
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**38.9**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4081AK**
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL4081AG
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL4081AL
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL4081AM
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**77400**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4081AN**
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL4081AP
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-021C-0107-GF

TOTAL Metals

Lot-Sample #...: A5J060101-016 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL4081AQ
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL4081AR
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	ND	1000	ug/L	SW846 6010B	10/12/05	HL4081AT
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**49400**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4081AU**
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	ND	100	ug/L	SW846 6010B	10/12/05	HL4081AV
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HL4081AW
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**1070 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4081AX**
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL4081A0
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**10200**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL4081A1**
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL4081A2
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-021C-0107-GF

TOTAL Metals

Lot-Sample #...: A5J060101-016 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL4081AA
		Dilution Factor: 1		Analysis Time..: 20:04	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL4081AD
		Dilution Factor: 1		Analysis Time..: 18:40	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL4081AC
		Dilution Factor: 1		Analysis Time..: 17:29	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGBKGMW-004C-0094-GF

TOTAL Metals

Lot-Sample #...: A5J060101-018 **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285024						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL41H1AW
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41H1AL
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41H1AP
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL41H1A1
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**22.3**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41H1A4**
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41H1AT
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41H1A7
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41H1CA
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**21500**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41H1CE**
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41H1CH
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-004C-0094-GF

TOTAL Metals

Lot-Sample #...: A5J060101-018 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41H1CL
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41H1CP
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	ND	1000	ug/L	SW846 6010B	10/12/05	HL41H1CT
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**7240**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41H1CW**
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**0.40 B**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41H1C1**
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41H1C4
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**710 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41H1C7**
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41H1DA
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**13200**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41H1DE**
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41H1DH
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-004C-0094-GF

TOTAL Metals

Lot-Sample #...: A5J060101-018 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL41H1AA
		Dilution Factor: 1		Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL41H1AH
		Dilution Factor: 1		Analysis Time..: 18:51	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL41H1AE
		Dilution Factor: 1		Analysis Time..: 17:33	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGBKGMW-008C-0097-GF

TOTAL Metals

Lot-Sample #...: A5J060101-020 **Matrix.....:** WG
Date Sampled...: 10/05/05 12:25 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285024						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL41L1AH
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41L1AE
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41L1AF
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL41L1AJ
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**4.7 B**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41L1AK**
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41L1AG
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41L1AL
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41L1AM
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**24200**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41L1AN**
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41L1AP
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-008C-0097-GF

TOTAL Metals

Lot-Sample #...: A5J060101-020 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41L1AQ
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41L1AR
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	ND	1000	ug/L	SW846 6010B	10/12/05	HL41L1AT
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**9560**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41L1AU**
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**21.8 B**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41L1AV**
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41L1AW
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**508 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41L1AX**
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41L1A0
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**8540**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41L1A1**
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41L1A2
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-008C-0097-GF

TOTAL Metals

Lot-Sample #...: A5J060101-020 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL41L1AA
		Dilution Factor: 1		Analysis Time..: 20:44	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL41L1AD
		Dilution Factor: 1		Analysis Time..: 18:59	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	**0.029 B**	**1.0**	**ug/L**	**SW846 6020**	**10/12-10/17/05**	**HL41L1AC**
		Dilution Factor: 1		Analysis Time..: 18:04	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGBKGMW-005C-0095-GF

TOTAL Metals

Lot-Sample #...: A5J060101-022 **Matrix.....:** WG
Date Sampled...: 10/05/05 14:00 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285024						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL41P1AH
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41P1AE
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41P1AF
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL41P1AJ
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**14.1**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41P1AK**
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41P1AG
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41P1AL
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41P1AM
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**87400**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41P1AN**
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41P1AP
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-005C-0095-GF

TOTAL Metals

Lot-Sample #...: A5J060101-022 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41P1AQ
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41P1AR
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	ND	1000	ug/L	SW846 6010B	10/12/05	HL41P1AT
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**18900**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41P1AU**
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**0.45 B**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41P1AV**
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41P1AW
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**1170 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41P1AX**
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41P1A0
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**7880**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41P1A1**
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41P1A2
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-005C-0095-GF

TOTAL Metals

Lot-Sample #...: A5J060101-022 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL41P1AA
		Dilution Factor: 1		Analysis Time..: 20:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL41P1AD
		Dilution Factor: 1		Analysis Time..: 19:00	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL41P1AC
		Dilution Factor: 1		Analysis Time..: 18:08	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGBKGMW-018C-0104-GF

TOTAL Metals

Lot-Sample #...: A5J060101-024 **Matrix.....:** WG
Date Sampled...: 10/05/05 15:15 **Date Received..:** 10/05/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285024						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL41T1AH
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41T1AE
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41T1AF
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL41T1AJ
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**20.9**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41T1AK**
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41T1AG
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41T1AL
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL41T1AM
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**54000**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41T1AN**
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41T1AP
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-018C-0104-GF

TOTAL Metals

Lot-Sample #...: A5J060101-024 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41T1AQ
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41T1AR
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**106 B**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41T1AT**
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**5730**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41T1AU**
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**229**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41T1AV**
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41T1AW
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**1190 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41T1AX**
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41T1A0
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**1930**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL41T1A1**
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL41T1A2
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-018C-0104-GF

TOTAL Metals

Lot-Sample #...: A5J060101-024 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL41T1AA
		Dilution Factor: 1		Analysis Time..: 20:54	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL41T1AD
		Dilution Factor: 1		Analysis Time..: 19:01	Analyst ID.....: 001644	
		Instrument ID..: H1				
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HL41T1AC
		Dilution Factor: 1		Analysis Time..: 18:12	Analyst ID.....: 001644	
		Instrument ID..: I7				

NOTE(S):

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A5J060101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A5J120000-024 **Prep Batch #...:** 5285024						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HMHFR1AH
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFR1AE
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HMHFR1AJ
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFR1AF
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Barium	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFR1AK
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFR1AG
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFR1AL
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFR1AM
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Calcium	ND	1000	ug/L	SW846 6010B	10/12/05	HMHFR1AN
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Chromium	ND	20.0	ug/L	SW846 6010B	10/12/05	HMHFR1AP
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HMHFR1AQ
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A5J060101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HMHFR1AR
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Iron	ND	1000	ug/L	SW846 6010B	10/12/05	HMHFR1AT
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Magnesium	ND	1000	ug/L	SW846 6010B	10/12/05	HMHFR1AU
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Manganese	ND	100	ug/L	SW846 6010B	10/12/05	HMHFR1AV
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HMHFR1AW
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Potassium	ND	5000	ug/L	SW846 6010B	10/12/05	HMHFR1AX
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HMHFR1A0
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Sodium	ND	1000	ug/L	SW846 6010B	10/12/05	HMHFR1A1
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HMHFR1A2
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HMHFR1AA
		Dilution Factor: 1				
		Analysis Time..: 19:18		Analyst ID.....: 001619	Instrument ID..: I6	
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HMHFR1AD
		Dilution Factor: 1				
		Analysis Time..: 18:36		Analyst ID.....: 001644	Instrument ID..: H1	
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/17/05	HMHFR1AC
		Dilution Factor: 1				
		Analysis Time..: 16:57		Analyst ID.....: 001644	Instrument ID..: I7	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A5J060101 **Matrix.....:** WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J060101 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A5J120000-024 **Prep Batch #...:** 5285024					
Arsenic	103	(80 - 120)	SW846 6010B	10/12/05	HMHFR1A6
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Aluminum	107	(80 - 120)	SW846 6010B	10/12/05	HMHFR1A9
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Lead	100	(80 - 120)	SW846 6010B	10/12/05	HMHFR1A7
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Antimony	97	(80 - 120)	SW846 6010B	10/12/05	HMHFR1CA
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Selenium	103	(80 - 120)	SW846 6010B	10/12/05	HMHFR1A8
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Barium	101	(80 - 120)	SW846 6010B	10/12/05	HMHFR1CC
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Beryllium	103	(80 - 120)	SW846 6010B	10/12/05	HMHFR1CD
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Cadmium	103	(80 - 120)	SW846 6010B	10/12/05	HMHFR1CE
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Calcium	101	(80 - 120)	SW846 6010B	10/12/05	HMHFR1CF
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Chromium	112	(80 - 120)	SW846 6010B	10/12/05	HMHFR1CG
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J060101 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	103	(80 - 120)	SW846 6010B	10/12/05	HMHFR1CH
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Copper	107	(80 - 120)	SW846 6010B	10/12/05	HMHFR1CJ
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Iron	110	(77 - 127)	SW846 6010B	10/12/05	HMHFR1CK
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Magnesium	103	(80 - 120)	SW846 6010B	10/12/05	HMHFR1CL
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Manganese	103	(80 - 120)	SW846 6010B	10/12/05	HMHFR1CM
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Nickel	105	(80 - 120)	SW846 6010B	10/12/05	HMHFR1CN
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Potassium	104	(80 - 120)	SW846 6010B	10/12/05	HMHFR1CP
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Silver	121 N	(80 - 120)	SW846 6010B	10/12/05	HMHFR1CQ
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Sodium	101	(80 - 120)	SW846 6010B	10/12/05	HMHFR1CR
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Vanadium	104	(80 - 120)	SW846 6010B	10/12/05	HMHFR1CT
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			
Zinc	105	(80 - 120)	SW846 6010B	10/12/05	HMHFR1A3
		Dilution Factor: 1	Analysis Time..: 19:23		Analyst ID.....: 001619
		Instrument ID..: I6			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J060101 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	97	(69 - 114)	SW846 6020	10/12-10/17/05	HMHFR1A4
		Dilution Factor: 1	Analysis Time..: 17:00	Analyst ID.....: 001644	
		Instrument ID..: I7			
Mercury	102	(82 - 131)	SW846 7470A	10/12/05	HMHFR1A5
		Dilution Factor: 1	Analysis Time..: 18:37	Analyst ID.....: 001644	
		Instrument ID..: H1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J060101 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A5J120000-024 **Prep Batch #...:** 5285024							
Arsenic	2000	2050	ug/L	103	SW846 6010B	10/12/05	HMHFR1A6
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Aluminum	2000	2140	ug/L	107	SW846 6010B	10/12/05	HMHFR1A9
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Lead	500	500	ug/L	100	SW846 6010B	10/12/05	HMHFR1A7
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Antimony	500	485	ug/L	97	SW846 6010B	10/12/05	HMHFR1CA
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Selenium	2000	2060	ug/L	103	SW846 6010B	10/12/05	HMHFR1A8
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Barium	2000	2010	ug/L	101	SW846 6010B	10/12/05	HMHFR1CC
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Beryllium	50.0	51.7	ug/L	103	SW846 6010B	10/12/05	HMHFR1CD
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Cadmium	50.0	51.7	ug/L	103	SW846 6010B	10/12/05	HMHFR1CE
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Calcium	50000	50700	ug/L	101	SW846 6010B	10/12/05	HMHFR1CF
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Chromium	200	225	ug/L	112	SW846 6010B	10/12/05	HMHFR1CG
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J060101 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	500	517	ug/L	103	SW846 6010B	10/12/05	HMHFR1CH
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Copper	250	268	ug/L	107	SW846 6010B	10/12/05	HMHFR1CJ
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Iron	1000	1100	ug/L	110	SW846 6010B	10/12/05	HMHFR1CK
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Magnesium	50000	51400	ug/L	103	SW846 6010B	10/12/05	HMHFR1CL
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Manganese	500	513	ug/L	103	SW846 6010B	10/12/05	HMHFR1CM
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Nickel	500	523	ug/L	105	SW846 6010B	10/12/05	HMHFR1CN
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Potassium	50000	52200	ug/L	104	SW846 6010B	10/12/05	HMHFR1CP
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Silver	50.0	60.7 N	ug/L	121	SW846 6010B	10/12/05	HMHFR1CQ
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Sodium	50000	50700	ug/L	101	SW846 6010B	10/12/05	HMHFR1CR
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Vanadium	500	522	ug/L	104	SW846 6010B	10/12/05	HMHFR1CT
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				
Zinc	500	525	ug/L	105	SW846 6010B	10/12/05	HMHFR1A3
			Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001619	
			Instrument ID..: I6				

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J060101 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	100	97.4	ug/L	97	SW846 6020	10/12-10/17/05	HMHFR1A4
			Dilution Factor: 1		Analysis Time..: 17:00	Analyst ID.....: 001644	
			Instrument ID..: I7				
Mercury	5.0	5.1	ug/L	102	SW846 7470A	10/12/05	HMHFR1A5
			Dilution Factor: 1		Analysis Time..: 18:37	Analyst ID.....: 001644	
			Instrument ID..: H1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J060101 **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A5J060101-018 **Prep Batch #...:** 5285024					
Aluminum	105	(75 - 125)	SW846 6010B	10/12/05	HL41H1AX
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Arsenic	101	(75 - 125)	SW846 6010B	10/12/05	HL41H1AM
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Antimony	95	(75 - 125)	SW846 6010B	10/12/05	HL41H1A2
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Lead	97	(75 - 125)	SW846 6010B	10/12/05	HL41H1AQ
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Barium	99	(75 - 125)	SW846 6010B	10/12/05	HL41H1A5
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Selenium	101	(75 - 125)	SW846 6010B	10/12/05	HL41H1AU
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Beryllium	102	(75 - 125)	SW846 6010B	10/12/05	HL41H1A8
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Cadmium	101	(75 - 125)	SW846 6010B	10/12/05	HL41H1CC
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Calcium	103	(75 - 125)	SW846 6010B	10/12/05	HL41H1CF
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Chromium	110	(75 - 125)	SW846 6010B	10/12/05	HL41H1CJ
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J060101 **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	101	(75 - 125)	SW846 6010B	10/12/05	HL41H1CM
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Copper	105	(75 - 125)	SW846 6010B	10/12/05	HL41H1CQ
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Iron	108	(75 - 125)	SW846 6010B	10/12/05	HL41H1CU
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Magnesium	102	(75 - 125)	SW846 6010B	10/12/05	HL41H1CX
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Manganese	101	(75 - 125)	SW846 6010B	10/12/05	HL41H1C2
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Nickel	102	(75 - 125)	SW846 6010B	10/12/05	HL41H1C5
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Potassium	104	(75 - 125)	SW846 6010B	10/12/05	HL41H1C8
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Silver	120	(75 - 125)	SW846 6010B	10/12/05	HL41H1DC
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Sodium	102	(75 - 125)	SW846 6010B	10/12/05	HL41H1DF
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Vanadium	102	(75 - 125)	SW846 6010B	10/12/05	HL41H1DJ
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			
Zinc	103	(75 - 125)	SW846 6010B	10/12/05	HL41H1AC
		Dilution Factor: 1	Analysis Time..: 20:23		Instrument ID..: I6
		Analyst ID.....: 001619			

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J060101 **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Mercury	105	(68 - 149)	SW846 7470A	10/12/05	HL41H1AJ
		Dilution Factor: 1	Analysis Time..: 18:51		Instrument ID..: H1
		Analyst ID.....: 001644			
Thallium	94	(70 - 130)	SW846 6020	10/12-10/17/05	HL41H1AF
		Dilution Factor: 1	Analysis Time..: 17:33		Instrument ID..: I7
		Analyst ID.....: 001644			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J060101 **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A5J060101-018 **Prep Batch #...:** 5285024								
Aluminum	ND	2000	2110	ug/L	105	SW846 6010B	10/12/05	HL41H1AX
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Arsenic	ND	2000	2020	ug/L	101	SW846 6010B	10/12/05	HL41H1AM
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Antimony	ND	500	476	ug/L	95	SW846 6010B	10/12/05	HL41H1A2
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Lead	ND	500	487	ug/L	97	SW846 6010B	10/12/05	HL41H1AQ
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Barium	22.3	2000	2010	ug/L	99	SW846 6010B	10/12/05	HL41H1A5
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Selenium	ND	2000	2020	ug/L	101	SW846 6010B	10/12/05	HL41H1AU
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Beryllium	ND	50.0	50.8	ug/L	102	SW846 6010B	10/12/05	HL41H1A8
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Cadmium	ND	50.0	50.5	ug/L	101	SW846 6010B	10/12/05	HL41H1CC
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Calcium	21500	50000	72800	ug/L	103	SW846 6010B	10/12/05	HL41H1CF
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Chromium	ND	200	221	ug/L	110	SW846 6010B	10/12/05	HL41H1CJ
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J060101 **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Cobalt	ND	500	506	ug/L	101	SW846 6010B	10/12/05	HL41H1CM
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Copper	ND	250	263	ug/L	105	SW846 6010B	10/12/05	HL41H1CQ
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Iron	ND	1000	1080	ug/L	108	SW846 6010B	10/12/05	HL41H1CU
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Magnesium	7240	50000	58200	ug/L	102	SW846 6010B	10/12/05	HL41H1CX
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Manganese	0.40	500	504	ug/L	101	SW846 6010B	10/12/05	HL41H1C2
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Nickel	ND	500	512	ug/L	102	SW846 6010B	10/12/05	HL41H1C5
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Potassium	710	50000	52700	ug/L	104	SW846 6010B	10/12/05	HL41H1C8
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Silver	ND	50.0	60.1	ug/L	120	SW846 6010B	10/12/05	HL41H1DC
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Sodium	13200	50000	64300	ug/L	102	SW846 6010B	10/12/05	HL41H1DF
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Vanadium	ND	500	511	ug/L	102	SW846 6010B	10/12/05	HL41H1DJ
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					
Zinc	ND	500	516	ug/L	103	SW846 6010B	10/12/05	HL41H1AC
			Dilution Factor: 1		Analysis Time..: 20:23		Instrument ID..: I6	
			Analyst ID.....: 001619					

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J060101 **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Mercury	ND	1.0	1.0	ug/L	105	SW846 7470A	10/12/05	HL41H1AJ
			Dilution Factor: 1		Analysis Time..: 18:51		Instrument ID..: H1	
			Analyst ID.....: 001644					
Thallium	ND	100	94.4	ug/L	94	SW846 6020	10/12-10/17/05	HL41H1AF
			Dilution Factor: 1		Analysis Time..: 17:33		Instrument ID..: I7	
			Analyst ID.....: 001644					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SAMPLE DUPLICATE EVALUATION REPORT

Metals

Client Lot #...: A5J060101 **Work Order #...:** HL41H-SMP HL41H-DUP **Matrix.....:** WG

Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Aluminum						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285024
			Dilution Factor: 1			Analysis Time..: 20:23	Analyst ID.....: 001619	
			Instrument ID..: I6					
Arsenic						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285024
			Dilution Factor: 1			Analysis Time..: 20:23	Analyst ID.....: 001619	
			Instrument ID..: I6					
Lead						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285024
			Dilution Factor: 1			Analysis Time..: 20:23	Analyst ID.....: 001619	
			Instrument ID..: I6					
Antimony						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285024
			Dilution Factor: 1			Analysis Time..: 20:23	Analyst ID.....: 001619	
			Instrument ID..: I6					
Barium						SD Lot-Sample #: A5J060101-018		
	22.3	23.4	ug/L	4.7	(0-20)	SW846 6010B	10/12/05	5285024
			Dilution Factor: 1			Analysis Time..: 20:23	Analyst ID.....: 001619	
			Instrument ID..: I6					
Selenium						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285024
			Dilution Factor: 1			Analysis Time..: 20:23	Analyst ID.....: 001619	
			Instrument ID..: I6					
Beryllium						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285024
			Dilution Factor: 1			Analysis Time..: 20:23	Analyst ID.....: 001619	
			Instrument ID..: I6					
Cadmium						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285024
			Dilution Factor: 1			Analysis Time..: 20:23	Analyst ID.....: 001619	
			Instrument ID..: I6					
Calcium						SD Lot-Sample #: A5J060101-018		
	21500	22500	ug/L	4.7	(0-20)	SW846 6010B	10/12/05	5285024
			Dilution Factor: 1			Analysis Time..: 20:23	Analyst ID.....: 001619	
			Instrument ID..: I6					

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SAMPLE DUPLICATE EVALUATION REPORT

Metals

Lot-Sample #...: A5J060101-000 **Work Order #...:** HL41H-SMP HL41H-DUP **Matrix.....:** WG

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chromium						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285024
		Dilution Factor: 1				Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6						
Cobalt						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285024
		Dilution Factor: 1				Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6						
Copper						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285024
		Dilution Factor: 1				Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6						
Iron						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285024
		Dilution Factor: 1				Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6						
Magnesium						SD Lot-Sample #: A5J060101-018		
	7240	7580	ug/L	4.5	(0-20)	SW846 6010B	10/12/05	5285024
		Dilution Factor: 1				Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6						
Manganese						SD Lot-Sample #: A5J060101-018		
	0.40 B	0.41 B	ug/L	2.2	(0-20)	SW846 6010B	10/12/05	5285024
		Dilution Factor: 1				Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6						
Nickel						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285024
		Dilution Factor: 1				Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6						
Potassium						SD Lot-Sample #: A5J060101-018		
	710 B	747 B	ug/L	5.0	(0-20)	SW846 6010B	10/12/05	5285024
		Dilution Factor: 1				Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6						
Silver						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285024
		Dilution Factor: 1				Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6						

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SAMPLE DUPLICATE EVALUATION REPORT

Metals

Lot-Sample #...: A5J060101-000 **Work Order #...:** HL41H-SMP HL41H-DUP **Matrix.....:** WG

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Sodium						SD Lot-Sample #: A5J060101-018		
	13200	13800	ug/L	4.1	(0-20)	SW846 6010B	10/12/05	5285024
		Dilution Factor: 1				Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6						
Vanadium						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285024
		Dilution Factor: 1				Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6						
Zinc						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285024
		Dilution Factor: 1				Analysis Time..: 20:23	Analyst ID.....: 001619	
		Instrument ID..: I6						
Mercury						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 7470A	10/12/05	5285024
		Dilution Factor: 1				Analysis Time..: 18:51	Analyst ID.....: 001644	
		Instrument ID..: H1						
Thallium						SD Lot-Sample #: A5J060101-018		
	ND	ND	ug/L	0	(0-20)	SW846 6020	10/12-10/17/05	5285024
		Dilution Factor: 1				Analysis Time..: 17:33	Analyst ID.....: 001644	
		Instrument ID..: I7						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

SEVERN TRENT STL

GENERAL CHEMISTRY DATA

SpecPro Inc

Client Sample ID: FWGLL3MW-238C-0114-GW

General Chemistry

Lot-Sample #...: A5J060101-001 **Work Order #...:** HL40E **Matrix.....:** WG
Date Sampled...: 10/05/05 15:05 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGLL4MW-198C-0116-GW

General Chemistry

Lot-Sample #...: A5J060101-003 **Work Order #...:** HL40G **Matrix.....:** WG
Date Sampled...: 10/05/05 13:21 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGLL4MW-199C-0117-GW

General Chemistry

Lot-Sample #...: A5J060101-005 Work Order #...: HL40J Matrix.....: WG
Date Sampled...: 10/05/05 11:09 Date Received..: 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGLL1MW-078C-0108-GW

General Chemistry

Lot-Sample #...: A5J060101-007 **Work Order #...:** HL40N **Matrix.....:** WG
Date Sampled...: 10/05/05 09:17 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-013C-0100-GW

General Chemistry

Lot-Sample #...: A5J060101-009 **Work Order #...:** HL40W **Matrix.....:** WG
Date Sampled...: 10/05/05 15:12 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-015C-0101-GW

General Chemistry

Lot-Sample #...: A5J060101-011 **Work Order #...:** HL400 **Matrix.....:** WG
Date Sampled...: 10/05/05 09:15 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-010C-0098-GW

General Chemistry

Lot-Sample #...: A5J060101-013 **Work Order #...:** HL402 **Matrix.....:** WG
Date Sampled...: 10/05/05 13:25 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-021C-0107-GW

General Chemistry

Lot-Sample #...: A5J060101-015 **Work Order #...:** HL405 **Matrix.....:** WG
Date Sampled...: 10/05/05 10:27 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-004C-0094-GW

General Chemistry

Lot-Sample #...: A5J060101-017 **Work Order #...:** HL41C **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-008C-0097-GW

General Chemistry

Lot-Sample #...: A5J060101-019 **Work Order #...:** HL41K **Matrix.....:** WG
Date Sampled...: 10/05/05 12:25 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-005C-0095-GW

General Chemistry

Lot-Sample #...: A5J060101-021 **Work Order #...:** HL41M **Matrix.....:** WG
Date Sampled...: 10/05/05 14:00 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-018C-0104-GW

General Chemistry

Lot-Sample #...: A5J060101-023 **Work Order #...:** HL41Q **Matrix.....:** WG
Date Sampled...: 10/05/05 15:15 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A5J060101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: HMTD91AA		MB Lot-Sample #:	A5J140000-541	
	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Cyanide, Total		Work Order #: HMTG71AA		MB Lot-Sample #:	A5J150000-023	
	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1				
Nitrocellulose		Work Order #: HM1EJ1AA		MB Lot-Sample #:	G5J180000-405	
	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J060101 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: HMTD91AC	LCS Lot-Sample#: A5J140000-541		
	105	(69 - 118)	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1			
Cyanide, Total		Work Order #: HMTG71AC	LCS Lot-Sample#: A5J150000-023		
	98	(69 - 118)	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1			
Nitrocellulose		Work Order #: HM1EJ1AC	LCS Lot-Sample#: G5J180000-405		
	102	(56 - 111)	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J060101 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			Work Order #: HMTD91AC LCS Lot-Sample#: A5J140000-541				
	0.17	0.17	mg/L	105	SW846 9012A	10/14-10/15/05	5287541
			Dilution Factor: 1				
Cyanide, Total			Work Order #: HMTG71AC LCS Lot-Sample#: A5J150000-023				
	0.17	0.16	mg/L	98	SW846 9012A	10/15/05	5288023
			Dilution Factor: 1				
Nitrocellulose			Work Order #: HM1EJ1AC LCS Lot-Sample#: G5J180000-405				
	2.0	2.0	mg/L	102	MCAWW 353.2	10/18-10/19/05	5291405
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J060101 **Matrix.....:** WATER
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		WO#: HL2C11A4-MS/HL2C11A5-MSD				MS Lot-Sample #: A5J050103-019	
	96	(42 - 140)			SW846 9012A	10/14-10/15/05	5287541
	95	(42 - 140)	0.51	(0-20)	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1					
Cyanide, Total		WO#: HL72R1AQ-MS/HL72R1AR-MSD				MS Lot-Sample #: A5J070109-007	
	96	(42 - 140)			SW846 9012A	10/15/05	5288023
	86	(42 - 140)	11	(0-20)	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1					
Nitrocellulose		WO#: HL2C11AX-MS/HL2C11A0-MSD				MS Lot-Sample #: A5J050103-019	
	73	(56 - 111)			MCAWW 353.2	10/18-10/19/05	5291405
	98 *	(56 - 111)	29	(0-15)	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J060101 **Matrix.....:** WATER
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: HL2C11A4-MS/HL2C11A5-MSD		MS Lot-Sample #: A5J050103-019				
	ND	0.040	0.039	mg/L	96		SW846 9012A	10/14-10/15/05	5287541
	ND	0.040	0.039	mg/L	95	0.51	SW846 9012A	10/14-10/15/05	5287541
			Dilution Factor: 1						
Cyanide, Total			WO#: HL72R1AQ-MS/HL72R1AR-MSD		MS Lot-Sample #: A5J070109-007				
	ND	0.040	0.038	mg/L	96		SW846 9012A	10/15/05	5288023
	ND	0.040	0.034	mg/L	86	11	SW846 9012A	10/15/05	5288023
			Dilution Factor: 1						
Nitrocellulose			WO#: HL2C11AX-MS/HL2C11A0-MSD		MS Lot-Sample #: A5J050103-019				
	ND	2.0	1.5	mg/L	73		MCAWW 353.2	10/18-10/19/05	5291405
	ND	2.0	2.0 *	mg/L	98	29	MCAWW 353.2	10/18-10/19/05	5291405
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J060101 **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		WO#: HL41C1AQ-MS/HL41C1AR-MSD				MS Lot-Sample #: A5J060101-017	
	71	(42 - 140)			SW846 9012A	10/15/05	5288023
	52 *	(42 - 140)	30	(0-20)	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1					
Nitrocellulose		WO#: HL41C1AX-MS/HL41C1A0-MSD				MS Lot-Sample #: A5J060101-017	
	98	(56 - 111)			MCAWW 353.2	10/18-10/19/05	5291405
	96	(56 - 111)	2.0	(0-15)	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J060101 **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: HL41C1AQ-MS/HL41C1AR-MSD		MS Lot-Sample #: A5J060101-017				
	ND	0.040	0.028	mg/L	71		SW846 9012A	10/15/05	5288023
	ND	0.040	0.021 *	mg/L	52	30	SW846 9012A	10/15/05	5288023
			Dilution Factor: 1						
Nitrocellulose			WO#: HL41C1AX-MS/HL41C1A0-MSD		MS Lot-Sample #: A5J060101-017				
	ND	2.0	2.0	mg/L	98		MCAWW 353.2	10/18-10/19/05	5291405
	ND	2.0	1.9	mg/L	96	2.0	MCAWW 353.2	10/18-10/19/05	5291405
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

SEVERN TRENT STL

STL WEST SACRAMENTO DATA

CASE NARRATIVE

STL SACRAMENTO PROJECT NUMBER A5J060101

WATER, 8330, Explosives (SAC)
Sample(s): 1, 3, 5, 7, and 21
The samples contained excessive silt/sediment and required filtration prior to extraction. A filter blank was prepared and analyzed with the batch.

Sample(s): 1
The extract of this sample required a 10X dilution due to high levels. All reporting limits have been adjusted accordingly. As a result, all surrogates were diluted beyond the ability to quantitate a recovery.

There were no other anomalies associated with this project.

SEVERN TRENT STL

ACCREDITED IN ACCORDANCE WITH nelac

STL Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	Oregon*	CA 200005
Arizona	AZ0616	Pennsylvania	68-1272
Arkansas	04-067-0	South Carolina	87014002
California*	01119CA	Texas	TX 270-2004A
Colorado	NA	Utah*	QUAN1
Connecticut	PH-0691	Virginia	00178
Florida*	E87570	Washington	C087
Georgia	960	West Virginia	9930C, 334
Hawaii	NA	Wisconsin	998204680
Louisiana*	01944	NFESC	NA
Michigan	9947	USACE	NA
Nevada	CA44	USDA Foreign Plant	37-82605
New Jersey*	CA005	USDA Foreign Soil	S-46613
New York*	11666		

*NELAP accredited. A more detailed parameter list is available upon request. Update 1/27/05

QC Parameter Definitions

QC Batch: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

Method Blank: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD): An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also used to evaluate the precision of the process.

Duplicate Sample (DU): Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

Surrogates: Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

Isotope Dilution: For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

Control Limits: The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

SpecPro Inc

Client Sample ID: FWGLL3MW-238C-0114-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J060101-001 Work Order #...: HL40E1AJ Matrix.....: WG
Date Sampled...: 10/05/05 15:05 Date Received..: 10/05/05
Prep Date.....: 10/13/05 Analysis Date..: 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL3MW-238C-0114-GW

HPLC

Lot-Sample #...: A5J060101-001	**Work Order #...:** HL40E1AG	**Matrix.....:** WG	
Date Sampled...: 10/05/05 15:05	**Date Received..:** 10/05/05		
Prep Date.....: 10/11/05	**Analysis Date..:** 10/16/05		
Prep Batch #...: 5284392			
Dilution Factor: 10	**Method.....:** SW846 8330		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	**13**	**1.0**	**ug/L**
4-Amino-2,6-dinitrotoluene	**41**	**1.0**	**ug/L**
1,3-Dinitrobenzene	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	1.0	ug/L
2,6-Dinitrotoluene	ND	1.0	ug/L
HMX	**2.2**	**1.0**	**ug/L**
Nitrobenzene	ND	1.0	ug/L
2-Nitrotoluene	ND	5.0	ug/L
3-Nitrotoluene	ND	5.0	ug/L
4-Nitrotoluene	ND	5.0	ug/L
RDX	**8.2**	**1.0**	**ug/L**
Tetryl	**1.5**	**1.0**	**ug/L**
1,3,5-Trinitrobenzene	**49**	**1.0**	**ug/L**
2,4,6-Trinitrotoluene	**110**	**1.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	0.0 SRD	(84 - 125)

NOTE(S):

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

SpecPro Inc

Client Sample ID: FWGLL3MW-238C-0114-GW

General Chemistry

Lot-Sample #...: A5J060101-001 **Work Order #...:** HL40E **Matrix.....:** WG
Date Sampled...: 10/05/05 15:05 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGLL4MW-198C-0116-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J060101-003 **Work Order #...:** HL40G1AJ **Matrix.....:** WG
Date Sampled...: 10/05/05 13:21 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL4MW-198C-0116-GW

HPLC

Lot-Sample #...: A5J060101-003 **Work Order #...:** HL40G1AG **Matrix..... ...:** WG
Date Sampled...: 10/05/05 13:21 **Date Received..:** 10/05/05
Prep Date.....: 10/11/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5284392
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	106	(84 - 125)

SpecPro Inc

Client Sample ID: FWGLL4MW-198C-0116-GW

General Chemistry

Lot-Sample #...: A5J060101-003 **Work Order #...:** HL40G **Matrix.....:** WG
Date Sampled...: 10/05/05 13:21 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGLL4MW-199C-0117-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J060101-005 **Work Order #...:** HL40J1AJ **Matrix.....:** WG
Date Sampled...: 10/05/05 11:09 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL4MW-199C-0117-GW

HPLC

Lot-Sample #...: A5J060101-005 **Work Order #...:** HL40J1AG **Matrix.....:** WG
Date Sampled...: 10/05/05 11:09 **Date Received..:** 10/05/05
Prep Date.....: 10/11/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5284392
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	108	(84 - 125)

SpecPro Inc

Client Sample ID: FWGLL4MW-199C-0117-GW

General Chemistry

Lot-Sample #...: A5J060101-005 **Work Order #...:** HL40J **Matrix.....:** WG
Date Sampled...: 10/05/05 11:09 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL1MW-078C-0108-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J060101-007 **Work Order #...:** HL40N1AJ **Matrix.....:** WG
Date Sampled...: 10/05/05 09:17 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL1MW-078C-0108-GW

HPLC

Lot-Sample #...: A5J060101-007 **Work Order #...:** HL40N1AG **Matrix.....:** WG
Date Sampled...: 10/05/05 09:17 **Date Received..:** 10/05/05
Prep Date.....: 10/11/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5284392
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	**0.17 PG**	**0.10**	**ug/L**
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	109	(84 - 125)

NOTE(S):

PG The percent difference between the original and confirmation analyses is greater than 40%.

SpecPro Inc

Client Sample ID: FWGLL1MW-078C-0108-GW

General Chemistry

Lot-Sample #...: A5J060101-007 **Work Order #...:** HL40N **Matrix.....:** WG
Date Sampled...: 10/05/05 09:17 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGBKGMW-013C-0100-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J060101-009 **Work Order #...:** HL40W1AJ **Matrix.....:** WG
Date Sampled...: 10/05/05 15:12 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGBKGMW-013C-0100-GW

HPLC

Lot-Sample #...: A5J060101-009 **Work Order #...:** HL40W1AG **Matrix.....:** WG
Date Sampled...: 10/05/05 15:12 **Date Received..:** 10/05/05
Prep Date.....: 10/11/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5284392
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	113	(84 - 125)

SpecPro Inc

Client Sample ID: FWGBKGMW-013C-0100-GW

General Chemistry

Lot-Sample #...: A5J060101-009 **Work Order #...:** HL40W **Matrix.....:** WG
Date Sampled...: 10/05/05 15:12 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-015C-0101-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J060101-011 Work Order #...: HL4001AJ Matrix.....: WG
Date Sampled...: 10/05/05 09:15 Date Received..: 10/05/05
Prep Date.....: 10/13/05 Analysis Date..: 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGBKGMW-015C-0101-GW

HPLC

Lot-Sample #...: A5J060101-011 **Work Order #...:** HL4001AG **Matrix.....:** WG
Date Sampled...: 10/05/05 09:15 **Date Received..:** 10/05/05
Prep Date.....: 10/11/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5284392
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	114	(84 - 125)

SpecPro Inc

Client Sample ID: FWGBKGMW-015C-0101-GW

General Chemistry

Lot-Sample #...: A5J060101-011 **Work Order #...:** HL400 **Matrix.....:** WG
Date Sampled...: 10/05/05 09:15 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGBKGMW-010C-0098-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J060101-013 **Work Order #...:** HL4021AJ **Matrix.....:** WG
Date Sampled...: 10/05/05 13:25 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGBKGMW-010C-0098-GW

HPLC

Lot-Sample #...: A5J060101-013 **Work Order #...:** HL4021AG **Matrix.....:** WG
Date Sampled...: 10/05/05 13:25 **Date Received..:** 10/05/05
Prep Date.....: 10/11/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5284392
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	**0.079 J**	**0.10**	**ug/L**
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	114	(84 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGBKGMW-010C-0098-GW

General Chemistry

Lot-Sample #...: A5J060101-013 **Work Order #...:** HL402 **Matrix.....:** WG
Date Sampled...: 10/05/05 13:25 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-021C-0107-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J060101-015 **Work Order #...:** HL4051AJ **Matrix.....:** WG
Date Sampled...: 10/05/05 10:27 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGBKGMW-021C-0107-GW

HPLC

Lot-Sample #...: A5J060101-015 **Work Order #...:** HL4051AG **Matrix.....:** WG
Date Sampled...: 10/05/05 10:27 **Date Received..:** 10/05/05
Prep Date.....: 10/11/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5284392
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	113	(84 - 125)

SpecPro Inc

Client Sample ID: FWGBKGMW-021C-0107-GW

General Chemistry

Lot-Sample #...: A5J060101-015 **Work Order #...:** HL405 **Matrix.....:** WG
Date Sampled...: 10/05/05 10:27 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-004C-0094-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J060101-017 **Work Order #...:** HL41C1A1 **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGBKGMW-004C-0094-GW

HPLC

Lot-Sample #...: A5J060101-017 **Work Order #...:** HL41C1AT **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/11/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5284392
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	111	(84 - 125)

SpecPro Inc

Client Sample ID: FWGBKGMW-004C-0094-GW

General Chemistry

Lot-Sample #...: A5J060101-017 **Work Order #...:** HL41C **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-008C-0097-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J060101-019 **Work Order #...:** HL41K1AJ **Matrix.....:** WG
Date Sampled...: 10/05/05 12:25 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGBKGMW-008C-0097-GW

HPLC

Lot-Sample #...: A5J060101-019 **Work Order #...:** HL41K1AG **Matrix.....:** WG
Date Sampled...: 10/05/05 12:25 **Date Received..:** 10/05/05
Prep Date.....: 10/11/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5284392
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	112	(84 - 125)

SpecPro Inc

Client Sample ID: FWGBKGMW-008C-0097-GW

General Chemistry

Lot-Sample #...: A5J060101-019 **Work Order #...:** HL41K **Matrix.....:** WG
Date Sampled...: 10/05/05 12:25 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-005C-0095-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J060101-021 **Work Order #...:** HL41M1AJ **Matrix.....:** WG
Date Sampled...: 10/05/05 14:00 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGBKGMW-005C-0095-GW

HPLC

Lot-Sample #...: A5J060101-021 **Work Order #...:** HL41M1AG **Matrix.....:** WG
Date Sampled...: 10/05/05 14:00 **Date Received..:** 10/05/05
Prep Date.....: 10/11/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5284392
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	109	(84 - 125)

SpecPro Inc

Client Sample ID: FWGBKGMW-005C-0095-GW

General Chemistry

Lot-Sample #...: A5J060101-021 **Work Order #...:** HL41M **Matrix.....:** WG
Date Sampled...: 10/05/05 14:00 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGBKGMW-018C-0104-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J060101-023 Work Order #...: HL41Q1AJ Matrix.....: WG
Date Sampled...: 10/05/05 15:15 Date Received..: 10/05/05
Prep Date.....: 10/13/05 Analysis Date..: 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGBKGMW-018C-0104-GW

HPLC

Lot-Sample #...: A5J060101-023 **Work Order #...:** HL41Q1AG **Matrix.....:** WG
Date Sampled...: 10/05/05 15:15 **Date Received..:** 10/05/05
Prep Date.....: 10/11/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5284392
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	109	(84 - 125)

SpecPro Inc

Client Sample ID: FWGBKGMW-018C-0104-GW

General Chemistry

Lot-Sample #...: A5J060101-023 **Work Order #...:** HL41Q **Matrix.....:** WG
Date Sampled...: 10/05/05 15:15 **Date Received..:** 10/05/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
	Dilution Factor: 1					

METHOD BLANK REPORT

Trace Level Organic Compounds

Client Lot #...: A5J060101 Work Order #...: HMPE11AA Matrix.....: WATER
MB Lot-Sample #: G5J130000-586

Prep Date.....: 10/13/05
Analysis Date..: 10/15/05 Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

HPLC

Client Lot #...: A5J060101 **Work Order #...:** HMGHT1AA **Matrix.....:** WATER
MB Lot-Sample #: G5J110000-392

Prep Date.....: 10/11/05
Analysis Date..: 10/15/05 **Prep Batch #...:** 5284392
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.50	ug/L	SW846 8330
3-Nitrotoluene	ND	0.50	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4,6-Trinitrotoluene	ND	0.10	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	113	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

HPLC

Client Lot #...: A5J060101 **Work Order #...:** HMGHT1AD **Matrix.....:** WATER
MB Lot-Sample #: G5J110000-392

