

APPENDIX C

Data Quality Control Summary Report

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LIST OF ATTACHMENTS

- Attachment 1. Chemical Data Usability Assessment Report
- Attachment 2. Automated Data Review Outlier Reports

ACRONYMS AND ABBREVIATIONS

%D	Percent Difference
ADR	Automated Data Review
AOC	Area of Concern
DoD	United States Department of Defense
DQA	Data Quality Assessment
DQO	Data Quality Objective
FWCUG	Facility-wide Cleanup Goal
FWQAPP	Facility-wide Quality Assurance Project Plan
LCS	Laboratory Control Sample
LOD	Limit of Detection
LOQ	Limit of Quantitation
MDL	Method Detection Level
MPR	Monthly Progress Report
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Ohio EPA	Ohio Environmental Protection Agency
PAH	Polycyclic Aromatic Hydrocarbon
PBA08	Performance-Based Acquisition 2008
PBA08 SAP	Performance-Based Acquisition 2008 Supplemental Sampling and Analysis Plan Addendum No. 1
PCB	Polychlorinated Biphenyl
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
QSM	Quality Systems Manual
REIMS	RVAAP Environmental Information Management System
RI	Remedial Investigation
RPD	Relative Percent Difference
RVAAP	Ravenna Army Ammunition Plant
SAIC	Science Applications International Corporation
SVOC	Semi-volatile Organic Compound
TestAmerica	TestAmerica Laboratories, Inc.
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compound

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C.0 PROJECT QUALITY ASSURANCE SUMMARY

C.1 PURPOSE OF THIS REPORT

Environmental data must always be interpreted relative to its known limitations and its intended use. As can be expected in environmental media, there are areas and data points where the user needs to be cautioned relative to the quality of the project information presented. The data verification process and this data quality assessment (DQA) are performed to assist current and future data users in interpreting these data.

The purpose of this DQA report is to describe:

1. The quality control (QC) procedures followed to ensure data generated by Leidos, formerly Science Applications International Corporation (SAIC), during the remedial investigations (RIs) at the Ravenna Army Ammunition Plant (RVAAP) meet project requirements;
2. The quality of the data collected; and
3. The problems encountered during the course of the study and their solutions.

A separate Chemical Data Usability Assessment has been completed by the U.S. Army Corps of Engineers (USACE) quality assurance (QA) representative (Attachment 1). This assessment discusses the overall data quality and usability of project data based on a review of this DQA and the findings of the third-party validator contracted by USACE. While there were some differences in the qualifiers assigned by Leidos and the third-party reviewer, the findings were deemed to be compatible.

This DQA report provides an assessment of the analytical information gathered during the implementation of the RI at Load Line 5. It documents the quality of the data utilized for the RI Report and assesses if QA/QC objectives were met. Evaluation of field and laboratory QC measures will constitute the majority of this assessment; however, references will also be directed toward those QA procedures that establish data credibility. The primary intent of this assessment is to illustrate that, except as noted, data generated for this investigation can withstand scientific scrutiny; are appropriate for their intended purpose; are technically defensible; and are of known and acceptable sensitivity, precision, and accuracy.

Multiple activities were performed to achieve the desired data quality for this project. As discussed in the RI Report, decisions were made during the initial scoping of the RI to define the quality and quantity of data required. Data quality objectives (DQOs) were established to guide the implementation of the field sampling and laboratory analysis [refer to the *Performance-Based Acquisition 2008 Supplemental Investigation Sampling and Analysis Plan Addendum No.1*, (USACE 2009), herein referred to as the PBA08 SAP]. A QA program was established to standardize procedures and document activities [refer to the *Facility-wide Quality Assurance Project Plan for Environmental Investigations* (USACE 2001), herein referred to as the FWQAPP, and Part II of the PBA08 SAP]. This program provided a means to detect and correct any deficiencies in the process. Upon receipt by the project team, data were subjected to verification and validation review by an automated data review (ADR) process to identify and qualify problems related to the analysis. These

review steps contributed to this final DQA where data used in the investigation are identified as having met the criteria and are being utilized appropriately.

C.2 QUALITY ASSURANCE PROGRAM

The FWQAPP and Part II of the PBA08 SAP were developed to guide the RI for Load Line 5. The purposes of these documents were to enumerate the quantity and type of samples to be taken to inspect the area of concern (AOC) and define the quantity and type of QA/QC samples to be used to evaluate the quality of the data obtained. The FWQAPP established requirements for field and laboratory QC procedures. In general, field QC duplicates and QA split samples were required for each environmental sample matrix collected in the area being investigated; volatile organic compound (VOC) trip blanks were to accompany each cooler containing water samples for VOC determinations; and analytical laboratory QC duplicates, matrix spikes (MSs), laboratory control samples (LCSs), and method blanks were required for each preparation batch of 20 samples or less for each matrix and analyte.

A primary goal of the former RVAAP QA program was to ensure that the quality of results for all environmental measurements were appropriate for their intended use. To this end, the FWQAPP and standardized field procedures were compiled to guide the investigation. Through the process of readiness review, training, equipment calibration, QC implementation, and detailed documentation, the project has successfully accomplished the goals set for the QA program.

C.2.1 Monthly Progress Reports

Monthly Progress Reports (MPRs) were completed by the Leidos Project Manager for the duration of the project. The MPRs contained information on work completed, problems encountered, corrective actions/solutions, summary of findings, and upcoming work. These reports were issued to the USACE Louisville District Project Manager by e-mail with copies forwarded to the Ohio Environmental Protection Agency (Ohio EPA). Access to these reports can be obtained through the USACE Louisville District Project Manager.

C.2.2 Daily Activity Logs

The Field Team Leader completed Daily Activity Logs. These include information such as, but not limited to, on-site sub-tier contractors, on-site equipment, work performed summaries, QC activities, health and safety activities, problems encountered, and corrective actions.

C.2.3 Laboratory “Definitive” Level Data Reporting

The Quality Assurance Project Plan (QAPP) for this project identified requirements for laboratory data reporting and identified TestAmerica Laboratories, Inc. (TestAmerica) of North Canton, Ohio (a subcontractor to White Water Associates Inc., Amasa, Michigan), as the laboratory for the project. During project execution, the TestAmerica facility in North Canton, Ohio, performed all of the analyses, except for explosives and propellants, which were performed at the TestAmerica facility in

West Sacramento, California. Collected QA split samples were analyzed by USACE's contracted QA laboratory, RTI Laboratories, Inc., of Livonia, Michigan. TestAmerica and RTI Laboratories, Inc. are accredited by the U.S. Department of Defense (DoD). All analytical procedures were completed in accordance with applicable professional standards; U.S. Environmental Protection Agency (USEPA) requirements; government regulations and guidelines; the DoD Quality Systems Manual (QSM), Version 3; USACE Louisville District analytical QA guidelines; and specific project goals and requirements. USEPA "definitive" data have been reported and include the following basic information:

- Laboratory case narratives,
- Sample results (soil/sediment reported per dry weight),
- Laboratory method blank results,
- LCS results,
- Laboratory sample MS recoveries,
- Laboratory duplicate results,
- Surrogate recoveries [VOCs, semi-volatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), and explosives],
- Initial and continuing calibrations,
- Sample preparation dates, and
- Sample analysis dates.

This information from the laboratory, along with field information, provides the basis for subsequent data evaluation relative to sensitivity, precision, accuracy, representativeness, and completeness. These are presented in Section C.4.

C.3 DATA VERIFICATION

The objective when evaluating the project data quality is to determine its usability. The evaluation is based on the interpretation of laboratory QC measures, field QC measures, and project DQOs. This project implemented ADR software to facilitate laboratory data review. The ADR output was reviewed by the project-designated verification staff.

C.3.1 Field Data Verification

Field-generated documents such as sampling logs, boring logs, daily health and safety summaries, daily safety inspections, equipment calibration and maintenance logs, and sample management logs were peer-reviewed on site.

C.3.2 Laboratory Data Verification

Analytical data generated for this project have been subjected to a process of automated data verification and review. The following describes this systematic process and the evaluation activities performed. Several criteria have been established against which the data were compared and from which a judgment was rendered regarding the acceptance and qualification of the data. Because it is

beyond the scope of this report to cite those criteria, the reader is directed to the following documents for specific detail:

- PBA08 SAP (USACE 2009).
- DoD – QSM for Environmental Laboratories, Version 3, January 2006.
- USACE, Louisville District – *Louisville DoD Quality Systems Manual Supplement*, Version 1, March 2007.
- USEPA – Contract Laboratory Program National Functional Guidelines for Organic Data Review, EPA-540/R-99/008, October, 1999.
- USEPA – Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA-540/R-94/013, February, 1994.
- Leidos Technical Support Contractor QA Technical Procedure (TP-DM-300-7) – *Data Verification and Validation*.

Upon receiving field and analytical data, verification staff performed a systematic examination of the reports, including ADR software, to ensure the content, presentation, and administrative validity of 100% of the data. Discrepancies identified during this process were recorded and documented utilizing the ADR. Any discrepancies were resolved prior to database flag entry. As part of data verification, standardized laboratory electronic data deliverables were subjected to review. This technical evaluation ensured that all contract-specified requirements had been met, and that electronic information conformed to reported hardcopy data. Outlier reports from the ADR software review are included as Attachment 2 to this appendix. QA Program Nonconformance Report and Corrective Action systems were implemented as required.

During the verification phase of the review and evaluation process, data were subjected to a systematic technical review by examining all field and analytical QC results and laboratory documentation following USEPA functional guidelines, DoD QSM criteria, and Leidos internal procedures for laboratory data review. These data review guidelines define the technical review criteria, methods for evaluating the criteria, and actions to be taken resulting from the review of these criteria. The primary objectives of this phase were to assess and summarize the quality and reliability of the data for the intended use and to document factors that may affect the usability of the data. This process did not include an in-depth review of raw data instrument output or a re-calculation of results from the primary instrument output. This data verification and analytical review process included, but was not necessarily limited to, the following parameters:

- Data completeness;
- Analytical holding times and sample preservation;
- Calibration (initial and continuing);
- Method blanks;
- Sample results verification;
- Surrogate recovery;
- LCS analysis;
- Internal standard performance;

- MS recovery;
- Duplicate analysis comparison;
- Reported detection limits;
- Compound, element, and isotope quantification;
- Reported detection levels;
- Method reporting levels; and
- Secondary dilutions.

As an end result of this phase of the review, the data were qualified based on the technical assessment of the verification criteria. Qualifiers were applied by the ADR to each field and analytical result to indicate the usability of the data for its intended purpose.

C.3.3 Definitions of Data Qualifiers (Flags)

During the data verification process, all laboratory data were assigned appropriate data qualification flags and reason codes. Qualification flags are defined as follows:

- “U” Indicates the analyte was analyzed for, but not detected above, the level of the associated value.
- “J” Indicates the analyte was positively identified; however, the associated numerical value is an approximate concentration of the analyte in the sample.
- “UJ” Indicates the analyte was analyzed for, but not detected above, the associated value; however, the reported value is an estimate and demonstrates a decreased knowledge of its accuracy or precision.
- “R” Indicates the analyte value reported is unusable. The integrity of the analyte’s identification, accuracy, precision, or sensitivity has raised significant questions as to the reality of the information presented.

C.3.4 Data Acceptability

A total of 47 environmental sediment, soil, and surface water samples were collected with approximately 3,630 discrete analyses (i.e., analytes) being obtained, reviewed, and integrated into the assessment (these totals do not include field measurements and field descriptions). Under the direction of the PBA08 SAP and USACE Louisville District, the project successfully collected RI samples and produced acceptable results for 99.86% of the sample analyses performed. No sediment data were rejected. Data that were rejected were relegated to antimony non-detectable concentration levels in soil in samples LL5SB-052-5151-SO, LL5SB-053-5155-SO, LL5SB-055-5163-SO, and LL5SB-056-5167-SO and a 2,4-dinitrophenol non-detectable level in surface water sample LL5SW-078-5796-SW.

Table C-1 summarizes all targeted field QC and QA split samples collected during the investigation. Cross-references for duplicate and QA split sample pair numbers are presented on Table C-2 along with the requested parameters for each sample. Table C-3 summarizes the results rejected during review, Table C-4 summarizes the qualified analyses grouped by media and analyte category, and

Table C-5 shows the individual results qualified during review. The majority of the estimated values were based on values observed between the laboratory method detection levels (MDLs) and the project reporting levels (values determined in this region have an inherently higher variability and need to be considered estimated at best), MS and LCS recoveries, surrogate recoveries, holding time excursions, internal standard counts, and continuing calibrations.

Table C-1. Number of Samples Taken at Load Line 5

Media	Environmental Samples	Field Duplicates	USACE Split Samples	Trip Blanks	Equipment Rinse Blanks^a	Source Water Blanks^b
Sediment	3	0	0	0	3	2
Soil	41	5	5	0		
Surface Water	3	0	0	3	0	0

^a Equipment rinse blanks were collected at a frequency of 2 per field cycle for the entire Performance Based Acquisition 2008 (PBA08) Remedial Investigation (RI) for the 17 areas of concern (AOCs) as presented in Section 4.6 of the PBA08 Sampling and Analysis Plan (PBA08 SAP).

^b Source water blanks for deionized and potable water used during equipment decontamination were evaluated for the entire PBA08 RI for the 17 AOCs as presented in Section 4.6 of the PBA08 SAP.

USACE = U.S. Army Corps of Engineers.

Table C-2. Identification of Regular and QC Samples Taken at Load Line 5

Environmental Samples	Laboratory Sample Delivery Group	Field Duplicates	USACE Split Samples	Trip Blanks ^a	Metals	Explosives	SVOCs	Propellants ^b	VOCs	Pesticides	PCBs	PAHs	Nitrate	Hexavalent Chromium	Total Chromium
Sediment															
FWSSD-102-5011-SD	A0B180524	NS	NS	NS	X	X	X	X	X	X	X				
FWSSD-103-5013-SD	A0B190524	NS	NS	NS	X	X	X	X	X	X	X				
LL5SD-078-5797-SD	A0D140520	NS	NS	NS	X	X						X			
Soil															
LL5SB-052-5149-SO	A0C040514	LL5SB-052-6092-FD	LL5SB-052-6095-QA	NS	X	X						X			
LL5SB-052-5150-SO	A0C040514	LL5SB-052-6093-FD	LL5SB-052-6096-QA	NS	X	X						X			
LL5SB-052-5151-SO	A0C040505, A0C040510	LL5SB-052-6094-FD	LL5SB-052-6097-QA	NS	X	X						X			
LL5SB-053-5153-SO	A0C040514	NS	NS	NS	X	X	X	X	X	X	X				
LL5SB-053-5154-SO	A0C040514	NS	NS	NS	X	X	X	X	X	X	X				
LL5SB-053-5155-SO	A0C040505, A0C040510	NS	NS	NS	X	X	X	X	X	X	X				
LL5SB-054-5157-SO	A0C100403	NS	NS	NS	X	X						X			
LL5SB-054-5158-SO	A0C100403	NS	NS	NS	X	X						X			
LL5SB-054-5159-SO	A0C090496, A0C090498	NS	NS	NS	X	X						X			
LL5SB-055-5161-SO	A0C040514	NS	NS	NS	X	X						X			
LL5SB-055-5162-SO	A0C040514	NS	NS	NS	X	X						X			
LL5SB-055-5163-SO	A0C040505, A0C040510	NS	NS	NS	X	X						X			
LL5SB-055-5164-SO	A0C100403	NS	NS	NS	X	X						X			
LL5SB-056-5165-SO	A0C040514	NS	NS	NS	X	X						X			
LL5SB-056-5166-SO	A0C040514	NS	NS	NS	X	X						X			
LL5SB-056-5167-SO	A0C040505, A0C040510	NS	NS	NS	X	X						X			
LL5SB-057-5169-SO	A0C100403	NS	NS	NS	X	X						X			
LL5SB-057-5170-SO	A0C100403	NS	NS	NS	X	X						X			
LL5SB-058-5173-SO	A0C100403	NS	NS	NS	X	X						X			
LL5SB-058-5174-SO	A0C100403	NS	NS	NS	X	X						X			
LL5SS-059-5060-SO	A0C100403	NS	NS	NS										X	X
LL5SS-060-5061-SO	A0C100403	NS	NS	NS										X	X
LL5SS-061-5062-SO	A0C100403	NS	NS	NS										X	X
LL5SS-062M-5044-SO	A0C040514	NS	NS	NS	X	X						X			
LL5SS-063M-5045-SO	A0C040514	LL5SS-063M-6051-FD	LL5SS-063M-6050-QA	NS	X	X						X			
LL5SS-064M-5046-SO	A0C040514	NS	NS	NS	X	X						X			
LL5SS-065M-5047-SO	A0C040514	NS	NS	NS	X	X						X			
LL5SS-066M-5048-SO	A0C040514	NS	NS	NS	X	X						X			
LL5SS-067M-5049-SO	A0C040514	NS	NS	NS	X	X						X			
LL5SS-068M-5050-SO	A0C040514	NS	NS	NS	X	X						X			
LL5SS-069M-5051-SO	A0C040514	NS	NS	NS	X	X	X	X	X	X	X				
LL5SS-070-5810-SO	A0J190534	NS	NS	NS										X	X
LL5SS-070M-5052-SO	A0C040514	NS	NS	NS	X	X						X			
LL5SS-071M-5053-SO	A0C100403	NS	NS	NS	X	X						X			
LL5SS-072M-5054-SO	A0C100403	LL5SS-072M-6053-FD	LL5SS-072M-6052-QA	NS	X	X	X	X	X	X	X				
LL5SS-073M-5055-SO	A0C100403	NS	NS	NS	X	X						X			
LL5SS-074M-5056-SO	A0C040514	NS	NS	NS	X	X						X			
LL5SS-075-5811-SO	A0J190534	NS	NS	NS										X	X
LL5SS-075M-5057-SO	A0C040514	NS	NS	NS	X	X						X			

Table C-2. Identification of Regular and QC Samples Taken at Load Line 5 (continued)

Environmental Samples	Laboratory Sample Delivery Group	Field Duplicates	USACE Split Samples	Trip Blanks ^a	Metals	Explosives	SVOCs	Propellants ^b	VOCs	Pesticides	PCBs	PAHs	Nitrate	Hexavalent Chromium	Total Chromium
LL5SS-076M-5058-SO	A0C040514	NS	NS	NS	X	X	X	X	X	X	X				
LL5SS-077M-5059-SO	A0C100403	NS	NS	NS	X	X						X			
Surface Water															
FWSSW-102-5010-SW	A0B180524	NS	NS	PBA08-QC-6009-TB	X	X	X	X	X	X	X		X		
FWSSW-103-5012-SW	A0B190524	NS	NS	PBA08-QC-6010-TB	X	X	X	X	X	X	X				
LL5SW-078-5796-SW	A0D140520	NS	NS	PBA08-QC-6024-TB	X	X	X	X	X	X	X				

Equipment rinse blanks were collected at a frequency of 2 per field cycle for the entire Performance Based Acquisition 2008 (PBA08) Remedial Investigation for the 17 areas of concern as presented in Section 4.6 of the PBA08 Sampling and Analysis Plan.

^a Trip blanks only accompany samples for VOCs in water.

^b Propellants include nitrocellulose and nitroguanidine.

NS = Not sampled.

PAH = Polycyclic aromatic hydrocarbon.

PCB = Polychlorinated biphenyl.

QC = Quality control.

SVOC = Semi-volatile organic compound.

USACE = United States Army Corps of Engineers.

VOC = Volatile organic compound.

Table C-3. Results Rejected in Verification for Samples from Load Line 5

Sample Delivery Group	Sample ID	Station	Analysis Type	Chemical	Results	Reporting Limit	Laboratory Qualifier	Validation Qualifier	Validation Code
Soil (mg/kg)									
A0C040505	LL5SB-052-5151-SO	LL5sb-052	Metals	Antimony	0.58	0.58	U	R	MS-R
A0C040505	LL5SB-053-5155-SO	LL5sb-053	Metals	Antimony	0.60	0.60	U	R	MS-R
A0C040505	LL5SB-055-5163-SO	LL5sb-055	Metals	Antimony	0.58	0.58	U	R	MS-R
A0C040505	LL5SB-056-5167-SO	LL5sb-056	Metals	Antimony	0.60	0.60	U	R	MS-R
Surface Water (µg/L)									
A0D140520	LL5SW-078-5796-SW	LL5sw-078	SVOCs	2,4-Dinitrophenol	25	25	U	R	LCS-R

ID = Identification.

LCS = Laboratory control sample.

mg/kg = Milligrams per kilogram.

µg/L = Micrograms per liter.

MS =Matrix spike.

R = Rejected.

SVOC = Semi-volatile organic compound.

U = Not detected.

Table C-4. Summary of Qualified Results for Samples from Load Line 5

Analysis Group	Validation Qualifier ^a	Validation Reason Code ^b	Number Qualified	Total Number of Analyses	Percent Qualified
<i>Sediment</i>					
All Analyses	J	--	19	224	8.5
	UJ	--	3	224	1.3
	None	--	202	224	90
Metals	J	LCS-J	1	46	2.2
	J	MS-J	5	46	11
	J	MS-J, RepLimit-J	1	46	2.2
	J	ProJudge-J	1	46	2.2
	J	RepLimit-J	9	46	20
	UJ	MS-UJ	1	46	2.2
	None	None	28	46	61
	UJ	CCV-UJ	1	32	3.1
Explosives	None	None	31	32	97
Propellants	None	None	1	1	100
PAHs	J	RepLimit-J	1	82	1.2
	None	None	81	82	99
Pesticides	None	None	21	21	100
PCBs	None	None	7	7	100
VOCs	J	RepLimit-J	1	35	2.9
	UJ	CCV-UJ	1	35	2.9
	None	None	33	35	94
<i>Soil</i>					
All Analyses	R	--	4	3,070	0.13
	J	--	478	3,070	16
	UJ	--	478	3,070	16
	None	--	2,110	3,070	69
Metals	R	MS-R	4	948	0.42
	J	LCS-J	25	948	2.6
	J	LCS-J, RepLimit-J	2	948	0.21
	J	MS-J	129	948	14
	J	MS-J, ProJudge-J	5	948	0.53
	J	MS-J, RepLimit-J	37	948	3.9
	J	ProJudge-J	85	948	9
	J	RepLimit-J	137	948	14
	UJ	MS-UJ	9	948	0.95
	UJ	RepLimit-J, CalBlk-U	36	948	3.8
	None	None	479	948	51
	J	RepLimit-J	1	5	20
Hexavalent Chromium	None	None	4	5	80

Table C-4. Summary of Qualified Results for Samples from Load Line 5 (continued)

Analysis Group	Validation Qualifier ^a	Validation Reason Code ^b	Number Qualified	Total Number of Analyses	Percent Qualified
Explosives	J	HT-J, RepLimit-J	3	656	0.46
	J	RepLimit-J	1	656	0.15
	UJ	HT-UJ	125	656	19
	None	None	527	656	80
Propellants	J	RepLimit-J	2	14	14
	UJ	MS-UJ	1	14	7.1
	None	None	11	14	79
SVOCs	J	HT-J	11	1,006	1.1
	J	HT-J, RepLimit-J	1	1,006	0.10
	J	RepLimit-J	37	1,006	3.7
	UJ	CCV-UJ	2	1,006	0.20
	UJ	HT-UJ	69	1,006	6.9
	UJ	HT-UJ, LCS-UJ	1	1,006	0.10
	UJ	IntStd-UJ	53	1,006	5.3
	UJ	LCS-UJ	1	1,006	0.10
	UJ	LCS-UJ, IntStd-UJ	1	1,006	0.10
	UJ	MB-U, RepLimit-J	2	1,006	0.20
	None	None	828	1,006	82
Pesticides	J	RepLimit-J	2	147	1.4
	None	None	145	147	99
PCBs	None	None	49	49	100
VOCs	UJ	LCS-UJ	1	245	0.41
	UJ	MB-U, RepLimit-J	2	245	0.82
	UJ	MB-U, Surr-J, RepLimit-J	5	245	2
	UJ	Surr-UJ	166	245	68
	UJ	Surr-UJ,LCS-UJ	4	245	1.6
	None	None	67	245	27
Surface Water					
All Analyses	R	--	1	339	0.29
	J	--	11	339	3.2
	UJ	--	21	339	6.2
	None	--	306	339	90
Metals	J	RepLimit-J	10	46	22
	None	None	36	46	78
Explosives	UJ	CCV-UJ	2	32	6.3
	UJ	MS-UJ	2	32	6.3
	None	None	28	32	88
Propellants	None	None	3	3	100

Table C-4. Summary of Qualified Results for Samples from Load Line 5 (continued)

Analysis Group	Validation Qualifier^a	Validation Reason Code^b	Number Qualified	Total Number of Analyses	Percent Qualified
SVOCs	R	LCS-R	1	132	0.76
	UJ	CCV-UJ	1	132	0.76
	UJ	LCS-UJ	2	132	1.5
	UJ	MB-U, RepLimit-J	2	132	1.5
	None	None	126	132	95
Pesticides	UJ	CCV-UJ	3	42	7.1
	None	None	39	42	93
PCBs	UJ	Surr-UJ	7	14	50
	None	None	7	14	50
VOCs	J	RepLimit-J	1	70	1.4
	UJ	LCS-UJ	1	70	1.4
	UJ	RepLimit-J, FldQC-U	1	70	1.4
	None	None	67	70	96

^a Validation Qualifiers: J = Estimated, R = Rejected, U = Not detected, and UJ = Not detected and reporting limit estimated.

^b Validation Reason Codes: CalBlk = Calibration Blank, CCV = Continuing Calibration Verification, FldQC = Field Quality Control, HT = Holding Time, IntStd = Internal Standard, LCS = Laboratory Control Standard, MB = Method Blank, MS = Matrix Spike, ProJudge = Professional Judgment, RepLimit = Reporting Limit, and Surr = Surrogate Recovery.

PAH = Polycyclic aromatic hydrocarbon.

PCB = Polychlorinated biphenyl.

SVOC = Semi-volatile organic compound.

VOC = Volatile organic compound.

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Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
<i>Metals</i>							
Sediment (mg/kg)							
Antimony	A0B190524	FWSSD-103-5013-SD	0.61	0.61	U	UJ	MS-UJ
Antimony	A0D140520	LL5SD-078-5797-SD	0.15	0.79	J	J	MS-J, RepLimit-J
Beryllium	A0B190524	FWSSD-103-5013-SD	0.52	0.12	--	J	ProJudge-J
Cadmium	A0B190524	FWSSD-103-5013-SD	0.078	0.24	J	J	RepLimit-J
Cadmium	A0D140520	LL5SD-078-5797-SD	0.24	0.32	J	J	RepLimit-J
Calcium	A0B190524	FWSSD-103-5013-SD	1,190	242	--	J	MS-J
Cobalt	A0B190524	FWSSD-103-5013-SD	10.2	0.61	--	J	MS-J
Lead	A0B190524	FWSSD-103-5013-SD	11.0	0.36	--	J	MS-J
Lead	A0D140520	LL5SD-078-5797-SD	21.0	0.48	--	J	MS-J
Mercury	A0D140520	LL5SD-078-5797-SD	0.075	0.16	J	J	RepLimit-J
Potassium	A0D140520	LL5SD-078-5797-SD	1110	159	--	J	MS-J
Selenium	A0D140520	LL5SD-078-5797-SD	0.92	0.79	--	J	LCS-J
Silver	A0B190524	FWSSD-103-5013-SD	0.042	0.61	J	J	RepLimit-J
Silver	A0D140520	LL5SD-078-5797-SD	0.078	0.79	J	J	RepLimit-J
Sodium	A0B190524	FWSSD-103-5013-SD	50.6	121	J	J	RepLimit-J
Sodium	A0D140520	LL5SD-078-5797-SD	40.6	159	J	J	RepLimit-J
Thallium	A0B190524	FWSSD-103-5013-SD	0.13	0.24	J	J	RepLimit-J
Thallium	A0D140520	LL5SD-078-5797-SD	0.26	0.32	J	J	RepLimit-J
Soil (mg/kg)							
Aluminum	A0C100403	LL5SB-054-5157-SO	12,500	13.2	--	J	ProJudge-J
Aluminum	A0C100403	LL5SB-054-5158-SO	11,100	11.7	--	J	ProJudge-J
Aluminum	A0C100403	LL5SB-055-5164-SO	7,330	11.4	--	J	ProJudge-J
Aluminum	A0C040514	LL5SB-056-5165-SO	14,900	133	--	J	ProJudge-J
Aluminum	A0C100403	LL5SB-057-5169-SO	9,450	12.8	--	J	ProJudge-J
Aluminum	A0C100403	LL5SB-057-5170-SO	9,330	12.2	--	J	ProJudge-J
Aluminum	A0C100403	LL5SB-058-5173-SO	11,300	12.9	--	J	ProJudge-J
Aluminum	A0C100403	LL5SB-058-5174-SO	10,100	12.4	--	J	ProJudge-J
Aluminum	A0C040514	LL5SS-062M-5044-SO	12,700	102	--	J	ProJudge-J
Aluminum	A0C040514	LL5SS-063M-5045-SO	11,800	101	--	J	ProJudge-J
Aluminum	A0C040514	LL5SS-063M-6051-FD	11,800	102	--	J	ProJudge-J
Aluminum	A0C040514	LL5SS-064M-5046-SO	11,700	102	--	J	ProJudge-J
Aluminum	A0C040514	LL5SS-065M-5047-SO	11,400	10.2	E	J	ProJudge-J
Aluminum	A0C040514	LL5SS-066M-5048-SO	11,000	101	--	J	ProJudge-J
Aluminum	A0C040514	LL5SS-067M-5049-SO	12,100	102	--	J	ProJudge-J
Aluminum	A0C040514	LL5SS-068M-5050-SO	10,800	102	--	J	ProJudge-J
Aluminum	A0C040514	LL5SS-069M-5051-SO	9,980	10.3	--	J	ProJudge-J
Aluminum	A0C040514	LL5SS-070M-5052-SO	9,540	10.2	--	J	ProJudge-J
Aluminum	A0C100403	LL5SS-071M-5053-SO	9,220	10.2	--	J	ProJudge-J
Aluminum	A0C100403	LL5SS-072M-5054-SO	10,300	10.2	--	J	ProJudge-J
Aluminum	A0C100403	LL5SS-072M-6053-FD	12,900	10.2	--	J	ProJudge-J
Aluminum	A0C100403	LL5SS-073M-5055-SO	11,200	10.2	--	J	ProJudge-J
Aluminum	A0C040514	LL5SS-074M-5056-SO	11,000	10.2	--	J	ProJudge-J
Aluminum	A0C040514	LL5SS-075M-5057-SO	9,200	10.1	--	J	ProJudge-J
Aluminum	A0C040514	LL5SS-076M-5058-SO	9,760	10.2	--	J	ProJudge-J
Aluminum	A0C100403	LL5SS-077M-5059-SO	12,200	10.2	--	J	ProJudge-J
Antimony	A0C040514	LL5SB-052-5149-SO	0.083	0.66	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SB-052-5150-SO	0.61	0.61	U	UJ	MS-UJ
Antimony	A0C040505	LL5SB-052-5151-SO	0.58	0.58	U	R	MS-R

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Antimony	A0C040514	LL5SB-052-6092-FD	0.082	0.64	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SB-052-6093-FD	0.61	0.61	U	UJ	MS-UJ
Antimony	A0C040514	LL5SB-052-6094-FD	0.59	0.59	U	UJ	MS-UJ
Antimony	A0C040514	LL5SB-053-5153-SO	0.62	0.62	U	UJ	MS-UJ
Antimony	A0C040514	LL5SB-053-5154-SO	0.59	0.59	U	UJ	MS-UJ
Antimony	A0C040505	LL5SB-053-5155-SO	0.60	0.60	U	R	MS-R
Antimony	A0C100403	LL5SB-054-5157-SO	0.16	0.66	J	J	MS-J, RepLimit-J
Antimony	A0C100403	LL5SB-054-5158-SO	0.11	0.59	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SB-055-5161-SO	0.13	0.61	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SB-055-5162-SO	0.61	0.61	U	UJ	MS-UJ
Antimony	A0C040505	LL5SB-055-5163-SO	0.58	0.58	U	R	MS-R
Antimony	A0C100403	LL5SB-055-5164-SO	0.074	0.57	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SB-056-5165-SO	0.12	0.67	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SB-056-5166-SO	0.080	0.62	J	J	MS-J, RepLimit-J
Antimony	A0C040505	LL5SB-056-5167-SO	0.60	0.60	U	R	MS-R
Antimony	A0C100403	LL5SB-057-5169-SO	0.12	0.64	J	J	MS-J, RepLimit-J
Antimony	A0C100403	LL5SB-057-5170-SO	0.12	0.61	J	J	MS-J, RepLimit-J
Antimony	A0C100403	LL5SB-058-5173-SO	0.64	0.64	U	UJ	MS-UJ
Antimony	A0C100403	LL5SB-058-5174-SO	0.083	0.62	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SS-062M-5044-SO	0.10	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SS-063M-5045-SO	0.11	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SS-063M-6051-FD	0.086	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SS-064M-5046-SO	0.13	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SS-065M-5047-SO	0.13	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SS-066M-5048-SO	0.16	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SS-067M-5049-SO	0.11	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SS-068M-5050-SO	0.14	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SS-069M-5051-SO	0.11	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SS-070M-5052-SO	0.11	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C100403	LL5SS-071M-5053-SO	0.17	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C100403	LL5SS-072M-5054-SO	0.14	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C100403	LL5SS-072M-6053-FD	0.15	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C100403	LL5SS-073M-5055-SO	0.16	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SS-074M-5056-SO	0.13	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SS-075M-5057-SO	0.14	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C040514	LL5SS-076M-5058-SO	0.11	0.51	J	J	MS-J, RepLimit-J
Antimony	A0C100403	LL5SS-077M-5059-SO	0.15	0.51	J	J	MS-J, RepLimit-J
Arsenic	A0C100403	LL5SB-054-5157-SO	18.4	0.66	--	J	ProJudge-J
Arsenic	A0C100403	LL5SB-054-5158-SO	17.2	0.59	--	J	ProJudge-J
Arsenic	A0C100403	LL5SB-055-5164-SO	14.1	0.57	--	J	ProJudge-J
Arsenic	A0C100403	LL5SB-057-5169-SO	12.6	0.64	--	J	ProJudge-J
Arsenic	A0C100403	LL5SB-057-5170-SO	12.3	0.61	--	J	ProJudge-J
Arsenic	A0C100403	LL5SB-058-5173-SO	10.5	0.64	--	J	ProJudge-J
Arsenic	A0C100403	LL5SB-058-5174-SO	12.0	0.62	--	J	ProJudge-J
Arsenic	A0C100403	LL5SS-071M-5053-SO	10.9	0.51	--	J	ProJudge-J
Arsenic	A0C100403	LL5SS-072M-5054-SO	9.6	0.51	--	J	ProJudge-J
Arsenic	A0C100403	LL5SS-072M-6053-FD	10.1	0.51	--	J	ProJudge-J
Arsenic	A0C100403	LL5SS-073M-5055-SO	9.2	0.51	--	J	ProJudge-J
Arsenic	A0C100403	LL5SS-077M-5059-SO	11.4	0.51	--	J	ProJudge-J
Barium	A0C100403	LL5SB-054-5157-SO	53.4	1.3	--	J	MS-J

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Barium	A0C100403	LL5SB-054-5158-SO	93.2	1.2	--	J	MS-J
Barium	A0C100403	LL5SB-055-5164-SO	34.4	1.1	--	J	MS-J
Barium	A0C100403	LL5SB-057-5169-SO	43.8	1.3	--	J	MS-J
Barium	A0C100403	LL5SB-057-5170-SO	45.9	1.2	--	J	MS-J
Barium	A0C100403	LL5SB-058-5173-SO	82.5	1.3	--	J	MS-J
Barium	A0C100403	LL5SB-058-5174-SO	66.6	1.2	--	J	MS-J
Beryllium	A0C100403	LL5SB-054-5157-SO	0.42	0.13	--	J	ProJudge-J
Beryllium	A0C100403	LL5SB-054-5158-SO	0.84	0.12	--	J	ProJudge-J
Beryllium	A0C100403	LL5SB-055-5164-SO	0.47	0.11	--	J	ProJudge-J
Beryllium	A0C100403	LL5SB-057-5169-SO	0.46	0.13	--	J	ProJudge-J
Beryllium	A0C100403	LL5SB-057-5170-SO	0.52	0.12	--	J	ProJudge-J
Beryllium	A0C100403	LL5SB-058-5173-SO	0.65	0.13	--	J	ProJudge-J
Beryllium	A0C100403	LL5SB-058-5174-SO	0.58	0.12	--	J	ProJudge-J
Beryllium	A0C100403	LL5SS-071M-5053-SO	0.52	0.10	--	J	ProJudge-J
Beryllium	A0C100403	LL5SS-072M-5054-SO	0.54	0.10	--	J	ProJudge-J
Beryllium	A0C100403	LL5SS-072M-6053-FD	0.65	0.10	--	J	ProJudge-J
Beryllium	A0C100403	LL5SS-073M-5055-SO	0.60	0.10	--	J	ProJudge-J
Beryllium	A0C100403	LL5SS-077M-5059-SO	0.76	0.10	--	J	ProJudge-J
Cadmium	A0C040514	LL5SB-052-5150-SO	0.076	0.24	J	J	RepLimit-J
Cadmium	A0C040505	LL5SB-052-5151-SO	0.051	0.23	J	J	RepLimit-J
Cadmium	A0C040514	LL5SB-052-6092-FD	0.25	0.26	J	J	RepLimit-J
Cadmium	A0C040514	LL5SB-052-6093-FD	0.061	0.24	J	J	RepLimit-J
Cadmium	A0C040514	LL5SB-052-6094-FD	0.049	0.24	J	J	RepLimit-J
Cadmium	A0C040514	LL5SB-053-5153-SO	0.083	0.25	J	J	RepLimit-J
Cadmium	A0C040514	LL5SB-053-5154-SO	0.084	0.24	J	J	RepLimit-J
Cadmium	A0C040505	LL5SB-053-5155-SO	0.092	0.24	J	J	RepLimit-J
Cadmium	A0C100403	LL5SB-054-5157-SO	0.052	0.26	J	J	RepLimit-J
Cadmium	A0C100403	LL5SB-054-5158-SO	0.038	0.23	J	UJ	RepLimit-J, CalBlk-U
Cadmium	A0C090496	LL5SB-054-5159-SO	0.059	0.24	J	J	RepLimit-J
Cadmium	A0C040514	LL5SB-055-5161-SO	0.16	0.24	J	J	RepLimit-J
Cadmium	A0C040514	LL5SB-055-5162-SO	0.027	0.24	J	J	RepLimit-J
Cadmium	A0C040505	LL5SB-055-5163-SO	0.060	0.23	J	J	RepLimit-J
Cadmium	A0C100403	LL5SB-055-5164-SO	0.041	0.23	J	UJ	RepLimit-J, CalBlk-U
Cadmium	A0C040514	LL5SB-056-5165-SO	0.093	0.27	J	J	RepLimit-J
Cadmium	A0C040514	LL5SB-056-5166-SO	0.033	0.25	J	UJ	RepLimit-J, CalBlk-U
Cadmium	A0C040505	LL5SB-056-5167-SO	0.045	0.24	J	J	RepLimit-J
Cadmium	A0C100403	LL5SB-057-5169-SO	0.058	0.26	J	J	RepLimit-J
Cadmium	A0C100403	LL5SB-057-5170-SO	0.064	0.24	J	J	RepLimit-J
Cadmium	A0C100403	LL5SB-058-5173-SO	0.099	0.26	J	J	RepLimit-J
Cadmium	A0C100403	LL5SB-058-5174-SO	0.062	0.25	J	J	RepLimit-J
Cadmium	A0C040514	LL5SS-067M-5049-SO	0.11	0.20	J	J	RepLimit-J
Cadmium	A0C040514	LL5SS-068M-5050-SO	0.18	0.20	J	J	RepLimit-J
Cadmium	A0C100403	LL5SS-071M-5053-SO	0.11	0.20	J	J	RepLimit-J
Cadmium	A0C100403	LL5SS-072M-5054-SO	0.12	0.20	J	J	RepLimit-J
Cadmium	A0C100403	LL5SS-072M-6053-FD	0.13	0.20	J	J	RepLimit-J
Cadmium	A0C100403	LL5SS-073M-5055-SO	0.17	0.20	J	J	RepLimit-J
Cadmium	A0C100403	LL5SS-077M-5059-SO	0.18	0.20	J	J	RepLimit-J
Calcium	A0C040514	LL5SB-052-5149-SO	3,160	265	--	J	MS-J
Calcium	A0C040514	LL5SB-052-5150-SO	26,400	242	--	J	MS-J
Calcium	A0C040514	LL5SB-052-6092-FD	4,130	258	--	J	MS-J

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Calcium	A0C040514	LL5SB-052-6093-FD	29,400	244	--	J	MS-J
Calcium	A0C040514	LL5SB-052-6094-FD	5,400	236	--	J	MS-J
Calcium	A0C040514	LL5SB-053-5153-SO	950	247	--	J	MS-J
Calcium	A0C040514	LL5SB-053-5154-SO	571	237	--	J	MS-J
Calcium	A0C100403	LL5SB-054-5157-SO	1,220	263	--	J	MS-J
Calcium	A0C100403	LL5SB-054-5158-SO	1,460	235	--	J	MS-J
Calcium	A0C040514	LL5SB-055-5161-SO	6,450	243	--	J	MS-J
Calcium	A0C040514	LL5SB-055-5162-SO	1,920	243	--	J	MS-J
Calcium	A0C100403	LL5SB-055-5164-SO	11,200	228	--	J	MS-J
Calcium	A0C040514	LL5SB-056-5166-SO	12,300	246	--	J	MS-J
Calcium	A0C100403	LL5SB-057-5169-SO	491	256	--	J	MS-J
Calcium	A0C100403	LL5SB-057-5170-SO	927	245	--	J	MS-J
Calcium	A0C100403	LL5SB-058-5173-SO	33,500	258	--	J	MS-J
Calcium	A0C100403	LL5SB-058-5174-SO	30,600	248	--	J	MS-J
Calcium	A0C100403	LL5SS-071M-5053-SO	2,070	203	--	J	MS-J
Calcium	A0C100403	LL5SS-072M-5054-SO	2,080	204	--	J	MS-J
Calcium	A0C100403	LL5SS-072M-6053-FD	1,840	204	--	J	MS-J
Calcium	A0C100403	LL5SS-073M-5055-SO	1,800	204	--	J	MS-J
Calcium	A0C100403	LL5SS-077M-5059-SO	3,360	204	--	J	MS-J
Chromium	A0C100403	LL5SB-054-5157-SO	18.7	0.66	--	J	MS-J
Chromium	A0C100403	LL5SB-054-5158-SO	18.4	0.59	--	J	MS-J
Chromium	A0C100403	LL5SB-055-5164-SO	12.2	0.57	--	J	MS-J
Chromium	A0C100403	LL5SB-057-5169-SO	13.8	0.64	--	J	MS-J
Chromium	A0C100403	LL5SB-057-5170-SO	13.4	0.61	--	J	MS-J
Chromium	A0C100403	LL5SB-058-5173-SO	18.2	0.64	--	J	MS-J
Chromium	A0C100403	LL5SB-058-5174-SO	16.9	0.62	--	J	MS-J
Chromium	A0C100403	LL5SS-059-5060-SO	9.7	0.59	--	J	MS-J
Chromium	A0C100403	LL5SS-060-5061-SO	20.3	0.62	--	J	MS-J
Chromium	A0C100403	LL5SS-061-5062-SO	16.1	0.59	--	J	MS-J
Cobalt	A0C040514	LL5SB-052-6093-FD	11.2	0.61	--	J	MS-J
Copper	A0C100403	LL5SB-054-5157-SO	10.1	0.66	--	J	ProJudge-J
Copper	A0C100403	LL5SB-054-5158-SO	21.8	0.59	--	J	ProJudge-J
Copper	A0C100403	LL5SB-055-5164-SO	18.9	0.57	--	J	ProJudge-J
Copper	A0C040514	LL5SB-056-5165-SO	15.7	0.67	--	J	ProJudge-J
Copper	A0C100403	LL5SB-057-5169-SO	11.9	0.64	--	J	ProJudge-J
Copper	A0C100403	LL5SB-057-5170-SO	15.4	0.61	--	J	ProJudge-J
Copper	A0C100403	LL5SB-058-5173-SO	19.6	0.64	--	J	ProJudge-J
Copper	A0C100403	LL5SB-058-5174-SO	18.9	0.62	--	J	ProJudge-J
Copper	A0C040514	LL5SS-062M-5044-SO	12.6	0.51	--	J	ProJudge-J
Copper	A0C040514	LL5SS-063M-5045-SO	15.9	0.51	--	J	ProJudge-J
Copper	A0C040514	LL5SS-063M-6051-FD	16.4	0.51	--	J	ProJudge-J
Copper	A0C040514	LL5SS-064M-5046-SO	22.2	0.51	--	J	ProJudge-J
Copper	A0C040514	LL5SS-065M-5047-SO	15.4	0.51	E	J	ProJudge-J
Copper	A0C040514	LL5SS-066M-5048-SO	14.4	0.51	--	J	ProJudge-J
Copper	A0C040514	LL5SS-067M-5049-SO	13.8	0.51	--	J	ProJudge-J
Copper	A0C040514	LL5SS-068M-5050-SO	13.6	0.51	--	J	ProJudge-J
Copper	A0C040514	LL5SS-069M-5051-SO	13.2	0.51	--	J	ProJudge-J
Copper	A0C040514	LL5SS-070M-5052-SO	13.7	0.51	--	J	ProJudge-J
Copper	A0C100403	LL5SS-071M-5053-SO	11.2	0.51	--	J	MS-J, ProJudge-J
Copper	A0C100403	LL5SS-072M-5054-SO	9.1	0.51	--	J	MS-J, ProJudge-J

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Copper	A0C100403	LL5SS-072M-6053-FD	10.4	0.51	--	J	MS-J, ProJudge-J
Copper	A0C100403	LL5SS-073M-5055-SO	10.4	0.51	--	J	MS-J, ProJudge-J
Copper	A0C040514	LL5SS-074M-5056-SO	13.5	0.51	--	J	ProJudge-J
Copper	A0C040514	LL5SS-075M-5057-SO	18.6	0.51	--	J	ProJudge-J
Copper	A0C040514	LL5SS-076M-5058-SO	20.0	0.51	--	J	ProJudge-J
Copper	A0C100403	LL5SS-077M-5059-SO	16.1	0.51	--	J	MS-J, ProJudge-J
Magnesium	A0C040514	LL5SB-052-5149-SO	3,980	132	--	J	MS-J
Magnesium	A0C040514	LL5SB-052-5150-SO	5,880	121	--	J	MS-J
Magnesium	A0C040514	LL5SB-052-6092-FD	3,600	129	--	J	MS-J
Magnesium	A0C040514	LL5SB-052-6093-FD	6,720	122	--	J	MS-J
Magnesium	A0C040514	LL5SB-052-6094-FD	3,750	118	--	J	MS-J
Magnesium	A0C040514	LL5SB-053-5153-SO	1,500	124	--	J	MS-J
Magnesium	A0C040514	LL5SB-053-5154-SO	1,430	118	--	J	MS-J
Magnesium	A0C100403	LL5SB-054-5157-SO	2,000	132	--	J	MS-J
Magnesium	A0C100403	LL5SB-054-5158-SO	4,550	117	--	J	MS-J
Magnesium	A0C040514	LL5SB-055-5161-SO	3,130	122	--	J	MS-J
Magnesium	A0C040514	LL5SB-055-5162-SO	4,030	122	--	J	MS-J
Magnesium	A0C100403	LL5SB-055-5164-SO	5,570	114	--	J	MS-J
Magnesium	A0C040514	LL5SB-056-5166-SO	6,570	123	--	J	MS-J
Magnesium	A0C100403	LL5SB-057-5169-SO	2,080	128	--	J	MS-J
Magnesium	A0C100403	LL5SB-057-5170-SO	2,320	122	--	J	MS-J
Magnesium	A0C100403	LL5SB-058-5173-SO	8,060	129	--	J	MS-J
Magnesium	A0C100403	LL5SB-058-5174-SO	8,060	124	--	J	MS-J
Magnesium	A0C100403	LL5SS-071M-5053-SO	2,210	102	--	J	MS-J
Magnesium	A0C100403	LL5SS-072M-5054-SO	2,040	102	--	J	MS-J
Magnesium	A0C100403	LL5SS-072M-6053-FD	2,380	102	--	J	MS-J
Magnesium	A0C100403	LL5SS-073M-5055-SO	2,110	102	--	J	MS-J
Magnesium	A0C100403	LL5SS-077M-5059-SO	3,240	102	--	J	MS-J
Mercury	A0C040514	LL5SB-052-5149-SO	0.039	0.13	J	J	MS-J, RepLimit-J
Mercury	A0C040514	LL5SB-052-5150-SO	0.019	0.12	J	J	MS-J, RepLimit-J
Mercury	A0C040514	LL5SB-052-6092-FD	0.036	0.13	J	J	MS-J, RepLimit-J
Mercury	A0C040514	LL5SB-052-6093-FD	0.12	0.12	U	UJ	MS-UJ
Mercury	A0C040514	LL5SB-052-6094-FD	0.12	0.12	U	UJ	MS-UJ
Mercury	A0C040514	LL5SB-053-5153-SO	0.018	0.12	J	J	MS-J, RepLimit-J
Mercury	A0C040514	LL5SB-053-5154-SO	0.025	0.12	J	J	MS-J, RepLimit-J
Mercury	A0C040505	LL5SB-053-5155-SO	0.025	0.12	J	J	RepLimit-J
Mercury	A0C100403	LL5SB-054-5157-SO	0.022	0.13	J	J	RepLimit-J
Mercury	A0C040514	LL5SB-055-5161-SO	0.046	0.12	J	J	MS-J, RepLimit-J
Mercury	A0C040514	LL5SB-055-5162-SO	0.049	0.12	J	J	MS-J, RepLimit-J
Mercury	A0C040505	LL5SB-055-5163-SO	0.034	0.12	J	J	RepLimit-J
Mercury	A0C040514	LL5SB-056-5165-SO	0.062	0.13	J	J	RepLimit-J
Mercury	A0C040514	LL5SB-056-5166-SO	0.026	0.12	J	J	MS-J, RepLimit-J
Mercury	A0C100403	LL5SB-057-5169-SO	0.024	0.13	J	J	RepLimit-J
Mercury	A0C100403	LL5SB-057-5170-SO	0.022	0.12	J	J	RepLimit-J
Mercury	A0C040514	LL5SS-062M-5044-SO	0.036	0.10	J	J	RepLimit-J
Mercury	A0C040514	LL5SS-063M-5045-SO	0.034	0.10	J	J	RepLimit-J
Mercury	A0C040514	LL5SS-063M-6051-FD	0.038	0.10	J	J	RepLimit-J
Mercury	A0C040514	LL5SS-064M-5046-SO	0.075	0.10	J	J	RepLimit-J
Mercury	A0C040514	LL5SS-065M-5047-SO	0.062	0.10	J	J	RepLimit-J
Mercury	A0C040514	LL5SS-067M-5049-SO	0.036	0.10	J	J	RepLimit-J

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Mercury	A0C040514	LL5SS-068M-5050-SO	0.044	0.10	J	J	RepLimit-J
Mercury	A0C040514	LL5SS-069M-5051-SO	0.039	0.10	J	J	RepLimit-J
Mercury	A0C040514	LL5SS-070M-5052-SO	0.036	0.10	J	J	RepLimit-J
Mercury	A0C100403	LL5SS-071M-5053-SO	0.036	0.10	J	J	RepLimit-J
Mercury	A0C100403	LL5SS-072M-5054-SO	0.036	0.10	J	J	RepLimit-J
Mercury	A0C100403	LL5SS-072M-6053-FD	0.025	0.10	J	J	RepLimit-J
Mercury	A0C100403	LL5SS-073M-5055-SO	0.054	0.10	J	J	RepLimit-J
Mercury	A0C040514	LL5SS-074M-5056-SO	0.045	0.10	J	J	RepLimit-J
Mercury	A0C040514	LL5SS-075M-5057-SO	0.071	0.10	J	J	RepLimit-J
Mercury	A0C040514	LL5SS-076M-5058-SO	0.043	0.10	J	J	RepLimit-J
Mercury	A0C100403	LL5SS-077M-5059-SO	0.028	0.10	J	J	RepLimit-J
Nickel	A0C040514	LL5SB-052-5149-SO	28.1	1.3	--	J	MS-J
Nickel	A0C040514	LL5SB-052-5150-SO	26.3	1.2	--	J	MS-J
Nickel	A0C040514	LL5SB-052-6092-FD	25.6	1.3	--	J	MS-J
Nickel	A0C040514	LL5SB-052-6094-FD	24.0	1.2	--	J	MS-J
Nickel	A0C040514	LL5SB-053-5153-SO	11.4	1.2	--	J	MS-J
Nickel	A0C040514	LL5SB-053-5154-SO	11.7	1.2	--	J	MS-J
Nickel	A0C100403	LL5SB-054-5157-SO	9.8	1.3	--	J	MS-J
Nickel	A0C100403	LL5SB-054-5158-SO	30.8	1.2	--	J	MS-J
Nickel	A0C040514	LL5SB-055-5161-SO	18.4	1.2	--	J	MS-J
Nickel	A0C040514	LL5SB-055-5162-SO	23.0	1.2	--	J	MS-J
Nickel	A0C100403	LL5SB-055-5164-SO	21.6	1.1	--	J	MS-J
Nickel	A0C040514	LL5SB-056-5165-SO	19.0	1.3	--	J	ProJudge-J
Nickel	A0C040514	LL5SB-056-5166-SO	31.8	1.2	--	J	MS-J
Nickel	A0C100403	LL5SB-057-5169-SO	13.0	1.3	--	J	MS-J
Nickel	A0C100403	LL5SB-057-5170-SO	16.7	1.2	--	J	MS-J
Nickel	A0C100403	LL5SB-058-5173-SO	31.4	1.3	--	J	MS-J
Nickel	A0C040514	LL5SS-062M-5044-SO	17.6	1.0	--	J	ProJudge-J
Nickel	A0C040514	LL5SS-063M-5045-SO	18.0	1.0	--	J	ProJudge-J
Nickel	A0C040514	LL5SS-063M-6051-FD	19.4	1.0	--	J	ProJudge-J
Nickel	A0C040514	LL5SS-064M-5046-SO	20.7	1.0	--	J	ProJudge-J
Nickel	A0C040514	LL5SS-065M-5047-SO	21.8	1.0	E	J	ProJudge-J
Nickel	A0C040514	LL5SS-066M-5048-SO	20.0	1.0	--	J	ProJudge-J
Nickel	A0C040514	LL5SS-067M-5049-SO	19.9	1.0	--	J	ProJudge-J
Nickel	A0C040514	LL5SS-068M-5050-SO	19.7	1.0	--	J	ProJudge-J
Nickel	A0C040514	LL5SS-069M-5051-SO	19.0	1.0	--	J	ProJudge-J
Nickel	A0C040514	LL5SS-070M-5052-SO	25.6	1.0	--	J	ProJudge-J
Nickel	A0C040514	LL5SS-074M-5056-SO	17.4	1.0	--	J	ProJudge-J
Nickel	A0C040514	LL5SS-075M-5057-SO	25.8	1.0	--	J	ProJudge-J
Nickel	A0C040514	LL5SS-076M-5058-SO	27.6	1.0	--	J	ProJudge-J
Potassium	A0C040514	LL5SB-052-5149-SO	1,250	132	--	J	MS-J
Potassium	A0C040514	LL5SB-052-5150-SO	1,610	121	--	J	MS-J
Potassium	A0C040505	LL5SB-052-5151-SO	988	117	--	J	MS-J
Potassium	A0C040514	LL5SB-052-6092-FD	1,140	129	--	J	MS-J
Potassium	A0C040514	LL5SB-052-6093-FD	1,990	122	--	J	MS-J
Potassium	A0C040514	LL5SB-052-6094-FD	938	118	--	J	MS-J
Potassium	A0C040514	LL5SB-053-5153-SO	532	124	--	J	MS-J
Potassium	A0C040514	LL5SB-053-5154-SO	413	118	--	J	MS-J
Potassium	A0C040505	LL5SB-053-5155-SO	1,410	120	--	J	MS-J
Potassium	A0C100403	LL5SB-054-5157-SO	1,110	132	--	J	MS-J

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Potassium	A0C100403	LL5SB-054-5158-SO	1,190	117	--	J	MS-J
Potassium	A0C040514	LL5SB-055-5161-SO	915	122	--	J	MS-J
Potassium	A0C040514	LL5SB-055-5162-SO	1,220	122	--	J	MS-J
Potassium	A0C040505	LL5SB-055-5163-SO	1,640	117	--	J	MS-J
Potassium	A0C100403	LL5SB-055-5164-SO	1,250	114	--	J	MS-J
Potassium	A0C040514	LL5SB-056-5166-SO	2,580	123	--	J	MS-J
Potassium	A0C040505	LL5SB-056-5167-SO	1,300	120	--	J	MS-J
Potassium	A0C100403	LL5SB-057-5169-SO	563	128	--	J	MS-J
Potassium	A0C100403	LL5SB-057-5170-SO	750	122	--	J	MS-J
Potassium	A0C100403	LL5SB-058-5173-SO	1,630	129	--	J	MS-J
Potassium	A0C100403	LL5SB-058-5174-SO	1,510	124	--	J	MS-J
Potassium	A0C100403	LL5SS-071M-5053-SO	636	102	--	J	MS-J
Potassium	A0C100403	LL5SS-072M-5054-SO	668	102	--	J	MS-J
Potassium	A0C100403	LL5SS-072M-6053-FD	1,060	102	--	J	MS-J
Potassium	A0C100403	LL5SS-073M-5055-SO	828	102	--	J	MS-J
Potassium	A0C100403	LL5SS-077M-5059-SO	1,180	102	--	J	MS-J
Selenium	A0C100403	LL5SB-054-5157-SO	0.70	0.66	--	J	LCS-J
Selenium	A0C100403	LL5SB-054-5158-SO	1.0	0.59	--	J	LCS-J
Selenium	A0C100403	LL5SB-055-5164-SO	0.71	0.57	--	J	LCS-J
Selenium	A0C040514	LL5SB-056-5165-SO	0.54	0.67	J	J	LCS-J, RepLimit-J
Selenium	A0C040514	LL5SB-056-5166-SO	1.0	0.62	--	J	LCS-J
Selenium	A0C100403	LL5SB-057-5169-SO	0.61	0.64	J	J	LCS-J, RepLimit-J
Selenium	A0C100403	LL5SB-057-5170-SO	0.70	0.61	--	J	LCS-J
Selenium	A0C100403	LL5SB-058-5173-SO	0.73	0.64	--	J	LCS-J
Selenium	A0C100403	LL5SB-058-5174-SO	0.66	0.62	--	J	LCS-J
Selenium	A0C040514	LL5SS-062M-5044-SO	0.84	0.51	--	J	LCS-J
Selenium	A0C040514	LL5SS-063M-5045-SO	0.74	0.51	--	J	LCS-J
Selenium	A0C040514	LL5SS-063M-6051-FD	0.70	0.51	--	J	LCS-J
Selenium	A0C040514	LL5SS-064M-5046-SO	0.91	0.51	--	J	LCS-J
Selenium	A0C040514	LL5SS-065M-5047-SO	0.87	0.51	--	J	LCS-J
Selenium	A0C040514	LL5SS-066M-5048-SO	0.80	0.51	--	J	LCS-J
Selenium	A0C040514	LL5SS-067M-5049-SO	0.77	0.51	--	J	LCS-J
Selenium	A0C040514	LL5SS-068M-5050-SO	0.83	0.51	--	J	LCS-J
Selenium	A0C040514	LL5SS-069M-5051-SO	0.81	0.51	--	J	LCS-J
Selenium	A0C040514	LL5SS-070M-5052-SO	0.80	0.51	--	J	LCS-J
Selenium	A0C100403	LL5SS-071M-5053-SO	0.69	0.51	--	J	LCS-J
Selenium	A0C100403	LL5SS-072M-5054-SO	0.72	0.51	--	J	LCS-J
Selenium	A0C100403	LL5SS-072M-6053-FD	0.86	0.51	--	J	LCS-J
Selenium	A0C100403	LL5SS-073M-5055-SO	0.87	0.51	--	J	LCS-J
Selenium	A0C040514	LL5SS-074M-5056-SO	0.81	0.51	--	J	LCS-J
Selenium	A0C040514	LL5SS-075M-5057-SO	0.89	0.51	--	J	LCS-J
Selenium	A0C040514	LL5SS-076M-5058-SO	0.93	0.51	--	J	LCS-J
Selenium	A0C100403	LL5SS-077M-5059-SO	0.88	0.51	--	J	LCS-J
Silver	A0C040514	LL5SB-052-5149-SO	0.019	0.66	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SB-052-5150-SO	0.012	0.61	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040505	LL5SB-052-5151-SO	0.025	0.58	J	J	RepLimit-J
Silver	A0C040514	LL5SB-052-6092-FD	0.015	0.64	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SB-052-6093-FD	0.014	0.61	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SB-052-6094-FD	0.0079	0.59	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SB-053-5153-SO	0.0061	0.62	J	UJ	RepLimit-J, CalBlk-U

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Silver	A0C040514	LL5SB-053-5154-SO	0.0059	0.59	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040505	LL5SB-053-5155-SO	0.017	0.60	J	J	RepLimit-J
Silver	A0C100403	LL5SB-054-5157-SO	0.024	0.66	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C100403	LL5SB-054-5158-SO	0.075	0.59	J	J	RepLimit-J
Silver	A0C090496	LL5SB-054-5159-SO	0.022	0.59	J	J	RepLimit-J
Silver	A0C040514	LL5SB-055-5161-SO	0.034	0.61	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SB-055-5162-SO	0.023	0.61	J	J	RepLimit-J
Silver	A0C040505	LL5SB-055-5163-SO	0.022	0.58	J	J	RepLimit-J
Silver	A0C100403	LL5SB-055-5164-SO	0.016	0.57	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SB-056-5165-SO	0.019	0.67	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SB-056-5166-SO	0.026	0.62	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040505	LL5SB-056-5167-SO	0.025	0.60	J	J	RepLimit-J
Silver	A0C100403	LL5SB-057-5169-SO	0.018	0.64	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C100403	LL5SB-057-5170-SO	0.028	0.61	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C100403	LL5SB-058-5173-SO	0.017	0.64	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C100403	LL5SB-058-5174-SO	0.019	0.62	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SS-062M-5044-SO	0.020	0.51	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SS-063M-5045-SO	0.025	0.51	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SS-063M-6051-FD	0.025	0.51	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SS-064M-5046-SO	0.028	0.51	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SS-065M-5047-SO	0.024	0.51	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SS-066M-5048-SO	0.022	0.51	J	J	RepLimit-J
Silver	A0C040514	LL5SS-067M-5049-SO	0.022	0.51	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SS-068M-5050-SO	0.039	0.51	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SS-069M-5051-SO	0.028	0.51	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SS-070M-5052-SO	0.035	0.51	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C100403	LL5SS-071M-5053-SO	0.026	0.51	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C100403	LL5SS-072M-5054-SO	0.039	0.51	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C100403	LL5SS-072M-6053-FD	0.040	0.51	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C100403	LL5SS-073M-5055-SO	0.041	0.51	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SS-074M-5056-SO	0.033	0.51	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SS-075M-5057-SO	0.021	0.51	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C040514	LL5SS-076M-5058-SO	0.014	0.51	J	UJ	RepLimit-J, CalBlk-U
Silver	A0C100403	LL5SS-077M-5059-SO	0.030	0.51	J	UJ	RepLimit-J, CalBlk-U
Sodium	A0C040514	LL5SB-052-5149-SO	50.5	132	J	J	RepLimit-J
Sodium	A0C040514	LL5SB-052-5150-SO	80.4	121	J	J	RepLimit-J
Sodium	A0C040505	LL5SB-052-5151-SO	49.5	117	J	J	RepLimit-J
Sodium	A0C040514	LL5SB-052-6092-FD	67.3	129	J	J	RepLimit-J
Sodium	A0C040514	LL5SB-052-6093-FD	91.1	122	J	J	RepLimit-J
Sodium	A0C040514	LL5SB-052-6094-FD	38.5	118	J	J	RepLimit-J
Sodium	A0C040514	LL5SB-053-5153-SO	25.6	124	J	J	RepLimit-J
Sodium	A0C040514	LL5SB-053-5154-SO	24.2	118	J	J	RepLimit-J
Sodium	A0C040505	LL5SB-053-5155-SO	60.7	120	J	J	RepLimit-J
Sodium	A0C100403	LL5SB-054-5157-SO	39.3	132	J	J	RepLimit-J
Sodium	A0C100403	LL5SB-054-5158-SO	50.9	117	J	J	RepLimit-J
Sodium	A0C090496	LL5SB-054-5159-SO	91.4	118	J	J	RepLimit-J
Sodium	A0C040514	LL5SB-055-5161-SO	44.4	122	J	J	RepLimit-J
Sodium	A0C040514	LL5SB-055-5162-SO	54.2	122	J	J	RepLimit-J
Sodium	A0C040505	LL5SB-055-5163-SO	78.6	117	J	J	RepLimit-J
Sodium	A0C100403	LL5SB-055-5164-SO	59.0	114	J	J	RepLimit-J