Prep Date.....: 10/11/05
Analysis Date..: 10/15/05 **Prep Batch #...:** 5284392
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.50	ug/L	SW846 8330
3-Nitrotoluene	ND	0.50	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4,6-Trinitrotoluene	ND	0.10	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	109	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A5J060101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: HMTD91AA		MB Lot-Sample #:	A5J140000-541	
	ND	0.010	mg/L	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1				
Cyanide, Total		Work Order #: HMTG71AA		MB Lot-Sample #:	A5J150000-023	
	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1				
Nitrocellulose		Work Order #: HM1EJ1AA		MB Lot-Sample #:	G5J180000-405	
	ND	0.50	mg/L	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: A5J060101 **Work Order #...:** HMPE11AC **Matrix.....:** WATER
LCS Lot-Sample#: G5J130000-586
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Nitroguanidine	**108**	**(79 - 119)**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: A5J060101 **Work Order #...:** HMPE11AC **Matrix.....:** WATER
LCS Lot-Sample#: G5J130000-586
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Nitroguanidine	**250**	**270**	**ug/L**	**108**	**NONE UV/HPLC per**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: A5J060101 Work Order #...: HMGHT1AC Matrix.....: WATER
LCS Lot-Sample#: G5J110000-392
Prep Date.....: 10/11/05 Analysis Date..: 10/15/05
Prep Batch #...: 5284392
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
2-Amino-4,6-dinitrotoluene	**107**	**(82 - 125)**	**SW846 8330**
4-Amino-2,6-dinitrotoluene	**105**	**(85 - 123)**	**SW846 8330**
1,3-Dinitrobenzene	**113**	**(89 - 130)**	**SW846 8330**
2,4-Dinitrotoluene	**110**	**(86 - 128)**	**SW846 8330**
2,6-Dinitrotoluene	**109**	**(86 - 127)**	**SW846 8330**
HMX	**115**	**(82 - 121)**	**SW846 8330**
Nitrobenzene	**111**	**(81 - 125)**	**SW846 8330**
2-Nitrotoluene	**106**	**(90 - 120)**	**SW846 8330**
3-Nitrotoluene	**107**	**(87 - 122)**	**SW846 8330**
4-Nitrotoluene	**106**	**(87 - 124)**	**SW846 8330**
RDX	**114**	**(94 - 124)**	**SW846 8330**
Tetryl	**106**	**(81 - 126)**	**SW846 8330**
1,3,5-Trinitrobenzene	**107**	**(81 - 132)**	**SW846 8330**
2,4,6-Trinitrotoluene	**109**	**(86 - 126)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	112	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: A5J060101 Work Order #...: HMGHT1AC Matrix.....: WATER
LCS Lot-Sample#: G5J110000-392
Prep Date.....: 10/11/05 Analysis Date..: 10/15/05
Prep Batch #...: 5284392
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
2-Amino-4,6-dinitrotoluene	**1.0**	**1.1**	**ug/L**	**107**	**SW846 8330**
4-Amino-2,6-dinitrotoluene	**1.0**	**1.1**	**ug/L**	**105**	**SW846 8330**
1,3-Dinitrobenzene	**1.0**	**1.1**	**ug/L**	**113**	**SW846 8330**
2,4-Dinitrotoluene	**1.0**	**1.1**	**ug/L**	**110**	**SW846 8330**
2,6-Dinitrotoluene	**1.0**	**1.1**	**ug/L**	**109**	**SW846 8330**
HMX	**1.0**	**1.1**	**ug/L**	**115**	**SW846 8330**
Nitrobenzene	**1.0**	**1.1**	**ug/L**	**111**	**SW846 8330**
2-Nitrotoluene	**1.0**	**1.1**	**ug/L**	**106**	**SW846 8330**
3-Nitrotoluene	**1.0**	**1.1**	**ug/L**	**107**	**SW846 8330**
4-Nitrotoluene	**1.0**	**1.1**	**ug/L**	**106**	**SW846 8330**
RDX	**1.0**	**1.1**	**ug/L**	**114**	**SW846 8330**
Tetryl	**1.0**	**1.1**	**ug/L**	**106**	**SW846 8330**
1,3,5-Trinitrobenzene	**1.0**	**1.1**	**ug/L**	**107**	**SW846 8330**
2,4,6-Trinitrotoluene	**1.0**	**1.1**	**ug/L**	**109**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	112	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J060101 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: HMTD91AC	LCS Lot-Sample#: A5J140000-541		
	105	(69 - 118)	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1			
Cyanide, Total		Work Order #: HMTG71AC	LCS Lot-Sample#: A5J150000-023		
	98	(69 - 118)	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1			
Nitrocellulose		Work Order #: HM1EJ1AC	LCS Lot-Sample#: G5J180000-405		
	102	(56 - 111)	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J060101 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			Work Order #: HMTD91AC LCS Lot-Sample#: A5J140000-541				
	0.17	0.17	mg/L	105	SW846 9012A	10/14-10/15/05	5287541
			Dilution Factor: 1				
Cyanide, Total			Work Order #: HMTG71AC LCS Lot-Sample#: A5J150000-023				
	0.17	0.16	mg/L	98	SW846 9012A	10/15/05	5288023
			Dilution Factor: 1				
Nitrocellulose			Work Order #: HM1EJ1AC LCS Lot-Sample#: G5J180000-405				
	2.0	2.0	mg/L	102	MCAWW 353.2	10/18-10/19/05	5291405
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: A5J060101 **Work Order #...:** HL2C11A2-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J050103-019 HL2C11A3-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Nitroguanidine	**106**	**(79 - 119)**			**NONE UV/HPLC per SOP**
	105	**(79 - 119)**	**0.26**	**(0-15)**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: A5J060101 **Work Order #...:** HL2C11A2-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J050103-019 HL2C11A3-MSD
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Nitroguanidine	**ND**	**250**	**260**	**ug/L**	**106**		**NONE UV/HPLC per SOP**
	ND	**250**	**260**	**ug/L**	**105**	**0.26**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: A5J060101 Work Order #...: HL41C1A2-MS Matrix.....: WG
MS Lot-Sample #: A5J060101-017 HL41C1A3-MSD
Date Sampled...: 10/05/05 08:53 Date Received..: 10/05/05
Prep Date.....: 10/13/05 Analysis Date..: 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Nitroguanidine	**108**	**(79 - 119)**			**NONE UV/HPLC per SOP**
	110	**(79 - 119)**	**1.5**	**(0-15)**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: A5J060101 **Work Order #...:** HL41C1A2-MS **Matrix.....:** WG
MS Lot-Sample #: A5J060101-017 HL41C1A3-MSD
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286586
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Nitroguanidine	**ND**	**250**	**270**	**ug/L**	**108**		**NONE UV/HPLC per SOP**
	ND	**250**	**270**	**ug/L**	**110**	**1.5**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: A5J060101 **Work Order #...:** HL41C1AU-MS **Matrix.....:** WG
MS Lot-Sample #: A5J060101-017 HL41C1AV-MSD
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/11/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5284392
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2-Amino-4,6-dinitrotoluene	103	(82 - 125)			SW846 8330
	103	(82 - 125)	0.19	(0-15)	SW846 8330
4-Amino-2,6-dinitrotoluene	102	(85 - 123)			SW846 8330
	102	(85 - 123)	0.28	(0-15)	SW846 8330
1,3-Dinitrobenzene	109	(89 - 130)			SW846 8330
	108	(89 - 130)	1.2	(0-15)	SW846 8330
2,4-Dinitrotoluene	106	(86 - 128)			SW846 8330
	105	(86 - 128)	1.0	(0-15)	SW846 8330
2,6-Dinitrotoluene	105	(86 - 127)			SW846 8330
	104	(86 - 127)	1.2	(0-15)	SW846 8330
HMX	113	(82 - 121)			SW846 8330
	110	(82 - 121)	2.9	(0-15)	SW846 8330
Nitrobenzene	107	(81 - 125)			SW846 8330
	104	(81 - 125)	2.6	(0-15)	SW846 8330
2-Nitrotoluene	101	(90 - 120)			SW846 8330
	101	(90 - 120)	0.40	(0-15)	SW846 8330
3-Nitrotoluene	105	(87 - 122)			SW846 8330
	102	(87 - 122)	2.0	(0-15)	SW846 8330
4-Nitrotoluene	102	(87 - 124)			SW846 8330
	102	(87 - 124)	0.36	(0-15)	SW846 8330
RDX	111	(94 - 124)			SW846 8330
	107	(94 - 124)	3.4	(0-15)	SW846 8330
Tetryl	102	(81 - 126)			SW846 8330
	102	(81 - 126)	0.63	(0-15)	SW846 8330
1,3,5-Trinitrobenzene	102	(81 - 132)			SW846 8330
	100	(81 - 132)	2.1	(0-16)	SW846 8330
2,4,6-Trinitrotoluene	104	(86 - 126)			SW846 8330
	104	(86 - 126)	0.23	(0-15)	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	111	(84 - 125)
	110	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: A5J060101 **Work Order #...:** HL41C1AU-MS **Matrix.....:** WG
MS Lot-Sample #: A5J060101-017 HL41C1AV-MSD
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/11/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5284392
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
2-Amino-4,6-dinitrotoluene	ND	1.0	1.0	ug/L	103		SW846 8330
	ND	1.0	1.0	ug/L	103	0.19	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	1.0	1.0	ug/L	102		SW846 8330
	ND	1.0	1.0	ug/L	102	0.28	SW846 8330
1,3-Dinitrobenzene	ND	1.0	1.1	ug/L	109		SW846 8330
	ND	1.0	1.1	ug/L	108	1.2	SW846 8330
2,4-Dinitrotoluene	ND	1.0	1.1	ug/L	106		SW846 8330
	ND	1.0	1.1	ug/L	105	1.0	SW846 8330
2,6-Dinitrotoluene	ND	1.0	1.0	ug/L	105		SW846 8330
	ND	1.0	1.0	ug/L	104	1.2	SW846 8330
HMX	ND	1.0	1.1	ug/L	113		SW846 8330
	ND	1.0	1.1	ug/L	110	2.9	SW846 8330
Nitrobenzene	ND	1.0	1.1	ug/L	107		SW846 8330
	ND	1.0	1.0	ug/L	104	2.6	SW846 8330
2-Nitrotoluene	ND	1.0	1.0	ug/L	101		SW846 8330
	ND	1.0	1.0	ug/L	101	0.40	SW846 8330
3-Nitrotoluene	ND	1.0	1.0	ug/L	105		SW846 8330
	ND	1.0	1.0	ug/L	102	2.0	SW846 8330
4-Nitrotoluene	ND	1.0	1.0	ug/L	102		SW846 8330
	ND	1.0	1.0	ug/L	102	0.36	SW846 8330
RDX	ND	1.0	1.1	ug/L	111		SW846 8330
	ND	1.0	1.1	ug/L	107	3.4	SW846 8330
Tetryl	ND	1.0	1.0	ug/L	102		SW846 8330
	ND	1.0	1.0	ug/L	102	0.63	SW846 8330
1,3,5-Trinitrobenzene	ND	1.0	1.0	ug/L	102		SW846 8330
	ND	1.0	1.0	ug/L	100	2.1	SW846 8330
2,4,6-Trinitrotoluene	ND	1.0	1.0	ug/L	104		SW846 8330
	ND	1.0	1.0	ug/L	104	0.23	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	111	(84 - 125)
	110	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J060101 **Matrix.....:** WATER
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		WO#: HL2C11A4-MS/HL2C11A5-MSD				MS Lot-Sample #: A5J050103-019	
	96	(42 - 140)			SW846 9012A	10/14-10/15/05	5287541
	95	(42 - 140)	0.51	(0-20)	SW846 9012A	10/14-10/15/05	5287541
		Dilution Factor: 1					
Cyanide, Total		WO#: HL72R1AQ-MS/HL72R1AR-MSD				MS Lot-Sample #: A5J070109-007	
	96	(42 - 140)			SW846 9012A	10/15/05	5288023
	86	(42 - 140)	11	(0-20)	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1					
Nitrocellulose		WO#: HL2C11AX-MS/HL2C11A0-MSD				MS Lot-Sample #: A5J050103-019	
	73	(56 - 111)			MCAWW 353.2	10/18-10/19/05	5291405
	98 *	(56 - 111)	29	(0-15)	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J060101 **Matrix.....:** WATER
Date Sampled...: 10/04/05 09:20 **Date Received..:** 10/05/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: HL2C11A4-MS/HL2C11A5-MSD				MS Lot-Sample #: A5J050103-019		
	ND	0.040	0.039	mg/L	96		SW846 9012A	10/14-10/15/05	5287541
	ND	0.040	0.039	mg/L	95	0.51	SW846 9012A	10/14-10/15/05	5287541
			Dilution Factor: 1						
Cyanide, Total			WO#: HL72R1AQ-MS/HL72R1AR-MSD				MS Lot-Sample #: A5J070109-007		
	ND	0.040	0.038	mg/L	96		SW846 9012A	10/15/05	5288023
	ND	0.040	0.034	mg/L	86	11	SW846 9012A	10/15/05	5288023
			Dilution Factor: 1						
Nitrocellulose			WO#: HL2C11AX-MS/HL2C11A0-MSD				MS Lot-Sample #: A5J050103-019		
	ND	2.0	1.5	mg/L	73		MCAWW 353.2	10/18-10/19/05	5291405
	ND	2.0	2.0 *	mg/L	98	29	MCAWW 353.2	10/18-10/19/05	5291405
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J060101 **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		WO#: HL41C1AQ-MS/HL41C1AR-MSD				MS Lot-Sample #: A5J060101-017	
	71	(42 - 140)			SW846 9012A	10/15/05	5288023
	52 *	(42 - 140)	30	(0-20)	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1					
Nitrocellulose		WO#: HL41C1AX-MS/HL41C1A0-MSD				MS Lot-Sample #: A5J060101-017	
	98	(56 - 111)			MCAWW 353.2	10/18-10/19/05	5291405
	96	(56 - 111)	2.0	(0-15)	MCAWW 353.2	10/18-10/19/05	5291405
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J060101 **Matrix.....:** WG
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: HL41C1AQ-MS/HL41C1AR-MSD				MS Lot-Sample #: A5J060101-017		
	ND	0.040	0.028	mg/L	71		SW846 9012A	10/15/05	5288023
	ND	0.040	0.021 *	mg/L	52	30	SW846 9012A	10/15/05	5288023
			Dilution Factor: 1						
Nitrocellulose			WO#: HL41C1AX-MS/HL41C1A0-MSD				MS Lot-Sample #: A5J060101-017		
	ND	2.0	2.0	mg/L	98		MCAWW 353.2	10/18-10/19/05	5291405
	ND	2.0	1.9	mg/L	96	2.0	MCAWW 353.2	10/18-10/19/05	5291405
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

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END OF REPORT

SEVERN TRENT STL®

STL North Canton
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North Canton, OH 44720

Tel: 330 497 9396 Fax: 330 497 0772
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ANALYTICAL REPORT

PROJECT NO. 001074.0001

FWGWMP RVAAP

Lot #: A5J070109

Chantelle Carroll

Spec Pro
8451 State Route 5
Ravenna, OH 44266

SEVERN TRENT LABORATORIES, INC.

Frank J. Calovini
Project Manager

October 31, 2005

SEVERN TRENT STL

CASE NARRATIVE

CASE NARRATIVE

A5J070109

The following report contains the analytical results for twenty-four water samples submitted to STL North Canton by Spec Pro from the FWGWMP RVAAP Site, project number 001074.0001. The samples were received October 07, 2005, according to documented sample acceptance procedures.

The Explosives, Nitrocellulose as N, and Organic Compounds analyses were performed at STL West Sacramento.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Frank J. Calovini, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature range of the coolers upon sample receipt was 2.4 to 4.9°C.

CASE NARRATIVE (continued)

GC/MS SEMIVOLATILES

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

The matrix spike/matrix spike duplicate(s) for batch(es) 5281013 had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

Samples FWFDA2MW-DET4C-0128-GW, FWGLL11MW-007C-0119-GW, and FWGBKGMW-006C-0096-GW had up to one surrogate recovery per fraction outside acceptance limits. However, since the recovery was greater than 10% and all associated QC met criteria, no corrective action was taken.

PESTICIDES-8081

The analyses reported herein were performed using an instrument that has two columns(GC) or detectors(HPLC), one of which is used to confirm the results of the other. Peak interferences may result in some cases, which cause a quantitation difference between the two columns/detectors. If the difference between the two results is greater than 40%, the higher of the two results or the primary column/detector is normally reported. The reported results are flagged with "PG".

POLYCHLORINATED BIPHENYLS-8082

The analytical results met the requirements of the laboratory's QA/QC program.

CASE NARRATIVE (continued)

METALS

The sample(s) that contain results between the MDL and the RL were flagged with "B". There is the possibility of false positive of mis-identification at these quantitation levels. The acceptance criteria for the ICB, CCB, and Method Blank are +/- the standard reporting limit (SRL).

Serial dilution of a sample in this lot indicates that physical and chemical interferences were present. Refer to the sample report pages for the affected analytes flagged with "E".

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "J". Refer to the sample report pages for the affected analyte(s).

GENERAL CHEMISTRY

The matrix spike/matrix spike duplicate(s) for FWGDA2MW-107C-0126-GW had RPD's outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

The matrix spike/matrix spike duplicate(s) for batch(es) 5288023 had RPD's outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

STL WEST SACRAMENTO

Refer to STL West Sacramento narrative included in their data package for additional information.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#200004), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), North Carolina (#39702), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

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SEVERN TRENT STL

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY - Detection Highlights

A5J070109

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWFDA2MW-DET4C-0128-GW 10/06/05 10:15 001				
HMX	0.64	0.10	ug/L	SW846 8330
Benzoic acid	5.3 J	10	ug/L	SW846 8270C
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	2.1 B	1.0	ug/L	SW846 8270C
FWFDA2MW-DET4C-0128-GF 10/06/05 10:15 002				
Thallium	0.039 B	1.0	ug/L	SW846 6020
Barium	41.7	10.0	ug/L	SW846 6010B
Calcium	139000	1000	ug/L	SW846 6010B
Chromium	2.2 B,J	20.0	ug/L	SW846 6010B
Magnesium	28000	1000	ug/L	SW846 6010B
Manganese	1.4 B,J	100	ug/L	SW846 6010B
Potassium	1810 B	5000	ug/L	SW846 6010B
Sodium	5380	1000	ug/L	SW846 6010B
FWGBKGMW-019C-0138-GW 10/06/05 09:05 003				
bis(2-Ethylhexyl) phthalate	1.3 B	1.0	ug/L	SW846 8270C
FWGBKGMW-019C-0138-GF 10/06/05 09:05 004				
Arsenic	22.0	10.0	ug/L	SW846 6010B
Barium	86.8	10.0	ug/L	SW846 6010B
Calcium	94500	1000	ug/L	SW846 6010B
Iron	994 B	1000	ug/L	SW846 6010B
Magnesium	33800	1000	ug/L	SW846 6010B
Manganese	205 J	100	ug/L	SW846 6010B
Potassium	1720 B	5000	ug/L	SW846 6010B
Sodium	13700	1000	ug/L	SW846 6010B
FWGBKGMW-019C-0105-GW 10/06/05 09:05 005				
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	1.7 B	1.0	ug/L	SW846 8270C

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5J070109

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGBKGMW-019C-0105-GF 10/06/05 09:05 006				
Barium	45.0	10.0	ug/L	SW846 6010B
Calcium	110000	1000	ug/L	SW846 6010B
Chromium	1.8 B,J	20.0	ug/L	SW846 6010B
Iron	78.8 B	1000	ug/L	SW846 6010B
Magnesium	31600	1000	ug/L	SW846 6010B
Manganese	202 J	100	ug/L	SW846 6010B
Potassium	1440 B	5000	ug/L	SW846 6010B
Sodium	9550	1000	ug/L	SW846 6010B
FWGLL11MW-007C-0119-GW 10/06/05 11:23 007				
bis(2-Ethylhexyl) phthalate	1.6 B	1.0	ug/L	SW846 8270C
FWGLL11MW-007C-0119-GF 10/06/05 11:23 008				
Arsenic	7.1 B	10.0	ug/L	SW846 6010B
Aluminum	228 E	200	ug/L	SW846 6010B
Barium	34.7	10.0	ug/L	SW846 6010B
Calcium	81800	1000	ug/L	SW846 6010B
Copper	2.0 B	20.0	ug/L	SW846 6010B
Iron	1520	1000	ug/L	SW846 6010B
Magnesium	26800	1000	ug/L	SW846 6010B
Manganese	166 J	100	ug/L	SW846 6010B
Potassium	2000 B	5000	ug/L	SW846 6010B
Sodium	9230	1000	ug/L	SW846 6010B
FWGDA2MW-DET3-0127-GW 10/06/05 09:05 009				
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	2.7 B	1.0	ug/L	SW846 8270C
FWGDA2MW-DET3-0127-GF 10/06/05 09:05 010				
Thallium	0.024 B	1.0	ug/L	SW846 6020
Arsenic	10.5	10.0	ug/L	SW846 6010B
Barium	47.2	10.0	ug/L	SW846 6010B
Calcium	84600	1000	ug/L	SW846 6010B
Iron	1640	1000	ug/L	SW846 6010B
Magnesium	30800	1000	ug/L	SW846 6010B
Manganese	247 J	100	ug/L	SW846 6010B
Potassium	2030 B	5000	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5J070109

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGDA2MW-DET3-0127-GF 10/06/05 09:05	**010**			
Sodium	11500	1000	ug/L	SW846 6010B
FWGDA2MW-107C-0126-GW 10/06/05 11:10	**011**			
Benzoic acid	5.2 J	10	ug/L	SW846 8270C
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.5	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	3.5 B	1.0	ug/L	SW846 8270C
FWGDA2MW-107C-0126-GF 10/06/05 11:10	**012**			
Arsenic	6.3 B	10.0	ug/L	SW846 6010B
Barium	34.2	10.0	ug/L	SW846 6010B
Calcium	86500	1000	ug/L	SW846 6010B
Chromium	1.8 B,J	20.0	ug/L	SW846 6010B
Iron	1460	1000	ug/L	SW846 6010B
Magnesium	28700	1000	ug/L	SW846 6010B
Manganese	193 J	100	ug/L	SW846 6010B
Potassium	2060 B	5000	ug/L	SW846 6010B
Sodium	9760	1000	ug/L	SW846 6010B
FWGWBGMW-006C-0129-GW 10/06/05 10:50	**013**			
gamma-BHC (Lindane)	0.049 PG	0.030	ug/L	SW846 8081A
HMX	17	0.50	ug/L	SW846 8330
RDX	65	0.50	ug/L	SW846 8330
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	2.4 B	1.0	ug/L	SW846 8270C
FWGWBGMW-006C-0129-GF 10/06/05 10:50	**014**			
Thallium	0.063 B	1.0	ug/L	SW846 6020
Barium	26.2	10.0	ug/L	SW846 6010B
Calcium	66400	1000	ug/L	SW846 6010B
Chromium	1.7 B,J	20.0	ug/L	SW846 6010B
Magnesium	21900	1000	ug/L	SW846 6010B
Manganese	68.0 B,J	100	ug/L	SW846 6010B
Potassium	938 B	5000	ug/L	SW846 6010B
Sodium	6120	1000	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5J070109

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGWBGMW-007C-0139-GW 10/06/05 08:52	**015**			
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	22 B	1.0	ug/L	SW846 8270C
FWGWBGMW-007C-0139-GF 10/06/05 08:52	**016**			
Arsenic	5.1 B	10.0	ug/L	SW846 6010B
Barium	39.3	10.0	ug/L	SW846 6010B
Calcium	68100	1000	ug/L	SW846 6010B
Chromium	2.3 B,J	20.0	ug/L	SW846 6010B
Iron	366 B	1000	ug/L	SW846 6010B
Magnesium	18200	1000	ug/L	SW846 6010B
Manganese	129 J	100	ug/L	SW846 6010B
Potassium	1340 B	5000	ug/L	SW846 6010B
Sodium	5070	1000	ug/L	SW846 6010B
FWGWBGMW-007C-0130-GW 10/06/05 08:52	**017**			
Di-n-butyl phthalate	1.6 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	2.2 B	1.0	ug/L	SW846 8270C
FWGWBGMW-007C-0130-GF 10/06/05 08:52	**018**			
Barium	39.0	10.0	ug/L	SW846 6010B
Calcium	67300	1000	ug/L	SW846 6010B
Chromium	1.8 B,J	20.0	ug/L	SW846 6010B
Iron	355 B	1000	ug/L	SW846 6010B
Magnesium	18000	1000	ug/L	SW846 6010B
Manganese	128 J	100	ug/L	SW846 6010B
Potassium	1350 B	5000	ug/L	SW846 6010B
Sodium	5080	1000	ug/L	SW846 6010B
FWGWBGMW-009C-0131-GW 10/06/05 11:57	**019**			
HMX	2.3	0.10	ug/L	SW846 8330
RDX	9.9	0.10	ug/L	SW846 8330
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
Butyl benzyl phthalate	1.5	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	1.6 B	1.0	ug/L	SW846 8270C

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EXECUTIVE SUMMARY - Detection Highlights

A5J070109

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGWBGMW-009C-0131-GF 10/06/05 11:57 020				
Arsenic	21.3	10.0	ug/L	SW846 6010B
Aluminum	274	200	ug/L	SW846 6010B
Barium	89.6	10.0	ug/L	SW846 6010B
Calcium	97600	1000	ug/L	SW846 6010B
Iron	1060	1000	ug/L	SW846 6010B
Magnesium	34500	1000	ug/L	SW846 6010B
Manganese	210 J	100	ug/L	SW846 6010B
Potassium	1760 B	5000	ug/L	SW846 6010B
Sodium	14400	1000	ug/L	SW846 6010B
FWGLL11MW-002C-0118-GW 10/06/05 13:21 021				
Di-n-butyl phthalate	1.5 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	2.4 B	1.0	ug/L	SW846 8270C
FWGLL11MW-002C-0118-GF 10/06/05 13:21 022				
Barium	29.0	10.0	ug/L	SW846 6010B
Calcium	94000	1000	ug/L	SW846 6010B
Chromium	1.8 B,J	20.0	ug/L	SW846 6010B
Magnesium	30500	1000	ug/L	SW846 6010B
Manganese	611 J	100	ug/L	SW846 6010B
Nickel	1.7 B,J	20.0	ug/L	SW846 6010B
Potassium	1990 B	5000	ug/L	SW846 6010B
Sodium	9640	1000	ug/L	SW846 6010B
FWGBKGMW-006C-0096-GW 10/06/05 14:15 023				
Di-n-butyl phthalate	1.4 B	1.0	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	2.0 B	1.0	ug/L	SW846 8270C
FWGBKGMW-006C-0096-GF 10/06/05 14:15 024				
Barium	13.8	10.0	ug/L	SW846 6010B
Calcium	78700	1000	ug/L	SW846 6010B
Chromium	1.8 B,J	20.0	ug/L	SW846 6010B
Cobalt	1.4 B	20.0	ug/L	SW846 6010B
Iron	36.5 B	1000	ug/L	SW846 6010B
Magnesium	26700	1000	ug/L	SW846 6010B
Manganese	403 J	100	ug/L	SW846 6010B
Potassium	1440 B	5000	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5J070109

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGBKGMW-006C-0096-GF 10/06/05 14:15	**024**			
Sodium	35300	1000	ug/L	SW846 6010B

SEVERN TRENT STL

METHOD SUMMARY

ANALYTICAL METHODS SUMMARY

A5J070109

PARAMETER	ANALYTICAL METHOD
Cyanide, Total	SW846 9012A
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
ICP-MS (6020)	SW846 6020
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Nitroaromatics and Nitramines by HPLC	SW846 8330
Nitrocellulose as N, 353.2	MCAWW 353.2
Organics by UV/HPLC	NONE UV/HPLC per SOP
Organochlorine Pesticides	SW846 8081A
PCBs by SW-846 8082	SW846 8082
Semivolatile Organic Compounds by GC/MS	SW846 8270C
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

NONE

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

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SAMPLE SUMMARY

SAMPLE SUMMARY

A5J070109

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HL713	001	FWFDA2MW-DET4C-0128-GW	10/06/05	10:15
HL72K	002	FWFDA2MW-DET4C-0128-GF	10/06/05	10:15
HL72L	003	FWGBKGMW-019C-0138-GW	10/06/05	09:05
HL72M	004	FWGBKGMW-019C-0138-GF	10/06/05	09:05
HL72N	005	FWGBKGMW-019C-0105-GW	10/06/05	09:05
HL72Q	006	FWGBKGMW-019C-0105-GF	10/06/05	09:05
HL72R	007	FWGLL11MW-007C-0119-GW	10/06/05	11:23
HL72T	008	FWGLL11MW-007C-0119-GF	10/06/05	11:23
HL72V	009	FWGDA2MW-DET3-0127-GW	10/06/05	09:05
HL72W	010	FWGDA2MW-DET3-0127-GF	10/06/05	09:05
HL72X	011	FWGDA2MW-107C-0126-GW	10/06/05	11:10
HL720	012	FWGDA2MW-107C-0126-GF	10/06/05	11:10
HL722	013	FWGWBGMW-006C-0129-GW	10/06/05	10:50
HL724	014	FWGWBGMW-006C-0129-GF	10/06/05	10:50
HL725	015	FWGWBGMW-007C-0139-GW	10/06/05	08:52
HL726	016	FWGWBGMW-007C-0139-GF	10/06/05	08:52
HL727	017	FWGWBGMW-007C-0130-GW	10/06/05	08:52
HL728	018	FWGWBGMW-007C-0130-GF	10/06/05	08:52
HL729	019	FWGWBGMW-009C-0131-GW	10/06/05	11:57
HL73A	020	FWGWBGMW-009C-0131-GF	10/06/05	11:57
HL73C	021	FWGLL11MW-002C-0118-GW	10/06/05	13:21
HL73D	022	FWGLL11MW-002C-0118-GF	10/06/05	13:21
HL73E	023	FWGBKGMW-006C-0096-GW	10/06/05	14:15
HL73F	024	FWGBKGMW-006C-0096-GF	10/06/05	14:15

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

SHIPPING AND RECEIVING DOCUMENTS

Chain of Custody Record

L4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 4 0 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57250

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~08/26/2005~~ 10-6-05	Page ~~40~~ 1 of ~~40~~ 1
Address: 3451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna; State: OH; Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Analysis: MS8260 / MS8270 / GC8082 / LC8330 / NCEL / LCNG / GNL / NO3N02

Sample I.D. Number and Description	Date	Time	Sample Type	Containers Volume	Containers Type	Containers No.	Preservative	Condition on Receipt/Comments	MS8260	MS8270	GC8082	LC8330	NCEL	LCNG	GNL	NO3N02
FWGDA2mw-Det4C-0128-GW	10-6	10:15	WATER	1L	AMBER	2	None	*Minimum Sample						X	X	
FWGDA2mw-Det4C-0128-GW			WATER	1L	AMBER	2	None						X			
FWGDA2mw-Det4C-0128-GW			WATER	1L	AMBER	2	None	*only ~~8~~ AB Ambers				X				
FWGDA2mw-Det4C-0128-GW			WATER	1L	AMBER	2	None				X					
FWGDA2mw-Det4C-0128-GW			WATER	1L	AMBER	2	None	5		X						
FWGDA2mw-Det4C-0128-GW			WATER	40mL	40mL VIA	3	HCL	1 amber	X							
FWGDA2mw-Det4C-0128-GW			WATER	250mL	PLASTIC		NaOH								X	
FWGDA2mw-Det4C-0128-GF			WATER	1000mL	PLASTIC		*Conc HNO3	1/2 full								X
FWGBKGmw-019C-0138-gw		9:05	water	40ml	40ml via	3	HCL	*1000ml plastic	X							
FWGBKGmw-019C-0165-gw		9:05				3		1/2 full	X							
FWGLL11mw-007C-0119-gw		1123				3			X							
FWGLL11mw-007C-0119-MS/MSD		1123				3			X							
FWGDA2mw-DET3-0127-gw		905				3			X							
FWGDA2mw-107C-0126-gw		1110				3			X							
FWGDA2mw-107C-0126-MS/MSD		11:10				3			X							
FWGWBGmw-006C-0129-gw		10:50				3			X							

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other _____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-6	1800	1. Received By: A.H.	10-6-05	1800
2. Relinquished By: A.H.	10-6-05	1900	2. Received By: Anne Sanders	10/7/05	8AM
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

TL-4124 (0901)

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: 10-6	Chain of Custody Number: 200928
Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page 2 of 2
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll	Lab Contact	
Project Name and Location (State): Ravenna	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: DOC	Special Instructions/ Conditions of Receipt
FWGWBG$_{MW}$-007C-0131-gw	10-6	8:52		X						3			3	
FWGWBG$_{MW}$-007C-0130-gw	10-6	8:52		X						3			3	
FWGWBG$_{MW}$-009C-0131-gw	10-6	11:57		X						3			3	
FWGLLIL$_{MW}$-002C-0118-gw	10-6	1321		X						3			3	
FWGBKG$_{MW}$-006C-0016-gw	10-6	1415		X						3			3	
FWGW40-1044-gw	10-6	1600		X						1			1	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-6	1800	1. Received By: A. H.	10-6-05	1800
2. Relinquished By: A. H.	10-6-05	1900	2. Received By: Anne Sanders	10/7/05	8AM
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

TL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
Spec Pro	Chantelle Carroll	10-6-05	200926
Address: 8451 St. Rt 5	Telephone Number (Area Code)/Fax Number	Lab Number	Page 1 of 1
City: Kawenna; State: OH; Zip Code	Site Contact: Chantelle Carroll	Lab Contact	Analysis (Attach list if more space is needed)
Project Name and Location (State): Kawenna	Carrier/Waybill Number		Special Instructions/ Conditions of Receipt
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/ NaOH	Explos	Propell	PCB/Pest	SVOC	TAL metal	Cyanide
FWGBKG-019C-0138-gw	10-6	9:05		X			8				1		2	2	2	2		1
FWGBKG-019C-0138-gf	10-6			X					1								1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.	Chantelle Carroll	10-6	1800	A. H	10-6-05	1800
2.	A. H.	10-6-05	1900	Ann Sanders	10/7/05	8AM
3.						

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 1 3 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57223

L4149 (1202)

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-6-05	Page 1 of 1
Address: 1451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments
~~FWGBKGmw-019C-0105-GW~~	10-6	9:05	WATER	1L	AMBER	2	None	
~~FWGBKGmw-019C-0105-GW~~			WATER	1L	AMBER	2	None	
~~FWGBKGmw-019C-0105-GW~~			WATER	1L	AMBER	2	None	
~~FWGBKGmw-019C-0105-GW~~			WATER	1L	AMBER	2	None	
~~FWGBKGmw-019C-0105-GW~~			WATER	1L	AMBER	2	None	
~~[illegible]~~			~~WATER~~	~~40mL~~	~~AMBER-VIA~~	~~3~~	~~HCl~~	
~~FWGBKGmw-019C-0105-GW~~			WATER	250mL	PLASTIC		NaOH	
~~FWGBKGmw-019C-0105-GF~~			WATER	1000mL	PLASTIC		Conc HNO3	

* only 8 Ambers

Analysis: MS SC CC BL LC CC CH HG N 03 2 2 0 1 3 L GL 1 M 6 7 8 3 0 0 0 2 0 0 2 0 0 L L Q 2 1 C 1 1 L L L A S L X X X X X X

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-6	1800	1. Received By: A. H.	10-6-05	1800
2. Relinquished By: A. H.	10-6-05	1900	2. Received By: Anne Sanders	10/7/05	8AM
3. Relinquished By:	Date	Time	3. Received By:	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

L4149 (1202)

CHAIN OF CUSTODY NUMBER
* 0 1 2 9 5 8 - 0 2 9 *

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

57239

Client: Spec Pro
Project Manager: Chantelle Carroll
Date: ~~09/26/2005~~ 10-6-05
Page 1 of 1

Address: 8451 State Route 5
Telephone Number (Area Code)/Fax Number: (000) / (000)
Lab Location: STL North Canton

City: Ravenna | State: OH | Zip Code: 44266
Site Contact: Chantelle Carroll

Project Number/Name: Ravenna
Carrier/Waybill Number:

Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :
QUOTE: 63240

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments	Analysis
~~FWGLL11mw-007C-0119-GW-MSD~~	10-6	1123	~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		
~~FWGLL11mw-007C-0119-GW-MSD~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		
~~FWGLL11mw-007C-0119-GW-MSD~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		
~~FWGLL11mw-007C-0119-GW-MSD~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		
~~FWGLL11mw-007C-0119-GW-MSD~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~		
~~FWGLL11mw-007C-0119-GW-MSD~~			~~WATER~~	~~40mL~~	~~40mL VOA~~	~~3~~	~~HCl~~		
~~FWGLL11mw-007C-0119-GW-MSD~~			WATER	250mL	PLASTIC	1	NaOH		
~~FWGLL11mw-007C-0119-GF-MSD~~			WATER	1000mL	PLASTIC	1	Conc HNO3		

* only 5 Ambers

Analysis: MS/MSD; 8260 VOC; 8270 SVOC; Metals; Nitrate; Chloride; Sulfate; Alkalinity

Special Instructions:

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown
Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other ____
QC Level: ☐ I. ☐ II. ☐ III.
Project Specific Requirements (Specify):

		Date	Time		Date	Time
1. Relinquished By	Chantelle Carroll	10-6	1800	1. Received By A.H.	10-6-05	1800
2. Relinquished By	A.H.	10-6-05	1900	2. Received By Lynn Sanders	10/7/05	8AM
3. Relinquished By				3. Received By		

Comments:

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

CHAIN OF CUSTODY NUMBER
* 0 1 2 9 5 8 - 0 2 8 *

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

57238

L4149 (1202)

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-6-05
Address: 1451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll	
Project Number/Name: Ravenna	Carrier/Waybill Number:	
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :	QUOTE: 63240	

Page 1 of 1

Analysis: MMGGLMLGNN / SSCCCCMGO / 8888EM03 / 2201GL-M / 8783-GO / 0022DLLQ2 / C L / LLASL

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments
FWGLLT1MW-007C-0119-GW	10-6	11:23	WATER	1L	AMBER	2	None	
FWGLLT1MW-007C-0119-GW			WATER	1L	AMBER	2	None	
FWGLLT1MW-007C-0119-GW			WATER	1L	AMBER	2	None	
FWGLLT1MW-007C-0119-GW			WATER	1L	AMBER	2	None	
FWGLLT1MW-007C-0119-GW			WATER	1L	AMBER	2	None	
~~FWGLLT1MW-007C-0119-GW~~			~~WATER~~	~~40mL~~	~~40ML VIA~~	~~3~~	~~HCL~~	
FWGLLT1MW-007C-0119-GW			WATER	250mL	PLASTIC	1	NaOH	
FWGLLT1MW-007C-0119-GF			WATER	1000mL	PLASTIC	1	Conc HNO3	
~~FWGLLT1MW-007C-0119-GW MS~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
FWGLLT1MW-007C-0119-GW MS			WATER	1L	AMBER	2	None	
FWGLLT1MW-007C-0119-GW MS			WATER	1L	AMBER	2	None	
FWGLLT1MW-007C-0119-GW MS			WATER	1L	AMBER	2	None	
FWGLLT1MW-007C-0119-GW MS			WATER	1L	AMBER	2	None	
FWGLLT1MW-007C-0119-GW MS			WATER	40mL	40ML VIA	3	HCL	
FWGLLT1MW-007C-0119-GW MS			WATER	250mL	PLASTIC	1	NaOH	
FWGLLT1MW-007C-0119-GF MS			WATER	1000mL	PLASTIC	1	Conc HNO3	

* only 5 bottles

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-6-05	1800	1. Received By: A. H.	10-6-05	1800
2. Relinquished By: A. H.	10-6-05	1900	2. Received By: Anne Sanders	10/7/05	800 AM
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

L4149 (1202)

CHAIN OF CUSTODY NUMBER
* 0 1 2 9 5 8 - 0 3 9 *

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

57249

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-6-05	Page 1 of 1
Address: 1451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments
~~FWGDA2mw-Dat3C-0127-GW~~	10-6	9:05	~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGDA2mw-Dat3C-0127-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGDA2mw-Dat3C-0127-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGDA2mw-Dat3C-0127-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGDA2mw-Dat3C-0127-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGDA2mw-Dat3C-0127-GW~~			~~WATER~~	~~40mL~~	~~40ML VOA~~	~~3~~	~~HCl~~	
~~FWGDA2mw-Dat3C-0127-GW~~			~~WATER~~	~~250mL~~	~~PLASTIC~~	~~1~~	~~NaOH~~	
~~FWGDA2mw-Dat3C-0127-GF~~			~~WATER~~	~~1000mL~~	~~PLASTIC~~	~~1~~	~~Conc HNO3~~	

Analysis: MS/MSD; 8260; 8270; BNA; Lead; Cr6; Mn; Nitrate; 1,4-Dioxane; Total Cr; Lead; As; Sb; Lead

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other ____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-6	1800	1. Received By: A.H.	10-6-05	1800
2. Relinquished By: A H	10-6-05	1900	2. Received By: Erik Sanders	10/7/05	8AM
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample: CANARY - Returned to Client with Report: PINK - Field Copy

Chain of Custody Record

L4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 3 8 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57248

Client	Project Manager	Date
Spec Pro	Chantelle Carroll	~~09/26/2005~~ 10-6-05
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Location**
451 State Route 5	(000) / (000)	STL North Canton
City	**State** / **Zip Code**	**Site Contact**
Navenna	OH / 44266	Chantelle Carroll
Project Number/Name	**Carrier/Waybill Number**	
Navenna		

Contract/Purchase Order/Quote Number

CONTRACT / PURCHASE ORDER # :

QUOTE: 63240

Page ~~36~~ 1 of ~~46~~ 1

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments	Analysis
~~FWGDA2MW-107C-0126-GW-MSD~~	10-6	11:10	WATER	1L	AMBER	2	None		
~~FWGDA2MW-107C-0126-GW-MSD~~			WATER	1L	AMBER	2	None		
~~FWGDA2MW-107C-0126-GW-MSD~~			WATER	1L	AMBER	2	None		
~~FWGDA2MW-107C-0126-GW-MSD~~			WATER	1L	AMBER	2	None		
~~FWGDA2MW-107C-0126-GW-MSD~~			WATER	1L	AMBER	2	None		
~~[illegible]~~			~~[illegible]~~	~~[illegible]~~					
~~FWGDA2MW-107C-0126-GW-MSD~~			WATER	250mL	PLASTIC	1	NaOH		
~~FWGDA2MW-107C-0126-GF-MSD~~			WATER	1000mL	PLASTIC	1	Conc HNO3		

* only 8 ambers

Analysis columns: MS/MSD, Chloride, Nitrate, Sulfate, Total Alkalinity, Total Dissolved Solids, Total Organic Carbon, Total Metals (Ca, Fe, K, Mg, Mn, Na), Dissolved Metals (Ca, Fe, K, Mg, Mn, Na), Dissolved Organic Carbon, Volatile Organic Compounds, Semivolatile Organic Compounds, Pesticides, Herbicides, PCBs, Explosives, Propellants, Cyanide, Total Phosphorus, Ortho Phosphate, Ammonia, Nitrate/Nitrite, Total Kjeldahl Nitrogen, Total Organic Halogen, Total Petroleum Hydrocarbons, Gasoline Range Organics, Diesel Range Organics, Oil and Grease, Perchlorate, Hexavalent Chromium, Sulfide, Sulfite, Total Suspended Solids, Turbidity, Hardness, Biochemical Oxygen Demand, Chemical Oxygen Demand, Total Coliform, Fecal Coliform, Escherichia coli, Enterococci, Heterotrophic Plate Count, Asbestos, Radiochemistry, Gross Alpha, Gross Beta, Radium 226, Radium 228, Strontium 90, Tritium, Uranium, Isotopic Uranium, Isotopic Thorium, Gamma Spectroscopy, Specific Gravity, Vapor Analysis, Air Analysis, Fixed Gases, Ethylene Glycol, Methane/Ethane/Ethene, Alcohols, Organic Lead, Tetraethyl Lead, Dissolved Gases, Dissolved Oxygen, Ferrous Iron, Alkalinity, Chloride, Sulfate, Nitrate, Nitrite, Ammonia, Total Phosphorus, Ortho Phosphate, Total Kjeldahl Nitrogen, Total Organic Carbon, Total Dissolved Solids, Total Suspended Solids, Turbidity, Hardness, Biochemical Oxygen Demand, Chemical Oxygen Demand, Total Coliform, Fecal Coliform, Escherichia coli, Enterococci, Heterotrophic Plate Count, Asbestos, Radiochemistry, Gross Alpha, Gross Beta, Radium 226, Radium 228, Strontium 90, Tritium, Uranium, Isotopic Uranium, Isotopic Thorium, Gamma Spectroscopy, Specific Gravity, Vapor Analysis, Air Analysis, Fixed Gases, Ethylene Glycol, Methane/Ethane/Ethene, Alcohols, Organic Lead, Tetraethyl Lead, Dissolved Gases, Dissolved Oxygen, Ferrous Iron, Alkalinity

Special Instructions

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For_____ Months

(A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required

☐ Normal ☐ Rush ☐ Other_____

QC Level

☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-6	1800	1. Received By: A.H.	10-6-05	1800
2. Relinquished By: H.H.	10-6-05	1900	2. Received By: [signature]	10/7/05	0800
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER
* 0 1 2 9 5 8 - 0 3 7 *

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

57247

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: ~~09/26/2005~~ 10-6-05
Address: 3451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll	
Project Number/Name: Ravenna	Carrier/Waybill Number:	
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :	QUOTE: 63240	

Page 1 of 37

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments
FWGDA2mw-107C-0126-GW	10-6	11:10	WATER	1L	AMBER	2	None	
FWGDA2mw-107C-0126-GW			WATER	1L	AMBER	2	None	
FWGDA2mw-107C-0126-GW			WATER	1L	AMBER	2	None	
FWGDA2mw-107C-0126-GW			WATER	1L	AMBER	2	None	
FWGDA2mw-107C-0126-GW			WATER	1L	AMBER	2	None	
[illegible]			WATER	[illegible]			HCL	
FWGDA2mw-107C-0126-GW			WATER	250mL	PLASTIC	1	NaOH	
FWGDA2mw-107C-0126-GF			WATER	1000mL	PLASTIC	1	Conc HNO3	
FWGDA2mw-107C-0126-GW MS			WATER	1L	AMBER	2	None	
FWGDA2mw-107C-0126-GW MS			WATER	1L	AMBER	2	None	
FWGDA2mw-107C-0126-GW MS	X Only 8 Ambers		WATER	1L	AMBER	2	None	
FWGDA2mw-107C-0126-GW MS			WATER	1L	AMBER	2	None	
FWGDA2mw-107C-0126-GW MS			WATER	1L	AMBER	2	None	
FWGDA2mw-107C-0126-GW MS			WATER	40mL	40ML VIAL	3	HCL	
FWGDA2mw-107C-0126-GW MS			WATER	250mL	PLASTIC	1	NaOH	
FWGDA2mw-107C-0126-GF MS			WATER	1000mL	PLASTIC	1	Conc HNO3	

Analysis: MS/SD 2200 1 GL 1 N; MS/SD 2200 1 GL 1 N; MS/SD 2200 1 GL 1 N;

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 4 1 *

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

57251

Client	Project Manager	Date
Spec Pro	Chantelle Carroll	~~08/26/2005~~ 10-6-05
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Location**
8451 State Route 5	(000) / (000)	STL North Canton
City / **State** / **Zip Code**	**Site Contact**	
Ravenna / OH / 44266	Chantelle Carroll	
Project Number/Name	**Carrier/Waybill Number**	
Ravenna		

Page 1 of ~~2~~ 1

Contract/Purchase Order/Quote Number
CONTRACT / PURCHASE ORDER # :

QUOTE: 63240

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments	Analysis
~~FWGWBGmw-006C-0129-GW~~	10-6	10:50	~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGWBGmw-006C-0129-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGWBGmw-006C-0129-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGWBGmw-006C-0129-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGWBGmw-006C-0129-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	2	None		
~~FWGWBGmw-006C-0129-GW~~			~~WATER~~	~~40mL~~	~~40mL VOA~~	~~3~~	~~HCl~~		
~~FWGWBGmw-006C-0129-GW~~			~~WATER~~	~~250mL~~	~~PLASTIC~~	1	~~NaOH~~		
~~FWGWBGmw-006C-0129-GF~~			~~WATER~~	~~1000mL~~	~~PLASTIC~~	1	~~Conc HNO3~~		

* only 8 ambers

Special Instructions

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ Normal ☐ Rush ☐ Other _____

QC Level
☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-6	1800	1. Received By: A.H.	10-6-05	1800
2. Relinquished By: A.H.	10-6-05	1900	2. Received By: Anne Sanders	10/7/05	8AM
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

TL-4124 (0901)

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: 10-6-05	Chain of Custody Number: 200927
Address:	Telephone Number (Area Code)/Fax Number:	Lab Number:	Page 1 of 1
City: Ravenna / State: OH / Zip Code:	Site Contact: Chantelle Carroll	Lab Contact:	Analysis (Attach list if more space is needed)
Project Name and Location (State): Ravenna	Carrier/Waybill Number:		Special Instructions/ Conditions of Receipt
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Eagles	Propell	PCB/Pest	SVOC	TAL Metal	Cyanide
FWGWBGmw-009C-0139-gw	10-6	8:52		X			8				1		2	2	2	2		1
FWGWBGmw-009C-0139-gf	10-6	8:52		X					1								1	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify):

1. Relinquished By: Chantelle Carroll	Date: 10-6	Time: 1800	1. Received By: A.H.	Date: 10-6-05	Time: 1800
2. Relinquished By: A.H.	Date: 10-6-05	Time: 1900	2. Received By: Anne Sanders	Date: 10/7/05	Time: 8AM
3. Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER
* 0 1 2 9 5 8 - 0 4 2 *

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

57252

Client	Project Manager	Date
Spec Pro	Chantelle Carroll	~~09/26/2005~~ 10-6-05
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Location**
8451 State Route 5	(000) / (000)	STL North Canton
City / **State** / **Zip Code**	**Site Contact**	
Ravenna / OH / 44266	Chantelle Carroll	
Project Number/Name	**Carrier/Waybill Number**	
Ravenna		

Page 1 of 1

Contract/Purchase Order/Quote Number
CONTRACT / PURCHASE ORDER # :
QUOTE: 63240

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments
~~FWGWBGmw-007C-0130-GW~~	10-6	8:55	WATER	1L	AMBER	2	None	
~~FWGWBGmw-007C-0130-GW~~			WATER	1L	AMBER	2	None	
~~FWGWBGmw-007C-0130-GW~~			WATER	1L	AMBER	2	None	
~~FWGWBGmw-007C-0130-GW~~			WATER	1L	AMBER	2	None	
~~FWGWBGmw-007C-0130-GW~~			WATER	1L	AMBER	2	None	
~~[illegible]~~			~~[illegible]~~	~~[illegible]~~				
FWGWBGmw-007C-0130-GW			WATER	250mL	PLASTIC		NaOH	
FWGWBGmw-007C-0130-GF			WATER	1000mL	PLASTIC		Conc HNO3	

Analysis: N S S C O C C C N 6 O / S S 8 8 8 8 E M 0 3 / 2 2 0 1 3 L G L 1 M / 6 7 8 3 0 0 / 0 0 2 D O L L Q 2 / C L / L A S L

*only 8 ambers

Special Instructions

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ Normal ☐ Rush ☐ Other _____

QC Level
☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

		Date	Time
1. Relinquished By	Chantelle Carroll	10-6	1800
2. Relinquished By	A. H.	10-6-05	1900
3. Relinquished By			
1. Received By	A. H.	10-6-05	1800
2. Received By	Anna Sanders	10/7/05	8AM
3. Received By			

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

FL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 4 3 *

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

57253

Client	Project Manager	Date	Page / of
Spec Pro	Chantelle Carroll	~~09/26/2005~~ 10-6-05	Page 15 of 15
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Location**	
8451 State Route 5	(000) / (000)	STL North Canton	
City / **State** / **Zip Code**	**Site Contact**		
Ravenna / OH / 44266	Chantelle Carroll		
Project Number/Name	**Carrier/Waybill Number**		
Ravenna			
Contract/Purchase Order/Quote Number			
CONTRACT / PURCHASE ORDER # :	QUOTE: 63240		

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments
~~FWGWBGmw-009C-0131-GW~~	10-6	1157	~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGWBGmw-009C-0131-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGWBGmw-009C-0131-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGWBGmw-009C-0131-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGWBGmw-009C-0131-GW~~			~~WATER~~	~~1L~~	~~AMBER~~	~~2~~	~~None~~	
~~FWGWBGmw-009C-0131-GW~~			~~WATER~~	~~40mL~~	~~40mL VIAL~~			
~~FWGWBGmw-009C-0131-GW~~			~~WATER~~	~~250mL~~	~~PLASTIC~~	~~1~~	~~NaOH~~	
~~FWGWBGmw-009C-0131-GF~~			~~WATER~~	~~1000mL~~	~~PLASTIC~~	~~1~~	~~Conc HNO3~~	

Analysis: MW8260C, MW8260C_SIM, MW8270C_LL, MW8270C_SIM, MW6010C, MW7470A, MW9056, MW8330_LL, MW8330N

Special Instructions

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ Normal ☐ Rush ☐ Other____

QC Level
☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chantelle Carroll	10-6	1800	1. Received By: A.H.	10-6-05	1800
2. Relinquished By: A.H.	10-6-05	1900	2. Received By: Lisa Sanders	10/7/05	8AM
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER

* 0 1 2 9 5 8 - 0 2 7 *

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

57237

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: 09/26/2005	Page 27 of 40
Address: 8451 State Route 5	Telephone Number (Area Code)/Fax Number: (000) / (000)	Lab Location: STL North Canton	
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle Carroll		
Project Number/Name: Ravenna	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments
~~FWGLL11mw-002C-0118-GW~~	10-6-05	1321	WATER	~~1L~~	~~AMBER~~	~~2~~	None	
FWGLL11mw-002C-0118-GW			WATER	1L	AMBER	2	None	
FWGLL11mw-002C-0118-GW			WATER	1L	AMBER	2	None	
FWGLL11mw-002C-0118-GW			WATER	1L	AMBER	2	None	
FWGLL11mw-002C-0118-GW			WATER	1L	AMBER	2	None	
~~FWGLL11mw-002C-0118-GW~~			~~WATER~~	~~40mL~~	~~40mL VIA~~	~~3~~	~~HCL~~	
FWGLL11mw-002C-0118-GW			WATER	250mL	PLASTIC	1	NaOH	
~~FWGLL11mw-002C-0118-GF~~			WATER	1000mL	PLASTIC	1	Conc HNO3	

*only 8 ambers

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For_____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ Normal ☐ Rush ☐ Other_____

QC Level: ☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	10-6-05	1510	1. Received By: A. H.	10-6-05	1800
2. Relinquished By: A.H.	10-6-05	1900	2. Received By: Anne Sanders	10/7/05	8AM
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

TL4149 (1202)

CHAIN OF CUSTODY NUMBER
* 0 1 2 9 5 8 - 0 0 4 *

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

57214

Client	Project Manager	Date	Page 4 of 46
Spec Pro	Chantelle Carroll	09/26/2005	
Address 8451 State Route 5	Telephone Number (Area Code)/Fax Number (000) / (000)	Lab Location STL North Canton	
City Ravenna	**State** OH	**Zip Code** 44266	Site Contact Chantelle Carroll
Project Number/Name Ravenna	Carrier/Waybill Number		
Contract/Purchase Order/Quote Number CONTRACT / PURCHASE ORDER # :		QUOTE: 63240	

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments	Analysis
FWGBKGMW-006C-0096-GW	10-6-05	14:15	WATER	1L	AMBER	2	None		
FWGBKGMW-006C-0096-GW			WATER	1L	AMBER	2	None		
FWGBKGMW-006C-0096-GW			WATER	1L	AMBER	2	None		
FWGBKGMW-006C-0096-GW			WATER	1L	AMBER	2	None		
FWGBKGMW-006C-0096-GW			WATER	1L	AMBER	2	None		
~~FWGBKGMW-006C-0096-GW~~			~~WATER~~	~~40mL~~	~~40mL VIA~~	3	HCL		
FWGBKGMW-006C-0096-GW			WATER	250mL	PLASTIC	1	NaOH		
FWGBKGMW-006C-0096-GF			WATER	1000mL	PLASTIC	1	Conc HNO3		

* only 8 ambers

Special Instructions

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For_____ Months
(A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ Normal ☐ Rush ☐ Other_____

QC Level
☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	10-6-05	1800	1. Received By	10-6-05	1800
2. Relinquished By A.H.	10-6-05	1900	2. Received By	10/7/05	8AM
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL Cooler Receipt Form/Narrative **Lot Number:** A5J070109
North Canton Facility

Client: Spec Pro Project: Quote#:
Cooler Received on: 10/7/05 Opened on: 10/7/05 by: Anne Saunders (Signature)
Fedx ☐ Client Drop Off ☐ UPS ☐ DHL ☐ FAS ☐ STL Courier ☒
Stetson ☐ US Cargo ☐ Other:
STL Cooler No# See attached Foam Box ☐ Client Cooler ☐ Other
1. Were custody seals on the outside of the cooler? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
If YES, Quantity 2 per coolers.
Were the custody seals signed and dated? Yes ☒ No ☐ NA ☐
2. Shipper's packing slip attached to this form? Yes ☐ No ☐ NA ☒
3. Did custody papers accompany the samples? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Did you sign the custody papers in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☒ None ☐ Other:
6. Cooler temperature upon receipt _____ °C (see back of form for multiple coolers/temp)
METHOD: Temp Vial ☐ Coolant & Sample ☐ Against Bottles ☐ IR ☒ ICE/H_2O Slurry ☐
COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels and/or tags be reconciled with the COC? Yes ☒ No ☐
9. Were samples at the correct pH? (record below/on back) Yes ☒ No ☐ NA ☐
10. Were correct bottles used for the tests indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a Trip Blank present in the cooler? Yes ☒ No ☐ Were VOAs on the COC? Yes ☒ No ☐
14. Does the trip blank number match the cooler number in which it was received? Yes ☐ No ☒ NA ☐
Contacted PM _____ Date: _____ by: _____ via Voice Mail ☐ Verbal ☐ Other ☐
Concerning:

√

1. CHAIN OF CUSTODY

The following discrepancies occurred:

2. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

3. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in sample receiving to meet recommended pH level(s). *Nitric Acid Lot # 091305-HNO3; Sulfuric Acid Lot # 041305-H2SO4; Sodium Hydroxide Lot # -041305 -NaOH; Hydrochloric Acid Lot # 100504 HCl; Sodium Hydroxide and Zinc Acetate Lot # 071604 CH3COO2ZN/NaOH*

Sample(s) _____ were received with bubble > 6 mm in diameter (cc: PM)

4. Other (see below or back)

Client ID	pH	Date	Initials
	See attached		

ASJ0710109

STL North Canton Multiple Cooler Receipt Form/Narrative

Client ID	pH	Date	Initials
0128-GW	>12	10/7/05	AMS
-GF	<2		
0138-GW	>12		
GF	<2		
0119-GW	>12 >12		
GF	<2 <2		
0127-GW	>12		
GF	<2		
0126-GW	>12 >12		
GF	<2 <2		
0124-GW	>12 >12		
GF	<2		
0139-GW	>12		
-GF	<2		
0130-GW	>12		
-GF	<2		
0131-GW	>12		
-GF	<2		
0118-GW	>12		
GF	<2		
0096-GW	>12		
GF	<2		

Revision 0, 09/19/01 DJL N:\QAQC\LAB_FORM\STL North Canton Multiple Cooler Receipt_Narrative.doc

STL North Canton Multiple Cooler Form A5507010 09

Cooler	Temp	Method	Coolant	Comments
STL NO#	3.7	IR	ICE	
6000-CH	2.4			
NO #	4.7			
L13	4.6			
Client	3.6			
NO #	4.7			
	3.2			
	2.9			
KOOO	4.1			
NO #	3.7			
1	4.9			
4600-000	2.6			
NO #	2.8			
1	4.2			

Revision 0, 09/19/01 DJL \\QCANOH01\public\QAQC\LAB_FORM\STL North Canton Multiple Cooler Form.doc

SEVERN TRENT STL

GCMS SEMIVOLATILE DATA

SpecPro Inc

Client Sample ID: FWFDA2MW-DET4C-0128-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-001 **Work Order #...:** HL7131AC **Matrix.....:** WG
Date Sampled...: 10/06/05 10:15 **Date Received..:** 10/07/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	**5.3 J**	**10**	**ug/L**
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWFDA2MW-DET4C-0128-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-001 Work Order #...: HL7131AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**2.1 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWFDA2MW-DET4C-0128-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-001 **Work Order #...:** HL7131AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	61	(32 - 112)
2-Fluorobiphenyl	44	(30 - 110)
Terphenyl-d14	70	(51 - 135)
Phenol-d5	43	(10 - 117)
2-Fluorophenol	23	(19 - 108)
2,4,6-Tribromophenol	38 *	(42 - 124)

NOTE(S):

* Surrogate recovery is outside stated control limits.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWFDA2MW-DET4C-0128-GW

GC/MS Semivolatiles

Lot-Sample #: A5J070109-001 **Work Order #:** HL7131AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Benzothiazole	95-16-9	0.78 NJ	M	4.4843	ug/L
Unknown		1.8 J	M	5.8091	ug/L
Unknown Hydrocarbon		0.86 J	M	9.586	ug/L
Unknown		2.3 J	M	11.017	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0138-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-003 **Work Order #...:** HL72L1AC **Matrix.....:** WG
Date Sampled...: 10/06/05 09:05 **Date Received..:** 10/07/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0138-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-003 Work Order #...: HL72L1AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	ND	1.0	ug/L
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**1.3 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0138-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-003 **Work Order #...:** HL72L1AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	61	(32 - 112)
2-Fluorobiphenyl	45	(30 - 110)
Terphenyl-d14	83	(51 - 135)
Phenol-d5	57	(10 - 117)
2-Fluorophenol	59	(19 - 108)
2,4,6-Tribromophenol	48	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGBKGMW-019C-0138-GW

GC/MS Semivolatiles

Lot-Sample #: A5J070109-003 **Work Order #:** HL72L1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Diethyltoluamide	134-62-3	8.3 NJ	M	5.8007	ug/L
Unknown		1.1 J	M	7.9536	ug/L
Unknown		2.5 J	M	11.052	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0105-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-005	**Work Order #...:** HL72N1AC		**Matrix.....:** WG
Date Sampled...: 10/06/05 09:05	**Date Received..:** 10/07/05		
Prep Date.....: 10/08/05	**Analysis Date..:** 10/11/05		
Prep Batch #...: 5281013			
Dilution Factor: 1	**Initial Wgt/Vol:** 1030 mL		**Final Wgt/Vol..:** 2 mL
	Method.....: SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0105-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-005 **Work Order #...:** HL72N1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**1.7 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0105-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-005 **Work Order #...:** HL72N1AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	60	(32 - 112)
2-Fluorobiphenyl	44	(30 - 110)
Terphenyl-d14	66	(51 - 135)
Phenol-d5	48	(10 - 117)
2-Fluorophenol	42	(19 - 108)
2,4,6-Tribromophenol	44	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGBKGMW-019C-0105-GW

GC/MS Semivolatiles

Lot-Sample #: A5J070109-005 **Work Order #:** HL72N1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Diethyltoluamide	134-62-3	3.4 NJ	M	5.8011	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL11MW-007C-0119-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-007 **Work Order #...:** HL72R1AE **Matrix.....:** WG
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 990 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL11MW-007C-0119-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-007 Work Order #...: HL72R1AE Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	ND	1.0	ug/L
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**1.6 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL11MW-007C-0119-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-007 **Work Order #...:** HL72R1AE **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	54	(32 - 112)
2-Fluorobiphenyl	39	(30 - 110)
Terphenyl-d14	63	(51 - 135)
Phenol-d5	42	(10 - 117)
2-Fluorophenol	34	(19 - 108)
2,4,6-Tribromophenol	39 *	(42 - 124)

NOTE(S):

* Surrogate recovery is outside stated control limits.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL11MW-007C-0119-GW

GC/MS Semivolatiles

Lot-Sample #: A5J070109-007 **Work Order #:** HL72R1AE **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGDA2MW-DET3-0127-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-009 **Work Order #...:** HL72V1AC **Matrix.....:** WG
Date Sampled...: 10/06/05 09:05 **Date Received..:** 10/07/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281014
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGDA2MW-DET3-0127-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-009 Work Order #...: HL72V1AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**2.7 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGDA2MW-DET3-0127-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-009 Work Order #...: HL72V1AC Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	81	(32 - 112)
2-Fluorobiphenyl	56	(30 - 110)
Terphenyl-d14	83	(51 - 135)
Phenol-d5	64	(10 - 117)
2-Fluorophenol	56	(19 - 108)
2,4,6-Tribromophenol	59	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGDA2MW-DET3-0127-GW

GC/MS Semivolatiles

Lot-Sample #: A5J070109-009 **Work Order #:** HL72V1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown Organic Acid		1.5 J	M	5.8126	ug/L
Unknown		3.8 J	M	11.042	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGDA2MW-107C-0126-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-011	**Work Order #...:** HL72X1AE	**Matrix.....:** WG	
Date Sampled...: 10/06/05 11:10	**Date Received..:** 10/07/05		
Prep Date.....: 10/08/05	**Analysis Date..:** 10/11/05		
Prep Batch #...: 5281014			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL	**Final Wgt/Vol..:** 2 mL	
	Method.....: SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	**5.2 J**	**10**	**ug/L**
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGDA2MW-107C-0126-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-011 Work Order #...: HL72X1AE Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.5**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**3.5 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGDA2MW-107C-0126-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-011 **Work Order #...:** HL72X1AE **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	75	(32 - 112)
2-Fluorobiphenyl	53	(30 - 110)
Terphenyl-d14	82	(51 - 135)
Phenol-d5	60	(10 - 117)
2-Fluorophenol	51	(19 - 108)
2,4,6-Tribromophenol	55	(42 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGDA2MW-107C-0126-GW

GC/MS Semivolatiles

Lot-Sample #: A5J070109-011 **Work Order #:** HL72X1AE **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		1.3 J	M	5.8127	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGWBGMW-006C-0129-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-013 **Work Order #...:** HL7221AC **Matrix.....:** WG
Date Sampled...: 10/06/05 10:50 **Date Received..:** 10/07/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281014
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGWBGMW-006C-0129-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-013 **Work Order #...:** HL7221AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**2.4 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGWBGMW-006C-0129-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-013 Work Order #...: HL7221AC Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	60	(32 - 112)
2-Fluorobiphenyl	43	(30 - 110)
Terphenyl-d14	81	(51 - 135)
Phenol-d5	44	(10 - 117)
2-Fluorophenol	38	(19 - 108)
2,4,6-Tribromophenol	44	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGWBGMW-006C-0129-GW

GC/MS Semivolatiles

Lot-Sample #: A5J070109-013 **Work Order #:** HL7221AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown Organic Acid		1.2 J	M	5.8118	ug/L
Unknown		0.79 J	M	7.97	ug/L
Unknown Hydrocarbon		0.91 J	M	8.4348	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0139-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-015 **Work Order #...:** HL7251AC **Matrix.....:** WG
Date Sampled...: 10/06/05 08:52 **Date Received..:** 10/07/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281014
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0139-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-015 Work Order #...: HL7251AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**22 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0139-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-015 Work Order #...: HL7251AC Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	77	(32 - 112)
2-Fluorobiphenyl	59	(30 - 110)
Terphenyl-d14	82	(51 - 135)
Phenol-d5	61	(10 - 117)
2-Fluorophenol	53	(19 - 108)
2,4,6-Tribromophenol	54	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGWBGMW-007C-0139-GW

GC/MS Semivolatiles

Lot-Sample #: A5J070109-015 **Work Order #:** HL7251AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown Organic Acid		1.0 J	M	5.8082	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0130-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-017	**Work Order #...:** HL7271AC		**Matrix.....:** WG
Date Sampled...: 10/06/05 08:52	**Date Received..:** 10/07/05		
Prep Date.....: 10/08/05	**Analysis Date..:** 10/11/05		
Prep Batch #...: 5281014			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL		**Final Wgt/Vol..:** 2 mL
	Method.....: SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0130-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-017 Work Order #...: HL7271AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.6 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**2.2 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0130-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-017 Work Order #...: HL7271AC Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	71	(32 - 112)
2-Fluorobiphenyl	57	(30 - 110)
Terphenyl-d14	80	(51 - 135)
Phenol-d5	60	(10 - 117)
2-Fluorophenol	49	(19 - 108)
2,4,6-Tribromophenol	52	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGWBGMW-007C-0130-GW

GC/MS Semivolatiles

Lot-Sample #: A5J070109-017 **Work Order #:** HL7271AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown Organic Acid		1.1 J	M	5.8087	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGWBGMW-009C-0131-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-019 **Work Order #...:** HL7291AC **Matrix.....:** WG
Date Sampled...: 10/06/05 11:57 **Date Received..:** 10/07/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281014
Dilution Factor: 1 **Initial Wgt/Vol:** 1040 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGWBGMW-009C-0131-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-019 Work Order #...: HL7291AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	**1.5**	**1.0**	**ug/L**
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**1.6 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGWBGMW-009C-0131-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-019 Work Order #...: HL7291AC Matrix.....: WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	61	(32 - 112)
2-Fluorobiphenyl	44	(30 - 110)
Terphenyl-d14	76	(51 - 135)
Phenol-d5	48	(10 - 117)
2-Fluorophenol	43	(19 - 108)
2,4,6-Tribromophenol	51	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGWBGMW-009C-0131-GW

GC/MS Semivolatiles

Lot-Sample #: A5J070109-019 **Work Order #:** HL7291AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		1.1 J	M	5.8081	ug/L
Unknown Hydrocarbon		0.95 J	M	7.3733	ug/L
Unknown Hydrocarbon		1.1 J	M	7.6511	ug/L
Unknown Hydrocarbon		1.3 J	M	7.9182	ug/L
Unknown		1.4 J	M	7.977	ug/L
Unknown Hydrocarbon		1.1 J	M	8.1853	ug/L
Unknown Hydrocarbon		4.0 J	M	8.4471	ug/L
Unknown Hydrocarbon		2.3 J	M	8.9706	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGLL11MW-002C-0118-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-021	**Work Order #...:** HL73C1AC	**Matrix.....:** WG	
Date Sampled...: 10/06/05 13:21	**Date Received..:** 10/07/05		
Prep Date.....: 10/08/05	**Analysis Date..:** 10/11/05		
Prep Batch #...: 5281014			
Dilution Factor: 1	**Initial Wgt/Vol:** 990 mL	**Final Wgt/Vol..:** 2 mL	
	Method.....: SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL11MW-002C-0118-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-021 Work Order #...: HL73C1AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.5 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**2.4 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGLL11MW-002C-0118-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-021 **Work Order #...:** HL73C1AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	78	(32 - 112)
2-Fluorobiphenyl	57	(30 - 110)
Terphenyl-d14	72	(51 - 135)
Phenol-d5	60	(10 - 117)
2-Fluorophenol	54	(19 - 108)
2,4,6-Tribromophenol	58	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGLL11MW-002C-0118-GW

GC/MS Semivolatiles

Lot-Sample #: A5J070109-021 **Work Order #:** HL73C1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
2-Pyrrolidinone, 1-methyl-	872-50-4	4.0 NJ	M	3.4788	ug/L
Unknown Organic Acid		2.0 J	M	4.0451	ug/L
Unknown		2.3 J	M	5.3432	ug/L
Butylated Hydroxytoluene	128-37-0	2.4 NJ	M	5.5248	ug/L
Diethyltoluamide	134-62-3	3.8 NJ	M	5.8026	ug/L
Unknown		23 J	M	7.9608	ug/L
Unknown		7.2 J	M	11.566	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

SpecPro Inc

Client Sample ID: FWGBKGMW-006C-0096-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-023 **Work Order #...:** HL73E1AC **Matrix.....:** WG
Date Sampled...: 10/06/05 14:15 **Date Received..:** 10/07/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281014
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 2 mL
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzoic acid	ND	10	ug/L
Benzyl alcohol	ND	5.0	ug/L
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-006C-0096-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-023 Work Order #...: HL73E1AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	**1.4 B**	**1.0**	**ug/L**
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**2.0 B**	**1.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

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SpecPro Inc

Client Sample ID: FWGBKGMW-006C-0096-GW

GC/MS Semivolatiles

Lot-Sample #...: A5J070109-023 **Work Order #...:** HL73E1AC **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	76	(32 - 112)
2-Fluorobiphenyl	55	(30 - 110)
Terphenyl-d14	73	(51 - 135)
Phenol-d5	55	(10 - 117)
2-Fluorophenol	46	(19 - 108)
2,4,6-Tribromophenol	42	(42 - 124)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

FWGBKGMW-006C-0096-GW

GC/MS Semivolatiles

Lot-Sample #: A5J070109-023 **Work Order #:** HL73E1AC **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		1.4 J	M	3.0096	ug/L
Unknown Organic Acid		1.2 J	M	5.8089	ug/L
Unknown Organic Acid		130 J	M	11.049	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMA261AA **Matrix.....:** WATER
MB Lot-Sample #: A5J080000-013

Prep Date.....: 10/08/05 **Final Wgt/Vol..:** 2 mL
Analysis Date..: 10/11/05 **Prep Batch #...:** 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzoic acid	ND	10	ug/L	SW846 8270C
Benzyl alcohol	ND	5.0	ug/L	SW846 8270C
Phenol	ND	1.0	ug/L	SW846 8270C
bis(2-Chloroethyl)-ether	ND	1.0	ug/L	SW846 8270C
2-Chlorophenol	ND	1.0	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
2-Methylphenol	ND	1.0	ug/L	SW846 8270C
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L	SW846 8270C
4-Methylphenol	ND	1.0	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L	SW846 8270C
Hexachloroethane	ND	1.0	ug/L	SW846 8270C
Nitrobenzene	ND	1.0	ug/L	SW846 8270C
Isophorone	ND	1.0	ug/L	SW846 8270C
2-Nitrophenol	ND	2.0	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	2.0	ug/L	SW846 8270C
bis(2-Chloroethoxy) methane	ND	1.0	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	2.0	ug/L	SW846 8270C
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8270C
Naphthalene	ND	0.20	ug/L	SW846 8270C
4-Chloroaniline	ND	2.0	ug/L	SW846 8270C
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	2.0	ug/L	SW846 8270C
2-Methylnaphthalene	ND	0.20	ug/L	SW846 8270C
Hexachlorocyclopenta-diene	ND	10	ug/L	SW846 8270C
2,4,6-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2,4,5-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2-Chloronaphthalene	ND	1.0	ug/L	SW846 8270C
2-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Dimethyl phthalate	ND	1.0	ug/L	SW846 8270C
Acenaphthylene	ND	0.20	ug/L	SW846 8270C
2,6-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMA261AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
3-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Acenaphthene	ND	0.20	ug/L	SW846 8270C
2,4-Dinitrophenol	ND	5.0	ug/L	SW846 8270C
4-Nitrophenol	ND	5.0	ug/L	SW846 8270C
Dibenzofuran	ND	1.0	ug/L	SW846 8270C
2,4-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C
Diethyl phthalate	ND	1.0	ug/L	SW846 8270C
4-Chlorophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Fluorene	ND	0.20	ug/L	SW846 8270C
4-Nitroaniline	ND	2.0	ug/L	SW846 8270C
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L	SW846 8270C
N-Nitrosodiphenylamine	ND	1.0	ug/L	SW846 8270C
4-Bromophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Hexachlorobenzene	ND	0.20	ug/L	SW846 8270C
Pentachlorophenol	ND	5.0	ug/L	SW846 8270C
Phenanthrene	ND	0.20	ug/L	SW846 8270C
Anthracene	ND	0.20	ug/L	SW846 8270C
Carbazole	ND	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	**1.5**	**1.0**	**ug/L**	**SW846 8270C**
Fluoranthene	ND	0.20	ug/L	SW846 8270C
Pyrene	ND	0.20	ug/L	SW846 8270C
Butyl benzyl phthalate	ND	1.0	ug/L	SW846 8270C
3,3'-Dichlorobenzidine	ND	5.0	ug/L	SW846 8270C
Benzo(a)anthracene	ND	0.20	ug/L	SW846 8270C
Chrysene	ND	0.20	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	**1.6**	**1.0**	**ug/L**	**SW846 8270C**
Di-n-octyl phthalate	ND	1.0	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(a)pyrene	ND	0.20	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	0.20	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	0.20	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	70	(32 - 112)
2-Fluorobiphenyl	51	(30 - 110)
Terphenyl-d14	79	(51 - 135)
Phenol-d5	53	(10 - 117)
2-Fluorophenol	48	(19 - 108)

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMA261AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,4,6-Tribromophenol	49	(42 - 124)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SpecPro Inc

Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: A5J080000-013 B **Work Order #:** HMA261AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMA271AA **Matrix.....:** WATER
MB Lot-Sample #: A5J080000-014

Prep Date.....: 10/08/05 **Final Wgt/Vol..:** 2 mL
Analysis Date..: 10/11/05 **Prep Batch #...:** 5281014
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzoic acid	ND	10	ug/L	SW846 8270C
Benzyl alcohol	ND	5.0	ug/L	SW846 8270C
Phenol	ND	1.0	ug/L	SW846 8270C
bis(2-Chloroethyl)-ether	ND	1.0	ug/L	SW846 8270C
2-Chlorophenol	ND	1.0	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
2-Methylphenol	ND	1.0	ug/L	SW846 8270C
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L	SW846 8270C
4-Methylphenol	ND	1.0	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L	SW846 8270C
Hexachloroethane	ND	1.0	ug/L	SW846 8270C
Nitrobenzene	ND	1.0	ug/L	SW846 8270C
Isophorone	ND	1.0	ug/L	SW846 8270C
2-Nitrophenol	ND	2.0	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	2.0	ug/L	SW846 8270C
bis(2-Chloroethoxy) methane	ND	1.0	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	2.0	ug/L	SW846 8270C
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8270C
Naphthalene	ND	0.20	ug/L	SW846 8270C
4-Chloroaniline	ND	2.0	ug/L	SW846 8270C
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	2.0	ug/L	SW846 8270C
2-Methylnaphthalene	ND	0.20	ug/L	SW846 8270C
Hexachlorocyclopenta-diene	ND	10	ug/L	SW846 8270C
2,4,6-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2,4,5-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2-Chloronaphthalene	ND	1.0	ug/L	SW846 8270C
2-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Dimethyl phthalate	ND	1.0	ug/L	SW846 8270C
Acenaphthylene	ND	0.20	ug/L	SW846 8270C
2,6-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 Work Order #...: HMA271AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
3-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Acenaphthene	ND	0.20	ug/L	SW846 8270C
2,4-Dinitrophenol	ND	5.0	ug/L	SW846 8270C
4-Nitrophenol	ND	5.0	ug/L	SW846 8270C
Dibenzofuran	ND	1.0	ug/L	SW846 8270C
2,4-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C
Diethyl phthalate	ND	1.0	ug/L	SW846 8270C
4-Chlorophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Fluorene	ND	0.20	ug/L	SW846 8270C
4-Nitroaniline	ND	2.0	ug/L	SW846 8270C
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L	SW846 8270C
N-Nitrosodiphenylamine	ND	1.0	ug/L	SW846 8270C
4-Bromophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Hexachlorobenzene	ND	0.20	ug/L	SW846 8270C
Pentachlorophenol	ND	5.0	ug/L	SW846 8270C
Phenanthrene	ND	0.20	ug/L	SW846 8270C
Anthracene	ND	0.20	ug/L	SW846 8270C
Carbazole	ND	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	**1.5**	**1.0**	**ug/L**	**SW846 8270C**
Fluoranthene	ND	0.20	ug/L	SW846 8270C
Pyrene	ND	0.20	ug/L	SW846 8270C
Butyl benzyl phthalate	ND	1.0	ug/L	SW846 8270C
3,3'-Dichlorobenzidine	ND	5.0	ug/L	SW846 8270C
Benzo(a)anthracene	ND	0.20	ug/L	SW846 8270C
Chrysene	ND	0.20	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	**7.6**	**1.0**	**ug/L**	**SW846 8270C**
Di-n-octyl phthalate	ND	1.0	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(a)pyrene	ND	0.20	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	0.20	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	0.20	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	68	(32 - 112)
2-Fluorobiphenyl	51	(30 - 110)
Terphenyl-d14	77	(51 - 135)
Phenol-d5	54	(10 - 117)
2-Fluorophenol	49	(19 - 108)

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMA271AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,4,6-Tribromophenol	50	(42 - 124)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SpecPro Inc

Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: A5J080000-014 B **Work Order #:** HMA271AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown Organic Acid		1.4 J	M	5.8126	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMA261AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J080000-013
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Final Wgt/Vol..:** 2 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Phenol	**62**	**(10 - 116)**	**SW846 8270C**
2-Chlorophenol	**57**	**(37 - 106)**	**SW846 8270C**
1,4-Dichlorobenzene	**48**	**(32 - 98)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**79**	**(30 - 115)**	**SW846 8270C**
1,2,4-Trichloro-benzene	**50**	**(31 - 110)**	**SW846 8270C**
4-Chloro-3-methylphenol	**66**	**(47 - 111)**	**SW846 8270C**
Acenaphthene	**62**	**(39 - 118)**	**SW846 8270C**
4-Nitrophenol	**75**	**(10 - 123)**	**SW846 8270C**
2,4-Dinitrotoluene	**75**	**(47 - 131)**	**SW846 8270C**
Pentachlorophenol	**64**	**(38 - 117)**	**SW846 8270C**
Pyrene	**87**	**(46 - 130)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	76	(32 - 112)
2-Fluorobiphenyl	57	(30 - 110)
Terphenyl-d14	83	(51 - 135)
Phenol-d5	58	(10 - 117)
2-Fluorophenol	53	(19 - 108)
2,4,6-Tribromophenol	61	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMA261AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J080000-013
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Final Wgt/Vol..:** 2 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Phenol	**20**	**12**	**ug/L**	**62**	**SW846 8270C**
2-Chlorophenol	**20**	**11**	**ug/L**	**57**	**SW846 8270C**
1,4-Dichlorobenzene	**20**	**9.5**	**ug/L**	**48**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**20**	**16**	**ug/L**	**79**	**SW846 8270C**
1,2,4-Trichloro-benzene	**20**	**10**	**ug/L**	**50**	**SW846 8270C**
4-Chloro-3-methylphenol	**20**	**13**	**ug/L**	**66**	**SW846 8270C**
Acenaphthene	**20**	**12**	**ug/L**	**62**	**SW846 8270C**
4-Nitrophenol	**20**	**15**	**ug/L**	**75**	**SW846 8270C**
2,4-Dinitrotoluene	**20**	**15**	**ug/L**	**75**	**SW846 8270C**
Pentachlorophenol	**20**	**13**	**ug/L**	**64**	**SW846 8270C**
Pyrene	**20**	**17**	**ug/L**	**87**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	76	(32 - 112)
2-Fluorobiphenyl	57	(30 - 110)
Terphenyl-d14	83	(51 - 135)
Phenol-d5	58	(10 - 117)
2-Fluorophenol	53	(19 - 108)
2,4,6-Tribromophenol	61	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMA271AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J080000-014
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281014
Dilution Factor: 1 **Final Wgt/Vol..:** 2 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Phenol	**67**	**(10 - 116)**	**SW846 8270C**
2-Chlorophenol	**60**	**(37 - 106)**	**SW846 8270C**
1,4-Dichlorobenzene	**49**	**(32 - 98)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**83**	**(30 - 115)**	**SW846 8270C**
1,2,4-Trichloro-benzene	**52**	**(31 - 110)**	**SW846 8270C**
4-Chloro-3-methylphenol	**64**	**(47 - 111)**	**SW846 8270C**
Acenaphthene	**65**	**(39 - 118)**	**SW846 8270C**
4-Nitrophenol	**66**	**(10 - 123)**	**SW846 8270C**
2,4-Dinitrotoluene	**71**	**(47 - 131)**	**SW846 8270C**
Pentachlorophenol	**58**	**(38 - 117)**	**SW846 8270C**
Pyrene	**82**	**(46 - 130)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	77	(32 - 112)
2-Fluorobiphenyl	59	(30 - 110)
Terphenyl-d14	77	(51 - 135)
Phenol-d5	60	(10 - 117)
2-Fluorophenol	55	(19 - 108)
2,4,6-Tribromophenol	56	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMA271AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J080000-014
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281014
Dilution Factor: 1 **Final Wgt/Vol..:** 2 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Phenol	**20**	**13**	**ug/L**	**67**	**SW846 8270C**
2-Chlorophenol	**20**	**12**	**ug/L**	**60**	**SW846 8270C**
1,4-Dichlorobenzene	**20**	**9.9**	**ug/L**	**49**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**20**	**17**	**ug/L**	**83**	**SW846 8270C**
1,2,4-Trichloro-benzene	**20**	**10**	**ug/L**	**52**	**SW846 8270C**
4-Chloro-3-methylphenol	**20**	**13**	**ug/L**	**64**	**SW846 8270C**
Acenaphthene	**20**	**13**	**ug/L**	**65**	**SW846 8270C**
4-Nitrophenol	**20**	**13**	**ug/L**	**66**	**SW846 8270C**
2,4-Dinitrotoluene	**20**	**14**	**ug/L**	**71**	**SW846 8270C**
Pentachlorophenol	**20**	**12**	**ug/L**	**58**	**SW846 8270C**
Pyrene	**20**	**16**	**ug/L**	**82**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	77	(32 - 112)
2-Fluorobiphenyl	59	(30 - 110)
Terphenyl-d14	77	(51 - 135)
Phenol-d5	60	(10 - 117)
2-Fluorophenol	55	(19 - 108)
2,4,6-Tribromophenol	56	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 Work Order #...: HL72R1AF-MS Matrix.....: WG
MS Lot-Sample #: A5J070109-007 HL72R1AG-MSD
Date Sampled...: 10/06/05 11:23 Date Received..: 10/07/05
Prep Date.....: 10/08/05 Analysis Date..: 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 Initial Wgt/Vol: 525 mL Final Wgt/Vol..: 2 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Phenol	65	(10 - 116)			SW846 8270C
	59	(10 - 116)	8.4	(0-43)	SW846 8270C
2-Chlorophenol	60	(37 - 106)			SW846 8270C
	54	(37 - 106)	10	(0-43)	SW846 8270C
1,4-Dichlorobenzene	50	(32 - 98)			SW846 8270C
	41	(32 - 98)	20	(0-36)	SW846 8270C
N-Nitrosodi-n-propyl-amine	82	(18 - 115)			SW846 8270C
	78	(18 - 115)	5.0	(0-36)	SW846 8270C
1,2,4-Trichloro-benzene	50	(22 - 110)			SW846 8270C
	41	(22 - 110)	18	(0-37)	SW846 8270C
4-Chloro-3-methylphenol	67	(47 - 111)			SW846 8270C
	64	(47 - 111)	4.8	(0-55)	SW846 8270C
Acenaphthene	65	(26 - 118)			SW846 8270C
	62	(26 - 118)	4.0	(0-35)	SW846 8270C
4-Nitrophenol	70	(10 - 123)			SW846 8270C
	68	(10 - 123)	2.4	(0-34)	SW846 8270C
2,4-Dinitrotoluene	73	(31 - 131)			SW846 8270C
	71	(31 - 131)	2.7	(0-32)	SW846 8270C
Pentachlorophenol	61	(38 - 137)			SW846 8270C
	62	(38 - 137)	1.0	(0-56)	SW846 8270C
Pyrene	84	(27 - 138)			SW846 8270C
	84	(27 - 138)	0.68	(0-31)	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	78	(32 - 112)
	72	(32 - 112)
2-Fluorobiphenyl	58	(30 - 110)
	54	(30 - 110)
Terphenyl-d14	79	(51 - 135)
	78	(51 - 135)
Phenol-d5	61	(10 - 117)
	56	(10 - 117)
2-Fluorophenol	57	(19 - 108)
	51	(19 - 108)