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Sodium	A0C040514	LL5SB-056-5165-SO	38.5	133	J	J	RepLimit-J
Sodium	A0C040514	LL5SB-056-5166-SO	94.7	123	J	J	RepLimit-J
Sodium	A0C040505	LL5SB-056-5167-SO	62.2	120	J	J	RepLimit-J
Sodium	A0C100403	LL5SB-057-5169-SO	25.4	128	J	J	RepLimit-J
Sodium	A0C100403	LL5SB-057-5170-SO	32.6	122	J	J	RepLimit-J
Sodium	A0C100403	LL5SB-058-5173-SO	77.6	129	J	J	RepLimit-J
Sodium	A0C100403	LL5SB-058-5174-SO	74.7	124	J	J	RepLimit-J
Sodium	A0C040514	LL5SS-063M-5045-SO	55.9	101	J	J	RepLimit-J
Sodium	A0C040514	LL5SS-063M-6051-FD	63.6	102	J	J	RepLimit-J
Sodium	A0C040514	LL5SS-065M-5047-SO	51.1	102	J	J	RepLimit-J
Sodium	A0C040514	LL5SS-066M-5048-SO	36.1	101	J	J	RepLimit-J
Sodium	A0C040514	LL5SS-067M-5049-SO	30.2	102	J	J	RepLimit-J
Sodium	A0C040514	LL5SS-068M-5050-SO	30.4	102	J	J	RepLimit-J
Sodium	A0C040514	LL5SS-069M-5051-SO	29.8	103	J	J	RepLimit-J
Sodium	A0C040514	LL5SS-070M-5052-SO	30.7	102	J	J	RepLimit-J
Sodium	A0C100403	LL5SS-071M-5053-SO	31.4	102	J	J	RepLimit-J
Sodium	A0C100403	LL5SS-072M-5054-SO	35.7	102	J	J	RepLimit-J
Sodium	A0C100403	LL5SS-072M-6053-FD	45.8	102	J	J	RepLimit-J
Sodium	A0C100403	LL5SS-073M-5055-SO	34.4	102	J	J	RepLimit-J
Sodium	A0C040514	LL5SS-074M-5056-SO	69.9	102	J	J	RepLimit-J
Sodium	A0C040514	LL5SS-075M-5057-SO	56.0	101	J	J	RepLimit-J
Sodium	A0C040514	LL5SS-076M-5058-SO	58.9	102	J	J	RepLimit-J
Sodium	A0C100403	LL5SS-077M-5059-SO	48.5	102	J	J	RepLimit-J
Thallium	A0C040514	LL5SB-052-5149-SO	0.17	0.26	J	J	RepLimit-J
Thallium	A0C040514	LL5SB-052-5150-SO	0.17	0.24	J	J	RepLimit-J
Thallium	A0C040505	LL5SB-052-5151-SO	0.15	0.23	J	J	RepLimit-J
Thallium	A0C040514	LL5SB-052-6092-FD	0.15	0.26	J	J	RepLimit-J
Thallium	A0C040514	LL5SB-052-6093-FD	0.20	0.24	J	J	RepLimit-J
Thallium	A0C040514	LL5SB-052-6094-FD	0.11	0.24	J	J	RepLimit-J
Thallium	A0C040514	LL5SB-053-5153-SO	0.12	0.25	J	J	RepLimit-J
Thallium	A0C040514	LL5SB-053-5154-SO	0.091	0.24	J	J	RepLimit-J
Thallium	A0C040505	LL5SB-053-5155-SO	0.19	0.24	J	J	RepLimit-J
Thallium	A0C100403	LL5SB-054-5157-SO	0.20	0.26	J	J	RepLimit-J
Thallium	A0C100403	LL5SB-054-5158-SO	0.17	0.23	J	J	RepLimit-J
Thallium	A0C090496	LL5SB-054-5159-SO	0.17	0.24	J	J	RepLimit-J
Thallium	A0C040514	LL5SB-055-5161-SO	0.17	0.24	J	J	RepLimit-J
Thallium	A0C040514	LL5SB-055-5162-SO	0.19	0.24	J	J	RepLimit-J
Thallium	A0C040505	LL5SB-055-5163-SO	0.19	0.23	J	J	RepLimit-J
Thallium	A0C100403	LL5SB-055-5164-SO	0.11	0.23	J	J	RepLimit-J
Thallium	A0C040514	LL5SB-056-5165-SO	0.19	0.27	J	J	RepLimit-J
Thallium	A0C040514	LL5SB-056-5166-SO	0.23	0.25	J	J	RepLimit-J
Thallium	A0C040505	LL5SB-056-5167-SO	0.18	0.24	J	J	RepLimit-J
Thallium	A0C100403	LL5SB-057-5169-SO	0.12	0.26	J	J	RepLimit-J
Thallium	A0C100403	LL5SB-057-5170-SO	0.17	0.24	J	J	RepLimit-J
Thallium	A0C100403	LL5SB-058-5173-SO	0.19	0.26	J	J	RepLimit-J
Thallium	A0C100403	LL5SB-058-5174-SO	0.18	0.25	J	J	RepLimit-J
Thallium	A0C040514	LL5SS-062M-5044-SO	0.13	0.20	J	J	RepLimit-J
Thallium	A0C040514	LL5SS-063M-5045-SO	0.15	0.20	J	J	RepLimit-J
Thallium	A0C040514	LL5SS-063M-6051-FD	0.14	0.20	J	J	RepLimit-J
Thallium	A0C040514	LL5SS-064M-5046-SO	0.11	0.20	J	J	RepLimit-J

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Thallium	A0C040514	LL5SS-065M-5047-SO	0.15	0.20	J	J	RepLimit-J
Thallium	A0C040514	LL5SS-066M-5048-SO	0.15	0.20	J	J	RepLimit-J
Thallium	A0C040514	LL5SS-067M-5049-SO	0.16	0.20	J	J	RepLimit-J
Thallium	A0C040514	LL5SS-068M-5050-SO	0.15	0.20	J	J	RepLimit-J
Thallium	A0C040514	LL5SS-069M-5051-SO	0.17	0.21	J	J	RepLimit-J
Thallium	A0C040514	LL5SS-070M-5052-SO	0.15	0.20	J	J	RepLimit-J
Thallium	A0C100403	LL5SS-071M-5053-SO	0.15	0.20	J	J	RepLimit-J
Thallium	A0C100403	LL5SS-072M-5054-SO	0.16	0.20	J	J	RepLimit-J
Thallium	A0C100403	LL5SS-072M-6053-FD	0.19	0.20	J	J	RepLimit-J
Thallium	A0C100403	LL5SS-073M-5055-SO	0.18	0.20	J	J	RepLimit-J
Thallium	A0C040514	LL5SS-074M-5056-SO	0.15	0.20	J	J	RepLimit-J
Thallium	A0C040514	LL5SS-075M-5057-SO	0.15	0.20	J	J	RepLimit-J
Thallium	A0C040514	LL5SS-076M-5058-SO	0.14	0.20	J	J	RepLimit-J
Thallium	A0C100403	LL5SS-077M-5059-SO	0.17	0.20	J	J	RepLimit-J
Vanadium	A0C040514	LL5SB-052-5149-SO	19.3	1.3	--	J	MS-J
Vanadium	A0C040514	LL5SB-052-5150-SO	19.5	1.2	--	J	MS-J
Vanadium	A0C040505	LL5SB-052-5151-SO	12.8	1.2	--	J	MS-J
Vanadium	A0C040514	LL5SB-052-6092-FD	17.4	1.3	--	J	MS-J
Vanadium	A0C040514	LL5SB-052-6093-FD	21.3	1.2	--	J	MS-J
Vanadium	A0C040514	LL5SB-052-6094-FD	12.5	1.2	--	J	MS-J
Vanadium	A0C040514	LL5SB-053-5153-SO	12.4	1.2	--	J	MS-J
Vanadium	A0C040514	LL5SB-053-5154-SO	10.7	1.2	--	J	MS-J
Vanadium	A0C040505	LL5SB-053-5155-SO	17.1	1.2	--	J	MS-J
Vanadium	A0C100403	LL5SB-054-5157-SO	32.4	1.3	--	J	MS-J
Vanadium	A0C100403	LL5SB-054-5158-SO	19.5	1.2	--	J	MS-J
Vanadium	A0C040514	LL5SB-055-5161-SO	21.7	1.2	--	J	MS-J
Vanadium	A0C040514	LL5SB-055-5162-SO	21.4	1.2	--	J	MS-J
Vanadium	A0C040505	LL5SB-055-5163-SO	18.3	1.2	--	J	MS-J
Vanadium	A0C100403	LL5SB-055-5164-SO	13.4	1.1	--	J	MS-J
Vanadium	A0C040514	LL5SB-056-5166-SO	27.4	1.2	--	J	MS-J
Vanadium	A0C040505	LL5SB-056-5167-SO	16.7	1.2	--	J	MS-J
Vanadium	A0C100403	LL5SB-057-5169-SO	20.9	1.3	--	J	MS-J
Vanadium	A0C100403	LL5SB-057-5170-SO	19.5	1.2	--	J	MS-J
Vanadium	A0C100403	LL5SB-058-5173-SO	20.9	1.3	--	J	MS-J
Vanadium	A0C100403	LL5SB-058-5174-SO	18.9	1.2	--	J	MS-J
Vanadium	A0C100403	LL5SS-071M-5053-SO	18.6	1.0	--	J	MS-J
Vanadium	A0C100403	LL5SS-072M-5054-SO	22.7	1.0	--	J	MS-J
Vanadium	A0C100403	LL5SS-072M-6053-FD	26.0	1.0	--	J	MS-J
Vanadium	A0C100403	LL5SS-073M-5055-SO	22.0	1.0	--	J	MS-J
Vanadium	A0C100403	LL5SS-077M-5059-SO	23.3	1.0	--	J	MS-J
Surface Water (µg/L)							
Arsenic	A0D140520	LL5SW-078-5796-SW	1.8	5.0	J	J	RepLimit-J
Cobalt	A0B190524	FWSSW-103-5012-SW	0.11	5.0	J	J	RepLimit-J
Cobalt	A0D140520	LL5SW-078-5796-SW	0.54	5.0	J	J	RepLimit-J
Copper	A0D140520	LL5SW-078-5796-SW	1.6	5.0	J	J	RepLimit-J
Lead	A0D140520	LL5SW-078-5796-SW	0.54	3.0	J	J	RepLimit-J
Nickel	A0B190524	FWSSW-103-5012-SW	0.63	10.0	J	J	RepLimit-J
Nickel	A0D140520	LL5SW-078-5796-SW	1.4	10.0	J	J	RepLimit-J
Selenium	A0B190524	FWSSW-103-5012-SW	0.22	5.0	J	J	RepLimit-J
Sodium	A0D140520	LL5SW-078-5796-SW	781	1,000	J	J	RepLimit-J

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Vanadium	A0D140520	LL5SW-078-5796-SW	0.54	10.0	J	J	RepLimit-J
Hexavalent Chromium							
Soil (mg/kg)							
Chromium, hexavalent	A0C100403	LL5SS-060-5061-SO	0.95	0.99	J	J	RepLimit-J
Explosives							
Sediment (mg/kg)							
4-Nitrotoluene	A0B190524	FWSSD-103-5013-SD	0.50	0.50	U	UJ	CCV-UJ
Soil (mg/kg)							
1,3,5-Trinitrobenzene	A0C100403	LL5SB-054-5158-SO	0.26	0.26	U	UJ	HT-UJ
1,3,5-Trinitrobenzene	A0C100403	LL5SB-057-5169-SO	0.25	0.25	U	UJ	HT-UJ
1,3,5-Trinitrobenzene	A0C100403	LL5SB-058-5174-SO	0.25	0.25	U	UJ	HT-UJ
1,3,5-Trinitrobenzene	A0C040514	LL5SS-063M-6051-FD	0.025	0.25	J PG	J	RepLimit-J
1,3,5-Trinitrobenzene	A0C100403	LL5SS-071M-5053-SO	0.25	0.25	U	UJ	HT-UJ
1,3,5-Trinitrobenzene	A0C100403	LL5SS-072M-5054-SO	0.24	0.24	U	UJ	HT-UJ
1,3,5-Trinitrobenzene	A0C100403	LL5SS-072M-6053-FD	0.25	0.25	U	UJ	HT-UJ
1,3,5-Trinitrobenzene	A0C100403	LL5SS-073M-5055-SO	0.25	0.25	U	UJ	HT-UJ
1,3,5-Trinitrobenzene	A0C100403	LL5SS-077M-5059-SO	0.24	0.24	U	UJ	HT-UJ
1,3-Dinitrobenzene	A0C100403	LL5SB-054-5158-SO	0.26	0.26	U	UJ	HT-UJ
1,3-Dinitrobenzene	A0C100403	LL5SB-057-5169-SO	0.25	0.25	U	UJ	HT-UJ
1,3-Dinitrobenzene	A0C100403	LL5SB-058-5174-SO	0.25	0.25	U	UJ	HT-UJ
1,3-Dinitrobenzene	A0C100403	LL5SS-071M-5053-SO	0.25	0.25	U	UJ	HT-UJ
1,3-Dinitrobenzene	A0C100403	LL5SS-072M-5054-SO	0.24	0.24	U	UJ	HT-UJ
1,3-Dinitrobenzene	A0C100403	LL5SS-072M-6053-FD	0.25	0.25	U	UJ	HT-UJ
1,3-Dinitrobenzene	A0C100403	LL5SS-073M-5055-SO	0.25	0.25	U	UJ	HT-UJ
1,3-Dinitrobenzene	A0C100403	LL5SS-077M-5059-SO	0.24	0.24	U	UJ	HT-UJ
2,4,6-Trinitrotoluene (TNT)	A0C100403	LL5SB-054-5158-SO	0.26	0.26	U	UJ	HT-UJ
2,4,6-Trinitrotoluene (TNT)	A0C100403	LL5SB-057-5169-SO	0.25	0.25	U	UJ	HT-UJ
2,4,6-Trinitrotoluene (TNT)	A0C100403	LL5SB-058-5174-SO	0.25	0.25	U	UJ	HT-UJ
2,4,6-Trinitrotoluene (TNT)	A0C100403	LL5SS-071M-5053-SO	0.25	0.25	U	UJ	HT-UJ
2,4,6-Trinitrotoluene (TNT)	A0C100403	LL5SS-072M-5054-SO	0.24	0.24	U	UJ	HT-UJ
2,4,6-Trinitrotoluene (TNT)	A0C100403	LL5SS-072M-6053-FD	0.25	0.25	U	UJ	HT-UJ
2,4,6-Trinitrotoluene (TNT)	A0C100403	LL5SS-073M-5055-SO	0.25	0.25	U	UJ	HT-UJ
2,4,6-Trinitrotoluene (TNT)	A0C100403	LL5SS-077M-5059-SO	0.24	0.24	U	UJ	HT-UJ
2,4-Dinitrotoluene	A0C100403	LL5SB-054-5158-SO	0.26	0.26	U	UJ	HT-UJ
2,4-Dinitrotoluene	A0C100403	LL5SB-057-5169-SO	0.25	0.25	U	UJ	HT-UJ
2,4-Dinitrotoluene	A0C100403	LL5SB-058-5174-SO	0.25	0.25	U	UJ	HT-UJ
2,4-Dinitrotoluene	A0C100403	LL5SS-071M-5053-SO	0.25	0.25	U	UJ	HT-UJ
2,4-Dinitrotoluene	A0C100403	LL5SS-072M-5054-SO	0.24	0.24	U	UJ	HT-UJ
2,4-Dinitrotoluene	A0C100403	LL5SS-072M-6053-FD	0.25	0.25	U	UJ	HT-UJ
2,4-Dinitrotoluene	A0C100403	LL5SS-073M-5055-SO	0.25	0.25	U	UJ	HT-UJ
2,4-Dinitrotoluene	A0C100403	LL5SS-077M-5059-SO	0.24	0.24	U	UJ	HT-UJ
2,6-Dinitrotoluene	A0C100403	LL5SB-054-5158-SO	0.26	0.26	U	UJ	HT-UJ
2,6-Dinitrotoluene	A0C100403	LL5SB-057-5169-SO	0.25	0.25	U	UJ	HT-UJ
2,6-Dinitrotoluene	A0C100403	LL5SB-058-5174-SO	0.25	0.25	U	UJ	HT-UJ
2,6-Dinitrotoluene	A0C100403	LL5SS-071M-5053-SO	0.25	0.25	U	UJ	HT-UJ
2,6-Dinitrotoluene	A0C100403	LL5SS-072M-5054-SO	0.24	0.24	U	UJ	HT-UJ
2,6-Dinitrotoluene	A0C100403	LL5SS-072M-6053-FD	0.25	0.25	U	UJ	HT-UJ
2,6-Dinitrotoluene	A0C100403	LL5SS-073M-5055-SO	0.25	0.25	U	UJ	HT-UJ
2,6-Dinitrotoluene	A0C100403	LL5SS-077M-5059-SO	0.24	0.24	U	UJ	HT-UJ
2-Amino-4,6-dinitrotoluene	A0C100403	LL5SB-054-5158-SO	0.26	0.26	U	UJ	HT-UJ

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
2-Amino-4,6-dinitrotoluene	A0C100403	LL5SB-057-5169-SO	0.25	0.25	U	UJ	HT-UJ
2-Amino-4,6-dinitrotoluene	A0C100403	LL5SB-058-5174-SO	0.25	0.25	U	UJ	HT-UJ
2-Amino-4,6-dinitrotoluene	A0C100403	LL5SS-071M-5053-SO	0.25	0.25	U	UJ	HT-UJ
2-Amino-4,6-dinitrotoluene	A0C100403	LL5SS-072M-5054-SO	0.24	0.24	U	UJ	HT-UJ
2-Amino-4,6-dinitrotoluene	A0C100403	LL5SS-072M-6053-FD	0.25	0.25	U	UJ	HT-UJ
2-Amino-4,6-dinitrotoluene	A0C100403	LL5SS-073M-5055-SO	0.25	0.25	U	UJ	HT-UJ
2-Amino-4,6-dinitrotoluene	A0C100403	LL5SS-077M-5059-SO	0.24	0.24	U	UJ	HT-UJ
2-Nitrotoluene	A0C100403	LL5SB-054-5158-SO	0.26	0.26	U	UJ	HT-UJ
2-Nitrotoluene	A0C100403	LL5SB-057-5169-SO	0.25	0.25	U	UJ	HT-UJ
2-Nitrotoluene	A0C100403	LL5SB-058-5174-SO	0.25	0.25	U	UJ	HT-UJ
2-Nitrotoluene	A0C100403	LL5SS-071M-5053-SO	0.25	0.25	U	UJ	HT-UJ
2-Nitrotoluene	A0C100403	LL5SS-072M-5054-SO	0.24	0.24	U	UJ	HT-UJ
2-Nitrotoluene	A0C100403	LL5SS-072M-6053-FD	0.25	0.25	U	UJ	HT-UJ
2-Nitrotoluene	A0C100403	LL5SS-073M-5055-SO	0.25	0.25	U	UJ	HT-UJ
2-Nitrotoluene	A0C100403	LL5SS-077M-5059-SO	0.24	0.24	U	UJ	HT-UJ
3-Nitrotoluene	A0C100403	LL5SB-054-5158-SO	0.26	0.26	U	UJ	HT-UJ
3-Nitrotoluene	A0C100403	LL5SB-057-5169-SO	0.25	0.25	U	UJ	HT-UJ
3-Nitrotoluene	A0C100403	LL5SB-058-5174-SO	0.25	0.25	U	UJ	HT-UJ
3-Nitrotoluene	A0C100403	LL5SS-071M-5053-SO	0.25	0.25	U	UJ	HT-UJ
3-Nitrotoluene	A0C100403	LL5SS-072M-5054-SO	0.24	0.24	U	UJ	HT-UJ
3-Nitrotoluene	A0C100403	LL5SS-072M-6053-FD	0.25	0.25	U	UJ	HT-UJ
3-Nitrotoluene	A0C100403	LL5SS-073M-5055-SO	0.25	0.25	U	UJ	HT-UJ
3-Nitrotoluene	A0C100403	LL5SS-077M-5059-SO	0.24	0.24	U	UJ	HT-UJ
4-Amino-2,6-dinitrotoluene	A0C100403	LL5SB-054-5158-SO	0.26	0.26	U	UJ	HT-UJ
4-Amino-2,6-dinitrotoluene	A0C100403	LL5SB-057-5169-SO	0.25	0.25	U	UJ	HT-UJ
4-Amino-2,6-dinitrotoluene	A0C100403	LL5SB-058-5174-SO	0.25	0.25	U	UJ	HT-UJ
4-Amino-2,6-dinitrotoluene	A0C100403	LL5SS-071M-5053-SO	0.25	0.25	U	UJ	HT-UJ
4-Amino-2,6-dinitrotoluene	A0C100403	LL5SS-072M-5054-SO	0.24	0.24	U	UJ	HT-UJ
4-Amino-2,6-dinitrotoluene	A0C100403	LL5SS-072M-6053-FD	0.25	0.25	U	UJ	HT-UJ
4-Amino-2,6-dinitrotoluene	A0C100403	LL5SS-073M-5055-SO	0.25	0.25	U	UJ	HT-UJ
4-Amino-2,6-dinitrotoluene	A0C100403	LL5SS-077M-5059-SO	0.24	0.24	U	UJ	HT-UJ
4-Nitrotoluene	A0C100403	LL5SB-054-5158-SO	0.52	0.52	U	UJ	HT-UJ
4-Nitrotoluene	A0C100403	LL5SB-057-5169-SO	0.50	0.50	U	UJ	HT-UJ
4-Nitrotoluene	A0C100403	LL5SB-058-5174-SO	0.50	0.50	U	UJ	HT-UJ
4-Nitrotoluene	A0C100403	LL5SS-071M-5053-SO	0.50	0.50	U	UJ	HT-UJ
4-Nitrotoluene	A0C100403	LL5SS-072M-5054-SO	0.48	0.48	U	UJ	HT-UJ
4-Nitrotoluene	A0C100403	LL5SS-072M-6053-FD	0.50	0.50	U	UJ	HT-UJ
4-Nitrotoluene	A0C100403	LL5SS-073M-5055-SO	0.50	0.50	U	UJ	HT-UJ
4-Nitrotoluene	A0C100403	LL5SS-077M-5059-SO	0.48	0.48	U	UJ	HT-UJ
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	A0C100403	LL5SB-054-5158-SO	0.26	0.26	U	UJ	HT-UJ
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	A0C100403	LL5SB-057-5169-SO	0.25	0.25	U	UJ	HT-UJ
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	A0C100403	LL5SB-058-5174-SO	0.25	0.25	U	UJ	HT-UJ
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	A0C100403	LL5SS-071M-5053-SO	0.25	0.25	U	UJ	HT-UJ
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	A0C100403	LL5SS-072M-5054-SO	0.24	0.24	U	UJ	HT-UJ
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	A0C100403	LL5SS-072M-6053-FD	0.25	0.25	U	UJ	HT-UJ
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	A0C100403	LL5SS-073M-5055-SO	0.25	0.25	U	UJ	HT-UJ
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	A0C100403	LL5SS-077M-5059-SO	0.24	0.24	U	UJ	HT-UJ
Methyl-2,4,6-trinitrophenylnitramine (tetryl)	A0C100403	LL5SB-054-5158-SO	0.26	0.26	U	UJ	HT-UJ
Methyl-2,4,6-trinitrophenylnitramine (tetryl)	A0C100403	LL5SB-057-5169-SO	0.25	0.25	U	UJ	HT-UJ
Methyl-2,4,6-trinitrophenylnitramine (tetryl)	A0C100403	LL5SB-058-5174-SO	0.25	0.25	U	UJ	HT-UJ

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Methyl-2,4,6-trinitrophenylnitramine (tetryl)	A0C100403	LL5SS-071M-5053-SO	0.25	0.25	U	UJ	HT-UJ
Methyl-2,4,6-trinitrophenylnitramine (tetryl)	A0C100403	LL5SS-072M-5054-SO	0.24	0.24	U	UJ	HT-UJ
Methyl-2,4,6-trinitrophenylnitramine (tetryl)	A0C100403	LL5SS-072M-6053-FD	0.25	0.25	U	UJ	HT-UJ
Methyl-2,4,6-trinitrophenylnitramine (tetryl)	A0C100403	LL5SS-073M-5055-SO	0.25	0.25	U	UJ	HT-UJ
Methyl-2,4,6-trinitrophenylnitramine (tetryl)	A0C100403	LL5SS-077M-5059-SO	0.017	0.24	J PG	J	HT-J, RepLimit-J
Nitrobenzene	A0C100403	LL5SB-054-5158-SO	0.26	0.26	U	UJ	HT-UJ
Nitrobenzene	A0C100403	LL5SB-057-5169-SO	0.25	0.25	U	UJ	HT-UJ
Nitrobenzene	A0C100403	LL5SB-058-5174-SO	0.25	0.25	U	UJ	HT-UJ
Nitrobenzene	A0C100403	LL5SS-071M-5053-SO	0.25	0.25	U	UJ	HT-UJ
Nitrobenzene	A0C100403	LL5SS-072M-5054-SO	0.24	0.24	U	UJ	HT-UJ
Nitrobenzene	A0C100403	LL5SS-072M-6053-FD	0.25	0.25	U	UJ	HT-UJ
Nitrobenzene	A0C100403	LL5SS-073M-5055-SO	0.25	0.25	U	UJ	HT-UJ
Nitrobenzene	A0C100403	LL5SS-077M-5059-SO	0.24	0.24	U	UJ	HT-UJ
Nitroglycerin	A0C100403	LL5SB-054-5158-SO	0.52	0.52	U	UJ	HT-UJ
Nitroglycerin	A0C100403	LL5SB-057-5169-SO	0.50	0.50	U	UJ	HT-UJ
Nitroglycerin	A0C100403	LL5SB-058-5174-SO	0.50	0.50	U	UJ	HT-UJ
Nitroglycerin	A0C100403	LL5SS-071M-5053-SO	0.50	0.50	U	UJ	HT-UJ
Nitroglycerin	A0C100403	LL5SS-072M-5054-SO	0.48	0.48	U	UJ	HT-UJ
Nitroglycerin	A0C100403	LL5SS-072M-6053-FD	0.50	0.50	U	UJ	HT-UJ
Nitroglycerin	A0C100403	LL5SS-073M-5055-SO	0.50	0.50	U	UJ	HT-UJ
Nitroglycerin	A0C100403	LL5SS-077M-5059-SO	0.48	0.48	U	UJ	HT-UJ
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	A0C100403	LL5SB-054-5158-SO	0.26	0.26	U	UJ	HT-UJ
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	A0C100403	LL5SB-057-5169-SO	0.25	0.25	U	UJ	HT-UJ
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	A0C100403	LL5SB-058-5174-SO	0.25	0.25	U	UJ	HT-UJ
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	A0C100403	LL5SS-071M-5053-SO	0.012	0.25	J PG	J	HT-J, RepLimit-J
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	A0C100403	LL5SS-072M-5054-SO	0.24	0.24	U	UJ	HT-UJ
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	A0C100403	LL5SS-072M-6053-FD	0.015	0.25	J PG	J	HT-J, RepLimit-J
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	A0C100403	LL5SS-073M-5055-SO	0.25	0.25	U	UJ	HT-UJ
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	A0C100403	LL5SS-077M-5059-SO	0.24	0.24	U	UJ	HT-UJ
PETN	A0C100403	LL5SB-054-5158-SO	0.52	0.52	U	UJ	HT-UJ
PETN	A0C100403	LL5SB-057-5169-SO	0.50	0.50	U	UJ	HT-UJ
PETN	A0C100403	LL5SB-058-5174-SO	0.50	0.50	U	UJ	HT-UJ
PETN	A0C100403	LL5SS-071M-5053-SO	0.50	0.50	U	UJ	HT-UJ
PETN	A0C100403	LL5SS-072M-5054-SO	0.48	0.48	U	UJ	HT-UJ
PETN	A0C100403	LL5SS-072M-6053-FD	0.50	0.50	U	UJ	HT-UJ
PETN	A0C100403	LL5SS-073M-5055-SO	0.50	0.50	U	UJ	HT-UJ
PETN	A0C100403	LL5SS-077M-5059-SO	0.48	0.48	U	UJ	HT-UJ
Surface Water (µg/L)							
1,3,5-Trinitrobenzene	A0D140520	LL5SW-078-5796-SW	0.096	0.096	U	UJ	MS-UJ
2,4,6-Trinitrotoluene (TNT)	A0D140520	LL5SW-078-5796-SW	0.14	0.14	U	UJ	MS-UJ
Methyl-2,4,6-trinitrophenylnitramine (tetryl)	A0B190524	FWSSW-103-5012-SW	0.16	0.16	U	UJ	CCV-UJ
Nitroglycerin	A0B190524	FWSSW-103-5012-SW	1.1	1.1	U	UJ	CCV-UJ
Propellants							
Soil (mg/kg)							
Nitrocellulose	A0C040514	LL5SS-069M-5051-SO	1.4	5.1	B	J	RepLimit-J
Nitrocellulose	A0C100403	LL5SS-072M-5054-SO	5.1	5.1	U	UJ	MS-UJ
Nitrocellulose	A0C040514	LL5SS-076M-5058-SO	2.1	5.1	B	J	RepLimit-J
PAHs							
Sediment (µg/kg)							
Phenanthrene	A0D140520	LL5SD-078-5797-SD	9.4	11	J	J	RepLimit-J

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Soil (µg/kg)							
Acenaphthene	A0C040514	LL5SS-065M-5047-SO	6.8	6.8	U	UJ	HT-UJ
Acenaphthylene	A0C040514	LL5SS-065M-5047-SO	6.8	6.8	U	UJ	HT-UJ
Anthracene	A0C040514	LL5SS-065M-5047-SO	6.8	6.8	U	UJ	HT-UJ
Benz(<i>a</i>)anthracene	A0C040514	LL5SS-065M-5047-SO	17	6.8	--	J	HT-J
Benzo(<i>a</i>)pyrene	A0C040514	LL5SS-065M-5047-SO	14	6.8	--	J	HT-J
Benzo(<i>b</i>)fluoranthene	A0C040514	LL5SS-065M-5047-SO	22	6.8	--	J	HT-J
Benzo(<i>ghi</i>)perylene	A0C040514	LL5SS-065M-5047-SO	10	6.8	--	J	HT-J
Benzo(<i>k</i>)fluoranthene	A0C040514	LL5SS-065M-5047-SO	9.9	6.8	--	J	HT-J
Chrysene	A0C040514	LL5SS-065M-5047-SO	19	6.8	--	J	HT-J
Fluoranthene	A0C040514	LL5SS-065M-5047-SO	34	6.8	--	J	HT-J
Fluorene	A0C040514	LL5SS-065M-5047-SO	6.8	6.8	U	UJ	HT-UJ
Indeno(1,2,3- <i>cd</i>)pyrene	A0C040514	LL5SS-065M-5047-SO	9.2	6.8	--	J	HT-J
Naphthalene	A0C040514	LL5SS-065M-5047-SO	22	6.8	--	J	HT-J
Phenanthrene	A0C040514	LL5SS-065M-5047-SO	27	6.8	--	J	HT-J
Pyrene	A0C040514	LL5SS-065M-5047-SO	25	6.8	--	J	HT-J
Dibenz(<i>ah</i>)anthracene	A0C040514	LL5SS-065M-5047-SO	6.8	6.8	U	UJ	HT-UJ
SVOCs							
Soil (µg/kg)							
1,2,4-Trichlorobenzene	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
1,2,4-Trichlorobenzene	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
1,2-Dichlorobenzene	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
1,2-Dichlorobenzene	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
1,3-Dichlorobenzene	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
1,3-Dichlorobenzene	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
1,4-Dichlorobenzene	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
1,4-Dichlorobenzene	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
2,4,5-Trichlorophenol	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
2,4,5-Trichlorophenol	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
2,4,6-Trichlorophenol	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
2,4,6-Trichlorophenol	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
2,4-Dichlorophenol	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
2,4-Dichlorophenol	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
2,4-Dimethylphenol	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
2,4-Dimethylphenol	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
2,4-Dinitrophenol	A0C040514	LL5SB-053-5154-SO	950	950	U	UJ	HT-UJ
2,4-Dinitrophenol	A0C100403	LL5SS-072M-5054-SO	820	820	U	UJ	IntStd-UJ
2,4-Dinitrotoluene	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
2,4-Dinitrotoluene	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
2,6-Dinitrotoluene	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
2,6-Dinitrotoluene	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
2-Chloronaphthalene	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
2-Chloronaphthalene	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
2-Chlorophenol	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
2-Methylnaphthalene	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
2-Methylnaphthalene	A0C040514	LL5SS-069M-5051-SO	47	680	J	J	RepLimit-J
2-Methylnaphthalene	A0C100403	LL5SS-072M-5054-SO	16	340	J	J	RepLimit-J
2-Methylnaphthalene	A0C100403	LL5SS-072M-6053-FD	17	340	J	J	RepLimit-J
2-Methylnaphthalene	A0C040514	LL5SS-076M-5058-SO	110	1,300	J	J	RepLimit-J
2-Methylphenol	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
2-Methylphenol	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
2-Nitroaniline	A0C040514	LL5SB-053-5154-SO	950	950	U	UJ	HT-UJ
2-Nitroaniline	A0C100403	LL5SS-072M-5054-SO	820	820	U	UJ	IntStd-UJ
2-Nitrophenol	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
2-Nitrophenol	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
3,3'-Dichlorobenzidine	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
3,3'-Dichlorobenzidine	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
3-Nitroaniline	A0C040514	LL5SB-053-5154-SO	950	950	U	UJ	HT-UJ
3-Nitroaniline	A0C100403	LL5SS-072M-5054-SO	820	820	U	UJ	IntStd-UJ
3-Methylphenol/4-methylphenol	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
3-Methylphenol/4-methylphenol	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
4,6-Dinitro-2-methylphenol	A0C040514	LL5SB-053-5154-SO	950	950	U	UJ	HT-UJ
4,6-Dinitro-2-methylphenol	A0C100403	LL5SS-072M-5054-SO	820	820	U	UJ	IntStd-UJ
4-Bromophenyl phenyl ether	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
4-Bromophenyl phenyl ether	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
4-Chloro-3-methylphenol	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
4-Chloro-3-methylphenol	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
4-Chloroaniline	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
4-Chloroaniline	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
4-Chlorophenyl phenyl ether	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
4-Chlorophenyl phenyl ether	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
4-Nitroaniline	A0C040514	LL5SB-053-5154-SO	950	950	U	UJ	HT-UJ
4-Nitroaniline	A0C100403	LL5SS-072M-5054-SO	820	820	U	UJ	IntStd-UJ
4-Nitrophenol	A0C040514	LL5SB-053-5154-SO	950	950	U	UJ	HT-UJ
4-Nitrophenol	A0C100403	LL5SS-072M-5054-SO	820	820	U	UJ	IntStd-UJ
Acenaphthene	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ
Acenaphthene	A0C040514	LL5SS-069M-5051-SO	18	100	J	J	RepLimit-J
Acenaphthene	A0C100403	LL5SS-072M-5054-SO	51	51	U	UJ	IntStd-UJ
Acenaphthylene	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ
Acenaphthylene	A0C100403	LL5SS-072M-5054-SO	51	51	U	UJ	IntStd-UJ
Anthracene	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ
Anthracene	A0C100403	LL5SS-072M-5054-SO	51	51	U	UJ	IntStd-UJ
Benz(a)anthracene	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ
Benz(a)anthracene	A0C100403	LL5SS-072M-5054-SO	9.8	51	J	J	RepLimit-J
Benz(a)anthracene	A0C040514	LL5SS-076M-5058-SO	46	200	J	J	RepLimit-J
Benzo(a)pyrene	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ
Benzo(a)pyrene	A0C100403	LL5SS-072M-5054-SO	8.9	51	J	J	RepLimit-J
Benzo(a)pyrene	A0C100403	LL5SS-072M-6053-FD	9.1	51	J	J	RepLimit-J
Benzo(a)pyrene	A0C040514	LL5SS-076M-5058-SO	31	200	J	J	RepLimit-J
Benzo(b)fluoranthene	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ
Benzo(b)fluoranthene	A0C100403	LL5SS-072M-5054-SO	16	51	J	J	RepLimit-J
Benzo(b)fluoranthene	A0C100403	LL5SS-072M-6053-FD	17	51	J	J	RepLimit-J
Benzo(b)fluoranthene	A0C040514	LL5SS-076M-5058-SO	48	200	J	J	RepLimit-J
Benzo(ghi)perylene	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ
Benzo(ghi)perylene	A0C100403	LL5SS-072M-5054-SO	51	51	U	UJ	IntStd-UJ
Benzo(k)fluoranthene	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ
Benzo(k)fluoranthene	A0C100403	LL5SS-072M-5054-SO	51	51	U	UJ	IntStd-UJ
Benzo(k)fluoranthene	A0C100403	LL5SS-072M-6053-FD	8.4	51	J	J	RepLimit-J
Benzoic Acid	A0C040514	LL5SB-053-5154-SO	950	950	U	UJ	HT-UJ
Benzoic Acid	A0C100403	LL5SS-072M-5054-SO	820	820	U	UJ	IntStd-UJ

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Benzenemethanol	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Benzenemethanol	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
Bis(2-chloroisopropyl) ether	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Bis(2-chloroisopropyl) ether	A0C040514	LL5SS-069M-5051-SO	680	680	U	UJ	CCV-UJ
Bis(2-chloroisopropyl) ether	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
Bis(2-chloroisopropyl) ether	A0C040514	LL5SS-076M-5058-SO	1,300	1,300	U	UJ	CCV-UJ
Butyl benzyl phthalate	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Butyl benzyl phthalate	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
Carbazole	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ, LCS-UJ
Carbazole	A0C100403	LL5SS-072M-5054-SO	51	51	U	UJ	LCS-UJ, IntStd-UJ
Carbazole	A0C100403	LL5SS-072M-6053-FD	51	51	U	UJ	LCS-UJ
Chrysene	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ
Chrysene	A0C100403	LL5SS-072M-5054-SO	12	51	J	J	RepLimit-J
Chrysene	A0C100403	LL5SS-072M-6053-FD	13	51	J	J	RepLimit-J
Chrysene	A0C040514	LL5SS-076M-5058-SO	46	200	J	J	RepLimit-J
Di-n-butyl phthalate	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Di-n-butyl phthalate	A0C100403	LL5SS-072M-5054-SO	22	340	J	J	RepLimit-J
Di-n-butyl phthalate	A0C100403	LL5SS-072M-6053-FD	22	340	J	J	RepLimit-J
Di-n-octyl phthalate	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Di-n-octyl phthalate	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
Dibenzofuran	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Dibenzofuran	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
Diethyl phthalate	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Diethyl phthalate	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
Diethyl phthalate	A0C100403	LL5SS-072M-6053-FD	18	340	J	J	RepLimit-J
Dimethyl phthalate	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Dimethyl phthalate	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
Fluoranthene	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ
Fluoranthene	A0C100403	LL5SS-072M-5054-SO	16	51	J	J	RepLimit-J
Fluoranthene	A0C100403	LL5SS-072M-6053-FD	17	51	J	J	RepLimit-J
Fluoranthene	A0C040514	LL5SS-076M-5058-SO	75	200	J	J	RepLimit-J
Fluorene	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ
Fluorene	A0C040514	LL5SS-069M-5051-SO	30	100	J	J	RepLimit-J
Fluorene	A0C100403	LL5SS-072M-5054-SO	51	51	U	UJ	IntStd-UJ
Hexachlorocyclopentadiene	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Hexachlorocyclopentadiene	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
Hexachlorobenzene	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Hexachlorobenzene	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
Hexachlorobutadiene	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Hexachlorobutadiene	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
Hexachloroethane	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Hexachloroethane	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
Indeno(1,2,3-cd)pyrene	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ
Indeno(1,2,3-cd)pyrene	A0C100403	LL5SS-072M-5054-SO	51	51	U	UJ	IntStd-UJ
Isophorone	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Isophorone	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
N-Nitrosodi-n-propylamine	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
N-Nitrosodi-n-propylamine	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
N-Nitrosodiphenylamine	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
N-Nitrosodiphenylamine	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Naphthalene	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ
Naphthalene	A0C040514	LL5SS-069M-5051-SO	35	100	J	J	RepLimit-J
Naphthalene	A0C100403	LL5SS-072M-5054-SO	15	51	J	J	RepLimit-J
Naphthalene	A0C100403	LL5SS-072M-6053-FD	16	51	J	J	RepLimit-J
Naphthalene	A0C040514	LL5SS-076M-5058-SO	76	200	J	J	RepLimit-J
Nitrobenzene	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Nitrobenzene	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
Pentachlorophenol	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Pentachlorophenol	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
Phenanthrene	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ
Phenanthrene	A0C100403	LL5SS-072M-5054-SO	13	51	J	J	RepLimit-J
Phenanthrene	A0C100403	LL5SS-072M-6053-FD	15	51	J	J	RepLimit-J
Phenanthrene	A0C040514	LL5SS-076M-5058-SO	67	200	J	J	RepLimit-J
Phenol	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Phenol	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
Pyrene	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ
Pyrene	A0C100403	LL5SS-072M-5054-SO	13	51	J	J	RepLimit-J
Pyrene	A0C100403	LL5SS-072M-6053-FD	13	51	J	J	RepLimit-J
Pyrene	A0C040514	LL5SS-076M-5058-SO	61	200	J	J	RepLimit-J
Bis(2-chloroethoxy)methane	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Bis(2-chloroethoxy)methane	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
Bis(2-chloroethyl) ether	A0C040514	LL5SB-053-5154-SO	390	390	U	UJ	HT-UJ
Bis(2-chloroethyl) ether	A0C100403	LL5SS-072M-5054-SO	340	340	U	UJ	IntStd-UJ
Bis(2-ethylhexyl) phthalate	A0C040514	LL5SB-053-5154-SO	25	390	J	J	HT-J, RepLimit-J
Bis(2-ethylhexyl) phthalate	A0C040514	LL5SS-069M-5051-SO	130	680	J	J	RepLimit-J
Bis(2-ethylhexyl) phthalate	A0C100403	LL5SS-072M-5054-SO	340	340	J B	UJ	MB-U, RepLimit-J
Bis(2-ethylhexyl) phthalate	A0C100403	LL5SS-072M-6053-FD	340	340	J B	UJ	MB-U, RepLimit-J
Bis(2-ethylhexyl) phthalate	A0C040514	LL5SS-076M-5058-SO	120	1,300	J	J	RepLimit-J
Dibenz(ah)anthracene	A0C040514	LL5SB-053-5154-SO	59	59	U	UJ	HT-UJ
Dibenz(ah)anthracene	A0C040514	LL5SS-069M-5051-SO	89	100	J	J	RepLimit-J
Dibenz(ah)anthracene	A0C100403	LL5SS-072M-5054-SO	51	51	U	UJ	IntStd-UJ
Surface Water (µg/L)							
2,4-Dinitrophenol	A0D140520	LL5SW-078-5796-SW	25	25	U	R	LCS-R
4,6-Dinitro-2-methylphenol	A0D140520	LL5SW-078-5796-SW	25	25	U	UJ	LCS-UJ
Bis(2-chloroisopropyl) ether	A0B190524	FWSSW-103-5012-SW	10	10	U	UJ	CCV-UJ
Pentachlorophenol	A0D140520	LL5SW-078-5796-SW	10	10	U	UJ	LCS-UJ
Bis(2-ethylhexyl) phthalate	A0B190524	FWSSW-103-5012-SW	10	10	J B	UJ	MB-U, RepLimit-J
Bis(2-ethylhexyl) phthalate	A0D140520	LL5SW-078-5796-SW	10	10	J B	UJ	MB-U, RepLimit-J
Pesticides							
Soil (µg/kg)							
beta-BHC	A0C100403	LL5SS-072M-5054-SO	1.8	3.6	J	J	RepLimit-J
beta-BHC	A0C100403	LL5SS-072M-6053-FD	3.9	7.1	J	J	RepLimit-J
Surface Water (µg/L)							
4,4'-DDD	A0D140520	LL5SW-078-5796-SW	0.050	0.050	U	UJ	CCV-UJ
Endrin	A0D140520	LL5SW-078-5796-SW	0.050	0.050	U	UJ	CCV-UJ
Toxaphene	A0D140520	LL5SW-078-5796-SW	2.0	2.0	U	UJ	CCV-UJ
PCBs							
Surface Water (µg/L)							
Aroclor 1016	A0D140520	LL5SW-078-5796-SW	0.50	0.50	U	UJ	Surr-UJ
Aroclor 1221	A0D140520	LL5SW-078-5796-SW	0.50	0.50	U	UJ	Surr-UJ

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Aroclor 1232	A0D140520	LL5SW-078-5796-SW	0.50	0.50	U	UJ	Surr-UJ
Aroclor 1242	A0D140520	LL5SW-078-5796-SW	0.50	0.50	U	UJ	Surr-UJ
Aroclor 1248	A0D140520	LL5SW-078-5796-SW	0.50	0.50	U	UJ	Surr-UJ
Aroclor 1254	A0D140520	LL5SW-078-5796-SW	0.50	0.50	U	UJ	Surr-UJ
Aroclor 1260	A0D140520	LL5SW-078-5796-SW	0.50	0.50	U	UJ	Surr-UJ
VOCs							
Sediment (µg/kg)							
Carbon Tetrachloride	A0B190524	FWSSD-103-5013-SD	6.1	6.1	U	UJ	CCV-UJ
Toluene	A0B190524	FWSSD-103-5013-SD	0.41	6.1	J	J	RepLimit-J
Soil (µg/kg)							
1,1,1-Trichloroethane	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
1,1,1-Trichloroethane	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
1,1,1-Trichloroethane	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
1,1,1-Trichloroethane	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
1,1,1-Trichloroethane	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
1,1,2,2-Tetrachloroethane	A0C040514	LL5SB-053-5153-SO	6.2	6.2	U	UJ	LCS-UJ
1,1,2,2-Tetrachloroethane	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ, LCS-UJ
1,1,2,2-Tetrachloroethane	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ, LCS-UJ
1,1,2,2-Tetrachloroethane	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ, LCS-UJ
1,1,2,2-Tetrachloroethane	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
1,1,2,2-Tetrachloroethane	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ, LCS-UJ
1,1,2-Trichloroethane	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
1,1,2-Trichloroethane	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
1,1,2-Trichloroethane	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
1,1,2-Trichloroethane	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
1,1,2-Trichloroethane	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
1,1-Dichloroethane	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
1,1-Dichloroethane	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
1,1-Dichloroethane	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
1,1-Dichloroethane	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
1,1-Dichloroethane	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
1,1-Dichloroethene	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
1,1-Dichloroethene	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
1,1-Dichloroethene	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
1,1-Dichloroethene	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
1,1-Dichloroethene	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
1,2-Dibromoethane (ethylene dibromide)	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
1,2-Dibromoethane (ethylene dibromide)	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
1,2-Dibromoethane (ethylene dibromide)	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
1,2-Dibromoethane (ethylene dibromide)	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
1,2-Dibromoethane (ethylene dibromide)	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
1,2-Dichloroethane	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
1,2-Dichloroethane	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
1,2-Dichloroethane	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
1,2-Dichloroethane	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
1,2-Dichloroethane	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
1,2-Dichloroethene (total)	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
1,2-Dichloroethene (total)	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
1,2-Dichloroethene (total)	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
1,2-Dichloroethene (total)	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
1,2-Dichloroethene (total)	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
1,2-Dichloropropane	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
1,2-Dichloropropane	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
1,2-Dichloropropane	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
1,2-Dichloropropane	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
1,2-Dichloropropane	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
2-Butanone (MEK)	A0C040514	LL5SB-053-5154-SO	24	24	U	UJ	Surr-UJ
2-Butanone (MEK)	A0C040505	LL5SB-053-5155-SO	24	24	U	UJ	Surr-UJ
2-Butanone (MEK)	A0C040514	LL5SS-069M-5051-SO	27	27	U	UJ	Surr-UJ
2-Butanone (MEK)	A0C100403	LL5SS-072M-6053-FD	29	29	U	UJ	Surr-UJ
2-Butanone (MEK)	A0C040514	LL5SS-076M-5058-SO	25	25	U	UJ	Surr-UJ
2-Hexanone	A0C040514	LL5SB-053-5154-SO	24	24	U	UJ	Surr-UJ
2-Hexanone	A0C040505	LL5SB-053-5155-SO	24	24	U	UJ	Surr-UJ
2-Hexanone	A0C040514	LL5SS-069M-5051-SO	27	27	U	UJ	Surr-UJ
2-Hexanone	A0C100403	LL5SS-072M-6053-FD	29	29	U	UJ	Surr-UJ
2-Hexanone	A0C040514	LL5SS-076M-5058-SO	25	25	U	UJ	Surr-UJ
4-Methyl-2-pentanone (MIBK)	A0C040514	LL5SB-053-5154-SO	24	24	U	UJ	Surr-UJ
4-Methyl-2-pentanone (MIBK)	A0C040505	LL5SB-053-5155-SO	24	24	U	UJ	Surr-UJ
4-Methyl-2-pentanone (MIBK)	A0C040514	LL5SS-069M-5051-SO	27	27	U	UJ	Surr-UJ
4-Methyl-2-pentanone (MIBK)	A0C100403	LL5SS-072M-6053-FD	29	29	U	UJ	Surr-UJ
4-Methyl-2-pentanone (MIBK)	A0C040514	LL5SS-076M-5058-SO	25	25	U	UJ	Surr-UJ
Acetone	A0C040514	LL5SB-053-5154-SO	24	24	U	UJ	Surr-UJ
Acetone	A0C040505	LL5SB-053-5155-SO	24	24	U	UJ	Surr-UJ
Acetone	A0C040514	LL5SS-069M-5051-SO	27	27	U	UJ	Surr-UJ
Acetone	A0C100403	LL5SS-072M-6053-FD	29	29	U	UJ	Surr-UJ
Acetone	A0C040514	LL5SS-076M-5058-SO	25	25	U	UJ	Surr-UJ
Benzene	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Benzene	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Benzene	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Benzene	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Benzene	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Bromochloromethane	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Bromochloromethane	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Bromochloromethane	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Bromochloromethane	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Bromochloromethane	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Bromodichloromethane	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Bromodichloromethane	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Bromodichloromethane	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Bromodichloromethane	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Bromodichloromethane	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Bromoform	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Bromoform	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Bromoform	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Bromoform	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Bromoform	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Bromomethane (methyl bromide)	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Bromomethane (methyl bromide)	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Bromomethane (methyl bromide)	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Bromomethane (methyl bromide)	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Bromomethane (methyl bromide)	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Carbon Disulfide	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Carbon Disulfide	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Carbon Disulfide	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Carbon Disulfide	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Carbon Disulfide	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Carbon Tetrachloride	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Carbon Tetrachloride	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Carbon Tetrachloride	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Carbon Tetrachloride	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Carbon Tetrachloride	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Chlorobenzene	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Chlorobenzene	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Chlorobenzene	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Chlorobenzene	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Chlorobenzene	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Chlorodibromomethane	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Chlorodibromomethane	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Chlorodibromomethane	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Chlorodibromomethane	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Chlorodibromomethane	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Chloroethane	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Chloroethane	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Chloroethane	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Chloroethane	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Chloroethane	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Chloroform	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Chloroform	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Chloroform	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Chloroform	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Chloroform	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Chloromethane	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Chloromethane	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Chloromethane	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Chloromethane	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Chloromethane	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Ethylbenzene	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Ethylbenzene	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Ethylbenzene	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Ethylbenzene	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Ethylbenzene	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Methylene Chloride	A0C040514	LL5SB-053-5153-SO	6.2	6.2	J B	UJ	MB-U, RepLimit-J
Methylene Chloride	A0C040514	LL5SB-053-5154-SO	5.9	5.9	J B	UJ	MB-U, Surr-J, RepLimit-J
Methylene Chloride	A0C040505	LL5SB-053-5155-SO	6.0	6.0	J B	UJ	MB-U, Surr-J, RepLimit-J
Methylene Chloride	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	J B	UJ	MB-U, Surr-J, RepLimit-J
Methylene Chloride	A0C100403	LL5SS-072M-5054-SO	7.0	7.0	J B	UJ	MB-U, RepLimit-J
Methylene Chloride	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	J B	UJ	MB-U, Surr-J, RepLimit-J
Methylene Chloride	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	J B	UJ	MB-U, Surr-J, RepLimit-J
Styrene	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Styrene	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Styrene	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Styrene	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Styrene	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Tetrachloroethene	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Tetrachloroethene	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Tetrachloroethene	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Tetrachloroethene	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Tetrachloroethene	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Toluene	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Toluene	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Toluene	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Toluene	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Toluene	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Trichloroethene	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Trichloroethene	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Trichloroethene	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Trichloroethene	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Trichloroethene	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Vinyl Chloride	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
Vinyl Chloride	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
Vinyl Chloride	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
Vinyl Chloride	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
Vinyl Chloride	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
Xylene (total)	A0C040514	LL5SB-053-5154-SO	12	12	U	UJ	Surr-UJ
Xylene (total)	A0C040505	LL5SB-053-5155-SO	12	12	U	UJ	Surr-UJ
Xylene (total)	A0C040514	LL5SS-069M-5051-SO	13	13	U	UJ	Surr-UJ
Xylene (total)	A0C100403	LL5SS-072M-6053-FD	15	15	U	UJ	Surr-UJ
Xylene (total)	A0C040514	LL5SS-076M-5058-SO	13	13	U	UJ	Surr-UJ
cis-1,3-Dichloropropene	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
cis-1,3-Dichloropropene	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
cis-1,3-Dichloropropene	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
cis-1,3-Dichloropropene	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
cis-1,3-Dichloropropene	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ
trans-1,3-Dichloropropene	A0C040514	LL5SB-053-5154-SO	5.9	5.9	U	UJ	Surr-UJ
trans-1,3-Dichloropropene	A0C040505	LL5SB-053-5155-SO	6.0	6.0	U	UJ	Surr-UJ
trans-1,3-Dichloropropene	A0C040514	LL5SS-069M-5051-SO	6.7	6.7	U	UJ	Surr-UJ
trans-1,3-Dichloropropene	A0C100403	LL5SS-072M-6053-FD	7.3	7.3	U	UJ	Surr-UJ
trans-1,3-Dichloropropene	A0C040514	LL5SS-076M-5058-SO	6.3	6.3	U	UJ	Surr-UJ

Table C-5. Detailed Listing of Individual Results for Samples from Load Line 5 (continued)

Chemical	Sample Delivery Group	Sample ID	Results	Reporting Limit	Laboratory Qualifier ^a	Validation Qualifier ^b	Validation Code ^c
Surface Water (µg/L)							
Acetone	A0D140520	LL5SW-078-5796-SW	10	10	J	UJ	RepLimit-J, FldQC-U
Chloroethane	A0B190524	FWSSW-103-5012-SW	1.0	1.0	U	UJ	LCS-UJ
Toluene	A0D140520	LL5SW-078-5796-SW	0.22	1.0	J	J	RepLimit-J

^a Laboratory Qualifiers: B = Analyte was detected in the associated blank as well as the sample, E = Inorganic result estimated because of the presence of interference, J = Estimated because result is between the method detection limit and the reporting limit, PG = More than 40% difference between primary and confirmation analysis, and U = Not detected.

^b Validation Qualifiers: J = Estimated, R = Rejected, U = Not detected, and UJ = Not detected and reporting limit estimated.

^c Validation Reason Codes: CalBlk = Calibration Blank, CCV = Continuing Calibration Verification, FldQC = Field Quality Control, HT = Holding Time, IntStd = Internal Standard, LCS = Laboratory Control Sample, MB = Method Blank, MS = Matrix Spike, ProJudge = Professional Judgment, RepLimit = Reporting Limit, and Surr = Surrogate Recovery.

ID = Identification.
mg/kg = Milligrams per kilogram.
PAH = Polycyclic aromatic hydrocarbon.
PCB = Polychlorinated biphenyl.
PETN = Pentaerythritol tetranitrate.
SVOC = Semi-volatile organic compound.
µg/kg = Micrograms per liter.
µg/L = Micrograms per liter.
VOC = Volatile organic compound.
-- = No data qualifier.

For the PBA08 RI, five field duplicates were analyzed for Load Line 5 soil media. Three trip blanks were collected and analyzed for this project. Two equipment rinsates and one deionized source water blank were collected for the entire field cycle. The potable water source was previously tested for use by Ohio EPA and USACE. Approval documentation is referenced under the Performance-Based Acquisition 2008 (PBA08) Sharon Conglomerate Well Installation task. The project goal for blanks is to achieve concentrations less than the reporting levels. Table C-6 summarizes analytes that were detected in these blanks. The potable water blank (SCFqc-001-0001) showed detected concentrations for 12 metals and 8 miscellaneous general chemistry analytes. Of these, barium, calcium, iron, magnesium, manganese, nickel, potassium, sodium, and the general chemistry analytes exceeded their reporting limits. As noted, the results have been previously reviewed and accepted by Ohio EPA and USACE.

Toluene was the only analyte detected in the PBA08 field blank (PBA08-QC-6000-FB) and it was well below the laboratory reporting limit. The PBA08 equipment rinsate blanks (PBA08-QC-6001-ER and PBA08-QC-6002-ER) showed detections for a total of eight metals, five SVOCs, and three VOCs. Of the metals, only manganese and nickel in one rinsate and zinc in both rinsates exceeded the reporting limit, but all except nickel were below two times the reporting limit. Only one VOC and one SVOC were detected slightly above the reporting limit. These analytes [acetone and bis(2-ethylhexyl)phthalate] are common laboratory contaminants. Additional soil samples were taken in October 2010 for the RVAAP PBA08 Load Line 5 study, and an additional rinsate blank sample (PBA08-QC-6234-ER) was taken. This sample was only analyzed for total chromium and hexavalent chromium, and both results were non-detectable concentrations. In general, the field blank and rinsate blank results indicate that the equipment decontamination procedure was effective and the potential for sample contamination due to ambient field conditions is very low.

Table C-6. Results for Analytes Detected in Field Blanks or Equipment Rinse Samples

Sample ID	CAS Number	Project Reporting Level	SCFqc-001-0001-FB	PBA08-QC-6000-FB	PBA08-QC-6001-ER	PBA08-QC-6002-ER
Date			02/06/09	02/18/10	02/18/10	04/01/10
Sample Type			Potable Water Blank	Deionized Water Blank	Equipment Rinse Blank	Equipment Rinse Blank
Analyte (mg/L)						
Metals						
Antimony	7440-36-0	0.005	0.00019 J	<0.005 U	<0.005 U	<0.005 U
Arsenic	7440-38-2	0.005	0.0012 J	<0.005 U	<0.005 U	<0.005 U
Barium	7440-39-3	0.01	0.0472	<0.01 U	<0.01 U	<0.01 U
Calcium	7440-70-2	0.1	65.6	<2 U	<2 U	<2 U
Chromium	7440-47-3	0.005	<0.005 U	<0.005 U	<0.005 U	0.0012 J
Cobalt	7440-48-4	0.005	<0.005 U	<0.005 U	<0.005 U	0.00006 J
Copper	7440-50-8	0.005	0.00057 J	<0.005 U	<0.005 U	<0.005 U
Iron	7439-89-6	0.1	0.78	<0.15 U	<0.15 U	0.0957 J
Magnesium	7439-95-4	0.1	28.3	<1 U	<1 U	<1 U
Manganese	7439-96-5	0.01	0.0919	<0.01 U	<0.01 U	0.0155
Nickel	7440-02-0	0.0002	0.00035 J	<0.01 U	<0.01 U	0.0012 J
Potassium	7440-09-7	0.2	2.86	<1 U	<1 U	<1 U
Sodium	7440-23-5	0.2	40.1	<1 U	<1 U	<1 U
Thallium	7440-28-0	0.002	0.00036 J	<0.002 U	<0.002 U	<0.002 U
Vanadium	7440-62-2	0.01	<0.01 U	<0.01 U	0.00053 J	<0.01 U
Zinc	7440-66-6	0.01	<0.0049 UJ	<0.04 U	0.0104 J	0.0104 J
Semi-volatile Organic Compounds						
Benzenemethanol	100-51-6	0.01	<0.01 U	<0.01 U	<0.01 U	0.00078 J
Bis(2-ethylhexyl)phthalate	117-81-7	0.01	<0.01 U	<0.01 UJ	<0.01 UJ	0.014
Di-n-butyl phthalate	84-74-2	0.01	<0.01 U	<0.01 U	<0.01 U	0.00068 J

Table C-6. Results for Analytes Detected in Field Blanks or Equipment Rinsate Samples (continued)

Sample ID	CAS Number	Project Reporting Level	SCFqc-001-0001-FB	PBA08-QC-6000-FB	PBA08-QC-6001-ER	PBA08-QC-6002-ER
Date			02/06/09	02/18/10	02/18/10	04/01/10
Sample Type			Potable Water Blank	Deionized Water Blank	Equipment Rinse Blank	Equipment Rinse Blank
Analyte (mg/L)						
Volatile Organic Compounds						
2-Butanone	78-93-3	0.01	<0.01 U	<0.01 U	0.00072 J	<0.01 U
Acetone	67-64-1	0.01	<0.01 U	<0.01 U	0.004 J	0.017
Toluene	108-88-3	0.001	<0.001 U	0.00053 J	0.00042 J	0.00034 J
Miscellaneous						
Alkalinity	NA	1.0	250 J	NA	NA	NA
Bicarbonate	71-52-3	1.0	250 J	NA	NA	NA
Bromide	24959-67-9	0.2	0.3	NA	NA	NA
Chloride	16887-00-6	0.2	85.9	NA	NA	NA
Fluoride	16984-48-8	0.1	0.1	NA	NA	NA
Orthophosphate	14265-44-2	0.1	0.2	NA	NA	NA
Phosphorous, Total	NA	0.1	0.11	NA	NA	NA
Sulfate	14808-79-8	1.0	51.6	NA	NA	NA

Explosives, propellants, pesticides, and polychlorinated biphenyls were analyzed for and not detected.

Sample Type: FB = Source Water Blank and ER = Equipment Rinse Blank.

Data Qualifiers: J = Estimated, U = Not detected, and UJ = Not detected and reporting limit estimated.

CAS = Chemical Abstract Service.

ID = Identification.

mg/L = Milligrams per liter.

NA = Not applicable.

C.4 DATA QUALITY EVALUATION

C.4.1 Metals Analysis

C.4.1.1 Sediment and Soil

Analytical holding times were met for all samples. Initial and continuing calibration criteria were achieved for all elements analyzed. Method blanks for sediment and soil were acceptable and did not impact the data. Instrument blank contamination resulted in the qualification of 36 soil data points (3.8% of metals soil data) as not detected below the reporting levels “UJ.” Sediment and soil LCS recovery deviations caused various analyte results for one sediment data point (2.2% of metals sediment data) and 27 soil data points (2.8% of metals soil data) to be qualified as estimated “J.” Due to MS/matrix spike duplicate (MSD) recoveries being outside control limit criteria for several analytes, seven data points in sediment (15.4% of metals sediment data) and 180 data points in soil (19.4% of metals soil data) were qualified as estimated “J” or estimated non-detectable concentration “UJ.” Due to very low MS recoveries, four soil data points for antimony (0.42% of metals soil data) were rejected “R.” Based on professional judgment (serial dilution or laboratory duplicate deviations), one sediment data point (2.2% of metals sediment data) and 90 soil data points (9.5% of metals soil data) were qualified as estimated “J.” Reporting levels are considered to be acceptable relative to QAPP goals. Eighteen metals soil samples required dilution to bring aluminum, calcium, and/or manganese concentrations within the calibration range of the instrument. No sediment samples required dilution. Although some analyses were qualified as estimated, the deviations observed should not have a primary influence on the results, and the values are considered technically sound and defensible. Rejected data were relegated to four non-detectable concentration antimony results in soil. Complete data summary tables, with associated qualifiers, are provided in Appendix D of the RI Report and can be found in the RVAAP Environmental Information Management System (REIMS).

C.4.1.2 Surface Water

Analytical holding times were met for all samples. Initial and continuing calibration criteria were achieved for all elements analyzed. Method and instrument blanks were acceptable and had no impact on the sample data. MS recoveries were within criteria. Serial dilution and duplicate comparisons were acceptable within the data set. LCS determinations were acceptable. Reporting levels are considered consistent with QAPP goals. Some data were qualified as estimated due to analyte results detected between the detection levels and reporting levels. No dilution was required. No data were rejected. Although some analyses were qualified as estimated, the deviations observed should not have a primary influence on the results, and the values are considered technically sound and defensible. Complete data summary tables, with associated qualifiers, are provided in Appendix D of the RI Report and can be found in REIMS.

C.4.2 Volatile Organic Analysis

C.4.2.1 Sediment and Soil

Analytical holding times were met for all samples. Initial calibrations for sediment and soil and continuing calibration criteria for soil were achieved for all analyses. However, due to a less than -20% continuing calibration percent difference (%D) value, one sediment data point (2.9% of VOC sediment data) was qualified as estimated non-detectable concentration "UJ." Surrogate recovery criteria were acceptable for all sediment analyses; however, low surrogate recoveries did result in 175 soil data points (71.6% of VOC soil data) being qualified as estimated non-detectable concentrations "UJ." Internal standard area and compound retention times were acceptable throughout the sample analyses. Method blanks contained low levels of various common laboratory contaminants, which caused seven soil data points to be qualified as not detected "U," as required in the associated samples. Sediment method blanks were non-detectable concentration for all targeted analytes and had no impact on the data. LCS recoveries for sediment were within criteria; however, low LCS recoveries did result in five soil data points (2.0% of VOC soil data) being qualified as estimated non-detectable concentrations "UJ." MS/MSD recoveries and relative percent difference (RPD) values were acceptable. No sediment or soil samples required dilutions. No data were rejected for any reason. Although some analyses were qualified as estimated, the deviations observed should not have a primary influence on the results, and the values are considered technically sound and defensible. Complete data summary tables, with associated qualifiers, are provided in Appendix D of the RI Report and can be found in REIMS.

C.4.2.2 Surface Water

Analytical holding times were met for all samples. All surrogate recoveries and internal standard areas and retention times were acceptable. Initial and continuing calibration criteria were met for all target analytes. Method blanks were free of contamination and had no impact on the sample data. Associated trip blanks contained acetone and methylene chloride below the reporting levels, which caused acetone in one sample (1.4% of VOC water data) to be qualified as not detected below the reporting level "UJ." MS/MSD recoveries and RPDs were acceptable. LCS criteria were acceptable for most analytes; however, low LCS recovery did result in one data point (1.4% of VOC water data) being qualified as estimated non-detectable concentration "UJ." No dilution was required. No data were rejected for any reason. Although some analyses were flagged as estimated, the deviations observed should not have a primary influence on the results, and the values are considered technically sound and defensible. Complete data summary tables, with associated qualifiers, are provided in Appendix D of the RI Report and can be found in REIMS.

C.4.3 Semi-volatile Organic Analysis

C.4.3.1 Sediment and Soil

Analytical holding times were met for all sediment samples. Due to difficult sample matrices, a few soil samples were re-extracted outside holding time criteria, thus causing 82 data points (8.2% of soil

data) to be qualified as estimated “J” or estimated non-detectable concentration “UJ.” Surrogate recovery criteria were acceptable. Low internal standard area counts resulted in 54 soil data points (5.4% of soil data) being qualified as estimated non-detectable concentrations “UJ.” Internal standard area counts and compound retention times were acceptable for all other sediment and soil data analyses. Initial calibration criteria were met for all compounds. All sediment continuing calibration criteria were acceptable; however, due to less than -20%D values, two soil data points (0.20% of soil data) were qualified as estimated non-detectable concentration “UJ.” Sediment method blanks were free of contamination; however, soil blanks contained low level phthalate contamination, which caused two data points (0.20% of SVOC soil data) to be qualified as not detected “UJ.” LCS recoveries for sediment were within criteria; however, low soil LCS recoveries resulted in three soil data points (0.30% of soil data) being qualified as estimated non-detectable concentration “UJ.” MS/MSD recoveries and RPD values were acceptable. No sediment samples required dilution. Due to elevated target levels or matrix difficulties, seven soil samples required dilution. The quantitation levels for nine results from five diluted samples were slightly above facility-wide cleanup goals (FWCUGs); however, the MDLs remained below. Concentrations detected between the MDL and reporting limit would have been reported by the laboratory as estimated values. Data are considered acceptable for its intended use. No sediment or soil data were rejected for any reason. Although several SVOC and polycyclic aromatic hydrocarbon (PAH) analyses were qualified as estimated, the deviations observed should not have a primary influence on the results, and the values are considered technically sound and defensible. Complete data summary tables, with associated qualifiers, are provided in Appendix D of the RI Report and can be found in REIMS.

C.4.3.2 Surface Water

Analytical holding times were met for all surface water samples. Surrogate recoveries and internal standard areas/retention times were acceptable. Initial calibration criteria were met for all analytes; however, due to continuing calibration %D deviation, one data point (0.76% of water data) was qualified as estimated non-detectable concentration “UJ.” As a result of the method blank level, two SVOC data points (1.5% of water data) were qualified as not detected below the reporting limit “UJ.” Due to low LCS recoveries, two data points (1.5% of water data) were qualified as estimated non-detectable concentration “UJ” and, due to very low recovery, one data point for non-detectable concentration 2,4-dinitrophenol in LL5SW-078-5796-SW (0.76% of water data) was rejected “R.” Associated batch MS/MSD recoveries and RPD values were acceptable for analytes. No surface water samples required dilution. Although some analyses were qualified as estimated, the deviations observed should not have a primary influence on the results, and the values are considered technically sound and defensible. Complete data summary tables, with associated qualifiers, are provided in Appendix D of the RI Report and can be found in REIMS.

C.4.4 Pesticide Analysis

C.4.4.1 Sediment and Soil

Analytical holding times were met for all samples. Surrogate recoveries were within acceptance criteria for all sediment and soil samples. Initial and continuing calibrations were acceptable for all

pesticide compounds in sediment and soil. Sediment and soil method blanks were free of contamination and had no impact on the sample data. All sediment and soil LCS recoveries were within acceptance criteria. MS/MSD criteria were acceptable. Three pesticide soil samples required dilutions. Although quantitation levels were elevated, they remained below FWCUGs, and all data were considered usable for their intended purpose. No sediment samples required dilution. No pesticide sediment or soil data were rejected for any reason. Although some analyses were qualified as estimated because values were between the detection levels and reporting levels, the deviations observed should not have a primary influence on the results, and the values are considered technically sound and defensible. Complete data summary tables, with associated qualifiers, are provided in Appendix D of the RI Report and can be found in REIMS.

C.4.4.2 Surface Water

Analytical holding times were met for all samples. Initial calibration criteria were met for all analytes. Due to greater than 20%D continuing calibration values, three data points (7.1% of pesticides water data) were qualified as estimated non-detectable concentration "UJ." All pesticides method blanks were free of contamination and had no impact on the data. Surrogate and LCS recoveries were within criteria. MS/MSD recoveries and RPD were acceptable. No pesticide surface water samples required dilution. Although some data were qualified as estimated, the deviations should not have a primary influence on the results, and the values are considered technically sound and defensible. No data were rejected for any reason. Complete data summary tables, with associated qualifiers, are provided in Appendix D of the RI Report and can be found in REIMS.

C.4.5 Polychlorinated Biphenyl Analysis

C.4.5.1 Sediment and Soil

Analytical holding times were met for all samples. Surrogate recoveries were within acceptance criteria. Initial and continuing calibration criteria were met for all PCB compounds. All PCB method blanks were free of contamination and had no impact on the sample data. LCS recoveries were within acceptance criteria. MS/MSD recoveries and RPD values were acceptable. No PCB samples required dilution. No PCB sediment or soil data were rejected for any reason. All PCB values are considered technically sound and defensible. Complete data summary tables, with associated qualifiers, are provided in Appendix D of the RI Report and can be found in REIMS.

C.4.5.2 Surface Water

Analytical holding times were met for all samples. All PCB initial and continuing calibration criteria were met for all analytes. PCB method blanks were free of contamination and had no impact on the data. Due to low surrogate recovery, seven data points (50% of PCB water data) were qualified as estimated non-detectable concentrations "UJ." LCS recoveries were within criteria. MS/MSD recoveries and RPD values were acceptable. No PCB water samples required dilution. No data were rejected for any reason. All values are considered technically sound and defensible. Complete data

summary tables, with associated qualifiers, are provided in Appendix D of the RI Report and can be found in REIMS.

C.4.6 Explosives and Nitroglycerin Analysis

C.4.6.1 Sediment and Soil

Analytical holding times were met for all sediment samples; however, due to matrix problems, eight soil samples were re-extracted outside holding time criteria, which resulted in 128 explosives data points (19.5% of explosives soil data) being qualified as estimated “J” or estimated non-detectable concentration “UJ.” Surrogate recoveries were within acceptance criteria. Initial calibration criteria were acceptable; however, due to a greater than 20% continuing calibration %D value, one sediment data point (3.1% of explosives sediment data) was qualified as estimated non-detectable concentration “UJ.” All sediment and soil method blanks were free of contamination and had no impact on the sample data. LCS recoveries were within criteria. MS/MSD recoveries and RPD values were acceptable. No explosives sediment or soil samples required dilution. No data were rejected for any reason. Although some analyses were qualified as estimated, the deviations observed should not have a primary influence on the results, and the values are considered technically sound and defensible. Complete data summary tables, with associated qualifiers, are provided in Appendix D of the RI Report and can be found in REIMS.

C.4.6.2 Surface Water

Analytical holding times were met for all samples. Initial calibration criteria were acceptable for all analytes; however, due to a greater than 20% continuing calibration %D value, two data points (6.3% of explosives water data) were qualified as estimated non-detectable concentration “UJ.” All method blanks were free of contamination and had no impact on the sample data. Surrogate recoveries were acceptable throughout the data set. LCS recoveries were acceptable. Due to MS/MSD recovery deviations, two data points (6.3% of explosives water data) were qualified as estimated non-detectable concentrations “UJ.” No explosives surface water samples required dilution. No data were rejected for any reason. Although some analyses were qualified as estimated, the deviations observed should not have a primary influence on the results, and the data are considered technically sound and defensible. Complete data summary tables, with associated qualifiers, are provided in Appendix D of the RI Report and can be found in REIMS.

C.4.7 Nitroguanidine, Nitrocellulose, Nitrate, and Hexavalent Chromium Analysis

C.4.7.1 Sediment and Soil

Analytical holding times were met for all samples. Initial and continuing calibration criteria were met for all compounds. Method blanks were acceptable and did not impact the data. LCS recoveries were within criteria. MS recovery deviation resulted in the qualification of one soil data point for nitrocellulose (7.1% of propellant soil data) as estimated non-detectable concentration “UJ.” All other MS/MSD recoveries and RPD values were acceptable for all applicable analytes. No sediment or soil

dilutions were required. No data were rejected for any reason. Although some analyses were qualified as estimated, the deviations observed should not have a primary influence on the results, and the values are considered technically sound and defensible. Complete data summary tables, with associated qualifiers, are provided in Appendix D of the RI Report and can be found in REIMS.

C.4.7.2 Surface Water

Analytical holding times were met for all samples. Initial and continuing calibration criteria were met for all analytes. Method blanks were free of contamination and had no impact on the sample data. LCS recoveries were within acceptance criteria. MS determinations were within criteria. No dilutions were required for any samples. No data were estimated or rejected. All values are considered technically sound and defensible. Complete data summary tables, with associated qualifiers, are provided in Appendix D of the RI Report and can be found in REIMS.

C.4.8 Precision

Field duplicate samples were collected to ascertain the contribution to variability (i.e., precision) due to the combination of environmental media, sampling consistency, and analytical precision. Field duplicate samples were collected from the same spatial and temporal conditions as the primary environmental sample. Soil samples were collected after homogenization for all analytes except VOCs.

Field duplicate comparison information is presented in Table C-7. If a given analyte was not detected in the regular and field duplicate sample, precision was considered acceptable and results were not included in the table. RPD was calculated only when both samples were greater than five times the reporting level. When one or both sample values were between the reporting level and five times the reporting level, the absolute difference was evaluated. Tables 3-1 and 3-2 of the FWQAPP set the RPD criteria at 50% for soil and sediment and at 30% for water, while the absolute difference is set at one times the reporting limit for all matrices. In general, most field duplicate comparisons for Load Line 5 are considered good, with all results below an absolute difference of 1 or an RPD of 50% with the exception of 17 of 148 comparisons outside the specified field duplicate criteria. Cadmium and manganese comparisons were slightly outside criteria for soil duplicate pairs LL5SS-063M-5045-SO/LL5SS-063M-6051-FD and LL5SB-052-5150-SO/LL5SB-052-6093-FD, respectively.

Additionally, 15 PAH analytes exceeded either absolute difference or RPD criteria in soil duplicate pair LL5SS-063M-5045-SO/LL5SS-063M-6051-FD. The highest deviations observed were for phenanthrene at 21% absolute difference and benz(a)anthracene, chrysene, fluoranthene, and pyrene, which all exhibited RPD values of 160%.

Table C-7. Field Duplicate Pair Comparisons for Analytes in Samples from Load Line 5

Sample ID	Chemical	Regular Result	Duplicate Result	RPD % or (Absolute Difference) ^a	Test ^b
Metals					
Soil (mg/kg)					
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Aluminum	12,500	11,000	13%	RPD
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Antimony	0.083 J	0.082 J	(0.00)	D
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Arsenic	12.5	12	4%	RPD
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Barium	76.7	68.7	11%	RPD
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Beryllium	0.64	0.55	(0.69)	D
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Cadmium	0.26	0.25 J	(0.04)	D
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Calcium	3,160 J	4,130 J	27%	RPD
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Chromium	17.1	15.7	9%	RPD
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Cobalt	11.4	10.7	6%	RPD
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Copper	20.6	19.2	7%	RPD
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Iron	27,200	25,500	7%	RPD
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Lead	13.9	13.4	4%	RPD
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Magnesium	3,980 J	3,600 J	10%	RPD
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Manganese	505	337	40%	RPD
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Mercury	0.039 J	0.036 J	(0.02)	D
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Nickel	28.1 J	25.6 J	9%	RPD
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Potassium	1,250 J	1,140 J	9%	RPD
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Selenium	0.92	0.87	(0.08)	D
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Sodium	50.5 J	67.3 J	(0.13)	D
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Thallium	0.17 J	0.15 J	(0.08)	D
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Vanadium	19.3 J	17.4 J	10%	RPD
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Zinc	72.3	72.1	0%	RPD
PAHs					
Soil (mg/kg)					
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Benz(a)anthracene	0.016	0.019	(0.34)	D
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Benzo(a)pyrene	0.017	0.019	(0.23)	D
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Benzo(b)fluoranthene	0.037	0.036	(0.11)	D

Table C-7. Field Duplicate Pair Comparisons for Analytes in Samples from Load Line 5 (continued)

Sample ID	Chemical	Regular Result	Duplicate Result	RPD % or (Absolute Difference) ^a	Test ^b
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Benzo(<i>ghi</i>)perylene	0.014	0.013	(0.11)	D
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Benzo(<i>k</i>)fluoranthene	0.0091	0.014	(0.56)	D
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Chrysene	0.019	0.022	(0.34)	D
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Fluoranthene	0.035	0.04	(0.57)	D
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Indeno(1,2,3- <i>cd</i>)pyrene	0.011	0.012	(0.11)	D
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Phenanthrene	0.015	0.018	(0.34)	D
LL5SB-052-5149-SO/ LL5SB-052-6092-FD	Pyrene	0.029	0.033	(0.46)	D
Metals					
Soil (mg/kg)					
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Aluminum	12,200	13,300	9%	RPD
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Arsenic	12.4	10.5	17%	RPD
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Barium	67	72.5	8%	RPD
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Beryllium	0.57	0.63	(0.50)	D
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Cadmium	0.076 J	0.061 J	(0.06)	D
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Calcium	26,400 J	29,400 J	11%	RPD
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Chromium	18.6	18.7	1%	RPD
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Cobalt	11	11.2 J	2%	RPD
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Copper	18.8	19.7	5%	RPD
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Iron	25,600	25,900	1%	RPD
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Lead	11.2	10.4	7%	RPD
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Magnesium	5,880 J	6,720 J	13%	RPD
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Manganese	400	683	52%	RPD*
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Mercury	0.019 J	0.12 UJ	(0.84)	D
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Nickel	26.3 J	29.9	13%	RPD
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Potassium	1,610 J	1,990 J	21%	RPD
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Selenium	0.79	0.87	(0.13)	D
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Sodium	80.4 J	91.1 J	(0.09)	D
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Thallium	0.17 J	0.2 J	(0.13)	D
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Vanadium	19.5 J	21.3 J	9%	RPD
LL5SB-052-5150-SO/ LL5SB-052-6093-FD	Zinc	55.5	54.3	2%	RPD
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Aluminum	7,380	8,040	9%	RPD
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Arsenic	15.1	14.3	5%	RPD
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Barium	36.1	37.1	3%	RPD
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Beryllium	0.41	0.39	(0.17)	D
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Cadmium	0.051 J	0.049 J	(0.01)	D

Table C-7. Field Duplicate Pair Comparisons for Analytes in Samples from Load Line 5 (continued)

Sample ID	Chemical	Regular Result	Duplicate Result	RPD % or (Absolute Difference)^a	Test^b
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Calcium	6,830	5,400 J	23%	RPD
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Chromium	12.3	11.6	6%	RPD
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Cobalt	9.6	9.7	1%	RPD
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Copper	17.8	17.5	2%	RPD
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Iron	25,100	24,300	3%	RPD
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Lead	10.8	9.7	11%	RPD
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Magnesium	3,680	3,750 J	2%	RPD
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Manganese	345	404	16%	RPD
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Nickel	22	24 J	9%	RPD
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Potassium	988 J	938 J	5%	RPD
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Selenium	0.76	0.7	(0.10)	D
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Silver	0.025 J	0.0079 UJ	(0.03)	D
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Sodium	49.5 J	38.5 J	(0.09)	D
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Thallium	0.15 J	0.11 J	(0.17)	D
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Vanadium	12.8 J	12.5 J	2%	RPD
LL5SB-052-5151-SO/ LL5SB-052-6094-FD	Zinc	51.9	53.4	3%	RPD
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Aluminum	11,800 J	11,800 J	0%	RPD
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Antimony	0.11 J	0.086 J	(0.05)	D
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Arsenic	10.3	10.5	2%	RPD
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Barium	64.5	72.7	12%	RPD
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Beryllium	0.53	0.58	9%	RPD
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Cadmium	0.26	0.49	(1.20)	D *
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Calcium	7,520	10,700	35%	RPD
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Chromium	21.6	24.3	12%	RPD
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Cobalt	6.5	7.1	9%	RPD
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Copper	15.9 J	16.4 J	3%	RPD
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Iron	23,700	23,800	0%	RPD
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Lead	17.9	18.7	4%	RPD
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Magnesium	2,670	2,890	8%	RPD
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Manganese	384	519	30%	RPD
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Mercury	0.034 J	0.038 J	(0.04)	D
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Nickel	18 J	19.4 J	8%	RPD
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Potassium	892	879	2%	RPD
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Selenium	0.74 J	0.7 J	(0.08)	D
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Sodium	55.9 J	63.6 J	(0.08)	D

Table C-7. Field Duplicate Pair Comparisons for Analytes in Samples from Load Line 5 (continued)

Sample ID	Chemical	Regular Result	Duplicate Result	RPD % or (Absolute Difference) ^a	Test ^b
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Thallium	0.15 J	0.14 J	(0.05)	D
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Vanadium	18.5	18.3	1%	RPD
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Zinc	49	51.5	5%	RPD
Explosives					
Soil (mg/kg)					
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	1,3,5-Trinitrobenzene	0.25 U	0.025 J	(0.90)	D
PAHs					
Soil (mg/kg)					
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Acenaphthene	0.0068 U	0.035	(1.70)	D *
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Anthracene	0.0092	0.13	(7.10)	D *
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Benz(a)anthracene	0.046	0.38	160%	RPD*
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Benzo(a)pyrene	0.041	0.25	140%	RPD*
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Benzo(b)fluoranthene	0.062	0.35	140%	RPD*
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Benzo(ghi)perylene	0.022	0.13	(6.40)	D *
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Benzo(k)fluoranthene	0.029	0.15	(7.20)	D *
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Chrysene	0.049	0.4	160%	RPD*
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Fluoranthene	0.094	0.86	160%	RPD*
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Fluorene	0.0068 U	0.034	(1.60)	D *
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Indeno(1,2,3-cd)pyrene	0.019	0.13	(6.60)	D *
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Naphthalene	0.012	0.027 U	(0.89)	D *
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Phenanthrene	0.03	0.38	(21.0)	D *
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Pyrene	0.074	0.65	160%	RPD*
LL5SS-063M-5045-SO/ LL5SS-063M-6051-FD	Dibenz(ah)anthracene	0.0068 U	0.044	(2.20)	D *
Metals					
Soil (mg/kg)					
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Aluminum	10,300 J	12,900 J	22%	RPD
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Antimony	0.14 J	0.15 J	(0.02)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Arsenic	9.6 J	10.1 J	5%	RPD
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Barium	69.7	83.4	18%	RPD
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Beryllium	0.54 J	0.65 J	18%	RPD
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Cadmium	0.12 J	0.13 J	(0.05)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Calcium	2,080 J	1,840 J	12%	RPD
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Chromium	21.9	24	9%	RPD
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Cobalt	8.8	9.5	8%	RPD
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Copper	9.1 J	10.4 J	13%	RPD

Table C-7. Field Duplicate Pair Comparisons for Analytes in Samples from Load Line 5 (continued)

Sample ID	Chemical	Regular Result	Duplicate Result	RPD % or (Absolute Difference) ^a	Test ^b
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Iron	22,400	23,000	3%	RPD
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Lead	16.2	17.1	5%	RPD
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Magnesium	2,040 J	2,380 J	15%	RPD
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Manganese	995	1,280	25%	RPD
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Mercury	0.036 J	0.025 J	(0.11)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Nickel	15.1	16.6	10%	RPD
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Potassium	668 J	1,060 J	45%	RPD
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Selenium	0.72 J	0.86 J	(0.27)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Sodium	35.7 J	45.8 J	(0.10)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Thallium	0.16 J	0.19 J	(0.15)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Vanadium	22.7 J	26 J	14%	RPD
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Zinc	40.3	50.6	23%	RPD
Explosives					
Soil (mg/kg)					
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.24 UJ	0.015 J	(0.92)	D
SVOCs					
Soil (mg/kg)					
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	2-Methylnaphthalene	0.016 J	0.017 J	(0.00)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Benz(a)anthracene	0.0098 J	0.051 U	(0.81)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Benzo(a)pyrene	0.0089 J	0.0091 J	(0.00)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Benzo(b)fluoranthene	0.016 J	0.017 J	(0.02)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Benzo(k)fluoranthene	0.051 UJ	0.0084 J	(0.84)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Chrysene	0.012 J	0.013 J	(0.02)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Di-n-butyl phthalate	0.022 J	0.022 J	(0.00)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Diethyl phthalate	0.34 UJ	0.018 J	(0.95)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Fluoranthene	0.016 J	0.017 J	(0.02)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Naphthalene	0.015 J	0.016 J	(0.02)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Phenanthrene	0.013 J	0.015 J	(0.04)	D
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	Pyrene	0.013 J	0.013 J	(0.00)	D

Table C-7. Field Duplicate Pair Comparisons for Analytes in Samples from Load Line 5 (continued)

Sample ID	Chemical	Regular Result	Duplicate Result	RPD % or (Absolute Difference) ^a	Test ^b
<i>Pesticides</i>					
<i>Soil (mg/kg)</i>					
LL5SS-072M-5054-SO/ LL5SS-072M-6053-FD	beta-BHC	0.0018 J	0.0039 J	(0.39)	D

^a RPD is calculated as $100 \times |R-D|/(R+D)/2$, where R is the concentration of the regular sample and D is the concentration of the duplicate. The absolute difference is calculated as $|R-D|/L$, where L is the average reporting limit of the two samples. Values followed by a “%” are RPD values. Values in parentheses are absolute difference values.

^b The test used to evaluate the duplicate comparison is the RPD if both sample results were more than 5x the reporting limit or the absolute difference if any result was less than five times the reporting limit.

*RPD or D outside criteria.

BHC = Beta-hexachlorocyclohexane.

D = Absolute difference.

Mg/kg = Milligrams per kilogram.

PAH = Polycyclic aromatic hydrocarbon.

RPD = Relative percent difference.

SVOC = Semi-volatile organic compound.

Data Qualifiers: J = Estimated, U = Not detected, and UJ = Not detected and reporting limit estimated

C.4.9 Sensitivity

Determining minimum detectable values allows the investigation to assess the relative confidence that can be placed in a value relative to the magnitude or level of analyte concentration observed. The closer a measured value comes to the minimum detectable concentration, the less confidence and more variation the measurement will have. Individual analyte reporting levels can vary due to matrix differences, contaminant analyte concentrations, and inherent moisture content variability. Project sensitivity goals were expressed as quantitation level goals in the QAPP. These levels were achieved or exceeded throughout the analytical process, with the exception of three soil samples for pesticides and seven soil samples for SVOCs. These analyses required dilution due to elevated analyte concentrations or difficult matrices; however, the data remain appropriate for their intended use. Several metals soil and sediment samples also required dilution to bring various analyte concentrations within the calibration range of the instrument. Reporting level variations have been considered during data interpretation and statistical applications.

Method blank determinations were performed with each analytical sample batch for each analyte under investigation. These blanks were evaluated during data review to determine their potential impact on individual data points, if any. Review action levels are set at five times the reporting level for all analytes, except those designated as common laboratory contaminants (i.e., methylene chloride, acetone, toluene, 2-butanone, and phthalate compounds) with action levels set at 10 times the reporting levels. During data review, reported sample concentrations are assessed against method blank action levels, and the following qualifications are made when reportable quantities of analytes were observed in the associated method blank:

- When the analyte sample concentration is above 5 or 10 times the action level, the data are not qualified and are considered a positive value.
- When inorganic analyte sample concentrations are determined to be below 5 or 10 times the action level, the data are considered impacted by the method blank and the value reported is qualified as a non-detectable concentration at the analyte value reported. These data are then qualified as “U.”
- When organic analyte sample concentrations are determined to be below 5 or 10 times the action level, the data are considered impacted by the method blank and the value reported is qualified as a non-detectable concentration. If the reported value is below the reporting level, the result is qualified as a non-detectable concentration at the reporting level. If the result is above the reporting limit, it is qualified as a non-detectable concentration at the analyte value reported. These data are then qualified as “U.”

No data were rejected as a result of method blank contamination; however, various analytes were qualified as having non-detectable concentrations “U” according to the validation in Table C-5.

Four instances of the VOCs acetone and methylene chloride were detected in project trip blanks. In PBA08-QC-6009-TB, PBA08-QC-6010-TB, and PBA08-QC-6024-TB, acetone was detected at 4.8, 4.6, and 5.8 µg/L, respectively, and in PBA08-QC-6024-TB, methylene chloride was detected at 0.33 µg/L. The concentrations observed were less than the reporting levels of 10 µg/L for acetone and 5

µg/L for methylene chloride. Acetone and methylene chloride are common laboratory solvents that are frequently detected in method and trip blanks at low levels. Given that the laboratory provides the trip blank samples, it is possibly the source of the low level contamination. The impact of these values has been assessed during data review, and the acetone value has been qualified in surface water sample LL5-078-5796-SW. It was, therefore, determined that VOC analyses were not affected through the transportation and storage process, and that the procedures and precautions employed were effective in preserving the integrity of the sample analysis.

C.4.10 Representativeness and Comparability

Representativeness expresses the degree to which data accurately reflect the analyte or parameter of interest for the environmental AOC and is the qualitative term most concerned with the proper design of the sampling program. Factors that affect the representativeness of analytical data include ensuring proper preservation and holding times, using standard sampling and analytical methods, and determining matrix or analyte interferences. Samples were hand-delivered to the laboratory by the TestAmerica courier and were received within temperature specifications and in good condition. Holding times were exceeded for eight explosives soil samples, two SVOC soil samples; however, they were extracted within two times the holding time and the data are considered usable but estimated.

Comparability, like representativeness, is a qualitative term relative to an individual project data set. The RI employed appropriate sampling methodologies, sample containers and preservation, and site surveillance; used standard sampling devices and uniform training; documented sampling and standard analytical protocols/procedures; and performed QC checks with standard control limits and universally accepted data reporting units to ensure comparability to other data sets. By properly implementing and documenting these standard practices, the project has established confidence that the data will be comparable to other project and programmatic information. Tables C-8 and C-9 present the standardized parameter groups, sample containers, preservation techniques, and associated holding times for environmental media.

C.4.11 Completeness

Usable data are defined as those data that pass individual scrutiny during the verification and validation process and are accepted for unrestricted application to the human health risk assessment evaluation or equivalent-type applications. Estimated data have been determined to be acceptable for RVAAP project objectives.

The completeness goal for analytical data is 90% as defined in Tables 3-1 and Table 3-2 of the FWQAPP. The project achieved this goal by collecting all samples presented in the PBA08 SAP and producing usable results for 99.8% of all sample analyses performed.

C.5 DATA QUALITY ASSESSMENT SUMMARY

In concurrence with the USACE Chemical Data Quality Assessment presented in Attachment 1, the overall quality of the Load line 5 RI data meets or exceeds established project objectives. By properly implementing the project data verification and assessment process, project information has been determined to be acceptable for use.

Data, as presented, have been qualified as usable or estimated “J” or “UJ,” or rejected “R.” Data that have been estimated indicate accuracy, precision, or sensitivity being less than desired but adequate for interpretation. Rejected data were relegated to four non-detectable concentration antimony soil results due to poor MS recoveries and one non-detectable concentration 2,4-dinitrophenol result due to poor LCS recovery. Qualifiers have been applied to data when necessary. Data produced for this project demonstrate they can withstand scientific scrutiny; are appropriate for its intended purpose; are technically defensible; and are of known and acceptable sensitivity, precision, and accuracy. Data integrity has been documented through proper implementation of QA and QC measures. The environmental information presented has an established confidence that allows utilization for the project objectives and provides data for future needs.

C.6 AUGUST 2012 SAMPLING

One sediment sample was collected in August 2012 for multiple parameters, as noted in Table C-10. As discussed in Section C.3.2, verification staff performed a systematic examination of the reports, including ADR software, and subjected data to a systematic technical review by examining all field and analytical QC results and laboratory documentation. Data were assigned appropriate data qualification flags and reason codes as defined previously and as discussed below.

Sample receipt: The samples were received at the laboratory just above the 6°C preservation requirement; however, data were not qualified because the samples were received within approximately four hours of sample collection. Samples were packed on ice, but did not have sufficient time to reach the desired temperature.

Metals: Method blank contamination (beryllium, cadmium, cobalt) did not impact sample results, as concentrations for these elements in the sediment sample were greater than 10 times the blank levels. Other QC analyses were within control limits.

VOC: As a result of surrogate recovery deviations, VOC results for the sediment sample (LL5SD-086-5872-SD) were qualified as estimated non-detectable concentration “UJ.” Method blanks contained low levels of acetone; however, this compound was not detected in the Load Line 5 sediment sample. Other QC analyses were within control limits.

SVOC: QC analyses were within control limits.

Pesticides: The sediment pesticide sample required dilution and resulted in the limit of detection (LOD) and limit of quantitation (LOQ) above the QAPP reporting limit (with the exception of toxaphene) and above the FWCUG for dieldrin. Other QC analyses were within control limits.

PCBs: Aroclor 1242 had an LOD greater than the QAPP reporting limit. Other QC analyses were within control limits.

Explosives and Nitroglycerin Analyses: All QC analyses were within control limits.

Nitroguanidine, Nitrocellulose, and Hexavalent Chromium Analyses: The sediment sample from Load Line 5 was analyzed as an MS; MS recovery deviation resulted in the sample result being qualified as estimated "J." Other QC analyses were within control limits.

No other quality issues were noted during review and the data above were qualified as estimated as needed; no other data was qualified.

Table C-8. Container Requirements for Soil and Sediment Samples

Analyte Group	Container	Minimum Sample Size	Preservative	Holding Time
Volatile Organic Compounds	One 2-oz glass jar with septum cap (no headspace)	20 g	Cool, 4°C	14 days
Semi-volatile Organic Compounds	4-oz glass	30 g	Cool, 4°C	14 days (extraction) 40 days (analysis)
Pesticide Compounds	4-oz glass	30 g	Cool, 4°C	14 days (extraction) 40 days (analysis)
Polychlorinated Biphenyls	4-oz glass	30 g	Cool, 4°C	14 days (extraction) 40 days (analysis)
Polycyclic Aromatic Hydrocarbons	4-oz glass	30 g	Cool, 4°C	14 days (extraction) 40 days (analysis)
Explosive Compounds	4-oz glass	10 g	Cool, 4°C	14 days (extraction) 40 days (analysis)
Nitroguanidine	4-oz glass	10 g	Cool, 4°C	14 days (extraction) 40 days (analysis)
Nitrocellulose	4-oz glass	10 g	Cool, 4°C	14 days (extraction) 40 days (analysis)
Metals (TAL)	4-oz glass or plastic	20 g	Cool, 4°C	180 days; Hg at 28 days
Hexavalent Chromium	4-oz glass	20 g	Cool, 4°C	24 hr (extraction) 24 hr (analysis)
Geotechnical Parameters	Moisture/Density/Porosity/K – Shelby tube TOC – no special container Grain Size Fraction – no special container	Various 100 g 5,000 g	Air tight, cool Cool NA	NA

Hg = Mercury

K= Permeability

NA = Not Applicable

TAL = Target Analyte List

TOC= Total Organic Carbon

Table C-9. Container Requirements for Surface Water Samples

Analyte Group	Container	Minimum Sample Size	Preservative	Holding Time
Volatile Organic Compounds	Three 40-mL glass vial	Two 40-mL	HCl to pH <2 Cool, 4°C	14 days
Semi-volatile Organic Compounds	Two 1-L amber glass	1 L	Cool, 4°C	7 days (extraction) 40 days (analysis)
Pesticide Compounds	Two 1-L amber glass	1 L	Cool, 4°C	7 days (extraction) 40 days (analysis)
Polychlorinated Biphenyls	Two 1-L amber glass	1 L	Cool, 4°C	7 days (extraction) 40 days (analysis)
Polycyclic Aromatic Hydrocarbons	Two 1-L amber glass	1 L	Cool, 4°C	7 days (extraction) 40 days (analysis)
Explosive Compounds	Two 1-L amber glass	1 L	Cool, 4°C	7 days (extraction) 40 days (analysis)
Nitroguanidine	500-mL amber glass	10 mL	Cool, 4°C	7 days (extraction) 40 days (analysis)
Nitrocellulose	500-mL amber glass	100 mL	Cool, 4°C	7 days (extraction) 40 days (analysis)
Nitrate	250-mL poly	50 mL	Cool, 4°C	48 hr
Metals (TAL)	1-L HNO ₃ Poly	300 mL	HNO ₃ to pH <2 Cool, 4°C	180 days; Hg at 28 days

HCl = Hydrochloric Acid

Hg = Mercury

HNO₃ = Nitric Acid

TAL = Target Analyte List

Table C-10. Identification of August 2012 Samples Taken at Load Line 5

Environmental Samples	Laboratory Sample Delivery Group	Field Duplicates	USACE Split Samples	Metals + Hg	Explosives	SVOCs	Propellants	VOCs	Pesticides	PCBs	PAHs^a	Hexavalent Chromium	Total Chromium
LL5-086-5872-SD	J240-14026-4	NS	NS	X	X	X	X	X	X	X			

blank = Not Sampled.

NS = Not Sampled.

PAH = Polycyclic Aromatic Hydrocarbon.

PCB = Polychlorinated Biphenyl.

SVOC = Semi-volatile Organic Compound.

USACE = U.S. Army Corps of Engineers.

VOC = Volatile Organic Compound.

C.7 REFERENCES

DoD (United States Department of Defense) 2006. *Quality Systems Manual for Environmental Laboratories*. Environmental Data Quality Workgroup. Version 3. January 2006.

USACE (United States Army Corps of Engineers) 2001. *Facility-wide Sampling and Analysis Plan for Environmental Investigations at the Ravenna Army Ammunition Plant, Ravenna, Ohio*. March 2001.

USACE 2007. *Louisville DoD Quality Systems Manual Supplement*. Version 1. March 2007.

USACE 2009. *Performance Based Acquisition 2008 Supplemental Investigation Sampling and Analysis Plan Addendum No. 1, Ravenna Army Ammunition Plant, Ravenna, Ohio*. December 2009.

USEPA (United States Environmental Protection Agency) 1994. *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*. EPA-540/R-94/013. Final. February 1994.

USEPA 1999. *Contract Laboratory Program National Functional Guidelines for Organic Data Review*. EPA-540/R-99/008. Final. October 1999.

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ATTACHMENT 1

Chemical Data Usability Assessment Report

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MEMORANDUM FOR RECORD

6 November 2013

SUBJECT: FINAL CHEMICAL DATA USABILITY ASSESSMENT

PROJECT: Ravenna Army Ammunition Plant, Ravenna, Ohio
18 Areas of Concern (PBA08)
Load Line 5 Remedial Investigation

1. Purpose:

This memorandum represents and documents the evaluation of the quality and usability of the analytical data obtained during the Remedial Investigation (RI) of Load Line 5 (RVAAP-39). This includes determination of contract compliance, data usability, and data quality objective attainment in accordance with EM 200-1-6, Chapter 5 (October 2006).

2. References:

- 2.1 Data Quality Control Summary Report, Appendix C of the *Draft Remedial Investigation Report for Soil, Sediment, and Surface Water at RVAAP-39 Load Line 5*, prepared by SAIC, January 9, 2012.
- 2.2 *Final Data Validation Report, Ravenna Army Ammunition Plant 18 Areas of Concern 2010 Sampling, Ravenna, Ohio*, prepared by MEC^x, LP, March 2013.
- 2.3 *PBA 2008 Supplemental Investigation Sampling and Analysis Plan Addendum No. 1 (PBA08 SAP)* prepared by SAIC, December 2009.
- 2.4 *Facility-Wide Quality Assurance Project Plan for Environmental Investigations at the Ravenna Army Ammunition Plant, Appendix , Ravenna, Ohio (FWQAPP)*, prepared by SAIC, March 2001.
- 2.5 *DoD Quality Systems Manual for Environmental Laboratories*, Department of Defense (DoD QSM), Environmental Data Quality Workgroup, Version 3, January 2006.
- 2.6 *Louisville DoD Quality Systems Manual Supplement, Version 1*, prepared by USACE –Louisville District, March 2007.
- 2.7 EM 200-1-6, Chapter 5, Chemical Quality Assurance for Hazardous, Toxic and Radioactive Waste (HTRW) Projects, October 1997.

3. Project Description:

The purpose of the RI at Load Line 5 was to supplement the data from previous sampling events to delineate the nature and extent of contamination, evaluate contaminant fate and transport, and complete a human health risk assessment (HHRA) and ecological risk assessment (ERA) to support remedial decisions. Depending on the results of the RI, a recommendation would be provided for either no further action (NFA) or a Feasibility Study (FS) that would evaluate potential remedies and future actions.

Sampling was conducted in February through April 2010 and October 2010 by Science Application International Corporation (SAIC). Forty-seven environmental soil, sediment, and surface water samples were collected and analyzed for one or more of the following parameters: metals, explosives, propellants (nitrocellulose and nitroguanidine), pesticides, polychlorinated biphenyls

(PCBs), semivolatile organic compounds (SVOCs), polycyclic aromatic hydrocarbons (PAHs), volatiles (VOCs), hexavalent chromium, total chromium, and nitrate. Analytical services were provided by TestAmerica (TA-North Canton, OH and TA-West Sacramento, CA).

4. Analytical Program Overview:

Below are excerpts from Section 4.5 of the PBA08 SAP.

4.1 Data Quality Objectives

Data quality objective (DQO) summaries for this investigation will follow Tables 3-1 and 3-2 in the Facility-Wide QAPP. All QC parameters stated in the specific U.S. Environmental Protection Agency (USEPA) SW-846 methods will be adhered to for each chemical listed. The SW-846 method references found in the Facility-Wide QAPP have been revised to the Update III methods, as appropriate. Laboratories are required to comply with all methods as written; recommendations are considered requirements. Concurrence with the DoD QSM for Environmental Laboratories (DoD, 2006), and the Louisville QSM Supplement is expected.

4.2 Level of Quality Control Effort

QC efforts will follow Section 3.2 of the Facility-Wide QAPP. Field QC measurements will include field source water blanks, trip blanks, field duplicates, surrogates, and equipment rinse blanks. Laboratory QC measurements will include method blanks, laboratory control samples (LCSs), laboratory duplicates, and matrix spike/matrix spike duplicate (MS/MSD) samples. LCS measurements will include the standard mid-level analyte concentration, plus a QC/method reporting level (MRL) low-level concentration. It is recognized that the laboratory will routinely perform and monitor the QC/MRL; however, guidance check limits will be utilized, as advisory and corrective action will not be required for individual analyte variances. The QC/MRL will be successfully analyzed at the beginning of the analytical sequences as required by the QSM. Additionally, the lab will analyze the QC/MRL sample at the close of the analytical sequence.

4.3 Accuracy, Precision, and Sensitivity of Analysis

Accuracy, precision, and sensitivity goals identified in Section 3.3 and Tables 3-1 through 3-9 of the Facility-Wide QAPP will be imposed for this investigation. As stated above, some of the analytical methods numbers have been updated (refer to Table 2-1 of this QAPP). Quality objectives related to individual method QC protocol will also follow requirements given in the DoD QSM for Environmental Laboratories and the Louisville QSM Supplement. Laboratories will make all reasonable attempts to meet the program and project reporting levels in Tables 3-1 through 3-9 of the Facility-Wide QAPP for each individual sample analysis.

4.4 Completeness, Representativeness, and Comparability

Completeness, representativeness, and comparability goals identified in Section 3.4 and Tables 3-1 and 3-2 of the Facility-Wide QAPP will be imposed for this investigation. The completeness goal for analytical data is 90%, as defined in Tables 3-1 and 3-2 of the FWQAPP.

5. Chemical Data Quality and Usability Assessment:

This assessment of the overall quality and usability of project data is based upon a thorough review of the associated Data Quality Control Summary Report as presented in Appendix C of the *Draft Remedial Investigation Report for Soil, Sediment, and Surface Water at RVAAP-39 Load Line 5*

(SAIC, 2012) and Section 10 of the *Final Data Validation Report, Ravenna Army Ammunition Plant 18 Areas of Concern 2010 Sampling* (MEC^x, 2013).

The Data Quality Control Summary Report represents the findings of the Level III data review of 100% of the primary data as performed by the contractor, SAIC. As a result of this review process, the data are qualified based on the technical assessment of the verification criteria. Qualifiers indicate the usability of the data.

Data validation was performed by MEC^x, a USACE-Louisville District contracted third-party. The Data Validation Report details their findings from the Level IV validation of 10% of the primary sample data, analysis of field duplicate results, and the determination of data. This evaluation includes review of the same QC elements as the primary contractor's review in addition to an in-depth look into the verification of sample results, target compound identification, and raw data. The intent is to verify the quality and the reliability of the primary data for its intended use.

The data were evaluated in the context of the data quality objective (DQOs) and measurement quality objectives (MQOs) as specified in the PBA08 SAP and FWQAPP referenced in items 2 and 4 above.

The subsections below present the U.S. Army Corps of Engineers – Louisville District's assessment of the chemical data quality for Load Line 5, including determination of contract compliance, data usability, and data quality objective attainment.

5.1 Contract Compliance

Samples were collected and analyzed in accordance with the procedures specified in the project QAPPs. With minor exceptions, data met the QC specifications outlined in the DoD QSM and project QAPPs. Specific non-conformances and their impact on data usability are noted and described in the associated data evaluation reports.

Some analytes had method detection levels (MDLs) and/or reporting limits (RLs) that exceeded the criteria in Table 3-1 of the SAP or in Table 3-3 of the FWQAPP, if no criteria were listed in the SAP. The failure to achieve reporting limits (RLs) less than applicable criteria for some analytes was anticipated due to analytical limitations. Results with RLs/MDLs exceeding project criteria may still be usable during risk assessment; however, it is incumbent upon the final data user to make this determination on a case by case basis.

5.2 Data Quality Attainment

The quality of data generated for the Load Line 5 RI met the project DQOs. Usable definitive data of known and documented quality was produced for greater than 99 % of the sample analyses performed. This includes data qualified as estimated (J) due to QC outliers. The J qualifier indicates that accuracy, precision, or sensitivity is less than desired; however, the results are of sufficient quality to be considered usable.

During the 10% Level IV data validation performed by MEC^x, rejected data were relegated to the two semivolatile results, 1 metal result, and one nitrocellulose result identified in the table below. During contractor Level III review of 100% of the project data, data that were rejected were

relegated to 4 antimony nondetect results and 1 nondetect polycyclic aromatic hydrocarbon (PAH) result.

Load Line 5
Rejected Data

Sample	SDG	Analyte	Reason	Review
LL5SB-052-5150-SO	A0C040514	Antimony	MS recovery (<30%)	Level IV (10%)
LL5SS-072M-5054-SO	A0C100403	Nitrocellulose	MS recovery (<30%)	
LL5SW-078-5796-SW	A0D140520	2,4-Dinitrophenol	LCS recovery (0%)	
		Benzoic Acid		
	A0D140520	2,4-Dinitrophenol	LCS recovery (0%)	Level III (100%)
LL5SB-052-5151-SO	A0C040505	Antimony	MS recovery (<30%)	Level III (100%)
LL5SB-053-5155-SO				
LL5SB-055-5163-SO				
LL5SB-056-5167-SO				

Note: highlighted result was mistakenly listed as rejected.

5.3 Data Usability

Data were consistently reviewed and qualified by both the primary contractor and the third-party validator. Overall findings were compatible. Although differences in professional opinion may have resulted in some data being qualified as estimated (J) by one reviewer and not the other, this rarely adversely impacted the usability of the data. This occurred most notably in regards to qualification of data due to MRL recovery outliers. Section 3.2 of the FWQAPP considers the QC limits as “guidance”. As such, SAIC notes outliers but doesn’t qualify based upon them. MEC^x qualifies data associated with missing MRL standards or those with recovery outliers based upon professional opinion.

The antimony result for LL5SB-052-5150-SO had two associated MS/MSDs. The nondetect result for this sample was qualified as rejected (R) during validation for MS/MSD recoveries below 30% at 26%/22% and 28%/28%, respectively. During contractor review, this nondetect antimony result was qualified as estimated (J), while other results associated with significantly lower MS/MSD recoveries were rejected.

The benzoic acid result was rejected in sample LL5SW-078-5796-SW during data validation based upon professional judgment. The LCS recovery QC limit for benzoic acid is 0 to 110%. It was the validator’s contention that although 0% recovery is technically within the control limit, some recovery should be shown. Therefore, this nondetected result associated with a 0% benzoic acid recovery in the LCS was rejected.

The nitrocellulose MS/MSD recoveries were 15% and 26%, respectively. The laboratories lower control limit was 34%. The validator qualified the nondetected result in sample LL5SS-072M-5054-SO as estimated in the text, in Table 5, and on the Form 1 but mistakenly shows it as rejected on Table 1 of the report’s executive summary. The contractor also considered this an estimated result.

6.0 Conclusion:

Through the proper implementation of the project data review, verification, and validation process that is outlined in the FWQAPP, the data for the Load Line 5 RI are deemed acceptable for use with some exceptions. Rejected and unusable data are relegated to 7 sample results (all nondetects) out of approximately 3,630 results. Based upon this assessment, greater than 99% of the analytical results are usable as qualified to meet the project DQOs; can withstand scientific scrutiny; are technically defensible; and are of known and acceptable quality in terms of sensitivity, precision, and accuracy.

A handwritten signature in black ink, appearing to read "Kathy Krantz", with a large, stylized loop at the end.

Kathy Krantz
Project Chemist
USACE – Louisville District

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ATTACHMENT 2

Automated Data Review Outlier Reports

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827.2030713.375

Sample Qualification Report (All Analytes)

Client Sample ID : LL11SD-096-5874-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RE2/TOT

Sample Matrix : SO

Lab Sample ID: 240-14026-5

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020			Dilution: 10																	
Manganese	270		mg/Kg	D	YES															

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

ADR 8.3

Report Date: 2/12/2013 16:31

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL11SD-096-5874-SD

Lab Report Batch : 240-14026-1

Lab ID : TA SAC

Sample Date : 08/09/2012

Analysis Type: RE2/WET

Sample Matrix : SO

Lab Sample ID: 240-14026-5

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8330B				Dilution: 1																
1,3,5-TRINITROBENZENE	0.050		mg/Kg	U	YES	UJ	UJ													
3-NITROTOLUENE	0.050		mg/Kg	U	YES	UJ	UJ													
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	0.050		mg/Kg	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

ADR 8.3

Report Date: 2/12/2013 16:31

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* Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL11SD-096-5874-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : SO

Lab Sample ID: 240-14026-5

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8081A				Dilution: 10																
4,4'-DDD	9.3		ug/Kg	U	YES	UJ	UJ													
4,4'-DDE	9.3		ug/Kg	U	YES	UJ	UJ													
4,4'-DDT	9.3		ug/Kg	U	YES	UJ	UJ													
ALDRIN	18		ug/Kg	U	YES	UJ	UJ													
ALPHA-BHC	18		ug/Kg	U	YES	UJ	UJ													
alpha-Chordane	18		ug/Kg	U	YES	UJ	UJ													
BETA-BHC	18		ug/Kg	U	YES	UJ	UJ													
DELTA-BHC	18		ug/Kg	U	YES	UJ	UJ													
DIELDRIN	9.3		ug/Kg	U	YES	UJ	UJ													
ENDOSULFAN I	9.3		ug/Kg	U	YES	UJ	UJ													
ENDOSULFAN II	18		ug/Kg	U	YES	UJ	UJ													
ENDOSULFAN SULFATE	18		ug/Kg	U	YES	UJ	UJ													
ENDRIN	9.3		ug/Kg	U	YES	UJ	UJ													
ENDRIN ALDEHYDE	18		ug/Kg	U	YES	UJ	UJ													
ENDRIN KETONE	9.3		ug/Kg	U	YES	UJ	UJ													
gamma-BHC (Lindane)	18		ug/Kg	U	YES	UJ	UJ													
GAMMA-CHLORDANE	9.3		ug/Kg	U	YES	UJ	UJ													
HEPTACHLOR	18		ug/Kg	U	YES	UJ	UJ													
HEPTACHLOR EPOXIDE	18		ug/Kg	U	YES	UJ	UJ													
METHOXYCHLOR	46		ug/Kg	U	YES	UJ	UJ													
TOXAPHENE	280		ug/Kg	U	YES	UJ	UJ													
Analysis Method : 8082				Dilution: 1																
AROCLOR 1016	34		ug/Kg	U	YES	UJ	UJ													
AROCLOR 1221	34		ug/Kg	U	YES	UJ	UJ													
AROCLOR 1232	34		ug/Kg	U	YES	UJ	UJ													
AROCLOR 1242	34		ug/Kg	U	YES	UJ	UJ													
AROCLOR 1248	34		ug/Kg	U	YES	UJ	UJ													
AROCLOR 1254	34		ug/Kg	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

ADR 8.3

Report Date: 2/12/2013 16:31

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL11SD-096-5874-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : SO

Lab Sample ID: 240-14026-5

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8082				Dilution: 1																
AROCLOR 1260	34		ug/Kg	U	YES	UJ	UJ													
Analysis Method : 8260B				Dilution: 1																
1,1,1-TRICHLOROETHANE	1.4		ug/Kg	U	YES	UJ	UJ						UJ							
1,1,2,2-TETRACHLOROETHANE	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
1,1,2-TRICHLOROETHANE	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
1,1-DICHLOROETHANE	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
1,1-DICHLOROETHENE	1.4		ug/Kg	U	YES	UJ	UJ						UJ							
1,2-Dibromoethane (Ethylene Dibromide)	1.4		ug/Kg	U	YES	UJ	UJ						UJ							
1,2-DICHLOROETHANE	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
1,2-DICHLOROETHENE (TOTAL)	1.4		ug/Kg	U	YES	UJ	UJ						UJ							
1,2-DICHLOROPROPANE	1.4		ug/Kg	U	YES	UJ	UJ						UJ							
2-Butanone (MEK)	2.7		ug/Kg	U	YES	UJ	UJ						UJ							
2-HEXANONE	1.4		ug/Kg	U	YES	UJ	UJ						UJ							
4-Methyl-2-pentanone (MIBK)	1.4		ug/Kg	U	YES	UJ	UJ						UJ							
ACETONE	8.6		ug/Kg	U	YES	UJ	UJ						UJ							
BENZENE	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
BROMOCHLOROMETHANE	1.4		ug/Kg	U	YES	UJ	UJ						UJ							
BROMODICHLOROMETHANE	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
BROMOFORM	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
Bromomethane (Methyl bromide)	1.4		ug/Kg	U	YES	UJ	UJ						UJ							
CARBON DISULFIDE	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
CARBON TETRACHLORIDE	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
CHLOROBENZENE	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
Chlorodibromomethane	1.4		ug/Kg	U	YES	UJ	UJ						UJ							
CHLOROETHANE	1.4		ug/Kg	U	YES	UJ	UJ						UJ							
CHLOROFORM	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
CHLOROMETHANE	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
CIS-1,3-DICHLOROPROPENE	0.68		ug/Kg	U	YES	UJ	UJ						UJ							

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

ADR 8.3

Report Date: 2/12/2013 16:31

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL11SD-096-5874-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : SO

Lab Sample ID: 240-14026-5

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B			Dilution: 1																	
ETHYLBENZENE	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
METHYLENE CHLORIDE	1.4		ug/Kg	U	YES	UJ	UJ						UJ							
STYRENE	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
TETRACHLOROETHENE	1.4		ug/Kg	U	YES	UJ	UJ						UJ							
TOLUENE	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
TRANS-1,3-DICHLOROPROPENE	1.4		ug/Kg	U	YES	UJ	UJ						UJ							
TRICHLOROETHENE	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
VINYL CHLORIDE	0.68		ug/Kg	U	YES	UJ	UJ						UJ							
Xylene (Total)	2.0		ug/Kg	U	YES	UJ	UJ						UJ							
Analysis Method : 8270C			Dilution: 1																	
1,2,4-TRICHLOROBENZENE	37		ug/Kg	U	YES	UJ	UJ													
1,2-DICHLOROBENZENE	37		ug/Kg	U	YES	UJ	UJ													
1,3-DICHLOROBENZENE	37		ug/Kg	U	YES	UJ	UJ													
1,4-DICHLOROBENZENE	37		ug/Kg	U	YES	UJ	UJ													
2,4,5-TRICHLOROPHENOL	37		ug/Kg	U	YES	UJ	UJ													
2,4,6-TRICHLOROPHENOL	110		ug/Kg	U	YES	UJ	UJ													
2,4-DICHLOROPHENOL	37		ug/Kg	U	YES	UJ	UJ													
2,4-DIMETHYLPHENOL	110		ug/Kg	U	YES	UJ	UJ													
2,4-DINITROPHENOL	110		ug/Kg	U	YES	UJ	UJ													
2,4-DINITROTOLUENE	37		ug/Kg	U	YES	UJ	UJ													
2,6-DINITROTOLUENE	37		ug/Kg	U	YES	UJ	UJ													
2-CHLORONAPHTHALENE	4.5		ug/Kg	U	YES	UJ	UJ													
2-CHLOROPHENOL	37		ug/Kg	U	YES	UJ	UJ													
2-METHYLNAPHTHALENE	4.5		ug/Kg	U	YES	UJ	UJ													
2-METHYLPHENOL	110		ug/Kg	U	YES	UJ	UJ													
2-NITROANILINE	37		ug/Kg	U	YES	UJ	UJ													
2-NITROPHENOL	37		ug/Kg	U	YES	UJ	UJ													
3 & 4-Methylphenol	110		ug/Kg	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Report Date: 2/12/2013 16:31

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL11SD-096-5874-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : SO

Lab Sample ID: 240-14026-5

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C				Dilution: 1																
3,3'-DICHLOROBENZIDINE	110		ug/Kg	U	YES	UJ	UJ													
3-NITROANILINE	110		ug/Kg	U	YES	UJ	UJ													
4,6-DINITRO-2-METHYLPHENOL	110		ug/Kg	U	YES	UJ	UJ													
4-BROMOPHENYL PHENYL ETHER	37		ug/Kg	U	YES	UJ	UJ													
4-CHLORO-3-METHYLPHENOL	37		ug/Kg	U	YES	UJ	UJ													
4-CHLOROANILINE	37		ug/Kg	U	YES	UJ	UJ													
4-CHLOROPHENYL PHENYL ETHER	37		ug/Kg	U	YES	UJ	UJ													
4-NITROANILINE	37		ug/Kg	U	YES	UJ	UJ													
4-NITROPHENOL	110		ug/Kg	U	YES	UJ	UJ													
ACENAPHTHENE	13		ug/Kg		YES	J	J													
ACENAPHTHYLENE	4.5		ug/Kg	U	YES	UJ	UJ													
ANTHRACENE	20		ug/Kg		YES	J	J													
Benz[a]anthracene	77		ug/Kg		YES	J	J													
Benzo[a]pyrene	90		ug/Kg		YES	J	J													
Benzo[b]fluoranthene	140		ug/Kg		YES	J	J													
Benzo[g,h,i]perylene	68		ug/Kg		YES	J	J													
Benzo[k]fluoranthene	66		ug/Kg	M	YES	J	J													
BENZOIC ACID	450		ug/Kg	U	YES	UJ	UJ													
BENZYL ALCOHOL	54		ug/Kg	J	YES	J	J							J						
BIS(2-CHLOROETHOXY)METHANE	37		ug/Kg	U	YES	UJ	UJ													
BIS(2-CHLOROETHYL) ETHER	4.5		ug/Kg	U	YES	UJ	UJ													
BIS(2-CHLOROISOPROPYL) ETHER	37		ug/Kg	U	YES	UJ	UJ													
BIS(2-ETHYLHEXYL) PHTHALATE	37		ug/Kg	U	YES	UJ	UJ													
BUTYL BENZYL PHTHALATE	37		ug/Kg	U	YES	UJ	UJ													
CARBAZOLE	37		ug/Kg	U	YES	UJ	UJ													
CHRYSENE	99		ug/Kg		YES	J	J													
Dibenz[a,h]anthracene	16		ug/Kg		YES	J	J													
DIBENZOFURAN	4.5		ug/Kg	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL11SD-096-5874-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : SO

Lab Sample ID: 240-14026-5

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C				Dilution: 1																
DIETHYL PHTHALATE	37		ug/Kg	U	YES	UJ	UJ													
DIMETHYL PHTHALATE	37		ug/Kg	U	YES	UJ	UJ													
DI-N-BUTYL PHTHALATE	37		ug/Kg	U	YES	UJ	UJ													
DI-N-OCTYL PHTHALATE	37		ug/Kg	U	YES	UJ	UJ													
FLUORANTHENE	210		ug/Kg		YES	J	J													
FLUORENE	4.5		ug/Kg	U	YES	UJ	UJ													
HEXACHLOROBENZENE	4.5		ug/Kg	U	YES	UJ	UJ													
HEXACHLOROBUTADIENE	37		ug/Kg	U	YES	UJ	UJ													
HEXACHLOROCYCLOPENTADIENE	37		ug/Kg	U	YES	UJ	UJ													
HEXACHLOROETHANE	37		ug/Kg	U	YES	UJ	UJ													
Indeno[1,2,3-cd]pyrene	61		ug/Kg		YES	J	J													
ISOPHORONE	37		ug/Kg	U	YES	UJ	UJ													
NAPHTHALENE	4.5		ug/Kg	U	YES	UJ	UJ													
NITROBENZENE	4.5		ug/Kg	U	YES	UJ	UJ													
N-NITROSODI-N-PROPYLAMINE	37		ug/Kg	U	YES	UJ	UJ													
N-NITROSODIPHENYLAMINE	37		ug/Kg	U	YES	UJ	UJ													
PENTACHLOROPHENOL	110		ug/Kg	U	YES	UJ	UJ													
PHENANTHRENE	98		ug/Kg		YES	J	J													
PHENOL	37		ug/Kg	U	YES	UJ	UJ													
PYRENE	160		ug/Kg		YES	J	J													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL11SD-096-5874-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES/TOT

Sample Matrix : SO

Lab Sample ID: 240-14026-5

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020				Dilution: 1																
Aluminum	15000		mg/Kg		YES															
Antimony	0.14		mg/Kg	J	YES	J								J						
Arsenic	10		mg/Kg		YES															
Barium	84		mg/Kg		YES															
Beryllium	0.91		mg/Kg		YES															
Cadmium	0.51		mg/Kg		YES															
Calcium	3800		mg/Kg		YES															
Chromium	17		mg/Kg		YES															
Cobalt	9.4		mg/Kg		YES															
Copper	18		mg/Kg		YES															
Iron	23000		mg/Kg		YES															
Lead	27		mg/Kg		YES															
Magnesium	2700		mg/Kg		YES															
Nickel	21		mg/Kg		YES															
Potassium	1100		mg/Kg		YES															
SELENIUM	1.7		mg/Kg		YES															
Silver	0.072		mg/Kg	J	YES	J								J						
Sodium	35		mg/Kg	J	YES	J								J						
Thallium	0.21		mg/Kg	J	YES	J								J						
Vanadium	25		mg/Kg		YES															
Zinc	120		mg/Kg		YES															
Analysis Method : 7471A				Dilution: 1																
Mercury	0.10		mg/Kg	J	YES	J								J						
Analysis Method : WS-WC-0050				Dilution: 1																
Nitrocellulose	1.4		mg/Kg	J	YES	J					J			J						

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL11SD-096-5874-SD

Lab Report Batch : 240-14026-1

Lab ID : TA SAC

Sample Date : 08/09/2012

Analysis Type: RES/WET

Sample Matrix : SO

Lab Sample ID: 240-14026-5

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8330B				Dilution: 1																
1,3-DINITROBENZENE	0.050		mg/Kg	U	YES	UJ	UJ													
2,4,6-Trinitrotoluene (TNT)	0.050		mg/Kg	U	YES	UJ	UJ													
2,4-DINITROTOLUENE	0.050		mg/Kg	U	YES	UJ	UJ													
2,6-DINITROTOLUENE	0.050		mg/Kg	U	YES	UJ	UJ													
2-AMINO-4,6-DINITROTOLUENE	0.050		mg/Kg	U	YES	UJ	UJ													
2-NITROTOLUENE	0.050		mg/Kg	U	YES	UJ	UJ													
4-AMINO-2,6-DINITROTOLUENE	0.050		mg/Kg	U	YES	UJ	UJ													
4-NITROTOLUENE	0.050		mg/Kg	U	YES	UJ	UJ													
Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX)	0.050		mg/Kg	U	YES	UJ	UJ													
Methyl-2,4,6-Trinitrophenylnitramine (Tetryl)	0.050		mg/Kg	U	YES	UJ	UJ													
NITROBENZENE	0.050		mg/Kg	U	YES	UJ	UJ													
Nitroglycerin	0.25		mg/Kg	U	YES	UJ	UJ													
PETN	0.25		mg/Kg	U	YES	UJ	UJ													
Analysis Method : 8330M				Dilution: 1																
Nitroguanidine	0.040		mg/Kg	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

DR 8.3

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL5SD-086-5872-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RE2/TOT