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HL72R1AF-MS **Matrix.....:** WG
MS Lot-Sample #: A5J070109-007 HL72R1AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	59	(42 - 124)
	59	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HL72R1AF-MS **Matrix.....:** WG
MS Lot-Sample #: A5J070109-007 HL72R1AG-MSD
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 525 mL **Final Wgt/Vol..:** 2 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Phenol	ND	38	25	ug/L	65		SW846 8270C
	ND	38	23	ug/L	59	8.4	SW846 8270C
2-Chlorophenol	ND	38	23	ug/L	60		SW846 8270C
	ND	38	21	ug/L	54	10	SW846 8270C
1,4-Dichlorobenzene	ND	38	19	ug/L	50		SW846 8270C
	ND	38	16	ug/L	41	20	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	38	31	ug/L	82		SW846 8270C
	ND	38	30	ug/L	78	5.0	SW846 8270C
1,2,4-Trichloro-benzene	ND	38	19	ug/L	50		SW846 8270C
	ND	38	16	ug/L	41	18	SW846 8270C
4-Chloro-3-methylphenol	ND	38	26	ug/L	67		SW846 8270C
	ND	38	24	ug/L	64	4.8	SW846 8270C
Acenaphthene	ND	38	25	ug/L	65		SW846 8270C
	ND	38	24	ug/L	62	4.0	SW846 8270C
4-Nitrophenol	ND	38	27	ug/L	70		SW846 8270C
	ND	38	26	ug/L	68	2.4	SW846 8270C
2,4-Dinitrotoluene	ND	38	28	ug/L	73		SW846 8270C
	ND	38	27	ug/L	71	2.7	SW846 8270C
Pentachlorophenol	ND	38	23	ug/L	61		SW846 8270C
	ND	38	24	ug/L	62	1.0	SW846 8270C
Pyrene	ND	38	32	ug/L	84		SW846 8270C
	ND	38	32	ug/L	84	0.68	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	78	(32 - 112)
	72	(32 - 112)
2-Fluorobiphenyl	58	(30 - 110)
	54	(30 - 110)
Terphenyl-d14	79	(51 - 135)
	78	(51 - 135)
Phenol-d5	61	(10 - 117)
	56	(10 - 117)
2-Fluorophenol	57	(19 - 108)
	51	(19 - 108)

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HL72R1AF-MS **Matrix.....:** WG
MS Lot-Sample #: A5J070109-007 HL72R1AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	59	(42 - 124)
	59	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HL41C1AF-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J060101-017 HL41C1AG-MSD
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 **Initial Wgt/Vol:** 520 mL **Final Wgt/Vol..:** 2 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Phenol	44	(10 - 116)			SW846 8270C
	58	(10 - 116)	27	(0-43)	SW846 8270C
2-Chlorophenol	41	(37 - 106)			SW846 8270C
	53	(37 - 106)	25	(0-43)	SW846 8270C
1,4-Dichlorobenzene	27 a	(32 - 98)			SW846 8270C
	39	(32 - 98)	36	(0-36)	SW846 8270C
N-Nitrosodi-n-propyl-amine	60	(18 - 115)			SW846 8270C
	75	(18 - 115)	22	(0-36)	SW846 8270C
1,2,4-Trichloro-benzene	31	(22 - 110)			SW846 8270C
	42	(22 - 110)	31	(0-37)	SW846 8270C
4-Chloro-3-methylphenol	49	(47 - 111)			SW846 8270C
	61	(47 - 111)	23	(0-55)	SW846 8270C
Acenaphthene	47	(26 - 118)			SW846 8270C
	58	(26 - 118)	22	(0-35)	SW846 8270C
4-Nitrophenol	54	(10 - 123)			SW846 8270C
	67	(10 - 123)	21	(0-34)	SW846 8270C
2,4-Dinitrotoluene	58	(31 - 131)			SW846 8270C
	69	(31 - 131)	18	(0-32)	SW846 8270C
Pentachlorophenol	51	(38 - 137)			SW846 8270C
	61	(38 - 137)	18	(0-56)	SW846 8270C
Pyrene	71	(27 - 138)			SW846 8270C
	81	(27 - 138)	14	(0-31)	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	56	(32 - 112)
	70	(32 - 112)
2-Fluorobiphenyl	42	(30 - 110)
	52	(30 - 110)
Terphenyl-d14	67	(51 - 135)
	75	(51 - 135)
Phenol-d5	40	(10 - 117)
	56	(10 - 117)
2-Fluorophenol	35	(19 - 108)
	49	(19 - 108)

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HL41C1AF-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J060101-017 HL41C1AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	46	(42 - 124)
	55	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 Work Order #...: HL41C1AF-MS Matrix.....: WATER
MS Lot-Sample #: A5J060101-017 HL41C1AG-MSD
Date Sampled...: 10/05/05 08:53 Date Received..: 10/05/05
Prep Date.....: 10/08/05 Analysis Date..: 10/11/05
Prep Batch #...: 5281013
Dilution Factor: 1 Initial Wgt/Vol: 520 mL Final Wgt/Vol..: 2 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Phenol	ND	38	17	ug/L	44		SW846 8270C
	ND	38	22	ug/L	58	27	SW846 8270C
2-Chlorophenol	ND	38	16	ug/L	41		SW846 8270C
	ND	38	20	ug/L	53	25	SW846 8270C
1,4-Dichlorobenzene	ND	38	11	ug/L	27 a		SW846 8270C
	ND	38	15	ug/L	39	36	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	38	23	ug/L	60		SW846 8270C
	ND	38	29	ug/L	75	22	SW846 8270C
1,2,4-Trichloro-benzene	ND	38	12	ug/L	31		SW846 8270C
	ND	38	16	ug/L	42	31	SW846 8270C
4-Chloro-3-methylphenol	ND	38	19	ug/L	49		SW846 8270C
	ND	38	24	ug/L	61	23	SW846 8270C
Acenaphthene	ND	38	18	ug/L	47		SW846 8270C
	ND	38	22	ug/L	58	22	SW846 8270C
4-Nitrophenol	ND	38	21	ug/L	54		SW846 8270C
	ND	38	26	ug/L	67	21	SW846 8270C
2,4-Dinitrotoluene	ND	38	22	ug/L	58		SW846 8270C
	ND	38	26	ug/L	69	18	SW846 8270C
Pentachlorophenol	ND	38	19	ug/L	51		SW846 8270C
	ND	38	23	ug/L	61	18	SW846 8270C
Pyrene	ND	38	27	ug/L	71		SW846 8270C
	ND	38	31	ug/L	81	14	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	56	(32 - 112)
	70	(32 - 112)
2-Fluorobiphenyl	42	(30 - 110)
	52	(30 - 110)
Terphenyl-d14	67	(51 - 135)
	75	(51 - 135)
Phenol-d5	40	(10 - 117)
	56	(10 - 117)
2-Fluorophenol	35	(19 - 108)
	49	(19 - 108)

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HL41C1AF-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J060101-017 HL41C1AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	46	(42 - 124)
	55	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 Work Order #...: HL72X1AF-MS Matrix.....: WG
MS Lot-Sample #: A5J070109-011 HL72X1AG-MSD
Date Sampled...: 10/06/05 11:10 Date Received..: 10/07/05
Prep Date.....: 10/08/05 Analysis Date..: 10/11/05
Prep Batch #...: 5281014
Dilution Factor: 1 Initial Wgt/Vol: 500 mL Final Wgt/Vol..: 2 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Phenol	64	(10 - 116)			SW846 8270C
	65	(10 - 116)	0.92	(0-43)	SW846 8270C
2-Chlorophenol	59	(37 - 106)			SW846 8270C
	58	(37 - 106)	0.28	(0-43)	SW846 8270C
1,4-Dichlorobenzene	49	(32 - 98)			SW846 8270C
	45	(32 - 98)	10	(0-36)	SW846 8270C
N-Nitrosodi-n-propyl-amine	83	(18 - 115)			SW846 8270C
	82	(18 - 115)	0.24	(0-36)	SW846 8270C
1,2,4-Trichloro-benzene	50	(22 - 110)			SW846 8270C
	48	(22 - 110)	3.7	(0-37)	SW846 8270C
4-Chloro-3-methylphenol	64	(47 - 111)			SW846 8270C
	68	(47 - 111)	5.7	(0-55)	SW846 8270C
Acenaphthene	61	(26 - 118)			SW846 8270C
	65	(26 - 118)	5.4	(0-35)	SW846 8270C
4-Nitrophenol	70	(10 - 123)			SW846 8270C
	79	(10 - 123)	12	(0-34)	SW846 8270C
2,4-Dinitrotoluene	71	(31 - 131)			SW846 8270C
	78	(31 - 131)	9.5	(0-32)	SW846 8270C
Pentachlorophenol	63	(38 - 137)			SW846 8270C
	68	(38 - 137)	8.0	(0-56)	SW846 8270C
Pyrene	84	(27 - 138)			SW846 8270C
	91	(27 - 138)	7.9	(0-31)	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	75	(32 - 112)
	76	(32 - 112)
2-Fluorobiphenyl	57	(30 - 110)
	58	(30 - 110)
Terphenyl-d14	80	(51 - 135)
	86	(51 - 135)
Phenol-d5	60	(10 - 117)
	59	(10 - 117)
2-Fluorophenol	54	(19 - 108)
	53	(19 - 108)

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HL72X1AF-MS **Matrix.....:** WG
MS Lot-Sample #: A5J070109-011 HL72X1AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	57	(42 - 124)
	62	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HL72X1AF-MS **Matrix.....:** WG
MS Lot-Sample #: A5J070109-011 HL72X1AG-MSD
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05
Prep Date.....: 10/08/05 **Analysis Date..:** 10/11/05
Prep Batch #...: 5281014
Dilution Factor: 1 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 2 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Phenol	ND	40	26	ug/L	64		SW846 8270C
	ND	40	26	ug/L	65	0.92	SW846 8270C
2-Chlorophenol	ND	40	23	ug/L	59		SW846 8270C
	ND	40	23	ug/L	58	0.28	SW846 8270C
1,4-Dichlorobenzene	ND	40	20	ug/L	49		SW846 8270C
	ND	40	18	ug/L	45	10	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	40	33	ug/L	83		SW846 8270C
	ND	40	33	ug/L	82	0.24	SW846 8270C
1,2,4-Trichloro-benzene	ND	40	20	ug/L	50		SW846 8270C
	ND	40	19	ug/L	48	3.7	SW846 8270C
4-Chloro-3-methylphenol	ND	40	26	ug/L	64		SW846 8270C
	ND	40	27	ug/L	68	5.7	SW846 8270C
Acenaphthene	ND	40	24	ug/L	61		SW846 8270C
	ND	40	26	ug/L	65	5.4	SW846 8270C
4-Nitrophenol	ND	40	28	ug/L	70		SW846 8270C
	ND	40	31	ug/L	79	12	SW846 8270C
2,4-Dinitrotoluene	ND	40	28	ug/L	71		SW846 8270C
	ND	40	31	ug/L	78	9.5	SW846 8270C
Pentachlorophenol	ND	40	25	ug/L	63		SW846 8270C
	ND	40	27	ug/L	68	8.0	SW846 8270C
Pyrene	ND	40	34	ug/L	84		SW846 8270C
	ND	40	36	ug/L	91	7.9	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	75	(32 - 112)
	76	(32 - 112)
2-Fluorobiphenyl	57	(30 - 110)
	58	(30 - 110)
Terphenyl-d14	80	(51 - 135)
	86	(51 - 135)
Phenol-d5	60	(10 - 117)
	59	(10 - 117)
2-Fluorophenol	54	(19 - 108)
	53	(19 - 108)

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HL72X1AF-MS **Matrix.....:** WG
MS Lot-Sample #: A5J070109-011 HL72X1AG-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	57	(42 - 124)
	62	(42 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

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SpecPro Inc

Client Sample ID: FWFDA2MW-DET4C-0128-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-001 **Work Order #...:** HL7131AD **Matrix.....:** WG
Date Sampled...: 10/06/05 10:15 **Date Received..:** 10/07/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	71	(39 - 130)
Decachlorobiphenyl	45	(10 - 147)

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0138-GW

GC Semivolatiles

Lot-Sample #...:	A5J070109-003	**Work Order #...:**	HL72L1AD	**Matrix.....:**	WG
Date Sampled...:	10/06/05 09:05	**Date Received..:**	10/07/05		
Prep Date.....:	10/10/05	**Analysis Date..:**	10/16/05		
Prep Batch #...:	5283022				
Dilution Factor:	1	**Initial Wgt/Vol:**	1015 mL	**Final Wgt/Vol..:**	5 mL
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	86	(39 - 130)
Decachlorobiphenyl	55	(10 - 147)

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0105-GW

GC Semivolatiles

Lot-Sample #...:	A5J070109-005	**Work Order #...:**	HL72N1AD	**Matrix.....:**	WG
Date Sampled...:	10/06/05 09:05	**Date Received..:**	10/07/05		
Prep Date.....:	10/10/05	**Analysis Date..:**	10/16/05		
Prep Batch #...:	5283022				
Dilution Factor:	1	**Initial Wgt/Vol:**	1050 mL	**Final Wgt/Vol..:**	5 mL
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	88	(39 - 130)
Decachlorobiphenyl	24	(10 - 147)

SpecPro Inc

Client Sample ID: FWGLL11MW-007C-0119-GW

GC Semivolatiles

Lot-Sample #...:	A5J070109-007	**Work Order #...:**	HL72R1AH	**Matrix.....:**	WG
Date Sampled...:	10/06/05 11:23	**Date Received..:**	10/07/05		
Prep Date.....:	10/10/05	**Analysis Date..:**	10/16/05		
Prep Batch #...:	5283022				
Dilution Factor:	1	**Initial Wgt/Vol:**	1000 mL	**Final Wgt/Vol..:**	5 mL
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	69	(39 - 130)
Decachlorobiphenyl	34	(10 - 147)

SpecPro Inc

Client Sample ID: FWGDA2MW-DET3-0127-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-009 **Work Order #...:** HL72V1AD **Matrix.....:** WG
Date Sampled...: 10/06/05 09:05 **Date Received..:** 10/07/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	97	(39 - 130)
Decachlorobiphenyl	49	(10 - 147)

SpecPro Inc

Client Sample ID: FWGDA2MW-107C-0126-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-011	**Work Order #...:** HL72X1AH	**Matrix.....:** WG	
Date Sampled...: 10/06/05 11:10	**Date Received..:** 10/07/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/15/05		
Prep Batch #...: 5283040			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	66	(39 - 130)
Decachlorobiphenyl	42	(10 - 147)

SpecPro Inc

Client Sample ID: FWGWBGMW-006C-0129-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-013	**Work Order #...:** HL7221AD	**Matrix.....:** WG	
Date Sampled...: 10/06/05 10:50	**Date Received..:** 10/07/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/16/05		
Prep Batch #...: 5283022			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	**0.049 PG**	**0.030**	**ug/L**
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	55	(39 - 130)
Decachlorobiphenyl	67	(10 - 147)

NOTE(S):

PG The percent difference between the original and confirmation analyses is greater than 40%.

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0139-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-015 **Work Order #...:** HL7251AD **Matrix.....:** WG
Date Sampled...: 10/06/05 08:52 **Date Received..:** 10/07/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	94	(39 - 130)
Decachlorobiphenyl	70	(10 - 147)

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0130-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-017	**Work Order #...:** HL7271AD	**Matrix.....:** WG	
Date Sampled...: 10/06/05 08:52	**Date Received..:** 10/07/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/16/05		
Prep Batch #...: 5283022			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	88	(39 - 130)
Decachlorobiphenyl	36	(10 - 147)

SpecPro Inc

Client Sample ID: FWGWBGMW-009C-0131-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-019	**Work Order #...:** HL7291AD	**Matrix.....:** WG	
Date Sampled...: 10/06/05 11:57	**Date Received..:** 10/07/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/16/05		
Prep Batch #...: 5283022			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	90	(39 - 130)
Decachlorobiphenyl	71	(10 - 147)

SpecPro Inc

Client Sample ID: FWGLL11MW-002C-0118-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-021	**Work Order #...:** HL73C1AD	**Matrix.....:** WG	
Date Sampled...: 10/06/05 13:21	**Date Received..:** 10/07/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/16/05		
Prep Batch #...: 5283022			
Dilution Factor: 1	**Initial Wgt/Vol:** 1010 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	86	(39 - 130)
Decachlorobiphenyl	23	(10 - 147)

SpecPro Inc

Client Sample ID: FWGBKGMW-006C-0096-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-023 **Work Order #...:** HL73E1AD **Matrix.....:** WG
Date Sampled...: 10/06/05 14:15 **Date Received..:** 10/07/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 1 **Initial Wgt/Vol:** 1050 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
alpha-BHC	ND	0.030	ug/L
beta-BHC	ND	0.030	ug/L
delta-BHC	ND	0.030	ug/L
gamma-BHC (Lindane)	ND	0.030	ug/L
Heptachlor	ND	0.030	ug/L
Aldrin	ND	0.030	ug/L
Heptachlor epoxide	ND	0.030	ug/L
Endosulfan I	ND	0.030	ug/L
Dieldrin	ND	0.030	ug/L
4,4'-DDE	ND	0.030	ug/L
Endrin	ND	0.030	ug/L
Endosulfan II	ND	0.030	ug/L
4,4'-DDD	ND	0.030	ug/L
Endosulfan sulfate	ND	0.030	ug/L
4,4'-DDT	ND	0.030	ug/L
Methoxychlor	ND	0.10	ug/L
Endrin ketone	ND	0.030	ug/L
Endrin aldehyde	ND	0.030	ug/L
alpha-Chlordane	ND	0.030	ug/L
gamma-Chlordane	ND	0.030	ug/L
Toxaphene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	82	(39 - 130)
Decachlorobiphenyl	24	(10 - 147)

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMDD41AA **Matrix.....:** WATER
MB Lot-Sample #: A5J100000-022

Prep Date.....: 10/10/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/16/05 **Prep Batch #...:** 5283022
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
alpha-BHC	ND	0.030	ug/L	SW846 8081A
beta-BHC	ND	0.030	ug/L	SW846 8081A
delta-BHC	ND	0.030	ug/L	SW846 8081A
gamma-BHC (Lindane)	ND	0.030	ug/L	SW846 8081A
Heptachlor	ND	0.030	ug/L	SW846 8081A
Aldrin	ND	0.030	ug/L	SW846 8081A
Heptachlor epoxide	ND	0.030	ug/L	SW846 8081A
Endosulfan I	ND	0.030	ug/L	SW846 8081A
Dieldrin	ND	0.030	ug/L	SW846 8081A
4,4'-DDE	ND	0.030	ug/L	SW846 8081A
Endrin	ND	0.030	ug/L	SW846 8081A
Endosulfan II	ND	0.030	ug/L	SW846 8081A
4,4'-DDD	ND	0.030	ug/L	SW846 8081A
Endosulfan sulfate	ND	0.030	ug/L	SW846 8081A
4,4'-DDT	ND	0.030	ug/L	SW846 8081A
Methoxychlor	ND	0.10	ug/L	SW846 8081A
Endrin ketone	ND	0.030	ug/L	SW846 8081A
Endrin aldehyde	ND	0.030	ug/L	SW846 8081A
alpha-Chlordane	ND	0.030	ug/L	SW846 8081A
gamma-Chlordane	ND	0.030	ug/L	SW846 8081A
Toxaphene	ND	2.0	ug/L	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	83	(39 - 130)
Decachlorobiphenyl	75	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMDE01AA **Matrix.....:** WATER
MB Lot-Sample #: A5J100000-040

Prep Date.....: 10/10/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/15/05 **Prep Batch #...:** 5283040
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
alpha-BHC	ND	0.030	ug/L	SW846 8081A
beta-BHC	ND	0.030	ug/L	SW846 8081A
delta-BHC	ND	0.030	ug/L	SW846 8081A
gamma-BHC (Lindane)	ND	0.030	ug/L	SW846 8081A
Heptachlor	ND	0.030	ug/L	SW846 8081A
Aldrin	ND	0.030	ug/L	SW846 8081A
Heptachlor epoxide	ND	0.030	ug/L	SW846 8081A
Endosulfan I	ND	0.030	ug/L	SW846 8081A
Dieldrin	ND	0.030	ug/L	SW846 8081A
4,4'-DDE	ND	0.030	ug/L	SW846 8081A
Endrin	ND	0.030	ug/L	SW846 8081A
Endosulfan II	ND	0.030	ug/L	SW846 8081A
4,4'-DDD	ND	0.030	ug/L	SW846 8081A
Endosulfan sulfate	ND	0.030	ug/L	SW846 8081A
4,4'-DDT	ND	0.030	ug/L	SW846 8081A
Methoxychlor	ND	0.10	ug/L	SW846 8081A
Endrin ketone	ND	0.030	ug/L	SW846 8081A
Endrin aldehyde	ND	0.030	ug/L	SW846 8081A
alpha-Chlordane	ND	0.030	ug/L	SW846 8081A
gamma-Chlordane	ND	0.030	ug/L	SW846 8081A
Toxaphene	ND	2.0	ug/L	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	93	(39 - 130)
Decachlorobiphenyl	85	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMDD41AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J100000-022
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
gamma-BHC (Lindane)	**92**	**(49 - 137)**	**SW846 8081A**
Heptachlor	**85**	**(57 - 124)**	**SW846 8081A**
Aldrin	**91**	**(62 - 120)**	**SW846 8081A**
Dieldrin	**84**	**(68 - 130)**	**SW846 8081A**
Endrin	**82**	**(46 - 137)**	**SW846 8081A**
4,4'-DDT	**64**	**(60 - 140)**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(39 - 130)
Decachlorobiphenyl	56	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMDD41AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J100000-022
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
gamma-BHC (Lindane)	**1.0**	**0.92**	**ug/L**	**92**	**SW846 8081A**
Heptachlor	**1.0**	**0.85**	**ug/L**	**85**	**SW846 8081A**
Aldrin	**1.0**	**0.91**	**ug/L**	**91**	**SW846 8081A**
Dieldrin	**1.0**	**0.84**	**ug/L**	**84**	**SW846 8081A**
Endrin	**1.0**	**0.82**	**ug/L**	**82**	**SW846 8081A**
4,4'-DDT	**1.0**	**0.64**	**ug/L**	**64**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	91	(39 - 130)
Decachlorobiphenyl	56	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMDE01AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J100000-040
Prep Date.....: 10/10/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5283040
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
gamma-BHC (Lindane)	**86**	**(49 - 137)**	**SW846 8081A**
Heptachlor	**82**	**(57 - 124)**	**SW846 8081A**
Aldrin	**87**	**(62 - 120)**	**SW846 8081A**
Dieldrin	**89**	**(68 - 130)**	**SW846 8081A**
Endrin	**94**	**(46 - 137)**	**SW846 8081A**
4,4'-DDT	**95**	**(60 - 140)**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	93	(39 - 130)
Decachlorobiphenyl	48	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMDE01AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J100000-040
Prep Date.....: 10/10/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5283040
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
gamma-BHC (Lindane)	**1.0**	**0.86**	**ug/L**	**86**	**SW846 8081A**
Heptachlor	**1.0**	**0.82**	**ug/L**	**82**	**SW846 8081A**
Aldrin	**1.0**	**0.87**	**ug/L**	**87**	**SW846 8081A**
Dieldrin	**1.0**	**0.89**	**ug/L**	**89**	**SW846 8081A**
Endrin	**1.0**	**0.94**	**ug/L**	**94**	**SW846 8081A**
4,4'-DDT	**1.0**	**0.95**	**ug/L**	**95**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	93	(39 - 130)
Decachlorobiphenyl	48	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HL72R1AJ-MS **Matrix.....:** WG
MS Lot-Sample #: A5J070109-007 HL72R1AK-MSD
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
gamma-BHC (Lindane)	86	(30 - 148)			SW846 8081A
	96	(30 - 148)	10	(0-22)	SW846 8081A
Heptachlor	79	(30 - 150)			SW846 8081A
	89	(30 - 150)	12	(0-32)	SW846 8081A
Aldrin	83	(30 - 150)			SW846 8081A
	96	(30 - 150)	14	(0-33)	SW846 8081A
Dieldrin	92	(35 - 141)			SW846 8081A
	97	(35 - 141)	5.0	(0-37)	SW846 8081A
Endrin	98	(30 - 150)			SW846 8081A
	102	(30 - 150)	4.4	(0-40)	SW846 8081A
4,4'-DDT	86	(30 - 150)			SW846 8081A
	102	(30 - 150)	17	(0-50)	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	84	(39 - 130)
	98	(39 - 130)
Decachlorobiphenyl	62	(10 - 147)
	90	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HL72R1AJ-MS **Matrix.....:** WG
MS Lot-Sample #: A5J070109-007 HL72R1AK-MSD
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
gamma-BHC (Lindane)	ND	2.0	1.7	ug/L	86		SW846 8081A
	ND	2.0	1.9	ug/L	96	10	SW846 8081A
Heptachlor	ND	2.0	1.6	ug/L	79		SW846 8081A
	ND	2.0	1.8	ug/L	89	12	SW846 8081A
Aldrin	ND	2.0	1.7	ug/L	83		SW846 8081A
	ND	2.0	1.9	ug/L	96	14	SW846 8081A
Dieldrin	ND	2.0	1.8	ug/L	92		SW846 8081A
	ND	2.0	1.9	ug/L	97	5.0	SW846 8081A
Endrin	ND	2.0	2.0	ug/L	98		SW846 8081A
	ND	2.0	2.0	ug/L	102	4.4	SW846 8081A
4,4'-DDT	ND	2.0	1.7	ug/L	86		SW846 8081A
	ND	2.0	2.0	ug/L	102	17	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	84	(39 - 130)
	98	(39 - 130)
Decachlorobiphenyl	62	(10 - 147)
	90	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HL41C1AJ-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J060101-017 HL41C1AK-MSD
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
gamma-BHC (Lindane)	**93**	**(30 - 148)**			**SW846 8081A**
	91	**(30 - 148)**	**1.5**	**(0-22)**	**SW846 8081A**
Heptachlor	**88**	**(30 - 150)**			**SW846 8081A**
	86	**(30 - 150)**	**2.4**	**(0-32)**	**SW846 8081A**
Aldrin	**90**	**(30 - 150)**			**SW846 8081A**
	91	**(30 - 150)**	**1.4**	**(0-33)**	**SW846 8081A**
Dieldrin	**89**	**(35 - 141)**			**SW846 8081A**
	90	**(35 - 141)**	**2.0**	**(0-37)**	**SW846 8081A**
Endrin	**89**	**(30 - 150)**			**SW846 8081A**
	96	**(30 - 150)**	**7.1**	**(0-40)**	**SW846 8081A**
4,4'-DDT	**71**	**(30 - 150)**			**SW846 8081A**
	96	**(30 - 150)**	**31**	**(0-50)**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	95	(39 - 130)
	94	(39 - 130)
Decachlorobiphenyl	48	(10 - 147)
	86	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HL41C1AJ-MS **Matrix.....:** WATER
MS Lot-Sample #: A5J060101-017 HL41C1AK-MSD
Date Sampled...: 10/05/05 08:53 **Date Received..:** 10/05/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5283022
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
gamma-BHC (Lindane)	ND	2.0	1.9	ug/L	93		SW846 8081A
	ND	2.0	1.8	ug/L	91	1.5	SW846 8081A
Heptachlor	ND	2.0	1.8	ug/L	88		SW846 8081A
	ND	2.0	1.7	ug/L	86	2.4	SW846 8081A
Aldrin	ND	2.0	1.8	ug/L	90		SW846 8081A
	ND	2.0	1.8	ug/L	91	1.4	SW846 8081A
Dieldrin	ND	2.0	1.8	ug/L	89		SW846 8081A
	ND	2.0	1.8	ug/L	90	2.0	SW846 8081A
Endrin	ND	2.0	1.8	ug/L	89		SW846 8081A
	ND	2.0	1.9	ug/L	96	7.1	SW846 8081A
4,4'-DDT	ND	2.0	1.4	ug/L	71		SW846 8081A
	ND	2.0	1.9	ug/L	96	31	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	95	(39 - 130)
	94	(39 - 130)
Decachlorobiphenyl	48	(10 - 147)
	86	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...:	A5J070109	**Work Order #...:**	HL72X1AJ-MS	**Matrix.....:**	WG
MS Lot-Sample #:	A5J070109-011		HL72X1AK-MSD		
Date Sampled...:	10/06/05 11:10	**Date Received..:**	10/07/05		
Prep Date.....:	10/10/05	**Analysis Date..:**	10/15/05		
Prep Batch #...:	5283040				
Dilution Factor:	2	**Initial Wgt/Vol:**	500 mL	**Final Wgt/Vol..:**	5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
gamma-BHC (Lindane)	**92**	**(30 - 148)**			**SW846 8081A**
	90	**(30 - 148)**	**2.6**	**(0-22)**	**SW846 8081A**
Heptachlor	**91**	**(30 - 150)**			**SW846 8081A**
	90	**(30 - 150)**	**1.1**	**(0-32)**	**SW846 8081A**
Aldrin	**92**	**(30 - 150)**			**SW846 8081A**
	90	**(30 - 150)**	**2.9**	**(0-33)**	**SW846 8081A**
Dieldrin	**93**	**(35 - 141)**			**SW846 8081A**
	89	**(35 - 141)**	**3.5**	**(0-37)**	**SW846 8081A**
Endrin	**99**	**(30 - 150)**			**SW846 8081A**
	94	**(30 - 150)**	**4.2**	**(0-40)**	**SW846 8081A**
4,4'-DDT	**101**	**(30 - 150)**			**SW846 8081A**
	95	**(30 - 150)**	**5.8**	**(0-50)**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	97	(39 - 130)
	92	(39 - 130)
Decachlorobiphenyl	82	(10 - 147)
	82	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HL72X1AJ-MS **Matrix.....:** WG
MS Lot-Sample #: A5J070109-011 HL72X1AK-MSD
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5283040
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
gamma-BHC (Lindane)	ND	2.0	1.8	ug/L	92		SW846 8081A
	ND	2.0	1.8	ug/L	90	2.6	SW846 8081A
Heptachlor	ND	2.0	1.8	ug/L	91		SW846 8081A
	ND	2.0	1.8	ug/L	90	1.1	SW846 8081A
Aldrin	ND	2.0	1.8	ug/L	92		SW846 8081A
	ND	2.0	1.8	ug/L	90	2.9	SW846 8081A
Dieldrin	ND	2.0	1.9	ug/L	93		SW846 8081A
	ND	2.0	1.8	ug/L	89	3.5	SW846 8081A
Endrin	ND	2.0	2.0	ug/L	99		SW846 8081A
	ND	2.0	1.9	ug/L	94	4.2	SW846 8081A
4,4'-DDT	ND	2.0	2.0	ug/L	101		SW846 8081A
	ND	2.0	1.9	ug/L	95	5.8	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	97	(39 - 130)
	92	(39 - 130)
Decachlorobiphenyl	82	(10 - 147)
	82	(10 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SEVERN TRENT STL

POLYCHLORINATED BIPHENYLS DATA

SpecPro Inc

Client Sample ID: FWFDA2MW-DET4C-0128-GW

GC Semivolatiles

Lot-Sample #...:	A5J070109-001	**Work Order #...:**	HL7131AE	**Matrix.....:**	WG
Date Sampled...:	10/06/05 10:15	**Date Received..:**	10/07/05		
Prep Date.....:	10/10/05	**Analysis Date..:**	10/25/05		
Prep Batch #...:	5283023				
Dilution Factor:	1	**Initial Wgt/Vol:**	1050 mL	**Final Wgt/Vol..:**	5 mL
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	105	(35 - 130)
Decachlorobiphenyl	62	(10 - 110)

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0138-GW

GC Semivolatiles

Lot-Sample #...:	A5J070109-003	**Work Order #...:**	HL72L1AE	**Matrix.....:**	WG
Date Sampled...:	10/06/05 09:05	**Date Received..:**	10/07/05		
Prep Date.....:	10/10/05	**Analysis Date..:**	10/25/05		
Prep Batch #...:	5283023				
Dilution Factor:	1	**Initial Wgt/Vol:**	1015 mL	**Final Wgt/Vol..:**	5 mL
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	111	(35 - 130)
Decachlorobiphenyl	62	(10 - 110)

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0105-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-005	**Work Order #...:** HL72N1AE	**Matrix.....:** WG	
Date Sampled...: 10/06/05 09:05	**Date Received..:** 10/07/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/25/05		
Prep Batch #...: 5283023			
Dilution Factor: 1	**Initial Wgt/Vol:** 1005 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	102	(35 - 130)
Decachlorobiphenyl	27	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL11MW-007C-0119-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-007 **Work Order #...:** HL72R1AL **Matrix.....:** WG
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/25/05
Prep Batch #...: 5283023
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	93	(35 - 130)
Decachlorobiphenyl	46	(10 - 110)

SpecPro Inc

Client Sample ID: FWGDA2MW-DET3-0127-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-009	**Work Order #...:** HL72V1AE	**Matrix.....:** WG	
Date Sampled...: 10/06/05 09:05	**Date Received..:** 10/07/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/25/05		
Prep Batch #...: 5283023			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	115	(35 - 130)
Decachlorobiphenyl	52	(10 - 110)

SpecPro Inc

Client Sample ID: FWGDA2MW-107C-0126-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-011	**Work Order #...:** HL72X1AL	**Matrix.....:** WG	
Date Sampled...: 10/06/05 11:10	**Date Received..:** 10/07/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/19/05		
Prep Batch #...: 5283041			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	80	(35 - 130)
Decachlorobiphenyl	50	(10 - 110)

SpecPro Inc

Client Sample ID: FWGWBGMW-006C-0129-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-013	**Work Order #...:** HL7221AE		**Matrix.....:** WG
Date Sampled...: 10/06/05 10:50	**Date Received..:** 10/07/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/25/05		
Prep Batch #...: 5283023			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL		**Final Wgt/Vol..:** 5 mL
	Method.....: SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	67	(35 - 130)
Decachlorobiphenyl	72	(10 - 110)

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0139-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-015	**Work Order #...:** HL7251AE	**Matrix.....:** WG	
Date Sampled...: 10/06/05 08:52	**Date Received..:** 10/07/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/25/05		
Prep Batch #...: 5283023			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL	**Final Wgt/Vol..:** 5 mL	
	Method.....: SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	107	(35 - 130)
Decachlorobiphenyl	69	(10 - 110)

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0130-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-017	**Work Order #...:** HL7271AE		**Matrix.....:** WG
Date Sampled...: 10/06/05 08:52	**Date Received..:** 10/07/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/25/05		
Prep Batch #...: 5283023			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL		**Final Wgt/Vol..:** 5 mL
	Method.....: SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	102	(35 - 130)
Decachlorobiphenyl	36	(10 - 110)

SpecPro Inc

Client Sample ID: FWGWBGMW-009C-0131-GW

GC Semivolatiles

Lot-Sample #...:	A5J070109-019	**Work Order #...:**	HL7291AE	**Matrix.....:**	WG
Date Sampled...:	10/06/05 11:57	**Date Received..:**	10/07/05		
Prep Date.....:	10/10/05	**Analysis Date..:**	10/25/05		
Prep Batch #...:	5283023				
Dilution Factor:	1	**Initial Wgt/Vol:**	1050 mL	**Final Wgt/Vol..:**	5 mL
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	112	(35 - 130)
Decachlorobiphenyl	75	(10 - 110)

SpecPro Inc

Client Sample ID: FWGLL11MW-002C-0118-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-021	**Work Order #...:** HL73C1AE		**Matrix.....:** WG
Date Sampled...: 10/06/05 13:21	**Date Received..:** 10/07/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/25/05		
Prep Batch #...: 5283023			
Dilution Factor: 1	**Initial Wgt/Vol:** 1010 mL		**Final Wgt/Vol..:** 5 mL
	Method.....: SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	111	(35 - 130)
Decachlorobiphenyl	24	(10 - 110)

SpecPro Inc

Client Sample ID: FWGBKGMW-006C-0096-GW

GC Semivolatiles

Lot-Sample #...: A5J070109-023	**Work Order #...:** HL73E1AE		**Matrix.....:** WG
Date Sampled...: 10/06/05 14:15	**Date Received..:** 10/07/05		
Prep Date.....: 10/10/05	**Analysis Date..:** 10/25/05		
Prep Batch #...: 5283023			
Dilution Factor: 1	**Initial Wgt/Vol:** 1050 mL		**Final Wgt/Vol..:** 5 mL
	Method.....: SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	98	(35 - 130)
Decachlorobiphenyl	27	(10 - 110)

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMDD71AA **Matrix.....:** WATER
MB Lot-Sample #: A5J100000-023

Prep Date.....: 10/10/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/21/05 **Prep Batch #...:** 5283023
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	1.0	ug/L	SW846 8082
Aroclor 1221	ND	1.0	ug/L	SW846 8082
Aroclor 1232	ND	1.0	ug/L	SW846 8082
Aroclor 1242	ND	1.0	ug/L	SW846 8082
Aroclor 1248	ND	1.0	ug/L	SW846 8082
Aroclor 1254	ND	1.0	ug/L	SW846 8082
Aroclor 1260	ND	1.0	ug/L	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	93	(35 - 130)
Decachlorobiphenyl	84	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMDE11AA **Matrix.....:** WATER
MB Lot-Sample #: A5J100000-041