Sample Matrix : SO

Lab Sample ID: 240-14026-4

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020				Dilution: 10																
Manganese	690		mg/Kg	D	YES															

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL5SD-086-5872-SD

Lab Report Batch : 240-14026-1

Lab ID : TA SAC

Sample Date : 08/09/2012

Analysis Type: RE2/WET

Sample Matrix : SO

Lab Sample ID: 240-14026-4

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8330B				Dilution: 1																
1,3,5-TRINITROBENZENE	0.050		mg/Kg	U	YES	UJ	UJ													
1,3-DINITROBENZENE	0.050		mg/Kg	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL5SD-086-5872-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : SO

Lab Sample ID: 240-14026-4

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8081A				Dilution: 5																
4,4'-DDD	4.4		ug/Kg	U	YES	UJ	UJ													
4,4'-DDE	4.4		ug/Kg	U	YES	UJ	UJ													
4,4'-DDT	4.4		ug/Kg	U	YES	UJ	UJ													
ALDRIN	8.8		ug/Kg	U	YES	UJ	UJ													
ALPHA-BHC	8.8		ug/Kg	U	YES	UJ	UJ													
alpha-Chordane	8.8		ug/Kg	U	YES	UJ	UJ													
BETA-BHC	8.8		ug/Kg	U	YES	UJ	UJ													
DELTA-BHC	8.8		ug/Kg	U	YES	UJ	UJ													
DIELDRIN	4.4		ug/Kg	U	YES	UJ	UJ													
ENDOSULFAN I	4.4		ug/Kg	U	YES	UJ	UJ													
ENDOSULFAN II	8.8		ug/Kg	U	YES	UJ	UJ													
ENDOSULFAN SULFATE	8.8		ug/Kg	U	YES	UJ	UJ													
ENDRIN	4.4		ug/Kg	U	YES	UJ	UJ													
ENDRIN ALDEHYDE	8.8		ug/Kg	U	YES	UJ	UJ													
ENDRIN KETONE	4.4		ug/Kg	U	YES	UJ	UJ													
gamma-BHC (Lindane)	8.8		ug/Kg	U	YES	UJ	UJ													
GAMMA-CHLORDANE	4.4		ug/Kg	U	YES	UJ	UJ													
HEPTACHLOR	8.8		ug/Kg	U	YES	UJ	UJ													
HEPTACHLOR EPOXIDE	8.8		ug/Kg	U	YES	UJ	UJ													
METHOXYCHLOR	22		ug/Kg	U	YES	UJ	UJ													
TOXAPHENE	130		ug/Kg	U	YES	UJ	UJ													
Analysis Method : 8082				Dilution: 1																
AROCLOR 1016	33		ug/Kg	U	YES	UJ	UJ													
AROCLOR 1221	33		ug/Kg	U	YES	UJ	UJ													
AROCLOR 1232	33		ug/Kg	U	YES	UJ	UJ													
AROCLOR 1242	33		ug/Kg	U	YES	UJ	UJ													
AROCLOR 1248	33		ug/Kg	U	YES	UJ	UJ													
AROCLOR 1254	33		ug/Kg	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL5SD-086-5872-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : SO

Lab Sample ID: 240-14026-4

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8082				Dilution: 1																
AROCLOR 1260	33		ug/Kg	U	YES	UJ	UJ													
Analysis Method : 8260B				Dilution: 1																
1,1,1-TRICHLOROETHANE	1.3		ug/Kg	U	YES	UJ	UJ						UJ							
1,1,2,2-TETRACHLOROETHANE	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
1,1,2-TRICHLOROETHANE	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
1,1-DICHLOROETHANE	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
1,1-DICHLOROETHENE	1.3		ug/Kg	U	YES	UJ	UJ						UJ							
1,2-Dibromoethane (Ethylene Dibromide)	1.3		ug/Kg	U	YES	UJ	UJ						UJ							
1,2-DICHLOROETHANE	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
1,2-DICHLOROETHENE (TOTAL)	1.3		ug/Kg	U	YES	UJ	UJ						UJ							
1,2-DICHLOROPROPANE	1.3		ug/Kg	U	YES	UJ	UJ						UJ							
2-Butanone (MEK)	2.7		ug/Kg	U	YES	UJ	UJ						UJ							
2-HEXANONE	1.3		ug/Kg	U	YES	UJ	UJ						UJ							
4-Methyl-2-pentanone (MIBK)	1.3		ug/Kg	U	YES	UJ	UJ						UJ							
ACETONE	8.4		ug/Kg	U	YES	UJ	UJ						UJ							
BENZENE	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
BROMOCHLOROMETHANE	1.3		ug/Kg	U	YES	UJ	UJ						UJ							
BROMODICHLOROMETHANE	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
BROMOFORM	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
Bromomethane (Methyl bromide)	1.3		ug/Kg	U	YES	UJ	UJ						UJ							
CARBON DISULFIDE	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
CARBON TETRACHLORIDE	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
CHLOROBENZENE	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
Chlorodibromomethane	1.3		ug/Kg	U	YES	UJ	UJ						UJ							
CHLOROETHANE	1.3		ug/Kg	U	YES	UJ	UJ						UJ							
CHLOROFORM	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
CHLOROMETHANE	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
CIS-1,3-DICHLOROPROPENE	0.67		ug/Kg	U	YES	UJ	UJ						UJ							

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL5SD-086-5872-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : SO

Lab Sample ID: 240-14026-4

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B				Dilution: 1																
ETHYLBENZENE	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
METHYLENE CHLORIDE	1.3		ug/Kg	U	YES	UJ	UJ						UJ							
STYRENE	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
TETRACHLOROETHENE	1.3		ug/Kg	U	YES	UJ	UJ						UJ							
TOLUENE	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
TRANS-1,3-DICHLOROPROPENE	1.3		ug/Kg	U	YES	UJ	UJ						UJ							
TRICHLOROETHENE	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
VINYL CHLORIDE	0.67		ug/Kg	U	YES	UJ	UJ						UJ							
Xylene (Total)	2.0		ug/Kg	U	YES	UJ	UJ						UJ							
Analysis Method : 8270C				Dilution: 1																
1,2,4-TRICHLOROBENZENE	37		ug/Kg	U	YES	UJ	UJ													
1,2-DICHLOROBENZENE	37		ug/Kg	U	YES	UJ	UJ													
1,3-DICHLOROBENZENE	37		ug/Kg	U	YES	UJ	UJ													
1,4-DICHLOROBENZENE	37		ug/Kg	U	YES	UJ	UJ													
2,4,5-TRICHLOROPHENOL	37		ug/Kg	U	YES	UJ	UJ													
2,4,6-TRICHLOROPHENOL	110		ug/Kg	U	YES	UJ	UJ													
2,4-DICHLOROPHENOL	37		ug/Kg	U	YES	UJ	UJ													
2,4-DIMETHYLPHENOL	110		ug/Kg	U	YES	UJ	UJ													
2,4-DINITROPHENOL	110		ug/Kg	U	YES	UJ	UJ													
2,4-DINITROTOLUENE	37		ug/Kg	U	YES	UJ	UJ													
2,6-DINITROTOLUENE	37		ug/Kg	U	YES	UJ	UJ													
2-CHLORONAPHTHALENE	4.5		ug/Kg	U	YES	UJ	UJ													
2-CHLOROPHENOL	37		ug/Kg	U	YES	UJ	UJ													
2-METHYLNAPHTHALENE	4.5		ug/Kg	U	YES	UJ	UJ													
2-METHYLPHENOL	110		ug/Kg	U	YES	UJ	UJ													
2-NITROANILINE	37		ug/Kg	U	YES	UJ	UJ													
2-NITROPHENOL	37		ug/Kg	U	YES	UJ	UJ													
3 & 4-Methylphenol	110		ug/Kg	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Report Date: 2/12/2013 16:32

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL5SD-086-5872-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : SO

Lab Sample ID: 240-14026-4

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C				Dilution: 1																
3,3'-DICHLOROBENZIDINE	110		ug/Kg	U	YES	UJ	UJ													
3-NITROANILINE	110		ug/Kg	U	YES	UJ	UJ													
4,6-DINITRO-2-METHYLPHENOL	110		ug/Kg	U	YES	UJ	UJ													
4-BROMOPHENYL PHENYL ETHER	37		ug/Kg	U	YES	UJ	UJ													
4-CHLORO-3-METHYLPHENOL	37		ug/Kg	U	YES	UJ	UJ													
4-CHLOROANILINE	37		ug/Kg	U	YES	UJ	UJ													
4-CHLOROPHENYL PHENYL ETHER	37		ug/Kg	U	YES	UJ	UJ													
4-NITROANILINE	37		ug/Kg	U	YES	UJ	UJ													
4-NITROPHENOL	110		ug/Kg	U	YES	UJ	UJ													
ACENAPHTHENE	4.5		ug/Kg	U	YES	UJ	UJ													
ACENAPHTHYLENE	4.5		ug/Kg	U	YES	UJ	UJ													
ANTHRACENE	4.5		ug/Kg	U	YES	UJ	UJ													
Benz[a]anthracene	4.5		ug/Kg	U	YES	UJ	UJ													
Benzo[a]pyrene	4.5		ug/Kg	U	YES	UJ	UJ													
Benzo[b]fluoranthene	4.5		ug/Kg	U	YES	UJ	UJ													
Benzo[g,h,i]perylene	4.5		ug/Kg	U	YES	UJ	UJ													
Benzo[k]fluoranthene	4.5		ug/Kg	U	YES	UJ	UJ													
BENZOIC ACID	450		ug/Kg	U	YES	UJ	UJ													
BENZYL ALCOHOL	37		ug/Kg	U	YES	UJ	UJ													
BIS(2-CHLOROETHOXY)METHANE	37		ug/Kg	U	YES	UJ	UJ													
BIS(2-CHLOROETHYL) ETHER	4.5		ug/Kg	U	YES	UJ	UJ													
BIS(2-CHLOROISOPROPYL) ETHER	37		ug/Kg	U	YES	UJ	UJ													
BIS(2-ETHYLHEXYL) PHTHALATE	37		ug/Kg	U	YES	UJ	UJ													
BUTYL BENZYL PHTHALATE	37		ug/Kg	U	YES	UJ	UJ													
CARBAZOLE	37		ug/Kg	U	YES	UJ	UJ													
CHRYSENE	4.5		ug/Kg	U	YES	UJ	UJ													
Dibenz[a,h]anthracene	4.5		ug/Kg	U	YES	UJ	UJ													
DIBENZOFURAN	4.5		ug/Kg	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Report Date: 2/12/2013 16:32

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL5SD-086-5872-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : SO

Lab Sample ID: 240-14026-4

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C				Dilution: 1																
DIETHYL PHTHALATE	37		ug/Kg	U	YES	UJ	UJ													
DIMETHYL PHTHALATE	37		ug/Kg	U	YES	UJ	UJ													
DI-N-BUTYL PHTHALATE	37		ug/Kg	U	YES	UJ	UJ													
DI-N-OCTYL PHTHALATE	37		ug/Kg	U	YES	UJ	UJ													
FLUORANTHENE	19		ug/Kg		YES	J	J													
FLUORENE	4.5		ug/Kg	U	YES	UJ	UJ													
HEXACHLOROBENZENE	39		ug/Kg		YES	J	J													
HEXACHLOROBUTADIENE	37		ug/Kg	U	YES	UJ	UJ													
HEXACHLOROCYCLOPENTADIENE	37		ug/Kg	U	YES	UJ	UJ													
HEXACHLOROETHANE	37		ug/Kg	U	YES	UJ	UJ													
Indeno[1,2,3-cd]pyrene	4.5		ug/Kg	U	YES	UJ	UJ													
ISOPHORONE	37		ug/Kg	U	YES	UJ	UJ													
NAPHTHALENE	4.5		ug/Kg	U	YES	UJ	UJ													
NITROBENZENE	4.5		ug/Kg	U	YES	UJ	UJ													
N-NITROSODI-N-PROPYLAMINE	37		ug/Kg	U	YES	UJ	UJ													
N-NITROSODIPHENYLAMINE	37		ug/Kg	U	YES	UJ	UJ													
PENTACHLOROPHENOL	110		ug/Kg	U	YES	UJ	UJ													
PHENANTHRENE	9.7		ug/Kg		YES	J	J													
PHENOL	37		ug/Kg	U	YES	UJ	UJ													
PYRENE	14		ug/Kg		YES	J	J													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

ADR 8.3

Report Date: 2/12/2013 16:32

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL5SD-086-5872-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES/TOT

Sample Matrix : SO

Lab Sample ID: 240-14026-4

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020				Dilution: 1																
Aluminum	13000		mg/Kg		YES															
Antimony	0.074		mg/Kg	J	YES	J								J						
Arsenic	5.3		mg/Kg		YES															
Barium	85		mg/Kg		YES															
Beryllium	0.71		mg/Kg		YES															
Cadmium	0.22		mg/Kg	J	YES	J								J						
Calcium	1300		mg/Kg		YES															
Chromium	11		mg/Kg		YES															
Cobalt	7.9		mg/Kg		YES															
Copper	7.4		mg/Kg		YES															
Iron	15000		mg/Kg		YES															
Lead	15		mg/Kg		YES															
Magnesium	1500		mg/Kg		YES															
Nickel	10		mg/Kg		YES															
Potassium	670		mg/Kg		YES															
SELENIUM	1.1		mg/Kg		YES															
Silver	0.094		mg/Kg	J	YES	J								J						
Sodium	25		mg/Kg	J	YES	J								J						
Thallium	0.20		mg/Kg	J	YES	J								J						
Vanadium	17		mg/Kg		YES															
Zinc	50		mg/Kg		YES															
Analysis Method : 7471A				Dilution: 1																
Mercury	0.053		mg/Kg	J	YES	J								J						
Analysis Method : WS-WC-0050				Dilution: 1																
Nitrocellulose	2.1		mg/Kg	J	YES	J					J			J						

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL5SD-086-5872-SD

Lab Report Batch : 240-14026-1

Lab ID : TA SAC

Sample Date : 08/09/2012

Analysis Type: RES/WET

Sample Matrix : SO

Lab Sample ID: 240-14026-4

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8330B				Dilution: 1																
2,4,6-Trinitrotoluene (TNT)	0.050		mg/Kg	U	YES	UJ	UJ													
2,4-DINITROTOLUENE	0.050		mg/Kg	U	YES	UJ	UJ													
2,6-DINITROTOLUENE	0.050		mg/Kg	U	YES	UJ	UJ													
2-AMINO-4,6-DINITROTOLUENE	0.050		mg/Kg	U	YES	UJ	UJ													
2-NITROTOLUENE	0.050		mg/Kg	U	YES	UJ	UJ													
3-NITROTOLUENE	0.050		mg/Kg	U	YES	UJ	UJ													
4-AMINO-2,6-DINITROTOLUENE	0.050		mg/Kg	U	YES	UJ	UJ													
4-NITROTOLUENE	0.050		mg/Kg	U	YES	UJ	UJ													
Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX)	0.050		mg/Kg	U	YES	UJ	UJ													
Methyl-2,4,6-Trinitrophenylnitramine (Tetryl)	0.050		mg/Kg	U	YES	UJ	UJ													
NITROBENZENE	0.050		mg/Kg	U	YES	UJ	UJ													
Nitroglycerin	0.25		mg/Kg	U	YES	UJ	UJ													
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	0.050		mg/Kg	U	YES	UJ	UJ													
PETN	0.25		mg/Kg	U	YES	UJ	UJ													
Analysis Method : 8330M				Dilution: 1																
Nitroguanidine	0.040		mg/Kg	U	YES	UJ	UJ													

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SD-096-5870-SD

Lab Report Batch :240-14026-1

Lab ID : TA SAC

Sample Date :08/09/2012

Analysis Type: RE2/WET

Sample Matrix : SO

Lab Sample ID:240-14026-3

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8330B				Dilution: 1																
1,3,5-TRINITROBENZENE	0.049		mg/Kg	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SD-096-5870-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : SO

Lab Sample ID: 240-14026-3

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8081A				Dilution: 5																
4,4'-DDD	5.0		ug/Kg	U	YES	UJ	UJ													
4,4'-DDE	5.0		ug/Kg	U	YES	UJ	UJ													
4,4'-DDT	5.0		ug/Kg	U	YES	UJ	UJ													
ALDRIN	10		ug/Kg	U	YES	UJ	UJ													
ALPHA-BHC	10		ug/Kg	U	YES	UJ	UJ													
alpha-Chordane	10		ug/Kg	U	YES	UJ	UJ													
BETA-BHC	10		ug/Kg	U	YES	UJ	UJ													
DELTA-BHC	10		ug/Kg	U	YES	UJ	UJ													
DIELDRIN	5.0		ug/Kg	U	YES	UJ	UJ													
ENDOSULFAN I	5.0		ug/Kg	U	YES	UJ	UJ													
ENDOSULFAN II	10		ug/Kg	U	YES	UJ	UJ													
ENDOSULFAN SULFATE	10		ug/Kg	U	YES	UJ	UJ													
ENDRIN	5.0		ug/Kg	U	YES	UJ	UJ													
ENDRIN ALDEHYDE	10		ug/Kg	U	YES	UJ	UJ													
ENDRIN KETONE	5.0		ug/Kg	U	YES	UJ	UJ													
gamma-BHC (Lindane)	10		ug/Kg	U	YES	UJ	UJ													
GAMMA-CHLORDANE	5.0		ug/Kg	U	YES	UJ	UJ													
HEPTACHLOR	10		ug/Kg	U	YES	UJ	UJ													
HEPTACHLOR EPOXIDE	10		ug/Kg	U	YES	UJ	UJ													
METHOXYCHLOR	25		ug/Kg	U	YES	UJ	UJ													
TOXAPHENE	150		ug/Kg	U	YES	UJ	UJ													
Analysis Method : 8082				Dilution: 1																
AROCLOR 1016	37		ug/Kg	U	YES	UJ	UJ													
AROCLOR 1221	37		ug/Kg	U	YES	UJ	UJ													
AROCLOR 1232	37		ug/Kg	U	YES	UJ	UJ													
AROCLOR 1242	37		ug/Kg	U	YES	UJ	UJ													
AROCLOR 1248	37		ug/Kg	U	YES	UJ	UJ													
AROCLOR 1254	37		ug/Kg	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SD-096-5870-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : SO

Lab Sample ID: 240-14026-3

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8082				Dilution: 1																
AROCLOR 1260	37		ug/Kg	U	YES	UJ	UJ													
Analysis Method : 8260B				Dilution: 1																
1,1,1-TRICHLOROETHANE	1.5		ug/Kg	U	YES	UJ	UJ						UJ							
1,1,2,2-TETRACHLOROETHANE	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
1,1,2-TRICHLOROETHANE	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
1,1-DICHLOROETHANE	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
1,1-DICHLOROETHENE	1.5		ug/Kg	U	YES	UJ	UJ						UJ							
1,2-Dibromoethane (Ethylene Dibromide)	1.5		ug/Kg	U	YES	UJ	UJ						UJ							
1,2-DICHLOROETHANE	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
1,2-DICHLOROETHENE (TOTAL)	1.5		ug/Kg	U	YES	UJ	UJ						UJ							
1,2-DICHLOROPROPANE	1.5		ug/Kg	U	YES	UJ	UJ						UJ							
2-Butanone (MEK)	5.3		ug/Kg	J	YES	J	J						J	J						
2-HEXANONE	1.5		ug/Kg	U	YES	UJ	UJ						UJ							
4-Methyl-2-pentanone (MIBK)	1.5		ug/Kg	U	YES	UJ	UJ						UJ							
ACETONE	41		ug/Kg		YES	J	J						J							
BENZENE	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
BROMOCHLOROMETHANE	1.5		ug/Kg	U	YES	UJ	UJ						UJ							
BROMODICHLOROMETHANE	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
BROMOFORM	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
Bromomethane (Methyl bromide)	1.5		ug/Kg	U	YES	UJ	UJ						UJ							
CARBON DISULFIDE	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
CARBON TETRACHLORIDE	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
CHLOROBENZENE	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
Chlorodibromomethane	1.5		ug/Kg	U	YES	UJ	UJ						UJ							
CHLOROETHANE	1.5		ug/Kg	U	YES	UJ	UJ						UJ							
CHLOROFORM	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
CHLOROMETHANE	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
CIS-1,3-DICHLOROPROPENE	0.75		ug/Kg	U	YES	UJ	UJ						UJ							

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SD-096-5870-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : SO

Lab Sample ID: 240-14026-3

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B				Dilution: 1																
ETHYLBENZENE	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
METHYLENE CHLORIDE	2.3		ug/Kg	J	YES	J	J						J	J						
STYRENE	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
TETRACHLOROETHENE	1.5		ug/Kg	U	YES	UJ	UJ						UJ							
TOLUENE	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
TRANS-1,3-DICHLOROPROPENE	1.5		ug/Kg	U	YES	UJ	UJ						UJ							
TRICHLOROETHENE	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
VINYL CHLORIDE	0.75		ug/Kg	U	YES	UJ	UJ						UJ							
Xylene (Total)	2.3		ug/Kg	U	YES	UJ	UJ						UJ							
Analysis Method : 8270C				Dilution: 1																
1,2,4-TRICHLOROBENZENE	40		ug/Kg	U	YES	UJ	UJ													
1,2-DICHLOROBENZENE	40		ug/Kg	U	YES	UJ	UJ													
1,3-DICHLOROBENZENE	40		ug/Kg	U	YES	UJ	UJ													
1,4-DICHLOROBENZENE	40		ug/Kg	U	YES	UJ	UJ													
2,4,5-TRICHLOROPHENOL	40		ug/Kg	U	YES	UJ	UJ													
2,4,6-TRICHLOROPHENOL	120		ug/Kg	U	YES	UJ	UJ													
2,4-DICHLOROPHENOL	40		ug/Kg	U	YES	UJ	UJ													
2,4-DIMETHYLPHENOL	120		ug/Kg	U	YES	UJ	UJ													
2,4-DINITROPHENOL	120		ug/Kg	U	YES	UJ	UJ													
2,4-DINITROTOLUENE	40		ug/Kg	U	YES	UJ	UJ													
2,6-DINITROTOLUENE	40		ug/Kg	U	YES	UJ	UJ													
2-CHLORONAPHTHALENE	4.9		ug/Kg	U	YES	UJ	UJ													
2-CHLOROPHENOL	40		ug/Kg	U	YES	UJ	UJ													
2-METHYLNAPHTHALENE	4.9		ug/Kg	U	YES	UJ	UJ													
2-METHYLPHENOL	120		ug/Kg	U	YES	UJ	UJ													
2-NITROANILINE	40		ug/Kg	U	YES	UJ	UJ													
2-NITROPHENOL	40		ug/Kg	U	YES	UJ	UJ													
3 & 4-Methylphenol	120		ug/Kg	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SD-096-5870-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : SO

Lab Sample ID: 240-14026-3

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C				Dilution: 1																
3,3'-DICHLOOROBENZIDINE	120		ug/Kg	U	YES	UJ	UJ													
3-NITROANILINE	120		ug/Kg	U	YES	UJ	UJ													
4,6-DINITRO-2-METHYLPHENOL	120		ug/Kg	U	YES	UJ	UJ													
4-BROMOPHENYL PHENYL ETHER	40		ug/Kg	U	YES	UJ	UJ													
4-CHLORO-3-METHYLPHENOL	40		ug/Kg	U	YES	UJ	UJ													
4-CHLOROANILINE	40		ug/Kg	U	YES	UJ	UJ													
4-CHLOROPHENYL PHENYL ETHER	40		ug/Kg	U	YES	UJ	UJ													
4-NITROANILINE	40		ug/Kg	U	YES	UJ	UJ													
4-NITROPHENOL	120		ug/Kg	U	YES	UJ	UJ													
ACENAPHTHENE	4.9		ug/Kg	U	YES	UJ	UJ													
ACENAPHTHYLENE	4.9		ug/Kg	U	YES	UJ	UJ													
ANTHRACENE	4.9		ug/Kg	U	YES	UJ	UJ													
Benz[a]anthracene	4.9		ug/Kg	U	YES	UJ	UJ													
Benzo[a]pyrene	4.9		ug/Kg	U	YES	UJ	UJ													
Benzo[b]fluoranthene	4.9		ug/Kg	U	YES	UJ	UJ													
Benzo[g,h,i]perylene	4.9		ug/Kg	U	YES	UJ	UJ													
Benzo[k]fluoranthene	4.9		ug/Kg	U	YES	UJ	UJ													
BENZOIC ACID	490		ug/Kg	U	YES	UJ	UJ													
BENZYL ALCOHOL	40		ug/Kg	U	YES	UJ	UJ													
BIS(2-CHLOROETHOXY)METHANE	40		ug/Kg	U	YES	UJ	UJ													
BIS(2-CHLOROETHYL) ETHER	4.9		ug/Kg	U	YES	UJ	UJ													
BIS(2-CHLOROISOPROPYL) ETHER	40		ug/Kg	U	YES	UJ	UJ													
BIS(2-ETHYLHEXYL) PHTHALATE	40		ug/Kg	U	YES	UJ	UJ													
BUTYL BENZYL PHTHALATE	40		ug/Kg	U	YES	UJ	UJ													
CARBAZOLE	40		ug/Kg	U	YES	UJ	UJ													
CHRYSENE	4.9		ug/Kg	U	YES	UJ	UJ													
Dibenz[a,h]anthracene	4.9		ug/Kg	U	YES	UJ	UJ													
DIBENZOFURAN	4.9		ug/Kg	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

DR 8.3

Report Date: 2/12/2013 16:32

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SD-096-5870-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : SO

Lab Sample ID: 240-14026-3

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C				Dilution: 1																
DIETHYL PHTHALATE	40		ug/Kg	U	YES	UJ	UJ													
DIMETHYL PHTHALATE	40		ug/Kg	U	YES	UJ	UJ													
DI-N-BUTYL PHTHALATE	40		ug/Kg	U	YES	UJ	UJ													
DI-N-OCTYL PHTHALATE	40		ug/Kg	U	YES	UJ	UJ													
FLUORANTHENE	9.8		ug/Kg	J	YES	J	J							J						
FLUORENE	4.9		ug/Kg	U	YES	UJ	UJ													
HEXACHLOROBENZENE	4.9		ug/Kg	U	YES	UJ	UJ													
HEXACHLOROBUTADIENE	40		ug/Kg	U	YES	UJ	UJ													
HEXACHLOROCYCLOPENTADIENE	40		ug/Kg	U	YES	UJ	UJ													
HEXACHLOROETHANE	40		ug/Kg	U	YES	UJ	UJ													
Indeno[1,2,3-cd]pyrene	4.9		ug/Kg	U	YES	UJ	UJ													
ISOPHORONE	40		ug/Kg	U	YES	UJ	UJ													
NAPHTHALENE	4.9		ug/Kg	U	YES	UJ	UJ													
NITROBENZENE	4.9		ug/Kg	U	YES	UJ	UJ													
N-NITROSODI-N-PROPYLAMINE	40		ug/Kg	U	YES	UJ	UJ													
N-NITROSODIPHENYLAMINE	40		ug/Kg	U	YES	UJ	UJ													
PENTACHLOROPHENOL	120		ug/Kg	U	YES	UJ	UJ													
PHENANTHRENE	4.9		ug/Kg	U	YES	UJ	UJ													
PHENOL	40		ug/Kg	U	YES	UJ	UJ													
PYRENE	4.9		ug/Kg	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

ADR 8.3

Report Date: 2/12/2013 16:32

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SD-096-5870-SD

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES/TOT

Sample Matrix : SO

Lab Sample ID: 240-14026-3

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020				Dilution: 1																
Aluminum	12000		mg/Kg		YES															
Antimony	0.37		mg/Kg		YES															
Arsenic	3.5		mg/Kg		YES															
Barium	53		mg/Kg		YES															
Beryllium	0.51		mg/Kg		YES															
Cadmium	0.075		mg/Kg	J	YES	J								J						
Calcium	1300		mg/Kg		YES															
Chromium	15		mg/Kg		YES															
Cobalt	5.9		mg/Kg		YES															
Copper	25		mg/Kg		YES															
Iron	18000		mg/Kg		YES															
Lead	27		mg/Kg		YES															
Magnesium	2100		mg/Kg		YES															
Manganese	160		mg/Kg		YES															
Nickel	13		mg/Kg		YES															
Potassium	930		mg/Kg		YES															
SELENIUM	0.87		mg/Kg		YES															
Silver	0.037		mg/Kg	J	YES	J								J						
Sodium	24		mg/Kg	J	YES	J								J						
Thallium	0.15		mg/Kg	J	YES	J								J						
Vanadium	27		mg/Kg		YES															
Zinc	37		mg/Kg		YES															
Analysis Method : 7471A				Dilution: 1																
Mercury	0.045		mg/Kg	U	YES															
Analysis Method : WS-WC-0050				Dilution: 1																
Nitrocellulose	2.7		mg/Kg	U	YES	UJ						UJ								

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

ADR 8.3

Report Date: 2/12/2013 16:32

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SD-096-5870-SD

Lab Report Batch : 240-14026-1

Lab ID : TA SAC

Sample Date : 08/09/2012

Analysis Type: RES/WET

Sample Matrix : SO

Lab Sample ID: 240-14026-3

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8330B				Dilution: 1																
1,3-DINITROBENZENE	0.049		mg/Kg	U	YES	UJ	UJ													
2,4,6-Trinitrotoluene (TNT)	0.049		mg/Kg	U	YES	UJ	UJ													
2,4-DINITROTOLUENE	0.049		mg/Kg	U	YES	UJ	UJ													
2,6-DINITROTOLUENE	0.049		mg/Kg	U	YES	UJ	UJ													
2-AMINO-4,6-DINITROTOLUENE	0.049		mg/Kg	U	YES	UJ	UJ													
2-NITROTOLUENE	0.049		mg/Kg	U	YES	UJ	UJ													
3-NITROTOLUENE	0.049		mg/Kg	U	YES	UJ	UJ													
4-AMINO-2,6-DINITROTOLUENE	0.049		mg/Kg	U	YES	UJ	UJ													
4-NITROTOLUENE	0.049		mg/Kg	U	YES	UJ	UJ													
Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX)	0.049		mg/Kg	U	YES	UJ	UJ													
Methyl-2,4,6-Trinitrophenylnitramine (Tetryl)	0.049		mg/Kg	U	YES	UJ	UJ													
NITROBENZENE	0.049		mg/Kg	U	YES	UJ	UJ													
Nitroglycerin	0.24		mg/Kg	U	YES	UJ	UJ													
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	0.049		mg/Kg	U	YES	UJ	UJ													
PETN	0.24		mg/Kg	U	YES	UJ	UJ													
Analysis Method : 8330M				Dilution: 1																
Nitroguanidine	0.039		mg/Kg	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

DR 8.3

Report Date: 2/12/2013 16:32

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SW-096-5871-SW

Lab Report Batch : 240-14026-1

Lab ID : TA SAC

Sample Date : 08/09/2012

Analysis Type: RE2

Sample Matrix : AQ

Lab Sample ID: 240-14026-2

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8330B				Dilution: 1																
1,3,5-TRINITROBENZENE	0.051		ug/L	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

ADR 8.3

Report Date: 2/12/2013 16:32

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SW-096-5871-SW

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RE2/TOT

Sample Matrix : AQ

Lab Sample ID: 240-14026-2

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020				Dilution: 1																
Beryllium	0.27		ug/L	J	YES	J								J						
Cadmium	0.17		ug/L	J	YES	J								J						
Cobalt	0.35		ug/L	J	YES	J								J						
Sodium	520		ug/L	J	YES	J								J						

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SW-096-5871-SW

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : AQ

Lab Sample ID: 240-14026-2

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8081A				Dilution: 1																
4,4'-DDD	0.0096		ug/L	U	YES	UJ	UJ													
4,4'-DDE	0.0096		ug/L	U	YES	UJ	UJ													
4,4'-DDT	0.029		ug/L	U	YES	UJ	UJ													
ALDRIN	0.0096		ug/L	U	YES	UJ	UJ													
ALPHA-BHC	0.0096		ug/L	U	YES	UJ	UJ													
alpha-Chordane	0.013		ug/L	U	YES	UJ	UJ													
BETA-BHC	0.0096		ug/L	U	YES	UJ	UJ													
DELTA-BHC	0.0096		ug/L	U	YES	UJ	UJ													
DIELDRIN	0.0096		ug/L	U	YES	UJ	UJ													
ENDOSULFAN I	0.013		ug/L	U	YES	UJ	UJ													
ENDOSULFAN II	0.012		ug/L	U	YES	UJ	UJ													
ENDOSULFAN SULFATE	0.011		ug/L	U	YES	UJ	UJ													
ENDRIN	0.011		ug/L	U	YES	UJ	UJ													
ENDRIN ALDEHYDE	0.011		ug/L	U	YES	UJ	UJ													
ENDRIN KETONE	0.0096		ug/L	U	YES	UJ	UJ													
gamma-BHC (Lindane)	0.0096		ug/L	U	YES	UJ	UJ													
GAMMA-CHLORDANE	0.012		ug/L	U	YES	UJ	UJ													
HEPTACHLOR	0.0096		ug/L	U	YES	UJ	UJ													
HEPTACHLOR EPOXIDE	0.0096		ug/L	U	YES	UJ	UJ													
METHOXYCHLOR	0.031		ug/L	U	YES	UJ	UJ													
TOXAPHENE	0.48		ug/L	U	YES	UJ	UJ													
Analysis Method : 8082				Dilution: 1																
AROCLOR 1016	0.19		ug/L	U	YES	UJ	UJ													
AROCLOR 1221	0.19		ug/L	U	YES	UJ	UJ													
AROCLOR 1232	0.19		ug/L	U	YES	UJ	UJ													
AROCLOR 1242	0.38		ug/L	U	YES	UJ	UJ													
AROCLOR 1248	0.19		ug/L	U	YES	UJ	UJ													
AROCLOR 1254	0.19		ug/L	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SW-096-5871-SW

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : AQ

Lab Sample ID: 240-14026-2

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8082				Dilution: 1																
AROCLOR 1260	0.19		ug/L	U	YES	UJ	UJ													
Analysis Method : 8260B				Dilution: 1																
1,1,1-TRICHLOROETHANE	0.25		ug/L	U	YES	UJ	UJ													
1,1,2,2-TETRACHLOROETHANE	0.25		ug/L	U	YES	UJ	UJ													
1,1,2-TRICHLOROETHANE	0.50		ug/L	U	YES	UJ	UJ													
1,1-DICHLOROETHANE	0.25		ug/L	U	YES	UJ	UJ													
1,1-DICHLOROETHENE	0.25		ug/L	U	YES	UJ	UJ													
1,2-Dibromoethane (Ethylene Dibromide)	0.25		ug/L	U	YES	UJ	UJ													
1,2-DICHLOROETHANE	0.25		ug/L	U	YES	UJ	UJ													
1,2-DICHLOROETHENE (TOTAL)	0.50		ug/L	U	YES	UJ	UJ													
1,2-DICHLOROPROPANE	0.25		ug/L	U	YES	UJ	UJ													
2-Butanone (MEK)	0.72		ug/L	J	YES	J	J							J						
2-HEXANONE	0.50		ug/L	U	YES	UJ	UJ													
4-Methyl-2-pentanone (MIBK)	0.50		ug/L	U	YES	UJ	UJ													
ACETONE	1.1		ug/L	U	YES	UJ	UJ													
BENZENE	0.25		ug/L	U	YES	UJ	UJ													
BROMOCHLOROMETHANE	0.50		ug/L	U	YES	UJ	UJ													
BROMODICHLOROMETHANE	0.25		ug/L	U	YES	UJ	UJ													
BROMOFORM	0.64		ug/L	U	YES	UJ	UJ													
Bromomethane (Methyl bromide)	0.50		ug/L	U	YES	UJ	UJ													
CARBON DISULFIDE	0.25		ug/L	U	YES	UJ	UJ													
CARBON TETRACHLORIDE	0.25		ug/L	U	YES	UJ	UJ													
CHLOROBENZENE	0.25		ug/L	U	YES	UJ	UJ													
Chlorodibromomethane	0.25		ug/L	U	YES	UJ	UJ													
CHLOROETHANE	0.50		ug/L	U	YES	UJ	UJ													
CHLOROFORM	0.25		ug/L	U	YES	UJ	UJ													
CHLOROMETHANE	0.50		ug/L	U	YES	UJ	UJ													
CIS-1,3-DICHLOROPROPENE	0.25		ug/L	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

ADR 8.3

Report Date: 2/12/2013 16:32

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SW-096-5871-SW

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : AQ

Lab Sample ID: 240-14026-2

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B				Dilution: 1																
ETHYLBENZENE	0.25		ug/L	U	YES	UJ	UJ													
METHYLENE CHLORIDE	0.50		ug/L	U	YES	UJ	UJ													
STYRENE	0.25		ug/L	U	YES	UJ	UJ													
TETRACHLOROETHENE	0.50		ug/L	U	YES	UJ	UJ													
TOLUENE	0.25		ug/L	U	YES	UJ	UJ													
TRANS-1,3-DICHLOROPROPENE	0.25		ug/L	U	YES	UJ	UJ													
TRICHLOROETHENE	0.25		ug/L	U	YES	UJ	UJ													
VINYL CHLORIDE	0.25		ug/L	U	YES	UJ	UJ													
Xylene (Total)	0.75		ug/L	U	YES	UJ	UJ													
Analysis Method : 8270C				Dilution: 1																
1,2,4-TRICHLOROBENZENE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
1,2-DICHLOROBENZENE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
1,3-DICHLOROBENZENE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
1,4-DICHLOROBENZENE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
2,4,5-TRICHLOROPHENOL	0.76		ug/L	U H	YES	UJ	UJ	UJ												
2,4,6-TRICHLOROPHENOL	0.76		ug/L	U H	YES	UJ	UJ	UJ												
2,4-DICHLOROPHENOL	0.76		ug/L	U H	YES	UJ	UJ	UJ												
2,4-DIMETHYLPHENOL	0.76		ug/L	U H	YES	UJ	UJ	UJ												
2,4-DINITROPHENOL	2.3		ug/L	U H	YES	UJ	UJ	UJ												
2,4-DINITROTOLUENE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
2,6-DINITROTOLUENE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
2-CHLORONAPHTHALENE	0.095		ug/L	U H	YES	UJ	UJ	UJ												
2-CHLOROPHENOL	0.76		ug/L	U H	YES	UJ	UJ	UJ												
2-METHYLNAPHTHALENE	0.095		ug/L	U H	YES	UJ	UJ	UJ												
2-METHYLPHENOL	0.76		ug/L	U H	YES	UJ	UJ	UJ												
2-NITROANILINE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
2-NITROPHENOL	0.76		ug/L	U H	YES	UJ	UJ	UJ												
3 & 4-Methylphenol	0.76		ug/L	U H	YES	UJ	UJ	UJ												

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SW-096-5871-SW

Lab Report Batch :240-14026-1

Lab ID : TA CAN

Sample Date :08/09/2012

Analysis Type: RES

Sample Matrix :AQ

Lab Sample ID:240-14026-2

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C				Dilution: 1																
3,3'-DICHLORO BENZIDINE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
3-NITROANILINE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
4,6-DINITRO-2-METHYLPHENOL	2.3		ug/L	U H	YES	UJ	UJ	UJ												
4-BROMOPHENYL PHENYL ETHER	0.76		ug/L	U H	YES	UJ	UJ	UJ												
4-CHLORO-3-METHYLPHENOL	0.76		ug/L	U H	YES	UJ	UJ	UJ												
4-CHLOROANILINE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
4-CHLOROPHENYL PHENYL ETHER	0.76		ug/L	U H	YES	UJ	UJ	UJ												
4-NITROANILINE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
4-NITROPHENOL	2.3		ug/L	U H	YES	UJ	UJ	UJ												
ACENAPHTHENE	0.095		ug/L	U H	YES	UJ	UJ	UJ												
ACENAPHTHYLENE	0.095		ug/L	U H	YES	UJ	UJ	UJ												
ANTHRACENE	0.095		ug/L	U H	YES	UJ	UJ	UJ												
Benz[a]anthracene	0.095		ug/L	U H	YES	UJ	UJ	UJ												
Benzo[a]pyrene	0.095		ug/L	U H	YES	UJ	UJ	UJ												
Benzo[b]fluoranthene	0.095		ug/L	U H	YES	UJ	UJ	UJ												
Benzo[g,h,i]perylene	0.095		ug/L	U H	YES	UJ	UJ	UJ												
Benzo[k]fluoranthene	0.095		ug/L	U H	YES	UJ	UJ	UJ												
BENZOIC ACID	9.5		ug/L	U H	YES	UJ	UJ	UJ												
BENZYL ALCOHOL	0.76		ug/L	U H	YES	UJ	UJ	UJ												
BIS(2-CHLOROETHOXY)METHANE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
BIS(2-CHLOROETHYL) ETHER	0.095		ug/L	U H	YES	UJ	UJ	UJ												
BIS(2-CHLOROISOPROPYL) ETHER	0.76		ug/L	U H	YES	UJ	UJ	UJ												
BIS(2-ETHYLHEXYL) PHTHALATE	0.90		ug/L	J H	YES	J	J	J						J						
BUTYL BENZYL PHTHALATE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
CARBAZOLE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
CHRYSENE	0.095		ug/L	U H	YES	UJ	UJ	UJ												
Dibenz[a,h]anthracene	0.095		ug/L	U H	YES	UJ	UJ	UJ												
DIBENZOFURAN	0.095		ug/L	U H	YES	UJ	UJ	UJ												

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Report Date: 2/12/2013 16:32

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SW-096-5871-SW

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : AQ

Lab Sample ID: 240-14026-2

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8270C				Dilution: 1																
DIETHYL PHTHALATE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
DIMETHYL PHTHALATE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
DI-N-BUTYL PHTHALATE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
DI-N-OCTYL PHTHALATE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
FLUORANTHENE	0.095		ug/L	U H	YES	UJ	UJ	UJ												
FLUORENE	0.095		ug/L	U H	YES	UJ	UJ	UJ												
HEXACHLORO BENZENE	0.095		ug/L	U H	YES	UJ	UJ	UJ												
HEXACHLOROBUTADIENE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
HEXACHLOROCYCLOPENTADIENE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
HEXACHLOROETHANE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
Indeno[1,2,3-cd]pyrene	0.095		ug/L	U H	YES	UJ	UJ	UJ												
ISOPHORONE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
NAPHTHALENE	0.095		ug/L	U H	YES	UJ	UJ	UJ												
NITROBENZENE	0.095		ug/L	U H	YES	UJ	UJ	UJ												
N-NITROSODI-N-PROPYLAMINE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
N-NITROSODIPHENYLAMINE	0.76		ug/L	U H	YES	UJ	UJ	UJ												
PENTACHLOROPHENOL	2.3		ug/L	U H	YES	UJ	UJ	UJ												
PHENANTHRENE	0.095		ug/L	U H	YES	UJ	UJ	UJ												
PHENOL	0.76		ug/L	U H	YES	UJ	UJ	UJ												
PYRENE	0.095		ug/L	U H	YES	UJ	UJ	UJ												
Analysis Method : 8330B				Dilution: 1																
1,3-DINITROBENZENE	0.10		ug/L	U	YES	UJ	UJ													
2,4,6-Trinitrotoluene (TNT)	0.10		ug/L	U	YES	UJ	UJ													
2,4-DINITROTOLUENE	0.10		ug/L	U	YES	UJ	UJ													
2,6-DINITROTOLUENE	0.10		ug/L	U	YES	UJ	UJ													
2-AMINO-4,6-DINITROTOLUENE	0.10		ug/L	U	YES	UJ	UJ													
2-NITROTOLUENE	0.10		ug/L	U	YES	UJ	UJ													
3-NITROTOLUENE	0.10		ug/L	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

ADR 8.3

Report Date: 2/12/2013 16:32

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SW-096-5871-SW

Lab Report Batch : 240-14026-1

Lab ID : TA SAC

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : AQ

Lab Sample ID: 240-14026-2

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8330B				Dilution: 1																
4-AMINO-2,6-DINITROTOLUENE	0.10		ug/L	U	YES	UJ	UJ													
4-NITROTOLUENE	0.10		ug/L	U	YES	UJ	UJ													
Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX)	0.051		ug/L	U	YES	UJ	UJ													
Methyl-2,4,6-Trinitrophenylnitramine (Tetryl)	0.10		ug/L	U	YES	UJ	UJ													
NITROBENZENE	0.10		ug/L	U	YES	UJ	UJ													
Nitroglycerin	0.51		ug/L	U	YES	UJ	UJ													
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	0.051		ug/L	U	YES	UJ	UJ													
PETN	0.51		ug/L	U	YES	UJ	UJ													
Analysis Method : 8330M				Dilution: 1																
Nitroguanidine	6.0		ug/L	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Report Date: 2/12/2013 16:32

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : LL6SW-096-5871-SW

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES/TOT

Sample Matrix : AQ

Lab Sample ID: 240-14026-2

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 6020				Dilution: 1																
Aluminum	60		ug/L	U	YES															
Antimony	0.45		ug/L	J	YES	J								J						
Arsenic	1.2		ug/L	J	YES	J								J						
Barium	13		ug/L		YES															
Calcium	26000		ug/L		YES															
Chromium	1.5		ug/L	U	YES															
Copper	4.0		ug/L	U	YES															
Iron	170		ug/L		YES															
Lead	0.50		ug/L	U	YES															
Magnesium	5000		ug/L		YES															
Manganese	34		ug/L		YES															
Nickel	1.5		ug/L	U	YES															
Potassium	1500		ug/L		YES															
SELENIUM	0.32		ug/L	J	YES	J								J						
Silver	0.25		ug/L	U	YES															
Thallium	0.35		ug/L	J	YES	J								J						
Vanadium	1.5		ug/L	U	YES															
Zinc	20		ug/L	U	YES															
Analysis Method : 7470A				Dilution: 1																
Mercury	0.20		ug/L	U	YES															
Analysis Method : WS-WC-0050				Dilution: 1																
Nitrocellulose	1.0		mg/L	U	YES															

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

ADR 8.3

Report Date: 2/12/2013 16:32

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : PBA08-QC-6244-TB

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : AQ

Lab Sample ID: 240-14026-1

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B				Dilution: 1																
1,1,1-TRICHLOROETHANE	0.25		ug/L	U	YES	UJ	UJ													
1,1,2,2-TETRACHLOROETHANE	0.25		ug/L	U	YES	UJ	UJ													
1,1,2-TRICHLOROETHANE	0.50		ug/L	U	YES	UJ	UJ													
1,1-DICHLOROETHANE	0.25		ug/L	U	YES	UJ	UJ													
1,1-DICHLOROETHENE	0.25		ug/L	U	YES	UJ	UJ													
1,2-Dibromoethane (Ethylene Dibromide)	0.25		ug/L	U	YES	UJ	UJ													
1,2-DICHLOROETHANE	0.25		ug/L	U	YES	UJ	UJ													
1,2-DICHLOROETHENE (TOTAL)	0.50		ug/L	U	YES	UJ	UJ													
1,2-DICHLOROPROPANE	0.25		ug/L	U	YES	UJ	UJ													
2-Butanone (MEK)	0.57		ug/L	U	YES	UJ	UJ													
2-HEXANONE	0.50		ug/L	U	YES	UJ	UJ													
4-Methyl-2-pentanone (MIBK)	0.50		ug/L	U	YES	UJ	UJ													
ACETONE	1.9		ug/L	J	YES	J	J							J						
BENZENE	0.25		ug/L	U	YES	UJ	UJ													
BROMOCHLOROMETHANE	0.50		ug/L	U	YES	UJ	UJ													
BROMODICHLOROMETHANE	0.25		ug/L	U	YES	UJ	UJ													
BROMOFORM	0.64		ug/L	U	YES	UJ	UJ													
Bromomethane (Methyl bromide)	0.50		ug/L	U	YES	UJ	UJ													
CARBON DISULFIDE	0.25		ug/L	U	YES	UJ	UJ													
CARBON TETRACHLORIDE	0.25		ug/L	U	YES	UJ	UJ													
CHLOROBENZENE	0.25		ug/L	U	YES	UJ	UJ													
Chlorodibromomethane	0.25		ug/L	U	YES	UJ	UJ													
CHLOROETHANE	0.50		ug/L	U	YES	UJ	UJ													
CHLOROFORM	0.25		ug/L	U	YES	UJ	UJ													
CHLOROMETHANE	0.50		ug/L	U	YES	UJ	UJ													
CIS-1,3-DICHLOROPROPENE	0.25		ug/L	U	YES	UJ	UJ													
ETHYLBENZENE	0.25		ug/L	U	YES	UJ	UJ													
METHYLENE CHLORIDE	0.47		ug/L	J	YES	J	J							J						

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Sample Qualification Report (All Analytes)

Client Sample ID : PBA08-QC-6244-TB

Lab Report Batch : 240-14026-1

Lab ID : TA CAN

Sample Date : 08/09/2012

Analysis Type: RES

Sample Matrix : AQ

Lab Sample ID: 240-14026-1

Reviewed By / Date :

Approved By / Date :

Analyte Name	Result	Uncertainty / Error	Result Units	Lab Qual	Rep Res	Overall Qual*	Temp	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	Moist Tot/Dis	Field QC	Tune	IC	ICV	CV / CCV
Analysis Method : 8260B				Dilution: 1																
STYRENE	0.25		ug/L	U	YES	UJ	UJ													
TETRACHLOROETHENE	0.50		ug/L	U	YES	UJ	UJ													
TOLUENE	0.25		ug/L	U	YES	UJ	UJ													
TRANS-1,3-DICHLOROPROPENE	0.25		ug/L	U	YES	UJ	UJ													
TRICHLOROETHENE	0.25		ug/L	U	YES	UJ	UJ													
VINYL CHLORIDE	0.25		ug/L	U	YES	UJ	UJ													
Xylene (Total)	0.75		ug/L	U	YES	UJ	UJ													

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Library Used: RVAAP_PB08

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Overall result qualifier reflects summation of qualifiers added during automated data review and any qualifiers added manually for categories not assessed by automated data review

Temperature Outlier Report

Lab Report Batch: 240-14026-1

Lab ID: TA CAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temp (C)	Temperature Criteria (C)			Between High and Gross Exceedence			Above Gross Exceedence		
					Low	High	Gross Exceed	Detect Quals		Non-Detect Qual(s)	Detect Quals		Non-Detect Qual(s)
								Non-Biased	Biased		Non-Biased	Biased	
LL11SD-096-5874-SD	240-14026-5	8081A	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL5SD-086-5872-SD	240-14026-4	8081A	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL6SD-096-5870-SD	240-14026-3	8081A	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL6SW-096-5871-SW	240-14026-2	8081A	AQ	6.1	2	6	10	J	J-	UJ	J	J-	R
LL11SD-096-5874-SD	240-14026-5	8082	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL5SD-086-5872-SD	240-14026-4	8082	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL6SD-096-5870-SD	240-14026-3	8082	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL6SW-096-5871-SW	240-14026-2	8082	AQ	6.1	2	6	10	J	J-	UJ	J	J-	R
LL11SD-096-5874-SD	240-14026-5	8260B	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL5SD-086-5872-SD	240-14026-4	8260B	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL6SD-096-5870-SD	240-14026-3	8260B	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL6SW-096-5871-SW	240-14026-2	8260B	AQ	6.1	2	6	10	J	J-	UJ	J	J-	R
PBA08-QC-6244-TB	240-14026-1	8260B	AQ	6.1	2	6	10	J	J-	UJ	J	J-	R
LL11SD-096-5874-SD	240-14026-5	8270C	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL5SD-086-5872-SD	240-14026-4	8270C	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL6SD-096-5870-SD	240-14026-3	8270C	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL6SW-096-5871-SW	240-14026-2	8270C	AQ	6.1	2	6	10	J	J-	UJ	J	J-	R
LL11SD-096-5874-SD	240-14026-5	8330B	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL5SD-086-5872-SD	240-14026-4	8330B	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL6SD-096-5870-SD	240-14026-3	8330B	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL6SW-096-5871-SW	240-14026-2	8330B	AQ	6.1	2	6	10	J	J-	UJ	J	J-	R
LL11SD-096-5874-SD	240-14026-5	8330M	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL5SD-086-5872-SD	240-14026-4	8330M	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL6SD-096-5870-SD	240-14026-3	8330M	SO	6.1	2	6	10	J	J-	UJ	J	J-	R
LL6SW-096-5871-SW	240-14026-2	8330M	AQ	6.1	2	6	10	J	J-	UJ	J	J-	R

QC Outlier Report: Holding Times

Lab Report Batch: 240-14026-1

Lab ID: TA CAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Prep Method	Actual Holding Time			Criteria				Reported Dates (and Times)		
					Coll To Prep	Prep To Ana	Coll To Ana	Coll To Prep	Prep To Ana	Coll To Ana	Unit of Meas	Collection Date	Preparation Date	Analysis Date
LL6SW-096-5871-SW 240-14026-2		8270C	AQ	3520C	13.0	15.0		7	40		Days	08/09/2012	08/22/2012	09/06/2012

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 320-2943
Preparation Batch : 320-2943
Lab Reporting Batch : 240-14026-1

Analysis Method : WS-WC-0050
Preparation Type : METHOD
Lab ID: TA SAC

Analysis Date : 08/23/2012
Preparation Date : 08/23/2012

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL5SD-086-5872-SDMS	240-14026-4MS	SO	Nitrocellulose	33		10.00	34.00	115.00	71.00

Associated Samples: All samples in Method Batch

Client Sample ID	Lab Sample ID
LL11SD-096-5874-SD	240-14026-5
LL5SD-086-5872-SD	240-14026-4
LL6SD-096-5870-SD	240-14026-3

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: 240-14026-1

Lab ID: TA CAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL11SD-096-5874-SD	240-14026-5	8082	SO	AROCLOR 1016	U	34	2.31923602	ug/Kg
				AROCLOR 1221	U	34	2.31923602	ug/Kg
				AROCLOR 1232	U	34	2.31923602	ug/Kg
				AROCLOR 1242	U	34	2.31923602	ug/Kg
				AROCLOR 1248	U	34	2.31923602	ug/Kg
				AROCLOR 1254	U	34	2.31923602	ug/Kg
				AROCLOR 1260	U	34	2.31923602	ug/Kg
LL5SD-086-5872-SD	240-14026-4	8082	SO	AROCLOR 1016	U	33	2.27576975	ug/Kg
				AROCLOR 1221	U	33	2.27576975	ug/Kg
				AROCLOR 1232	U	33	2.27576975	ug/Kg
				AROCLOR 1242	U	33	2.27576975	ug/Kg
				AROCLOR 1248	U	33	2.27576975	ug/Kg
				AROCLOR 1254	U	33	2.27576975	ug/Kg
				AROCLOR 1260	U	33	2.27576975	ug/Kg
LL6SD-096-5870-SD	240-14026-3	8082	SO	AROCLOR 1016	U	37	2.55255255	ug/Kg
				AROCLOR 1221	U	37	2.55255255	ug/Kg
				AROCLOR 1232	U	37	2.55255255	ug/Kg
				AROCLOR 1242	U	37	2.55255255	ug/Kg
				AROCLOR 1248	U	37	2.55255255	ug/Kg
				AROCLOR 1254	U	37	2.55255255	ug/Kg
				AROCLOR 1260	U	37	2.55255255	ug/Kg
LL6SW-096-5871-SW	240-14026-2	6020	AQ	Zinc	U	20	10	ug/L
		8082		AROCLOR 1016	U	0.19	0.05	ug/L
		AROCLOR 1221		U	0.19	0.05	ug/L	
		AROCLOR 1232		U	0.19	0.05	ug/L	
		AROCLOR 1242		U	0.38	0.05	ug/L	
		AROCLOR 1248		U	0.19	0.05	ug/L	
		AROCLOR 1254		U	0.19	0.05	ug/L	
		AROCLOR 1260		U	0.19	0.05	ug/L	

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

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Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: 240-14026-1

Lab ID: TA CAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
LL11SD-096-5874-SD	240-14026-5	6020	SO	Antimony	J	0.14	0.24	mg/Kg
				Silver	J	0.072	0.12	mg/Kg
				Sodium	J	35	120	mg/Kg
				Thallium	J	0.21	0.24	mg/Kg
		7471A		Mercury	J	0.10	0.12	mg/Kg
		8270C		BENZYL ALCOHOL	J	54	450	ug/Kg
		WS-WC-0050		Nitrocellulose	J	1.4	6.7	mg/Kg
LL5SD-086-5872-SD	240-14026-4	6020		Antimony	J	0.074	0.23	mg/Kg
				Cadmium	J	0.22	0.23	mg/Kg
				Silver	J	0.094	0.11	mg/Kg
				Sodium	J	25	110	mg/Kg
				Thallium	J	0.20	0.23	mg/Kg
		7471A		Mercury	J	0.053	0.13	mg/Kg
		WS-WC-0050		Nitrocellulose	J	2.1	6.6	mg/Kg
LL6SD-096-5870-SD	240-14026-3	6020		Cadmium	J	0.075	0.25	mg/Kg
				Silver	J	0.037	0.12	mg/Kg
				Sodium	J	24	120	mg/Kg
				Thallium	J	0.15	0.25	mg/Kg
		8260B		2-Butanone (MEK)	J	5.3	30	ug/Kg
				METHYLENE CHLORIDE	J	2.3	7.5	ug/Kg
		8270C		FLUORANTHENE	J	9.8	9.9	ug/Kg
LL6SW-096-5871-SW	240-14026-2	6020	AQ	Antimony	J	0.45	2.0	ug/L
				Arsenic	J	1.2	5.0	ug/L
				Beryllium	J	0.27	1.0	ug/L
				Cadmium	J	0.17	2.0	ug/L
				Cobalt	J	0.35	1.0	ug/L
				SELENIUM	J	0.32	5.0	ug/L
				Sodium	J	520	1000	ug/L
PBA08-QC-6244-TB	240-14026-1	8260B		Thallium	J	0.35	2.0	ug/L
				2-Butanone (MEK)	J	0.72	10	ug/L
				BIS(2-ETHYLHEXYL) PHTHALATE	J H	0.90	1.9	ug/L
				ACETONE	J	1.9	10	ug/L
				METHYLENE CHLORIDE	J	0.47	1.0	ug/L

Surrogate Recovery Outlier Report

Lab Report Batch: 240-14026-1

Lab ID: TA CAN

Client Sample ID	Lab Sample ID	Analysis Method	Dilution	Matrix	Surrogate	Percent Recovery	Criteria (percent)			Associated Target Analytes
							Lower Limit	Upper Limit	Reject Point	
LL11SD-096-5874-SD	240-14026-5	8260B	1	SO	4-Bromofluorobenzene	79	85.0	120.0	10.0	All Target
LL5SD-086-5872-SD	240-14026-4	8260B	1	SO	4-Bromofluorobenzene	81	85.0	120.0	10.0	All Target
LL6SD-096-5870-SD	240-14026-3	8260B	1	SO	4-Bromofluorobenzene	83	85.0	120.0	10.0	All Target

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QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0B180524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature (C)	Criteria	
					Lower Limit	Upper Limit
FWSSD-102-5011-SD	A0B180524001	353.2 Modified	SO	1.2	2.0	6.0
FWSSW-102-5010-SW	A0B180524002	353.2 Modified	AQ	1.2	2.0	6.0
LL6SD-082-5245-SD	A0B180524004	353.2 Modified	SO	1.2	2.0	6.0
LL6SD-082-6063-FD	A0B180524005	353.2 Modified	SO	1.2	2.0	6.0
LL6SW-082-5244-SW	A0B180524006	353.2 Modified	AQ	1.0	2.0	6.0
FWSSD-102-5011-SD	A0B180524001	8081A	SO	1.2	2.0	
FWSSW-102-5010-SW	A0B180524002	8081A	AQ	1.2	2.0	
LL6SD-082-5245-SD	A0B180524004	8081A	SO	1.2	2.0	
LL6SD-082-6063-FD	A0B180524005	8081A	SO	1.2	2.0	
LL6SW-082-5244-SW	A0B180524006	8081A	AQ	1.0	2.0	
FWSSD-102-5011-SD	A0B180524001	8082	SO	1.2	2.0	
FWSSW-102-5010-SW	A0B180524002	8082	AQ	1.2	2.0	
LL6SD-082-5245-SD	A0B180524004	8082	SO	1.2	2.0	
LL6SD-082-6063-FD	A0B180524005	8082	SO	1.2	2.0	
LL6SW-082-5244-SW	A0B180524006	8082	AQ	1.0	2.0	
FWSSD-102-5011-SD	A0B180524001	8260B	SO	1.2	2.0	
FWSSW-102-5010-SW	A0B180524002	8260B	AQ	1.2	2.0	
LL6SD-082-5245-SD	A0B180524004	8260B	SO	1.2	2.0	
LL6SD-082-6063-FD	A0B180524005	8260B	SO	1.2	2.0	
LL6SW-082-5244-SW	A0B180524006	8260B	AQ	1.0	2.0	
PBA08-QC-6009-TB	A0B180524003	8260B	AQ	1.0	2.0	
FWSSD-102-5011-SD	A0B180524001	8270C	SO	1.2	2.0	
FWSSW-102-5010-SW	A0B180524002	8270C	AQ	1.2	2.0	
LL6SD-082-5245-SD	A0B180524004	8270C	SO	1.2	2.0	
LL6SD-082-6063-FD	A0B180524005	8270C	SO	1.2	2.0	
LL6SW-082-5244-SW	A0B180524006	8270C	AQ	1.0	2.0	
FWSSD-102-5011-SD	A0B180524001	8330B	SO	1.2	2.0	
FWSSW-102-5010-SW	A0B180524002	8330B	AQ	1.2	2.0	
LL6SD-082-5245-SD	A0B180524004	8330B	SO	1.2	2.0	

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QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0B180524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature (C)	Criteria	
					Lower Limit	Upper Limit
LL6SD-082-6063-FD	A0B180524005	8330B	SO	1.2	2.0	
LL6SW-082-5244-SW	A0B180524006	8330B	AQ	1.0	2.0	
FWSSD-102-5011-SD	A0B180524001	8330M	SO	1.2	2.0	
FWSSW-102-5010-SW	A0B180524002	8330M	AQ	1.2	2.0	
LL6SD-082-5245-SD	A0B180524004	8330M	SO	1.2	2.0	
LL6SD-082-6063-FD	A0B180524005	8330M	SO	1.2	2.0	
LL6SW-082-5244-SW	A0B180524006	8330M	AQ	1.0	2.0	
FWSSW-102-5010-SW	A0B180524002	9056	AQ	1.2	2.0	6.0
FWSSW-102-5010-SWMS	A0B180524002S	9056	AQ	1.2	2.0	6.0

Temperature Outlier Report

Lab Report Batch:

Lab ID:

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temp (C)	Temperature Criteria (C)			Between High and Gross Exceedence			Above Gross Exceedence		
					Low	High	Gross Exceed	Detect Quals		Non-Detect Qual(s)	Detect Quals		Non-Detect Qual(s)
								Non-Biased	Biased		Non-Biased	Biased	

QC Outlier Report: Holding Times

Lab Report Batch: A0B180524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Prep Method	Actual Holding Time		Criteria				Unit of Meas	Reported Dates (and Times)		
					Coll To Prep	Prep To Ana	Coll To Ana	Coll To Prep	Prep To Ana	Coll To Ana		Collection Date	Preparation Date	Analysis Date
FWSSW-102-5010-S	A0B180524002	8270C	AQ	3520C	8.0	5.0		7	40		Days	02/17/2010	02/25/2010	03/02/2010
LL6SW-082-5244-SW	A0B180524006	8270C	AQ	3520C	8.0	5.0		7	40		Days	02/17/2010	02/25/2010	03/02/2010

Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Method Batch : 0054246 **Analysis Method :** 8260B **Analysis Date :** 02/23/2010
Preparation Batch : 0054246 **Preparation Type :** 5030B **Preparation Date :** 02/23/2010
Lab Reporting Batch : A0B180524 **Lab ID:** TALCAN

LCS Lab Sample ID	Matrix	Analyte Name	Reported Values		Project Limits (Percent)			
			Percent Recovery	RPD	Rejection Point	Lower Limit	Upper Limit	RPD
A0B230000246C	AQ	Chloroethane	52		10.00	60.00	135.00	30.00
A0B230000246L		Chloroethane	51	1.4	10.00	60.00	135.00	30.00

Associated Samples	
Client Sample ID	Lab Sample ID
FWSSW-102-5010-SW	A0B180524002
LL6SW-082-5244-SW	A0B180524006
PBA08-QC-6009-TB	A0B180524003

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Method Batch : 0056134	Analysis Method : 8270C	Analysis Date : 03/02/2010
Preparation Batch : 0056134	Preparation Type : 3520C	Preparation Date : 02/25/2010
Lab Reporting Batch : A0B180524	Lab ID : TALCAN	

LCS Lab Sample ID	Matrix	Analyte Name	Reported Values		Project Limits (Percent)			
			Percent Recovery	RPD	Rejection Point	Lower Limit	Upper Limit	RPD
A0B250000134C	AQ	2-Methylnaphthalene	110		10.00	45.00	105.00	31.00
A0B250000134L		2-Methylnaphthalene	110	0.53	10.00	45.00	105.00	31.00

Associated Samples	
Client Sample ID	Lab Sample ID
FWSSW-102-5010-SW	A0B180524002
LL6SW-082-5244-SW	A0B180524006

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B180524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
FWSSD-102-5011-SD	A0B180524001	6020	SO	Thallium	U	0.31	0.30769231	mg/kg
				4,4'-DDD	U	3.1	3.07692308	ug/kg
				4,4'-DDT	U	3.1	3.07692308	ug/kg
				Aldrin	U	6.2	6.15384615	ug/kg
				alpha-BHC	U	3.9	3.84615385	ug/kg
				beta-BHC	U	5.4	5.38461538	ug/kg
				delta-BHC	U	6.2	6.15384615	ug/kg
				Endosulfan II	U	3.9	3.84615385	ug/kg
		Endrin ketone		U	3.1	3.07692308	ug/kg	
		gamma-BHC (Lindane)		U	3.9	3.84615385	ug/kg	
		Heptachlor		U	5.4	5.38461538	ug/kg	
		Heptachlor epoxide		U	3.9	3.84615385	ug/kg	
		Methoxychlor		U	7.7	7.69230769	ug/kg	
		8082		Aroclor 1016	U	51	2.61538462	ug/kg
				Aroclor 1221	U	51	2.61538462	ug/kg
				Aroclor 1232	U	51	2.61538462	ug/kg
	Aroclor 1242		U	51	2.61538462	ug/kg		
	Aroclor 1248		U	51	2.61538462	ug/kg		
	Aroclor 1254		U	51	2.61538462	ug/kg		
	Aroclor 1260		U	51	2.61538462	ug/kg		
	8260B		1,1,1-Trichloroethane	U	7.7	7.69230769	ug/kg	
		1,1,2,2-Tetrachloroethane	U	7.7	7.69230769	ug/kg		
		1,1,2-Trichloroethane	U	7.7	7.69230769	ug/kg		
		1,1-Dichloroethane	U	7.7	7.69230769	ug/kg		
		1,1-Dichloroethene	U	7.7	7.69230769	ug/kg		
		1,2-Dibromoethane (Ethylene Dibro	U	7.7	7.69230769	ug/kg		
		1,2-Dichloroethane	U	7.7	7.69230769	ug/kg		
		1,2-Dichloroethene (total)	U	7.7	7.69230769	ug/kg		
		1,2-Dichloropropane	U	7.7	7.69230769	ug/kg		
		2-Hexanone	U	31	30.7692308	ug/kg		
		4-methyl-2-pentanone (MIBK)	U	31	30.7692308	ug/kg		
		Benzene	U	7.7	7.69230769	ug/kg		

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B180524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
FWSSD-102-5011-SD	A0B180524001	8260B	SO	Bromochloromethane	U	7.7	7.69230769	ug/kg
				Bromodichloromethane	U	7.7	7.69230769	ug/kg
				Bromoform	U	7.7	7.69230769	ug/kg
				Bromomethane (Methyl bromide)	U	7.7	7.69230769	ug/kg
				Carbon disulfide	U	7.7	7.69230769	ug/kg
				Carbon tetrachloride	U	7.7	7.69230769	ug/kg
				Chlorobenzene	U	7.7	7.69230769	ug/kg
				Chlorodibromomethane	U	7.7	7.69230769	ug/kg
				Chloroethane	U	7.7	7.69230769	ug/kg
				Chloroform	U	7.7	7.69230769	ug/kg
				Chloromethane	U	7.7	7.69230769	ug/kg
				cis-1,3-Dichloropropene	U	7.7	7.69230769	ug/kg
				Ethylbenzene	U	7.7	7.69230769	ug/kg
				Methylene chloride	U	7.7	7.69230769	ug/kg
				Styrene	U	7.7	7.69230769	ug/kg
				Tetrachloroethene	U	7.7	7.69230769	ug/kg
				Toluene	U	7.7	7.69230769	ug/kg
				trans-1,3-Dichloropropene	U	7.7	7.69230769	ug/kg
				Trichloroethene	U	7.7	7.69230769	ug/kg
				Vinyl chloride	U	7.7	7.69230769	ug/kg
		8270C		1,2,4-Trichlorobenzene	U	510	507.692308	ug/kg
				1,2-Dichlorobenzene	U	510	507.692308	ug/kg
				1,3-Dichlorobenzene	U	510	507.692308	ug/kg
				1,4-Dichlorobenzene	U	510	507.692308	ug/kg
				2,4,5-Trichlorophenol	U	510	507.692308	ug/kg
				2,4,6-Trichlorophenol	U	510	507.692308	ug/kg
				2,4-Dichlorophenol	U	510	507.692308	ug/kg
				2,4-Dimethylphenol	U	510	507.692308	ug/kg
				2,4-Dinitrotoluene	U	510	507.692308	ug/kg
				2,6-Dinitrotoluene	U	510	507.692308	ug/kg
				2-Chloronaphthalene	U	510	507.692308	ug/kg
				2-Chlorophenol	U	510	507.692308	ug/kg
				2-Methylnaphthalene	U	510	507.692308	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B180524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
FWSSD-102-5011-SD	A0B180524001	8270C	SO	2-Methylphenol	U	510	507.692308	ug/kg
				2-Nitrophenol	U	510	507.692308	ug/kg
				3,3'-Dichlorobenzidine	U	510	507.692308	ug/kg
				3-methylphenol/4-methylphenol	U	510	#Error	ug/kg
				4-Bromophenyl phenyl ether	U	510	507.692308	ug/kg
				4-Chloro-3-methylphenol	U	510	507.692308	ug/kg
				4-Chloroaniline	U	510	507.692308	ug/kg
				4-Chlorophenyl phenyl ether	U	510	507.692308	ug/kg
				Acenaphthene	U	77	76.9230769	ug/kg
				Acenaphthylene	U	77	76.9230769	ug/kg
				Anthracene	U	77	76.9230769	ug/kg
				Benz[a]anthracene	U	77	76.9230769	ug/kg
				Benzo[a]pyrene	U	77	76.9230769	ug/kg
				Benzo[b]fluoranthene	U	77	76.9230769	ug/kg
				Benzo[g,h,i]perylene	U	77	76.9230769	ug/kg
				Benzo[k]fluoranthene	U	77	76.9230769	ug/kg
				Benzyl alcohol	U	510	507.692308	ug/kg
				bis(2-Chloroethoxy)methane	U	510	507.692308	ug/kg
				bis(2-Chloroethyl) ether	U	510	507.692308	ug/kg
				Bis(2-chloroisopropyl) ether	U	510	507.692308	ug/kg
				bis(2-Ethylhexyl) phthalate	U	510	507.692308	ug/kg
				Butyl benzyl phthalate	U	510	507.692308	ug/kg
				Carbazole	U	77	76.9230769	ug/kg
				Chrysene	U	77	76.9230769	ug/kg
				dibenz[a,h]anthracene	U	77	76.9230769	ug/kg
				Dibenzofuran	U	510	507.692308	ug/kg
				Diethyl phthalate	U	510	507.692308	ug/kg
				Dimethyl phthalate	U	510	507.692308	ug/kg
				Di-n-butyl phthalate	U	510	507.692308	ug/kg
				Di-n-octyl phthalate	U	510	507.692308	ug/kg
				Fluoranthene	U	77	76.9230769	ug/kg
				Fluorene	U	77	76.9230769	ug/kg
				Hexachlorobenzene	U	510	507.692308	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B180524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit				
							Criteria*	Units			
FWSSD-102-5011-SD	A0B180524001	8270C	SO	Hexachlorobutadiene	U	510	507.692308	ug/kg			
				HEXACHLOROCYCLOPENTADIE	U	510	#Error	ug/kg			
				Hexachloroethane	U	510	507.692308	ug/kg			
				Indeno[1,2,3-cd]pyrene	U	77	76.9230769	ug/kg			
				Isophorone	U	510	507.692308	ug/kg			
				Naphthalene	U	77	76.9230769	ug/kg			
				Nitrobenzene	U	510	507.692308	ug/kg			
				N-Nitrosodi-n-propylamine	U	510	507.692308	ug/kg			
				N-Nitrosodiphenylamine	U	510	507.692308	ug/kg			
				Pentachlorophenol	U	510	507.692308	ug/kg			
				Phenanthrene	U	77	76.9230769	ug/kg			
				Phenol	U	510	507.692308	ug/kg			
				Pyrene	U	77	507.692308	ug/kg			
				8330B	1,3,5-Trinitrobenzene	U	0.25	0.01523077	mg/kg		
				1,3-Dinitrobenzene	U	0.25	0.38076923	mg/kg			
		2,4,6-Trinitrotoluene (TNT)		U	0.25	0.38076923	mg/kg				
		2,4-Dinitrotoluene		U	0.25	0.38076923	mg/kg				
		2,6-Dinitrotoluene		U	0.25	0.38076923	mg/kg				
		2-Amino-4,6-dinitrotoluene		U	0.25	0.38076923	mg/kg				
		2-Nitrotoluene		U	0.25	0.38076923	mg/kg				
		3-Nitrotoluene		U	0.25	0.38076923	mg/kg				
		4-Amino-2,6-Dinitrotoluene		U	0.25	0.38076923	mg/kg				
		4-Nitrotoluene		U	0.50	0.76153846	mg/kg				
		Nitrobenzene		U	0.25	0.38076923	mg/kg				
		FWSSW-102-5010-SW		A0B180524002	8330B	AQ	1,3-Dinitrobenzene	U	0.15	0.1485	ug/L
							2,4,6-Trinitrotoluene (TNT)	U	0.15	0.1485	ug/L
							2,4-Dinitrotoluene	U	0.15	0.1485	ug/L
							2,6-Dinitrotoluene	U	0.15	0.1485	ug/L
							2-Amino-4,6-dinitrotoluene	U	0.30	0.297	ug/L
							2-Nitrotoluene	U	0.15	0.1485	ug/L
3-Nitrotoluene	U		0.50				0.495	ug/L			
4-Amino-2,6-Dinitrotoluene	U		0.15				0.1485	ug/L			

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B180524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
FWSSW-102-5010-SW	A0B180524002	8330B	AQ	Hexahydro-1,3,5-Trinitro-1,3,5-Triaz	U	0.25	0.2475	ug/L
				Methyl-2,4,6-Trinitrophenylnitramin	U	0.15	0.1485	ug/L
				Nitrobenzene	U	0.15	0.1485	ug/L
				Octahydro-1,3,5,7-tetranitro-1,3,5,7	U	0.15	0.1485	ug/L
LL6SD-082-5245-SD	A0B180524004	8081A	SO	4,4'-DDE	U	2.4	2.3943662	ug/kg
				Dieldrin	U	2.4	2.3943662	ug/kg
				Endosulfan I	U	2.4	2.3943662	ug/kg
				Endrin	U	2.4	2.3943662	ug/kg
				gamma-Chlordane	U	2.4	2.3943662	ug/kg
LL6SD-082-6063-FD	A0B180524005	353.2 Modified SO 6020 8081A		Nitrocellulose	U	8.2	8.19672131	mg/kg
				Thallium	U	0.33	0.32786885	mg/kg
				4,4'-DDD	U	3.3	3.27868852	ug/kg
				4,4'-DDE	U	2.8	2.78688525	ug/kg
				4,4'-DDT	U	3.3	3.27868852	ug/kg
				Aldrin	U	6.6	6.55737705	ug/kg
				alpha-BHC	U	4.1	4.09836066	ug/kg
				delta-BHC	U	6.6	6.55737705	ug/kg
				Dieldrin	U	2.8	2.78688525	ug/kg
				Endosulfan I	U	2.8	2.78688525	ug/kg
				Endosulfan II	U	4.1	4.09836066	ug/kg
				Endrin	U	2.8	2.78688525	ug/kg
				Endrin ketone	U	3.3	3.27868852	ug/kg
				gamma-BHC (Lindane)	U	4.1	4.09836066	ug/kg
				gamma-Chlordane	U	2.8	2.78688525	ug/kg
				Heptachlor epoxide	U	4.1	4.09836066	ug/kg
				Methoxychlor	U	8.2	8.19672131	ug/kg
				Toxaphene	U	110	109.836066	ug/kg
				1,1,1-Trichloroethane	U	8.2	8.19672131	ug/kg
				1,1,2,2-Tetrachloroethane	U	8.2	8.19672131	ug/kg
				1,1,2-Trichloroethane	U	8.2	8.19672131	ug/kg
				1,1-Dichloroethane	U	8.2	8.19672131	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B180524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit			
							Criteria*	Units		
LL6SD-082-6063-FD	A0B180524005	8260B	SO	1,1-Dichloroethene	U	8.2	8.19672131	ug/kg		
				1,2-Dibromoethane (Ethylene Dibro	U	8.2	8.19672131	ug/kg		
				1,2-Dichloroethane	U	8.2	8.19672131	ug/kg		
				1,2-Dichloroethene (total)	U	8.2	8.19672131	ug/kg		
				1,2-Dichloropropane	U	8.2	8.19672131	ug/kg		
				2-Butanone (MEK)	U	33	32.7868852	ug/kg		
				2-Hexanone	U	33	32.7868852	ug/kg		
				4-methyl-2-pentanone (MIBK)	U	33	32.7868852	ug/kg		
				Acetone	U	33	32.7868852	ug/kg		
				Benzene	U	8.2	8.19672131	ug/kg		
				Bromochloromethane	U	8.2	8.19672131	ug/kg		
				Bromodichloromethane	U	8.2	8.19672131	ug/kg		
				Bromoform	U	8.2	8.19672131	ug/kg		
				Bromomethane (Methyl bromide)	U	8.2	8.19672131	ug/kg		
				Carbon disulfide	U	8.2	8.19672131	ug/kg		
				Carbon tetrachloride	U	8.2	8.19672131	ug/kg		
				Chlorobenzene	U	8.2	8.19672131	ug/kg		
				Chlorodibromomethane	U	8.2	8.19672131	ug/kg		
				Chloroethane	U	8.2	8.19672131	ug/kg		
				Chloroform	U	8.2	8.19672131	ug/kg		
				Chloromethane	U	8.2	8.19672131	ug/kg		
				cis-1,3-Dichloropropene	U	8.2	8.19672131	ug/kg		
				Ethylbenzene	U	8.2	8.19672131	ug/kg		
				Methylene chloride	U	8.2	8.19672131	ug/kg		
				Styrene	U	8.2	8.19672131	ug/kg		
				Tetrachloroethene	U	8.2	8.19672131	ug/kg		
				trans-1,3-Dichloropropene	U	8.2	8.19672131	ug/kg		
				Trichloroethene	U	8.2	8.19672131	ug/kg		
				Vinyl chloride	U	8.2	8.19672131	ug/kg		
				8270C	Acenaphthene	U	82	81.9672131	ug/kg	
					Acenaphthylene	U	82	81.9672131	ug/kg	
					Anthracene	U	82	81.9672131	ug/kg	
					Benz[a]anthracene	U	82	81.9672131	ug/kg	

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B180524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL6SD-082-6063-FD	A0B180524005	8270C	SO	Benzo[a]pyrene	U	82	81.9672131	ug/kg
				Benzo[b]fluoranthene	U	82	81.9672131	ug/kg
				Benzo[g,h,i]perylene	U	82	81.9672131	ug/kg
				Benzo[k]fluoranthene	U	82	81.9672131	ug/kg
				Carbazole	U	82	81.9672131	ug/kg
				Chrysene	U	82	81.9672131	ug/kg
				dibenz[a,h]anthracene	U	82	81.9672131	ug/kg
				Fluorene	U	82	81.9672131	ug/kg
				Indeno[1,2,3-cd]pyrene	U	82	81.9672131	ug/kg
				Naphthalene	U	82	81.9672131	ug/kg
				Phenanthrene	U	82	81.9672131	ug/kg
				Pyrene	U	82	540.983607	ug/kg
LL6SW-082-5244-SW	A0B180524006	8330B	AQ	2-Amino-4,6-dinitrotoluene	U	0.31	0.309	ug/L
				3-Nitrotoluene	U	0.52	0.515	ug/L
				Hexahydro-1,3,5-Trinitro-1,3,5-Triaz	U	0.26	0.2575	ug/L

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Trip Blank

Lab Reporting Batch :
Method/Preparation Batch :
Client Sample ID :
Lab Sample ID :

Lab ID:
Analysis Date :
Preparation Date :
Preparation Type :

Analysis Method :

No contamination was found.

Continuing Calibration (CCV) Outlier Report (Organics)

There are no Organic Continuing Calibrations with outliers

Continuing Calibration (CCAL) Outlier Report (Inorganics)

There are no Inorganic Continuing Calibrations with outliers

Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0B180524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
FWSSD-102-5011-SD	A0B180524001	353.2 Modified	SO	Nitrocellulose	B J	1.3	7.7	mg/kg
				Antimony	J	0.15	0.77	mg/kg
				Cadmium	J	0.13	0.31	mg/kg
				Silver	J	0.066	0.77	mg/kg
		7471A		Sodium	J	72.5	155	mg/kg
				Mercury	J	0.038	0.15	mg/kg
				2-Butanone (MEK)	J B	3.5	31	ug/kg
				Acetone	J B	16	31	ug/kg
FWSSW-102-5010-SW	A0B180524002	6020	AQ	Antimony	J	0.42	5.0	ug/L
				Cadmium	J	0.65	2.0	ug/L
				Selenium	J	1.7	5.0	ug/L
				Silver	J	0.048	5.0	ug/L
		8270C		bis(2-Ethylhexyl) phthalate	J B	0.93	10	ug/L
LL6SD-082-5245-SD	A0B180524004	353.2 Modified	SO	Nitrocellulose	B J	1.3	7.0	mg/kg
				Antimony	J	0.091	0.70	mg/kg
				Cadmium	J	0.19	0.28	mg/kg
				Silver	J	0.015	0.70	mg/kg
		7471A		Sodium	J	32.1	140	mg/kg
				Thallium	J	0.095	0.28	mg/kg
				Mercury	J	0.039	0.14	mg/kg
LL6SD-082-6063-FD	A0B180524005	6020		Antimony	J	0.13	0.82	mg/kg
				Selenium	J	0.68	0.82	mg/kg
				Silver	J	0.054	0.82	mg/kg
				Sodium	J	36.7	164	mg/kg
		7471A		Mercury	J	0.064	0.16	mg/kg
		8260B		Toluene	J	0.54	8.2	ug/kg
		8270C		Fluoranthene	J	15	82	ug/kg
LL6SW-082-5244-SW	A0B180524006	353.2 Modified	AQ	Nitrocellulose	B	0.24	0.50	mg/L
				Antimony	J	0.26	5.0	ug/L
				Arsenic	J	3.2	5.0	ug/L
				Beryllium	J	0.42	1.0	ug/L
		6020		Cadmium	J	0.40	2.0	ug/L
				Selenium	J	0.61	5.0	ug/L
				Silver	J	0.021	5.0	ug/L
		8330B		Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetr	J	0.080	0.15	ug/L
PBA08-QC-6009-TB	A0B180524003	8260B		Acetone	J	4.8	10	ug/L

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Method Blank Outlier Report

Lab Reporting Batch : A0B180524

Lab ID: TALCAN

Analysis Method : 6020

Analysis Date : 02/24/2010

Preparation Type : 3050B

Preparation Date : 02/22/2010

Method Blank Lab Sample ID : A0B220000028B

Preparation Batch : 0053028

Vanadium					
	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.043	1.0	mg/kg	J	

Vanadium contamination found in the method blank did not qualify any samples.

Method Blank Outlier Report

Lab Reporting Batch : A0B180524

Lab ID: TALCAN

Analysis Method : 6020

Analysis Date : 02/26/2010

Preparation Type : 3050B

Preparation Date : 02/25/2010

Method Blank Lab Sample ID : A0B250000051B

Preparation Batch : 0056051

Copper					
	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.12	0.50	mg/kg	J	

Copper contamination found in the method blank did not qualify any samples.

Method Blank Outlier Report

Lab Reporting Batch : A0B180524

Lab ID: TALCAN

Analysis Method : 8270C

Analysis Date : 03/02/2010

Preparation Type : 3520C

Preparation Date : 02/25/2010

Method Blank Lab Sample ID : A0B250000134B

Preparation Batch : 0056134

bis(2-Ethylhexyl) phthalate	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.83	10	ug/L	J	Common Contaminant

bis(2-Ethylhexyl) phthalate was qualified due to method blank contamination in the following associated samples:

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
FWSSW-102-5010-SW	A0B180524002	1	0.93	J B	ug/L

Method Blank Outlier Report

Lab Reporting Batch : A0B180524

Lab ID: TALCAN

Analysis Method : 353.2 Modified

Analysis Date : 03/01/2010

Preparation Type : Gen Prep

Preparation Date : 02/25/2010

Method Blank Lab Sample ID : G0B250000149B

Preparation Batch : 0056149

Nitrocellulose	Result	Reporting Limit	Units	Lab Qual	Comments
	Method Blank Result:	0.80	5.0	mg/kg	B

Nitrocellulose was qualified due to method blank contamination in the following associated samples:

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
FWSSD-102-5011-SD	A0B180524001	1	1.3	B J	mg/kg
LL6SD-082-5245-SD	A0B180524004	1	1.3	B J	mg/kg

Method Blank Outlier Report

Lab Reporting Batch : A0B180524

Lab ID: TALCAN

Analysis Method : 8260B

Analysis Date : 02/25/2010

Preparation Type : 5030B

Preparation Date : 02/25/2010

Method Blank Lab Sample ID : A0B260000113B

Preparation Batch : 0057113

2-Butanone (MEK)	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	3.8	20	ug/kg	J	Common Contaminant

2-Butanone (MEK) was qualified due to method blank contamination in the following associated samples:

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
FWSSD-102-5011-SD	A0B180524001	1	3.5	J B	ug/kg

2-Hexanone	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	1.6	20	ug/kg	J	

2-Hexanone contamination found in the method blank did not qualify any samples.

Acetone	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	15	20	ug/kg	J	Common Contaminant

Acetone was qualified due to method blank contamination in the following associated samples:

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
FWSSD-102-5011-SD	A0B180524001	1	16	J B	ug/kg

Toluene	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.39	5.0	ug/kg	J	

Toluene contamination found in the method blank did not qualify any samples.

Method Blank Outlier Report

Lab Reporting Batch : A0B180524

Lab ID: TALCAN

Analysis Method : 8260B

Analysis Date : 02/26/2010

Preparation Type : 5030B

Preparation Date : 02/26/2010

Method Blank Lab Sample ID : A0C010000098B

Preparation Batch : 0060098

2-Butanone (MEK)	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	3.4	20	ug/kg	J	Common Contaminant

2-Butanone (MEK) contamination found in the method blank did not qualify any samples.

2-Hexanone	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	1.7	20	ug/kg	J	

2-Hexanone contamination found in the method blank did not qualify any samples.

Acetone	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	11	20	ug/kg	J	Common Contaminant

Acetone contamination found in the method blank did not qualify any samples.

Surrogate Recovery Outlier Report

Lab Report Batch: A0B180524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Dilution	Matrix	Surrogate	Percent Recovery	Criteria (percent)			Associated Target Analytes
							Lower Limit	Upper Limit	Reject Point	
LL6SW-082-5244-SW	A0B180524006	8082	1	AQ	Decachlorobiphenyl	33	40.0	135.0	10.0	All Target

QC Outlier Report: Field Duplicates (Non-qualified Outliers)

Lab Report Batch:

Lab ID:

			Field Sample				Field Sample Duplicate						
Analysis Method	Matrix	Analyte Name	Client Sample ID	Ana Type	Result	Lab Qualifier	Client Sample Duplicate ID	Ana Type	Result	Lab Qualifiers	RPD Dup* (%)	RPD Criteria (%)	Result Units

**Note: Outlier report also includes analytes detected in one sample but not in the related sample, i.e., analyte was detected in the field sample but not in the field duplicate sample, or vice versa. In this case, RPD value assigned to the field duplicate sample is 200.*

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QC Outlier Report: Holding Times

Lab Report Batch: A0B190524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Prep Method	Actual Holding Time		Criteria				Reported Dates (and Times)			
					Coll To Prep	Prep To Ana	Coll To Ana	Coll To Prep	Prep To Ana	Coll To Ana	Unit of Meas	Collection Date	Preparation Date	Analysis Date
LL9SD-113-5471-SD	A0B190524002	8081A	SO	3540C	23.0	3.0		14	40		Days	02/18/2010	03/13/2010	03/16/2010

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0053030	Analysis Method : 6020	Analysis Date : 02/25/2010
Preparation Batch : 0053030	Preparation Type : 3050B	Preparation Date : 02/24/2010
Lab Reporting Batch : A0B190524	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL9SD-111-5469-SDMS	A0B190524001S	SO	Antimony	29		30.00	75.00	125.00	20.00
LL9SD-111-5469-SDMS	A0B190524001D		Antimony	29		30.00	75.00	125.00	20.00

Associated Samples: All samples in Method Batch	
Client Sample ID	Lab Sample ID
FWSSD-103-5013-SD	A0B190524010
L10SD-094-5531-SD	A0B190524013
LL6SD-081-5243-SD	A0B190524009
LL9SD-111-5469-SD	A0B190524001
LL9SD-113-5471-SD	A0B190524002
LL9SD-113-6147-FD	A0B190524003
LL9SD-114-5472-SD	A0B190524004

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

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Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0054027	Analysis Method : 8270C	Analysis Date : 03/02/2010
Preparation Batch : 0054027	Preparation Type : 3540C	Preparation Date : 02/23/2010
Lab Reporting Batch : A0B190524	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL9SD-111-5469-SDMS	A0B190524001S	SO	3,3'-Dichlorobenzidine	0.0		0.00	10.00	130.00	56.00
			3-Nitroaniline	21		0.00	25.00	110.00	45.00
			4-Nitroaniline	26		0.00	35.00	115.00	30.00
LL9SD-111-5469-SDMS	A0B190524001D		3,3'-Dichlorobenzidine	0.0		0.00	10.00	130.00	56.00
			3-Nitroaniline	20		0.00	25.00	110.00	45.00
			4-Chloroaniline		80	0.00	10.00	95.00	30.00
			4-Nitroaniline	22		0.00	35.00	115.00	30.00

Associated Samples: Parent sample only	
Client Sample ID	Lab Sample ID
LL9SD-111-5469-SD	A0B190524001

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

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Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Method Batch : 0054246

Analysis Method : 8260B

Analysis Date : 02/23/2010

Preparation Batch : 0054246

Preparation Type : 5030B

Preparation Date : 02/23/2010

Lab Reporting Batch : A0B190524

Lab ID: TALCAN

LCS Lab Sample ID	Matrix	Analyte Name	Reported Values		Project Limits (Percent)			
			Percent Recovery	RPD	Rejection Point	Lower Limit	Upper Limit	RPD
A0B230000246C	AQ	Chloroethane	52		10.00	60.00	135.00	30.00
A0B230000246L		Chloroethane	51	1.4	10.00	60.00	135.00	30.00

Associated Samples	
Client Sample ID	Lab Sample ID
FWSSW-103-5012-SW	A0B190524011
LL9SW-111-5489-SW	A0B190524005
PBA08-QC-6000-FB	A0B190524007
PBA08-QC-6001-ER	A0B190524008
PBA08-QC-6010-TB	A0B190524012
PBA08-QC-6011-TB	A0B190524006

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B190524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
FWSSD-103-5013-SD	A0B190524010	353.2 Modified SO		Nitrocellulose	U	6.1	6.09756098	mg/kg
		6020		Antimony	U	0.61	0.6097561	mg/kg
		8081A		4,4'-DDE	U	2.1	2.07317073	ug/kg
				Dieldrin	U	2.1	2.07317073	ug/kg
				Endosulfan I	U	2.1	2.07317073	ug/kg
				Endrin	U	2.1	2.07317073	ug/kg
				gamma-Chlordane	U	2.1	2.07317073	ug/kg
				Methoxychlor	U	6.1	6.09756098	ug/kg
	8260B			1,1,1-Trichloroethane	U	6.1	6.09756098	ug/kg
				1,1,2,2-Tetrachloroethane	U	6.1	6.09756098	ug/kg
				1,1,2-Trichloroethane	U	6.1	6.09756098	ug/kg
				1,1-Dichloroethane	U	6.1	6.09756098	ug/kg
				1,1-Dichloroethene	U	6.1	6.09756098	ug/kg
				1,2-Dibromoethane (Ethylene Dibro	U	6.1	6.09756098	ug/kg
				1,2-Dichloroethane	U	6.1	6.09756098	ug/kg
				1,2-Dichloroethene (total)	U	6.1	6.09756098	ug/kg
				1,2-Dichloropropane	U	6.1	6.09756098	ug/kg
				Benzene	U	6.1	6.09756098	ug/kg
				Bromochloromethane	U	6.1	6.09756098	ug/kg
				Bromodichloromethane	U	6.1	6.09756098	ug/kg
				Bromoform	U	6.1	6.09756098	ug/kg
				Bromomethane (Methyl bromide)	U	6.1	6.09756098	ug/kg
				Carbon disulfide	U	6.1	6.09756098	ug/kg
				Carbon tetrachloride	U	6.1	6.09756098	ug/kg
				Chlorobenzene	U	6.1	6.09756098	ug/kg
				Chlorodibromomethane	U	6.1	6.09756098	ug/kg
				Chloroethane	U	6.1	6.09756098	ug/kg
				Chloroform	U	6.1	6.09756098	ug/kg
				Chloromethane	U	6.1	6.09756098	ug/kg
				cis-1,3-Dichloropropene	U	6.1	6.09756098	ug/kg
				Ethylbenzene	U	6.1	6.09756098	ug/kg
				Methylene chloride	U	6.1	6.09756098	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B190524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
FWSSD-103-5013-SD	A0B190524010	8260B	SO	Styrene	U	6.1	6.09756098	ug/kg
				Tetrachloroethene	U	6.1	6.09756098	ug/kg
				trans-1,3-Dichloropropene	U	6.1	6.09756098	ug/kg
				Trichloroethene	U	6.1	6.09756098	ug/kg
				Vinyl chloride	U	6.1	6.09756098	ug/kg
				Acenaphthene	U	61	60.9756098	ug/kg
				Acenaphthylene	U	61	60.9756098	ug/kg
				Anthracene	U	61	60.9756098	ug/kg
				Benz[a]anthracene	U	61	60.9756098	ug/kg
				Benzo[a]pyrene	U	61	60.9756098	ug/kg
				Benzo[b]fluoranthene	U	61	60.9756098	ug/kg
				Benzo[g,h,i]perylene	U	61	60.9756098	ug/kg
				Benzo[k]fluoranthene	U	61	60.9756098	ug/kg
				Carbazole	U	61	60.9756098	ug/kg
				Chrysene	U	61	60.9756098	ug/kg
				dibenz[a,h]anthracene	U	61	60.9756098	ug/kg
				Fluoranthene	U	61	60.9756098	ug/kg
				Fluorene	U	61	60.9756098	ug/kg
				Indeno[1,2,3-cd]pyrene	U	61	60.9756098	ug/kg
				Naphthalene	U	61	60.9756098	ug/kg
				Phenanthrene	U	61	60.9756098	ug/kg
				Pyrene	U	61	402.439024	ug/kg
		8330B		1,3,5-Trinitrobenzene	U	0.25	0.01207317	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.30182927	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.30182927	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.30182927	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.30182927	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.30182927	mg/kg
				2-Nitrotoluene	U	0.25	0.30182927	mg/kg
				3-Nitrotoluene	U	0.25	0.30182927	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.30182927	mg/kg
				4-Nitrotoluene	U	0.50	0.60365854	mg/kg
				Nitrobenzene	U	0.25	0.30182927	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B190524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
FWSSW-103-5012-SW	A0B190524011	8330B	AQ	1,3,5-Trinitrobenzene	U	0.11	0.108	ug/L
				4-Nitrotoluene	U	1.1	1.08	ug/L
				Nitroglycerin	U	1.1	1.08	ug/L
				PETN	U	1.1	1.08	ug/L
L10SD-094-5531-SD	A0B190524013	353.2 Modified SO 8081A		Nitrocellulose	U	7.6	7.57575758	mg/kg
				4,4'-DDE	U	2.6	2.57575758	ug/kg
				Aldrin	U	6.1	6.06060606	ug/kg
				alpha-BHC	U	3.8	3.78787879	ug/kg
				alpha-Chordane	U	4.6	4.54545455	ug/kg
				delta-BHC	U	6.1	6.06060606	ug/kg
				Dieldrin	U	2.6	2.57575758	ug/kg
				Endosulfan I	U	2.6	2.57575758	ug/kg
				Endosulfan II	U	3.8	3.78787879	ug/kg
				Endosulfan sulfate	U	4.6	4.54545455	ug/kg
				Endrin	U	2.6	2.57575758	ug/kg
				Endrin aldehyde	U	4.6	4.54545455	ug/kg
				gamma-BHC (Lindane)	U	3.8	3.78787879	ug/kg
				gamma-Chlordane	U	2.6	2.57575758	ug/kg
				Heptachlor epoxide	U	3.8	3.78787879	ug/kg
				Methoxychlor	U	7.6	7.57575758	ug/kg
				1,1,1-Trichloroethane	U	7.6	7.57575758	ug/kg
				1,1,2,2-Tetrachloroethane	U	7.6	7.57575758	ug/kg
				1,1,2-Trichloroethane	U	7.6	7.57575758	ug/kg
				1,1-Dichloroethane	U	7.6	7.57575758	ug/kg
				1,1-Dichloroethene	U	7.6	7.57575758	ug/kg
				1,2-Dibromoethane (Ethylene Dibro	U	7.6	7.57575758	ug/kg
				1,2-Dichloroethane	U	7.6	7.57575758	ug/kg
				1,2-Dichloroethene (total)	U	7.6	7.57575758	ug/kg
				1,2-Dichloropropane	U	7.6	7.57575758	ug/kg
				Benzene	U	7.6	7.57575758	ug/kg
				Bromochloromethane	U	7.6	7.57575758	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B190524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
L10SD-094-5531-SD	A0B190524013	8260B	SO	Bromodichloromethane	U	7.6	7.57575758	ug/kg
				Bromoform	U	7.6	7.57575758	ug/kg
				Bromomethane (Methyl bromide)	U	7.6	7.57575758	ug/kg
				Carbon disulfide	U	7.6	7.57575758	ug/kg
				Carbon tetrachloride	U	7.6	7.57575758	ug/kg
				Chlorobenzene	U	7.6	7.57575758	ug/kg
				Chlorodibromomethane	U	7.6	7.57575758	ug/kg
				Chloroethane	U	7.6	7.57575758	ug/kg
				Chloroform	U	7.6	7.57575758	ug/kg
				Chloromethane	U	7.6	7.57575758	ug/kg
				cis-1,3-Dichloropropene	U	7.6	7.57575758	ug/kg
				Ethylbenzene	U	7.6	7.57575758	ug/kg
				Methylene chloride	U	7.6	7.57575758	ug/kg
				Styrene	U	7.6	7.57575758	ug/kg
				Tetrachloroethene	U	7.6	7.57575758	ug/kg
				trans-1,3-Dichloropropene	U	7.6	7.57575758	ug/kg
				Trichloroethene	U	7.6	7.57575758	ug/kg
				Vinyl chloride	U	7.6	7.57575758	ug/kg
		8270C		Acenaphthene	U	76	75.7575758	ug/kg
				Acenaphthylene	U	76	75.7575758	ug/kg
				Anthracene	U	76	75.7575758	ug/kg
				Benzo[g,h,i]perylene	U	76	75.7575758	ug/kg
				Benzo[k]fluoranthene	U	76	75.7575758	ug/kg
				Carbazole	U	76	75.7575758	ug/kg
				dibenz[a,h]anthracene	U	76	75.7575758	ug/kg
				Fluorene	U	76	75.7575758	ug/kg
				Indeno[1,2,3-cd]pyrene	U	76	75.7575758	ug/kg
				Naphthalene	U	76	75.7575758	ug/kg
				Phenanthrene	U	76	75.7575758	ug/kg
		8330B		1,3,5-Trinitrobenzene	U	0.25	0.015	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.375	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.375	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.375	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B190524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
L10SD-094-5531-SD	A0B190524013	8330B	SO	2,6-Dinitrotoluene	U	0.25	0.375	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.375	mg/kg
				2-Nitrotoluene	U	0.25	0.375	mg/kg
				3-Nitrotoluene	U	0.25	0.375	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.375	mg/kg
				4-Nitrotoluene	U	0.50	0.75	mg/kg
				Nitrobenzene	U	0.25	0.375	mg/kg
LL6SD-081-5243-SD	A0B190524009	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.020625	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.515625	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.515625	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.515625	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.515625	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.515625	mg/kg
				2-Nitrotoluene	U	0.25	0.515625	mg/kg
				3-Nitrotoluene	U	0.25	0.515625	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.515625	mg/kg
				4-Nitrotoluene	U	0.50	1.03125	mg/kg
				Nitrobenzene	U	0.25	0.515625	mg/kg
LL9SD-111-5469-SD	A0B190524001	8270C	SO	2,4-Dinitrophenol	U	1300	1290.32258	ug/kg
				2-Nitroaniline	U	1300	1290.32258	ug/kg
				3-Nitroaniline	U	1300	1290.32258	ug/kg
				4,6-Dinitro-2-methylphenol	U	1300	1290.32258	ug/kg
				4-Nitroaniline	U	1300	1290.32258	ug/kg
				4-Nitrophenol	U	1300	1290.32258	ug/kg
				Benzoic acid	U	1300	1290.32258	ug/kg
LL9SD-113-5471-SD	A0B190524002	8081A	SO	4,4'-DDE	U	14	13.7096774	ug/kg
				Dieldrin	U	14	13.7096774	ug/kg
				Endosulfan I	U	14	13.7096774	ug/kg
				Endrin	U	14	13.7096774	ug/kg
				gamma-Chlordane	U	14	13.7096774	ug/kg
		8270C		2,4-Dinitrophenol	U	1300	1290.32258	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B190524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit					
							Criteria*	Units				
LL9SD-113-5471-SD	A0B190524002	8270C	SO	2-Nitroaniline	U	1300	1290.32258	ug/kg				
				3-Nitroaniline	U	1300	1290.32258	ug/kg				
				4,6-Dinitro-2-methylphenol	U	1300	1290.32258	ug/kg				
				4-Nitroaniline	U	1300	1290.32258	ug/kg				
				4-Nitrophenol	U	1300	1290.32258	ug/kg				
				Benzoic acid	U	1300	1290.32258	ug/kg				
		8330B		1,3,5-Trinitrobenzene	U	0.25	0.01596774	mg/kg				
				1,3-Dinitrobenzene	U	0.25	0.39919355	mg/kg				
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.39919355	mg/kg				
				2,4-Dinitrotoluene	U	0.25	0.39919355	mg/kg				
				2,6-Dinitrotoluene	U	0.25	0.39919355	mg/kg				
				2-Amino-4,6-dinitrotoluene	U	0.25	0.39919355	mg/kg				
				2-Nitrotoluene	U	0.25	0.39919355	mg/kg				
				3-Nitrotoluene	U	0.25	0.39919355	mg/kg				
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.39919355	mg/kg				
				4-Nitrotoluene	U	0.50	0.7983871	mg/kg				
				Nitrobenzene	U	0.25	0.39919355	mg/kg				
				LL9SD-113-6147-FD	A0B190524003	8081A	SO	4,4'-DDD	U	17	16.6666667	ug/kg
								4,4'-DDT	U	17	16.6666667	ug/kg
								alpha-BHC	U	21	20.8333333	ug/kg
Endosulfan II	U	21	20.8333333					ug/kg				
Endrin ketone	U	17	16.6666667					ug/kg				
gamma-BHC (Lindane)	U	21	20.8333333					ug/kg				
Heptachlor epoxide	U	21	20.8333333					ug/kg				
Methoxychlor	U	42	41.6666667					ug/kg				
Toxaphene	U	560	558.333333					ug/kg				
8260B	1,1,1-Trichloroethane	U	8.4			8.33333333		ug/kg				
	1,1,2,2-Tetrachloroethane	U	8.4			8.33333333		ug/kg				
	1,1,2-Trichloroethane	U	8.4			8.33333333		ug/kg				
	1,1-Dichloroethane	U	8.4			8.33333333		ug/kg				
	1,1-Dichloroethene	U	8.4			8.33333333		ug/kg				
1,2-Dibromoethane (Ethylene Dibro	U	8.4	8.33333333	ug/kg								

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B190524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
LL9SD-113-6147-FD	A0B190524003	8260B	SO	1,2-Dichloroethane	U	8.4	8.33333333	ug/kg
				1,2-Dichloroethene (total)	U	8.4	8.33333333	ug/kg
				1,2-Dichloropropane	U	8.4	8.33333333	ug/kg
				Benzene	U	8.4	8.33333333	ug/kg
				Bromochloromethane	U	8.4	8.33333333	ug/kg
				Bromodichloromethane	U	8.4	8.33333333	ug/kg
				Bromoform	U	8.4	8.33333333	ug/kg
				Bromomethane (Methyl bromide)	U	8.4	8.33333333	ug/kg
				Carbon disulfide	U	8.4	8.33333333	ug/kg
				Carbon tetrachloride	U	8.4	8.33333333	ug/kg
				Chlorobenzene	U	8.4	8.33333333	ug/kg
				Chlorodibromomethane	U	8.4	8.33333333	ug/kg
				Chloroethane	U	8.4	8.33333333	ug/kg
				Chloroform	U	8.4	8.33333333	ug/kg
				Chloromethane	U	8.4	8.33333333	ug/kg
				cis-1,3-Dichloropropene	U	8.4	8.33333333	ug/kg
				Ethylbenzene	U	8.4	8.33333333	ug/kg
				Methylene chloride	U	8.4	8.33333333	ug/kg
				Styrene	U	8.4	8.33333333	ug/kg
				Tetrachloroethene	U	8.4	8.33333333	ug/kg
				Toluene	U	8.4	8.33333333	ug/kg
				trans-1,3-Dichloropropene	U	8.4	8.33333333	ug/kg
				Trichloroethene	U	8.4	8.33333333	ug/kg
				Vinyl chloride	U	8.4	8.33333333	ug/kg
				Xylene (Total)	U	17	16.6666667	ug/kg
		8270C		Acenaphthene	U	84	83.3333333	ug/kg
				Acenaphthylene	U	84	83.3333333	ug/kg
				Anthracene	U	84	83.3333333	ug/kg
				Carbazole	U	84	83.3333333	ug/kg
				dibenz[a,h]anthracene	U	84	83.3333333	ug/kg
				Fluorene	U	84	83.3333333	ug/kg
				Naphthalene	U	84	83.3333333	ug/kg
		8330B			1,3,5-Trinitrobenzene	U	0.25	0.0165

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B190524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
LL9SD-113-6147-FD	A0B190524003	8330B	SO	1,3-Dinitrobenzene	U	0.25	0.4125	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.4125	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.4125	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.4125	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.4125	mg/kg
				2-Nitrotoluene	U	0.25	0.4125	mg/kg
				3-Nitrotoluene	U	0.25	0.4125	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.4125	mg/kg
				4-Nitrotoluene	U	0.50	0.825	mg/kg
				Nitrobenzene	U	0.25	0.4125	mg/kg
LL9SD-114-5472-SD	A0B190524004	8270C	SO	1,2,4-Trichlorobenzene	U	450	445.945946	ug/kg
				1,2-Dichlorobenzene	U	450	445.945946	ug/kg
				1,3-Dichlorobenzene	U	450	445.945946	ug/kg
				1,4-Dichlorobenzene	U	450	445.945946	ug/kg
				2,4,5-Trichlorophenol	U	450	445.945946	ug/kg
				2,4,6-Trichlorophenol	U	450	445.945946	ug/kg
				2,4-Dichlorophenol	U	450	445.945946	ug/kg
				2,4-Dimethylphenol	U	450	445.945946	ug/kg
				2,4-Dinitrophenol	U	1100	1081.08108	ug/kg
				2,4-Dinitrotoluene	U	450	445.945946	ug/kg
				2,6-Dinitrotoluene	U	450	445.945946	ug/kg
				2-Chloronaphthalene	U	450	445.945946	ug/kg
				2-Chlorophenol	U	450	445.945946	ug/kg
				2-Methylphenol	U	450	445.945946	ug/kg
				2-Nitroaniline	U	1100	1081.08108	ug/kg
				2-Nitrophenol	U	450	445.945946	ug/kg
				3,3'-Dichlorobenzidine	U	450	445.945946	ug/kg
				3-methylphenol/4-methylphenol	U	450	#Error	ug/kg
				3-Nitroaniline	U	1100	1081.08108	ug/kg
				4,6-Dinitro-2-methylphenol	U	1100	1081.08108	ug/kg
				4-Bromophenyl phenyl ether	U	450	445.945946	ug/kg
				4-Chloro-3-methylphenol	U	450	445.945946	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B190524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL9SD-114-5472-SD	A0B190524004	8270C	SO	4-Chloroaniline	U	450	445.945946	ug/kg
				4-Chlorophenyl phenyl ether	U	450	445.945946	ug/kg
				4-Nitroaniline	U	1100	1081.08108	ug/kg
				4-Nitrophenol	U	1100	1081.08108	ug/kg
				Acenaphthene	U	68	67.5675676	ug/kg
				Acenaphthylene	U	68	67.5675676	ug/kg
				Anthracene	U	68	67.5675676	ug/kg
				Benzoic acid	U	1100	1081.08108	ug/kg
				bis(2-Chloroethoxy)methane	U	450	445.945946	ug/kg
				bis(2-Chloroethyl) ether	U	450	445.945946	ug/kg
				Bis(2-chloroisopropyl) ether	U	450	445.945946	ug/kg
				bis(2-Ethylhexyl) phthalate	U	450	445.945946	ug/kg
				Butyl benzyl phthalate	U	450	445.945946	ug/kg
				Carbazole	U	68	67.5675676	ug/kg
				dibenz[a,h]anthracene	U	68	67.5675676	ug/kg
				Dibenzofuran	U	450	445.945946	ug/kg
				Diethyl phthalate	U	450	445.945946	ug/kg
				Dimethyl phthalate	U	450	445.945946	ug/kg
				Di-n-butyl phthalate	U	450	445.945946	ug/kg
				Di-n-octyl phthalate	U	450	445.945946	ug/kg
				Fluorene	U	68	67.5675676	ug/kg
				Hexachlorobenzene	U	450	445.945946	ug/kg
				Hexachlorobutadiene	U	450	445.945946	ug/kg
				HEXACHLOROCYCLOPENTADIE	U	450	#Error	ug/kg
				Hexachloroethane	U	450	445.945946	ug/kg
				Isophorone	U	450	445.945946	ug/kg
				Nitrobenzene	U	450	445.945946	ug/kg
				N-Nitrosodi-n-propylamine	U	450	445.945946	ug/kg
				N-Nitrosodiphenylamine	U	450	445.945946	ug/kg
				Pentachlorophenol	U	450	445.945946	ug/kg
				Phenol	U	450	445.945946	ug/kg
LL9SW-111-5489-SW	A0B190524005	8330B	AQ	1,3-Dinitrobenzene	U	0.15	0.1485	ug/L

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B190524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
LL9SW-111-5489-SW	A0B190524005	8330B	AQ	2,4,6-Trinitrotoluene (TNT)	U	0.15	0.1485	ug/L
				2,4-Dinitrotoluene	U	0.15	0.1485	ug/L
				2,6-Dinitrotoluene	U	0.15	0.1485	ug/L
				2-Amino-4,6-dinitrotoluene	U	0.30	0.297	ug/L
				2-Nitrotoluene	U	0.15	0.1485	ug/L
				3-Nitrotoluene	U	0.50	0.495	ug/L
				4-Amino-2,6-Dinitrotoluene	U	0.15	0.1485	ug/L
				Hexahydro-1,3,5-Trinitro-1,3,5-Triaz	U	0.25	0.2475	ug/L
				Methyl-2,4,6-Trinitrophenylnitramin	U	0.15	0.1485	ug/L
				Nitrobenzene	U	0.15	0.1485	ug/L
				Octahydro-1,3,5,7-tetranitro-1,3,5,7	U	0.15	0.1485	ug/L
PBA08-QC-6000-FB	A0B190524007	8330B	AQ	1,3-Dinitrobenzene	U	0.15	0.147	ug/L
				2,4,6-Trinitrotoluene (TNT)	U	0.15	0.147	ug/L
				2,4-Dinitrotoluene	U	0.15	0.147	ug/L
				2,6-Dinitrotoluene	U	0.15	0.147	ug/L
				2-Nitrotoluene	U	0.15	0.147	ug/L
				4-Amino-2,6-Dinitrotoluene	U	0.15	0.147	ug/L
				Methyl-2,4,6-Trinitrophenylnitramin	U	0.15	0.147	ug/L
				Nitrobenzene	U	0.15	0.147	ug/L
				Octahydro-1,3,5,7-tetranitro-1,3,5,7	U	0.15	0.147	ug/L
PBA08-QC-6001-ER	A0B190524008	8330B	AQ	1,3-Dinitrobenzene	U	0.15	0.1485	ug/L
				2,4,6-Trinitrotoluene (TNT)	U	0.15	0.1485	ug/L
				2,4-Dinitrotoluene	U	0.15	0.1485	ug/L
				2,6-Dinitrotoluene	U	0.15	0.1485	ug/L
				2-Amino-4,6-dinitrotoluene	U	0.30	0.297	ug/L
				2-Nitrotoluene	U	0.15	0.1485	ug/L
				3-Nitrotoluene	U	0.50	0.495	ug/L
				4-Amino-2,6-Dinitrotoluene	U	0.15	0.1485	ug/L
				Hexahydro-1,3,5-Trinitro-1,3,5-Triaz	U	0.25	0.2475	ug/L
				Methyl-2,4,6-Trinitrophenylnitramin	U	0.15	0.1485	ug/L
				Nitrobenzene	U	0.15	0.1485	ug/L

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0B190524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
PBA08-QC-6001-ER	A0B190524008	8330B	AQ	Octahydro-1,3,5,7-tetranitro-1,3,5,7	U	0.15	0.1485	ug/L

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Continuing Calibration (CCV) Outlier Report (Organics)

There are no Organic Continuing Calibrations with outliers

Continuing Calibration (CCAL) Outlier Report (Inorganics)

There are no Inorganic Continuing Calibrations with outliers

Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0B190524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
FWSSD-103-5013-SD	A0B190524010	6020	SO	Cadmium	J	0.078	0.24	mg/kg
				Silver	J	0.042	0.61	mg/kg
				Sodium	J	50.6	121	mg/kg
				Thallium	J	0.13	0.24	mg/kg
FWSSW-103-5012-SW	A0B190524011	6020	AQ	Toluene	J	0.41	6.1	ug/kg
				Cobalt	J	0.11	5.0	ug/L
				Nickel	J	0.63	10.0	ug/L
				Selenium	J	0.22	5.0	ug/L
L10SD-094-5531-SD	A0B190524013	6020	SO	bis(2-Ethylhexyl) phthalate	J B	3.2	10	ug/L
				Antimony	J	0.12	0.76	mg/kg
				Silver	J	0.048	0.76	mg/kg
				Sodium	J	29.8	152	mg/kg
				Thallium	J	0.17	0.30	mg/kg
		7471A		Mercury	J	0.049	0.15	mg/kg
				Toluene	J	0.42	7.6	ug/kg
				3-methylphenol/4-methylphenol	J	32	500	ug/kg
				Benz[a]anthracene	J	10	76	ug/kg
		8260B		Benzo[a]pyrene	J	12	76	ug/kg
				Benzo[b]fluoranthene	J	21	76	ug/kg
				Chrysene	J	15	76	ug/kg
				Fluoranthene	J	20	76	ug/kg
		8270C		Pyrene	J	13	76	ug/kg
				Antimony	J	0.48	1.0	mg/kg
				Silver	J	0.30	1.0	mg/kg
				Sodium	J	72.6	209	mg/kg
LL6SD-081-5243-SD	A0B190524009	6020		Thallium	J	0.32	0.42	mg/kg
				Mercury	J	0.14	0.21	mg/kg
LL9SD-111-5469-SD	A0B190524001	6020		Antimony	J	0.14	0.80	mg/kg
				Silver	J	0.056	0.80	mg/kg
				Sodium	J	32.1	161	mg/kg
				Thallium	J	0.16	0.32	mg/kg
		7471A		Mercury	J	0.086	0.16	mg/kg
				Benzo[b]fluoranthene	J	13	80	ug/kg
				Fluoranthene	J	18	80	ug/kg
				Pyrene	J	14	80	ug/kg
LL9SD-113-5471-SD	A0B190524002	6020		Antimony	J	0.16	0.80	mg/kg

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0B190524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
LL9SD-113-5471-SD	A0B190524002	6020	SO	Silver	J	0.066	0.80	mg/kg
				Sodium	J	43.6	160	mg/kg
				Thallium	J	0.24	0.32	mg/kg
				Toluene	J	0.44	8.0	ug/kg
		8260B		Benz[a]anthracene	J	25	80	ug/kg
				Benzo[a]pyrene	J	26	80	ug/kg
				Benzo[b]fluoranthene	J	42	80	ug/kg
				Benzo[g,h,i]perylene	J	22	80	ug/kg
				Benzyl alcohol	J	36	530	ug/kg
				Chrysene	J	31	80	ug/kg
				Fluoranthene	J	57	80	ug/kg
				Indeno[1,2,3-cd]pyrene	J	19	80	ug/kg
				Phenanthrene	J	22	80	ug/kg
				Pyrene	J	44	80	ug/kg
LL9SD-113-6147-FD	A0B190524003	353.2 Modified		Nitrocellulose	B J	1.4	8.4	mg/kg
				Antimony	J	0.16	0.84	mg/kg
		6020		Silver	J	0.059	0.84	mg/kg
				Sodium	J	38.7	167	mg/kg
				Thallium	J	0.22	0.33	mg/kg
				Mercury	J	0.14	0.17	mg/kg
		8270C		Benz[a]anthracene	J	25	84	ug/kg
				Benzo[a]pyrene	J	26	84	ug/kg
				Benzo[b]fluoranthene	J	45	84	ug/kg
				Benzo[g,h,i]perylene	J	21	84	ug/kg
				Benzo[k]fluoranthene	J	17	84	ug/kg
				Chrysene	J	28	84	ug/kg
				Fluoranthene	J	57	84	ug/kg
				Indeno[1,2,3-cd]pyrene	J	18	84	ug/kg
				Phenanthrene	J	19	84	ug/kg
				Pyrene	J	41	84	ug/kg
LL9SD-114-5472-SD	A0B190524004	6020		Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetr	J PG	0.026	0.25	mg/kg
				Antimony	J	0.16	0.68	mg/kg
				Silver	J	0.056	0.68	mg/kg
				Sodium	J	41.5	136	mg/kg
		8270C		Thallium	J	0.20	0.27	mg/kg
				2-Methylnaphthalene	J	14	450	ug/kg

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Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0B190524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting			
							Limit	Units		
LL9SD-114-5472-SD	A0B190524004	8270C	SO	Benz[a]anthracene	J	36	68	ug/kg		
				Benzo[a]pyrene	J	39	68	ug/kg		
				Benzo[b]fluoranthene	J	58	68	ug/kg		
				Benzo[g,h,i]perylene	J	27	68	ug/kg		
				Benzo[k]fluoranthene	J	19	68	ug/kg		
				Benzyl alcohol	J	35	450	ug/kg		
				Chrysene	J	40	68	ug/kg		
				Indeno[1,2,3-cd]pyrene	J	24	68	ug/kg		
				Naphthalene	J	9.2	68	ug/kg		
				Phenanthrene	J	39	68	ug/kg		
				Pyrene	J	67	68	ug/kg		
				8330B	PETN	J	0.13	0.49	mg/kg	
		LL9SW-111-5489-SW	A0B190524005	6020	AQ	Cadmium	J	0.044	2.0	ug/L
						Cobalt	J	0.074	5.0	ug/L
Lead	J					0.22	3.0	ug/L		
Nickel	J					1.5	10.0	ug/L		
Potassium	J					971	1000	ug/L		
Vanadium	J					0.81	10.0	ug/L		
Zinc	J					21.1	40.0	ug/L		
	8270C	bis(2-Ethylhexyl) phthalate	J B	1.0	10	ug/L				
PBA08-QC-6000-FB	A0B190524007	8260B	Toluene	J	0.53	1.0	ug/L			
		8270C	bis(2-Ethylhexyl) phthalate	J B	3.5	10	ug/L			
PBA08-QC-6001-ER	A0B190524008	6020	Vanadium	J	0.53	10.0	ug/L			
			Zinc	J	10.4	40.0	ug/L			
		8260B	2-Butanone (MEK)	J	0.72	10	ug/L			
		Acetone	J	4.0	10	ug/L				
		Toluene	J	0.42	1.0	ug/L				
	8270C	bis(2-Ethylhexyl) phthalate	J B	1.2	10	ug/L				
PBA08-QC-6010-TB	A0B190524012	8260B	Acetone	J	4.6	10	ug/L			
PBA08-QC-6011-TB	A0B190524006		Acetone	J	4.6	10	ug/L			

Method Blank Outlier Report

Lab Reporting Batch : A0B190524

Lab ID: TALCAN

Analysis Method : 8270C

Analysis Date : 02/23/2010

Preparation Type : 3520C

Preparation Date : 02/20/2010

Method Blank Lab Sample ID : A0B200000014B

Preparation Batch : 0051014

bis(2-Ethylhexyl) phthalate	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	1.9	10	ug/L	J	Common Contaminant

bis(2-Ethylhexyl) phthalate was qualified due to method blank contamination in the following associated samples:

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
FWSSW-103-5012-SW	A0B190524011	1	3.2	J B	ug/L
LL9SW-111-5489-SW	A0B190524005	1	1.0	J B	ug/L
PBA08-QC-6000-FB	A0B190524007	1	3.5	J B	ug/L
PBA08-QC-6001-ER	A0B190524008	1	1.2	J B	ug/L

Method Blank Outlier Report

Lab Reporting Batch : A0B190524

Lab ID: TALCAN

Analysis Method : 6020

Analysis Date : 02/25/2010

Preparation Type : 3050B

Preparation Date : 02/24/2010

Method Blank Lab Sample ID : A0B220000030B

Preparation Batch : 0053030

Manganese	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	1.2	1.0	mg/kg		

Manganese contamination found in the method blank did not qualify any samples.

Potassium	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	4.2	100	mg/kg	J	

Potassium contamination found in the method blank did not qualify any samples.

Method Blank Outlier Report

Lab Reporting Batch : A0B190524

Lab ID: TALCAN

Analysis Method : 353.2 Modified

Analysis Date : 03/01/2010

Preparation Type : Gen Prep

Preparation Date : 02/25/2010

Method Blank Lab Sample ID : G0B250000149B

Preparation Batch : 0056149

Nitrocellulose	Result	Reporting Limit	Units	Lab Qual	Comments
	Method Blank Result:	0.80	5.0	mg/kg	B

Nitrocellulose was qualified due to method blank contamination in the following associated samples:

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
LL9SD-113-6147-FD	A0B190524003	1	1.4	B J	mg/kg

Method Blank Outlier Report

Lab Reporting Batch : A0B190524

Lab ID: TALCAN

Analysis Method : 8260B

Analysis Date : 02/26/2010

Preparation Type : 5030B

Preparation Date : 02/26/2010

Method Blank Lab Sample ID : A0C010000098B

Preparation Batch : 0060098

2-Butanone (MEK)	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	3.4	20	ug/kg	J	Common Contaminant

2-Butanone (MEK) contamination found in the method blank did not qualify any samples.

2-Hexanone	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	1.7	20	ug/kg	J	

2-Hexanone contamination found in the method blank did not qualify any samples.

Acetone	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	11	20	ug/kg	J	Common Contaminant

Acetone contamination found in the method blank did not qualify any samples.

Method Blank Outlier Report

Lab Reporting Batch : A0B190524

Lab ID: TALCAN

Analysis Method : 8260B

Analysis Date : 03/01/2010

Preparation Type : 5030B

Preparation Date : 03/01/2010

Method Blank Lab Sample ID : A0C020000193B

Preparation Batch : 0061193

2-Butanone (MEK)	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	3.2	20	ug/kg	J	Common Contaminant

2-Butanone (MEK) contamination found in the method blank did not qualify any samples.

2-Hexanone	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	2.0	20	ug/kg	J	

2-Hexanone contamination found in the method blank did not qualify any samples.

Acetone	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	8.2	20	ug/kg	J	Common Contaminant

Acetone contamination found in the method blank did not qualify any samples.