Prep Date.....: 10/10/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/13/05 **Prep Batch #...:** 5283041
Dilution Factor: 1 **Initial Wgt/Vol:** 1000 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	1.0	ug/L	SW846 8082
Aroclor 1221	ND	1.0	ug/L	SW846 8082
Aroclor 1232	ND	1.0	ug/L	SW846 8082
Aroclor 1242	ND	1.0	ug/L	SW846 8082
Aroclor 1248	ND	1.0	ug/L	SW846 8082
Aroclor 1254	ND	1.0	ug/L	SW846 8082
Aroclor 1260	ND	1.0	ug/L	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	85	(35 - 130)
Decachlorobiphenyl	94	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMDD71AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J100000-023
Prep Date.....: 10/10/05 **Analysis Date..:** 10/21/05
Prep Batch #...: 5283023
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Aroclor 1016	**94**	**(50 - 115)**	**SW846 8082**
Aroclor 1260	**82**	**(45 - 112)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	95	(35 - 130)
Decachlorobiphenyl	33	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMDD71AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J100000-023
Prep Date.....: 10/10/05 **Analysis Date..:** 10/21/05
Prep Batch #...: 5283023
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Aroclor 1016	**10**	**9.4**	**ug/L**	**94**	**SW846 8082**
Aroclor 1260	**10**	**8.2**	**ug/L**	**82**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	95	(35 - 130)
Decachlorobiphenyl	33	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMDE11AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J100000-041
Prep Date.....: 10/10/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5283041
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Aroclor 1016	**74**	**(50 - 115)**	**SW846 8082**
Aroclor 1260	**68**	**(45 - 112)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	76	(35 - 130)
Decachlorobiphenyl	53	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HMDE11AC **Matrix.....:** WATER
LCS Lot-Sample#: A5J100000-041
Prep Date.....: 10/10/05 **Analysis Date..:** 10/13/05
Prep Batch #...: 5283041
Dilution Factor: 2 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 1000 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Aroclor 1016	**10**	**7.4**	**ug/L**	**74**	**SW846 8082**
Aroclor 1260	**10**	**6.8**	**ug/L**	**68**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	76	(35 - 130)
Decachlorobiphenyl	53	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...:	A5J070109	**Work Order #...:**	HL72R1AM-MS	**Matrix.....:**	WG
MS Lot-Sample #:	A5J070109-007		HL72R1AN-MSD		
Date Sampled...:	10/06/05 11:23	**Date Received..:**	10/07/05		
Prep Date.....:	10/10/05	**Analysis Date..:**	10/25/05		
Prep Batch #...:	5283023				
Dilution Factor:	2	**Initial Wgt/Vol:**	500 mL	**Final Wgt/Vol..:**	5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aroclor 1016	**97**	**(10 - 200)**			**SW846 8082**
	105	**(10 - 200)**	**7.9**	**(0-30)**	**SW846 8082**
Aroclor 1260	**76**	**(10 - 150)**			**SW846 8082**
	103	**(10 - 150)**	**30**	**(0-30)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	97	(35 - 130)
	108	(35 - 130)
Decachlorobiphenyl	52	(10 - 110)
	88	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...:	A5J070109	**Work Order #...:**	HL72R1AM-MS	**Matrix.....:**	WG
MS Lot-Sample #:	A5J070109-007		HL72R1AN-MSD		
Date Sampled...:	10/06/05 11:23	**Date Received..:**	10/07/05		
Prep Date.....:	10/10/05	**Analysis Date..:**	10/25/05		
Prep Batch #...:	5283023				
Dilution Factor:	2	**Initial Wgt/Vol:**	500 mL	**Final Wgt/Vol..:**	5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Aroclor 1016	**ND**	**20**	**19**	**ug/L**	**97**		**SW846 8082**
	ND	**20**	**21**	**ug/L**	**105**	**7.9**	**SW846 8082**
Aroclor 1260	**ND**	**20**	**15**	**ug/L**	**76**		**SW846 8082**
	ND	**20**	**21**	**ug/L**	**103**	**30**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	97	(35 - 130)
	108	(35 - 130)
Decachlorobiphenyl	52	(10 - 110)
	88	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...:	A5J070109	**Work Order #...:**	HL41C1AM-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	A5J060101-017		HL41C1AN-MSD		
Date Sampled...:	10/05/05 08:53	**Date Received..:**	10/05/05		
Prep Date.....:	10/10/05	**Analysis Date..:**	10/20/05		
Prep Batch #...:	5283023				
Dilution Factor:	2	**Initial Wgt/Vol:**	500 mL	**Final Wgt/Vol..:**	5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aroclor 1016	**101**	**(10 - 200)**			**SW846 8082**
	90	**(10 - 200)**	**12**	**(0-30)**	**SW846 8082**
Aroclor 1260	**71**	**(10 - 150)**			**SW846 8082**
	93	**(10 - 150)**	**26**	**(0-30)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	102	(35 - 130)
	85	(35 - 130)
Decachlorobiphenyl	38	(10 - 110)
	70	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...:	A5J070109	**Work Order #...:**	HL41C1AM-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	A5J060101-017		HL41C1AN-MSD		
Date Sampled...:	10/05/05 08:53	**Date Received..:**	10/05/05		
Prep Date.....:	10/10/05	**Analysis Date..:**	10/20/05		
Prep Batch #...:	5283023				
Dilution Factor:	2	**Initial Wgt/Vol:**	500 mL	**Final Wgt/Vol..:**	5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Aroclor 1016	**ND**	**20**	**20**	**ug/L**	**101**		**SW846 8082**
	ND	**20**	**18**	**ug/L**	**90**	**12**	**SW846 8082**
Aroclor 1260	**ND**	**20**	**14**	**ug/L**	**71**		**SW846 8082**
	ND	**20**	**19**	**ug/L**	**93**	**26**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	102	(35 - 130)
	85	(35 - 130)
Decachlorobiphenyl	38	(10 - 110)
	70	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A5J070109 **Work Order #...:** HL72X1AM-MS **Matrix.....:** WG
MS Lot-Sample #: A5J070109-011 HL72X1AN-MSD
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05
Prep Date.....: 10/10/05 **Analysis Date..:** 10/19/05
Prep Batch #...: 5283041
Dilution Factor: 2 **Initial Wgt/Vol:** 500 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aroclor 1016	**91**	**(10 - 200)**			**SW846 8082**
	84	**(10 - 200)**	**7.9**	**(0-30)**	**SW846 8082**
Aroclor 1260	**69**	**(10 - 150)**			**SW846 8082**
	68	**(10 - 150)**	**1.4**	**(0-30)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	96	(35 - 130)
	86	(35 - 130)
Decachlorobiphenyl	43	(10 - 110)
	43	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...:	A5J070109	**Work Order #...:**	HL72X1AM-MS	**Matrix.....:**	WG
MS Lot-Sample #:	A5J070109-011		HL72X1AN-MSD		
Date Sampled...:	10/06/05 11:10	**Date Received..:**	10/07/05		
Prep Date.....:	10/10/05	**Analysis Date..:**	10/19/05		
Prep Batch #...:	5283041				
Dilution Factor:	2	**Initial Wgt/Vol:**	500 mL	**Final Wgt/Vol..:**	5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Aroclor 1016	**ND**	**20**	**18**	**ug/L**	**91**		**SW846 8082**
	ND	**20**	**17**	**ug/L**	**84**	**7.9**	**SW846 8082**
Aroclor 1260	**ND**	**20**	**14**	**ug/L**	**69**		**SW846 8082**
	ND	**20**	**14**	**ug/L**	**68**	**1.4**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	96	(35 - 130)
	86	(35 - 130)
Decachlorobiphenyl	43	(10 - 110)
	43	(10 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METALS DATA

SpecPro Inc

Client Sample ID: FWFDA2MW-DET4C-0128-GF

TOTAL Metals

Lot-Sample #...: A5J070109-002 **Matrix.....:** WG
Date Sampled...: 10/06/05 10:15 **Date Received..:** 10/07/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285023						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL72K1AE
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72K1AA
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72K1AC
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL72K1AF
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**41.7**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72K1AG**
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72K1AD
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72K1AH
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72K1AJ
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**139000**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72K1AK**
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72K1AM
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWFDA2MW-DET4C-0128-GF

TOTAL Metals

Lot-Sample #...: A5J070109-002 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72K1AN
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**28000**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72K1AQ**
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**1.4 B,J**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72K1AR**
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72K1AT
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**1810 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72K1AU**
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72K1AV
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**5380**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72K1AW**
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72K1AX
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL72K1A0
		Dilution Factor: 1		Analysis Time..: 23:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL72K1A2
		Dilution Factor: 1		Analysis Time..: 19:15	Analyst ID.....: 001644	
		Instrument ID..: H1				

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SpecPro Inc

Client Sample ID: FWFDA2MW-DET4C-0128-GF

TOTAL Metals

Lot-Sample #...: A5J070109-002 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	**0.039 B**	**1.0**	**ug/L**	**SW846 6020**	**10/12-10/19/05**	**HL72K1A1**
		Dilution Factor: 1		Analysis Time..: 18:04	Analyst ID.....: 001644	
		Instrument ID..: I7				
Prep Batch #...: 5287012						
Chromium	**2.2 B,J**	**20.0**	**ug/L**	**SW846 6010B**	**10/14-10/18/05**	**HL72K2AL**
		Dilution Factor: 1		Analysis Time..: 16:21	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	ND	1000	ug/L	SW846 6010B	10/14-10/18/05	HL72K2AP
		Dilution Factor: 1		Analysis Time..: 16:21	Analyst ID.....: 001619	
		Instrument ID..: I6				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0138-GF

TOTAL Metals

Lot-Sample #...: A5J070109-004 **Matrix.....:** WG
Date Sampled...: 10/06/05 09:05 **Date Received..:** 10/07/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285023						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL72M1AH
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	**22.0**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72M1AE**
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72M1AF
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL72M1AJ
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**86.8**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72M1AK**
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72M1AG
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72M1AL
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72M1AM
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**94500**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72M1AN**
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72M1AQ
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0138-GF

TOTAL Metals

Lot-Sample #...: A5J070109-004 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72M1AR
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**33800**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72M1AU**
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**205 J**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72M1AV**
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72M1AW
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**1720 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72M1AX**
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72M1A0
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**13700**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72M1A1**
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72M1A2
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL72M1AA
		Dilution Factor: 1		Analysis Time..: 23:20	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL72M1AD
		Dilution Factor: 1		Analysis Time..: 19:16	Analyst ID.....: 001644	
		Instrument ID..: H1				

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SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0138-GF

TOTAL Metals

Lot-Sample #...: A5J070109-004 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/19/05	HL72M1AC
		Dilution Factor: 1		Analysis Time..: 18:08	Analyst ID.....: 001644	
		Instrument ID..: I7				
Prep Batch #...: 5287012						
Chromium	ND	20.0	ug/L	SW846 6010B	10/14-10/18/05	HL72M2AP
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**994 B**	**1000**	**ug/L**	**SW846 6010B**	**10/14-10/18/05**	**HL72M2AT**
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 001619	
		Instrument ID..: I6				

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0105-GF

TOTAL Metals

Lot-Sample #...: A5J070109-006 **Matrix.....:** WG
Date Sampled...: 10/06/05 09:05 **Date Received..:** 10/07/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285023						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HL72Q1AH
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72Q1AE
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72Q1AF
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL72Q1AJ
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**45.0**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72Q1AK**
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72Q1AG
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72Q1AL
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72Q1AM
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**110000**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72Q1AN**
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72Q1AQ
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0105-GF

TOTAL Metals

Lot-Sample #...: A5J070109-006 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72Q1AR
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**31600**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72Q1AU**
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**202 J**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72Q1AV**
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72Q1AW
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**1440 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72Q1AX**
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72Q1A0
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**9550**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72Q1A1**
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72Q1A2
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL72Q1AA
		Dilution Factor: 1		Analysis Time..: 23:25	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL72Q1AD
		Dilution Factor: 1		Analysis Time..: 19:17	Analyst ID.....: 001644	
		Instrument ID..: H1				

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SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0105-GF

TOTAL Metals

Lot-Sample #...: A5J070109-006 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/19/05	HL72Q1AC
		Dilution Factor: 1		Analysis Time..: 18:11	Analyst ID.....: 001644	
		Instrument ID..: I7				
Prep Batch #...: 5287012						
Chromium	**1.8 B,J**	**20.0**	**ug/L**	**SW846 6010B**	**10/14-10/18/05**	**HL72Q2AP**
		Dilution Factor: 1		Analysis Time..: 16:31	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**78.8 B**	**1000**	**ug/L**	**SW846 6010B**	**10/14-10/18/05**	**HL72Q2AT**
		Dilution Factor: 1		Analysis Time..: 16:31	Analyst ID.....: 001619	
		Instrument ID..: I6				

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL11MW-007C-0119-GF

TOTAL Metals

Lot-Sample #...: A5J070109-008 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285023						
Aluminum	**228**	**200**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72T1AW**
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	**7.1 B**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72T1AL**
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72T1AP
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HL72T1A1
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**34.7**	**10.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72T1A4**
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72T1AT
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72T1A7
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HL72T1CA
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**81800**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72T1CE**
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72T1CL
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL11MW-007C-0119-GF

TOTAL Metals

Lot-Sample #...: A5J070109-008 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	**2.0 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72T1CP**
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**26800**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72T1CW**
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**166 J**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72T1C1**
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72T1C4
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**2000 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72T1C7**
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72T1DA
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**9230**	**1000**	**ug/L**	**SW846 6010B**	**10/12/05**	**HL72T1DE**
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HL72T1DH
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HL72T1AA
		Dilution Factor: 1		Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL72T1AH
		Dilution Factor: 1		Analysis Time..: 19:18	Analyst ID.....: 001644	
		Instrument ID..: H1				

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SpecPro Inc

Client Sample ID: FWGLL11MW-007C-0119-GF

TOTAL Metals

Lot-Sample #...: A5J070109-008 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/19/05	HL72T1AE
		Dilution Factor: 1		Analysis Time..: 18:15	Analyst ID.....: 001644	
		Instrument ID..: I7				
Prep Batch #...: 5287012						
Chromium	ND	20.0	ug/L	SW846 6010B	10/14-10/18/05	HL72T2CH
		Dilution Factor: 1		Analysis Time..: 16:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**1520**	**1000**	**ug/L**	**SW846 6010B**	**10/14-10/18/05**	**HL72T2CT**
		Dilution Factor: 1		Analysis Time..: 16:36	Analyst ID.....: 001619	
		Instrument ID..: I6				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

Client Sample ID: FWGDA2MW-DET3-0127-GF

TOTAL Metals

Lot-Sample #...: A5J070109-010 **Matrix.....:** WG
Date Sampled...: 10/06/05 09:05 **Date Received..:** 10/07/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285023						
Aluminum	ND	200	ug/L	SW846 6010B	10/12-10/13/05	HL72W1AH
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	**10.5**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL72W1AE**
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL72W1AF
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL72W1AJ
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**47.2**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL72W1AK**
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL72W1AG
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL72W1AL
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL72W1AM
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**84600**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL72W1AN**
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL72W1AQ
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGDA2MW-DET3-0127-GF

TOTAL Metals

Lot-Sample #...: A5J070109-010 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL72W1AR
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**30800**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL72W1AU**
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**247 J**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL72W1AV**
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL72W1AW
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**2030 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL72W1AX**
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL72W1A0
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**11500**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL72W1A1**
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL72W1A2
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Zinc	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL72W1AA
		Dilution Factor: 1		Analysis Time..: 00:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL72W1AD
		Dilution Factor: 1		Analysis Time..: 19:23	Analyst ID.....: 001644	
		Instrument ID..: H1				

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SpecPro Inc

Client Sample ID: FWGDA2MW-DET3-0127-GF

TOTAL Metals

Lot-Sample #...: A5J070109-010 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	**0.024 B**	**1.0**	**ug/L**	**SW846 6020**	**10/12-10/19/05**	**HL72W1AC**
		Dilution Factor: 1		Analysis Time..: 18:31	Analyst ID.....: 001644	
		Instrument ID..: I7				
Prep Batch #...: 5287012						
Chromium	ND	20.0	ug/L	SW846 6010B	10/14-10/18/05	HL72W2AP
		Dilution Factor: 1		Analysis Time..: 17:10	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**1640**	**1000**	**ug/L**	**SW846 6010B**	**10/14-10/18/05**	**HL72W2AT**
		Dilution Factor: 1		Analysis Time..: 17:10	Analyst ID.....: 001619	
		Instrument ID..: I6				

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGDA2MW-107C-0126-GF

TOTAL Metals

Lot-Sample #...: A5J070109-012 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285023						
Aluminum	ND	200	ug/L	SW846 6010B	10/12-10/13/05	HL7201AW
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	**6.3 B**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7201AL**
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7201AP
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL7201A1
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**34.2**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7201A4**
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7201AT
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7201A7
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7201CA
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**86500**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7201CE**
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7201CL
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGDA2MW-107C-0126-GF

TOTAL Metals

Lot-Sample #...: A5J070109-012 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7201CP
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**28700**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7201CW**
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**193 J**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7201C1**
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7201C4
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**2060 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7201C7**
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7201DA
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**9760**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7201DE**
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7201DH
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Zinc	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL7201AA
		Dilution Factor: 1		Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL7201AH
		Dilution Factor: 1		Analysis Time..: 19:05	Analyst ID.....: 001644	
		Instrument ID..: H1				

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SpecPro Inc

Client Sample ID: FWGDA2MW-107C-0126-GF

TOTAL Metals

Lot-Sample #...: A5J070109-012 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/19/05	HL7201AE
		Dilution Factor: 1		Analysis Time..: 18:35	Analyst ID.....: 001644	
		Instrument ID..: I7				
Prep Batch #...: 5287012						
Chromium	**1.8 B,J**	**20.0**	**ug/L**	**SW846 6010B**	**10/14-10/18/05**	**HL7202CH**
		Dilution Factor: 1		Analysis Time..: 17:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**1460**	**1000**	**ug/L**	**SW846 6010B**	**10/14-10/18/05**	**HL7202CT**
		Dilution Factor: 1		Analysis Time..: 17:15	Analyst ID.....: 001619	
		Instrument ID..: I6				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

Client Sample ID: FWGWBGMW-006C-0129-GF

TOTAL Metals

Lot-Sample #...: A5J070109-014 **Matrix.....:** WG
Date Sampled...: 10/06/05 10:50 **Date Received..:** 10/07/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285023						
Aluminum	ND	200	ug/L	SW846 6010B	10/12-10/13/05	HL7241AH
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7241AE
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7241AF
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL7241AJ
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**26.2**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7241AK**
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7241AG
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7241AL
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7241AM
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**66400**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7241AN**
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7241AQ
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGWBGMW-006C-0129-GF

TOTAL Metals

Lot-Sample #...: A5J070109-014 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7241AR
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**21900**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7241AU**
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**68.0 B,J**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7241AV**
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7241AW
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**938 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7241AX**
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7241A0
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**6120**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7241A1**
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7241A2
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Zinc	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL7241AA
		Dilution Factor: 1		Analysis Time..: 00:37	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL7241AD
		Dilution Factor: 1		Analysis Time..: 19:10	Analyst ID.....: 001644	
		Instrument ID..: H1				

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SpecPro Inc

Client Sample ID: FWGWBGMW-006C-0129-GF

TOTAL Metals

Lot-Sample #...: A5J070109-014 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	**0.063 B**	**1.0**	**ug/L**	**SW846 6020**	**10/12-10/19/05**	**HL7241AC**
		Dilution Factor: 1		Analysis Time..: 19:01	Analyst ID.....: 001644	
		Instrument ID..: I7				
Prep Batch #...: 5287012						
Chromium	**1.7 B,J**	**20.0**	**ug/L**	**SW846 6010B**	**10/14-10/18/05**	**HL7242AP**
		Dilution Factor: 1		Analysis Time..: 17:36	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	ND	1000	ug/L	SW846 6010B	10/14-10/18/05	HL7242AT
		Dilution Factor: 1		Analysis Time..: 17:36	Analyst ID.....: 001619	
		Instrument ID..: I6				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0139-GF

TOTAL Metals

Lot-Sample #...: A5J070109-016 **Matrix.....:** WG
Date Sampled...: 10/06/05 08:52 **Date Received..:** 10/07/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285023						
Aluminum	ND	200	ug/L	SW846 6010B	10/12-10/13/05	HL7261AH
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	**5.1 B**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7261AE**
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7261AF
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL7261AJ
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**39.3**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7261AK**
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7261AG
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7261AL
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7261AM
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**68100**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7261AN**
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7261AQ
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0139-GF

TOTAL Metals

Lot-Sample #...: A5J070109-016 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7261AR
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**18200**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7261AU**
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**129 J**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7261AV**
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7261AW
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**1340 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7261AX**
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7261A0
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**5070**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7261A1**
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7261A2
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Zinc	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL7261AA
		Dilution Factor: 1		Analysis Time..: 00:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL7261AD
		Dilution Factor: 1		Analysis Time..: 19:14	Analyst ID.....: 001644	
		Instrument ID..: H1				

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SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0139-GF

TOTAL Metals

Lot-Sample #...: A5J070109-016 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/19/05	HL7261AC
		Dilution Factor: 1		Analysis Time..: 19:04	Analyst ID.....: 001644	
		Instrument ID..: I7				
Prep Batch #...: 5287012						
Chromium	**2.3 B,J**	**20.0**	**ug/L**	**SW846 6010B**	**10/14-10/18/05**	**HL7262AP**
		Dilution Factor: 1		Analysis Time..: 17:41	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**366 B**	**1000**	**ug/L**	**SW846 6010B**	**10/14-10/18/05**	**HL7262AT**
		Dilution Factor: 1		Analysis Time..: 17:41	Analyst ID.....: 001619	
		Instrument ID..: I6				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0130-GF

TOTAL Metals

Lot-Sample #...: A5J070109-018 **Matrix.....:** WG
Date Sampled...: 10/06/05 08:52 **Date Received..:** 10/07/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285023						
Aluminum	ND	200	ug/L	SW846 6010B	10/12-10/13/05	HL7281AH
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7281AE
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7281AF
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL7281AJ
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**39.0**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7281AK**
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7281AG
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7281AL
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL7281AM
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**67300**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7281AN**
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7281AQ
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0130-GF

TOTAL Metals

Lot-Sample #...: A5J070109-018 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7281AR
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**18000**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7281AU**
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**128 J**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7281AV**
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7281AW
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**1350 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7281AX**
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7281A0
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**5080**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL7281A1**
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL7281A2
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Zinc	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL7281AA
		Dilution Factor: 1		Analysis Time..: 01:01	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL7281AD
		Dilution Factor: 1		Analysis Time..: 17:11	Analyst ID.....: 001644	
		Instrument ID..: H1				

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SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0130-GF

TOTAL Metals

Lot-Sample #...: A5J070109-018 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/19/05	HL7281AC
		Dilution Factor: 1		Analysis Time..: 19:08	Analyst ID.....: 001644	
		Instrument ID..: I7				
Prep Batch #...: 5287012						
Chromium	1.8 B,J	20.0	ug/L	SW846 6010B	10/14-10/18/05	HL7282AP
		Dilution Factor: 1		Analysis Time..: 17:46	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	355 B	1000	ug/L	SW846 6010B	10/14-10/18/05	HL7282AT
		Dilution Factor: 1		Analysis Time..: 17:46	Analyst ID.....: 001619	
		Instrument ID..: I6				

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGWBGMW-009C-0131-GF

TOTAL Metals

Lot-Sample #...: A5J070109-020 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:57 **Date Received..:** 10/07/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285023						
Aluminum	**274**	**200**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73A1AH**
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	**21.3**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73A1AE**
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL73A1AF
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL73A1AJ
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**89.6**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73A1AK**
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL73A1AG
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL73A1AL
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL73A1AM
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**97600**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73A1AN**
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL73A1AQ
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGWBGMW-009C-0131-GF

TOTAL Metals

Lot-Sample #...: A5J070109-020 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL73A1AR
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**34500**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73A1AU**
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**210 J**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73A1AV**
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL73A1AW
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**1760 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73A1AX**
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL73A1A0
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**14400**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73A1A1**
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL73A1A2
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Zinc	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL73A1AA
		Dilution Factor: 1		Analysis Time..: 01:06	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL73A1AD
		Dilution Factor: 1		Analysis Time..: 19:24	Analyst ID.....: 001644	
		Instrument ID..: H1				

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SpecPro Inc

Client Sample ID: FWGWBGMW-009C-0131-GF

TOTAL Metals

Lot-Sample #...: A5J070109-020 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/19/05	HL73A1AC
		Dilution Factor: 1		Analysis Time..: 19:11	Analyst ID.....: 001644	
		Instrument ID..: I7				
Prep Batch #...: 5287012						
Chromium	ND	20.0	ug/L	SW846 6010B	10/14-10/18/05	HL73A2AP
		Dilution Factor: 1		Analysis Time..: 17:51	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**1060**	**1000**	**ug/L**	**SW846 6010B**	**10/14-10/18/05**	**HL73A2AT**
		Dilution Factor: 1		Analysis Time..: 17:51	Analyst ID.....: 001619	
		Instrument ID..: I6				

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGLL11MW-002C-0118-GF

TOTAL Metals

Lot-Sample #...: A5J070109-022 **Matrix.....:** WG
Date Sampled...: 10/06/05 13:21 **Date Received..:** 10/07/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285023						
Aluminum	ND	200	ug/L	SW846 6010B	10/12-10/13/05	HL73D1AH
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL73D1AE
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL73D1AF
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL73D1AJ
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**29.0**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73D1AK**
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL73D1AG
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL73D1AL
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL73D1AM
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**94000**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73D1AN**
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL73D1AQ
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGLL11MW-002C-0118-GF

TOTAL Metals

Lot-Sample #...: A5J070109-022 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL73D1AR
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**30500**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73D1AU**
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**611 J**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73D1AV**
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	**1.7 B,J**	**20.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73D1AW**
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**1990 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73D1AX**
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL73D1A0
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**9640**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73D1A1**
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL73D1A2
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Zinc	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL73D1AA
		Dilution Factor: 1		Analysis Time..: 01:11	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL73D1AD
		Dilution Factor: 1		Analysis Time..: 19:28	Analyst ID.....: 001644	
		Instrument ID..: H1				

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SpecPro Inc

Client Sample ID: FWGLL11MW-002C-0118-GF

TOTAL Metals

Lot-Sample #...: A5J070109-022 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/19/05	HL73D1AC
		Dilution Factor: 1		Analysis Time..: 19:15	Analyst ID.....: 001644	
		Instrument ID..: I7				
Prep Batch #...: 5287012						
Chromium	**1.8 B,J**	**20.0**	**ug/L**	**SW846 6010B**	**10/14-10/18/05**	**HL73D2AP**
		Dilution Factor: 1		Analysis Time..: 17:56	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	ND	1000	ug/L	SW846 6010B	10/14-10/18/05	HL73D2AT
		Dilution Factor: 1		Analysis Time..: 17:56	Analyst ID.....: 001619	
		Instrument ID..: I6				

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

SpecPro Inc

Client Sample ID: FWGBKGMW-006C-0096-GF

TOTAL Metals

Lot-Sample #...: A5J070109-024 **Matrix.....:** WG
Date Sampled...: 10/06/05 14:15 **Date Received..:** 10/07/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 5285023						
Aluminum	ND	200	ug/L	SW846 6010B	10/12-10/13/05	HL73F1AH
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL73F1AE
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Lead	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL73F1AF
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Antimony	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL73F1AJ
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Barium	**13.8**	**10.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73F1AK**
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Selenium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL73F1AG
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL73F1AL
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12-10/13/05	HL73F1AM
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Calcium	**78700**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73F1AN**
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Cobalt	**1.4 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73F1AQ**
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				

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SpecPro Inc

Client Sample ID: FWGBKGMW-006C-0096-GF

TOTAL Metals

Lot-Sample #...: A5J070109-024 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL73F1AR
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Magnesium	**26700**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73F1AU**
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Manganese	**403 J**	**100**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73F1AV**
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Nickel	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL73F1AW
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Potassium	**1440 B**	**5000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73F1AX**
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Silver	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL73F1A0
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Sodium	**35300**	**1000**	**ug/L**	**SW846 6010B**	**10/12-10/13/05**	**HL73F1A1**
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12-10/13/05	HL73F1A2
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Zinc	ND	100	ug/L	SW846 6010B	10/12-10/13/05	HL73F1AA
		Dilution Factor: 1		Analysis Time..: 01:16	Analyst ID.....: 001619	
		Instrument ID..: I6				
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HL73F1AD
		Dilution Factor: 1		Analysis Time..: 19:29	Analyst ID.....: 001644	
		Instrument ID..: H1				

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SpecPro Inc

Client Sample ID: FWGBKGMW-006C-0096-GF

TOTAL Metals

Lot-Sample #...: A5J070109-024 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/19/05	HL73F1AC
		Dilution Factor: 1		Analysis Time..: 19:19	Analyst ID.....: 001644	
		Instrument ID..: I7				
Prep Batch #...: 5287012						
Chromium	**1.8 B,J**	**20.0**	**ug/L**	**SW846 6010B**	**10/14-10/18/05**	**HL73F2AP**
		Dilution Factor: 1		Analysis Time..: 18:15	Analyst ID.....: 001619	
		Instrument ID..: I6				
Iron	**36.5 B**	**1000**	**ug/L**	**SW846 6010B**	**10/14-10/18/05**	**HL73F2AT**
		Dilution Factor: 1		Analysis Time..: 18:15	Analyst ID.....: 001619	
		Instrument ID..: I6				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A5J120000-023 **Prep Batch #...:** 5285023						
Aluminum	ND	200	ug/L	SW846 6010B	10/12/05	HMHFP1AH
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Arsenic	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFP1AE
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Antimony	ND	100	ug/L	SW846 6010B	10/12/05	HMHFP1AJ
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Lead	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFP1AF
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Barium	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFP1AK
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Selenium	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFP1AG
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Beryllium	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFP1AL
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Cadmium	ND	10.0	ug/L	SW846 6010B	10/12/05	HMHFP1AM
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Calcium	ND	1000	ug/L	SW846 6010B	10/12/05	HMHFP1AN
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Cobalt	ND	20.0	ug/L	SW846 6010B	10/12/05	HMHFP1AQ
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Copper	ND	20.0	ug/L	SW846 6010B	10/12/05	HMHFP1AR
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Magnesium	ND	1000	ug/L	SW846 6010B	10/12/05	HMHFP1AU
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Manganese	**1.3 B**	**100**	**ug/L**	**SW846 6010B**	**10/12/05**	**HMHFP1AV**
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Nickel	**5.9 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/12/05**	**HMHFP1AW**
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Potassium	ND	5000	ug/L	SW846 6010B	10/12/05	HMHFP1AX
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Silver	ND	20.0	ug/L	SW846 6010B	10/12/05	HMHFP1A0
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Sodium	ND	1000	ug/L	SW846 6010B	10/12/05	HMHFP1A1
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Vanadium	ND	20.0	ug/L	SW846 6010B	10/12/05	HMHFP1A2
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Zinc	ND	100	ug/L	SW846 6010B	10/12/05	HMHFP1AA
		Dilution Factor: 1				
		Analysis Time..: 23:04		Analyst ID.....: 001619	Instrument ID..: I6	
Mercury	ND	0.20	ug/L	SW846 7470A	10/12/05	HMHFP1AD
		Dilution Factor: 1				
		Analysis Time..: 19:02		Analyst ID.....: 001644	Instrument ID..: H1	
Thallium	ND	1.0	ug/L	SW846 6020	10/12-10/19/05	HMHFP1AC
		Dilution Factor: 1				
		Analysis Time..: 17:40		Analyst ID.....: 001644	Instrument ID..: I7	

MB Lot-Sample #: A5J140000-012 **Prep Batch #...:** 5287012

Chromium	**2.2 B**	**20.0**	**ug/L**	**SW846 6010B**	**10/14-10/18/05**	**HMPGW1AA**
		Dilution Factor: 1				
		Analysis Time..: 16:10		Analyst ID.....: 001619	Instrument ID..: I6	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Iron	ND	1000	ug/L	SW846 6010B	10/14-10/18/05	HMPGW1AC

Dilution Factor: 1
Analysis Time..: 16:10 Analyst ID.....: 001619 Instrument ID..: I6

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A5J120000-023 **Prep Batch #...:** 5285023					
Arsenic	96	(80 - 120)	SW846 6010B	10/12/05	HMHFP1A6
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Aluminum	100	(80 - 120)	SW846 6010B	10/12/05	HMHFP1A9
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Lead	94	(80 - 120)	SW846 6010B	10/12/05	HMHFP1A7
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Antimony	90	(80 - 120)	SW846 6010B	10/12/05	HMHFP1CA
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Selenium	97	(80 - 120)	SW846 6010B	10/12/05	HMHFP1A8
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Barium	94	(80 - 120)	SW846 6010B	10/12/05	HMHFP1CC
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Beryllium	97	(80 - 120)	SW846 6010B	10/12/05	HMHFP1CD
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Cadmium	97	(80 - 120)	SW846 6010B	10/12/05	HMHFP1CE
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Calcium	95	(80 - 120)	SW846 6010B	10/12/05	HMHFP1CF
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Cobalt	97	(80 - 120)	SW846 6010B	10/12/05	HMHFP1CH
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	100	(80 - 120)	SW846 6010B	10/12/05	HMHFP1CJ
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Magnesium	96	(80 - 120)	SW846 6010B	10/12/05	HMHFP1CL
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Manganese	96	(80 - 120)	SW846 6010B	10/12/05	HMHFP1CM
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Nickel	98	(80 - 120)	SW846 6010B	10/12/05	HMHFP1CN
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Potassium	99	(80 - 120)	SW846 6010B	10/12/05	HMHFP1CP
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Silver	115	(80 - 120)	SW846 6010B	10/12/05	HMHFP1CQ
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Sodium	95	(80 - 120)	SW846 6010B	10/12/05	HMHFP1CR
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Vanadium	97	(80 - 120)	SW846 6010B	10/12/05	HMHFP1CT
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Zinc	99	(80 - 120)	SW846 6010B	10/12/05	HMHFP1A3
		Dilution Factor: 1	Analysis Time..: 23:09		Analyst ID.....: 001619
		Instrument ID..: I6			
Thallium	96	(69 - 114)	SW846 6020	10/12-10/19/05	HMHFP1A4
		Dilution Factor: 1	Analysis Time..: 17:58		Analyst ID.....: 001644
		Instrument ID..: I7			
Mercury	101	(82 - 131)	SW846 7470A	10/12/05	HMHFP1A5
		Dilution Factor: 1	Analysis Time..: 19:04		Analyst ID.....: 001644
		Instrument ID..: H1			

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A5J140000-012 **Prep Batch #...:** 5287012					
Chromium	108	(80 - 120)	SW846 6010B	10/14-10/18/05	HMPGW1AD
		Dilution Factor: 1	Analysis Time..: 16:15	Analyst ID.....: 001619	
		Instrument ID..: I6			
Iron	113	(77 - 127)	SW846 6010B	10/14-10/18/05	HMPGW1AE
		Dilution Factor: 1	Analysis Time..: 16:15	Analyst ID.....: 001619	
		Instrument ID..: I6			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A5J120000-023 **Prep Batch #...:** 5285023							
Arsenic	2000	1930	ug/L	96	SW846 6010B	10/12/05	HMHFP1A6
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Aluminum	2000	2000	ug/L	100	SW846 6010B	10/12/05	HMHFP1A9
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Lead	500	469	ug/L	94	SW846 6010B	10/12/05	HMHFP1A7
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Antimony	500	452	ug/L	90	SW846 6010B	10/12/05	HMHFP1CA
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Selenium	2000	1940	ug/L	97	SW846 6010B	10/12/05	HMHFP1A8
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Barium	2000	1880	ug/L	94	SW846 6010B	10/12/05	HMHFP1CC
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Beryllium	50.0	48.4	ug/L	97	SW846 6010B	10/12/05	HMHFP1CD
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Cadmium	50.0	48.4	ug/L	97	SW846 6010B	10/12/05	HMHFP1CE
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Calcium	50000	47700	ug/L	95	SW846 6010B	10/12/05	HMHFP1CF
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Cobalt	500	483	ug/L	97	SW846 6010B	10/12/05	HMHFP1CH
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	250	250	ug/L	100	SW846 6010B	10/12/05	HMHFP1CJ
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Magnesium	50000	48200	ug/L	96	SW846 6010B	10/12/05	HMHFP1CL
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Manganese	500	479	ug/L	96	SW846 6010B	10/12/05	HMHFP1CM
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Nickel	500	492	ug/L	98	SW846 6010B	10/12/05	HMHFP1CN
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Potassium	50000	49300	ug/L	99	SW846 6010B	10/12/05	HMHFP1CP
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Silver	50.0	57.3	ug/L	115	SW846 6010B	10/12/05	HMHFP1CQ
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Sodium	50000	47500	ug/L	95	SW846 6010B	10/12/05	HMHFP1CR
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Vanadium	500	487	ug/L	97	SW846 6010B	10/12/05	HMHFP1CT
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Zinc	500	495	ug/L	99	SW846 6010B	10/12/05	HMHFP1A3
			Dilution Factor: 1		Analysis Time..: 23:09	Analyst ID.....: 001619	
			Instrument ID..: I6				
Thallium	100	96.2	ug/L	96	SW846 6020	10/12-10/19/05	HMHFP1A4
			Dilution Factor: 1		Analysis Time..: 17:58	Analyst ID.....: 001644	
			Instrument ID..: I7				
Mercury	5.0	5.0	ug/L	101	SW846 7470A	10/12/05	HMHFP1A5
			Dilution Factor: 1		Analysis Time..: 19:04	Analyst ID.....: 001644	
			Instrument ID..: H1				

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A5J140000-012 **Prep Batch #...:** 5287012							
Chromium	200	216	ug/L	108	SW846 6010B	10/14-10/18/05	HMPGW1AD
			Dilution Factor: 1		Analysis Time..: 16:15	Analyst ID.....: 001619	
			Instrument ID..: I6				
Iron	1000	1130	ug/L	113	SW846 6010B	10/14-10/18/05	HMPGW1AE
			Dilution Factor: 1		Analysis Time..: 16:15	Analyst ID.....: 001619	
			Instrument ID..: I6				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A5J070109-008 **Prep Batch #...:** 5285023					
Aluminum	95	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1AX
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Arsenic	103	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1AM
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Antimony	97	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1A2
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Lead	99	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1AQ
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Barium	100	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1A5
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Selenium	102	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1AU
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Beryllium	102	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1A8
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Cadmium	101	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1CC
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Calcium	99	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1CF
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Cobalt	102	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1CM
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	106	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1CQ
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Magnesium	103	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1CX
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Manganese	102	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1C2
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Nickel	103	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1C5
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Potassium	105	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1C8
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Silver	122	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1DC
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Sodium	101	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1DF
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Vanadium	103	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1DJ
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Zinc	104	(75 - 125)	SW846 6010B	10/12-10/13/05	HL72T1AC
		Dilution Factor: 1	Analysis Time..: 23:49	Instrument ID..: I6	
		Analyst ID.....: 001619			
Mercury	99	(68 - 149)	SW846 7470A	10/12/05	HL72T1AJ
		Dilution Factor: 1	Analysis Time..: 19:18	Instrument ID..: H1	
		Analyst ID.....: 001644			
Thallium	92	(70 - 130)	SW846 6020	10/12-10/19/05	HL72T1AF
		Dilution Factor: 1	Analysis Time..: 18:15	Instrument ID..: I7	
		Analyst ID.....: 001644			

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A5J070109-008 **Prep Batch #...:** 5287012					
Chromium	111	(75 - 125)	SW846 6010B	10/14-10/18/05	HL72T1ED
		Dilution Factor: 1	Analysis Time..: 16:36	Instrument ID..: I6	
		Analyst ID.....: 001619			
Iron	122	(75 - 125)	SW846 6010B	10/14-10/18/05	HL72T1EE
		Dilution Factor: 1	Analysis Time..: 16:36	Instrument ID..: I6	
		Analyst ID.....: 001619			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A5J070109-008 **Prep Batch #...:** 5285023								
Aluminum	228	2000	2120	ug/L	95	SW846 6010B	10/12-10/13/05	HL72T1AX
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Arsenic	7.1	2000	2060	ug/L	103	SW846 6010B	10/12-10/13/05	HL72T1AM
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Antimony	ND	500	484	ug/L	97	SW846 6010B	10/12-10/13/05	HL72T1A2
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Lead	ND	500	493	ug/L	99	SW846 6010B	10/12-10/13/05	HL72T1AQ
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Barium	34.7	2000	2030	ug/L	100	SW846 6010B	10/12-10/13/05	HL72T1A5
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Selenium	ND	2000	2040	ug/L	102	SW846 6010B	10/12-10/13/05	HL72T1AU
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Beryllium	ND	50.0	51.1	ug/L	102	SW846 6010B	10/12-10/13/05	HL72T1A8
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Cadmium	ND	50.0	50.6	ug/L	101	SW846 6010B	10/12-10/13/05	HL72T1CC
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Calcium	81800	50000	131000	ug/L	99	SW846 6010B	10/12-10/13/05	HL72T1CF
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Cobalt	ND	500	511	ug/L	102	SW846 6010B	10/12-10/13/05	HL72T1CM
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	2.0	250	266	ug/L	106	SW846 6010B	10/12-10/13/05	HL72T1CQ
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Magnesium	26800	50000	78500	ug/L	103	SW846 6010B	10/12-10/13/05	HL72T1CX
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Manganese	166	500	675	ug/L	102	SW846 6010B	10/12-10/13/05	HL72T1C2
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Nickel	ND	500	516	ug/L	103	SW846 6010B	10/12-10/13/05	HL72T1C5
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Potassium	2000	50000	54500	ug/L	105	SW846 6010B	10/12-10/13/05	HL72T1C8
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Silver	ND	50.0	60.8	ug/L	122	SW846 6010B	10/12-10/13/05	HL72T1DC
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Sodium	9230	50000	59800	ug/L	101	SW846 6010B	10/12-10/13/05	HL72T1DF
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Vanadium	ND	500	514	ug/L	103	SW846 6010B	10/12-10/13/05	HL72T1DJ
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Zinc	ND	500	519	ug/L	104	SW846 6010B	10/12-10/13/05	HL72T1AC
			Dilution Factor: 1		Analysis Time..: 23:49		Instrument ID..: I6	
			Analyst ID.....: 001619					
Mercury	ND	1.0	0.99	ug/L	99	SW846 7470A	10/12/05	HL72T1AJ
			Dilution Factor: 1		Analysis Time..: 19:18		Instrument ID..: H1	
			Analyst ID.....: 001644					
Thallium	ND	100	92.2	ug/L	92	SW846 6020	10/12-10/19/05	HL72T1AF
			Dilution Factor: 1		Analysis Time..: 18:15		Instrument ID..: I7	
			Analyst ID.....: 001644					

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A5J070109-008 **Prep Batch #...:** 5287012								
Chromium	ND	200	223	ug/L	111	SW846 6010B	10/14-10/18/05	HL72T1ED
			Dilution Factor: 1		Analysis Time..: 16:36		Instrument ID..: I6	
			Analyst ID.....: 001619					
Iron	1520	1000	2750	ug/L	122	SW846 6010B	10/14-10/18/05	HL72T1EE
			Dilution Factor: 1		Analysis Time..: 16:36		Instrument ID..: I6	
			Analyst ID.....: 001619					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A5J070109-012 **Prep Batch #...:** 5285023					
Aluminum	103	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201AX
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Arsenic	100	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201AM
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Antimony	94	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201A2
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Lead	96	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201AQ
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Barium	97	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201A5
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Selenium	99	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201AU
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Beryllium	99	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201A8
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Cadmium	99	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201CC
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Calcium	91	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201CF
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Cobalt	99	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201CM
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	102	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201CQ
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Magnesium	98	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201CX
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Manganese	97	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201C2
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Nickel	100	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201C5
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Potassium	102	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201C8
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Silver	118	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201DC
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Sodium	98	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201DF
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Vanadium	100	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201DJ
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Zinc	101	(75 - 125)	SW846 6010B	10/12-10/13/05	HL7201AC
		Dilution Factor: 1	Analysis Time..: 00:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Mercury	98	(68 - 149)	SW846 7470A	10/12/05	HL7201AJ
		Dilution Factor: 1	Analysis Time..: 19:05	Instrument ID..: H1	
		Analyst ID.....: 001644			
Thallium	96	(70 - 130)	SW846 6020	10/12-10/19/05	HL7201AF
		Dilution Factor: 1	Analysis Time..: 18:35	Instrument ID..: I7	
		Analyst ID.....: 001644			

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A5J070109-012 **Prep Batch #...:** 5287012					
Chromium	109	(75 - 125)	SW846 6010B	10/14-10/18/05	HL7201ED
		Dilution Factor: 1	Analysis Time..: 17:15	Instrument ID..: I6	
		Analyst ID.....: 001619			
Iron	111	(75 - 125)	SW846 6010B	10/14-10/18/05	HL7201EE
		Dilution Factor: 1	Analysis Time..: 17:15	Instrument ID..: I6	
		Analyst ID.....: 001619			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A5J070109-012 **Prep Batch #...:** 5285023								
Aluminum	ND	2000	2060	ug/L	103	SW846 6010B	10/12-10/13/05	HL7201AX
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Arsenic	6.3	2000	2010	ug/L	100	SW846 6010B	10/12-10/13/05	HL7201AM
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Antimony	ND	500	470	ug/L	94	SW846 6010B	10/12-10/13/05	HL7201A2
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Lead	ND	500	480	ug/L	96	SW846 6010B	10/12-10/13/05	HL7201AQ
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Barium	34.2	2000	1970	ug/L	97	SW846 6010B	10/12-10/13/05	HL7201A5
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Selenium	ND	2000	1990	ug/L	99	SW846 6010B	10/12-10/13/05	HL7201AU
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Beryllium	ND	50.0	49.7	ug/L	99	SW846 6010B	10/12-10/13/05	HL7201A8
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Cadmium	ND	50.0	49.4	ug/L	99	SW846 6010B	10/12-10/13/05	HL7201CC
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Calcium	86500	50000	132000	ug/L	91	SW846 6010B	10/12-10/13/05	HL7201CF
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Cobalt	ND	500	496	ug/L	99	SW846 6010B	10/12-10/13/05	HL7201CM
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	250	255	ug/L	102	SW846 6010B	10/12-10/13/05	HL7201CQ
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Magnesium	28700	50000	77700	ug/L	98	SW846 6010B	10/12-10/13/05	HL7201CX
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Manganese	193	500	680	ug/L	97	SW846 6010B	10/12-10/13/05	HL7201C2
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Nickel	ND	500	501	ug/L	100	SW846 6010B	10/12-10/13/05	HL7201C5
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Potassium	2060	50000	53000	ug/L	102	SW846 6010B	10/12-10/13/05	HL7201C8
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Silver	ND	50.0	59.1	ug/L	118	SW846 6010B	10/12-10/13/05	HL7201DC
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Sodium	9760	50000	58500	ug/L	98	SW846 6010B	10/12-10/13/05	HL7201DF
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Vanadium	ND	500	500	ug/L	100	SW846 6010B	10/12-10/13/05	HL7201DJ
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Zinc	ND	500	506	ug/L	101	SW846 6010B	10/12-10/13/05	HL7201AC
			Dilution Factor: 1		Analysis Time..: 00:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Mercury	ND	1.0	0.98	ug/L	98	SW846 7470A	10/12/05	HL7201AJ
			Dilution Factor: 1		Analysis Time..: 19:05		Instrument ID..: H1	
			Analyst ID.....: 001644					
Thallium	ND	100	96.1	ug/L	96	SW846 6020	10/12-10/19/05	HL7201AF
			Dilution Factor: 1		Analysis Time..: 18:35		Instrument ID..: I7	
			Analyst ID.....: 001644					

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: A5J070109 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A5J070109-012 **Prep Batch #...:** 5287012								
Chromium	1.8	200	220	ug/L	109	SW846 6010B	10/14-10/18/05	HL7201ED
			Dilution Factor: 1		Analysis Time..: 17:15		Instrument ID..: I6	
			Analyst ID.....: 001619					
Iron	1460	1000	2560	ug/L	111	SW846 6010B	10/14-10/18/05	HL7201EE
			Dilution Factor: 1		Analysis Time..: 17:15		Instrument ID..: I6	
			Analyst ID.....: 001619					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SAMPLE DUPLICATE EVALUATION REPORT

Metals

Client Lot #...: A5J070109 **Work Order #...:** HL72T-SMP HL72T-DUP **Matrix.....:** WG

Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Aluminum						SD Lot-Sample #: A5J070109-008		
	228	ND	ug/L	200	(0-20)	SW846 6010B	10/12/05	5285023
			Dilution Factor: 1			Analysis Time..: 23:49	Analyst ID.....: 001619	
			Instrument ID..: I6					
Arsenic						SD Lot-Sample #: A5J070109-008		
	7.1 B	5.9 B	ug/L	19	(0-20)	SW846 6010B	10/12/05	5285023
			Dilution Factor: 1			Analysis Time..: 23:49	Analyst ID.....: 001619	
			Instrument ID..: I6					
Lead						SD Lot-Sample #: A5J070109-008		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285023
			Dilution Factor: 1			Analysis Time..: 23:49	Analyst ID.....: 001619	
			Instrument ID..: I6					
Antimony						SD Lot-Sample #: A5J070109-008		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285023
			Dilution Factor: 1			Analysis Time..: 23:49	Analyst ID.....: 001619	
			Instrument ID..: I6					
Barium						SD Lot-Sample #: A5J070109-008		
	34.7	32.6	ug/L	6.1	(0-20)	SW846 6010B	10/12/05	5285023
			Dilution Factor: 1			Analysis Time..: 23:49	Analyst ID.....: 001619	
			Instrument ID..: I6					
Selenium						SD Lot-Sample #: A5J070109-008		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285023
			Dilution Factor: 1			Analysis Time..: 23:49	Analyst ID.....: 001619	
			Instrument ID..: I6					
Beryllium						SD Lot-Sample #: A5J070109-008		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285023
			Dilution Factor: 1			Analysis Time..: 23:49	Analyst ID.....: 001619	
			Instrument ID..: I6					
Cadmium						SD Lot-Sample #: A5J070109-008		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285023
			Dilution Factor: 1			Analysis Time..: 23:49	Analyst ID.....: 001619	
			Instrument ID..: I6					
Calcium						SD Lot-Sample #: A5J070109-008		
	81800	78700	ug/L	3.8	(0-20)	SW846 6010B	10/12/05	5285023
			Dilution Factor: 1			Analysis Time..: 23:49	Analyst ID.....: 001619	
			Instrument ID..: I6					

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SAMPLE DUPLICATE EVALUATION REPORT

Metals

Lot-Sample #...: A5J070109-000 **Work Order #...:** HL72T-SMP HL72T-DUP **Matrix.....:** WG

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chromium						SD Lot-Sample #: A5J070109-008		
	ND	1.6 B	ug/L	200	(0-20)	SW846 6010B	10/14-10/18/05	5287012
		Dilution Factor: 1				Analysis Time..: 16:36	Analyst ID.....: 001619	
		Instrument ID..: I6						
Cobalt						SD Lot-Sample #: A5J070109-008		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285023
		Dilution Factor: 1				Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6						
Copper						SD Lot-Sample #: A5J070109-008		
	2.0 B	1.9 B	ug/L	7.2	(0-20)	SW846 6010B	10/12/05	5285023
		Dilution Factor: 1				Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6						
Iron						SD Lot-Sample #: A5J070109-008		
	1520	1560	ug/L	2.1	(0-20)	SW846 6010B	10/14-10/18/05	5287012
		Dilution Factor: 1				Analysis Time..: 16:36	Analyst ID.....: 001619	
		Instrument ID..: I6						
Magnesium						SD Lot-Sample #: A5J070109-008		
	26800	26100	ug/L	2.9	(0-20)	SW846 6010B	10/12/05	5285023
		Dilution Factor: 1				Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6						
Manganese						SD Lot-Sample #: A5J070109-008		
	166 J	161	ug/L	3.0	(0-20)	SW846 6010B	10/12/05	5285023
		Dilution Factor: 1				Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6						
Nickel						SD Lot-Sample #: A5J070109-008		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285023
		Dilution Factor: 1				Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6						
Potassium						SD Lot-Sample #: A5J070109-008		
	2000 B	1950 B	ug/L	2.8	(0-20)	SW846 6010B	10/12/05	5285023
		Dilution Factor: 1				Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6						
Silver						SD Lot-Sample #: A5J070109-008		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285023
		Dilution Factor: 1				Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6						

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SAMPLE DUPLICATE EVALUATION REPORT

Metals

Lot-Sample #...: A5J070109-000 **Work Order #...:** HL72T-SMP HL72T-DUP **Matrix.....:** WG

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Sodium						SD Lot-Sample #: A5J070109-008		
	9230	8790	ug/L	4.9	(0-20)	SW846 6010B	10/12/05	5285023
		Dilution Factor: 1				Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6						
Vanadium						SD Lot-Sample #: A5J070109-008		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285023
		Dilution Factor: 1				Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6						
Zinc						SD Lot-Sample #: A5J070109-008		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12/05	5285023
		Dilution Factor: 1				Analysis Time..: 23:49	Analyst ID.....: 001619	
		Instrument ID..: I6						
Mercury						SD Lot-Sample #: A5J070109-008		
	ND	ND	ug/L	0	(0-20)	SW846 7470A	10/12/05	5285023
		Dilution Factor: 1				Analysis Time..: 19:18	Analyst ID.....: 001644	
		Instrument ID..: H1						
Thallium						SD Lot-Sample #: A5J070109-008		
	ND	ND	ug/L	0	(0-20)	SW846 6020	10/12-10/19/05	5285023
		Dilution Factor: 1				Analysis Time..: 18:15	Analyst ID.....: 001644	
		Instrument ID..: I7						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SAMPLE DUPLICATE EVALUATION REPORT

Metals

Client Lot #...: A5J070109 **Work Order #...:** HL720-SMP HL720-DUP **Matrix.....:** WG

Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Aluminum						SD Lot-Sample #: A5J070109-012		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285023
			Dilution Factor: 1			Analysis Time..: 00:15	Analyst ID.....: 001619	
			Instrument ID..: I6					
Arsenic						SD Lot-Sample #: A5J070109-012		
	6.3 B	6.8 B	ug/L	7.6	(0-20)	SW846 6010B	10/12-10/13/05	5285023
			Dilution Factor: 1			Analysis Time..: 00:15	Analyst ID.....: 001619	
			Instrument ID..: I6					
Lead						SD Lot-Sample #: A5J070109-012		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285023
			Dilution Factor: 1			Analysis Time..: 00:15	Analyst ID.....: 001619	
			Instrument ID..: I6					
Antimony						SD Lot-Sample #: A5J070109-012		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285023
			Dilution Factor: 1			Analysis Time..: 00:15	Analyst ID.....: 001619	
			Instrument ID..: I6					
Barium						SD Lot-Sample #: A5J070109-012		
	34.2	33.5	ug/L	2.1	(0-20)	SW846 6010B	10/12-10/13/05	5285023
			Dilution Factor: 1			Analysis Time..: 00:15	Analyst ID.....: 001619	
			Instrument ID..: I6					
Selenium						SD Lot-Sample #: A5J070109-012		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285023
			Dilution Factor: 1			Analysis Time..: 00:15	Analyst ID.....: 001619	
			Instrument ID..: I6					
Beryllium						SD Lot-Sample #: A5J070109-012		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285023
			Dilution Factor: 1			Analysis Time..: 00:15	Analyst ID.....: 001619	
			Instrument ID..: I6					
Cadmium						SD Lot-Sample #: A5J070109-012		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285023
			Dilution Factor: 1			Analysis Time..: 00:15	Analyst ID.....: 001619	
			Instrument ID..: I6					
Calcium						SD Lot-Sample #: A5J070109-012		
	86500	84700	ug/L	2.0	(0-20)	SW846 6010B	10/12-10/13/05	5285023
			Dilution Factor: 1			Analysis Time..: 00:15	Analyst ID.....: 001619	
			Instrument ID..: I6					

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SAMPLE DUPLICATE EVALUATION REPORT

Metals **Matrix.....: WG**

Lot-Sample #...: A5J070109-000 **Work Order #...: HL720-SMP**
HL720-DUP

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chromium	1.8 B,J	ND	ug/L Dilution Factor: 1 Instrument ID..: I6	28	(0-20)	SD Lot-Sample #: A5J070109-012 SW846 6010B Analysis Time..: 17:15	10/14-10/18/05 Analyst ID.....: 001619	5287012
Cobalt	ND	ND	ug/L Dilution Factor: 1 Instrument ID..: I6	0	(0-20)	SD Lot-Sample #: A5J070109-012 SW846 6010B Analysis Time..: 00:15	10/12-10/13/05 Analyst ID.....: 001619	5285023
Copper	ND	ND	ug/L Dilution Factor: 1 Instrument ID..: I6	0	(0-20)	SD Lot-Sample #: A5J070109-012 SW846 6010B Analysis Time..: 00:15	10/12-10/13/05 Analyst ID.....: 001619	5285023
Iron	1460	1460	ug/L Dilution Factor: 1 Instrument ID..: I6	0.091	(0-20)	SD Lot-Sample #: A5J070109-012 SW846 6010B Analysis Time..: 17:15	10/14-10/18/05 Analyst ID.....: 001619	5287012
Magnesium	28700	28100	ug/L Dilution Factor: 1 Instrument ID..: I6	2.1	(0-20)	SD Lot-Sample #: A5J070109-012 SW846 6010B Analysis Time..: 00:15	10/12-10/13/05 Analyst ID.....: 001619	5285023
Manganese	193 J	189	ug/L Dilution Factor: 1 Instrument ID..: I6	2.2	(0-20)	SD Lot-Sample #: A5J070109-012 SW846 6010B Analysis Time..: 00:15	10/12-10/13/05 Analyst ID.....: 001619	5285023
Nickel	ND	ND	ug/L Dilution Factor: 1 Instrument ID..: I6	0	(0-20)	SD Lot-Sample #: A5J070109-012 SW846 6010B Analysis Time..: 00:15	10/12-10/13/05 Analyst ID.....: 001619	5285023
Potassium	2060 B	2020 B	ug/L Dilution Factor: 1 Instrument ID..: I6	2.1	(0-20)	SD Lot-Sample #: A5J070109-012 SW846 6010B Analysis Time..: 00:15	10/12-10/13/05 Analyst ID.....: 001619	528502
Silver	ND	ND	ug/L Dilution Factor: 1 Instrument ID..: I6	0	(0-20)	SD Lot-Sample #: A5J070109-012 SW846 6010B Analysis Time..: 00:15	10/12-10/13/05 Analyst ID.....: 001619	5285

(Continued on next page)

STL North Canton

SAMPLE DUPLICATE EVALUATION REPORT

Metals

Lot-Sample #...: A5J070109-000 **Work Order #...:** HL720-SMP HL720-DUP **Matrix.....:** WG

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Sodium						SD Lot-Sample #: A5J070109-012		
	9760	9500	ug/L	2.6	(0-20)	SW846 6010B	10/12-10/13/05	5285023
		Dilution Factor: 1				Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6						
Vanadium						SD Lot-Sample #: A5J070109-012		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285023
		Dilution Factor: 1				Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6						
Zinc						SD Lot-Sample #: A5J070109-012		
	ND	ND	ug/L	0	(0-20)	SW846 6010B	10/12-10/13/05	5285023
		Dilution Factor: 1				Analysis Time..: 00:15	Analyst ID.....: 001619	
		Instrument ID..: I6						
Mercury						SD Lot-Sample #: A5J070109-012		
	ND	ND	ug/L	0	(0-20)	SW846 7470A	10/12/05	5285023
		Dilution Factor: 1				Analysis Time..: 19:05	Analyst ID.....: 001644	
		Instrument ID..: H1						
Thallium						SD Lot-Sample #: A5J070109-012		
	ND	ND	ug/L	0	(0-20)	SW846 6020	10/12-10/19/05	5285023
		Dilution Factor: 1				Analysis Time..: 18:35	Analyst ID.....: 001644	
		Instrument ID..: I7						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SEVERN TRENT STL

GENERAL CHEMISTRY DATA

SpecPro Inc

Client Sample ID: FWFDA2MW-DET4C-0128-GW

General Chemistry

Lot-Sample #...: A5J070109-001 Work Order #...: HL713 Matrix.....: WG
Date Sampled...: 10/06/05 10:15 Date Received..: 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0138-GW

General Chemistry

Lot-Sample #...: A5J070109-003 Work Order #...: HL72L Matrix.....: WG
Date Sampled...: 10/06/05 09:05 Date Received..: 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0105-GW

General Chemistry

Lot-Sample #...: A5J070109-005 **Work Order #...:** HL72N **Matrix.....:** WG
Date Sampled...: 10/06/05 09:05 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL11MW-007C-0119-GW

General Chemistry

Lot-Sample #...: A5J070109-007 Work Order #...: HL72R Matrix.....: WG
Date Sampled...: 10/06/05 11:23 Date Received..: 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGDA2MW-DET3-0127-GW

General Chemistry

Lot-Sample #...: A5J070109-009 Work Order #...: HL72V Matrix.....: WG
Date Sampled...: 10/06/05 09:05 Date Received..: 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGDA2MW-107C-0126-GW

General Chemistry

Lot-Sample #...: A5J070109-011 **Work Order #...:** HL72X **Matrix.....:** WG
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/18/05	5292011
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGWBGMW-006C-0129-GW

General Chemistry

Lot-Sample #...: A5J070109-013 Work Order #...: HL722 Matrix.....: WG
Date Sampled...: 10/06/05 10:50 Date Received..: 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0139-GW

General Chemistry

Lot-Sample #...: A5J070109-015 **Work Order #...:** HL725 **Matrix.....:** WG
Date Sampled...: 10/06/05 08:52 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0130-GW

General Chemistry

Lot-Sample #...: A5J070109-017 **Work Order #...:** HL727 **Matrix.....:** WG
Date Sampled...: 10/06/05 08:52 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGWBGMW-009C-0131-GW

General Chemistry

Lot-Sample #...: A5J070109-019 Work Order #...: HL729 Matrix.....: WG
Date Sampled...: 10/06/05 11:57 Date Received..: 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGLL11MW-002C-0118-GW

General Chemistry

Lot-Sample #...: A5J070109-021 **Work Order #...:** HL73C **Matrix.....:** WG
Date Sampled...: 10/06/05 13:21 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-006C-0096-GW

General Chemistry

Lot-Sample #...: A5J070109-023 **Work Order #...:** HL73E **Matrix.....:** WG
Date Sampled...: 10/06/05 14:15 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/18/05	5292011
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1				

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A5J070109 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: HMTG71AA		MB Lot-Sample #:	A5J150000-023	
	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1				
Cyanide, Total		Work Order #: HM2DK1AA		MB Lot-Sample #:	A5J190000-011	
	ND	0.010	mg/L	SW846 9012A	10/18/05	5292011
		Dilution Factor: 1				
Nitrocellulose		Work Order #: HM31A1AA		MB Lot-Sample #:	G5J190000-387	
	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J070109 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: HMTG71AC	LCS Lot-Sample#: A5J150000-023		
	98	(69 - 118)	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1			
Cyanide, Total		Work Order #: HM2DK1AC	LCS Lot-Sample#: A5J190000-011		
	103	(69 - 118)	SW846 9012A	10/18/05	5292011
		Dilution Factor: 1			
Nitrocellulose		Work Order #: HM31A1AC	LCS Lot-Sample#: G5J190000-387		
	80	(56 - 111)	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J070109 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			Work Order #: HMTG71AC		LCS Lot-Sample#: A5J150000-023		
	0.17	0.16	mg/L	98	SW846 9012A	10/15/05	5288023
			Dilution Factor: 1				
Cyanide, Total			Work Order #: HM2DK1AC		LCS Lot-Sample#: A5J190000-011		
	0.17	0.17	mg/L	103	SW846 9012A	10/18/05	5292011
			Dilution Factor: 1				
Nitrocellulose			Work Order #: HM31A1AC		LCS Lot-Sample#: G5J190000-387		
	2.0	1.6	mg/L	80	MCAWW 353.2	10/19-10/21/05	5292387
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J070109 **Matrix.....:** WATER
Date Sampled...: 10/06/05 **Date Received..:** 10/07/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		WO#: HL41C1AQ-MS/HL41C1AR-MSD				MS Lot-Sample #: A5J060101-017	
	71	(42 - 140)			SW846 9012A	10/15/05	5288023
	52 *	(42 - 140)	30	(0-20)	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1					
Cyanide, Total		WO#: HMAPH1FU-MS/HMAPH1FV-MSD				MS Lot-Sample #: A5J070395-007	
	94	(42 - 140)			SW846 9012A	10/18/05	5292011
	93	(42 - 140)	1.1	(0-20)	SW846 9012A	10/18/05	5292011
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J070109 **Matrix.....:** WATER
Date Sampled...: 10/06/05 **Date Received..:** 10/07/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: HL41C1AQ-MS/HL41C1AR-MSD		MS Lot-Sample #: A5J060101-017				
	ND	0.040	0.028	mg/L	71		SW846 9012A	10/15/05	5288023
	ND	0.040	0.021 *	mg/L	52	30	SW846 9012A	10/15/05	5288023
			Dilution Factor: 1						
Cyanide, Total			WO#: HMAPH1FU-MS/HMAPH1FV-MSD		MS Lot-Sample #: A5J070395-007				
	ND	0.040	0.038	mg/L	94		SW846 9012A	10/18/05	5292011
	ND	0.040	0.037	mg/L	93	1.1	SW846 9012A	10/18/05	5292011
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J070109 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		WO#: HL72R1AQ-MS/HL72R1AR-MSD				MS Lot-Sample #: A5J070109-007	
	96	(42 - 140)			SW846 9012A	10/15/05	5288023
	86	(42 - 140)	11	(0-20)	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1					
Cyanide, Total		WO#: HL72X1A4-MS/HL72X1A5-MSD				MS Lot-Sample #: A5J070109-011	
	96	(42 - 140)			SW846 9012A	10/18/05	5292011
	92	(42 - 140)	4.5	(0-20)	SW846 9012A	10/18/05	5292011
		Dilution Factor: 1					
Nitrocellulose		WO#: HL72R1AX-MS/HL72R1A0-MSD				MS Lot-Sample #: A5J070109-007	
	95	(56 - 111)			MCAWW 353.2	10/19-10/21/05	5292387
	86	(56 - 111)	10	(0-15)	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1					
Nitrocellulose		WO#: HL72X1AX-MS/HL72X1A0-MSD				MS Lot-Sample #: A5J070109-011	
	89	(56 - 111)			MCAWW 353.2	10/19-10/21/05	5292387
	110 *	(56 - 111)	21	(0-15)	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J070109 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: HL72R1AQ-MS/HL72R1AR-MSD				MS Lot-Sample #: A5J070109-007		
	ND	0.040	0.038	mg/L	96		SW846 9012A	10/15/05	5288023
	ND	0.040	0.034	mg/L	86	11	SW846 9012A	10/15/05	5288023
			Dilution Factor: 1						
Cyanide, Total			WO#: HL72X1A4-MS/HL72X1A5-MSD				MS Lot-Sample #: A5J070109-011		
	ND	0.040	0.039	mg/L	96		SW846 9012A	10/18/05	5292011
	ND	0.040	0.037	mg/L	92	4.5	SW846 9012A	10/18/05	5292011
			Dilution Factor: 1						
Nitrocellulose			WO#: HL72R1AX-MS/HL72R1A0-MSD				MS Lot-Sample #: A5J070109-007		
	ND	2.0	2.0	mg/L	95		MCAWW 353.2	10/19-10/21/05	5292387
	ND	2.0	1.8	mg/L	86	10	MCAWW 353.2	10/19-10/21/05	5292387
			Dilution Factor: 1						
Nitrocellulose			WO#: HL72X1AX-MS/HL72X1A0-MSD				MS Lot-Sample #: A5J070109-011		
	ND	2.0	1.8	mg/L	89		MCAWW 353.2	10/19-10/21/05	5292387
	ND	2.0	2.2 *	mg/L	110	21	MCAWW 353.2	10/19-10/21/05	5292387
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

SEVERN TRENT STL

STL WEST SACRAMENTO DATA

CASE NARRATIVE

STL SACRAMENTO PROJECT NUMBER A5J070109

WATER, 8330, Explosives (SAC)
Sample: 5
The extract of this sample required a 5X dilution due to high levels of HMX and RDX. All reporting limits have been adjusted accordingly.

Sample(s): 21, 23
These samples had excessive silt/sediment and required filtration prior to extraction. A filter blank was extracted as part of the batch.

WATER, 353.2, Nitrocellulose as N (SAC)
Sample(s): 11 and 23
The matrix spike/matrix spike duplicate (MS/MSD) associated with this extraction batch has precision value outside of the established control limits. Acceptable laboratory control sample (LCS) data demonstrate that the analytical system is in control. This anomaly is most likely matrix related.

There were no other anomalies associated with this project.

SEVERN TRENT STL

ACCREDITED IN ACCORDANCE WITH nelac

STL Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	Oregon*	CA 200005
Arizona	AZ0616	Pennsylvania	68-1272
Arkansas	04-067-0	South Carolina	87014002
California*	01119CA	Texas	TX 270-2004A
Colorado	NA	Utah*	QUAN1
Connecticut	PH-0691	Virginia	00178
Florida*	E87570	Washington	C087
Georgia	960	West Virginia	9930C, 334
Hawaii	NA	Wisconsin	998204680
Louisiana*	01944	NFESC	NA
Michigan	9947	USACE	NA
Nevada	CA44	USDA Foreign Plant	37-82605
New Jersey*	CA005	USDA Foreign Soil	S-46613
New York*	11666		

*NELAP accredited. A more detailed parameter list is available upon request. Update 1/27/05

QC Parameter Definitions

QC Batch: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

Method Blank: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD): An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also used to evaluate the precision of the process.

Duplicate Sample (DU): Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

Surrogates: Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

Isotope Dilution: For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

Control Limits: The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

SpecPro Inc

Client Sample ID: FWFDA2MW-DET4C-0128-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J070109-001 **Work Order #...:** HL7131AJ **Matrix.....:** WG
Date Sampled...: 10/06/05 10:15 **Date Received..:** 10/07/05
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWFDA2MW-DET4C-0128-GW

HPLC

Lot-Sample #...: A5J070109-001 **Work Order #...:** HL7131AG **Matrix.....:** WG
Date Sampled...: 10/06/05 10:15 **Date Received..:** 10/07/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5286365
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	**0.64**	**0.10**	**ug/L**
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	113	(84 - 125)

SpecPro Inc

Client Sample ID: FWFDA2MW-DET4C-0128-GW

General Chemistry

Lot-Sample #...: A5J070109-001 **Work Order #...:** HL713 **Matrix.....:** WG
Date Sampled...: 10/06/05 10:15 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0138-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J070109-003 **Work Order #...:** HL72L1AJ **Matrix.....:** WG
Date Sampled...: 10/06/05 09:05 **Date Received..:** 10/07/05
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0138-GW

HPLC

Lot-Sample #...: A5J070109-003 **Work Order #...:** HL72L1AG **Matrix.....:** WG
Date Sampled...: 10/06/05 09:05 **Date Received..:** 10/07/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5286365
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	112	(84 - 125)

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0138-GW

General Chemistry

Lot-Sample #...: A5J070109-003 **Work Order #...:** HL72L **Matrix.....:** WG
Date Sampled...: 10/06/05 09:05 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0105-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J070109-005 **Work Order #...:** HL72N1AJ **Matrix.....:** WG
Date Sampled...: 10/06/05 09:05 **Date Received..:** 10/07/05
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0105-GW

HPLC

Lot-Sample #...:	A5J070109-005	**Work Order #...:**	HL72N1AG	**Matrix.....:**	WG
Date Sampled...:	10/06/05 09:05	**Date Received..:**	10/07/05		
Prep Date.....:	10/13/05	**Analysis Date..:**	10/16/05		
Prep Batch #...:	5286365				
Dilution Factor:	1	**Method.....:**	SW846 8330		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	109	(84 - 125)

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0105-GW

General Chemistry

Lot-Sample #...: A5J070109-005 **Work Order #...:** HL72N **Matrix.....:** WG
Date Sampled...: 10/06/05 09:05 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL11MW-007C-0119-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J070109-007 **Work Order #...:** HL72R1A1 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL11MW-007C-0119-GW

HPLC

Lot-Sample #...: A5J070109-007	**Work Order #...:** HL72R1AT	**Matrix.....:** WG
Date Sampled...: 10/06/05 11:23	**Date Received..:** 10/07/05	
Prep Date.....: 10/13/05	**Analysis Date..:** 10/16/05	
Prep Batch #...: 5286365		
Dilution Factor: 1	**Method.....:** SW846 8330	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	113	(84 - 125)

SpecPro Inc

Client Sample ID: FWGLL11MW-007C-0119-GW

General Chemistry

Lot-Sample #...: A5J070109-007 **Work Order #...:** HL72R **Matrix.....:** WG
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGDA2MW-DET3-0127-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J070109-009 **Work Order #...:** HL72V1AJ **Matrix.....:** WG
Date Sampled...: 10/06/05 09:05 **Date Received..:** 10/07/05
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGDA2MW-DET3-0127-GW

HPLC

Lot-Sample #...: A5J070109-009 **Work Order #...:** HL72V1AG **Matrix.....:** WG
Date Sampled...: 10/06/05 09:05 **Date Received..:** 10/07/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5286365
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	109	(84 - 125)

SpecPro Inc

Client Sample ID: FWGDA2MW-DET3-0127-GW

General Chemistry

Lot-Sample #...: A5J070109-009 **Work Order #...:** HL72V **Matrix.....:** WG
Date Sampled...: 10/06/05 09:05 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGDA2MW-107C-0126-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J070109-011 **Work Order #...:** HL72X1A1 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGDA2MW-107C-0126-GW

HPLC

Lot-Sample #...: A5J070109-011 **Work Order #...:** HL72X1AT **Matrix.....:** WG
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5286365
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	109	(84 - 125)

SpecPro Inc

Client Sample ID: FWGDA2MW-107C-0126-GW

General Chemistry

Lot-Sample #...: A5J070109-011 **Work Order #...:** HL72X **Matrix.....:** WG
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/18/05	5292011
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGWBGMW-006C-0129-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J070109-013 **Work Order #...:** HL7221AJ **Matrix.....:** WG
Date Sampled...: 10/06/05 10:50 **Date Received..:** 10/07/05
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGWBGMW-006C-0129-GW

HPLC

Lot-Sample #...: A5J070109-013 **Work Order #...:** HL7221AG **Matrix.....:** WG
Date Sampled...: 10/06/05 10:50 **Date Received..:** 10/07/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/19/05
Prep Batch #...: 5286365
Dilution Factor: 5 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.50	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.50	ug/L
1,3-Dinitrobenzene	ND	0.50	ug/L
2,4-Dinitrotoluene	ND	0.50	ug/L
2,6-Dinitrotoluene	ND	0.50	ug/L
HMX	**17**	**0.50**	**ug/L**
Nitrobenzene	ND	0.50	ug/L
2-Nitrotoluene	ND	2.5	ug/L
3-Nitrotoluene	ND	2.5	ug/L
4-Nitrotoluene	ND	2.5	ug/L
RDX	**65**	**0.50**	**ug/L**
Tetryl	ND	0.50	ug/L
1,3,5-Trinitrobenzene	ND	0.50	ug/L
2,4,6-Trinitrotoluene	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	112	(84 - 125)

SpecPro Inc

Client Sample ID: FWGWBGMW-006C-0129-GW

General Chemistry

Lot-Sample #...: A5J070109-013 **Work Order #...:** HL722 **Matrix.....:** WG
Date Sampled...: 10/06/05 10:50 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0139-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J070109-015 **Work Order #...:** HL7251AJ **Matrix.....:** WG
Date Sampled...: 10/06/05 08:52 **Date Received..:** 10/07/05
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0139-GW

HPLC

Lot-Sample #...: A5J070109-015 **Work Order #...:** HL7251AG **Matrix.....:** WG
Date Sampled...: 10/06/05 08:52 **Date Received..:** 10/07/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5286365
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	111	(84 - 125)

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0139-GW

General Chemistry

Lot-Sample #...: A5J070109-015 **Work Order #...:** HL725 **Matrix.....:** WG
Date Sampled...: 10/06/05 08:52 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0130-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J070109-017 **Work Order #...:** HL7271AJ **Matrix.....:** WG
Date Sampled...: 10/06/05 08:52 **Date Received..:** 10/07/05
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0130-GW

HPLC

Lot-Sample #...: A5J070109-017 **Work Order #...:** HL7271AG **Matrix.....:** WG
Date Sampled...: 10/06/05 08:52 **Date Received..:** 10/07/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5286365
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	108	(84 - 125)

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0130-GW

General Chemistry

Lot-Sample #...: A5J070109-017 **Work Order #...:** HL727 **Matrix.....:** WG
Date Sampled...: 10/06/05 08:52 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGWBGMW-009C-0131-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J070109-019 **Work Order #...:** HL7291AJ **Matrix.....:** WG
Date Sampled...: 10/06/05 11:57 **Date Received..:** 10/07/05
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGWBGMW-009C-0131-GW

HPLC

Lot-Sample #...: A5J070109-019 **Work Order #...:** HL7291AG **Matrix.....:** WG
Date Sampled...: 10/06/05 11:57 **Date Received..:** 10/07/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5286365
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	**2.3**	**0.10**	**ug/L**
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	**9.9**	**0.10**	**ug/L**
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	112	(84 - 125)

SpecPro Inc

Client Sample ID: FWGWBGMW-009C-0131-GW

General Chemistry

Lot-Sample #...: A5J070109-019 **Work Order #...:** HL729 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:57 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1				

SpecPro Inc

Client Sample ID: FWGLL11MW-002C-0118-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J070109-021 **Work Order #...:** HL73C1AJ **Matrix.....:** WG
Date Sampled...: 10/06/05 13:21 **Date Received..:** 10/07/05
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGLL11MW-002C-0118-GW

HPLC

Lot-Sample #...: A5J070109-021 **Work Order #...:** HL73C1AG **Matrix.....:** WG
Date Sampled...: 10/06/05 13:21 **Date Received..:** 10/07/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5286365
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	108	(84 - 125)

SpecPro Inc

Client Sample ID: FWGLL11MW-002C-0118-GW

General Chemistry

Lot-Sample #...: A5J070109-021 **Work Order #...:** HL73C **Matrix.....:** WG
Date Sampled...: 10/06/05 13:21 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
	Dilution Factor: 1					
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
	Dilution Factor: 1					

SpecPro Inc

Client Sample ID: FWGBKGMW-006C-0096-GW

Trace Level Organic Compounds

Lot-Sample #...: A5J070109-023 **Work Order #...:** HL73E1AJ **Matrix.....:** WG
Date Sampled...: 10/06/05 14:15 **Date Received..:** 10/07/05
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

SpecPro Inc

Client Sample ID: FWGBKGMW-006C-0096-GW

HPLC

Lot-Sample #...: A5J070109-023 **Work Order #...:** HL73E1AG **Matrix.....:** WG
Date Sampled...: 10/06/05 14:15 **Date Received..:** 10/07/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5286365
Dilution Factor: 1 **Method.....:** SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L
1,3-Dinitrobenzene	ND	0.10	ug/L
2,4-Dinitrotoluene	ND	0.10	ug/L
2,6-Dinitrotoluene	ND	0.10	ug/L
HMX	ND	0.10	ug/L
Nitrobenzene	ND	0.10	ug/L
2-Nitrotoluene	ND	0.50	ug/L
3-Nitrotoluene	ND	0.50	ug/L
4-Nitrotoluene	ND	0.50	ug/L
RDX	ND	0.10	ug/L
Tetryl	ND	0.10	ug/L
1,3,5-Trinitrobenzene	ND	0.10	ug/L
2,4,6-Trinitrotoluene	ND	0.10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	108	(84 - 125)

SpecPro Inc

Client Sample ID: FWGBKGMW-006C-0096-GW

General Chemistry

Lot-Sample #...: A5J070109-023 **Work Order #...:** HL73E **Matrix.....:** WG
Date Sampled...: 10/06/05 14:15 **Date Received..:** 10/07/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total	ND	0.010	mg/L	SW846 9012A	10/18/05	5292011
		Dilution Factor: 1				
Nitrocellulose	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1				

METHOD BLANK REPORT

Trace Level Organic Compounds

Client Lot #...: A5J070109 **Work Order #...:** HMPE61AA **Matrix.....:** WATER
MB Lot-Sample #: G5J130000-587
Prep Date.....: 10/14/05
Analysis Date..: 10/15/05 **Prep Batch #...:** 5286587
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Nitroguanidine	ND	20	ug/L	NONE UV/HPLC per

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

HPLC

Client Lot #...: A5J070109 **Work Order #...:** HMM3A1AA **Matrix.....:** WATER
MB Lot-Sample #: G5J130000-365

Prep Date.....: 10/13/05
Analysis Date..: 10/15/05 **Prep Batch #...:** 5286365
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.50	ug/L	SW846 8330
3-Nitrotoluene	ND	0.50	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4,6-Trinitrotoluene	ND	0.10	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	112	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

HPLC

Client Lot #...: A5J070109 **Work Order #...:** HMM3A1AD **Matrix.....:** WATER
MB Lot-Sample #: G5J130000-365