Surrogate Recovery Outlier Report

Lab Report Batch: A0B190524

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Dilution	Matrix	Surrogate	Percent Recovery	Criteria (percent)			Associated Target Analytes
							Lower Limit	Upper Limit	Reject Point	
PBA08-QC-6001-ER	A0B190524008	8082	1	AQ	Decachlorobiphenyl	35	40.0	135.0	10.0	All Target

QC Outlier Report: Field Duplicates (Non-qualified Outliers)

Lab Report Batch:

Lab ID:

			Field Sample				Field Sample Duplicate						
Analysis Method	Matrix	Analyte Name	Client Sample ID	Ana Type	Result	Lab Qualifier	Client Sample Duplicate ID	Ana Type	Result	Lab Qualifiers	RPD Dup* (%)	RPD Criteria (%)	Result Units

**Note: Outlier report also includes analytes detected in one sample but not in the related sample, i.e., analyte was detected in the field sample but not in the field duplicate sample, or vice versa. In this case, RPD value assigned to the field duplicate sample is 200.*

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QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0C040505

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature (C)	Criteria	
					Lower Limit	Upper Limit
LL5SB-053-5155-SO	A0C040505002	8081A	SO	1.6	2.0	
LL5SB-053-5155-SOMS	A0C040505002S	8081A	SO	1.6	2.0	
LL5SB-053-5155-SOMSD	A0C040505002D	8081A	SO	1.6	2.0	
LL5SB-053-5155-SO	A0C040505002	8082	SO	1.6	2.0	
LL5SB-053-5155-SOMS	A0C040505002S	8082	SO	1.6	2.0	
LL5SB-053-5155-SOMSD	A0C040505002D	8082	SO	1.6	2.0	
LL5SB-053-5155-SO	A0C040505002	8260B	SO	1.6	2.0	
LL5SB-052-5151-SO	A0C040505001	8270C	SO	1.6	2.0	
LL5SB-053-5155-SO	A0C040505002	8270C	SO	1.6	2.0	
LL5SB-055-5163-SO	A0C040505003	8270C	SO	1.6	2.0	
LL5SB-056-5167-SO	A0C040505004	8270C	SO	1.6	2.0	
LL5SB-056-5167-SOMS	A0C040505004S	8270C	SO	1.6	2.0	
LL5SB-056-5167-SOMSD	A0C040505004D	8270C	SO	1.6	2.0	

Temperature Outlier Report

Lab Report Batch:

Lab ID:

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temp (C)	Temperature Criteria (C)			Between High and Gross Exceedence			Above Gross Exceedence		
					Low	High	Gross Exceed	Detect Quals		Non-Detect Qual(s)	Detect Quals		Non-Detect Qual(s)
								Non-Biased	Biased		Non-Biased	Biased	

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0064020	Analysis Method : 6020	Analysis Date : 03/12/2010
Preparation Batch : 0064020	Preparation Type : 3050B	Preparation Date : 03/05/2010
Lab Reporting Batch : A0C040505	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL5SB-056-5167-SOMS	A0C040505004S	SO	Antimony	26		30.00	75.00	125.00	20.00
			Potassium	134		30.00	70.00	130.00	20.00
			Vanadium	132		30.00	39.00	129.00	20.00
LL5SB-056-5167-SOMS	A0C040505004D		Antimony	26		30.00	75.00	125.00	20.00

Associated Samples: All samples in Method Batch	
Client Sample ID	Lab Sample ID
LL5SB-052-5151-SO	A0C040505001
LL5SB-053-5155-SO	A0C040505002
LL5SB-055-5163-SO	A0C040505003
LL5SB-056-5167-SO	A0C040505004

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0064046	Analysis Method : 8270C	Analysis Date : 03/09/2010
Preparation Batch : 0064046	Preparation Type : 3540C	Preparation Date : 03/05/2010
Lab Reporting Batch : A0C040505	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL5SB-056-5167-SOMS	A0C040505004D	SO	2,4,6-Trichlorophenol	43		0.00	45.00	110.00	29.00
			2,4-Dinitrophenol	1.1	183	0.00	15.00	130.00	30.00
			4-Nitrophenol		38	0.00	15.00	140.00	30.00
			Pentachlorophenol	16		0.00	25.00	120.00	87.00

Associated Samples: Parent sample only	
Client Sample ID	Lab Sample ID
LL5SB-056-5167-SO	A0C040505004

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Method Batch : 0067386

Analysis Method : 8260B

Analysis Date : 03/05/2010

Preparation Batch : 0067386

Preparation Type : 5030B

Preparation Date : 03/05/2010

Lab Reporting Batch : A0C040505

Lab ID: TALCAN

LCS Lab Sample ID	Matrix	Analyte Name	Reported Values		Project Limits (Percent)			
			Percent Recovery	RPD	Rejection Point	Lower Limit	Upper Limit	RPD
A0C080000386L	SO	1,1,2,2-Tetrachloroethane	72	39	10.00	55.00	130.00	30.00

Associated Samples	
Client Sample ID	Lab Sample ID
LL5SB-053-5155-SO	A0C040505002

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C040505

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL5SB-052-5151-SO	A0C040505001	7471A	SO	Mercury	U	0.12	0.11627907	mg/kg
LL5SB-053-5155-SO	A0C040505002	8082	SO	Aroclor 1016	U	40	2.04819277	ug/kg
				Aroclor 1221	U	40	2.04819277	ug/kg
				Aroclor 1232	U	40	2.04819277	ug/kg
				Aroclor 1242	U	40	2.04819277	ug/kg
				Aroclor 1248	U	40	2.04819277	ug/kg
				Aroclor 1254	U	40	2.04819277	ug/kg
				Aroclor 1260	U	40	2.04819277	ug/kg
		8270C		1,2,4-Trichlorobenzene	U	400	397.590361	ug/kg
				1,2-Dichlorobenzene	U	400	397.590361	ug/kg
				1,3-Dichlorobenzene	U	400	397.590361	ug/kg
				1,4-Dichlorobenzene	U	400	397.590361	ug/kg
				2,4,5-Trichlorophenol	U	400	397.590361	ug/kg
				2,4,6-Trichlorophenol	U	400	397.590361	ug/kg
				2,4-Dichlorophenol	U	400	397.590361	ug/kg
				2,4-Dimethylphenol	U	400	397.590361	ug/kg
				2,4-Dinitrotoluene	U	400	397.590361	ug/kg
				2,6-Dinitrotoluene	U	400	397.590361	ug/kg
				2-Chloronaphthalene	U	400	397.590361	ug/kg
				2-Chlorophenol	U	400	397.590361	ug/kg
				2-Methylnaphthalene	U	400	397.590361	ug/kg
				2-Methylphenol	U	400	397.590361	ug/kg
				2-Nitrophenol	U	400	397.590361	ug/kg
				3,3'-Dichlorobenzidine	U	400	397.590361	ug/kg
				3-methylphenol/4-methylphenol	U	400	#Error	ug/kg
				4-Bromophenyl phenyl ether	U	400	397.590361	ug/kg
				4-Chloro-3-methylphenol	U	400	397.590361	ug/kg
				4-Chloroaniline	U	400	397.590361	ug/kg
				4-Chlorophenyl phenyl ether	U	400	397.590361	ug/kg
				Benzyl alcohol	U	400	397.590361	ug/kg
				bis(2-Chloroethoxy)methane	U	400	397.590361	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C040505

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL5SB-053-5155-SO	A0C040505002	8270C	SO	bis(2-Chloroethyl) ether	U	400	397.590361	ug/kg
				Bis(2-chloroisopropyl) ether	U	400	397.590361	ug/kg
				bis(2-Ethylhexyl) phthalate	U	400	397.590361	ug/kg
				Butyl benzyl phthalate	U	400	397.590361	ug/kg
				Dibenzofuran	U	400	397.590361	ug/kg
				Diethyl phthalate	U	400	397.590361	ug/kg
				Dimethyl phthalate	U	400	397.590361	ug/kg
				Di-n-butyl phthalate	U	400	397.590361	ug/kg
				Di-n-octyl phthalate	U	400	397.590361	ug/kg
				Hexachlorobenzene	U	400	397.590361	ug/kg
				Hexachlorobutadiene	U	400	397.590361	ug/kg
				HEXACHLOROCYCLOPENTADIE	U	400	#Error	ug/kg
				Hexachloroethane	U	400	397.590361	ug/kg
				Isophorone	U	400	397.590361	ug/kg
				Nitrobenzene	U	400	397.590361	ug/kg
				N-Nitrosodi-n-propylamine	U	400	397.590361	ug/kg
				N-Nitrosodiphenylamine	U	400	397.590361	ug/kg
				Pentachlorophenol	U	400	397.590361	ug/kg
				Phenol	U	400	397.590361	ug/kg
LL5SB-056-5167-SO	A0C040505004	6020	SO	Antimony	U	0.60	0.5952381	mg/kg
		7471A		Mercury	U	0.12	0.11904762	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0C040505

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
LL5SB-052-5151-SO	A0C040505001	6020	SO	Cadmium	J	0.051	0.23	mg/kg
				Silver	J	0.025	0.58	mg/kg
				Sodium	J	49.5	117	mg/kg
				Thallium	J	0.15	0.23	mg/kg
LL5SB-053-5155-SO	A0C040505002			Cadmium	J	0.092	0.24	mg/kg
				Silver	J	0.017	0.60	mg/kg
				Sodium	J	60.7	120	mg/kg
				Thallium	J	0.19	0.24	mg/kg
		7471A		Mercury	J	0.025	0.12	mg/kg
		8260B		Methylene chloride	J B	5.3	6.0	ug/kg
LL5SB-055-5163-SO	A0C040505003	6020		Cadmium	J	0.060	0.23	mg/kg
				Silver	J	0.022	0.58	mg/kg
				Sodium	J	78.6	117	mg/kg
				Thallium	J	0.19	0.23	mg/kg
		7471A		Mercury	J	0.034	0.12	mg/kg
LL5SB-056-5167-SO	A0C040505004	6020		Cadmium	J	0.045	0.24	mg/kg
				Silver	J	0.025	0.60	mg/kg
				Sodium	J	62.2	120	mg/kg
				Thallium	J	0.18	0.24	mg/kg

Method Blank Outlier Report

Lab Reporting Batch : A0C040505

Lab ID: TALCAN

Analysis Method : 8260B

Analysis Date : 03/05/2010

Preparation Type : 5030B

Preparation Date : 03/05/2010

Method Blank Lab Sample ID : A0C080000386B

Preparation Batch : 0067386

2-Butanone (MEK)	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	2.2	20	ug/kg	J	Common Contaminant

2-Butanone (MEK) contamination found in the method blank did not qualify any samples.

2-Hexanone	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	1.7	20	ug/kg	J	

2-Hexanone contamination found in the method blank did not qualify any samples.

Methylene chloride	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	1.4	5.0	ug/kg	J	Common Contaminant

Methylene chloride was qualified due to method blank contamination in the following associated samples:

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
LL5SB-053-5155-SO	A0C040505002	1	5.3	J B	ug/kg

Surrogate Recovery Outlier Report

Lab Report Batch: A0C040505

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Dilution	Matrix	Surrogate	Percent Recovery	Criteria (percent)			Associated Target Analytes
							Lower Limit	Upper Limit	Reject Point	
LL5SB-053-5155-SO	A0C040505002	8260B	1	SO	4-Bromofluorobenzene	79	85.0	120.0	10.0	All Target

QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0C040510

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature (C)	Criteria	
					Lower Limit	Upper Limit
LL5SB-053-5155-SO	A0C040510002	353.2 Modified	SO	1.6	2.0	6.0
LL5SB-052-5151-SO	A0C040510001	8330B	SO	1.6	2.0	
LL5SB-053-5155-SO	A0C040510002	8330B	SO	1.6	2.0	
LL5SB-055-5163-SO	A0C040510003	8330B	SO	1.6	2.0	
LL5SB-056-5167-SO	A0C040510004	8330B	SO	1.6	2.0	
LL5SB-056-5167-SOMS	A0C040510004S	8330B	SO	1.6	2.0	
LL5SB-056-5167-SOMSD	A0C040510004D	8330B	SO	1.6	2.0	
LL5SB-053-5155-SO	A0C040510002	8330M	SO	1.6	2.0	
LL5SB-053-5155-SOMS	A0C040510002S	8330M	SO	1.6	2.0	
LL5SB-053-5155-SOMSD	A0C040510002D	8330M	SO	1.6	2.0	

Temperature Outlier Report

Lab Report Batch:

Lab ID:

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temp (C)	Temperature Criteria (C)			Between High and Gross Exceedence			Above Gross Exceedence		
					Low	High	Gross Exceed	Detect Quals		Non-Detect Qual(s)	Detect Quals		Non-Detect Qual(s)
								Non-Biased	Biased		Non-Biased	Biased	

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C040510

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL5SB-053-5155-SO	A0C040510002	8330B	SO	1,3,5-Trinitrobenzene	U	0.24	0.01144578	mg/kg
				1,3-Dinitrobenzene	U	0.24	0.28614458	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.24	0.28614458	mg/kg
				2,4-Dinitrotoluene	U	0.24	0.28614458	mg/kg
				2,6-Dinitrotoluene	U	0.24	0.28614458	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.24	0.28614458	mg/kg
				2-Nitrotoluene	U	0.24	0.28614458	mg/kg
				3-Nitrotoluene	U	0.24	0.28614458	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.24	0.28614458	mg/kg
				4-Nitrotoluene	U	0.48	0.57228916	mg/kg
				Nitrobenzene	U	0.24	0.28614458	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature (C)	Criteria	
					Lower Limit	Upper Limit
LL5SB-053-5153-SO	A0C040514006	353.2 Modified	SO	1.6	2.0	6.0
LL5SB-053-5154-SO	A0C040514007	353.2 Modified	SO	1.6	2.0	6.0
LL5SB-053-5153-SO	A0C040514006	8081A	SO	1.6	2.0	
LL5SB-053-5153-SOMS	A0C040514006S	8081A	SO	1.6	2.0	
LL5SB-053-5153-SOMSD	A0C040514006D	8081A	SO	1.6	2.0	
LL5SB-053-5154-SO	A0C040514007	8081A	SO	1.6	2.0	
LL5SB-053-5153-SO	A0C040514006	8082	SO	1.6	2.0	
LL5SB-053-5154-SO	A0C040514007	8082	SO	1.6	2.0	
LL5SB-053-5154-SOMS	A0C040514007S	8082	SO	1.6	2.0	
LL5SB-053-5154-SOMSD	A0C040514007D	8082	SO	1.6	2.0	
LL5SB-053-5153-SO	A0C040514006	8260B	SO	1.6	2.0	
LL5SB-053-5154-SO	A0C040514007	8260B	SO	1.6	2.0	
LL5SB-052-5149-SO	A0C040514001	8270C	SO	1.6	2.0	
LL5SB-052-5150-SO	A0C040514002	8270C	SO	1.6	2.0	
LL5SB-052-6092-FD	A0C040514004	8270C	SO	1.6	2.0	
LL5SB-052-6093-FD	A0C040514005	8270C	SO	1.6	2.0	
LL5SB-052-6094-FD	A0C040514003	8270C	SO	1.6	2.0	
LL5SB-052-6094-FDMS	A0C040514003S	8270C	SO	1.6	2.0	
LL5SB-052-6094-FDMSD	A0C040514003D	8270C	SO	1.6	2.0	
LL5SB-053-5153-SO	A0C040514006	8270C	SO	1.6	2.0	
LL5SB-053-5153-SOMS	A0C040514006S	8270C	SO	1.6	2.0	
LL5SB-053-5153-SOMSD	A0C040514006D	8270C	SO	1.6	2.0	
LL5SB-053-5154-SO	A0C040514007	8270C	SO	1.6	2.0	
LL5SB-055-5161-SO	A0C040514008	8270C	SO	1.6	2.0	
LL5SB-055-5162-SO	A0C040514009	8270C	SO	1.6	2.0	
LL5SB-055-5162-SOMS	A0C040514009S	8270C	SO	1.6	2.0	
LL5SB-055-5162-SOMSD	A0C040514009D	8270C	SO	1.6	2.0	
LL5SB-056-5165-SO	A0C040514010	8270C	SO	1.6	2.0	
LL5SB-056-5166-SO	A0C040514011	8270C	SO	1.6	2.0	

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature (C)	Criteria	
					Lower Limit	Upper Limit
LL5SS-062M-5044-SO	A0C040514012	8270C	SO	1.7	2.0	
LL5SS-063M-5045-SO	A0C040514013	8270C	SO	1.7	2.0	
LL5SS-063M-6051-FD	A0C040514014	8270C	SO	1.7	2.0	
LL5SS-065M-5047-SO	A0C040514016	8270C	SO	1.7	2.0	
LL5SS-065M-5047-SOMS	A0C040514016S	8270C	SO	1.7	2.0	
LL5SS-065M-5047-SOMSD	A0C040514016D	8270C	SO	1.7	2.0	
LL5SS-067M-5049-SO	A0C040514018	8270C	SO	1.7	2.0	
LL5SS-068M-5050-SO	A0C040514019	8270C	SO	1.7	2.0	
LL5SS-075M-5057-SO	A0C040514024	8270C	SO	1.7	2.0	
LL5SB-052-5149-SO	A0C040514001	8330B	SO	1.6	2.0	
LL5SB-052-5150-SO	A0C040514002	8330B	SO	1.6	2.0	
LL5SB-052-6092-FD	A0C040514004	8330B	SO	1.6	2.0	
LL5SB-052-6093-FD	A0C040514005	8330B	SO	1.6	2.0	
LL5SB-052-6094-FD	A0C040514003	8330B	SO	1.6	2.0	
LL5SB-053-5153-SO	A0C040514006	8330B	SO	1.6	2.0	
LL5SB-053-5154-SO	A0C040514007	8330B	SO	1.6	2.0	
LL5SB-055-5161-SO	A0C040514008	8330B	SO	1.6	2.0	
LL5SB-055-5162-SO	A0C040514009	8330B	SO	1.6	2.0	
LL5SB-055-5162-SOMS	A0C040514009S	8330B	SO	1.6	2.0	
LL5SB-055-5162-SOMSD	A0C040514009D	8330B	SO	1.6	2.0	
LL5SB-056-5165-SO	A0C040514010	8330B	SO	1.6	2.0	
LL5SB-056-5166-SO	A0C040514011	8330B	SO	1.6	2.0	
LL5SS-062M-5044-SO	A0C040514012	8330B	SO	1.7	2.0	
LL5SS-063M-5045-SO	A0C040514013	8330B	SO	1.7	2.0	
LL5SS-063M-6051-FD	A0C040514014	8330B	SO	1.7	2.0	
LL5SS-065M-5047-SO	A0C040514016	8330B	SO	1.7	2.0	
LL5SS-065M-5047-SOMS	A0C040514016S	8330B	SO	1.7	2.0	
LL5SS-065M-5047-SOMSD	A0C040514016D	8330B	SO	1.7	2.0	
LL5SS-067M-5049-SO	A0C040514018	8330B	SO	1.7	2.0	

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature (C)	Criteria	
					Lower Limit	Upper Limit
LL5SS-068M-5050-SO	A0C040514019	8330B	SO	1.7	2.0	
LL5SS-075M-5057-SO	A0C040514024	8330B	SO	1.7	2.0	
LL5SB-053-5153-SO	A0C040514006	8330M	SO	1.6	2.0	
LL5SB-053-5154-SO	A0C040514007	8330M	SO	1.6	2.0	

Temperature Outlier Report

Lab Report Batch:

Lab ID:

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temp (C)	Temperature Criteria (C)			Between High and Gross Exceedence			Above Gross Exceedence		
					Low	High	Gross Exceed	Detect Quals		Non-Detect Qual(s)	Detect Quals		Non-Detect Qual(s)
								Non-Biased	Biased		Non-Biased	Biased	

QC Outlier Report: Holding Times

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Prep Method	Actual Holding Time		Criteria			Reported Dates (and Times)				
					Coll To Prep	Prep To Ana	Coll To Ana	Coll To Prep	Prep To Ana	Coll To Ana	Unit of Meas	Collection Date	Preparation Date	Analysis Date
LL5SB-053-5154-SO	A0C040514007	8270C	SO	3540C	15.0	6.0		14	40		Days	03/03/2010	03/18/2010	03/24/2010
LL5SS-065M-5047-S	A0C040514016	8270C	SO	3540C	26.0	2.0		14	40		Days	03/03/2010	03/29/2010	03/31/2010
LL5SS-065M-5047-S	A0C040514016S	8270C	SO	3540C	26.0	2.0		14	40		Days	03/03/2010	03/29/2010	03/31/2010
LL5SS-065M-5047-S	A0C040514016D	8270C	SO	3540C	26.0	2.0		14	40		Days	03/03/2010	03/29/2010	03/31/2010

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0064020	Analysis Method : 6020	Analysis Date : 03/18/2010
Preparation Batch : 0064020	Preparation Type : 3050B	Preparation Date : 03/05/2010
Lab Reporting Batch : A0C040514	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL5SB-055-5162-SOMS	A0C040514009S	SO	Antimony	27		30.00	75.00	125.00	20.00
			Cobalt	119		30.00	55.00	110.00	20.00
			Magnesium	160		30.00	70.00	130.00	20.00
LL5SB-055-5162-SOMS	A0C040514009D		Antimony	28		30.00	75.00	125.00	20.00
			Calcium	146		30.00	70.00	130.00	20.00
			Magnesium	145		30.00	70.00	130.00	20.00

Associated Samples: All samples in Method Batch	
Client Sample ID	Lab Sample ID
LL5SB-052-5149-SO	A0C040514001
LL5SB-052-5150-SO	A0C040514002
LL5SB-052-6092-FD	A0C040514004
LL5SB-052-6093-FD	A0C040514005
LL5SB-052-6094-FD	A0C040514003
LL5SB-053-5153-SO	A0C040514006
LL5SB-053-5154-SO	A0C040514007
LL5SB-055-5161-SO	A0C040514008
LL5SB-055-5162-SO	A0C040514009
LL5SB-056-5166-SO	A0C040514011

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0064020	Analysis Method : 7471A	Analysis Date : 03/08/2010
Preparation Batch : 0064020	Preparation Type : 7471A	Preparation Date : 03/05/2010
Lab Reporting Batch : A0C040514	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL5SB-055-5162-SOMS	A0C040514009S	SO	Mercury	77		30.00	80.00	120.00	20.00

Associated Samples: All samples in Method Batch	
Client Sample ID	Lab Sample ID
LL5SB-052-5149-SO	A0C040514001
LL5SB-052-5150-SO	A0C040514002
LL5SB-052-6092-FD	A0C040514004
LL5SB-052-6093-FD	A0C040514005
LL5SB-052-6094-FD	A0C040514003
LL5SB-053-5153-SO	A0C040514006
LL5SB-053-5154-SO	A0C040514007
LL5SB-055-5161-SO	A0C040514008
LL5SB-055-5162-SO	A0C040514009
LL5SB-056-5166-SO	A0C040514011

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0064023	Analysis Method : 6020	Analysis Date : 03/19/2010
Preparation Batch : 0064023	Preparation Type : 3050B	Preparation Date : 03/10/2010
Lab Reporting Batch : A0C040514	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL5SS-065M-5047-SOM	A0C040514016S	SO	Antimony	26		30.00	75.00	125.00	20.00
LL5SS-065M-5047-SOM	A0C040514016D		Antimony	22		30.00	75.00	125.00	20.00

Associated Samples: All samples in Method Batch	
Client Sample ID	Lab Sample ID
LL5SB-056-5165-SO	A0C040514010
LL5SS-062M-5044-SO	A0C040514012
LL5SS-063M-5045-SO	A0C040514013
LL5SS-063M-6051-FD	A0C040514014
LL5SS-064M-5046-SO	A0C040514015
LL5SS-065M-5047-SO	A0C040514016
LL5SS-066M-5048-SO	A0C040514017
LL5SS-067M-5049-SO	A0C040514018
LL5SS-068M-5050-SO	A0C040514019
LL5SS-069M-5051-SO	A0C040514020
LL5SS-070M-5052-SO	A0C040514022
LL5SS-074M-5056-SO	A0C040514023
LL5SS-075M-5057-SO	A0C040514024
LL5SS-076M-5058-SO	A0C040514025

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0069024	Analysis Method : 8270C	Analysis Date : 03/15/2010
Preparation Batch : 0069024	Preparation Type : 3540C	Preparation Date : 03/10/2010
Lab Reporting Batch : A0C040514	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL5SB-055-5162-SOMS	A0C040514009S	SO	2,4,6-Trichlorophenol	44		0.00	45.00	110.00	29.00
LL5SB-055-5162-SOMS	A0C040514009D		2,4,6-Trichlorophenol	44		0.00	45.00	110.00	29.00
			Benzyl alcohol		46	0.00	20.00	125.00	30.00

Associated Samples: Parent sample only	
Client Sample ID	Lab Sample ID
LL5SB-055-5162-SO	A0C040514009

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0074049	Analysis Method : 8270C	Analysis Date : 03/17/2010
Preparation Batch : 0074049	Preparation Type : 3540C	Preparation Date : 03/15/2010
Lab Reporting Batch : A0C040514	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL5SB-053-5153-SOMS	A0C040514006D	SO	1,2-Dichlorobenzene		26	0.00	45.00	95.00	25.00
			Hexachlorobutadiene		27	0.00	40.00	115.00	25.00

Associated Samples: Parent sample only	
Client Sample ID	Lab Sample ID
LL5SB-053-5153-SO	A0C040514006

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0088047	Analysis Method : 8270C	Analysis Date : 03/31/2010
Preparation Batch : 0088047	Preparation Type : 3540C	Preparation Date : 03/29/2010
Lab Reporting Batch : A0C040514	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL5SS-065M-5047-SOM	A0C040514016S	SO	3,3'-Dichlorobenzidine	0.0		0.00	10.00	130.00	56.00
LL5SS-065M-5047-SOM	A0C040514016D		3,3'-Dichlorobenzidine	3.9	200	0.00	10.00	130.00	56.00

Associated Samples: Parent sample only	
Client Sample ID	Lab Sample ID
LL5SS-065M-5047-SO	A0C040514016

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Method Batch : 0067386 **Analysis Method :** 8260B **Analysis Date :** 03/05/2010
Preparation Batch : 0067386 **Preparation Type :** 5030B **Preparation Date :** 03/05/2010
Lab Reporting Batch : A0C040514 **Lab ID:** TALCAN

LCS Lab Sample ID	Matrix	Analyte Name	Reported Values		Project Limits (Percent)			
			Percent Recovery	RPD	Rejection Point	Lower Limit	Upper Limit	RPD
A0C080000386L	SO	1,1,2,2-Tetrachloroethane	72	39	10.00	55.00	130.00	30.00

Associated Samples	
Client Sample ID	Lab Sample ID
LL5SB-053-5153-SO	A0C040514006
LL5SB-053-5154-SO	A0C040514007
LL5SS-069M-5051-SO(VOCS)	A0C040514021
LL5SS-076M-5058-SO(VOCS)	A0C040514026

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Method Batch : 0069024	Analysis Method : 8270C	Analysis Date : 03/12/2010
Preparation Batch : 0069024	Preparation Type : 3540C	Preparation Date : 03/10/2010
Lab Reporting Batch : A0C040514	Lab ID : TALCAN	

LCS Lab Sample ID	Matrix	Analyte Name	Reported Values		Project Limits (Percent)			
			Percent Recovery	RPD	Rejection Point	Lower Limit	Upper Limit	RPD
A0C100000024C	SO	2,4,5-Trichlorophenol	49		10.00	50.00	110.00	30.00
		2,4,6-Trichlorophenol	37		10.00	45.00	110.00	29.00

Associated Samples	
Client Sample ID	Lab Sample ID
LL5SB-052-5149-SO	A0C040514001
LL5SB-052-5150-SO	A0C040514002
LL5SB-052-6092-FD	A0C040514004
LL5SB-052-6093-FD	A0C040514005
LL5SB-055-5161-SO	A0C040514008
LL5SB-055-5162-SO	A0C040514009
LL5SB-056-5165-SO	A0C040514010
LL5SB-056-5166-SO	A0C040514011
LL5SS-062M-5044-SO	A0C040514012
LL5SS-063M-5045-SO	A0C040514013

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Method Batch : 0077053

Analysis Method : 8270C

Analysis Date : 03/24/2010

Preparation Batch : 0077053

Preparation Type : 3540C

Preparation Date : 03/18/2010

Lab Reporting Batch : A0C040514

Lab ID: TALCAN

LCS Lab Sample ID	Matrix	Analyte Name	Reported Values		Project Limits (Percent)			
			Percent Recovery	RPD	Rejection Point	Lower Limit	Upper Limit	RPD
A0C180000053C	SO	Carbazole	31		10.00	45.00	115.00	20.00

Associated Samples	
Client Sample ID	Lab Sample ID
LL5SB-053-5154-SO	A0C040514007

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL5SB-052-5150-SO	A0C040514002	6020	SO	Antimony	U	0.61	0.60240964	mg/kg
				1,3,5-Trinitrobenzene	U	0.25	0.01192771	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.29819277	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.29819277	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.29819277	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.29819277	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.29819277	mg/kg
				2-Nitrotoluene	U	0.25	0.29819277	mg/kg
				3-Nitrotoluene	U	0.25	0.29819277	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.29819277	mg/kg
				4-Nitrotoluene	U	0.50	0.59638554	mg/kg
				Nitrobenzene	U	0.25	0.29819277	mg/kg
LL5SB-052-6093-FD	A0C040514005	6020	SO	Antimony	U	0.61	0.6097561	mg/kg
LL5SB-052-6094-FD	A0C040514003	6020	SO	Antimony	U	0.59	0.58823529	mg/kg
				7471A	U	0.12	0.11764706	mg/kg
				1,3,5-Trinitrobenzene	U	0.24	0.01117647	mg/kg
				1,3-Dinitrobenzene	U	0.24	0.27941176	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.24	0.27941176	mg/kg
				2,4-Dinitrotoluene	U	0.24	0.27941176	mg/kg
				2,6-Dinitrotoluene	U	0.24	0.27941176	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.24	0.27941176	mg/kg
				2-Nitrotoluene	U	0.24	0.27941176	mg/kg
				3-Nitrotoluene	U	0.24	0.27941176	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.24	0.27941176	mg/kg
				4-Nitrotoluene	U	0.48	0.55882353	mg/kg
				Nitrobenzene	U	0.24	0.27941176	mg/kg
LL5SB-053-5153-SO	A0C040514006	353.2 Modified	SO	Nitrocellulose	U	6.2	6.17283951	mg/kg
		6020		Antimony	U	0.62	0.61728395	mg/kg
		8081A		4,4'-DDD	U	2.5	2.46913580	ug/kg
				4,4'-DDE	U	2.1	2.09876543	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
LL5SB-053-5153-SO	A0C040514006	8081A	SO	4,4'-DDT	U	2.5	2.46913580	ug/kg
				alpha-BHC	U	3.1	3.08641975	ug/kg
				Dieldrin	U	2.1	2.09876543	ug/kg
				Endosulfan I	U	2.1	2.09876543	ug/kg
				Endosulfan II	U	3.1	3.08641975	ug/kg
				Endrin	U	2.1	2.09876543	ug/kg
				Endrin ketone	U	2.5	2.46913580	ug/kg
				gamma-BHC (Lindane)	U	3.1	3.08641975	ug/kg
				gamma-Chlordane	U	2.1	2.09876543	ug/kg
				Heptachlor epoxide	U	3.1	3.08641975	ug/kg
				Methoxychlor	U	6.2	6.17283951	ug/kg
				Toxaphene	U	83	82.7160494	ug/kg
		8082		Aroclor 1016	U	41	2.09876543	ug/kg
				Aroclor 1221	U	41	2.09876543	ug/kg
				Aroclor 1232	U	41	2.09876543	ug/kg
				Aroclor 1242	U	41	2.09876543	ug/kg
				Aroclor 1248	U	41	2.09876543	ug/kg
				Aroclor 1254	U	41	2.09876543	ug/kg
				Aroclor 1260	U	41	2.09876543	ug/kg
	8260B	8260B	1,1,1-Trichloroethane	U	6.2	6.17283951	ug/kg	
			1,1,2,2-Tetrachloroethane	U	6.2	6.17283951	ug/kg	
			1,1,2-Trichloroethane	U	6.2	6.17283951	ug/kg	
			1,1-Dichloroethane	U	6.2	6.17283951	ug/kg	
			1,1-Dichloroethene	U	6.2	6.17283951	ug/kg	
			1,2-Dibromoethane (Ethylene Dibro	U	6.2	6.17283951	ug/kg	
			1,2-Dichloroethane	U	6.2	6.17283951	ug/kg	
			1,2-Dichloroethene (total)	U	6.2	6.17283951	ug/kg	
			1,2-Dichloropropane	U	6.2	6.17283951	ug/kg	
			2-Butanone (MEK)	U	25	24.6913580	ug/kg	
			2-Hexanone	U	25	24.6913580	ug/kg	
			4-methyl-2-pentanone (MIBK)	U	25	24.6913580	ug/kg	
			Acetone	U	25	24.6913580	ug/kg	
			Benzene	U	6.2	6.17283951	ug/kg	

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
LL5SB-053-5153-SO	A0C040514006	8260B	SO	Bromochloromethane	U	6.2	6.17283951	ug/kg
				Bromodichloromethane	U	6.2	6.17283951	ug/kg
				Bromoform	U	6.2	6.17283951	ug/kg
				Bromomethane (Methyl bromide)	U	6.2	6.17283951	ug/kg
				Carbon disulfide	U	6.2	6.17283951	ug/kg
				Carbon tetrachloride	U	6.2	6.17283951	ug/kg
				Chlorobenzene	U	6.2	6.17283951	ug/kg
				Chlorodibromomethane	U	6.2	6.17283951	ug/kg
				Chloroethane	U	6.2	6.17283951	ug/kg
				Chloroform	U	6.2	6.17283951	ug/kg
				Chloromethane	U	6.2	6.17283951	ug/kg
				cis-1,3-Dichloropropene	U	6.2	6.17283951	ug/kg
				Ethylbenzene	U	6.2	6.17283951	ug/kg
				Styrene	U	6.2	6.17283951	ug/kg
				Tetrachloroethene	U	6.2	6.17283951	ug/kg
				Toluene	U	6.2	6.17283951	ug/kg
				trans-1,3-Dichloropropene	U	6.2	6.17283951	ug/kg
				Trichloroethene	U	6.2	6.17283951	ug/kg
				Vinyl chloride	U	6.2	6.17283951	ug/kg
		8270C		1,2,4-Trichlorobenzene	U	410	407.407407	ug/kg
				1,2-Dichlorobenzene	U	410	407.407407	ug/kg
				1,3-Dichlorobenzene	U	410	407.407407	ug/kg
				1,4-Dichlorobenzene	U	410	407.407407	ug/kg
				2,4,5-Trichlorophenol	U	410	407.407407	ug/kg
				2,4,6-Trichlorophenol	U	410	407.407407	ug/kg
				2,4-Dichlorophenol	U	410	407.407407	ug/kg
				2,4-Dimethylphenol	U	410	407.407407	ug/kg
				2,4-Dinitrophenol	U	990	987.654321	ug/kg
				2,4-Dinitrotoluene	U	410	407.407407	ug/kg
				2,6-Dinitrotoluene	U	410	407.407407	ug/kg
				2-Chloronaphthalene	U	410	407.407407	ug/kg
				2-Chlorophenol	U	410	407.407407	ug/kg
				2-Methylnaphthalene	U	410	407.407407	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
LL5SB-053-5153-SO	A0C040514006	8270C	SO	2-Methylphenol	U	410	407.407407	ug/kg
				2-Nitroaniline	U	990	987.654321	ug/kg
				2-Nitrophenol	U	410	407.407407	ug/kg
				3,3'-Dichlorobenzidine	U	410	407.407407	ug/kg
				3-methylphenol/4-methylphenol	U	410	#Error	ug/kg
				3-Nitroaniline	U	990	987.654321	ug/kg
				4,6-Dinitro-2-methylphenol	U	990	987.654321	ug/kg
				4-Bromophenyl phenyl ether	U	410	407.407407	ug/kg
				4-Chloro-3-methylphenol	U	410	407.407407	ug/kg
				4-Chloroaniline	U	410	407.407407	ug/kg
				4-Chlorophenyl phenyl ether	U	410	407.407407	ug/kg
				4-Nitroaniline	U	990	987.654321	ug/kg
				4-Nitrophenol	U	990	987.654321	ug/kg
				Acenaphthene	U	62	61.7283951	ug/kg
				Acenaphthylene	U	62	61.7283951	ug/kg
				Anthracene	U	62	61.7283951	ug/kg
				Benz[a]anthracene	U	62	61.7283951	ug/kg
				Benzo[a]pyrene	U	62	61.7283951	ug/kg
				Benzo[b]fluoranthene	U	62	61.7283951	ug/kg
				Benzo[g,h,i]perylene	U	62	61.7283951	ug/kg
				Benzo[k]fluoranthene	U	62	61.7283951	ug/kg
				Benzoic acid	U	990	987.654321	ug/kg
				Benzyl alcohol	U	410	407.407407	ug/kg
				bis(2-Chloroethoxy)methane	U	410	407.407407	ug/kg
				bis(2-Chloroethyl) ether	U	410	407.407407	ug/kg
				Bis(2-chloroisopropyl) ether	U	410	407.407407	ug/kg
				bis(2-Ethylhexyl) phthalate	U	410	407.407407	ug/kg
				Butyl benzyl phthalate	U	410	407.407407	ug/kg
				Carbazole	U	62	61.7283951	ug/kg
				Chrysene	U	62	61.7283951	ug/kg
				dibenz[a,h]anthracene	U	62	61.7283951	ug/kg
				Dibenzofuran	U	410	407.407407	ug/kg
				Diethyl phthalate	U	410	407.407407	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit					
							Criteria*	Units				
LL5SB-053-5153-SO	A0C040514006	8270C	SO	Dimethyl phthalate	U	410	407.407407	ug/kg				
				Di-n-butyl phthalate	U	410	407.407407	ug/kg				
				Di-n-octyl phthalate	U	410	407.407407	ug/kg				
				Fluoranthene	U	62	61.7283951	ug/kg				
				Fluorene	U	62	61.7283951	ug/kg				
				Hexachlorobenzene	U	410	407.407407	ug/kg				
				Hexachlorobutadiene	U	410	407.407407	ug/kg				
				HEXACHLOROCYCLOPENTADIE	U	410	#Error	ug/kg				
				Hexachloroethane	U	410	407.407407	ug/kg				
				Indeno[1,2,3-cd]pyrene	U	62	61.7283951	ug/kg				
				Isophorone	U	410	407.407407	ug/kg				
				Naphthalene	U	62	61.7283951	ug/kg				
				Nitrobenzene	U	410	407.407407	ug/kg				
				N-Nitrosodi-n-propylamine	U	410	407.407407	ug/kg				
				N-Nitrosodiphenylamine	U	410	407.407407	ug/kg				
				Pentachlorophenol	U	410	407.407407	ug/kg				
				Phenanthrene	U	62	61.7283951	ug/kg				
				Phenol	U	410	407.407407	ug/kg				
				Pyrene	U	62	407.407407	ug/kg				
				8330B	1,3,5-Trinitrobenzene	U	0.24	0.0117284	mg/kg			
		1,3-Dinitrobenzene			U	0.24	0.29320988	mg/kg				
		2,4,6-Trinitrotoluene (TNT)			U	0.24	0.29320988	mg/kg				
		2,4-Dinitrotoluene			U	0.24	0.29320988	mg/kg				
		2,6-Dinitrotoluene			U	0.24	0.29320988	mg/kg				
		2-Amino-4,6-dinitrotoluene			U	0.24	0.29320988	mg/kg				
		2-Nitrotoluene			U	0.24	0.29320988	mg/kg				
		3-Nitrotoluene			U	0.24	0.29320988	mg/kg				
		4-Amino-2,6-Dinitrotoluene			U	0.24	0.29320988	mg/kg				
		4-Nitrotoluene			U	0.48	0.58641975	mg/kg				
		Nitrobenzene			U	0.24	0.29320988	mg/kg				
		LL5SB-053-5154-SO			A0C040514007	8081A	SO	4,4'-DDD	U	2.4	2.38095238	ug/kg
								4,4'-DDT	U	2.4	2.38095238	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
LL5SB-053-5154-SO	A0C040514007	8081A	SO	alpha-BHC	U	3.0	2.97619048	ug/kg
				alpha-Chordane	U	3.6	3.57142857	ug/kg
				Endosulfan II	U	3.0	2.97619048	ug/kg
				Endosulfan sulfate	U	3.6	3.57142857	ug/kg
				Endrin aldehyde	U	3.6	3.57142857	ug/kg
				Endrin ketone	U	2.4	2.38095238	ug/kg
				gamma-BHC (Lindane)	U	3.0	2.97619048	ug/kg
				Heptachlor epoxide	U	3.0	2.97619048	ug/kg
		8260B		2-Butanone (MEK)	U	24	23.8095238	ug/kg
				2-Hexanone	U	24	23.8095238	ug/kg
				4-methyl-2-pentanone (MIBK)	U	24	23.8095238	ug/kg
				Acetone	U	24	23.8095238	ug/kg
				Xylene (Total)	U	12	11.9047619	ug/kg
		8330B		1,3,5-Trinitrobenzene	U	0.25	0.01178571	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.29464286	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.29464286	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.29464286	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.29464286	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.29464286	mg/kg
				2-Nitrotoluene	U	0.25	0.29464286	mg/kg
				3-Nitrotoluene	U	0.25	0.29464286	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.29464286	mg/kg
				4-Nitrotoluene	U	0.50	0.58928571	mg/kg
				Nitrobenzene	U	0.25	0.29464286	mg/kg
LL5SB-055-5162-SO	A0C040514009	6020	SO	Antimony	U	0.61	0.6097561	mg/kg
LL5SS-062M-5044-SO	A0C040514012	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01005076	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.25126904	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.25126904	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.25126904	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.25126904	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.25126904	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL5SS-062M-5044-SO	A0C040514012	8330B	SO	2-Nitrotoluene	U	0.25	0.25126904	mg/kg
				3-Nitrotoluene	U	0.25	0.25126904	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.25126904	mg/kg
				4-Nitrotoluene	U	0.50	0.50253807	mg/kg
				Nitrobenzene	U	0.25	0.25126904	mg/kg
LL5SS-063M-5045-SO	A0C040514013	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01005076	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.25126904	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.25126904	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.25126904	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.25126904	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.25126904	mg/kg
				2-Nitrotoluene	U	0.25	0.25126904	mg/kg
				3-Nitrotoluene	U	0.25	0.25126904	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.25126904	mg/kg
				4-Nitrotoluene	U	0.50	0.50253807	mg/kg
LL5SS-064M-5046-SO	A0C040514015	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01006098	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.25152439	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.25152439	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.25152439	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.25152439	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.25152439	mg/kg
				2-Nitrotoluene	U	0.25	0.25152439	mg/kg
				3-Nitrotoluene	U	0.25	0.25152439	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.25152439	mg/kg
				4-Nitrotoluene	U	0.50	0.50304878	mg/kg
LL5SS-065M-5047-SO	A0C040514016	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01006098	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.25152439	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.25152439	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.25152439	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL5SS-065M-5047-SO	A0C040514016	8330B	SO	2,6-Dinitrotoluene	U	0.25	0.25152439	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.25152439	mg/kg
				2-Nitrotoluene	U	0.25	0.25152439	mg/kg
				3-Nitrotoluene	U	0.25	0.25152439	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.25152439	mg/kg
				4-Nitrotoluene	U	0.50	0.50304878	mg/kg
				Nitrobenzene	U	0.25	0.25152439	mg/kg
LL5SS-067M-5049-SO	A0C040514018	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01006098	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.25152439	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.25152439	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.25152439	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.25152439	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.25152439	mg/kg
				2-Nitrotoluene	U	0.25	0.25152439	mg/kg
				3-Nitrotoluene	U	0.25	0.25152439	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.25152439	mg/kg
				4-Nitrotoluene	U	0.50	0.50304878	mg/kg
				Nitrobenzene	U	0.25	0.25152439	mg/kg
LL5SS-068M-5050-SO	A0C040514019	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01007121	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.25178026	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.25178026	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.25178026	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.25178026	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.25178026	mg/kg
				2-Nitrotoluene	U	0.25	0.25178026	mg/kg
				3-Nitrotoluene	U	0.25	0.25178026	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.25178026	mg/kg
				4-Nitrotoluene	U	0.50	0.50356053	mg/kg
				Nitrobenzene	U	0.25	0.25178026	mg/kg
LL5SS-069M-5051-SO	A0C040514020	8081A	SO	4,4'-DDD	U	21	20.4918033	ug/kg
				4,4'-DDT	U	21	20.4918033	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
LL5SS-069M-5051-SO	A0C040514020	8081A	SO	Aldrin	U	41	40.9836066	ug/kg
				alpha-BHC	U	26	25.6147541	ug/kg
				alpha-Chordane	U	31	30.7377049	ug/kg
				beta-BHC	U	36	35.8606557	ug/kg
				delta-BHC	U	41	40.9836066	ug/kg
				Endosulfan II	U	26	25.6147541	ug/kg
				Endosulfan sulfate	U	31	30.7377049	ug/kg
				Endrin aldehyde	U	31	30.7377049	ug/kg
				Endrin ketone	U	21	20.4918033	ug/kg
				gamma-BHC (Lindane)	U	26	25.6147541	ug/kg
				Heptachlor	U	36	35.8606557	ug/kg
				Heptachlor epoxide	U	26	25.6147541	ug/kg
				Toxaphene	U	690	686.47541	ug/kg
		8082		Aroclor 1016	U	34	1.74180328	ug/kg
				Aroclor 1221	U	34	1.74180328	ug/kg
				Aroclor 1232	U	34	1.74180328	ug/kg
				Aroclor 1242	U	34	1.74180328	ug/kg
				Aroclor 1248	U	34	1.74180328	ug/kg
				Aroclor 1254	U	34	1.74180328	ug/kg
				Aroclor 1260	U	34	1.74180328	ug/kg
		8270C		1,2,4-Trichlorobenzene	U	680	676.229508	ug/kg
				1,2-Dichlorobenzene	U	680	676.229508	ug/kg
				1,3-Dichlorobenzene	U	680	676.229508	ug/kg
				1,4-Dichlorobenzene	U	680	676.229508	ug/kg
				2,4,5-Trichlorophenol	U	680	676.229508	ug/kg
				2,4,6-Trichlorophenol	U	680	676.229508	ug/kg
				2,4-Dichlorophenol	U	680	676.229508	ug/kg
				2,4-Dimethylphenol	U	680	676.229508	ug/kg
				2,4-Dinitrotoluene	U	680	676.229508	ug/kg
				2,6-Dinitrotoluene	U	680	676.229508	ug/kg
				2-Chloronaphthalene	U	680	676.229508	ug/kg
				2-Chlorophenol	U	680	676.229508	ug/kg
				2-Methylphenol	U	680	676.229508	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL5SS-069M-5051-SO	A0C040514020	8270C	SO	2-Nitrophenol	U	680	676.229508	ug/kg
				3,3'-Dichlorobenzidine	U	680	676.229508	ug/kg
				3-methylphenol/4-methylphenol	U	680	#Error	ug/kg
				4-Bromophenyl phenyl ether	U	680	676.229508	ug/kg
				4-Chloro-3-methylphenol	U	680	676.229508	ug/kg
				4-Chloroaniline	U	680	676.229508	ug/kg
				4-Chlorophenyl phenyl ether	U	680	676.229508	ug/kg
				Benzyl alcohol	U	680	676.229508	ug/kg
				bis(2-Chloroethoxy)methane	U	680	676.229508	ug/kg
				bis(2-Chloroethyl) ether	U	680	676.229508	ug/kg
				Bis(2-chloroisopropyl) ether	U	680	676.229508	ug/kg
				Butyl benzyl phthalate	U	680	676.229508	ug/kg
				Dibenzofuran	U	680	676.229508	ug/kg
				Diethyl phthalate	U	680	676.229508	ug/kg
				Dimethyl phthalate	U	680	676.229508	ug/kg
				Di-n-butyl phthalate	U	680	676.229508	ug/kg
				Di-n-octyl phthalate	U	680	676.229508	ug/kg
				Hexachlorobenzene	U	680	676.229508	ug/kg
				Hexachlorobutadiene	U	680	676.229508	ug/kg
				HEXACHLOROCYCLOPENTADIE	U	680	#Error	ug/kg
				Hexachloroethane	U	680	676.229508	ug/kg
				Isophorone	U	680	676.229508	ug/kg
				Nitrobenzene	U	680	676.229508	ug/kg
				N-Nitrosodi-n-propylamine	U	680	676.229508	ug/kg
				N-Nitrosodiphenylamine	U	680	676.229508	ug/kg
				Pentachlorophenol	U	680	676.229508	ug/kg
				Phenol	U	680	676.229508	ug/kg
LL5SS-069M-5051-SO(VO A0C040514021		8260B	SO	1,1,1-Trichloroethane	U	6.7	6.66666667	ug/kg
				1,1,2,2-Tetrachloroethane	U	6.7	6.66666667	ug/kg
				1,1,2-Trichloroethane	U	6.7	6.66666667	ug/kg
				1,1-Dichloroethane	U	6.7	6.66666667	ug/kg
				1,1-Dichloroethene	U	6.7	6.66666667	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL5SS-069M-5051-SO(VO A0C040514021		8260B	SO	1,2-Dibromoethane (Ethylene Dibro	U	6.7	6.66666667	ug/kg
				1,2-Dichloroethane	U	6.7	6.66666667	ug/kg
				1,2-Dichloroethene (total)	U	6.7	6.66666667	ug/kg
				1,2-Dichloropropane	U	6.7	6.66666667	ug/kg
				2-Butanone (MEK)	U	27	26.66666667	ug/kg
				2-Hexanone	U	27	26.66666667	ug/kg
				4-methyl-2-pentanone (MIBK)	U	27	26.66666667	ug/kg
				Acetone	U	27	26.66666667	ug/kg
				Benzene	U	6.7	6.66666667	ug/kg
				Bromochloromethane	U	6.7	6.66666667	ug/kg
				Bromodichloromethane	U	6.7	6.66666667	ug/kg
				Bromoform	U	6.7	6.66666667	ug/kg
				Bromomethane (Methyl bromide)	U	6.7	6.66666667	ug/kg
				Carbon disulfide	U	6.7	6.66666667	ug/kg
				Carbon tetrachloride	U	6.7	6.66666667	ug/kg
				Chlorobenzene	U	6.7	6.66666667	ug/kg
				Chlorodibromomethane	U	6.7	6.66666667	ug/kg
				Chloroethane	U	6.7	6.66666667	ug/kg
				Chloroform	U	6.7	6.66666667	ug/kg
				Chloromethane	U	6.7	6.66666667	ug/kg
				cis-1,3-Dichloropropene	U	6.7	6.66666667	ug/kg
				Ethylbenzene	U	6.7	6.66666667	ug/kg
				Styrene	U	6.7	6.66666667	ug/kg
				Tetrachloroethene	U	6.7	6.66666667	ug/kg
				Toluene	U	6.7	6.66666667	ug/kg
				trans-1,3-Dichloropropene	U	6.7	6.66666667	ug/kg
				Trichloroethene	U	6.7	6.66666667	ug/kg
				Vinyl chloride	U	6.7	6.66666667	ug/kg
LL5SS-070M-5052-SO	A0C040514022	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01006098	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.25152439	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.25152439	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.25152439	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL5SS-070M-5052-SO	A0C040514022	8330B	SO	2,6-Dinitrotoluene	U	0.25	0.25152439	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.25152439	mg/kg
				2-Nitrotoluene	U	0.25	0.25152439	mg/kg
				3-Nitrotoluene	U	0.25	0.25152439	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.25152439	mg/kg
				4-Nitrotoluene	U	0.50	0.50304878	mg/kg
				Nitrobenzene	U	0.25	0.25152439	mg/kg
LL5SS-074M-5056-SO	A0C040514023	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01009174	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.25229358	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.25229358	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.25229358	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.25229358	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.25229358	mg/kg
				2-Nitrotoluene	U	0.25	0.25229358	mg/kg
				3-Nitrotoluene	U	0.25	0.25229358	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.25229358	mg/kg
				4-Nitrotoluene	U	0.50	0.50458716	mg/kg
				Nitrobenzene	U	0.25	0.25229358	mg/kg
LL5SS-076M-5058-SO	A0C040514025	8081A	SO	Aldrin	U	41	40.6091371	ug/kg
				beta-BHC	U	36	35.5329949	ug/kg
				delta-BHC	U	41	40.6091371	ug/kg
				Heptachlor	U	36	35.5329949	ug/kg
				Methoxychlor	U	51	50.7614213	ug/kg
LL5SS-076M-5058-SO(VO	A0C040514026	8260B	SO	Xylene (Total)	U	13	12.6582278	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Continuing Calibration (CCV) Outlier Report (Organics)

There are no Organic Continuing Calibrations with outliers

Continuing Calibration (CCAL) Outlier Report (Inorganics)

There are no Inorganic Continuing Calibrations with outliers

Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
LL5SB-052-5149-SO	A0C040514001	6020	SO	Antimony	J	0.083	0.66	mg/kg
				Silver	J	0.019	0.66	mg/kg
				Sodium	J	50.5	132	mg/kg
				Thallium	J	0.17	0.26	mg/kg
				Mercury	J	0.039	0.13	mg/kg
LL5SB-052-5150-SO	A0C040514002	6020		Cadmium	J	0.076	0.24	mg/kg
				Silver	J	0.012	0.61	mg/kg
				Sodium	J	80.4	121	mg/kg
				Thallium	J	0.17	0.24	mg/kg
				Mercury	J	0.019	0.12	mg/kg
LL5SB-052-6092-FD	A0C040514004	6020		Antimony	J	0.082	0.64	mg/kg
				Cadmium	J	0.25	0.26	mg/kg
				Silver	J	0.015	0.64	mg/kg
				Sodium	J	67.3	129	mg/kg
				Thallium	J	0.15	0.26	mg/kg
LL5SB-052-6093-FD	A0C040514005	6020		Mercury	J	0.036	0.13	mg/kg
				Cadmium	J	0.061	0.24	mg/kg
				Silver	J	0.014	0.61	mg/kg
				Sodium	J	91.1	122	mg/kg
				Thallium	J	0.20	0.24	mg/kg
LL5SB-052-6094-FD	A0C040514003			Cadmium	J	0.049	0.24	mg/kg
				Silver	J	0.0079	0.59	mg/kg
				Sodium	J	38.5	118	mg/kg
				Thallium	J	0.11	0.24	mg/kg
LL5SB-053-5153-SO	A0C040514006			Cadmium	J	0.083	0.25	mg/kg
				Silver	J	0.0061	0.62	mg/kg
				Sodium	J	25.6	124	mg/kg
				Thallium	J	0.12	0.25	mg/kg
LL5SB-053-5154-SO	A0C040514007	6020		Mercury	J	0.018	0.12	mg/kg
				Methylene chloride	J B	5.0	6.2	ug/kg
				Cadmium	J	0.084	0.24	mg/kg
				Silver	J	0.0059	0.59	mg/kg
				Sodium	J	24.2	118	mg/kg
				Thallium	J	0.091	0.24	mg/kg
				Mercury	J	0.025	0.12	mg/kg
				Methylene chloride	J B	4.9	5.9	ug/kg

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
LL5SB-053-5154-SO	A0C040514007	8270C	SO	bis(2-Ethylhexyl) phthalate	J	25	390	ug/kg
LL5SB-055-5161-SO	A0C040514008	6020		Antimony	J	0.13	0.61	mg/kg
				Cadmium	J	0.16	0.24	mg/kg
				Silver	J	0.034	0.61	mg/kg
				Sodium	J	44.4	122	mg/kg
				Thallium	J	0.17	0.24	mg/kg
		7471A		Mercury	J	0.046	0.12	mg/kg
LL5SB-055-5162-SO	A0C040514009	6020		Cadmium	J	0.027	0.24	mg/kg
				Silver	J	0.023	0.61	mg/kg
				Sodium	J	54.2	122	mg/kg
				Thallium	J	0.19	0.24	mg/kg
		7471A		Mercury	J	0.049	0.12	mg/kg
LL5SB-056-5165-SO	A0C040514010	6020		Antimony	J	0.12	0.67	mg/kg
				Cadmium	J	0.093	0.27	mg/kg
				Selenium	J	0.54	0.67	mg/kg
				Silver	J	0.019	0.67	mg/kg
				Sodium	J	38.5	133	mg/kg
				Thallium	J	0.19	0.27	mg/kg
		7471A		Mercury	J	0.062	0.13	mg/kg
LL5SB-056-5166-SO	A0C040514011	6020		Antimony	J	0.080	0.62	mg/kg
				Cadmium	J	0.033	0.25	mg/kg
				Silver	J	0.026	0.62	mg/kg
				Sodium	J	94.7	123	mg/kg
				Thallium	J	0.23	0.25	mg/kg
		7471A		Mercury	J	0.026	0.12	mg/kg
LL5SS-062M-5044-SO	A0C040514012	6020		Antimony	J	0.10	0.51	mg/kg
				Silver	J	0.020	0.51	mg/kg
				Thallium	J	0.13	0.20	mg/kg
		7471A		Mercury	J	0.036	0.10	mg/kg
LL5SS-063M-5045-SO	A0C040514013	6020		Antimony	J	0.11	0.51	mg/kg
				Silver	J	0.025	0.51	mg/kg
				Sodium	J	55.9	101	mg/kg
				Thallium	J	0.15	0.20	mg/kg
		7471A		Mercury	J	0.034	0.10	mg/kg
LL5SS-063M-6051-FD	A0C040514014	6020		Antimony	J	0.086	0.51	mg/kg
				Silver	J	0.025	0.51	mg/kg

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
LL5SS-063M-6051-FD	A0C040514014	6020	SO	Sodium	J	63.6	102	mg/kg
				Thallium	J	0.14	0.20	mg/kg
				7471A	J	0.038	0.10	mg/kg
				8330B	J PG	0.025	0.25	mg/kg
LL5SS-064M-5046-SO	A0C040514015	6020		Antimony	J	0.13	0.51	mg/kg
				Silver	J	0.028	0.51	mg/kg
				Thallium	J	0.11	0.20	mg/kg
				7471A	J	0.075	0.10	mg/kg
LL5SS-065M-5047-SO	A0C040514016	6020		Antimony	J	0.13	0.51	mg/kg
				Silver	J	0.024	0.51	mg/kg
				Sodium	J	51.1	102	mg/kg
				Thallium	J	0.15	0.20	mg/kg
LL5SS-066M-5048-SO	A0C040514017	6020		7471A	J	0.062	0.10	mg/kg
				Antimony	J	0.16	0.51	mg/kg
				Silver	J	0.022	0.51	mg/kg
				Sodium	J	36.1	101	mg/kg
LL5SS-067M-5049-SO	A0C040514018			Thallium	J	0.15	0.20	mg/kg
				Antimony	J	0.11	0.51	mg/kg
				Cadmium	J	0.11	0.20	mg/kg
				Silver	J	0.022	0.51	mg/kg
LL5SS-068M-5050-SO	A0C040514019	6020		Sodium	J	30.2	102	mg/kg
				Thallium	J	0.16	0.20	mg/kg
				7471A	J	0.036	0.10	mg/kg
				Antimony	J	0.14	0.51	mg/kg
LL5SS-069M-5051-SO	A0C040514020	353.2 Modified		Cadmium	J	0.18	0.20	mg/kg
				Silver	J	0.039	0.51	mg/kg
				Sodium	J	30.4	102	mg/kg
				Thallium	J	0.15	0.20	mg/kg
LL5SS-069M-5051-SO	A0C040514020	6020		7471A	J	0.044	0.10	mg/kg
				Nitrocellulose	B	1.4	5.1	mg/kg
				Antimony	J	0.11	0.51	mg/kg
				Silver	J	0.028	0.51	mg/kg
LL5SS-069M-5051-SO	A0C040514020	6020		Sodium	J	29.8	103	mg/kg
				Thallium	J	0.17	0.21	mg/kg
				7471A	J	0.039	0.10	mg/kg
				8270C	J	47	680	ug/kg

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
LL5SS-069M-5051-SO	A0C040514020	8270C	SO	Acenaphthene	J	18	100	ug/kg
				bis(2-Ethylhexyl) phthalate	J	130	680	ug/kg
				dibenz[a,h]anthracene	J	89	100	ug/kg
				Fluorene	J	30	100	ug/kg
				Naphthalene	J	35	100	ug/kg
LL5SS-069M-5051-SO(VO	A0C040514021	8260B		Methylene chloride	J B	6.0	6.7	ug/kg
LL5SS-070M-5052-SO	A0C040514022	6020		Antimony	J	0.11	0.51	mg/kg
				Silver	J	0.035	0.51	mg/kg
				Sodium	J	30.7	102	mg/kg
				Thallium	J	0.15	0.20	mg/kg
				7471A Mercury	J	0.036	0.10	mg/kg
LL5SS-074M-5056-SO	A0C040514023	6020		Antimony	J	0.13	0.51	mg/kg
				Silver	J	0.033	0.51	mg/kg
				Sodium	J	69.9	102	mg/kg
				Thallium	J	0.15	0.20	mg/kg
				7471A Mercury	J	0.045	0.10	mg/kg
LL5SS-075M-5057-SO	A0C040514024	6020		Antimony	J	0.14	0.51	mg/kg
				Silver	J	0.021	0.51	mg/kg
				Sodium	J	56.0	101	mg/kg
				Thallium	J	0.15	0.20	mg/kg
				7471A Mercury	J	0.071	0.10	mg/kg
LL5SS-076M-5058-SO	A0C040514025	353.2 Modified		Nitrocellulose	B	2.1	5.1	mg/kg
		6020		Antimony	J	0.11	0.51	mg/kg
				Silver	J	0.014	0.51	mg/kg
				Sodium	J	58.9	102	mg/kg
				Thallium	J	0.14	0.20	mg/kg
		7471A		Mercury	J	0.043	0.10	mg/kg
		8270C		2-Methylnaphthalene	J	110	1300	ug/kg
				Benz[a]anthracene	J	46	200	ug/kg
				Benzo[a]pyrene	J	31	200	ug/kg
				Benzo[b]fluoranthene	J	48	200	ug/kg
				bis(2-Ethylhexyl) phthalate	J	120	1300	ug/kg
				Chrysene	J	46	200	ug/kg
				Fluoranthene	J	75	200	ug/kg
				Naphthalene	J	76	200	ug/kg
				Phenanthrene	J	67	200	ug/kg

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Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
LL5SS-076M-5058-SO	A0C040514025	8270C	SO	Pyrene	J	61	200	ug/kg
LL5SS-076M-5058-SO(VO	A0C040514026	8260B		Methylene chloride	J B	5.6	6.3	ug/kg

Method Blank Outlier Report

Lab Reporting Batch : A0C040514

Lab ID: TALCAN

Analysis Method : 8260B

Analysis Date : 03/05/2010

Preparation Type : 5030B

Preparation Date : 03/05/2010

Method Blank Lab Sample ID : A0C080000386B

Preparation Batch : 0067386

2-Butanone (MEK)	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	2.2	20	ug/kg	J	Common Contaminant

2-Butanone (MEK) contamination found in the method blank did not qualify any samples.

2-Hexanone	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	1.7	20	ug/kg	J	

2-Hexanone contamination found in the method blank did not qualify any samples.