Prep Date.....: 10/13/05
Analysis Date..: 10/16/05 **Prep Batch #...:** 5286365
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2-Amino-4,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	0.10	ug/L	SW846 8330
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.50	ug/L	SW846 8330
3-Nitrotoluene	ND	0.50	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4,6-Trinitrotoluene	ND	0.10	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	111	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A5J070109 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: HMTG71AA		MB Lot-Sample #:	A5J150000-023	
	ND	0.010	mg/L	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1				
Cyanide, Total		Work Order #: HM2DK1AA		MB Lot-Sample #:	A5J190000-011	
	ND	0.010	mg/L	SW846 9012A	10/18/05	5292011
		Dilution Factor: 1				
Nitrocellulose		Work Order #: HM31A1AA		MB Lot-Sample #:	G5J190000-387	
	ND	0.50	mg/L	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: A5J070109 **Work Order #...:** HMPE61AC **Matrix.....:** WATER
LCS Lot-Sample#: G5J130000-587
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Nitroguanidine	**107**	**(79 - 119)**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: A5J070109 Work Order #...: HMPE61AC Matrix.....: WATER
LCS Lot-Sample#: G5J130000-587
Prep Date.....: 10/14/05 Analysis Date..: 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Nitroguanidine	**250**	**270**	**ug/L**	**107**	**NONE UV/HPLC per**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: A5J070109 **Work Order #...:** HMM3A1AC **Matrix.....:** WATER
LCS Lot-Sample#: G5J130000-365
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286365
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
2-Amino-4,6-dinitrotoluene	**108**	**(82 - 125)**	**SW846 8330**
4-Amino-2,6-dinitrotoluene	**107**	**(85 - 123)**	**SW846 8330**
1,3-Dinitrobenzene	**113**	**(89 - 130)**	**SW846 8330**
2,4-Dinitrotoluene	**110**	**(86 - 128)**	**SW846 8330**
2,6-Dinitrotoluene	**109**	**(86 - 127)**	**SW846 8330**
HMX	**117**	**(82 - 121)**	**SW846 8330**
Nitrobenzene	**111**	**(81 - 125)**	**SW846 8330**
2-Nitrotoluene	**105**	**(90 - 120)**	**SW846 8330**
3-Nitrotoluene	**107**	**(87 - 122)**	**SW846 8330**
4-Nitrotoluene	**105**	**(87 - 124)**	**SW846 8330**
RDX	**115**	**(94 - 124)**	**SW846 8330**
Tetryl	**107**	**(81 - 126)**	**SW846 8330**
1,3,5-Trinitrobenzene	**107**	**(81 - 132)**	**SW846 8330**
2,4,6-Trinitrotoluene	**109**	**(86 - 126)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	112	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: A5J070109 **Work Order #...:** HMM3A1AC **Matrix.....:** WATER
LCS Lot-Sample#: G5J130000-365
Prep Date.....: 10/13/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286365
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
2-Amino-4,6-dinitrotoluene	1.0	1.1	ug/L	108	SW846 8330
4-Amino-2,6-dinitrotoluene	1.0	1.1	ug/L	107	SW846 8330
1,3-Dinitrobenzene	1.0	1.1	ug/L	113	SW846 8330
2,4-Dinitrotoluene	1.0	1.1	ug/L	110	SW846 8330
2,6-Dinitrotoluene	1.0	1.1	ug/L	109	SW846 8330
HMX	1.0	1.2	ug/L	117	SW846 8330
Nitrobenzene	1.0	1.1	ug/L	111	SW846 8330
2-Nitrotoluene	1.0	1.1	ug/L	105	SW846 8330
3-Nitrotoluene	1.0	1.1	ug/L	107	SW846 8330
4-Nitrotoluene	1.0	1.1	ug/L	105	SW846 8330
RDX	1.0	1.2	ug/L	115	SW846 8330
Tetryl	1.0	1.1	ug/L	107	SW846 8330
1,3,5-Trinitrobenzene	1.0	1.1	ug/L	107	SW846 8330
2,4,6-Trinitrotoluene	1.0	1.1	ug/L	109	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	112	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J070109 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		Work Order #: HMTG71AC	LCS Lot-Sample#: A5J150000-023		
	98	(69 - 118)	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1			
Cyanide, Total		Work Order #: HM2DK1AC	LCS Lot-Sample#: A5J190000-011		
	103	(69 - 118)	SW846 9012A	10/18/05	5292011
		Dilution Factor: 1			
Nitrocellulose		Work Order #: HM31A1AC	LCS Lot-Sample#: G5J190000-387		
	80	(56 - 111)	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J070109 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			Work Order #: HMTG71AC	LCS Lot-Sample#: A5J150000-023			
	0.17	0.16	mg/L	98	SW846 9012A	10/15/05	5288023
			Dilution Factor: 1				
Cyanide, Total			Work Order #: HM2DK1AC	LCS Lot-Sample#: A5J190000-011			
	0.17	0.17	mg/L	103	SW846 9012A	10/18/05	5292011
			Dilution Factor: 1				
Nitrocellulose			Work Order #: HM31A1AC	LCS Lot-Sample#: G5J190000-387			
	2.0	1.6	mg/L	80	MCAWW 353.2	10/19-10/21/05	5292387
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: A5J070109 **Work Order #...:** HL72R1A2-MS **Matrix.....:** WG
MS Lot-Sample #: A5J070109-007 HL72R1A3-MSD
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Nitroguanidine	**107**	**(79 - 119)**			**NONE UV/HPLC per SOP**
	107	**(79 - 119)**	**0.26**	**(0-15)**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: A5J070109 **Work Order #...:** HL72R1A2-MS **Matrix.....:** WG
MS Lot-Sample #: A5J070109-007 HL72R1A3-MSD
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Nitroguanidine	**ND**	**250**	**270**	**ug/L**	**107**		**NONE UV/HPLC per SOP**
	ND	**250**	**270**	**ug/L**	**107**	**0.26**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #...: A5J070109 **Work Order #...:** HL72X1A2-MS **Matrix.....:** WG
MS Lot-Sample #: A5J070109-011 HL72X1A3-MSD
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Nitroguanidine	**108**	**(79 - 119)**			**NONE UV/HPLC per SOP**
	105	**(79 - 119)**	**2.9**	**(0-15)**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot #...: A5J070109 **Work Order #...:** HL72X1A2-MS **Matrix.....:** WG
MS Lot-Sample #: A5J070109-011 HL72X1A3-MSD
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05
Prep Date.....: 10/14/05 **Analysis Date..:** 10/15/05
Prep Batch #...: 5286587
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Nitroguanidine	**ND**	**250**	**270**	**ug/L**	**108**		**NONE UV/HPLC per SOP**
	ND	**250**	**260**	**ug/L**	**105**	**2.9**	**NONE UV/HPLC per SOP**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: A5J070109 **Work Order #...:** HL72R1AU-MS **Matrix.....:** WG
MS Lot-Sample #: A5J070109-007 HL72R1AV-MSD
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5286365
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2-Amino-4,6-dinitrotoluene	101	(82 - 125)			SW846 8330
	99	(82 - 125)	2.3	(0-15)	SW846 8330
4-Amino-2,6-dinitrotoluene	99	(85 - 123)			SW846 8330
	97	(85 - 123)	1.9	(0-15)	SW846 8330
1,3-Dinitrobenzene	107	(89 - 130)			SW846 8330
	104	(89 - 130)	2.7	(0-15)	SW846 8330
2,4-Dinitrotoluene	105	(86 - 128)			SW846 8330
	102	(86 - 128)	2.5	(0-15)	SW846 8330
2,6-Dinitrotoluene	103	(86 - 127)			SW846 8330
	101	(86 - 127)	2.8	(0-15)	SW846 8330
HMX	109	(82 - 121)			SW846 8330
	104	(82 - 121)	4.8	(0-15)	SW846 8330
Nitrobenzene	105	(81 - 125)			SW846 8330
	102	(81 - 125)	3.4	(0-15)	SW846 8330
2-Nitrotoluene	100	(90 - 120)			SW846 8330
	97	(90 - 120)	3.2	(0-15)	SW846 8330
3-Nitrotoluene	102	(87 - 122)			SW846 8330
	99	(87 - 122)	3.2	(0-15)	SW846 8330
4-Nitrotoluene	101	(87 - 124)			SW846 8330
	98	(87 - 124)	3.0	(0-15)	SW846 8330
RDX	108	(94 - 124)			SW846 8330
	104	(94 - 124)	3.7	(0-15)	SW846 8330
Tetryl	100	(81 - 126)			SW846 8330
	97	(81 - 126)	2.4	(0-15)	SW846 8330
1,3,5-Trinitrobenzene	100	(81 - 132)			SW846 8330
	97	(81 - 132)	3.3	(0-16)	SW846 8330
2,4,6-Trinitrotoluene	102	(86 - 126)			SW846 8330
	100	(86 - 126)	2.3	(0-15)	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	111	(84 - 125)
	109	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: A5J070109 **Work Order #...:** HL72R1AU-MS **Matrix.....:** WG
MS Lot-Sample #: A5J070109-007 HL72R1AV-MSD
Date Sampled...: 10/06/05 11:23 **Date Received..:** 10/07/05
Prep Date.....: 10/13/05 **Analysis Date..:** 10/16/05
Prep Batch #...: 5286365
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
2-Amino-4,6-dinitrotoluene	**ND**	**1.0**	**1.0**	**ug/L**	**101**		**SW846 8330**
	ND	**1.0**	**0.99**	**ug/L**	**99**	**2.3**	**SW846 8330**
4-Amino-2,6-dinitrotoluene	**ND**	**1.0**	**0.99**	**ug/L**	**99**		**SW846 8330**
	ND	**1.0**	**0.97**	**ug/L**	**97**	**1.9**	**SW846 8330**
1,3-Dinitrobenzene	**ND**	**1.0**	**1.1**	**ug/L**	**107**		**SW846 8330**
	ND	**1.0**	**1.0**	**ug/L**	**104**	**2.7**	**SW846 8330**
2,4-Dinitrotoluene	**ND**	**1.0**	**1.0**	**ug/L**	**105**		**SW846 8330**
	ND	**1.0**	**1.0**	**ug/L**	**102**	**2.5**	**SW846 8330**
2,6-Dinitrotoluene	**ND**	**1.0**	**1.0**	**ug/L**	**103**		**SW846 8330**
	ND	**1.0**	**1.0**	**ug/L**	**101**	**2.8**	**SW846 8330**
HMX	**ND**	**1.0**	**1.1**	**ug/L**	**109**		**SW846 8330**
	ND	**1.0**	**1.0**	**ug/L**	**104**	**4.8**	**SW846 8330**
Nitrobenzene	**ND**	**1.0**	**1.1**	**ug/L**	**105**		**SW846 8330**
	ND	**1.0**	**1.0**	**ug/L**	**102**	**3.4**	**SW846 8330**
2-Nitrotoluene	**ND**	**1.0**	**1.0**	**ug/L**	**100**		**SW846 8330**
	ND	**1.0**	**0.97**	**ug/L**	**97**	**3.2**	**SW846 8330**
3-Nitrotoluene	**ND**	**1.0**	**1.0**	**ug/L**	**102**		**SW846 8330**
	ND	**1.0**	**0.99**	**ug/L**	**99**	**3.2**	**SW846 8330**
4-Nitrotoluene	**ND**	**1.0**	**1.0**	**ug/L**	**101**		**SW846 8330**
	ND	**1.0**	**0.98**	**ug/L**	**98**	**3.0**	**SW846 8330**
RDX	**ND**	**1.0**	**1.1**	**ug/L**	**108**		**SW846 8330**
	ND	**1.0**	**1.0**	**ug/L**	**104**	**3.7**	**SW846 8330**
Tetryl	**ND**	**1.0**	**1.0**	**ug/L**	**100**		**SW846 8330**
	ND	**1.0**	**0.97**	**ug/L**	**97**	**2.4**	**SW846 8330**
1,3,5-Trinitrobenzene	**ND**	**1.0**	**1.0**	**ug/L**	**100**		**SW846 8330**
	ND	**1.0**	**0.97**	**ug/L**	**97**	**3.3**	**SW846 8330**
2,4,6-Trinitrotoluene	**ND**	**1.0**	**1.0**	**ug/L**	**102**		**SW846 8330**
	ND	**1.0**	**1.0**	**ug/L**	**100**	**2.3**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	111	(84 - 125)
	109	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: A5J070109 Work Order #...: HL72X1AU-MS Matrix.....: WG
MS Lot-Sample #: A5J070109-011 HL72X1AV-MSD
Date Sampled...: 10/06/05 11:10 Date Received..: 10/07/05
Prep Date.....: 10/13/05 Analysis Date..: 10/16/05
Prep Batch #...: 5286365
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
2-Amino-4,6-dinitrotoluene	99	(82 - 125)			SW846 8330
	98	(82 - 125)	1.1	(0-15)	SW846 8330
4-Amino-2,6-dinitrotoluene	97	(85 - 123)			SW846 8330
	97	(85 - 123)	0.13	(0-15)	SW846 8330
1,3-Dinitrobenzene	105	(89 - 130)			SW846 8330
	104	(89 - 130)	1.0	(0-15)	SW846 8330
2,4-Dinitrotoluene	102	(86 - 128)			SW846 8330
	101	(86 - 128)	1.0	(0-15)	SW846 8330
2,6-Dinitrotoluene	101	(86 - 127)			SW846 8330
	101	(86 - 127)	0.24	(0-15)	SW846 8330
HMX	107	(82 - 121)			SW846 8330
	107	(82 - 121)	0.22	(0-15)	SW846 8330
Nitrobenzene	104	(81 - 125)			SW846 8330
	102	(81 - 125)	1.8	(0-15)	SW846 8330
2-Nitrotoluene	99	(90 - 120)			SW846 8330
	97	(90 - 120)	1.7	(0-15)	SW846 8330
3-Nitrotoluene	100	(87 - 122)			SW846 8330
	97	(87 - 122)	2.2	(0-15)	SW846 8330
4-Nitrotoluene	99	(87 - 124)			SW846 8330
	96	(87 - 124)	2.2	(0-15)	SW846 8330
RDX	107	(94 - 124)			SW846 8330
	107	(94 - 124)	0.77	(0-15)	SW846 8330
Tetryl	97	(81 - 126)			SW846 8330
	98	(81 - 126)	0.44	(0-15)	SW846 8330
1,3,5-Trinitrobenzene	98	(81 - 132)			SW846 8330
	97	(81 - 132)	1.4	(0-16)	SW846 8330
2,4,6-Trinitrotoluene	100	(86 - 126)			SW846 8330
	99	(86 - 126)	1.0	(0-15)	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	109	(84 - 125)
	109	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: A5J070109 Work Order #...: HL72X1AU-MS Matrix.....: WG
MS Lot-Sample #: A5J070109-011 HL72X1AV-MSD
Date Sampled...: 10/06/05 11:10 Date Received..: 10/07/05
Prep Date.....: 10/13/05 Analysis Date..: 10/16/05
Prep Batch #...: 5286365
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
2-Amino-4,6-dinitrotoluene	ND	1.0	0.99	ug/L	99		SW846 8330
	ND	1.0	0.98	ug/L	98	1.1	SW846 8330
4-Amino-2,6-dinitrotoluene	ND	1.0	0.97	ug/L	97		SW846 8330
	ND	1.0	0.97	ug/L	97	0.13	SW846 8330
1,3-Dinitrobenzene	ND	1.0	1.1	ug/L	105		SW846 8330
	ND	1.0	1.0	ug/L	104	1.0	SW846 8330
2,4-Dinitrotoluene	ND	1.0	1.0	ug/L	102		SW846 8330
	ND	1.0	1.0	ug/L	101	1.0	SW846 8330
2,6-Dinitrotoluene	ND	1.0	1.0	ug/L	101		SW846 8330
	ND	1.0	1.0	ug/L	101	0.24	SW846 8330
HMX	ND	1.0	1.1	ug/L	107		SW846 8330
	ND	1.0	1.1	ug/L	107	0.22	SW846 8330
Nitrobenzene	ND	1.0	1.0	ug/L	104		SW846 8330
	ND	1.0	1.0	ug/L	102	1.8	SW846 8330
2-Nitrotoluene	ND	1.0	0.99	ug/L	99		SW846 8330
	ND	1.0	0.97	ug/L	97	1.7	SW846 8330
3-Nitrotoluene	ND	1.0	1.0	ug/L	100		SW846 8330
	ND	1.0	0.97	ug/L	97	2.2	SW846 8330
4-Nitrotoluene	ND	1.0	0.99	ug/L	99		SW846 8330
	ND	1.0	0.96	ug/L	96	2.2	SW846 8330
RDX	ND	1.0	1.1	ug/L	107		SW846 8330
	ND	1.0	1.1	ug/L	107	0.77	SW846 8330
Tetryl	ND	1.0	0.97	ug/L	97		SW846 8330
	ND	1.0	0.98	ug/L	98	0.44	SW846 8330
1,3,5-Trinitrobenzene	ND	1.0	0.98	ug/L	98		SW846 8330
	ND	1.0	0.97	ug/L	97	1.4	SW846 8330
2,4,6-Trinitrotoluene	ND	1.0	1.0	ug/L	100		SW846 8330
	ND	1.0	0.99	ug/L	99	1.0	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
3,4-Dinitrotoluene	109	(84 - 125)
	109	(84 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J070109 **Matrix.....:** WATER
Date Sampled...: 10/06/05 **Date Received..:** 10/07/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		WO#: HL41C1AQ-MS/HL41C1AR-MSD				MS Lot-Sample #: A5J060101-017	
	71	(42 - 140)			SW846 9012A	10/15/05	5288023
	52 *	(42 - 140)	30	(0-20)	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1					
Cyanide, Total		WO#: HMAPH1FU-MS/HMAPH1FV-MSD				MS Lot-Sample #: A5J070395-007	
	94	(42 - 140)			SW846 9012A	10/18/05	5292011
	93	(42 - 140)	1.1	(0-20)	SW846 9012A	10/18/05	5292011
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J070109 **Matrix.....:** WATER
Date Sampled...: 10/06/05 **Date Received..:** 10/07/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: HL41C1AQ-MS/HL41C1AR-MSD				MS Lot-Sample #: A5J060101-017		
	ND	0.040	0.028	mg/L	71		SW846 9012A	10/15/05	5288023
	ND	0.040	0.021 *	mg/L	52	30	SW846 9012A	10/15/05	5288023
			Dilution Factor: 1						
Cyanide, Total			WO#: HMAPH1FU-MS/HMAPH1FV-MSD				MS Lot-Sample #: A5J070395-007		
	ND	0.040	0.038	mg/L	94		SW846 9012A	10/18/05	5292011
	ND	0.040	0.037	mg/L	93	1.1	SW846 9012A	10/18/05	5292011
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A5J070109 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total		WO#: HL72R1AQ-MS/HL72R1AR-MSD				MS Lot-Sample #: A5J070109-007	
	96	(42 - 140)			SW846 9012A	10/15/05	5288023
	86	(42 - 140)	11	(0-20)	SW846 9012A	10/15/05	5288023
		Dilution Factor: 1					
Cyanide, Total		WO#: HL72X1A4-MS/HL72X1A5-MSD				MS Lot-Sample #: A5J070109-011	
	96	(42 - 140)			SW846 9012A	10/18/05	5292011
	92	(42 - 140)	4.5	(0-20)	SW846 9012A	10/18/05	5292011
		Dilution Factor: 1					
Nitrocellulose		WO#: HL72R1AX-MS/HL72R1A0-MSD				MS Lot-Sample #: A5J070109-007	
	95	(56 - 111)			MCAWW 353.2	10/19-10/21/05	5292387
	86	(56 - 111)	10	(0-15)	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1					
Nitrocellulose		WO#: HL72X1AX-MS/HL72X1A0-MSD				MS Lot-Sample #: A5J070109-011	
	89	(56 - 111)			MCAWW 353.2	10/19-10/21/05	5292387
	110 *	(56 - 111)	21	(0-15)	MCAWW 353.2	10/19-10/21/05	5292387
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: A5J070109 **Matrix.....:** WG
Date Sampled...: 10/06/05 11:10 **Date Received..:** 10/07/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: HL72R1AQ-MS/HL72R1AR-MSD				MS Lot-Sample #: A5J070109-007		
	ND	0.040	0.038	mg/L	96		SW846 9012A	10/15/05	5288023
	ND	0.040	0.034	mg/L	86	11	SW846 9012A	10/15/05	5288023
			Dilution Factor: 1						
Cyanide, Total			WO#: HL72X1A4-MS/HL72X1A5-MSD				MS Lot-Sample #: A5J070109-011		
	ND	0.040	0.039	mg/L	96		SW846 9012A	10/18/05	5292011
	ND	0.040	0.037	mg/L	92	4.5	SW846 9012A	10/18/05	5292011
			Dilution Factor: 1						
Nitrocellulose			WO#: HL72R1AX-MS/HL72R1A0-MSD				MS Lot-Sample #: A5J070109-007		
	ND	2.0	2.0	mg/L	95		MCAWW 353.2	10/19-10/21/05	5292387
	ND	2.0	1.8	mg/L	86	10	MCAWW 353.2	10/19-10/21/05	5292387
			Dilution Factor: 1						
Nitrocellulose			WO#: HL72X1AX-MS/HL72X1A0-MSD				MS Lot-Sample #: A5J070109-011		
	ND	2.0	1.8	mg/L	89		MCAWW 353.2	10/19-10/21/05	5292387
	ND	2.0	2.2 *	mg/L	110	21	MCAWW 353.2	10/19-10/21/05	5292387
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Relative percent difference (RPD) is outside stated control limits.

SEVERN TRENT STL

END OF REPORT

SEVERN TRENT STL®

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

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www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 001074.0001

FWGWMP RVAAP

Lot #: A5J140308

Chantelle Carroll

Spec Pro
8451 State Route 5
Ravenna, OH 44266

SEVERN TRENT LABORATORIES, INC.

Frank J. Calovini
Project Manager

October 27, 2005

S Leaders in Environmental Testing

CASE NARRATIVE

CASE NARRATIVE

A5J140308

The following report contains the analytical results for twelve water samples and one quality control sample submitted to STL North Canton by Spec Pro from the FWGWMP RVAAP Site, project number 001074.0001. The samples were received October 13, 2005, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Chantelle Carroll, Valarie and Ann Mariola on October 19, 2005. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Frank J. Calovini, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 1.1°C.

CASE NARRATIVE (continued)

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	**Semivolatile (GC/MS)**	**Metals**
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#200004), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), North Carolina (#39702), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY - Detection Highlights

A5J140308

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
FWGBKGMW-006C-0146-GW 10/13/05 16:20 001				
Acetone	1.0 J	10	ug/L	SW846 8260B
FWGDA2MW-107C-0149-GW 10/13/05 13:05 004				
Chloromethane	0.18 J	1.0	ug/L	SW846 8260B
FWGDA2MW-DET4C-0151-GW 10/13/05 12:25 006				
Chloromethane	0.16 J	1.0	ug/L	SW846 8260B
FWGLL11MW-007C-0153-GW 10/13/05 14:40 008				
Chloromethane	0.15 J	1.0	ug/L	SW846 8260B
FWGW-TB-0159-GW 10/13/05 013				
Methylene chloride	1.1 J	2.0	ug/L	SW846 8260B

METHOD SUMMARY

ANALYTICAL METHODS SUMMARY

A5J140308

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

SAMPLE SUMMARY

A5J140308

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HMRE6	001	FWGBKGMW-006C-0146-GW	10/13/05	16:20
HMRFK	002	FWGBKGMW-019C-0147-GW	10/13/05	08:50
HMRFL	003	FWGBKGMW-019C-0148-GW	10/13/05	08:50
HMRFN	004	FWGDA2MW-107C-0149-GW	10/13/05	13:05
HMRGA	005	FWGDA2MW-DET3C-0150-GW	10/13/05	12:10
HMRGC	006	FWGDA2MW-DET4C-0151-GW	10/13/05	12:25
HMRGE	007	FWGLL11MW-002C-0152-GW	10/13/05	13:55
HMRGF	008	FWGLL11MW-007C-0153-GW	10/13/05	14:40
HMRGH	009	FWGWBGMW-006C-0154-GW	10/13/05	10:25
HMRGJ	010	FWGWBGMW-007C-0155-GW	10/13/05	09:40
HMRGK	011	FWGWBGMW-007C-0156-GW	10/13/05	09:40
HMRGL	012	FWGWBGMW-009C-0157-GW	10/13/05	11:16
HMRGN	013	FWGW-TB-0159-GW	10/13/05	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SHIPPING AND RECEIVING DOCUMENTS

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

TL-4124 (0901)

Client: Spec Pro	Project Manager: Chantelle Carroll	Date: 10-13-05	Chain of Custody Number: 230991
Address: 8451 St. Rt 5	Telephone Number (Area Code)/Fax Number	Lab Number	Page 1 of 3
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chantelle	Lab Contact	Analysis (Attach list if more space is needed)
Project Name and Location (State): Ravenna	Carrier/Waybill Number		Special Instructions/ Conditions of Receipt
Contract/Purchase Order/Quote No.: See Frank Calovini regarding			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	VOC	Special Instructions/ Conditions of Receipt
FWGBKGmw-006C-0146-gw	10-13	16:20		X						X			3	
FWGBKGmw-019C-0147-gw	10-13	8:50		X						X			3	
FWGBKGmw-019C-0148-gw	10-13	8:50		X						X			3	
FWGDA2mw-107C-0149-gw	10-13	13:05		X						X			3	
FWGDA2mw-Det3C-0150-gw	10-13	12:10		X						X			3	
FWGDA2mw-Det4C-0151-gw	10-13	12:25		X						X			3	
FWGLL11mw-002C-0152-gw	10-13	13:55		X						X			3	
FWGLL11mw-007C-0153-gw	10-13	1440		X						X			3	
FWGLL11mw-007C-0153-MS/MSD	10-13	14:40		X						X			3	
FWGWB6mw-006C-0154-gw	10-13	10:25		X						X			3	
FWGWB6mw-007C-0155-gw	10-13	9:40		X						X			3	
FWGWB6mw-007C-0156-GW	10-13	9:40		X						X			3	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	10:13-05	1800	1. Received By: [signature]	10.13.05	1800
2. Relinquished By: [signature]	10-13-05	1843	2. Received By: [signature]	10/13/05	1843
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

RTL Survey/AR Tracking Form for 2005 Annual Report for Bridgeport Annual Groundwater Monitoring Report
2005 Annual Report SWGWMP
Page 1281
Appendix G
STL North Canton

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

TL-4124 (0901)

Client: Spec Pro	Project Manager: Chandelle Carroll	Date: 10-13-05	Chain of Custody Number: 230992
Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page 2 of 2
City: Ravenna / State: OH / Zip Code: 44266	Site Contact: Chandelle Carroll	Lab Contact	
Project Name and Location (State): Ravenna	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.: See Frank Calvini regarding			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): VOC	Special Instructions/ Conditions of Receipt
RVGDA2mw-107C-0149-ms/msd	10-13	13:05		X									3	
RVGWBGmw-009C-0157-gw	10-13	11:16		X									3	
RVGW-tb-0159-gw	10-13			X									1	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [illegible]	10-13-05	1500	1. Received By: [illegible]	10-13-05	1800
2. Relinquished By: [illegible]	10-13-05	1843	2. Received By: Anne Sanders	10/13/05	1843
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL Cooler Receipt Form/Narrative **Lot Number:** A5J140308

North Canton Facility

Client: SpecPro Project: Ravenna Quote#:

Cooler Received on: 10/13/05 Opened on: 10/14/05 by: (Signature)

Fedx ☐ Client Drop Off ☐ UPS ☐ DHL ☐ FAS ☐ STL Courier ☒

Stetson ☐ US Cargo ☐ Other:

STL Cooler No# 460-067 Foam Box ☐ Client Cooler ☐ Other

1. Were custody seals on the outside of the cooler? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
   If YES, Quantity 2
   Were the custody seals signed and dated? Yes ☒ No ☐ NA ☐
2. Shipper's packing slip attached to this form? Yes ☐ No ☐ NA ☒
3. Did custody papers accompany the samples? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Did you sign the custody papers in the appropriate place? Yes ☐ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☒ None ☐ Other :
6. Cooler temperature upon receipt 1.1 °C (see back of form for multiple coolers/temp)

METHOD: Temp Vial ☐ Coolant & Sample ☐ Against Bottles ☐ IR ☒ ICE/H_2O Slurry ☐

COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐

7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels and/or tags be reconciled with the COC? Yes ☐ No ☒
9. Were samples at the correct pH? (record below/on back) Yes ☐ No ☐ NA ☒
10. Were correct bottles used for the tests indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a Trip Blank present in the cooler? Yes ☒ No ☐ Were VOAs on the COC? Yes ☒ No ☐
14. Does the trip blank number match the cooler number in which it was received? Yes ☐ No ☐ NA ☒

Contacted PM _____ Date: _____ by: _____ via Voice Mail ☐ Verbal ☐ Other ☐

Concerning: _____

√	

1. CHAIN OF CUSTODY

The following discrepancies occurred:

TB ID on COC = FWGW-TB-0159-GW, 1x40 TB VIAL = TripBlank, will log ID per COC

2. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

3. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in sample receiving to meet recommended pH level(s). *Nitric Acid Lot #* 091305-*HNO3; Sulfuric Acid Lot #* 041305-*H2SO4; Sodium Hydroxide Lot #* -041305 -*NaOH; Hydrochloric Acid Lot #* 100504-*HCl; Sodium Hydroxide and Zinc Acetate Lot #* 071604-*CH3COO2ZN/NaOH*

Sample(s) _____ were received with bubble > 6 mm in diameter (cc: PM)

4. Other (see below or back)

Temp taken 10/13/05. ANS.

Client ID	pH	Date	Initials

STL Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler	Temp	Method	Coolant

Discrepancies Cont.

GCMS VOLATILE DATA

SpecPro Inc

Client Sample ID: FWGBKGMW-006C-0146-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-001 **Work Order #...:** HMRE61AA **Matrix.....:** WG
Date Sampled...: 10/13/05 16:20 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	**1.0 J**	**10**	**ug/L**
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGBKGMW-006C-0146-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-001 **Work Order #...:** HMRE61AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
Toluene-d8	102	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

FWGBKGMW-006C-0146-GW

GC/MS Volatiles

Lot-Sample #: A5J140308-001 **Work Order #:** HMRE61AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0147-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-002 **Work Order #...:** HMRFK1AA **Matrix.....:** WG
Date Sampled...: 10/13/05 08:50 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0147-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-002 **Work Order #...:** HMRFK1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)

SpecPro Inc

FWGBKGMW-019C-0147-GW

GC/MS Volatiles

Lot-Sample #: A5J140308-002 **Work Order #:** HMRFK1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0148-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-003 **Work Order #...:** HMRFL1AA **Matrix.....:** WG
Date Sampled...: 10/13/05 08:50 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGBKGMW-019C-0148-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-003 **Work Order #...:** HMRFL1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)

SpecPro Inc

FWGBKGMW-019C-0148-GW

GC/MS Volatiles

Lot-Sample #: A5J140308-003 **Work Order #:** HMRFL1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGDA2MW-107C-0149-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-004 **Work Order #...:** HMRFN1AA **Matrix.....:** WG
Date Sampled...: 10/13/05 13:05 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	**0.18 J**	**1.0**	**ug/L**
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGDA2MW-107C-0149-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-004 **Work Order #...:** HMRFN1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

FWGDA2MW-107C-0149-GW

GC/MS Volatiles

Lot-Sample #: A5J140308-004 **Work Order #:** HMRFN1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGDA2MW-DET3C-0150-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-005 **Work Order #...:** HMRGA1AA **Matrix.....:** WG
Date Sampled...: 10/13/05 12:10 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGDA2MW-DET3C-0150-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-005 **Work Order #...:** HMRGA1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)

SpecPro Inc

FWGDA2MW-DET3C-0150-GW

GC/MS Volatiles

Lot-Sample #: A5J140308-005 **Work Order #:** HMRGA1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGDA2MW-DET4C-0151-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-006 **Work Order #...:** HMRGC1AA **Matrix.....:** WG
Date Sampled...: 10/13/05 12:25 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	**0.16 J**	**1.0**	**ug/L**
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGDA2MW-DET4C-0151-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-006 **Work Order #...:** HMRGC1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

FWGDA2MW-DET4C-0151-GW

GC/MS Volatiles

Lot-Sample #: A5J140308-006 **Work Order #:** HMRGC1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGLL11MW-002C-0152-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-007 **Work Order #...:** HMRGE1AA **Matrix.....:** WG
Date Sampled...: 10/13/05 13:55 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL11MW-002C-0152-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-007 **Work Order #...:** HMRGE1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)

SpecPro Inc

FWGLL11MW-002C-0152-GW

GC/MS Volatiles

Lot-Sample #: A5J140308-007 **Work Order #:** HMRGE1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGLL11MW-007C-0153-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-008 **Work Order #...:** HMRGF1AA **Matrix.....:** WG
Date Sampled...: 10/13/05 14:40 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	**0.15 J**	**1.0**	**ug/L**
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGLL11MW-007C-0153-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-008 **Work Order #...:** HMRGF1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

FWGLL11MW-007C-0153-GW

GC/MS Volatiles

Lot-Sample #: A5J140308-008 **Work Order #:** HMRGF1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGWBGMW-006C-0154-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-009 **Work Order #...:** HMRGH1AA **Matrix.....:** WG
Date Sampled...: 10/13/05 10:25 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGWBGMW-006C-0154-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-009 **Work Order #...:** HMRGH1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)

SpecPro Inc

FWGWBGMW-006C-0154-GW

GC/MS Volatiles

Lot-Sample #: A5J140308-009 **Work Order #:** HMRGH1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0155-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-010 **Work Order #...:** HMRGJ1AA **Matrix.....:** WG
Date Sampled...: 10/13/05 09:40 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0155-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-010 **Work Order #...:** HMRGJ1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)

SpecPro Inc

FWGWBGMW-007C-0155-GW

GC/MS Volatiles

Lot-Sample #: A5J140308-010 **Work Order #:** HMRGJ1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0156-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-011 **Work Order #...:** HMRGK1AA **Matrix.....:** WG
Date Sampled...: 10/13/05 09:40 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGWBGMW-007C-0156-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-011 **Work Order #...:** HMRGK1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

SpecPro Inc

FWGWBGMW-007C-0156-GW

GC/MS Volatiles

Lot-Sample #: A5J140308-011 **Work Order #:** HMRGK1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGWBGMW-009C-0157-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-012 **Work Order #...:** HMRGL1AA **Matrix.....:** WG
Date Sampled...: 10/13/05 11:16 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

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SpecPro Inc

Client Sample ID: FWGWBGMW-009C-0157-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-012 **Work Order #...:** HMRGL1AA **Matrix.....:** WG

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)

SpecPro Inc

FWGWBGMW-009C-0157-GW

GC/MS Volatiles

Lot-Sample #: A5J140308-012 **Work Order #:** HMRGL1AA **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

SpecPro Inc

Client Sample ID: FWGW-TB-0159-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-013 **Work Order #...:** HMRGN1AA **Matrix.....:** WQ
Date Sampled...: 10/13/05 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromochloromethane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	**1.1 J**	**2.0**	**ug/L**
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethene (total)	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

(Continued on next page)

SpecPro Inc

Client Sample ID: FWGW-TB-0159-GW

GC/MS Volatiles

Lot-Sample #...: A5J140308-013 **Work Order #...:** HMRGN1AA **Matrix.....:** WQ

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

SpecPro Inc

FWGW-TB-0159-GW

GC/MS Volatiles

Lot-Sample #: A5J140308-013 **Work Order #:** HMRGN1AA **Matrix:** WQ

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5J140308 **Work Order #...:** HMXV21AA **Matrix.....:** WATER
MB Lot-Sample #: A5J180000-082

Prep Date.....: 10/18/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 10/18/05 **Prep Batch #...:** 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	2.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethene (total)	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	10	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	10	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5J140308 **Work Order #...:** HMXV21AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Toluene-d8	100	(76 - 110)		
4-Bromofluorobenzene	101	(74 - 116)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SpecPro Inc

Method Blank Report

GC/MS Volatiles

Lot-Sample #: A5J180000-082 B **Work Order #:** HMXV21AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5J140308 **Work Order #...:** HMXV21AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A5J180000-082 HMXV21AD-LCSD
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**108**	**(63 - 130)**			**SW846 8260B**
	106	**(63 - 130)**	**1.3**	**(0-20)**	**SW846 8260B**
Trichloroethene	**103**	**(75 - 122)**			**SW846 8260B**
	103	**(75 - 122)**	**0.040**	**(0-20)**	**SW846 8260B**
Benzene	**95**	**(80 - 116)**			**SW846 8260B**
	94	**(80 - 116)**	**0.15**	**(0-20)**	**SW846 8260B**
Toluene	**106**	**(74 - 119)**			**SW846 8260B**
	106	**(74 - 119)**	**0.52**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**102**	**(76 - 117)**			**SW846 8260B**
	100	**(76 - 117)**	**1.7**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
	103	(61 - 128)
Toluene-d8	101	(76 - 110)
	99	(76 - 110)
4-Bromofluorobenzene	105	(74 - 116)
	103	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5J140308 **Work Order #...:** HMXV21AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A5J180000-082 HMXV21AD-LCSD
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 5 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**10**	**11**	**ug/L**	**108**		**SW846 8260B**
	10	**11**	**ug/L**	**106**	**1.3**	**SW846 8260B**
Trichloroethene	**10**	**10**	**ug/L**	**103**		**SW846 8260B**
	10	**10**	**ug/L**	**103**	**0.040**	**SW846 8260B**
Benzene	**10**	**9.5**	**ug/L**	**95**		**SW846 8260B**
	10	**9.4**	**ug/L**	**94**	**0.15**	**SW846 8260B**
Toluene	**10**	**11**	**ug/L**	**106**		**SW846 8260B**
	10	**11**	**ug/L**	**106**	**0.52**	**SW846 8260B**
Chlorobenzene	**10**	**10**	**ug/L**	**102**		**SW846 8260B**
	10	**10**	**ug/L**	**100**	**1.7**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
	103	(61 - 128)
Toluene-d8	101	(76 - 110)
	99	(76 - 110)
4-Bromofluorobenzene	105	(74 - 116)
	103	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5J140308 **Work Order #...:** HMRFN1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A5J140308-004 HMRFN1AD-MSD
Date Sampled...: 10/13/05 13:05 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**101**	**(62 - 130)**			**SW846 8260B**
	104	**(62 - 130)**	**2.9**	**(0-20)**	**SW846 8260B**
Trichloroethene	**97**	**(62 - 130)**			**SW846 8260B**
	98	**(62 - 130)**	**1.4**	**(0-20)**	**SW846 8260B**
Benzene	**87**	**(78 - 118)**			**SW846 8260B**
	89	**(78 - 118)**	**3.0**	**(0-20)**	**SW846 8260B**
Toluene	**98**	**(70 - 119)**			**SW846 8260B**
	100	**(70 - 119)**	**1.8**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**93**	**(76 - 117)**			**SW846 8260B**
	98	**(76 - 117)**	**5.7**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
	99	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
	105	(61 - 128)
Toluene-d8	100	(76 - 110)
	100	(76 - 110)
4-Bromofluorobenzene	104	(74 - 116)
	104	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5J140308 **Work Order #...:** HMRFN1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A5J140308-004 HMRFN1AD-MSD
Date Sampled...: 10/13/05 13:05 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**ND**	**10**	**10**	**ug/L**	**101**		**SW846 8260B**
	ND	**10**	**10**	**ug/L**	**104**	**2.9**	**SW846 8260B**
Trichloroethene	**ND**	**10**	**9.7**	**ug/L**	**97**		**SW846 8260B**
	ND	**10**	**9.8**	**ug/L**	**98**	**1.4**	**SW846 8260B**
Benzene	**ND**	**10**	**8.7**	**ug/L**	**87**		**SW846 8260B**
	ND	**10**	**8.9**	**ug/L**	**89**	**3.0**	**SW846 8260B**
Toluene	**ND**	**10**	**9.8**	**ug/L**	**98**		**SW846 8260B**
	ND	**10**	**10**	**ug/L**	**100**	**1.8**	**SW846 8260B**
Chlorobenzene	**ND**	**10**	**9.3**	**ug/L**	**93**		**SW846 8260B**
	ND	**10**	**9.8**	**ug/L**	**98**	**5.7**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
	99	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
	105	(61 - 128)
Toluene-d8	100	(76 - 110)
	100	(76 - 110)
4-Bromofluorobenzene	104	(74 - 116)
	104	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5J140308 **Work Order #...:** HMRGF1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A5J140308-008 HMRGF1AD-MSD
Date Sampled...: 10/13/05 14:40 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**101**	**(62 - 130)**			**SW846 8260B**
	97	**(62 - 130)**	**3.6**	**(0-20)**	**SW846 8260B**
Trichloroethene	**101**	**(62 - 130)**			**SW846 8260B**
	99	**(62 - 130)**	**2.0**	**(0-20)**	**SW846 8260B**
Benzene	**89**	**(78 - 118)**			**SW846 8260B**
	85	**(78 - 118)**	**4.5**	**(0-20)**	**SW846 8260B**
Toluene	**99**	**(70 - 119)**			**SW846 8260B**
	95	**(70 - 119)**	**3.9**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**96**	**(76 - 117)**			**SW846 8260B**
	90	**(76 - 117)**	**7.1**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
	102	(61 - 128)
Toluene-d8	100	(76 - 110)
	98	(76 - 110)
4-Bromofluorobenzene	107	(74 - 116)
	103	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5J140308 **Work Order #...:** HMRGF1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A5J140308-008 HMRGF1AD-MSD
Date Sampled...: 10/13/05 14:40 **Date Received..:** 10/13/05
Prep Date.....: 10/18/05 **Analysis Date..:** 10/18/05
Prep Batch #...: 5291082
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**ND**	**10**	**10**	**ug/L**	**101**		**SW846 8260B**
	ND	**10**	**9.7**	**ug/L**	**97**	**3.6**	**SW846 8260B**
Trichloroethene	**ND**	**10**	**10**	**ug/L**	**101**		**SW846 8260B**
	ND	**10**	**9.9**	**ug/L**	**99**	**2.0**	**SW846 8260B**
Benzene	**ND**	**10**	**8.9**	**ug/L**	**89**		**SW846 8260B**
	ND	**10**	**8.5**	**ug/L**	**85**	**4.5**	**SW846 8260B**
Toluene	**ND**	**10**	**9.9**	**ug/L**	**99**		**SW846 8260B**
	ND	**10**	**9.5**	**ug/L**	**95**	**3.9**	**SW846 8260B**
Chlorobenzene	**ND**	**10**	**9.6**	**ug/L**	**96**		**SW846 8260B**
	ND	**10**	**9.0**	**ug/L**	**90**	**7.1**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
	102	(61 - 128)
Toluene-d8	100	(76 - 110)
	98	(76 - 110)
4-Bromofluorobenzene	107	(74 - 116)
	103	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

END OF REPORT

APPENDIX H

INVESTIGATION-DERIVED WASTE CHARACTERIZATION AND DISPOSAL PLAN

FOR THE
FACILITY WIDE GROUNDWATER MONITORING PROGRAM
SAMPLING EVENTS
IN
APRIL, JULY, and OCTOBER 2005
AT THE
RAVENNA ARMY AMMUNITION PLANT
RAVENNA, OHIO

DECEMBER 2005

Prepared for

U.S. Army Joint Operations Command
Contract No. W912QR-05-F-0031

Prepared by

SpecPro, Inc.
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Table 5-1 Summary of Waste Classification and Disposal Recommendations 4

ACRONYMS

DOD	Department of Defense
EPA	U.S. Environmental Protection Agency
IDW	investigation-derived wastes
Ohio EPA	Ohio Environmental Protection Agency
PPE	personal protective equipment
RVAAP	Ravenna Army Ammunition Plant
TCLP	Toxicity Characteristic Leaching Procedure
USACE	US Army Corps of Engineers
UXO	unexploded ordnance

1.0 INTRODUCTION

Investigative activities conducted during the Facility Wide Groundwater Monitoring Program sampling events conducted during April, July, and October 2005 at the Ravenna Army Ammunition Plant (RVAAP), Ravenna, Ohio, resulted in the generation of investigation-derived wastes (IDW) consisting of purge-water and decon water wastes. The IDW was generated in the course of sampling and decontamination activities. The purpose of this report is to characterize and classify the IDW for disposal. The report includes a summary of the IDW generated and its origin; classification of the IDW and recommendations for disposal; and a review of the analytical results used for waste characterization. This document follows guidance established by the USACE and the Ohio EPA regarding IDW disposition at RVAAP.

2.0 OPERATIONAL HISTORY AND WASTE GENERATION

Information regarding the operational history and suspected contaminants for the Facility Wide Groundwater Monitoring Program Plan is presented in Section 1.2 of the *Final Part 1- Sampling and Analysis Plan Addendum for the Facility-Wide Groundwater Monitoring Program Plan at the Ravenna Army Ammunition Plant, Ravenna, Ohio* (SAP Addendum). Section 4.6 of the SAP Addendum describes procedures used for sampling and managing IDW at RVAAP.

Water (groundwater and decontamination water) IDW generated during sampling activities are listed by container in Table 2-1 below.

Table 2-1. IDW Inventory

Container Number	Container Type & Size	Contents	Volume	Source of Waste
LL1-001	55 Gal. Closed Top	Purge water	½	Monitoring Wells 078, 080, 083
LL2-001	55 Gal. Closed Top	Purge water	½	Monitoring Wells 059, 262, 263
LL3-001	55 Gal. Closed Top	Purge water	½	Monitoring Wells 238, 242
LL4-001	55 Gal. Closed Top	Purge water	½	Monitoring Wells 198, 199
LL11-001	55 Gal. Closed Top	Purge water	½	Monitoring Wells 002, 007
LL12-001	55 Gal. Closed Top	Purge water	Full	Monitoring Wells 153,182,183,186
CBP-001	55 Gal. Closed Top	Purge water	½	Monitoring Wells 005, 007

Container Number	Container Type & Size	Contents	Volume	Source of Waste
WBG-001	55 Gal. Closed Top	Purge water	¾	Monitoring Wells 006, 007, 009
BKG-001	55 Gal. Closed Top	Purge water	Full	Monitoring Wells 004, 005, 006, 008, 010, 012, 013, 015, 016, 017, 018, 019, 020, 021
BKG-002	55 Gal. Closed Top	Purge water	Full	Monitoring Wells 004, 005, 006, 008, 010, 012, 013, 015, 016, 017, 018, 019, 020, 021
RQL-001	55 Gal. Closed Top	Purge water	¼	Monitoring Wells 002, 007
DA2-001	55 Gal. Closed Top	Purge water	½	Monitoring Wells 107, DET3, DET4
IDW-Decon	55 Gal. Closed Top	IDW water	Full	IDW Decon water
IDW-Decon	55 Gal. Closed Top	IDW water	Full	IDW Decon water

3.0 MANAGEMENT OF ENVIRONMENTAL MEDIA

All environmental media were managed in a manner that minimized potential risk to human health and the environment. IDW was handled as nonhazardous material pending waste characterization and classification based on analytical results. The Facility-Wide SAP (USACE 2001) and the Final Part 1 Sampling and Analysis Plan (2004) contain approved procedures used for containerizing and handling IDW.

All liquid indigenous (groundwater) IDW generated from monitoring well purging was segregated into location areas (AOC) and placed into closed-top 55-gallon drums. The water was transferred daily from each well location by closed top 5-gallon buckets to the appropriate closed-top 55-gallon drums located behind building 1036.

4.0 DISCUSSION OF ANALYTICAL RESULTS

Per Section 7.4 of the Facility-Wide SAP (2001), the analytical results from environmental samples collected during the investigation were used to characterize IDW for groundwater. Where correlative environmental samples do not exist, waste characterization samples were collected in accordance with Section 7 of the Work Plan and Sampling and Analysis Plan Addendum. The IDW characterization results are presented in Appendix 1.

5.0 RECOMMENDATIONS FOR DISPOSAL

Table 7-1 of the Facility-Wide SAP (2001) shows the maximum concentration of contaminants for the toxicity characteristic for hazardous wastes per 40 CFR 261.24. Analytical results for the IDW are compared with these criteria to determine whether waste containers are potentially hazardous or non-hazardous.

5.1 Groundwater

Excess groundwater was generated during the well sampling activities associated with this investigation. A comparison of analytical data generated from groundwater sampling activities and TCLP data indicated that no regulatory criteria for RCRA hazardous waste determinations were exceeded. It is recommended that the drums containing excess groundwater be classified as contaminated, non-hazardous and that they be sent off-site for disposal to a permitted water treatment facility.

5.2 Decontamination Fluids

A waste sample collected from decontamination fluids generated from cleaning of daily water sampling equipment used during the investigation indicated that all analytes were below TCLP threshold values and therefore is classified as non-hazardous. It is recommended that these containers be classified as contaminated, non-hazardous, and that it be sent off-site for disposal to a permitted water treatment facility.

5.3 Summary of Disposal Recommendations

Table 5-1 presents a summary of the waste classification and recommended disposal options presented in Section 5.

Table 5.1 Summary of Waste Classification and Disposal Recommendations

Container Number	Media	Waste Criteria	Disposal Recommendation
LL1-001	Water	Explosives Detected OR Metals Above Background	Consolidated for Off-Site Non-Hazardous Disposal
LL2-001	Water	Explosives Detected OR Metals Above Background	Consolidated for Off-Site Non-Hazardous Disposal
LL3-001	Water	Explosives Detected OR Metals Above Background	Consolidated for Off-Site Non-Hazardous Disposal
LL4-001	Water	Explosives Detected OR Metals Above Background	Consolidated for Off-Site Non-Hazardous Disposal
LL11-001	Water	Explosives Detected OR Metals Above Background	Consolidated for Off-Site Non-Hazardous Disposal
LL12-001	Water	Explosives Detected OR Metals Above Background	Consolidated for Off-Site Non-Hazardous Disposal
CBP-001	Water	Explosives Detected OR Metals Above Background	Consolidated for Off-Site Non-Hazardous Disposal
WBG-001	Water	Explosives Detected OR Metals Above Background	Consolidated for Off-Site Non-Hazardous Disposal
BKG-001	Water	Explosives Detected OR Metals Above Background	Consolidated for Off-Site Non-Hazardous Disposal
BKG-002	Water	Explosives Detected OR Metals Above Background	Consolidated for Off-Site Non-Hazardous Disposal
RQL-001	Water	Explosives Detected OR Metals Above Background	Consolidated for Off-Site Non-Hazardous Disposal
DA2-001	Water	Explosives Detected OR Metals Above Background	Consolidated for Off-Site Non-Hazardous Disposal
IDW-Decon	Water	Explosives Detected OR Metals Above Background	Consolidated for Off-Site Non-Hazardous Disposal
IDW-Decon	Water	Explosives Detected OR Metals Above Background	Consolidated for Off-Site Non-Hazardous Disposal

6.0 REFERENCES

USACE 2001. *Facility-Wide Sampling and Analysis Plan for Environmental Investigations at the Ravenna Army Ammunition Plant, Ravenna, Ohio.*

APPENDIX 1

INVESTIGATION-DERIVED WASTE ANALYTICAL RESULTS SUMMARY

SEVERN TRENT LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: A5K100406 FACILITY-WIDE GROUNDWATER **Date Reported:** 12/01/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: FWG-1DW-MWPURGE					
Sample #: 001 Date Sampled: 11/09/05 11:30 Date Received: 11/10/05 Matrix: WATER					
Inductively Coupled Plasma (ICP) Metals TCLP					Reviewed
Silver TCLP	ND	0.50	mg/L	SW846 6010B	
Arsenic TCLP	ND	0.50	mg/L	SW846 6010B	
Barium TCLP	**0.012 B**	**10.0**	**mg/L**	**SW846 6010B**	
Cadmium TCLP	ND	0.10	mg/L	SW846 6010B	
Chromium TCLP	ND	0.50	mg/L	SW846 6010B	
Lead TCLP	ND	0.50	mg/L	SW846 6010B	
Selenium TCLP	ND	0.25	mg/L	SW846 6010B	
Mercury in Liquid Waste (Manual Cold-Vapor) TCLP					Reviewed
Mercury TCLP	ND	0.0020	mg/L	SW846 7470A	
Volatile Organics by GC/MS TCLP					Reviewed
Benzene	ND	0.025	mg/L	SW846 8260B	
Carbon tetrachloride	ND	0.025	mg/L	SW846 8260B	
Chlorobenzene	ND	0.025	mg/L	SW846 8260B	
Chloroform	ND	0.025	mg/L	SW846 8260B	
1,2-Dichloroethane	ND	0.025	mg/L	SW846 8260B	
1,1-Dichloroethylene	ND	0.070	mg/L	SW846 8260B	
Methyl ethyl ketone	ND	0.050	mg/L	SW846 8260B	
Tetrachloroethylene	ND	0.070	mg/L	SW846 8260B	
Trichloroethylene	ND	0.050	mg/L	SW846 8260B	
Vinyl chloride	ND	0.025	mg/L	SW846 8260B	
Semivolatile Organic Compounds by GC/MS TCLP					Reviewed
o-Cresol	ND	0.0040	mg/L	SW846 8270C	
m-Cresol & p-Cresol	ND	0.040	mg/L	SW846 8270C	
1,4-Dichlorobenzene	ND	0.0040	mg/L	SW846 8270C	
2,4-Dinitrotoluene	ND	0.020	mg/L	SW846 8270C	
Hexachlorobenzene	ND	0.020	mg/L	SW846 8270C	
Hexachlorobutadiene	ND	0.020	mg/L	SW846 8270C	
Hexachloroethane	ND	0.020	mg/L	SW846 8270C	
Nitrobenzene	ND	0.0040	mg/L	SW846 8270C	
Pentachlorophenol	ND	0.040	mg/L	SW846 8270C	

B Estimated result. Result is less than RL.

(Continued on next page)

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SEVERN TRENT LABORATORIES, INC.

PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: A5K100406 FACILITY-WIDE GROUNDWATER **Date Reported:** 12/01/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: FWG-1DW-MWPURGE					
Sample #: 001 Date Sampled: 11/09/05 11:30 Date Received: 11/10/05 Matrix: WATER					
Semivolatile Organic Compounds by GC/MS TCLP					Reviewed
Pyridine	ND	0.020	mg/L	SW846 8270C	
2,4,5-Trichloro-phenol	ND	0.020	mg/L	SW846 8270C	
2,4,6-Trichloro-phenol	ND	0.020	mg/L	SW846 8270C	
Inorganic Analysis					Reviewed
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	
Pensky-Martens Method for Determining Ignitability	**>180**		**deg F**	**SW846 1010**	
pH Aqueous	**8.0**		**No Units**	**SW846 9040B**	
Reactive Sulfide	ND	500	mg/kg	SW846 7.3.4	
Client Sample ID: FWG-1DW-MWDECON					
Sample #: 002 Date Sampled: 11/09/05 11:40 Date Received: 11/10/05 Matrix: WATER					
Inductively Coupled Plasma (ICP) Metals TCLP					Reviewed
Silver TCLP	ND	0.50	mg/L	SW846 6010B	
Arsenic TCLP	ND	0.50	mg/L	SW846 6010B	
Barium TCLP	ND	10.0	mg/L	SW846 6010B	
Cadmium TCLP	ND	0.10	mg/L	SW846 6010B	
Chromium TCLP	**0.0019 B**	**0.50**	**mg/L**	**SW846 6010B**	
Lead TCLP	ND	0.50	mg/L	SW846 6010B	
Selenium TCLP	ND	0.25	mg/L	SW846 6010B	
Mercury in Liquid Waste (Manual Cold-Vapor) TCLP					Reviewed
Mercury TCLP	ND	0.0020	mg/L	SW846 7470A	

B Estimated result. Result is less than RL.

Volatile Organics by GC/MS TCLP					Reviewed
Benzene	ND	0.025	mg/L	SW846 8260B	
Carbon tetrachloride	ND	0.025	mg/L	SW846 8260B	
Chlorobenzene	ND	0.025	mg/L	SW846 8260B	

(Continued on next page)

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PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user.

Lot #: A5K100406 FACILITY-WIDE GROUNDWATER **Date Reported:** 12/01/05

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD	
Client Sample ID: FWG-1DW-MWDECON					
Sample #: 002 Date Sampled: 11/09/05 11:40 Date Received: 11/10/05 Matrix: WATER					
Volatile Organics by GC/MS TCLP					Reviewed
Chloroform	ND	0.025	mg/L	SW846 8260B	
1,2-Dichloroethane	ND	0.025	mg/L	SW846 8260B	
1,1-Dichloroethylene	ND	0.070	mg/L	SW846 8260B	
Methyl ethyl ketone	ND	0.050	mg/L	SW846 8260B	
Tetrachloroethylene	ND	0.070	mg/L	SW846 8260B	
Trichloroethylene	ND	0.050	mg/L	SW846 8260B	
Vinyl chloride	ND	0.025	mg/L	SW846 8260B	
Semivolatile Organic Compounds by GC/MS TCLP					Reviewed
o-Cresol	ND	0.0040	mg/L	SW846 8270C	
m-Cresol & p-Cresol	ND	0.040	mg/L	SW846 8270C	
1,4-Dichlorobenzene	ND	0.0040	mg/L	SW846 8270C	
2,4-Dinitrotoluene	ND	0.020	mg/L	SW846 8270C	
Hexachlorobenzene	ND	0.020	mg/L	SW846 8270C	
Hexachlorobutadiene	ND	0.020	mg/L	SW846 8270C	
Hexachloroethane	ND	0.020	mg/L	SW846 8270C	
Nitrobenzene	ND	0.0040	mg/L	SW846 8270C	
Pentachlorophenol	ND	0.040	mg/L	SW846 8270C	
Pyridine	ND	0.020	mg/L	SW846 8270C	
2,4,5-Trichloro-phenol	ND	0.020	mg/L	SW846 8270C	
2,4,6-Trichloro-phenol	ND	0.020	mg/L	SW846 8270C	
Inorganic Analysis					Reviewed
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	
Pensky-Martens Method for Determining Ignitability	**>180**		**deg F**	**SW846 1010**	
pH Aqueous	**9.2**		**No Units**	**SW846 9040B**	
Reactive Sulfide	ND	500	mg/kg	SW846 7.3.4	

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APPENDIX I

MAPS OF FWGWMP STUDY AREAS

Please Note:

The following maps have been reproduced from numerous separate reports. Each map was not been alterered in any way from their original format where they are presented here.

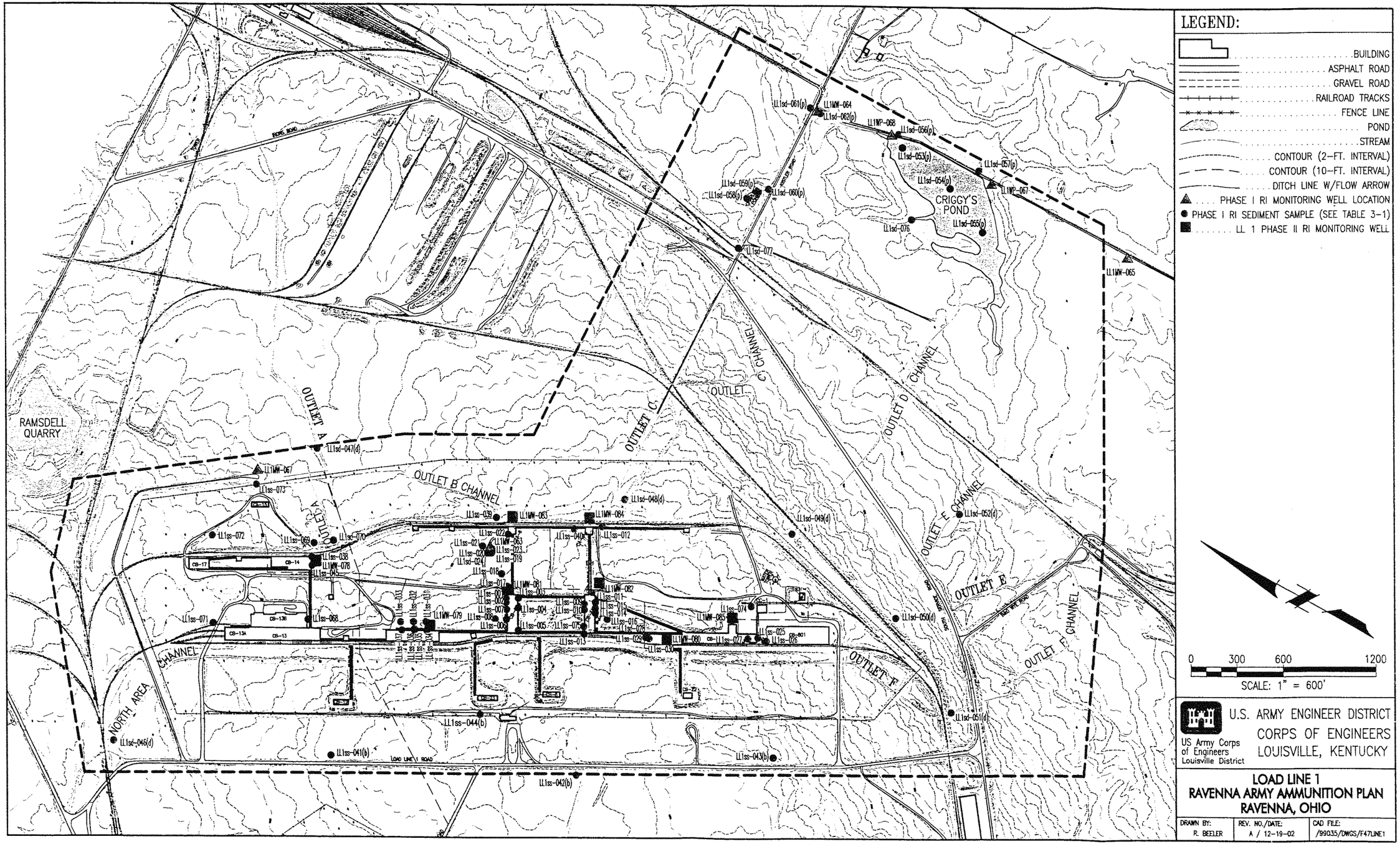


Figure 1-6. Existing Phase I RI Sampling Locations and Phase II RI Monitoring Wells at Load Line 1

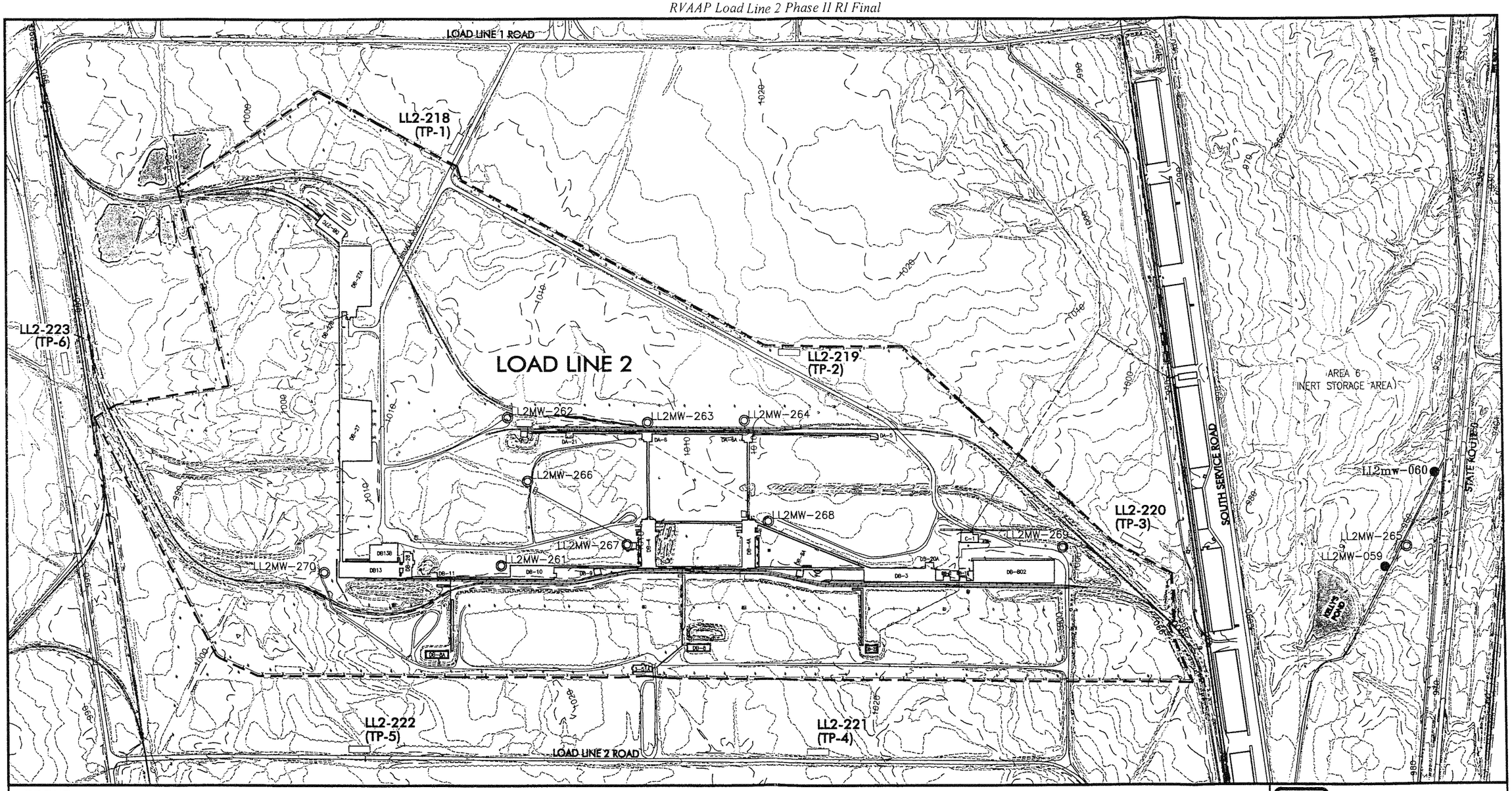


Figure 3-6. Phase II RI Monitoring Well and Test Pit Locations at Load Line 2

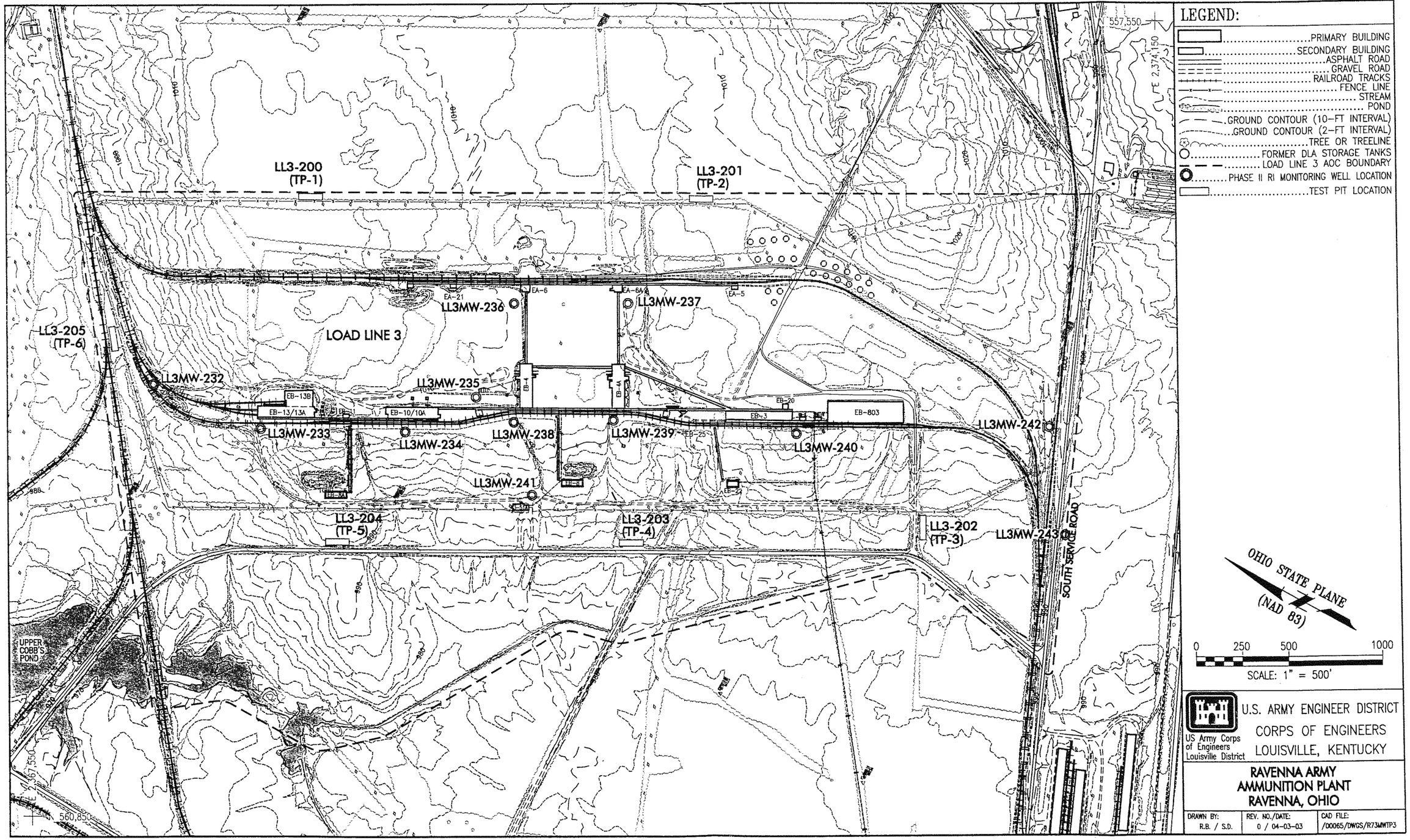


Figure 3-6. Phase II RI Monitoring Well and Test Pit Locations at Load Line 3

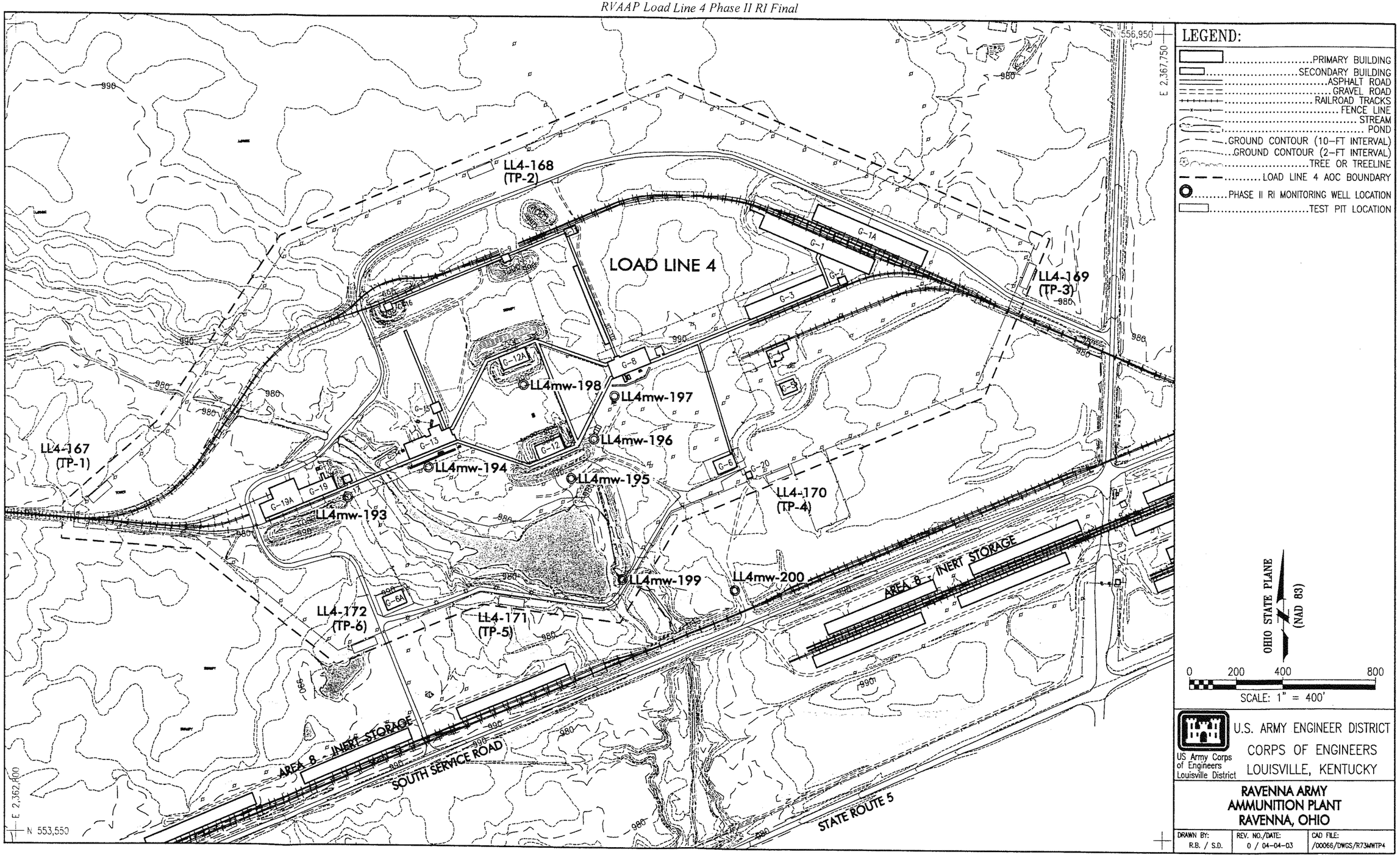


Figure 3-5. Phase II RI Monitoring Well and Test Pit Locations for Load Line 4

Legend

- Load Line & Buildings
- Ground Contour 2' Interva
- Drainage Ditch
- Fence
- Roads
- Vegetation
- Trees
- Pole
- Ground Water Monitoring Well Locations

SAND CREEK

N
W
E
S

MW-005
MW-002
MW-006
MW-007
MW-004
MW-003
MW-008
MW-009
MW-010
MW-001

AP-17
AP-19
AP-11
AP-13
AP-18
AP-20
AP-10
AP-1
AP-3
AP-2
AP-7
AP-8
AP-9
AP-6
AP-5
AP-4
AP-14

0 45 90 180 270 360 Feet

Figure 3-3
Load Line 11 Remedial Investigation
Groundwater Monitoring Well Locations Map

Ravenna Army Ammunition Plant
Ravenna, OH

Drawn By: CVJ

Date Drawn: 12/30/2004

MKM

MKM Engineers, Inc.
4153 Bluebonnet Road
Stafford, TX 77477

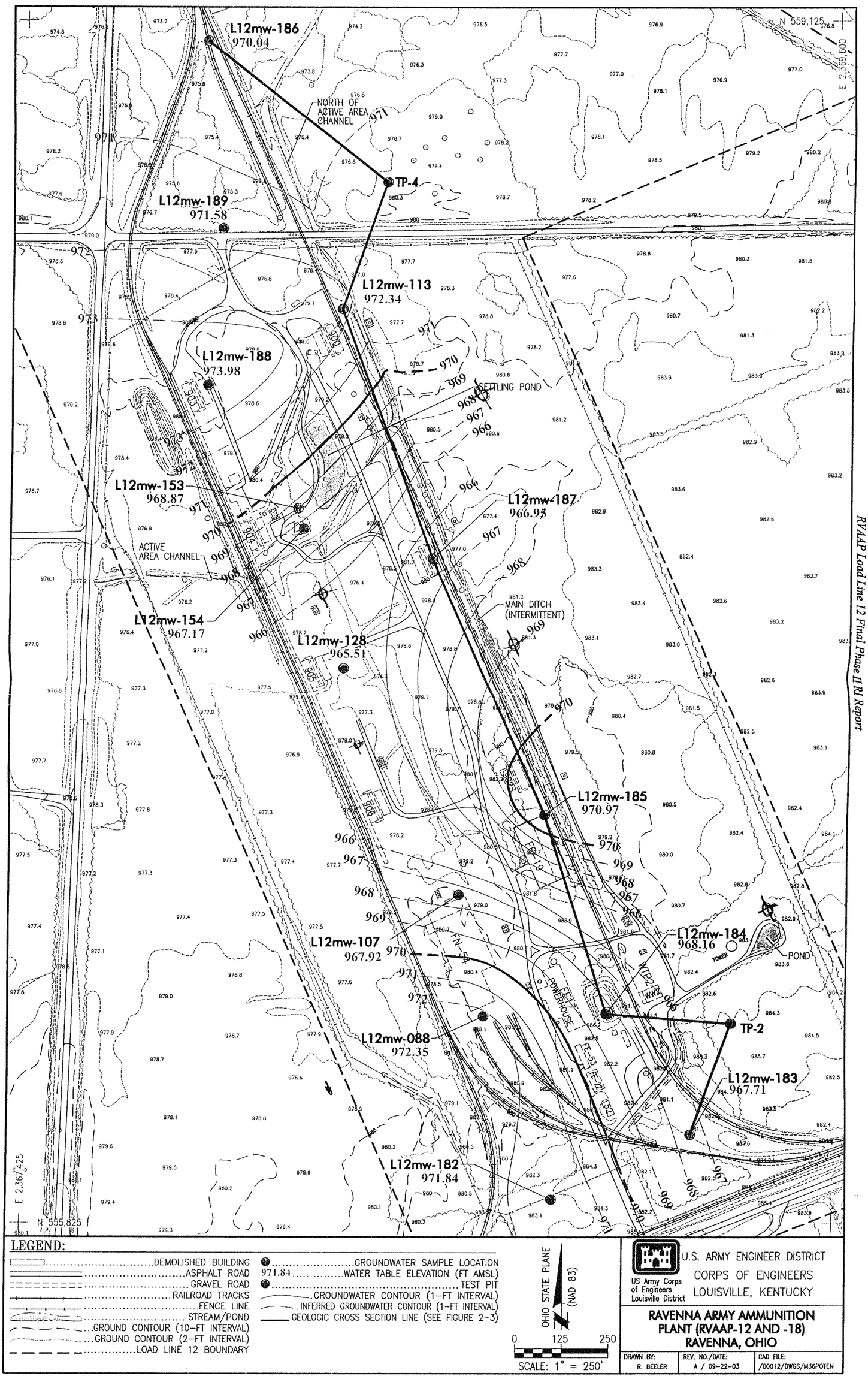


Figure 2-5. Potentiometric Groundwater Surface at Load Line 12, November 9, 2000

SAND CREEK
DISPOSAL LANDFILL

REMALIA ROAD

LOWER COBBS POND

SAND CREEK

MW–008

AOC BOUNDARY

MW–005

MW–006

LUMBER YARD RD

MW–004

MW–007

MW–003

MW–002

PARIS–WINDHAM ROAD

AOC BOUNDARY

MW–001

N

150 0 150

SCALE IN FEET

LEGEND

AOC BOUNDARY

MONITORING WELL MW–002

BURN PIT LOCATIONS

Figure 3-5
Central Burn Pits Remedial Investigation
Monitoring Well Groundwater Sample Locations
Ravenna Army Ammunition Plant
Ravenna, OH

Drawn By: CVJ

Date Drawn: 01/10/2005

MKM

MKM Engineers, Inc.
4153 Bluebonnet Drive
Stafford, TX 77477

PISTOL RANGE
T-3406

AOC BOUNDARY

WBGmw-005

WBGmw-006

WBGmw-007

WBGmw-008

WBGmw-009

Deactivation Furnace

OBG-1

OBG-2

OBG-3

OBG-4

37 (RCRA)

Bldg.1601

Bldg.1602

Bldg.1603

WINKLEPECK ROAD

ROAD A

ROAD B

ROAD C

ROAD E

ROAD F

GEORGE ROAD

MACK'S POND

SAND CREEK

OHIO STATE PLANE (NAD83)

LEGEND:

5 ..... PAD LOCATION WITH ID

..... APPROXIMATE LOCATION OF PAD

..... ASPHALT ROAD

..... RAILROAD TRACKS

..... POND

..... BEAVER DAM POND

..... 10 FT. CONTOUR INTERVAL (AMSL)

..... 2 FT. CONTOUR INTERVAL (AMSL)

..... STREAM

WBGmw-006 ..... MONITORING WELL

0 250 500 1000

SCALE: 1" = 500'

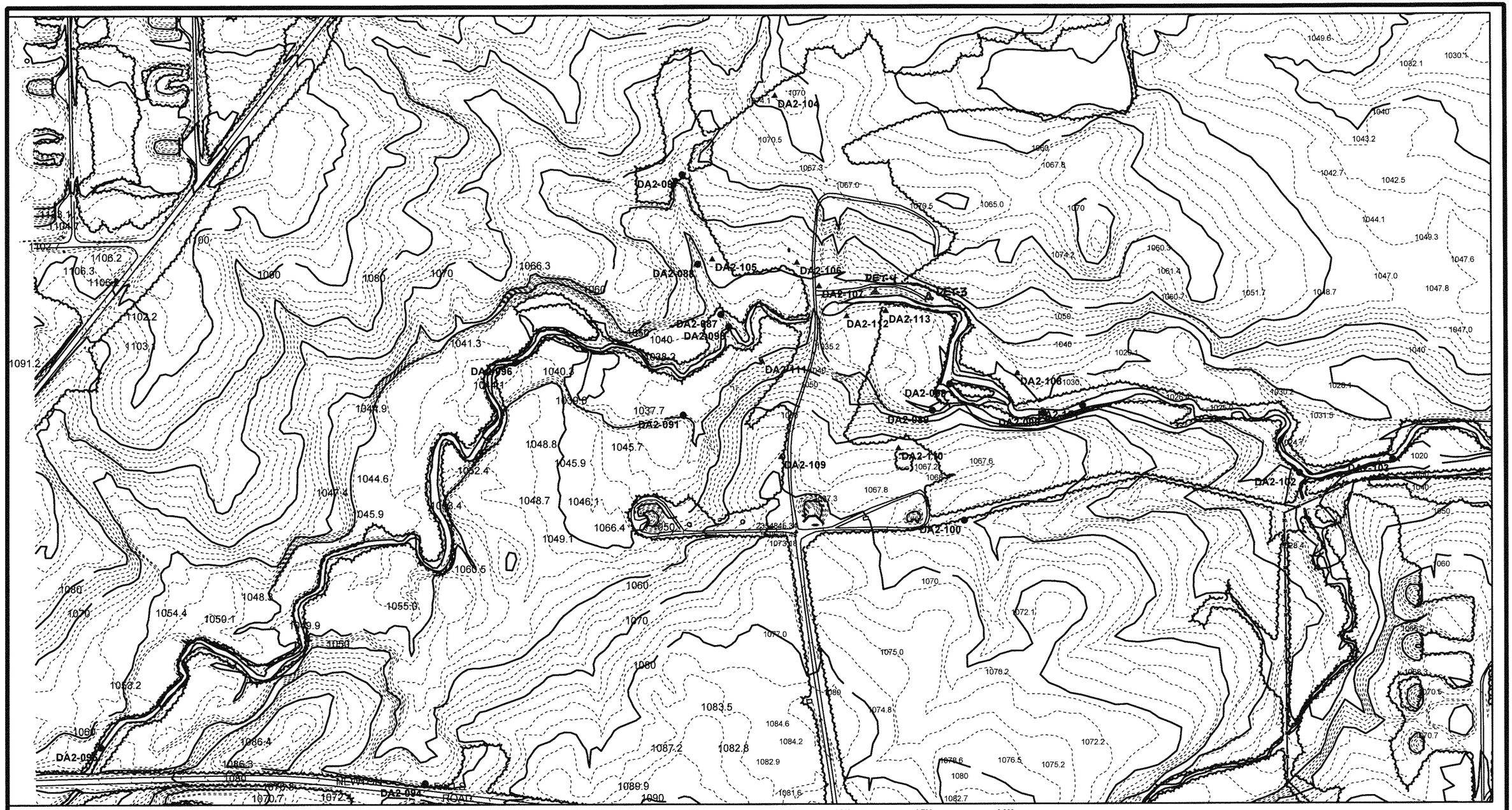
US Army Corps of Engineers Louisville District

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

RAVENNA ARMY AMMUNITION PLANT
RAVENNA, OHIO
WINKLEPECK BURNING GROUNDS

DRAWN BY:	REV. NO./DATE:	CAD FILE:
P. HOLM	REV. 1/07-27-99	98026/DWGS/C85-MW

Figure 2-5. WBG Monitoring Well Locations



Monitoring Wells / Surface Water/ Sediment Map

DEMOLITION AREA 2

Figure 3-2 : Sediment, Surface Water, and Groundwater Sample Location Map

Legend

Sample Type
- ● Sediment/Surface Water
- ▲ Monitor Well

Features
- Roads
- Rail Road
- Vegetation
- Water
- Fence
- 2' Contour
- 10' Contour

N

Drawn By: Chantelle Carroll

Sheet No. FLLNE5/R1415/R1516

ArcView File: Ravenna_Sediment_SWGW

Date: 5-10-03

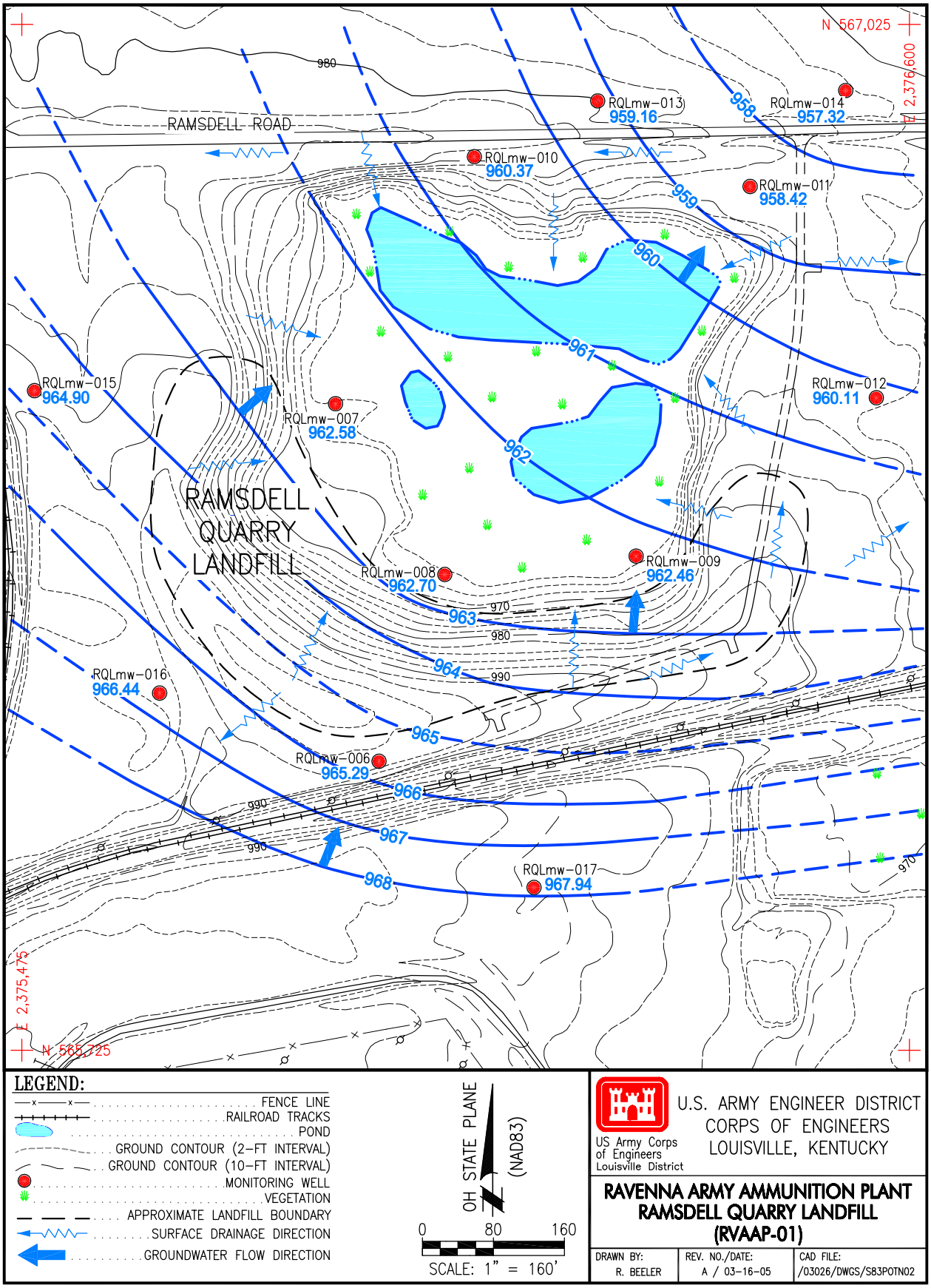


Figure 2-4. Ramsdell Quarry Potentiometric Surface, May 2004