Methylene chloride	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	1.4	5.0	ug/kg	J	Common Contaminant

Methylene chloride was qualified due to method blank contamination in the following associated samples:

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
LL5SB-053-5153-SO	A0C040514006	1	5.0	J B	ug/kg
LL5SB-053-5154-SO	A0C040514007	1	4.9	J B	ug/kg
LL5SS-069M-5051-SO(VOC	A0C040514021	1	6.0	J B	ug/kg
LL5SS-076M-5058-SO(VOC	A0C040514026	1	5.6	J B	ug/kg

Surrogate Recovery Outlier Report

Lab Report Batch: A0C040514

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Dilution	Matrix	Surrogate	Percent Recovery	Criteria (percent)			Associated Target Analytes
							Lower Limit	Upper Limit	Reject Point	
LL5SB-053-5154-SO	A0C040514007	8260B	1	SO	4-Bromofluorobenzene	78	85.0	120.0	10.0	All Target
LL5SS-069M-5051-SO	A0C040514020	8081A	10	SO	Decachlorobiphenyl	137	55.0	130.0	10.0	All Target
		8082	1		Decachlorobiphenyl	146	60.0	125.0	10.0	All Target
LL5SS-069M-5051-SO(VOCS)	A0C040514021	8260B	1	SO	4-Bromofluorobenzene	75	85.0	120.0	10.0	All Target
LL5SS-076M-5058-SO(VOCS)	A0C040514026	8260B	1	SO	4-Bromofluorobenzene	73	85.0	120.0	10.0	All Target

QC Outlier Report: Field Duplicates (Non-qualified Outliers)

Lab Report Batch:

Lab ID:

			Field Sample			Field Sample Duplicate							
Analysis Method	Matrix	Analyte Name	Client Sample ID	Ana Type	Result	Lab Qualifier	Client Sample Duplicate ID	Ana Type	Result	Lab Qualifiers	RPD Dup* (%)	RPD Criteria (%)	Result Units

**Note: Outlier report also includes analytes detected in one sample but not in the related sample, i.e., analyte was detected in the field sample but not in the field duplicate sample, or vice versa. In this case, RPD value assigned to the field duplicate sample is 200.*

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QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0C090496

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature (C)	Criteria	
					Lower Limit	Upper Limit
LL5SB-054-5159-SO	A0C090496004	8270C	SO	0.8	2.0	

Temperature Outlier Report

Lab Report Batch:

Lab ID:

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temp (C)	Temperature Criteria (C)			Between High and Gross Exceedence			Above Gross Exceedence		
					Low	High	Gross Exceed	Detect Quals		Non-Detect Qual(s)	Detect Quals		Non-Detect Qual(s)
								Non-Biased	Biased		Non-Biased	Biased	

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C090496

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
LL5SB-054-5159-SO	A0C090496004	6020	SO	Antimony	U	0.59	0.58823529	mg/kg
		7471A		Mercury	U	0.12	0.11764706	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

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Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0C090496

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
LL5SB-054-5159-SO	A0C090496004	6020	SO	Cadmium	J	0.059	0.24	mg/kg
				Silver	J	0.022	0.59	mg/kg
				Sodium	J	91.4	118	mg/kg
				Thallium	J	0.17	0.24	mg/kg
LL9SB-087-5439-SO	A0C090496001			Antimony	J	0.085	0.57	mg/kg
				Cadmium	J	0.025	0.23	mg/kg
				Silver	J	0.0061	0.57	mg/kg
				Sodium	J	28.6	115	mg/kg
LL9SB-089-5447-SO	A0C090496002			Thallium	J	0.12	0.23	mg/kg
				Antimony	J	0.084	0.58	mg/kg
				Cadmium	J	0.055	0.23	mg/kg
				Silver	J	0.014	0.58	mg/kg
				Sodium	J	42.6	115	mg/kg
				Thallium	J	0.12	0.23	mg/kg
				7471A	J	0.035	0.12	mg/kg
				Mercury	J	0.035	0.12	mg/kg
LL9SB-092-5459-SO	A0C090496003	6020		Cadmium	J	0.070	0.22	mg/kg
				Silver	J	0.013	0.55	mg/kg
				Thallium	J	0.098	0.22	mg/kg
				7471A	J	0.038	0.11	mg/kg
				Mercury	J	0.038	0.11	mg/kg

Surrogate Recovery Outlier Report

Lab Report Batch:

Lab ID:

Client Sample ID	Lab Sample ID	Analysis Method	Dilution Matrix	Surrogate	Percent Recovery	Criteria (percent)			Associated Target Analytes
						Lower Limit	Upper Limit	Reject Point	

QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0C090498

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature (C)	Criteria	
					Lower Limit	Upper Limit
LL5SB-054-5159-SO	A0C090498004	8330B	SO	0.8	2.0	

Temperature Outlier Report

Lab Report Batch:

Lab ID:

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temp (C)	Temperature Criteria (C)			Between High and Gross Exceedence			Above Gross Exceedence		
					Low	High	Gross Exceed	Detect Quals		Non-Detect Qual(s)	Detect Quals		Non-Detect Qual(s)
								Non-Biased	Biased		Non-Biased	Biased	

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C090498

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL9SB-089-5447-SO	A0C090498002	8330B	SO	1,3,5-Trinitrobenzene	U	0.24	0.01091954	mg/kg
				1,3-Dinitrobenzene	U	0.24	0.27298851	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.24	0.27298851	mg/kg
				2,4-Dinitrotoluene	U	0.24	0.27298851	mg/kg
				2,6-Dinitrotoluene	U	0.24	0.27298851	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.24	0.27298851	mg/kg
				2-Nitrotoluene	U	0.24	0.27298851	mg/kg
				3-Nitrotoluene	U	0.24	0.27298851	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.24	0.27298851	mg/kg
				4-Nitrotoluene	U	0.48	0.54597701	mg/kg
				Nitrobenzene	U	0.24	0.27298851	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

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QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature (C)	Criteria	
					Lower Limit	Upper Limit
LL5SS-072M-5054-SO	A0C100403010	353.2 Modified	SO	0.8	2.0	6.0
LL5SS-072M-5054-SOMS	A0C100403010S	353.2 Modified	SO	0.8	2.0	6.0
LL5SS-072M-5054-SOMSD	A0C100403010D	353.2 Modified	SO	0.8	2.0	6.0
LL5SS-072M-6053-FD	A0C100403012	353.2 Modified	SO	0.8	2.0	6.0
LL5SS-072M-5054-SO	A0C100403010	8081A	SO	0.8	2.0	
LL5SS-072M-6053-FD	A0C100403012	8081A	SO	0.8	2.0	
LL5SS-072M-5054-SO	A0C100403010	8082	SO	0.8	2.0	
LL5SS-072M-6053-FD	A0C100403012	8082	SO	0.8	2.0	
LL5SS-072M-5054-SO(VO	A0C100403011	8260B	SO	0.8	2.0	
LL5SS-072M-6053-FD(VO	A0C100403013	8260B	SO	0.8	2.0	
F15SB-033-5416-SO	A0C100403008	8270C	SO	0.8	2.0	
LL5SB-054-5157-SO	A0C100403001	8270C	SO	0.8	2.0	
LL5SB-054-5158-SO	A0C100403002	8270C	SO	0.8	2.0	
LL5SB-055-5164-SO	A0C100403007	8270C	SO	0.8	2.0	
LL5SB-057-5169-SO	A0C100403003	8270C	SO	0.8	2.0	
LL5SB-057-5170-SO	A0C100403004	8270C	SO	0.8	2.0	
LL5SB-058-5173-SO	A0C100403005	8270C	SO	0.8	2.0	
LL5SB-058-5174-SO	A0C100403006	8270C	SO	0.8	2.0	
LL5SS-071M-5053-SO	A0C100403009	8270C	SO	0.8	2.0	
LL5SS-072M-5054-SO	A0C100403010	8270C	SO	0.8	2.0	
LL5SS-072M-6053-FD	A0C100403012	8270C	SO	0.8	2.0	
LL5SS-073M-5055-SO	A0C100403014	8270C	SO	0.8	2.0	
LL5SS-077M-5059-SO	A0C100403015	8270C	SO	0.8	2.0	
F15SB-033-5416-SO	A0C100403008	8330B	SO	0.8	2.0	
LL5SB-054-5157-SO	A0C100403001	8330B	SO	0.8	2.0	
LL5SB-054-5158-SO	A0C100403002	8330B	SO	0.8	2.0	
LL5SB-055-5164-SO	A0C100403007	8330B	SO	0.8	2.0	
LL5SB-057-5169-SO	A0C100403003	8330B	SO	0.8	2.0	
LL5SB-057-5170-SO	A0C100403004	8330B	SO	0.8	2.0	

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QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature (C)	Criteria	
					Lower Limit	Upper Limit
LL5SB-058-5173-SO	A0C100403005	8330B	SO	0.8	2.0	
LL5SB-058-5174-SO	A0C100403006	8330B	SO	0.8	2.0	
LL5SS-071M-5053-SO	A0C100403009	8330B	SO	0.8	2.0	
LL5SS-072M-5054-SO	A0C100403010	8330B	SO	0.8	2.0	
LL5SS-072M-6053-FD	A0C100403012	8330B	SO	0.8	2.0	
LL5SS-073M-5055-SO	A0C100403014	8330B	SO	0.8	2.0	
LL5SS-077M-5059-SO	A0C100403015	8330B	SO	0.8	2.0	
LL5SS-072M-5054-SO	A0C100403010	8330M	SO	0.8	2.0	
LL5SS-072M-6053-FD	A0C100403012	8330M	SO	0.8	2.0	

Temperature Outlier Report

Lab Report Batch:

Lab ID:

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temp (C)	Temperature Criteria (C)			Between High and Gross Exceedence			Above Gross Exceedence		
					Low	High	Gross Exceed	Detect Quals		Non-Detect Qual(s)	Detect Quals		Non-Detect Qual(s)
								Non-Biased	Biased		Non-Biased	Biased	

QC Outlier Report: Holding Times

Lab Report Batch: A0C100403

Lab ID: TALCAN

					Actual Holding Time			Criteria				Reported Dates (and Times)		
Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Prep Method	Coll To Prep	Prep To Ana	Coll To Ana	Coll To Prep	Prep To Ana	Coll To Ana	Unit of Meas	Collection Date	Preparation Date	Analysis Date
LL5SB-054-5158-SO	A0C100403002	8330B	SO	8330B	16.0	3.0		14	40		Days	03/08/2010	03/24/2010	03/27/2010
LL5SB-057-5169-SO	A0C100403003	8330B	SO	8330B	16.0	3.0		14	40		Days	03/08/2010	03/24/2010	03/27/2010
LL5SB-058-5174-SO	A0C100403006	8330B	SO	8330B	16.0	3.0		14	40		Days	03/08/2010	03/24/2010	03/27/2010
LL5SS-071M-5053-S	A0C100403009	8330B	SO	8330B	16.0	2.0		14	40		Days	03/08/2010	03/24/2010	03/26/2010
LL5SS-072M-5054-S	A0C100403010	8330B	SO	8330B	16.0	2.0		14	40		Days	03/08/2010	03/24/2010	03/26/2010
LL5SS-072M-6053-F	A0C100403012	8330B	SO	8330B	16.0	2.0		14	40		Days	03/08/2010	03/24/2010	03/26/2010
LL5SS-073M-5055-S	A0C100403014	8330B	SO	8330B	16.0	2.0		14	40		Days	03/08/2010	03/24/2010	03/26/2010
LL5SS-077M-5059-S	A0C100403015	8330B	SO	8330B	16.0	2.0		14	40		Days	03/08/2010	03/24/2010	03/26/2010
LL9SB-087-5438-SO	A0C100403020	8330B	SO	8330B	16.0	1.0		14	40		Days	03/08/2010	03/24/2010	03/25/2010
LL9SB-087-5438-SO	A0C100403020S	8330B	SO	8330B	16.0	1.0		14	40		Days	03/08/2010	03/24/2010	03/25/2010
LL9SB-087-5438-SO	A0C100403020D	8330B	SO	8330B	16.0	1.0		14	40		Days	03/08/2010	03/24/2010	03/25/2010
LL9SB-088-5441-SO	A0C100403021	8330B	SO	8330B	16.0	3.0		14	40		Days	03/08/2010	03/24/2010	03/27/2010
LL9SB-088-5442-SO	A0C100403022	8330B	SO	8330B	16.0	3.0		14	40		Days	03/08/2010	03/24/2010	03/27/2010
LL9SB-088-5443-SO	A0C100403023	8330B	SO	8330B	16.0	3.0		14	40		Days	03/08/2010	03/24/2010	03/27/2010
LL9SB-089-5445-SO	A0C100403024	8330B	SO	8330B	16.0	3.0		14	40		Days	03/08/2010	03/24/2010	03/27/2010
LL9SB-089-5446-SO	A0C100403025	8330B	SO	8330B	16.0	9.0		14	40		Days	03/08/2010	03/24/2010	04/02/2010
LL9SB-089-5448-SO	A0C100403026	8330B	SO	8330B	16.0	9.0		14	40		Days	03/08/2010	03/24/2010	04/02/2010
LL9SB-090-5449-SO	A0C100403027	8330B	SO	8330B	15.0	7.0		14	40		Days	03/09/2010	03/24/2010	03/31/2010

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QC Outlier Report: Holding Times

Lab Report Batch: A0C100403

Lab ID: TALCAN

					Actual Holding Time			Criteria				Reported Dates (and Times)		
Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Prep Method	Coll To Prep	Prep To Ana	Coll To Ana	Coll To Prep	Prep To Ana	Coll To Ana	Unit of Meas	Collection Date	Preparation Date	Analysis Date
LL9SB-090-5450-SO	A0C100403028	8330B	SO	8330B	15.0	9.0		14	40		Days	03/09/2010	03/24/2010	04/02/2010
LL9SB-091-5453-SO	A0C100403029	8270C	SO	3540C	16.0	4.0		14	40		Days	03/09/2010	03/25/2010	03/29/2010
		8330B	SO	8330B	17.0	5.0		14	40		Days	03/09/2010	03/26/2010	03/31/2010
LL9SB-091-5453-SO	A0C100403029S	8270C	SO	3540C	16.0	1.0		14	40		Days	03/09/2010	03/25/2010	03/26/2010
		8330B	SO	8330B	17.0	5.0		14	40		Days	03/09/2010	03/26/2010	03/31/2010
LL9SB-091-5453-SO	A0C100403029D	8270C	SO	3540C	16.0	4.0		14	40		Days	03/09/2010	03/25/2010	03/29/2010
		8330B	SO	8330B	17.0	5.0		14	40		Days	03/09/2010	03/26/2010	03/31/2010
LL9SB-092-5457-SO	A0C100403032	8330B	SO	8330B	17.0	5.0		14	40		Days	03/09/2010	03/26/2010	03/31/2010
LL9SB-092-5458-SO	A0C100403033	8330B	SO	8330B	17.0	5.0		14	40		Days	03/09/2010	03/26/2010	03/31/2010
LL9SB-092-6157-FD	A0C100403039	8330B	SO	8330B	17.0	5.0		14	40		Days	03/09/2010	03/26/2010	03/31/2010
LL9SB-093-5461-SO	A0C100403034	8330B	SO	8330B	17.0	5.0		14	40		Days	03/09/2010	03/26/2010	03/31/2010
LL9SB-093-5462-SO	A0C100403035	8330B	SO	8330B	17.0	5.0		14	40		Days	03/09/2010	03/26/2010	03/31/2010
LL9SB-093-5463-SO	A0C100403036	8330B	SO	8330B	17.0	5.0		14	40		Days	03/09/2010	03/26/2010	03/31/2010
LL9SB-094-5465-SO	A0C100403037	8270C	SO	3540C	16.0	1.0		14	40		Days	03/09/2010	03/25/2010	03/26/2010
		8330B	SO	8330B	17.0	5.0		14	40		Days	03/09/2010	03/26/2010	03/31/2010
LL9SS-112-5470-SO	A0C100403041	8330B	SO	8330B	17.0	5.0		14	40		Days	03/09/2010	03/26/2010	03/31/2010
LL9SW-113-5491-SW	A0C100403042	8082	AQ	3520C	14.0	1.0		7	40		Days	03/09/2010	03/23/2010	03/24/2010
LL9SW-114-5492-SW	A0C100403043	8082	AQ	3520C	14.0	1.0		7	40		Days	03/09/2010	03/23/2010	03/24/2010

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Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0070022

Analysis Method : 6020

Analysis Date : 03/24/2010

Preparation Batch : 0070022

Preparation Type : 3050B

Preparation Date : 03/11/2010

Lab Reporting Batch : A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL9SB-087-5438-SOMS	A0C100403020S	SO	Antimony	30		30.00	75.00	125.00	20.00
			Calcium	303		30.00	70.00	130.00	20.00
			Magnesium	155		30.00	70.00	130.00	20.00
			Potassium	138		30.00	70.00	130.00	20.00
			Vanadium	147		30.00	39.00	129.00	20.00
LL9SB-087-5438-SOMS	A0C100403020D		Antimony	26		30.00	75.00	125.00	20.00
			Calcium	0.0		30.00	70.00	130.00	20.00
			Cobalt	111		30.00	55.00	110.00	20.00
			Magnesium	136		30.00	70.00	130.00	20.00

Associated Samples: All samples in Method Batch

Client Sample ID	Lab Sample ID
F15SB-033-5416-SO	A0C100403008
LL5SB-054-5157-SO	A0C100403001
LL5SB-054-5158-SO	A0C100403002
LL5SB-055-5164-SO	A0C100403007
LL5SB-057-5169-SO	A0C100403003
LL5SB-057-5170-SO	A0C100403004
LL5SB-058-5173-SO	A0C100403005
LL5SB-058-5174-SO	A0C100403006
LL5SS-059-5060-SO	A0C100403016
LL5SS-060-5061-SO	A0C100403017
LL5SS-061-5062-SO	A0C100403018
LL9SB-087-5437-SO	A0C100403019
LL9SB-087-5438-SO	A0C100403020
LL9SB-088-5441-SO	A0C100403021
LL9SB-088-5442-SO	A0C100403022
LL9SB-088-5443-SO	A0C100403023
LL9SB-089-5445-SO	A0C100403024
LL9SB-089-5446-SO	A0C100403025
LL9SB-089-5448-SO	A0C100403026
LL9SB-090-5449-SO	A0C100403027

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0070025	Analysis Method : 6020	Analysis Date : 03/19/2010
Preparation Batch : 0070025	Preparation Type : 3050B	Preparation Date : 03/11/2010
Lab Reporting Batch : A0C100403	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL9SB-091-5453-SOMS	A0C100403029S	SO	Antimony	32		30.00	75.00	125.00	20.00
LL9SB-091-5453-SOMS	A0C100403029D		Antimony	34		30.00	75.00	125.00	20.00

Associated Samples: All samples in Method Batch	
Client Sample ID	Lab Sample ID
LL9SB-090-5450-SO	A0C100403028
LL9SB-091-5453-SO	A0C100403029
LL9SB-091-5454-SO	A0C100403030
LL9SB-091-5455-SO	A0C100403031
LL9SB-092-5457-SO	A0C100403032
LL9SB-092-5458-SO	A0C100403033
LL9SB-092-6156-FD	A0C100403038
LL9SB-092-6157-FD	A0C100403039
LL9SB-092-6158-FD	A0C100403040
LL9SB-093-5461-SO	A0C100403034
LL9SB-093-5462-SO	A0C100403035
LL9SB-093-5463-SO	A0C100403036
LL9SB-094-5465-SO	A0C100403037
LL9SS-112-5470-SO	A0C100403041

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0075359	Analysis Method : 8330B	Analysis Date : 03/21/2010
Preparation Batch : 0075359	Preparation Type : 8330B	Preparation Date : 03/16/2010
Lab Reporting Batch : AOC100403	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL9SB-087-5438-SOMS	AOC100403020S	SO	1,3,5-Trinitrobenzene	61		0.00	75.00	125.00	30.00
			1,3-Dinitrobenzene	65		0.00	80.00	125.00	30.00
			2,4,6-Trinitrotoluene (TNT)	53		0.00	55.00	140.00	30.00
			2,4-Dinitrotoluene	63		0.00	80.00	125.00	30.00
			2,6-Dinitrotoluene	63		0.00	80.00	120.00	30.00
			2-Amino-4,6-dinitrotoluene	57		0.00	80.00	125.00	30.00
			2-Nitrotoluene	67		0.00	80.00	125.00	30.00
			3-Nitrotoluene	66		0.00	75.00	120.00	30.00
			4-Amino-2,6-Dinitrotoluene	56		0.00	80.00	125.00	30.00
			4-Nitrotoluene	67		0.00	75.00	125.00	30.00
			Hexahydro-1,3,5-Trinitro-1,3,5-Tria	52		0.00	70.00	135.00	30.00
			Nitrobenzene	71		0.00	75.00	125.00	30.00
			Nitroglycerin	70		0.00	74.00	112.00	30.00
			Octahydro-1,3,5,7-tetranitro-1,3,5,7	49		0.00	75.00	125.00	30.00
			PETN	58		0.00	75.00	117.00	30.00
LL9SB-087-5438-SOMS	AOC100403020D	SO	1,3,5-Trinitrobenzene	64		0.00	75.00	125.00	30.00
			1,3-Dinitrobenzene	68		0.00	80.00	125.00	30.00
			2,4-Dinitrotoluene	66		0.00	80.00	125.00	30.00
			2,6-Dinitrotoluene	66		0.00	80.00	120.00	30.00
			2-Amino-4,6-dinitrotoluene	60		0.00	80.00	125.00	30.00
			2-Nitrotoluene	68		0.00	80.00	125.00	30.00
			3-Nitrotoluene	68		0.00	75.00	120.00	30.00
			4-Amino-2,6-Dinitrotoluene	59		0.00	80.00	125.00	30.00
			4-Nitrotoluene	70		0.00	75.00	125.00	30.00
			Hexahydro-1,3,5-Trinitro-1,3,5-Tria	59		0.00	70.00	135.00	30.00
			Nitrobenzene	73		0.00	75.00	125.00	30.00
			Nitroglycerin	68		0.00	74.00	112.00	30.00
			Octahydro-1,3,5,7-tetranitro-1,3,5,7	55		0.00	75.00	125.00	30.00
			PETN	58		0.00	75.00	117.00	30.00

Associated Samples: Parent sample only	
Client Sample ID	Lab Sample ID
LL9SB-087-5438-SO	AOC100403020

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0076249	Analysis Method : 8270C	Analysis Date : 03/19/2010
Preparation Batch : 0076249	Preparation Type : 3540C	Preparation Date : 03/17/2010
Lab Reporting Batch : A0C100403	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL9SB-087-5438-SOMS	A0C100403020S	SO	Benzyl alcohol	19		0.00	20.00	125.00	30.00
LL9SB-087-5438-SOMS	A0C100403020D		Benzyl alcohol	15		0.00	20.00	125.00	30.00

Associated Samples: Parent sample only	
Client Sample ID	Lab Sample ID
LL9SB-087-5438-SO	A0C100403020

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0076391	Analysis Method : 8330B	Analysis Date : 03/24/2010
Preparation Batch : 0076391	Preparation Type : 8330B	Preparation Date : 03/17/2010
Lab Reporting Batch : A0C100403	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL9SB-091-5453-SOMS	A0C100403029S	SO	2,4-Dinitrotoluene	76		0.00	80.00	125.00	30.00
			2,6-Dinitrotoluene	77		0.00	80.00	120.00	30.00
			2-Amino-4,6-dinitrotoluene	73		0.00	80.00	125.00	30.00
			2-Nitrotoluene	77		0.00	80.00	125.00	30.00
			4-Amino-2,6-Dinitrotoluene	71		0.00	80.00	125.00	30.00
			Octahydro-1,3,5,7-tetranitro-1,3,5,7	70		0.00	75.00	125.00	30.00
LL9SB-091-5453-SOMS	A0C100403029D		1,3,5-Trinitrobenzene	66		0.00	75.00	125.00	30.00
			1,3-Dinitrobenzene	70		0.00	80.00	125.00	30.00
			2,4-Dinitrotoluene	67		0.00	80.00	125.00	30.00
			2,6-Dinitrotoluene	68		0.00	80.00	120.00	30.00
			2-Amino-4,6-dinitrotoluene	62		0.00	80.00	125.00	30.00
			2-Nitrotoluene	69		0.00	80.00	125.00	30.00
			3-Nitrotoluene	68		0.00	75.00	120.00	30.00
			4-Amino-2,6-Dinitrotoluene	60		0.00	80.00	125.00	30.00
			4-Nitrotoluene	69		0.00	75.00	125.00	30.00
			Hexahydro-1,3,5-Trinitro-1,3,5-Tria	62		0.00	70.00	135.00	30.00
			Nitrobenzene	73		0.00	75.00	125.00	30.00
			Octahydro-1,3,5,7-tetranitro-1,3,5,7	57		0.00	75.00	125.00	30.00
			PETN	70		0.00	75.00	117.00	30.00

Associated Samples: Parent sample only	
Client Sample ID	Lab Sample ID
LL9SB-091-5453-SO	A0C100403029

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0077299	Analysis Method : 353.2 Modified	Analysis Date : 03/24/2010
Preparation Batch : 0077299	Preparation Type : Gen Prep	Preparation Date : 03/18/2010
Lab Reporting Batch : A0C100403	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL5SS-072M-5054-SOM	A0C100403010S	SO	Nitrocellulose	15		10.00	34.00	115.00	71.00
LL5SS-072M-5054-SOM	A0C100403010D		Nitrocellulose	26		10.00	34.00	115.00	71.00

Associated Samples: All samples in Method Batch	
Client Sample ID	Lab Sample ID
LL5SS-072M-5054-SO	A0C100403010
LL5SS-072M-6053-FD	A0C100403012
LL9SB-090-5449-SO	A0C100403027
LL9SB-090-5450-SO	A0C100403028
LL9SB-093-5462-SO	A0C100403035

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0084046	Analysis Method : 8270C	Analysis Date : 03/26/2010
Preparation Batch : 0084046	Preparation Type : 3540C	Preparation Date : 03/25/2010
Lab Reporting Batch : A0C100403	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL9SB-091-5453-SOMS	A0C100403029S	SO	3,3'-Dichlorobenzidine	6.8		0.00	10.00	130.00	56.00
			Carbazole	22		0.00	45.00	115.00	20.00
LL9SB-091-5453-SOMS	A0C100403029D		2-Methylphenol		38	0.00	40.00	105.00	29.00
			3,3'-Dichlorobenzidine	2.9	79	0.00	10.00	130.00	56.00
			Benzoic acid	111	31	0.00	0.00	110.00	20.00
			Benzyl alcohol		46	0.00	20.00	125.00	30.00
			Carbazole	28	25	0.00	45.00	115.00	20.00

Associated Samples: Parent sample only	
Client Sample ID	Lab Sample ID
LL9SB-091-5453-SO	A0C100403029

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Method Batch : 0069161	Analysis Method : 8082	Analysis Date : 03/15/2010
Preparation Batch : 0069161	Preparation Type : 3520C	Preparation Date : 03/10/2010
Lab Reporting Batch : A0C100403	Lab ID : TALCAN	

LCS Lab Sample ID	Matrix	Analyte Name	Reported Values		Project Limits (Percent)			
			Percent Recovery	RPD	Rejection Point	Lower Limit	Upper Limit	RPD
A0C100000161L	AQ	Aroclor 1016	15	131	10.00	25.00	145.00	20.00
		Aroclor 1260	14	133	10.00	30.00	145.00	27.00

Associated Samples	
Client Sample ID	Lab Sample ID
LL9SW-113-5491-SW	A0C100403042
LL9SW-114-5492-SW	A0C100403043

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Method Batch : 0075148

Analysis Method : 8270C

Analysis Date : 03/23/2010

Preparation Batch : 0075148

Preparation Type : 3520C

Preparation Date : 03/16/2010

Lab Reporting Batch : A0C100403

Lab ID: TALCAN

LCS Lab Sample ID	Matrix	Analyte Name	Reported Values		Project Limits (Percent)			
			Percent Recovery	RPD	Rejection Point	Lower Limit	Upper Limit	RPD
A0C160000148L	AQ	Benzoic acid	23	74	0.00	0.00	125.00	20.00

Associated Samples	
Client Sample ID	Lab Sample ID
LL9SW-113-5491-SW	A0C100403042
LL9SW-114-5492-SW	A0C100403043

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Method Batch : 0079013	Analysis Method : 8270C	Analysis Date : 03/25/2010
Preparation Batch : 0079013	Preparation Type : 3540C	Preparation Date : 03/20/2010
Lab Reporting Batch : A0C100403	Lab ID : TALCAN	

LCS Lab Sample ID	Matrix	Analyte Name	Reported Values		Project Limits (Percent)			
			Percent Recovery	RPD	Rejection Point	Lower Limit	Upper Limit	RPD
A0C200000013C	SO	bis(2-Ethylhexyl) phthalate	236		10.00	45.00	125.00	31.00

Associated Samples	
Client Sample ID	Lab Sample ID
LL5SB-058-5173-SO	A0C100403005
LL5SB-058-5174-SO	A0C100403006
LL9SB-088-5443-SO	A0C100403023

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Method Batch : 0081105	Analysis Method : 8270C	Analysis Date : 03/24/2010
Preparation Batch : 0081105	Preparation Type : 3540C	Preparation Date : 03/22/2010
Lab Reporting Batch : A0C100403	Lab ID : TALCAN	

LCS Lab Sample ID	Matrix	Analyte Name	Reported Values		Project Limits (Percent)			
			Percent Recovery	RPD	Rejection Point	Lower Limit	Upper Limit	RPD
A0C220000105C	SO	Carbazole	32		10.00	45.00	115.00	20.00

Associated Samples	
Client Sample ID	Lab Sample ID
LL5SS-071M-5053-SO	A0C100403009
LL5SS-072M-5054-SO	A0C100403010
LL5SS-072M-6053-FD	A0C100403012
LL5SS-073M-5055-SO	A0C100403014
LL5SS-077M-5059-SO	A0C100403015

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Method Batch : 0084046

Analysis Method : 8270C

Analysis Date : 03/26/2010

Preparation Batch : 0084046

Preparation Type : 3540C

Preparation Date : 03/25/2010

Lab Reporting Batch : A0C100403

Lab ID: TALCAN

LCS Lab Sample ID	Matrix	Analyte Name	Reported Values		Project Limits (Percent)			
			Percent Recovery	RPD	Rejection Point	Lower Limit	Upper Limit	RPD
A0C250000046C	SO	Carbazole	18		10.00	45.00	115.00	20.00

Associated Samples	
Client Sample ID	Lab Sample ID
LL9SB-091-5453-SO	A0C100403029
LL9SB-094-5465-SO	A0C100403037

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
F15SB-033-5416-SO	A0C100403008	7471A	SO	Mercury	U	0.12	0.11627907	mg/kg
				1,3,5-Trinitrobenzene	U	0.25	0.01151163	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.2877907	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.2877907	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.2877907	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.2877907	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.2877907	mg/kg
				2-Nitrotoluene	U	0.25	0.2877907	mg/kg
				3-Nitrotoluene	U	0.25	0.2877907	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.2877907	mg/kg
				4-Nitrotoluene	U	0.50	0.5755814	mg/kg
				Nitrobenzene	U	0.25	0.2877907	mg/kg
LL5SB-054-5157-SO	A0C100403001	8330B	SO	1,3,5-Trinitrobenzene	U	0.24	0.0125	mg/kg
				1,3-Dinitrobenzene	U	0.24	0.3125	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.24	0.3125	mg/kg
				2,4-Dinitrotoluene	U	0.24	0.3125	mg/kg
				2,6-Dinitrotoluene	U	0.24	0.3125	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.24	0.3125	mg/kg
				2-Nitrotoluene	U	0.24	0.3125	mg/kg
				3-Nitrotoluene	U	0.24	0.3125	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.24	0.3125	mg/kg
				4-Nitrotoluene	U	0.48	0.625	mg/kg
				Nitrobenzene	U	0.24	0.3125	mg/kg
LL5SB-054-5158-SO	A0C100403002	7471A	SO	Mercury	U	0.12	0.11764706	mg/kg
				1,3,5-Trinitrobenzene	U	0.26	0.01211765	mg/kg
				1,3-Dinitrobenzene	U	0.26	0.30294118	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.26	0.30294118	mg/kg
				2,4-Dinitrotoluene	U	0.26	0.30294118	mg/kg
				2,6-Dinitrotoluene	U	0.26	0.30294118	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.26	0.30294118	mg/kg
				2-Nitrotoluene	U	0.26	0.30294118	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL5SB-054-5158-SO	A0C100403002	8330B	SO	3-Nitrotoluene	U	0.26	0.30294118	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.26	0.30294118	mg/kg
				4-Nitrotoluene	U	0.52	0.60588235	mg/kg
				Nitrobenzene	U	0.26	0.30294118	mg/kg
LL5SB-055-5164-SO	A0C100403007	8330B	SO	1,3,5-Trinitrobenzene	U	0.24	0.01079545	mg/kg
				1,3-Dinitrobenzene	U	0.24	0.26988636	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.24	0.26988636	mg/kg
				2,4-Dinitrotoluene	U	0.24	0.26988636	mg/kg
				2,6-Dinitrotoluene	U	0.24	0.26988636	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.24	0.26988636	mg/kg
				2-Nitrotoluene	U	0.24	0.26988636	mg/kg
				3-Nitrotoluene	U	0.24	0.26988636	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.24	0.26988636	mg/kg
				4-Nitrotoluene	U	0.48	0.53977273	mg/kg
				Nitrobenzene	U	0.24	0.26988636	mg/kg
LL5SB-057-5169-SO	A0C100403003	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01269231	mg/kg
				1,3,5-Trinitrobenzene	U	0.25	0.01269231	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.31730769	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.31730769	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.31730769	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.31730769	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.31730769	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.31730769	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.31730769	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.31730769	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.31730769	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.31730769	mg/kg
				2-Nitrotoluene	U	0.25	0.31730769	mg/kg
				2-Nitrotoluene	U	0.25	0.31730769	mg/kg
				3-Nitrotoluene	U	0.25	0.31730769	mg/kg
				3-Nitrotoluene	U	0.25	0.31730769	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit				
							Criteria*	Units			
LL5SB-057-5169-SO	A0C100403003	8330B	SO	4-Amino-2,6-Dinitrotoluene	U	0.25	0.31730769	mg/kg			
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.31730769	mg/kg			
				4-Nitrotoluene	U	0.50	0.63461538	mg/kg			
				4-Nitrotoluene	U	0.50	0.63461538	mg/kg			
				Nitrobenzene	U	0.25	0.31730769	mg/kg			
				Nitrobenzene	U	0.25	0.31730769	mg/kg			
LL5SB-058-5173-SO	A0C100403005	7471A	SO	Mercury	U	0.13	0.12820513	mg/kg			
				8330B	1,3,5-Trinitrobenzene	U	0.25	0.01269231	mg/kg		
		1,3-Dinitrobenzene		U	0.25	0.31730769	mg/kg				
		2,4,6-Trinitrotoluene (TNT)		U	0.25	0.31730769	mg/kg				
		2,4-Dinitrotoluene		U	0.25	0.31730769	mg/kg				
		2,6-Dinitrotoluene		U	0.25	0.31730769	mg/kg				
		2-Amino-4,6-dinitrotoluene		U	0.25	0.31730769	mg/kg				
		2-Nitrotoluene		U	0.25	0.31730769	mg/kg				
		3-Nitrotoluene		U	0.25	0.31730769	mg/kg				
		4-Amino-2,6-Dinitrotoluene		U	0.25	0.31730769	mg/kg				
		4-Nitrotoluene		U	0.50	0.63461538	mg/kg				
		Nitrobenzene		U	0.25	0.31730769	mg/kg				
		LL5SS-071M-5053-SO		A0C100403009	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01006098	mg/kg
							1,3-Dinitrobenzene	U	0.25	0.25152439	mg/kg
2,4,6-Trinitrotoluene (TNT)	U		0.25				0.25152439	mg/kg			
2,4-Dinitrotoluene	U		0.25				0.25152439	mg/kg			
2,6-Dinitrotoluene	U		0.25				0.25152439	mg/kg			
2-Amino-4,6-dinitrotoluene	U		0.25				0.25152439	mg/kg			
2-Nitrotoluene	U		0.25				0.25152439	mg/kg			
3-Nitrotoluene	U		0.25				0.25152439	mg/kg			
4-Amino-2,6-Dinitrotoluene	U		0.25				0.25152439	mg/kg			
4-Nitrotoluene	U		0.50				0.50304878	mg/kg			
Nitrobenzene	U		0.25				0.25152439	mg/kg			
LL5SS-072M-5054-SO	A0C100403010		353.2 Modified				SO	Nitrocellulose	U	5.1	5.09683996
		8081A	Aldrin	U	4.1	4.07747197		ug/kg			

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit		
							Criteria*	Units	
LL5SS-072M-5054-SO	A0C100403010	8081A	SO	alpha-Chordane	U	3.1	3.05810398	ug/kg	
				delta-BHC	U	4.1	4.07747197	ug/kg	
				Endosulfan sulfate	U	3.1	3.05810398	ug/kg	
				Endrin aldehyde	U	3.1	3.05810398	ug/kg	
				Heptachlor	U	3.6	3.56778797	ug/kg	
				Methoxychlor	U	5.1	5.09683996	ug/kg	
				8082	Aroclor 1016	U	34	1.73292559	ug/kg
					Aroclor 1221	U	34	1.73292559	ug/kg
					Aroclor 1232	U	34	1.73292559	ug/kg
					Aroclor 1242	U	34	1.73292559	ug/kg
					Aroclor 1248	U	34	1.73292559	ug/kg
					Aroclor 1254	U	34	1.73292559	ug/kg
					Aroclor 1260	U	34	1.73292559	ug/kg
				8270C	1,2,4-Trichlorobenzene	U	340	336.391437	ug/kg
		1,2-Dichlorobenzene	U		340	336.391437	ug/kg		
		1,3-Dichlorobenzene	U		340	336.391437	ug/kg		
		1,4-Dichlorobenzene	U		340	336.391437	ug/kg		
		2,4,5-Trichlorophenol	U		340	336.391437	ug/kg		
		2,4,6-Trichlorophenol	U		340	336.391437	ug/kg		
		2,4-Dichlorophenol	U		340	336.391437	ug/kg		
		2,4-Dimethylphenol	U		340	336.391437	ug/kg		
		2,4-Dinitrophenol	U		820	815.494393	ug/kg		
		2,4-Dinitrotoluene	U		340	336.391437	ug/kg		
		2,6-Dinitrotoluene	U		340	336.391437	ug/kg		
		2-Chloronaphthalene	U		340	336.391437	ug/kg		
		2-Chlorophenol	U		340	336.391437	ug/kg		
		2-Methylphenol	U		340	336.391437	ug/kg		
		2-Nitroaniline	U		820	815.494393	ug/kg		
		2-Nitrophenol	U		340	336.391437	ug/kg		
		3,3'-Dichlorobenzidine	U		340	336.391437	ug/kg		
		3-methylphenol/4-methylphenol	U		340	#Error	ug/kg		
		3-Nitroaniline	U	820	815.494393	ug/kg			
		4,6-Dinitro-2-methylphenol	U	820	815.494393	ug/kg			

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
LL5SS-072M-5054-SO	A0C100403010	8270C	SO	4-Bromophenyl phenyl ether	U	340	336.391437	ug/kg
				4-Chloro-3-methylphenol	U	340	336.391437	ug/kg
				4-Chloroaniline	U	340	336.391437	ug/kg
				4-Chlorophenyl phenyl ether	U	340	336.391437	ug/kg
				4-Nitroaniline	U	820	815.494393	ug/kg
				4-Nitrophenol	U	820	815.494393	ug/kg
				Acenaphthene	U	51	50.9683996	ug/kg
				Acenaphthylene	U	51	50.9683996	ug/kg
				Anthracene	U	51	50.9683996	ug/kg
				Benzo[g,h,i]perylene	U	51	50.9683996	ug/kg
				Benzo[k]fluoranthene	U	51	50.9683996	ug/kg
				Benzoic acid	U	820	815.494393	ug/kg
				Benzyl alcohol	U	340	336.391437	ug/kg
				bis(2-Chloroethoxy)methane	U	340	336.391437	ug/kg
				bis(2-Chloroethyl) ether	U	340	336.391437	ug/kg
				Bis(2-chloroisopropyl) ether	U	340	336.391437	ug/kg
				Butyl benzyl phthalate	U	340	336.391437	ug/kg
				Carbazole	U	51	50.9683996	ug/kg
				dibenz[a,h]anthracene	U	51	50.9683996	ug/kg
				Dibenzofuran	U	340	336.391437	ug/kg
				Diethyl phthalate	U	340	336.391437	ug/kg
				Dimethyl phthalate	U	340	336.391437	ug/kg
				Di-n-octyl phthalate	U	340	336.391437	ug/kg
				Fluorene	U	51	50.9683996	ug/kg
				Hexachlorobenzene	U	340	336.391437	ug/kg
				Hexachlorobutadiene	U	340	336.391437	ug/kg
				HEXACHLOROCYCLOPENTADIE	U	340	#Error	ug/kg
				Hexachloroethane	U	340	336.391437	ug/kg
				Indeno[1,2,3-cd]pyrene	U	51	50.9683996	ug/kg
				Isophorone	U	340	336.391437	ug/kg
				Nitrobenzene	U	340	336.391437	ug/kg
				N-Nitrosodi-n-propylamine	U	340	336.391437	ug/kg
				N-Nitrosodiphenylamine	U	340	336.391437	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL5SS-072M-5054-SO	A0C100403010	8270C	SO	Pentachlorophenol	U	340	336.391437	ug/kg
				Phenol	U	340	336.391437	ug/kg
LL5SS-072M-5054-SO(VO A0C100403011		8260B	SO	1,1,1-Trichloroethane	U	7.0	6.94444444	ug/kg
				1,1,2,2-Tetrachloroethane	U	7.0	6.94444444	ug/kg
				1,1,2-Trichloroethane	U	7.0	6.94444444	ug/kg
				1,1-Dichloroethane	U	7.0	6.94444444	ug/kg
				1,1-Dichloroethene	U	7.0	6.94444444	ug/kg
				1,2-Dibromoethane (Ethylene Dibro	U	7.0	6.94444444	ug/kg
				1,2-Dichloroethane	U	7.0	6.94444444	ug/kg
				1,2-Dichloroethene (total)	U	7.0	6.94444444	ug/kg
				1,2-Dichloropropane	U	7.0	6.94444444	ug/kg
				2-Butanone (MEK)	U	28	27.7777778	ug/kg
				2-Hexanone	U	28	27.7777778	ug/kg
				4-methyl-2-pentanone (MIBK)	U	28	27.7777778	ug/kg
				Acetone	U	28	27.7777778	ug/kg
				Benzene	U	7.0	6.94444444	ug/kg
				Bromochloromethane	U	7.0	6.94444444	ug/kg
				Bromodichloromethane	U	7.0	6.94444444	ug/kg
				Bromoform	U	7.0	6.94444444	ug/kg
				Bromomethane (Methyl bromide)	U	7.0	6.94444444	ug/kg
				Carbon disulfide	U	7.0	6.94444444	ug/kg
				Carbon tetrachloride	U	7.0	6.94444444	ug/kg
				Chlorobenzene	U	7.0	6.94444444	ug/kg
				Chlorodibromomethane	U	7.0	6.94444444	ug/kg
				Chloroethane	U	7.0	6.94444444	ug/kg
				Chloroform	U	7.0	6.94444444	ug/kg
				Chloromethane	U	7.0	6.94444444	ug/kg
				cis-1,3-Dichloropropene	U	7.0	6.94444444	ug/kg
				Ethylbenzene	U	7.0	6.94444444	ug/kg
				Styrene	U	7.0	6.94444444	ug/kg
				Tetrachloroethene	U	7.0	6.94444444	ug/kg
				Toluene	U	7.0	6.94444444	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit		
							Criteria*	Units	
LL5SS-072M-5054-SO(VO A0C100403011		8260B	SO	trans-1,3-Dichloropropene	U	7.0	6.94444444	ug/kg	
				Trichloroethene	U	7.0	6.94444444	ug/kg	
				Vinyl chloride	U	7.0	6.94444444	ug/kg	
				Xylene (Total)	U	14	13.8888889	ug/kg	
LL5SS-072M-6053-FD	A0C100403012	353.2 Modified SO		Nitrocellulose	U	5.1	5.09164969	mg/kg	
				8081A	4,4'-DDD	U	4.1	4.07331976	ug/kg
				4,4'-DDE	U	3.5	3.46232179	ug/kg	
				4,4'-DDT	U	4.1	4.07331976	ug/kg	
				alpha-BHC	U	5.1	5.09164969	ug/kg	
				Dieldrin	U	3.5	3.46232179	ug/kg	
				Endosulfan I	U	3.5	3.46232179	ug/kg	
				Endosulfan II	U	5.1	5.09164969	ug/kg	
				Endrin	U	3.5	3.46232179	ug/kg	
				Endrin ketone	U	4.1	4.07331976	ug/kg	
				gamma-BHC (Lindane)	U	5.1	5.09164969	ug/kg	
				gamma-Chlordane	U	3.5	3.46232179	ug/kg	
				Heptachlor epoxide	U	5.1	5.09164969	ug/kg	
				Toxaphene	U	140	136.456212	ug/kg	
		8082		Aroclor 1016	U	34	1.7311609	ug/kg	
				Aroclor 1221	U	34	1.7311609	ug/kg	
				Aroclor 1232	U	34	1.7311609	ug/kg	
				Aroclor 1242	U	34	1.7311609	ug/kg	
				Aroclor 1248	U	34	1.7311609	ug/kg	
				Aroclor 1254	U	34	1.7311609	ug/kg	
				Aroclor 1260	U	34	1.7311609	ug/kg	
		8270C		1,2,4-Trichlorobenzene	U	340	336.04888	ug/kg	
				1,2-Dichlorobenzene	U	340	336.04888	ug/kg	
				1,3-Dichlorobenzene	U	340	336.04888	ug/kg	
				1,4-Dichlorobenzene	U	340	336.04888	ug/kg	
				2,4,5-Trichlorophenol	U	340	336.04888	ug/kg	
				2,4,6-Trichlorophenol	U	340	336.04888	ug/kg	
				2,4-Dichlorophenol	U	340	336.04888	ug/kg	

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL5SS-072M-6053-FD	A0C100403012	8270C	SO	2,4-Dimethylphenol	U	340	336.04888	ug/kg
				2,4-Dinitrotoluene	U	340	336.04888	ug/kg
				2,6-Dinitrotoluene	U	340	336.04888	ug/kg
				2-Chloronaphthalene	U	340	336.04888	ug/kg
				2-Chlorophenol	U	340	336.04888	ug/kg
				2-Methylphenol	U	340	336.04888	ug/kg
				2-Nitrophenol	U	340	336.04888	ug/kg
				3,3'-Dichlorobenzidine	U	340	336.04888	ug/kg
				3-methylphenol/4-methylphenol	U	340	#Error	ug/kg
				4-Bromophenyl phenyl ether	U	340	336.04888	ug/kg
				4-Chloro-3-methylphenol	U	340	336.04888	ug/kg
				4-Chloroaniline	U	340	336.04888	ug/kg
				4-Chlorophenyl phenyl ether	U	340	336.04888	ug/kg
				Acenaphthene	U	51	50.9164969	ug/kg
				Acenaphthylene	U	51	50.9164969	ug/kg
				Anthracene	U	51	50.9164969	ug/kg
				Benz[a]anthracene	U	51	50.9164969	ug/kg
				Benzo[g,h,i]perylene	U	51	50.9164969	ug/kg
				Benzyl alcohol	U	340	336.04888	ug/kg
				bis(2-Chloroethoxy)methane	U	340	336.04888	ug/kg
				bis(2-Chloroethyl) ether	U	340	336.04888	ug/kg
				Bis(2-chloroisopropyl) ether	U	340	336.04888	ug/kg
				Butyl benzyl phthalate	U	340	336.04888	ug/kg
				Carbazole	U	51	50.9164969	ug/kg
				dibenz[a,h]anthracene	U	51	50.9164969	ug/kg
				Dibenzofuran	U	340	336.04888	ug/kg
				Dimethyl phthalate	U	340	336.04888	ug/kg
				Di-n-octyl phthalate	U	340	336.04888	ug/kg
				Fluorene	U	51	50.9164969	ug/kg
				Hexachlorobenzene	U	340	336.04888	ug/kg
				Hexachlorobutadiene	U	340	336.04888	ug/kg
				HEXACHLOROCYCLOPENTADIE	U	340	#Error	ug/kg
				Hexachloroethane	U	340	336.04888	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit					
							Criteria*	Units				
LL5SS-072M-6053-FD	A0C100403012	8270C	SO	Indeno[1,2,3-cd]pyrene	U	51	50.9164969	ug/kg				
				Isophorone	U	340	336.04888	ug/kg				
				Nitrobenzene	U	340	336.04888	ug/kg				
				N-Nitrosodi-n-propylamine	U	340	336.04888	ug/kg				
				N-Nitrosodiphenylamine	U	340	336.04888	ug/kg				
				Pentachlorophenol	U	340	336.04888	ug/kg				
				Phenol	U	340	336.04888	ug/kg				
		8330B		1,3,5-Trinitrobenzene	U	0.25	0.01008147	mg/kg				
				1,3-Dinitrobenzene	U	0.25	0.25203666	mg/kg				
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.25203666	mg/kg				
				2,4-Dinitrotoluene	U	0.25	0.25203666	mg/kg				
				2,6-Dinitrotoluene	U	0.25	0.25203666	mg/kg				
				2-Amino-4,6-dinitrotoluene	U	0.25	0.25203666	mg/kg				
				2-Nitrotoluene	U	0.25	0.25203666	mg/kg				
				3-Nitrotoluene	U	0.25	0.25203666	mg/kg				
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.25203666	mg/kg				
				4-Nitrotoluene	U	0.50	0.50407332	mg/kg				
				Nitrobenzene	U	0.25	0.25203666	mg/kg				
				LL5SS-072M-6053-FD(VO	A0C100403013	8260B	SO	Xylene (Total)	U	15	14.7058824	ug/kg
				LL9SB-087-5438-SO	A0C100403020	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01178571	mg/kg
1,3-Dinitrobenzene	U	0.25	0.29464286					mg/kg				
2,4,6-Trinitrotoluene (TNT)	U	0.25	0.29464286					mg/kg				
2,4-Dinitrotoluene	U	0.25	0.29464286					mg/kg				
2,6-Dinitrotoluene	U	0.25	0.29464286					mg/kg				
2-Amino-4,6-dinitrotoluene	U	0.25	0.29464286					mg/kg				
2-Nitrotoluene	U	0.25	0.29464286					mg/kg				
3-Nitrotoluene	U	0.25	0.29464286					mg/kg				
4-Amino-2,6-Dinitrotoluene	U	0.25	0.29464286					mg/kg				
4-Nitrotoluene	U	0.50	0.58928571					mg/kg				
Nitrobenzene	U	0.25	0.29464286					mg/kg				
LL9SB-088-5441-SO	A0C100403021	8330B	SO					1,3,5-Trinitrobenzene	U	0.24	0.01233766	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
LL9SB-088-5441-SO	A0C100403021	8330B	SO	1,3-Dinitrobenzene	U	0.24	0.30844156	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.24	0.30844156	mg/kg
				2,4-Dinitrotoluene	U	0.24	0.30844156	mg/kg
				2,6-Dinitrotoluene	U	0.24	0.30844156	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.24	0.30844156	mg/kg
				2-Nitrotoluene	U	0.24	0.30844156	mg/kg
				3-Nitrotoluene	U	0.24	0.30844156	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.24	0.30844156	mg/kg
				4-Nitrotoluene	U	0.48	0.61688312	mg/kg
				Nitrobenzene	U	0.24	0.30844156	mg/kg
				LL9SB-088-5442-SO	A0C100403022	7471A	SO	Mercury
8330B	1,3,5-Trinitrobenzene	U	0.25			0.01164706		mg/kg
1,3,5-Trinitrobenzene	U	0.26	0.01211765			mg/kg		
1,3-Dinitrobenzene	U	0.25	0.29117647			mg/kg		
1,3-Dinitrobenzene	U	0.26	0.30294118			mg/kg		
2,4,6-Trinitrotoluene (TNT)	U	0.25	0.29117647			mg/kg		
2,4,6-Trinitrotoluene (TNT)	U	0.26	0.30294118			mg/kg		
2,4-Dinitrotoluene	U	0.25	0.29117647			mg/kg		
2,4-Dinitrotoluene	U	0.26	0.30294118			mg/kg		
2,6-Dinitrotoluene	U	0.26	0.30294118			mg/kg		
2,6-Dinitrotoluene	U	0.25	0.29117647			mg/kg		
2-Amino-4,6-dinitrotoluene	U	0.25	0.29117647			mg/kg		
2-Amino-4,6-dinitrotoluene	U	0.26	0.30294118			mg/kg		
2-Nitrotoluene	U	0.25	0.29117647			mg/kg		
2-Nitrotoluene	U	0.26	0.30294118			mg/kg		
3-Nitrotoluene	U	0.25	0.29117647			mg/kg		
3-Nitrotoluene	U	0.26	0.30294118			mg/kg		
4-Amino-2,6-Dinitrotoluene	U	0.25	0.29117647			mg/kg		
4-Amino-2,6-Dinitrotoluene	U	0.26	0.30294118			mg/kg		
4-Nitrotoluene	U	0.50	0.58235294			mg/kg		
4-Nitrotoluene	U	0.52	0.60588235			mg/kg		
Nitrobenzene	U	0.26	0.30294118			mg/kg		

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL9SB-088-5442-SO	A0C100403022	8330B	SO	Nitrobenzene	U	0.25	0.29117647	mg/kg
LL9SB-088-5443-SO	A0C100403023	7471A	SO	Mercury	U	0.12	0.11627907	mg/kg
LL9SB-089-5446-SO	A0C100403025	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01178571	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.29464286	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.29464286	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.29464286	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.29464286	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.29464286	mg/kg
				2-Nitrotoluene	U	0.25	0.29464286	mg/kg
				3-Nitrotoluene	U	0.25	0.29464286	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.29464286	mg/kg
				4-Nitrotoluene	U	0.50	0.58928571	mg/kg
				Nitrobenzene	U	0.25	0.29464286	mg/kg
LL9SB-089-5448-SO	A0C100403026	8330B	SO	Mercury	U	0.12	0.11627907	mg/kg
				1,3,5-Trinitrobenzene	U	0.25	0.01151163	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.2877907	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.2877907	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.2877907	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.2877907	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.2877907	mg/kg
				2-Nitrotoluene	U	0.25	0.2877907	mg/kg
				3-Nitrotoluene	U	0.25	0.2877907	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.2877907	mg/kg
				4-Nitrotoluene	U	0.50	0.5755814	mg/kg
				Nitrobenzene	U	0.25	0.2877907	mg/kg
LL9SB-090-5449-SO	A0C100403027	353.2 Modified SO 8081A	SO	Nitrocellulose	U	6.8	6.75675676	mg/kg
				4,4'-DDE	U	4.6	4.59459459	ug/kg
				Aldrin	U	11	10.8108108	ug/kg
				alpha-BHC	U	6.8	6.75675676	ug/kg
				beta-BHC	U	9.5	9.45945946	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit		
							Criteria*	Units	
LL9SB-090-5449-SO	A0C100403027	8081A	SO	delta-BHC	U	11	10.8108108	ug/kg	
				Dieldrin	U	4.6	4.59459459	ug/kg	
				Endosulfan I	U	4.6	4.59459459	ug/kg	
				Endosulfan II	U	6.8	6.75675676	ug/kg	
				Endrin	U	4.6	4.59459459	ug/kg	
				gamma-BHC (Lindane)	U	6.8	6.75675676	ug/kg	
				gamma-Chlordane	U	4.6	4.59459459	ug/kg	
				Heptachlor	U	9.5	9.45945946	ug/kg	
				Heptachlor epoxide	U	6.8	6.75675676	ug/kg	
				Methoxychlor	U	14	13.5135135	ug/kg	
		8082		Aroclor 1016	U	45	2.2972973	ug/kg	
				Aroclor 1221	U	45	2.2972973	ug/kg	
				Aroclor 1232	U	45	2.2972973	ug/kg	
				Aroclor 1242	U	45	2.2972973	ug/kg	
				Aroclor 1248	U	45	2.2972973	ug/kg	
				Aroclor 1254	U	45	2.2972973	ug/kg	
				Aroclor 1260	U	45	2.2972973	ug/kg	
				8260B	1,1,1-Trichloroethane	U	6.8	6.75675676	ug/kg
					1,1,2,2-Tetrachloroethane	U	6.8	6.75675676	ug/kg
					1,1,2-Trichloroethane	U	6.8	6.75675676	ug/kg
		1,1-Dichloroethane			U	6.8	6.75675676	ug/kg	
		1,1-Dichloroethene			U	6.8	6.75675676	ug/kg	
		1,2-Dibromoethane (Ethylene Dibro			U	6.8	6.75675676	ug/kg	
		1,2-Dichloroethane			U	6.8	6.75675676	ug/kg	
		1,2-Dichloroethene (total)			U	6.8	6.75675676	ug/kg	
		1,2-Dichloropropane			U	6.8	6.75675676	ug/kg	
		Benzene			U	6.8	6.75675676	ug/kg	
		Bromochloromethane			U	6.8	6.75675676	ug/kg	
		Bromodichloromethane			U	6.8	6.75675676	ug/kg	
		Bromoform			U	6.8	6.75675676	ug/kg	
		Bromomethane (Methyl bromide)		U	6.8	6.75675676	ug/kg		
		Carbon disulfide		U	6.8	6.75675676	ug/kg		
		Carbon tetrachloride		U	6.8	6.75675676	ug/kg		

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
LL9SB-090-5449-SO	A0C100403027	8260B	SO	Chlorobenzene	U	6.8	6.75675676	ug/kg
				Chlorodibromomethane	U	6.8	6.75675676	ug/kg
				Chloroethane	U	6.8	6.75675676	ug/kg
				Chloroform	U	6.8	6.75675676	ug/kg
				Chloromethane	U	6.8	6.75675676	ug/kg
				cis-1,3-Dichloropropene	U	6.8	6.75675676	ug/kg
				Ethylbenzene	U	6.8	6.75675676	ug/kg
				Styrene	U	6.8	6.75675676	ug/kg
				Tetrachloroethene	U	6.8	6.75675676	ug/kg
				Toluene	U	6.8	6.75675676	ug/kg
				trans-1,3-Dichloropropene	U	6.8	6.75675676	ug/kg
				Trichloroethene	U	6.8	6.75675676	ug/kg
				Vinyl chloride	U	6.8	6.75675676	ug/kg
				Xylene (Total)	U	14	13.5135135	ug/kg
		8270C		1,2,4-Trichlorobenzene	U	450	445.945946	ug/kg
				1,2-Dichlorobenzene	U	450	445.945946	ug/kg
				1,3-Dichlorobenzene	U	450	445.945946	ug/kg
				1,4-Dichlorobenzene	U	450	445.945946	ug/kg
				2,4,5-Trichlorophenol	U	450	445.945946	ug/kg
				2,4,6-Trichlorophenol	U	450	445.945946	ug/kg
				2,4-Dichlorophenol	U	450	445.945946	ug/kg
				2,4-Dimethylphenol	U	450	445.945946	ug/kg
				2,4-Dinitrophenol	U	1100	1081.08108	ug/kg
				2,4-Dinitrotoluene	U	450	445.945946	ug/kg
				2,6-Dinitrotoluene	U	450	445.945946	ug/kg
				2-Chloronaphthalene	U	450	445.945946	ug/kg
				2-Chlorophenol	U	450	445.945946	ug/kg
				2-Methylphenol	U	450	445.945946	ug/kg
				2-Nitroaniline	U	1100	1081.08108	ug/kg
				2-Nitrophenol	U	450	445.945946	ug/kg
				3,3'-Dichlorobenzidine	U	450	445.945946	ug/kg
				3-methylphenol/4-methylphenol	U	450	#Error	ug/kg
				3-Nitroaniline	U	1100	1081.08108	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
LL9SB-090-5449-SO	A0C100403027	8270C	SO	4,6-Dinitro-2-methylphenol	U	1100	1081.08108	ug/kg
				4-Bromophenyl phenyl ether	U	450	445.945946	ug/kg
				4-Chloro-3-methylphenol	U	450	445.945946	ug/kg
				4-Chloroaniline	U	450	445.945946	ug/kg
				4-Chlorophenyl phenyl ether	U	450	445.945946	ug/kg
				4-Nitroaniline	U	1100	1081.08108	ug/kg
				4-Nitrophenol	U	1100	1081.08108	ug/kg
				Acenaphthene	U	68	67.5675676	ug/kg
				Acenaphthylene	U	68	67.5675676	ug/kg
				Anthracene	U	68	67.5675676	ug/kg
				Benzoic acid	U	1100	1081.08108	ug/kg
				Benzyl alcohol	U	450	445.945946	ug/kg
				bis(2-Chloroethoxy)methane	U	450	445.945946	ug/kg
				bis(2-Chloroethyl) ether	U	450	445.945946	ug/kg
				Bis(2-chloroisopropyl) ether	U	450	445.945946	ug/kg
				Butyl benzyl phthalate	U	450	445.945946	ug/kg
				Carbazole	U	68	67.5675676	ug/kg
				dibenz[a,h]anthracene	U	68	67.5675676	ug/kg
				Dibenzofuran	U	450	445.945946	ug/kg
				Diethyl phthalate	U	450	445.945946	ug/kg
				Dimethyl phthalate	U	450	445.945946	ug/kg
				Di-n-butyl phthalate	U	450	445.945946	ug/kg
				Di-n-octyl phthalate	U	450	445.945946	ug/kg
				Fluorene	U	68	67.5675676	ug/kg
				Hexachlorobenzene	U	450	445.945946	ug/kg
				Hexachlorobutadiene	U	450	445.945946	ug/kg
				HEXACHLOROCYCLOPENTADIE	U	450	#Error	ug/kg
				Hexachloroethane	U	450	445.945946	ug/kg
				Isophorone	U	450	445.945946	ug/kg
				Nitrobenzene	U	450	445.945946	ug/kg
				N-Nitrosodi-n-propylamine	U	450	445.945946	ug/kg
				N-Nitrosodiphenylamine	U	450	445.945946	ug/kg
				Pentachlorophenol	U	450	445.945946	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit					
							Criteria*	Units				
LL9SB-090-5449-SO	A0C100403027	8270C	SO	Phenol	U	450	445.945946	ug/kg				
				1,3,5-Trinitrobenzene	U	0.25	0.01337838	mg/kg				
				1,3-Dinitrobenzene	U	0.25	0.33445946	mg/kg				
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.33445946	mg/kg				
				2,4-Dinitrotoluene	U	0.25	0.33445946	mg/kg				
				2,6-Dinitrotoluene	U	0.25	0.33445946	mg/kg				
				2-Amino-4,6-dinitrotoluene	U	0.25	0.33445946	mg/kg				
				2-Nitrotoluene	U	0.25	0.33445946	mg/kg				
				3-Nitrotoluene	U	0.25	0.33445946	mg/kg				
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.33445946	mg/kg				
				4-Nitrotoluene	U	0.50	0.66891892	mg/kg				
				Nitrobenzene	U	0.25	0.33445946	mg/kg				
				LL9SB-090-5450-SO	A0C100403028	6020	SO	Sodium	U	113	112.359551	mg/kg
								4,4'-DDD	U	4.5	4.49438202	ug/kg
4,4'-DDT	U	4.5	4.49438202					ug/kg				
Aldrin	U	9.0	8.98876404					ug/kg				
alpha-Chordane	U	6.8	6.74157303					ug/kg				
beta-BHC	U	7.9	7.86516854					ug/kg				
delta-BHC	U	9.0	8.98876404					ug/kg				
Endosulfan sulfate	U	6.8	6.74157303					ug/kg				
Endrin aldehyde	U	6.8	6.74157303					ug/kg				
Endrin ketone	U	4.5	4.49438202					ug/kg				
Heptachlor	U	7.9	7.86516854					ug/kg				
8260B	2-Butanone (MEK)	U	23			22.4719101		ug/kg				
	2-Hexanone	U	23			22.4719101		ug/kg				
	4-methyl-2-pentanone (MIBK)	U	23			22.4719101		ug/kg				
	Acetone	U	23			22.4719101		ug/kg				
8270C	2,4-Dinitrophenol	U	900			898.876404		ug/kg				
	2-Nitroaniline	U	900			898.876404		ug/kg				
	3-Nitroaniline	U	900			898.876404		ug/kg				
	4,6-Dinitro-2-methylphenol	U	900			898.876404		ug/kg				
	4-Nitroaniline	U	900			898.876404		ug/kg				

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL9SB-090-5450-SO	A0C100403028	8270C	SO	4-Nitrophenol	U	900	898.876404	ug/kg
				Benzoic acid	U	900	898.876404	ug/kg
				1,3,5-Trinitrobenzene	U	0.24	0.01067416	mg/kg
				1,3-Dinitrobenzene	U	0.24	0.26685393	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.24	0.26685393	mg/kg
				2,4-Dinitrotoluene	U	0.24	0.26685393	mg/kg
				2,6-Dinitrotoluene	U	0.24	0.26685393	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.24	0.26685393	mg/kg
				2-Nitrotoluene	U	0.24	0.26685393	mg/kg
				3-Nitrotoluene	U	0.24	0.26685393	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.24	0.26685393	mg/kg
				4-Nitrotoluene	U	0.48	0.53370787	mg/kg
				Nitrobenzene	U	0.24	0.26685393	mg/kg
LL9SB-091-5453-SO	A0C100403029	6020	SO	Sodium	U	127	126.582278	mg/kg
				1,3,5-Trinitrobenzene	U	0.27	0.01354430	mg/kg
				1,3-Dinitrobenzene	U	0.27	0.33860759	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.27	0.33860759	mg/kg
				2,4-Dinitrotoluene	U	0.27	0.33860759	mg/kg
				2,6-Dinitrotoluene	U	0.27	0.33860759	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.27	0.33860759	mg/kg
				2-Nitrotoluene	U	0.27	0.33860759	mg/kg
				3-Nitrotoluene	U	0.27	0.33860759	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.27	0.33860759	mg/kg
				4-Nitrotoluene	U	0.54	0.67721519	mg/kg
				Nitrobenzene	U	0.27	0.33860759	mg/kg
LL9SB-091-5454-SO	A0C100403030	6020	SO	Antimony	U	0.57	0.56818182	mg/kg
				Silver	U	0.57	0.56818182	mg/kg
				Sodium	U	114	113.636364	mg/kg
				Thallium	U	0.23	0.22727273	mg/kg
LL9SB-091-5455-SO	A0C100403031	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01092715	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.27317881	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL9SB-091-5455-SO	A0C100403031	8330B	SO	2,4,6-Trinitrotoluene (TNT)	U	0.25	0.27317881	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.27317881	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.27317881	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.27317881	mg/kg
				2-Nitrotoluene	U	0.25	0.27317881	mg/kg
				3-Nitrotoluene	U	0.25	0.27317881	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.27317881	mg/kg
				4-Nitrotoluene	U	0.50	0.54635762	mg/kg
				Nitrobenzene	U	0.25	0.27317881	mg/kg
LL9SB-092-5457-SO	A0C100403032	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01222222	mg/kg
				1,3,5-Trinitrobenzene	U	0.26	0.01259259	mg/kg
				1,3-Dinitrobenzene	U	0.26	0.31481481	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.30555556	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.26	0.31481481	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.30555556	mg/kg
				2,4-Dinitrotoluene	U	0.26	0.31481481	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.30555556	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.30555556	mg/kg
				2,6-Dinitrotoluene	U	0.26	0.31481481	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.26	0.31481481	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.30555556	mg/kg
				2-Nitrotoluene	U	0.26	0.31481481	mg/kg
				2-Nitrotoluene	U	0.25	0.30555556	mg/kg
				3-Nitrotoluene	U	0.25	0.30555556	mg/kg
				3-Nitrotoluene	U	0.26	0.31481481	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.26	0.31481481	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.30555556	mg/kg
				4-Nitrotoluene	U	0.50	0.61111111	mg/kg
				Nitrobenzene	U	0.26	0.31481481	mg/kg
				Nitrobenzene	U	0.25	0.30555556	mg/kg
LL9SB-092-6157-FD	A0C100403039	8330B	SO	1,3,5-Trinitrobenzene	U	0.26	0.01214286	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
LL9SB-092-6157-FD	A0C100403039	8330B	SO	1,3-Dinitrobenzene	U	0.26	0.30357143	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.26	0.30357143	mg/kg
				2,4-Dinitrotoluene	U	0.26	0.30357143	mg/kg
				2,6-Dinitrotoluene	U	0.26	0.30357143	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.26	0.30357143	mg/kg
				2-Nitrotoluene	U	0.26	0.30357143	mg/kg
				3-Nitrotoluene	U	0.26	0.30357143	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.26	0.30357143	mg/kg
				Nitrobenzene	U	0.26	0.30357143	mg/kg
				LL9SB-092-6158-FD	A0C100403040	8330B	SO	1,3,5-Trinitrobenzene
1,3-Dinitrobenzene	U	0.25	0.27257709					mg/kg
2,4,6-Trinitrotoluene (TNT)	U	0.25	0.27257709					mg/kg
2,4-Dinitrotoluene	U	0.25	0.27257709					mg/kg
2,6-Dinitrotoluene	U	0.25	0.27257709					mg/kg
2-Amino-4,6-dinitrotoluene	U	0.25	0.27257709					mg/kg
2-Nitrotoluene	U	0.25	0.27257709					mg/kg
3-Nitrotoluene	U	0.25	0.27257709					mg/kg
4-Amino-2,6-Dinitrotoluene	U	0.25	0.27257709					mg/kg
4-Nitrotoluene	U	0.50	0.54515419					mg/kg
Nitrobenzene	U	0.25	0.27257709					mg/kg
LL9SB-093-5461-SO	A0C100403034	6020	SO					Antimony
		8330B		1,3,5-Trinitrobenzene	U	0.25	0.01285714	mg/kg
		1,3-Dinitrobenzene		U	0.25	0.32142857	mg/kg	
		2,4,6-Trinitrotoluene (TNT)		U	0.25	0.32142857	mg/kg	
		2,4-Dinitrotoluene		U	0.25	0.32142857	mg/kg	
		2,6-Dinitrotoluene		U	0.25	0.32142857	mg/kg	
		2-Amino-4,6-dinitrotoluene		U	0.25	0.32142857	mg/kg	
		2-Nitrotoluene		U	0.25	0.32142857	mg/kg	
		3-Nitrotoluene		U	0.25	0.32142857	mg/kg	
		4-Amino-2,6-Dinitrotoluene		U	0.25	0.32142857	mg/kg	
		4-Nitrotoluene		U	0.50	0.64285714	mg/kg	

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL9SB-093-5461-SO	A0C100403034	8330B	SO	Nitrobenzene	U	0.25	0.32142857	mg/kg
LL9SB-093-5462-SO	A0C100403035	8082	SO	Aroclor 1016	U	40	2.04819277	ug/kg
				Aroclor 1221	U	40	2.04819277	ug/kg
				Aroclor 1232	U	40	2.04819277	ug/kg
				Aroclor 1242	U	40	2.04819277	ug/kg
				Aroclor 1248	U	40	2.04819277	ug/kg
				Aroclor 1254	U	40	2.04819277	ug/kg
				Aroclor 1260	U	40	2.04819277	ug/kg
		8270C		1,2,4-Trichlorobenzene	U	400	397.590361	ug/kg
				1,2-Dichlorobenzene	U	400	397.590361	ug/kg
				1,3-Dichlorobenzene	U	400	397.590361	ug/kg
				1,4-Dichlorobenzene	U	400	397.590361	ug/kg
				2,4,5-Trichlorophenol	U	400	397.590361	ug/kg
				2,4,6-Trichlorophenol	U	400	397.590361	ug/kg
				2,4-Dichlorophenol	U	400	397.590361	ug/kg
				2,4-Dimethylphenol	U	400	397.590361	ug/kg
				2,4-Dinitrotoluene	U	400	397.590361	ug/kg
				2,6-Dinitrotoluene	U	400	397.590361	ug/kg
				2-Chloronaphthalene	U	400	397.590361	ug/kg
				2-Chlorophenol	U	400	397.590361	ug/kg
				2-Methylnaphthalene	U	400	397.590361	ug/kg
				2-Methylphenol	U	400	397.590361	ug/kg
				2-Nitrophenol	U	400	397.590361	ug/kg
				3,3'-Dichlorobenzidine	U	400	397.590361	ug/kg
				3-methylphenol/4-methylphenol	U	400	#Error	ug/kg
				4-Bromophenyl phenyl ether	U	400	397.590361	ug/kg
				4-Chloro-3-methylphenol	U	400	397.590361	ug/kg
				4-Chloroaniline	U	400	397.590361	ug/kg
				4-Chlorophenyl phenyl ether	U	400	397.590361	ug/kg
				Benzyl alcohol	U	400	397.590361	ug/kg
				bis(2-Chloroethoxy)methane	U	400	397.590361	ug/kg
				bis(2-Chloroethyl) ether	U	400	397.590361	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
LL9SB-093-5462-SO	A0C100403035	8270C	SO	Bis(2-chloroisopropyl) ether	U	400	397.590361	ug/kg
				Butyl benzyl phthalate	U	400	397.590361	ug/kg
				Dibenzofuran	U	400	397.590361	ug/kg
				Diethyl phthalate	U	400	397.590361	ug/kg
				Dimethyl phthalate	U	400	397.590361	ug/kg
				Di-n-butyl phthalate	U	400	397.590361	ug/kg
				Di-n-octyl phthalate	U	400	397.590361	ug/kg
				Hexachlorobenzene	U	400	397.590361	ug/kg
				Hexachlorobutadiene	U	400	397.590361	ug/kg
				HEXACHLOROCYCLOPENTADIE	U	400	#Error	ug/kg
				Hexachloroethane	U	400	397.590361	ug/kg
				Isophorone	U	400	397.590361	ug/kg
				Nitrobenzene	U	400	397.590361	ug/kg
				N-Nitrosodi-n-propylamine	U	400	397.590361	ug/kg
				N-Nitrosodiphenylamine	U	400	397.590361	ug/kg
				Pentachlorophenol	U	400	397.590361	ug/kg
				Phenol	U	400	397.590361	ug/kg
LL9SS-112-5470-SO	A0C100403041	8270C	SO	Acenaphthene	U	63	62.5	ug/kg
				Acenaphthylene	U	63	62.5	ug/kg
				Anthracene	U	63	62.5	ug/kg
				Benzo[g,h,i]perylene	U	63	62.5	ug/kg
				Benzo[k]fluoranthene	U	63	62.5	ug/kg
				Carbazole	U	63	62.5	ug/kg
				Chrysene	U	63	62.5	ug/kg
				dibenz[a,h]anthracene	U	63	62.5	ug/kg
				Fluorene	U	63	62.5	ug/kg
				Indeno[1,2,3-cd]pyrene	U	63	62.5	ug/kg
				Naphthalene	U	63	62.5	ug/kg
		8330B		1,3,5-Trinitrobenzene	U	0.25	0.012375	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.309375	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.309375	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.309375	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LL9SS-112-5470-SO	A0C100403041	8330B	SO	2,6-Dinitrotoluene	U	0.25	0.309375	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.309375	mg/kg
				2-Nitrotoluene	U	0.25	0.309375	mg/kg
				3-Nitrotoluene	U	0.25	0.309375	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.309375	mg/kg
				4-Nitrotoluene	U	0.50	0.61875	mg/kg
				Nitrobenzene	U	0.25	0.309375	mg/kg
LL9SW-113-5491-SW	A0C100403042	8330B	AQ	1,3-Dinitrobenzene	U	0.16	0.156	ug/L
				2,4,6-Trinitrotoluene (TNT)	U	0.16	0.156	ug/L
				2,4-Dinitrotoluene	U	0.16	0.156	ug/L
				2,6-Dinitrotoluene	U	0.16	0.156	ug/L
				2-Nitrotoluene	U	0.16	0.156	ug/L
				4-Amino-2,6-Dinitrotoluene	U	0.16	0.156	ug/L
				Methyl-2,4,6-Trinitrophenylnitramin	U	0.16	0.156	ug/L
				Nitrobenzene	U	0.16	0.156	ug/L
				Octahydro-1,3,5,7-tetranitro-1,3,5,7	U	0.16	0.156	ug/L

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
F15SB-033-5416-SO	A0C100403008	6020	SO	Antimony	J	0.077	0.58	mg/kg
				Cadmium	J	0.057	0.23	mg/kg
				Silver	J	0.028	0.58	mg/kg
				Sodium	J	101	117	mg/kg
				Thallium	J	0.19	0.23	mg/kg
LL5SB-054-5157-SO	A0C100403001			Antimony	J	0.16	0.66	mg/kg
				Cadmium	J	0.052	0.26	mg/kg
				Silver	J	0.024	0.66	mg/kg
				Sodium	J	39.3	132	mg/kg
				Thallium	J	0.20	0.26	mg/kg
		7471A		Mercury	J	0.022	0.13	mg/kg
LL5SB-054-5158-SO	A0C100403002	6020		Antimony	J	0.11	0.59	mg/kg
				Cadmium	J	0.038	0.23	mg/kg
				Silver	J	0.075	0.59	mg/kg
				Sodium	J	50.9	117	mg/kg
				Thallium	J	0.17	0.23	mg/kg
LL5SB-055-5164-SO	A0C100403007			Antimony	J	0.074	0.57	mg/kg
				Cadmium	J	0.041	0.23	mg/kg
				Silver	J	0.016	0.57	mg/kg
				Sodium	J	59.0	114	mg/kg
				Thallium	J	0.11	0.23	mg/kg
LL5SB-057-5169-SO	A0C100403003			Antimony	J	0.12	0.64	mg/kg
				Cadmium	J	0.058	0.26	mg/kg
				Selenium	J	0.61	0.64	mg/kg
				Silver	J	0.018	0.64	mg/kg
				Sodium	J	25.4	128	mg/kg
				Thallium	J	0.12	0.26	mg/kg
		7471A		Mercury	J	0.024	0.13	mg/kg
LL5SB-057-5170-SO	A0C100403004	6020		Antimony	J	0.12	0.61	mg/kg
				Cadmium	J	0.064	0.24	mg/kg
				Silver	J	0.028	0.61	mg/kg
				Sodium	J	32.6	122	mg/kg
				Thallium	J	0.17	0.24	mg/kg
		7471A		Mercury	J	0.022	0.12	mg/kg
LL5SB-058-5173-SO	A0C100403005	6020		Cadmium	J	0.099	0.26	mg/kg
				Silver	J	0.017	0.64	mg/kg

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
LL5SB-058-5173-SO	A0C100403005	6020	SO	Sodium	J	77.6	129	mg/kg
				Thallium	J	0.19	0.26	mg/kg
LL5SB-058-5174-SO	A0C100403006			Antimony	J	0.083	0.62	mg/kg
				Cadmium	J	0.062	0.25	mg/kg
				Silver	J	0.019	0.62	mg/kg
				Sodium	J	74.7	124	mg/kg
				Thallium	J	0.18	0.25	mg/kg
LL5SS-060-5061-SO	A0C100403017	7196A		Chromium, hexavalent	J	0.95	0.99	mg/kg
LL5SS-071M-5053-SO	A0C100403009	6020		Antimony	J	0.17	0.51	mg/kg
				Cadmium	J	0.11	0.20	mg/kg
				Silver	J	0.026	0.51	mg/kg
				Sodium	J	31.4	102	mg/kg
				Thallium	J	0.15	0.20	mg/kg
		7471A		Mercury	J	0.036	0.10	mg/kg
		8330B		Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetr	J PG	0.012	0.25	mg/kg
LL5SS-072M-5054-SO	A0C100403010	6020		Antimony	J	0.14	0.51	mg/kg
				Cadmium	J	0.12	0.20	mg/kg
				Silver	J	0.039	0.51	mg/kg
				Sodium	J	35.7	102	mg/kg
				Thallium	J	0.16	0.20	mg/kg
		7471A		Mercury	J	0.036	0.10	mg/kg
		8081A		beta-BHC	J	1.8	3.6	ug/kg
		8270C		2-Methylnaphthalene	J	16	340	ug/kg
				Benz[a]anthracene	J	9.8	51	ug/kg
				Benzo[a]pyrene	J	8.9	51	ug/kg
				Benzo[b]fluoranthene	J	16	51	ug/kg
				bis(2-Ethylhexyl) phthalate	J B	140	340	ug/kg
				Chrysene	J	12	51	ug/kg
				Di-n-butyl phthalate	J	22	340	ug/kg
				Fluoranthene	J	16	51	ug/kg
				Naphthalene	J	15	51	ug/kg
				Phenanthrene	J	13	51	ug/kg
				Pyrene	J	13	51	ug/kg
LL5SS-072M-5054-SO(VO	A0C100403011	8260B		Methylene chloride	J B	5.0	7.0	ug/kg
LL5SS-072M-6053-FD	A0C100403012	6020		Antimony	J	0.15	0.51	mg/kg
				Cadmium	J	0.13	0.20	mg/kg

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
LL5SS-072M-6053-FD	A0C100403012	6020	SO	Silver	J	0.040	0.51	mg/kg
				Sodium	J	45.8	102	mg/kg
				Thallium	J	0.19	0.20	mg/kg
				Mercury	J	0.025	0.10	mg/kg
				beta-BHC	J	3.9	7.1	ug/kg
				2-Methylnaphthalene	J	17	340	ug/kg
				Benzo[a]pyrene	J	9.1	51	ug/kg
				Benzo[b]fluoranthene	J	17	51	ug/kg
				Benzo[k]fluoranthene	J	8.4	51	ug/kg
				bis(2-Ethylhexyl) phthalate	J B	200	340	ug/kg
				Chrysene	J	13	51	ug/kg
				Diethyl phthalate	J	18	340	ug/kg
				Di-n-butyl phthalate	J	22	340	ug/kg
				Fluoranthene	J	17	51	ug/kg
				Naphthalene	J	16	51	ug/kg
				Phenanthrene	J	15	51	ug/kg
				Pyrene	J	13	51	ug/kg
				Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetr	J PG	0.015	0.25	mg/kg
				Methylene chloride	J B	5.1	7.3	ug/kg
LL5SS-072M-6053-FD(VO	A0C100403013	8260B						
LL5SS-073M-5055-SO	A0C100403014	6020		Antimony	J	0.16	0.51	mg/kg
				Cadmium	J	0.17	0.20	mg/kg
				Silver	J	0.041	0.51	mg/kg
				Sodium	J	34.4	102	mg/kg
				Thallium	J	0.18	0.20	mg/kg
				Mercury	J	0.054	0.10	mg/kg
				Antimony	J	0.15	0.51	mg/kg
				Cadmium	J	0.18	0.20	mg/kg
				Silver	J	0.030	0.51	mg/kg
				Sodium	J	48.5	102	mg/kg
LL5SS-077M-5059-SO	A0C100403015	6020		Thallium	J	0.17	0.20	mg/kg
				Mercury	J	0.028	0.10	mg/kg
				Methyl-2,4,6-Trinitrophenylnitramine (T	J PG	0.017	0.24	mg/kg
				Antimony	J	0.14	0.59	mg/kg
				Silver	J	0.024	0.59	mg/kg
				Sodium	J	106	119	mg/kg
				Thallium	J	0.15	0.24	mg/kg
LL9SB-087-5437-SO	A0C100403019	6020						

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
LL9SB-087-5438-SO	A0C100403020	6020	SO	Antimony	J	0.10	0.60	mg/kg
				Cadmium	J	0.050	0.24	mg/kg
				Selenium	J	0.56	0.60	mg/kg
				Silver	J	0.011	0.60	mg/kg
				Sodium	J	37.9	119	mg/kg
				Thallium	J	0.14	0.24	mg/kg
LL9SB-088-5441-SO	A0C100403021	6020	SO	Mercury	J	0.044	0.12	mg/kg
				Antimony	J	0.14	0.65	mg/kg
				Cadmium	J	0.11	0.26	mg/kg
				Silver	J	0.016	0.65	mg/kg
				Sodium	J	48.5	129	mg/kg
				Thallium	J	0.14	0.26	mg/kg
LL9SB-088-5442-SO	A0C100403022	6020	SO	Mercury	J	0.035	0.13	mg/kg
				Antimony	J	0.082	0.59	mg/kg
				Cadmium	J	0.055	0.23	mg/kg
				Silver	J	0.0082	0.59	mg/kg
				Sodium	J	45.7	117	mg/kg
				Thallium	J	0.14	0.23	mg/kg
LL9SB-088-5443-SO	A0C100403023	6020	SO	Antimony	J	0.079	0.58	mg/kg
				Cadmium	J	0.054	0.23	mg/kg
				Silver	J	0.022	0.58	mg/kg
				Sodium	J	63.8	117	mg/kg
				Thallium	J	0.12	0.23	mg/kg
LL9SB-089-5445-SO	A0C100403024	6020	SO	Antimony	J	0.10	0.60	mg/kg
				Cadmium	J	0.22	0.24	mg/kg
				Silver	J	0.019	0.60	mg/kg
				Sodium	J	51.4	120	mg/kg
				Thallium	J	0.12	0.24	mg/kg
LL9SB-089-5446-SO	A0C100403025	6020	SO	Antimony	J	0.086	0.59	mg/kg
				Cadmium	J	0.14	0.24	mg/kg
				Silver	J	0.014	0.59	mg/kg
				Sodium	J	41.6	119	mg/kg
				Thallium	J	0.098	0.24	mg/kg
LL9SB-089-5448-SO	A0C100403026	6020	SO	Methyl-2,4,6-Trinitrophenylnitramine (T	J PG	0.011	0.25	mg/kg
				Antimony	J	0.10	0.58	mg/kg
				Cadmium	J	0.15	0.23	mg/kg

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Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting	
							Limit	Units
LL9SB-089-5448-SO	A0C100403026	6020	SO	Silver	J	0.011	0.58	mg/kg
				Sodium	J	33.2	116	mg/kg
				Thallium	J	0.16	0.23	mg/kg
LL9SB-090-5449-SO	A0C100403027	6020	SO	Antimony	J	0.40	0.68	mg/kg
				Cadmium	J	0.25	0.27	mg/kg
				Silver	J	0.034	0.68	mg/kg
				Sodium	J	26.9	135	mg/kg
				Thallium	J	0.12	0.27	mg/kg
		8260B		Methylene chloride	J B	5.5	6.8	ug/kg
		8270C		2-Methylnaphthalene	J	21	450	ug/kg
		Benz[a]anthracene		J	38	68	ug/kg	
		Benzo[a]pyrene		J	39	68	ug/kg	
		Benzo[b]fluoranthene		J	46	68	ug/kg	
		Benzo[g,h,i]perylene		J	31	68	ug/kg	
		Benzo[k]fluoranthene		J	31	68	ug/kg	
		bis(2-Ethylhexyl) phthalate		J B	38	450	ug/kg	
		Chrysene		J	45	68	ug/kg	
		Indeno[1,2,3-cd]pyrene		J	25	68	ug/kg	
		Naphthalene		J	15	68	ug/kg	
		Phenanthrene		J	36	68	ug/kg	
LL9SB-090-5450-SO	A0C100403028	6020	SO	Antimony	J	0.094	0.56	mg/kg
				Cadmium	J	0.065	0.23	mg/kg
				Selenium	J	0.50	0.56	mg/kg
				Silver	J	0.0066	0.56	mg/kg
				Thallium	J	0.076	0.23	mg/kg
		8260B		Methylene chloride	J B	4.4	5.6	ug/kg
		8270C		Benz[a]anthracene	J	24	56	ug/kg
		Benzo[a]pyrene		J	21	56	ug/kg	
		Benzo[b]fluoranthene		J	27	56	ug/kg	
		Benzo[g,h,i]perylene		J	18	56	ug/kg	
		Benzo[k]fluoranthene		J	16	56	ug/kg	
		bis(2-Ethylhexyl) phthalate		J B	25	370	ug/kg	
		Chrysene		J	24	56	ug/kg	
		Fluoranthene		J	55	56	ug/kg	
		Indeno[1,2,3-cd]pyrene		J	13	56	ug/kg	
		Phenanthrene		J	37	56	ug/kg	

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Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
LL9SB-090-5450-SO	A0C100403028	8270C	SO	Pyrene	J	46	56	ug/kg
LL9SB-091-5453-SO	A0C100403029	6020		Antimony	J	0.15	0.63	mg/kg
				Cadmium	J	0.077	0.25	mg/kg
				Silver	J	0.014	0.63	mg/kg
				Thallium	J	0.13	0.25	mg/kg
		7471A		Mercury	J	0.037	0.13	mg/kg
		8330B		Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetr	J	0.016	0.25	mg/kg
LL9SB-091-5454-SO	A0C100403030	6020		Cadmium	J	0.051	0.23	mg/kg
				Selenium	J	0.48	0.57	mg/kg
LL9SB-091-5455-SO	A0C100403031			Cadmium	J	0.059	0.22	mg/kg
				Selenium	J	0.47	0.55	mg/kg
				Sodium	J	17.0	110	mg/kg
LL9SB-092-5457-SO	A0C100403032			Antimony	J	0.12	0.62	mg/kg
				Cadmium	J	0.11	0.25	mg/kg
				Silver	J	0.026	0.62	mg/kg
				Sodium	J	27.3	124	mg/kg
				Thallium	J	0.14	0.25	mg/kg
LL9SB-092-5458-SO	A0C100403033			Antimony	J	0.10	0.60	mg/kg
				Cadmium	J	0.032	0.24	mg/kg
				Silver	J	0.019	0.60	mg/kg
				Sodium	J	31.6	119	mg/kg
				Thallium	J	0.17	0.24	mg/kg
		7471A		Mercury	J	0.018	0.12	mg/kg
LL9SB-092-6156-FD	A0C100403038	6020		Antimony	J	0.12	0.64	mg/kg
				Cadmium	J	0.099	0.25	mg/kg
				Silver	J	0.026	0.64	mg/kg
				Sodium	J	23.7	127	mg/kg
				Thallium	J	0.13	0.25	mg/kg
		7471A		Mercury	J	0.033	0.13	mg/kg
LL9SB-092-6157-FD	A0C100403039	6020		Antimony	J	0.10	0.59	mg/kg
				Cadmium	J	0.055	0.24	mg/kg
				Silver	J	0.014	0.59	mg/kg
				Sodium	J	27.6	118	mg/kg
				Thallium	J	0.15	0.24	mg/kg
		7471A		Mercury	J	0.033	0.12	mg/kg
LL9SB-092-6158-FD	A0C100403040	6020		Antimony	J	0.082	0.55	mg/kg

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Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
LL9SB-092-6158-FD	A0C100403040	6020	SO	Cadmium	J	0.061	0.22	mg/kg
				Silver	J	0.028	0.55	mg/kg
				Thallium	J	0.12	0.22	mg/kg
LL9SB-093-5461-SO	A0C100403034			Cadmium	J	0.047	0.26	mg/kg
				Silver	J	0.030	0.65	mg/kg
				Sodium	J	30.7	130	mg/kg
				Thallium	J	0.14	0.26	mg/kg
LL9SB-093-5462-SO	A0C100403035			Antimony	J	0.080	0.60	mg/kg
				Cadmium	J	0.046	0.24	mg/kg
				Silver	J	0.0031	0.60	mg/kg
				Sodium	J	30.0	120	mg/kg
				Thallium	J	0.11	0.24	mg/kg
LL9SB-093-5463-SO	A0C100403036	8260B		Methylene chloride	J B	5.4	6.0	ug/kg
		8270C		bis(2-Ethylhexyl) phthalate	J B	40	400	ug/kg
		6020		Antimony	J	0.12	0.60	mg/kg
				Cadmium	J	0.083	0.24	mg/kg
				Silver	J	0.0090	0.60	mg/kg
LL9SB-094-5465-SO	A0C100403037			Sodium	J	34.2	120	mg/kg
				Thallium	J	0.11	0.24	mg/kg
				Antimony	J	0.12	0.70	mg/kg
				Cadmium	J	0.083	0.28	mg/kg
				Calcium	J	257	278	mg/kg
				Selenium	J	0.63	0.70	mg/kg
				Silver	J	0.054	0.70	mg/kg
				Sodium	J	20.1	139	mg/kg
LL9SS-112-5470-SO	A0C100403041			Thallium	J	0.14	0.28	mg/kg
				Mercury	J	0.095	0.14	mg/kg
				Antimony	J	0.13	0.63	mg/kg
				Cadmium	J	0.069	0.25	mg/kg
				Silver	J	0.017	0.63	mg/kg
				Sodium	J	35.3	125	mg/kg
				Thallium	J	0.17	0.25	mg/kg
		7471A		Mercury	J	0.062	0.13	mg/kg
		8270C		Benz[a]anthracene	J	9.5	63	ug/kg
				Benzo[a]pyrene	J	8.8	63	ug/kg
				Benzo[b]fluoranthene	J	11	63	ug/kg

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Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
LL9SS-112-5470-SO	A0C100403041	8270C	SO	bis(2-Ethylhexyl) phthalate	J B	29	410	ug/kg
				Fluoranthene	J	20	63	ug/kg
				Phenanthrene	J	10	63	ug/kg
				Pyrene	J	15	63	ug/kg
LL9SW-113-5491-SW	A0C100403042	6020	AQ	Arsenic	J	1.4	5.0	ug/L
				Beryllium	J	0.12	1.0	ug/L
				Cadmium	J	0.11	2.0	ug/L
				Chromium	J	2.8	5.0	ug/L
				Cobalt	J	0.70	5.0	ug/L
				Copper	J	4.6	5.0	ug/L
				Nickel	J	2.8	10.0	ug/L
				Sodium	J	753	1000	ug/L
				Vanadium	J	4.5	10.0	ug/L
LL9SW-114-5492-SW	A0C100403043			Arsenic	J	0.86	5.0	ug/L
				Cadmium	J	0.032	2.0	ug/L
				Chromium	J	1.3	5.0	ug/L
				Cobalt	J	0.33	5.0	ug/L
				Copper	J	3.8	5.0	ug/L
				Lead	J	1.3	3.0	ug/L
				Nickel	J	1.7	10.0	ug/L
				Vanadium	J	1.8	10.0	ug/L
PBA08-QC-6016-TB	A0C100403044	8260B		Zinc	J B	33.7	40.0	ug/L
				Acetone	J	6.3	10	ug/L

Method Blank Outlier Report

Lab Reporting Batch : A0C100403

Lab ID: TALCAN

Analysis Method : 6020

Analysis Date : 03/23/2010

Preparation Type : 3005A

Preparation Date : 03/11/2010

Method Blank Lab Sample ID : A0C110000020B

Preparation Batch : 0070020

Aluminum	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	36.8	100	ug/L	J	

Aluminum contamination found in the method blank did not qualify any samples.

Manganese	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	2.2	10.0	ug/L	J	

Manganese contamination found in the method blank did not qualify any samples.

Potassium	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	22.2	1000	ug/L	J	

Potassium contamination found in the method blank did not qualify any samples.

Zinc	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	15.2	40.0	ug/L	J	

Zinc was qualified due to method blank contamination in the following associated samples:

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
LL9SW-114-5492-SW	A0C100403043	1	33.7	J B	ug/L

Method Blank Outlier Report

Lab Reporting Batch : AOC100403

Analysis Method : 8270C

Preparation Type : 3540C

Method Blank Lab Sample ID : AOC120000026B

Lab ID: TALCAN

Analysis Date : 03/19/2010

Preparation Date : 03/12/2010

Preparation Batch : 0071026

bis(2-Ethylhexyl) phthalate	Result	Reporting Limit	Units	Lab Qual	Comments
	28	330	ug/kg	J	Common Contaminant

bis(2-Ethylhexyl) phthalate was qualified due to method blank contamination in the following associated samples:

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
LL9SB-090-5449-SO	AOC100403027	1	38	J B	ug/kg
LL9SB-090-5450-SO	AOC100403028	1	25	J B	ug/kg
LL9SB-093-5462-SO	AOC100403035	1	40	J B	ug/kg
LL9SS-112-5470-SO	AOC100403041	1	29	J B	ug/kg

Method Blank Outlier Report

Lab Reporting Batch : A0C100403

Lab ID: TALCAN

Analysis Method : 8260B

Analysis Date : 03/11/2010

Preparation Type : 5030B

Preparation Date : 03/11/2010

Method Blank Lab Sample ID : A0C150000412B

Preparation Batch : 0074412

Methylene chloride	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	2.4	5.0	ug/kg	J	Common Contaminant

Methylene chloride was qualified due to method blank contamination in the following associated samples:

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
LL5SS-072M-5054-SO(VOC	A0C100403011	1	5.0	J B	ug/kg
LL5SS-072M-6053-FD(VOCS	A0C100403013	1	5.1	J B	ug/kg
LL9SB-090-5449-SO	A0C100403027	1	5.5	J B	ug/kg
LL9SB-090-5450-SO	A0C100403028	1	4.4	J B	ug/kg
LL9SB-093-5462-SO	A0C100403035	1	5.4	J B	ug/kg

Method Blank Outlier Report

Lab Reporting Batch : A0C100403

Lab ID: TALCAN

Analysis Method : 8270C

Analysis Date : 03/25/2010

Preparation Type : 3540C

Preparation Date : 03/22/2010

Method Blank Lab Sample ID : A0C220000105B

Preparation Batch : 0081105

bis(2-Ethylhexyl) phthalate	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	22	330	ug/kg	J	Common Contaminant

bis(2-Ethylhexyl) phthalate was qualified due to method blank contamination in the following associated samples:

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
LL5SS-072M-5054-SO	A0C100403010	1	140	J B	ug/kg
LL5SS-072M-6053-FD	A0C100403012	1	200	J B	ug/kg

Surrogate Recovery Outlier Report

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Dilution	Matrix	Surrogate	Percent Recovery	Criteria (percent)			Associated Target Analytes
							Lower Limit	Upper Limit	Reject Point	
LL5SB-054-5158-SO	A0C100403002	8330B	0.98	SO	3,4-Dinitrotoluene	70	81.0	127.0	10.0	All Target
LL5SB-057-5169-SO	A0C100403003	8330B	0.99	SO	3,4-Dinitrotoluene	77	81.0	127.0	10.0	All Target
LL5SB-058-5174-SO	A0C100403006	8330B	0.98	SO	3,4-Dinitrotoluene	71	81.0	127.0	10.0	All Target
LL5SS-071M-5053-SO	A0C100403009	8330B	0.98	SO	3,4-Dinitrotoluene	60	81.0	127.0	10.0	All Target
LL5SS-072M-5054-SO	A0C100403010	8330B	0.97	SO	3,4-Dinitrotoluene	66	81.0	127.0	10.0	All Target
LL5SS-072M-6053-FD	A0C100403012	8330B	0.99	SO	3,4-Dinitrotoluene	72	81.0	127.0	10.0	All Target
LL5SS-072M-6053-FD(VOCS)	A0C100403013	8260B	1	SO	4-Bromofluorobenzene	84	85.0	120.0	10.0	All Target
					Toluene-d8	84	85.0	115.0	10.0	All Target
LL5SS-073M-5055-SO	A0C100403014	8330B	0.96	SO	3,4-Dinitrotoluene	64	81.0	127.0	10.0	All Target
LL5SS-077M-5059-SO	A0C100403015	8330B	0.98	SO	3,4-Dinitrotoluene	51	81.0	127.0	10.0	All Target
LL9SB-087-5438-SOMS	A0C100403020S	8330B	1	SO	3,4-Dinitrotoluene	73	81.0	127.0	10.0	All Target
LL9SB-087-5438-SOMSD	A0C100403020D	8330B	0.97	SO	3,4-Dinitrotoluene	77	81.0	127.0	10.0	All Target
LL9SB-088-5441-SO	A0C100403021	8330B	1	SO	3,4-Dinitrotoluene	60	81.0	127.0	10.0	All Target

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Surrogate Recovery Outlier Report

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Dilution	Matrix	Surrogate	Percent Recovery	Criteria (percent)			Associated Target Analytes
							Lower Limit	Upper Limit	Reject Point	
LL9SB-088-5442-SO	A0C100403022	8330B	0.99	SO	3,4-Dinitrotoluene	78	81.0	127.0	10.0	All Target
LL9SB-088-5443-SO	A0C100403023	8330B	0.97	SO	3,4-Dinitrotoluene	77	81.0	127.0	10.0	All Target
LL9SB-089-5445-SO	A0C100403024	8330B	0.98	SO	3,4-Dinitrotoluene	72	81.0	127.0	10.0	All Target
LL9SB-089-5446-SO	A0C100403025	8330B	0.99	SO	3,4-Dinitrotoluene	74	81.0	127.0	10.0	All Target
LL9SB-089-5448-SO	A0C100403026	8270C	1	SO	2,4,6-Tribromophenol	23	35.0	125.0	10.0	Acid
					Phenol-d5	39	40.0	100.0	10.0	Acid
		8330B	1.01		3,4-Dinitrotoluene	78	81.0	127.0	10.0	All Target
LL9SB-090-5449-SO	A0C100403027	8260B	1	SO	4-Bromofluorobenzene	78	85.0	120.0	10.0	All Target
		8330B	0.97		3,4-Dinitrotoluene	68	81.0	127.0	10.0	All Target
LL9SB-090-5450-SO	A0C100403028	8260B	1	SO	Toluene-d8	81	85.0	115.0	10.0	All Target
		8330B	0.98		3,4-Dinitrotoluene	79	81.0	127.0	10.0	All Target
LL9SB-091-5453-SO	A0C100403029	8330B	1	SO	3,4-Dinitrotoluene	77	81.0	127.0	10.0	All Target
LL9SB-092-5457-SO	A0C100403032	8330B	1.02	SO	3,4-Dinitrotoluene	69	81.0	127.0	10.0	All Target
LL9SB-092-5458-SO	A0C100403033	8330B	1.04	SO	3,4-Dinitrotoluene	64	81.0	127.0	10.0	All Target
LL9SB-092-6157-FD	A0C100403039	8330B	1.02	SO	3,4-Dinitrotoluene	77	81.0	127.0	10.0	All Target

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Surrogate Recovery Outlier Report

Lab Report Batch: A0C100403

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Dilution	Matrix	Surrogate	Percent Recovery	Criteria (percent)			Associated Target Analytes
							Lower Limit	Upper Limit	Reject Point	
LL9SB-093-5461-SO	A0C100403034	8330B	0.99	SO	3,4-Dinitrotoluene	73	81.0	127.0	10.0	All Target
LL9SB-093-5462-SO	A0C100403035	8330B	1	SO	3,4-Dinitrotoluene	65	81.0	127.0	10.0	All Target
LL9SB-093-5463-SO	A0C100403036	8330B	1.04	SO	3,4-Dinitrotoluene	63	81.0	127.0	10.0	All Target
LL9SB-094-5465-SO	A0C100403037	8330B	1.01	SO	3,4-Dinitrotoluene	66	81.0	127.0	10.0	All Target
LL9SS-112-5470-SO	A0C100403041	8330B	0.97	SO	3,4-Dinitrotoluene	76	81.0	127.0	10.0	All Target
LL9SW-113-5491-SW	A0C100403042	8082	1	AQ	Decachlorobiphenyl	31	40.0	135.0	10.0	All Target
					Decachlorobiphenyl	34	40.0	135.0	10.0	All Target
					8270C 2-Fluorophenol	8.4	20.0	110.0	10.0	Acid
LL9SW-114-5492-SW	A0C100403043	8082	1	AQ	Decachlorobiphenyl	22	40.0	135.0	10.0	All Target

QC Outlier Report: Field Duplicates (Non-qualified Outliers)

Lab Report Batch:

Lab ID:

			Field Sample				Field Sample Duplicate						
Analysis Method	Matrix	Analyte Name	Client Sample ID	Ana Type	Result	Lab Qualifier	Client Sample Duplicate ID	Ana Type	Result	Lab Qualifiers	RPD Dup* (%)	RPD Criteria (%)	Result Units

**Note: Outlier report also includes analytes detected in one sample but not in the related sample, i.e., analyte was detected in the field sample but not in the field duplicate sample, or vice versa. In this case, RPD value assigned to the field duplicate sample is 200.*

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature (C)	Criteria	
					Lower Limit	Upper Limit
L10SS-080M-5537-SO	A0D140520005	353.2 Modified	SO	1.9	2.0	6.0
L10SS-080M-5537-SOMS	A0D140520005S	353.2 Modified	SO	1.9	2.0	6.0
L10SS-080M-5537-SOMSD	A0D140520005D	353.2 Modified	SO	1.9	2.0	6.0
L10SS-088M-5545-SO	A0D140520015	353.2 Modified	SO	1.9	2.0	6.0
L10SS-080M-5537-SO	A0D140520005	8081A	SO	1.9	2.0	
L10SS-080M-5537-SOMS	A0D140520005S	8081A	SO	1.9	2.0	
L10SS-080M-5537-SOMSD	A0D140520005D	8081A	SO	1.9	2.0	
L10SS-088M-5545-SO	A0D140520015	8081A	SO	1.9	2.0	
L10SS-080M-5537-SO	A0D140520005	8082	SO	1.9	2.0	
L10SS-080M-5537-SOMS	A0D140520005S	8082	SO	1.9	2.0	
L10SS-080M-5537-SOMSD	A0D140520005D	8082	SO	1.9	2.0	
L10SS-088M-5545-SO	A0D140520015	8082	SO	1.9	2.0	
L10SS-080M-5537-SO	A0D140520005	8270C	SO	1.9	2.0	
L10SS-080M-5537-SOMS	A0D140520005S	8270C	SO	1.9	2.0	
L10SS-080M-5537-SOMSD	A0D140520005D	8270C	SO	1.9	2.0	
L10SS-088M-5545-SO	A0D140520015	8270C	SO	1.9	2.0	
L10SS-079M-5536-SO	A0D140520004	8270C PAH	SO	1.9	2.0	
L10SS-080M-5537-SO	A0D140520005	8270C PAH	SO	1.9	2.0	
L10SS-080M-5537-SOMS	A0D140520005S	8270C PAH	SO	1.9	2.0	
L10SS-080M-5537-SOMSD	A0D140520005D	8270C PAH	SO	1.9	2.0	
L10SS-081M-5538-SO	A0D140520007	8270C PAH	SO	1.9	2.0	
L10SS-082M-5539-SO	A0D140520008	8270C PAH	SO	1.7	2.0	
L10SS-083M-5540-SO	A0D140520009	8270C PAH	SO	1.7	2.0	
L10SS-084M-5541-SO	A0D140520010	8270C PAH	SO	1.7	2.0	
L10SS-085M-5542-SO	A0D140520011	8270C PAH	SO	1.7	2.0	
L10SS-085M-6169-FD	A0D140520013	8270C PAH	SO	1.7	2.0	
L10SS-086M-5543-SO	A0D140520012	8270C PAH	SO	1.9	2.0	
L10SS-087M-5544-SO	A0D140520014	8270C PAH	SO	1.9	2.0	
L10SS-088M-5545-SO	A0D140520015	8270C PAH	SO	1.9	2.0	

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature (C)	Criteria	
					Lower Limit	Upper Limit
L10SS-090M-5547-SO	A0D140520019	8270C PAH	SO	1.9	2.0	
L10SS-079M-5536-SO	A0D140520004	8330B	SO	1.9	2.0	
L10SS-080M-5537-SO	A0D140520005	8330B	SO	1.9	2.0	
L10SS-080M-5537-SOMS	A0D140520005S	8330B	SO	1.9	2.0	
L10SS-080M-5537-SOMSD	A0D140520005D	8330B	SO	1.9	2.0	
L10SS-081M-5538-SO	A0D140520007	8330B	SO	1.9	2.0	
L10SS-082M-5539-SO	A0D140520008	8330B	SO	1.7	2.0	
L10SS-083M-5540-SO	A0D140520009	8330B	SO	1.7	2.0	
L10SS-084M-5541-SO	A0D140520010	8330B	SO	1.7	2.0	
L10SS-085M-5542-SO	A0D140520011	8330B	SO	1.7	2.0	
L10SS-085M-6169-FD	A0D140520013	8330B	SO	1.7	2.0	
L10SS-086M-5543-SO	A0D140520012	8330B	SO	1.9	2.0	
L10SS-087M-5544-SO	A0D140520014	8330B	SO	1.9	2.0	
L10SS-088M-5545-SO	A0D140520015	8330B	SO	1.9	2.0	
L10SS-090M-5547-SO	A0D140520019	8330B	SO	1.9	2.0	
L10SS-080M-5537-SO	A0D140520005	8330M	SO	1.9	2.0	
L10SS-080M-5537-SOMS	A0D140520005S	8330M	SO	1.9	2.0	
L10SS-080M-5537-SOMSD	A0D140520005D	8330M	SO	1.9	2.0	
L10SS-088M-5545-SO	A0D140520015	8330M	SO	1.9	2.0	

Temperature Outlier Report

Lab Report Batch:

Lab ID:

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temp (C)	Temperature Criteria (C)			Between High and Gross Exceedence			Above Gross Exceedence		
					Low	High	Gross Exceed	Detect Quals		Non-Detect Qual(s)	Detect Quals		Non-Detect Qual(s)
								Non-Biased	Biased		Non-Biased	Biased	

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0109439	Analysis Method : 8330B	Analysis Date : 05/04/2010
Preparation Batch : 0109439	Preparation Type : 3535	Preparation Date : 04/19/2010
Lab Reporting Batch : A0D140520	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LL5SW-078-5796-SWMS	A0D140520002D	AQ	1,3,5-Trinitrobenzene	64		0.00	65.00	140.00	30.00
			2,4,6-Trinitrotoluene (TNT)		33	0.00	50.00	145.00	30.00

Associated Samples: Parent sample only	
Client Sample ID	Lab Sample ID
LL5SW-078-5796-SW	A0D140520002

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0112027	Analysis Method : 6020	Analysis Date : 04/27/2010
Preparation Batch : 0112027	Preparation Type : 3050B	Preparation Date : 04/22/2010
Lab Reporting Batch : A0D140520	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
L10SS-080M-5537-SOM	A0D140520005S	SO	Antimony	25		30.00	75.00	125.00	20.00
L10SS-080M-5537-SOM	A0D140520005D		Antimony	27		30.00	75.00	125.00	20.00

Associated Samples: All samples in Method Batch	
Client Sample ID	Lab Sample ID
L10SS-079M-5536-SO	A0D140520004
L10SS-080M-5537-SO	A0D140520005
L10SS-081M-5538-SO	A0D140520007
L10SS-082M-5539-SO	A0D140520008
L10SS-083M-5540-SO	A0D140520009
L10SS-084M-5541-SO	A0D140520010
L10SS-085M-5542-SO	A0D140520011
L10SS-085M-6169-FD	A0D140520013
L10SS-086M-5543-SO	A0D140520012
L10SS-087M-5544-SO	A0D140520014
L10SS-088M-5545-SO	A0D140520015
L10SS-089M-5546-SO	A0D140520017
L10SS-089M-6171-FD	A0D140520018
L10SS-090M-5547-SO	A0D140520019
L10SS-091M-5548-SO	A0D140520020
L10SS-092M-5549-SO	A0D140520021
L10SS-093M-5550-SO	A0D140520023
LL5SD-078-5797-SD	A0D140520001

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0112036	Analysis Method : 8081A	Analysis Date : 04/27/2010
Preparation Batch : 0112036	Preparation Type : 3540C	Preparation Date : 04/22/2010
Lab Reporting Batch : A0D140520	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
L10SS-080M-5537-SOM	A0D140520005S	SO	beta-BHC	0.0		0.00	60.00	125.00	43.00
			Endrin ketone	213		0.00	65.00	135.00	32.00
L10SS-080M-5537-SOM	A0D140520005D		beta-BHC	0.0		0.00	60.00	125.00	43.00
			Endrin ketone	154		0.00	65.00	135.00	32.00

Associated Samples: Parent sample only	
Client Sample ID	Lab Sample ID
L10SS-080M-5537-SO	A0D140520005

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0112049	Analysis Method : 8270C	Analysis Date : 04/28/2010
Preparation Batch : 0112049	Preparation Type : 3540C	Preparation Date : 04/22/2010
Lab Reporting Batch : A0D140520	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
L10SS-080M-5537-SOM	A0D140520005S	SO	2,4-Dinitrophenol	0.0		0.00	15.00	130.00	30.00
L10SS-080M-5537-SOM	A0D140520005D		2,4-Dinitrophenol	0.0		0.00	15.00	130.00	30.00

Associated Samples: Parent sample only	
Client Sample ID	Lab Sample ID
L10SS-080M-5537-SO	A0D140520005

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0117208	Analysis Method : 353.2 Modified	Analysis Date : 04/28/2010
Preparation Batch : 0117208	Preparation Type : Gen Prep	Preparation Date : 04/27/2010
Lab Reporting Batch : A0D140520	Lab ID : TALCAN	

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
L10SS-080M-5537-SOM	A0D140520005S	SO	Nitrocellulose	29		10.00	34.00	115.00	71.00
L10SS-080M-5537-SOM	A0D140520005D		Nitrocellulose	30		10.00	34.00	115.00	71.00

Associated Samples: All samples in Method Batch	
Client Sample ID	Lab Sample ID
L10SS-080M-5537-SO	A0D140520005
L10SS-088M-5545-SO	A0D140520015
L10SS-092M-5549-SO	A0D140520021

* Only those Percent Recovery and/or RPD values outside project limits are listed in this report.

** Metal are also assessed against an upper rejection point of 150 percent for waters and 200 percent for soils and sediments

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

Laboratory Control Sample / Laboratory Control Sample Duplicate Outlier Report

Method Batch : 0105039
Preparation Batch : 0105039
Lab Reporting Batch : A0D140520

Analysis Method : 8270C
Preparation Type : 3520C
Lab ID: TALCAN

Analysis Date : 05/03/2010
Preparation Date : 04/15/2010

LCS Lab Sample ID	Matrix	Analyte Name	Reported Values		Project Limits (Percent)			
			Percent Recovery	RPD	Rejection Point	Lower Limit	Upper Limit	RPD
A0D150000039C	AQ	2,4-Dinitrophenol	0.0		10.00	15.00	140.00	34.00
		4,6-Dinitro-2-methylphenol	24		10.00	40.00	130.00	80.00
		Pentachlorophenol	35		10.00	40.00	115.00	56.00
A0D150000039L		2,4-Dinitrophenol	0.0	0.0	10.00	15.00	140.00	34.00
		4,6-Dinitro-2-methylphenol	27	8.6	10.00	40.00	130.00	80.00
		Pentachlorophenol	33	6.3	10.00	40.00	115.00	56.00

Associated Samples	
Client Sample ID	Lab Sample ID
LL5SW-078-5796-SW	A0D140520002

Scope of Data Qualification: The outlier in the LCS qualifies that analyte in all samples with the same Preparation Batch ID as the LCS

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
L10SS-080M-5537-SO	A0D140520005	8081A	SO	4,4'-DDD	U	41	40.7747197	ug/kg
				4,4'-DDE	U	35	34.6585117	ug/kg
				4,4'-DDT	U	41	40.7747197	ug/kg
				Aldrin	U	82	81.5494393	ug/kg
				alpha-BHC	U	51	50.9683996	ug/kg
				delta-BHC	U	82	81.5494393	ug/kg
				Dieldrin	U	35	34.6585117	ug/kg
				Endosulfan I	U	35	34.6585117	ug/kg
				Endosulfan II	U	51	50.9683996	ug/kg
				Endrin	U	35	34.6585117	ug/kg
				Endrin ketone	U	41	40.7747197	ug/kg
				gamma-BHC (Lindane)	U	51	50.9683996	ug/kg
				gamma-Chlordane	U	35	34.6585117	ug/kg
				Heptachlor epoxide	U	51	50.9683996	ug/kg
				Toxaphene	U	1400	1365.95311	ug/kg
		8082		Aroclor 1016	U	34	1.73292559	ug/kg
				Aroclor 1221	U	34	1.73292559	ug/kg
				Aroclor 1232	U	34	1.73292559	ug/kg
				Aroclor 1242	U	34	1.73292559	ug/kg
				Aroclor 1248	U	34	1.73292559	ug/kg
				Aroclor 1260	U	34	1.73292559	ug/kg
		8270C		1,2,4-Trichlorobenzene	U	3400	3363.91437	ug/kg
				1,2-Dichlorobenzene	U	3400	3363.91437	ug/kg
				1,3-Dichlorobenzene	U	3400	3363.91437	ug/kg
				1,4-Dichlorobenzene	U	3400	3363.91437	ug/kg
				2,4,5-Trichlorophenol	U	3400	3363.91437	ug/kg
				2,4,6-Trichlorophenol	U	3400	3363.91437	ug/kg
				2,4-Dichlorophenol	U	3400	3363.91437	ug/kg
				2,4-Dimethylphenol	U	3400	3363.91437	ug/kg
				2,4-Dinitrophenol	U	8200	8154.94393	ug/kg
				2,4-Dinitrotoluene	U	3400	3363.91437	ug/kg
				2,6-Dinitrotoluene	U	3400	3363.91437	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
L10SS-080M-5537-SO	A0D140520005	8270C	SO	2-Chloronaphthalene	U	3400	3363.91437	ug/kg
				2-Chlorophenol	U	3400	3363.91437	ug/kg
				2-Methylphenol	U	3400	3363.91437	ug/kg
				2-Nitroaniline	U	8200	8154.94393	ug/kg
				2-Nitrophenol	U	3400	3363.91437	ug/kg
				3,3'-Dichlorobenzidine	U	3400	3363.91437	ug/kg
				3-methylphenol/4-methylphenol	U	3400	#Error	ug/kg
				3-Nitroaniline	U	8200	8154.94393	ug/kg
				4,6-Dinitro-2-methylphenol	U	8200	8154.94393	ug/kg
				4-Bromophenyl phenyl ether	U	3400	3363.91437	ug/kg
				4-Chloro-3-methylphenol	U	3400	3363.91437	ug/kg
				4-Chloroaniline	U	3400	3363.91437	ug/kg
				4-Chlorophenyl phenyl ether	U	3400	3363.91437	ug/kg
				4-Nitroaniline	U	8200	8154.94393	ug/kg
				4-Nitrophenol	U	8200	8154.94393	ug/kg
				Benzoic acid	U	8200	8154.94393	ug/kg
				Benzyl alcohol	U	3400	3363.91437	ug/kg
				bis(2-Chloroethoxy)methane	U	3400	3363.91437	ug/kg
				bis(2-Chloroethyl) ether	U	3400	3363.91437	ug/kg
				Bis(2-chloroisopropyl) ether	U	3400	3363.91437	ug/kg
				bis(2-Ethylhexyl) phthalate	U	3400	3363.91437	ug/kg
				Butyl benzyl phthalate	U	3400	3363.91437	ug/kg
				Diethyl phthalate	U	3400	3363.91437	ug/kg
				Dimethyl phthalate	U	3400	3363.91437	ug/kg
				Di-n-butyl phthalate	U	3400	3363.91437	ug/kg
				Di-n-octyl phthalate	U	3400	3363.91437	ug/kg
				Hexachlorobenzene	U	3400	3363.91437	ug/kg
				Hexachlorobutadiene	U	3400	3363.91437	ug/kg
				HEXACHLOROCYCLOPENTADIE	U	3400	#Error	ug/kg
				Hexachloroethane	U	3400	3363.91437	ug/kg
				Isophorone	U	3400	3363.91437	ug/kg
				Nitrobenzene	U	3400	3363.91437	ug/kg
				N-Nitrosodi-n-propylamine	U	3400	3363.91437	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
L10SS-080M-5537-SO	A0D140520005	8270C	SO	N-Nitrosodiphenylamine	U	3400	3363.91437	ug/kg
				Pentachlorophenol	U	3400	3363.91437	ug/kg
				Phenol	U	3400	3363.91437	ug/kg
		8330M		Nitroguanidine	U	0.25	0.25229358	mg/kg
L10SS-080M-5537-SOVO	A0D140520006	8260B	SO	1,1,1-Trichloroethane	U	6.2	6.17283951	ug/kg
				1,1,2,2-Tetrachloroethane	U	6.2	6.17283951	ug/kg
				1,1,2-Trichloroethane	U	6.2	6.17283951	ug/kg
				1,1-Dichloroethane	U	6.2	6.17283951	ug/kg
				1,1-Dichloroethene	U	6.2	6.17283951	ug/kg
				1,2-Dibromoethane (Ethylene Dibro	U	6.2	6.17283951	ug/kg
				1,2-Dichloroethane	U	6.2	6.17283951	ug/kg
				1,2-Dichloroethene (total)	U	6.2	6.17283951	ug/kg
				1,2-Dichloropropane	U	6.2	6.17283951	ug/kg
				2-Butanone (MEK)	U	25	24.6913580	ug/kg
				2-Hexanone	U	25	24.6913580	ug/kg
				4-methyl-2-pentanone (MIBK)	U	25	24.6913580	ug/kg
				Acetone	U	25	24.6913580	ug/kg
				Benzene	U	6.2	6.17283951	ug/kg
				Bromochloromethane	U	6.2	6.17283951	ug/kg
				Bromodichloromethane	U	6.2	6.17283951	ug/kg
				Bromoform	U	6.2	6.17283951	ug/kg
				Bromomethane (Methyl bromide)	U	6.2	6.17283951	ug/kg
				Carbon disulfide	U	6.2	6.17283951	ug/kg
				Carbon tetrachloride	U	6.2	6.17283951	ug/kg
				Chlorobenzene	U	6.2	6.17283951	ug/kg
				Chlorodibromomethane	U	6.2	6.17283951	ug/kg
				Chloroethane	U	6.2	6.17283951	ug/kg
				Chloroform	U	6.2	6.17283951	ug/kg
				Chloromethane	U	6.2	6.17283951	ug/kg
				cis-1,3-Dichloropropene	U	6.2	6.17283951	ug/kg
				Ethylbenzene	U	6.2	6.17283951	ug/kg
				Styrene	U	6.2	6.17283951	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
L10SS-080M-5537-SOVO	A0D140520006	8260B	SO	Tetrachloroethene	U	6.2	6.17283951	ug/kg
				Toluene	U	6.2	6.17283951	ug/kg
				trans-1,3-Dichloropropene	U	6.2	6.17283951	ug/kg
				Trichloroethene	U	6.2	6.17283951	ug/kg
				Vinyl chloride	U	6.2	6.17283951	ug/kg
L10SS-084M-5541-SO	A0D140520010	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01008147	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.25203666	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.25203666	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.25203666	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.25203666	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.25203666	mg/kg
				2-Nitrotoluene	U	0.25	0.25203666	mg/kg
				3-Nitrotoluene	U	0.25	0.25203666	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.25203666	mg/kg
				4-Nitrotoluene	U	0.50	0.50407332	mg/kg
				Nitrobenzene	U	0.25	0.25203666	mg/kg
L10SS-085M-6169-FD	A0D140520013	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01008147	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.25203666	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.25203666	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.25203666	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.25203666	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.25203666	mg/kg
				2-Nitrotoluene	U	0.25	0.25203666	mg/kg
				3-Nitrotoluene	U	0.25	0.25203666	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.25203666	mg/kg
				4-Nitrotoluene	U	0.50	0.50407332	mg/kg
				Nitrobenzene	U	0.25	0.25203666	mg/kg
L10SS-088M-5545-SO	A0D140520015	8081A	SO	Aldrin	U	41	40.8997955	ug/kg
				alpha-BHC	U	26	25.5623722	ug/kg
				alpha-Chordane	U	31	30.6748466	ug/kg
				beta-BHC	U	36	35.7873211	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
L10SS-088M-5545-SO	A0D140520015	8081A	SO	delta-BHC	U	41	40.8997955	ug/kg
				Endosulfan II	U	26	25.5623722	ug/kg
				Endosulfan sulfate	U	31	30.6748466	ug/kg
				Endrin aldehyde	U	31	30.6748466	ug/kg
				gamma-BHC (Lindane)	U	26	25.5623722	ug/kg
				Heptachlor	U	36	35.7873211	ug/kg
				Heptachlor epoxide	U	26	25.5623722	ug/kg
				Toxaphene	U	690	685.071575	ug/kg
		8082		Aroclor 1016	U	34	1.73824131	ug/kg
				Aroclor 1221	U	34	1.73824131	ug/kg
				Aroclor 1232	U	34	1.73824131	ug/kg
				Aroclor 1242	U	34	1.73824131	ug/kg
				Aroclor 1248	U	34	1.73824131	ug/kg
				Aroclor 1254	U	34	1.73824131	ug/kg
				Aroclor 1260	U	34	1.73824131	ug/kg
		8270C		2,4-Dinitrophenol	U	3300	3271.98364	ug/kg
				2-Nitroaniline	U	3300	3271.98364	ug/kg
				3-Nitroaniline	U	3300	3271.98364	ug/kg
				4,6-Dinitro-2-methylphenol	U	3300	3271.98364	ug/kg
				4-Nitroaniline	U	3300	3271.98364	ug/kg
				4-Nitrophenol	U	3300	3271.98364	ug/kg
				Benzoic acid	U	3300	3271.98364	ug/kg
L10SS-088M-5545-SOVO	A0D140520016	8260B	SO	1,1,1-Trichloroethane	U	6.5	6.49350649	ug/kg
				1,1,2,2-Tetrachloroethane	U	6.5	6.49350649	ug/kg
				1,1,2-Trichloroethane	U	6.5	6.49350649	ug/kg
				1,1-Dichloroethane	U	6.5	6.49350649	ug/kg
				1,1-Dichloroethene	U	6.5	6.49350649	ug/kg
				1,2-Dibromoethane (Ethylene Dibro	U	6.5	6.49350649	ug/kg
				1,2-Dichloroethane	U	6.5	6.49350649	ug/kg
				1,2-Dichloroethene (total)	U	6.5	6.49350649	ug/kg
				1,2-Dichloropropane	U	6.5	6.49350649	ug/kg
				2-Butanone (MEK)	U	26	25.974026	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
L10SS-088M-5545-SOVO	A0D140520016	8260B	SO	2-Hexanone	U	26	25.974026	ug/kg
				4-methyl-2-pentanone (MIBK)	U	26	25.974026	ug/kg
				Acetone	U	26	25.974026	ug/kg
				Benzene	U	6.5	6.49350649	ug/kg
				Bromochloromethane	U	6.5	6.49350649	ug/kg
				Bromodichloromethane	U	6.5	6.49350649	ug/kg
				Bromoform	U	6.5	6.49350649	ug/kg
				Bromomethane (Methyl bromide)	U	6.5	6.49350649	ug/kg
				Carbon disulfide	U	6.5	6.49350649	ug/kg
				Carbon tetrachloride	U	6.5	6.49350649	ug/kg
				Chlorobenzene	U	6.5	6.49350649	ug/kg
				Chlorodibromomethane	U	6.5	6.49350649	ug/kg
				Chloroethane	U	6.5	6.49350649	ug/kg
				Chloroform	U	6.5	6.49350649	ug/kg
				Chloromethane	U	6.5	6.49350649	ug/kg
				cis-1,3-Dichloropropene	U	6.5	6.49350649	ug/kg
				Ethylbenzene	U	6.5	6.49350649	ug/kg
				Styrene	U	6.5	6.49350649	ug/kg
				Tetrachloroethene	U	6.5	6.49350649	ug/kg
				Toluene	U	6.5	6.49350649	ug/kg
				trans-1,3-Dichloropropene	U	6.5	6.49350649	ug/kg
				Trichloroethene	U	6.5	6.49350649	ug/kg
				Vinyl chloride	U	6.5	6.49350649	ug/kg
				Xylene (Total)	U	13	12.987013	ug/kg
L10SS-089M-5546-SO	A0D140520017	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01010204	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.25255102	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.25255102	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.25255102	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.25255102	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.25255102	mg/kg
				2-Nitrotoluene	U	0.25	0.25255102	mg/kg
				3-Nitrotoluene	U	0.25	0.25255102	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
L10SS-089M-5546-SO	A0D140520017	8330B	SO	4-Amino-2,6-Dinitrotoluene	U	0.25	0.25255102	mg/kg
				4-Nitrotoluene	U	0.50	0.50510204	mg/kg
				Nitrobenzene	U	0.25	0.25255102	mg/kg
L10SS-089M-6171-FD	A0D140520018	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01010204	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.25255102	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.25255102	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.25255102	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.25255102	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.25255102	mg/kg
				2-Nitrotoluene	U	0.25	0.25255102	mg/kg
				3-Nitrotoluene	U	0.25	0.25255102	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.25255102	mg/kg
				4-Nitrotoluene	U	0.50	0.50510204	mg/kg
				Nitrobenzene	U	0.25	0.25255102	mg/kg
L10SS-090M-5547-SO	A0D140520019	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01009174	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.25229358	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.25229358	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.25229358	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.25229358	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.25229358	mg/kg
				2-Nitrotoluene	U	0.25	0.25229358	mg/kg
				3-Nitrotoluene	U	0.25	0.25229358	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.25229358	mg/kg
				4-Nitrotoluene	U	0.50	0.50458716	mg/kg
L10SS-091M-5548-SO	A0D140520020	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01008147	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.25203666	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.25203666	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.25203666	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.25203666	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.25203666	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits (Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
L10SS-091M-5548-SO	A0D140520020	8330B	SO	2-Nitrotoluene	U	0.25	0.25203666	mg/kg
				3-Nitrotoluene	U	0.25	0.25203666	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.25203666	mg/kg
				4-Nitrotoluene	U	0.50	0.50407332	mg/kg
				Nitrobenzene	U	0.25	0.25203666	mg/kg
L10SS-092M-5549-SO	A0D140520021	8081A	SO	Aldrin	U	41	40.8997955	ug/kg
				alpha-BHC	U	26	25.5623722	ug/kg
				beta-BHC	U	36	35.7873211	ug/kg
				delta-BHC	U	41	40.8997955	ug/kg
				Endosulfan II	U	26	25.5623722	ug/kg
				Endosulfan sulfate	U	31	30.6748466	ug/kg
				Endrin aldehyde	U	31	30.6748466	ug/kg
				gamma-BHC (Lindane)	U	26	25.5623722	ug/kg
				Heptachlor	U	36	35.7873211	ug/kg
		8082		Aroclor 1016	U	170	8.69120654	ug/kg
				Aroclor 1221	U	170	8.69120654	ug/kg
				Aroclor 1232	U	170	8.69120654	ug/kg
				Aroclor 1242	U	170	8.69120654	ug/kg
				Aroclor 1248	U	170	8.69120654	ug/kg
				Aroclor 1254	U	170	8.69120654	ug/kg
				Aroclor 1260	U	170	8.69120654	ug/kg
		8270C		1,2,4-Trichlorobenzene	U	340	337.423313	ug/kg
				1,2-Dichlorobenzene	U	340	337.423313	ug/kg
				1,3-Dichlorobenzene	U	340	337.423313	ug/kg
				1,4-Dichlorobenzene	U	340	337.423313	ug/kg
				2,4,5-Trichlorophenol	U	340	337.423313	ug/kg
				2,4,6-Trichlorophenol	U	340	337.423313	ug/kg
				2,4-Dichlorophenol	U	340	337.423313	ug/kg
				2,4-Dimethylphenol	U	340	337.423313	ug/kg
				2,4-Dinitrophenol	U	820	817.995910	ug/kg
				2,4-Dinitrotoluene	U	340	337.423313	ug/kg
				2,6-Dinitrotoluene	U	340	337.423313	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
L10SS-092M-5549-SO	A0D140520021	8270C	SO	2-Chloronaphthalene	U	340	337.423313	ug/kg
				2-Chlorophenol	U	340	337.423313	ug/kg
				2-Methylphenol	U	340	337.423313	ug/kg
				2-Nitroaniline	U	820	817.995910	ug/kg
				2-Nitrophenol	U	340	337.423313	ug/kg
				3,3'-Dichlorobenzidine	U	340	337.423313	ug/kg
				3-methylphenol/4-methylphenol	U	340	#Error	ug/kg
				3-Nitroaniline	U	820	817.995910	ug/kg
				4,6-Dinitro-2-methylphenol	U	820	817.995910	ug/kg
				4-Bromophenyl phenyl ether	U	340	337.423313	ug/kg
				4-Chloro-3-methylphenol	U	340	337.423313	ug/kg
				4-Chloroaniline	U	340	337.423313	ug/kg
				4-Chlorophenyl phenyl ether	U	340	337.423313	ug/kg
				4-Nitroaniline	U	820	817.995910	ug/kg
				4-Nitrophenol	U	820	817.995910	ug/kg
				Benzoic acid	U	820	817.995910	ug/kg
				Benzyl alcohol	U	340	337.423313	ug/kg
				bis(2-Chloroethoxy)methane	U	340	337.423313	ug/kg
				bis(2-Chloroethyl) ether	U	340	337.423313	ug/kg
				Bis(2-chloroisopropyl) ether	U	340	337.423313	ug/kg
				Butyl benzyl phthalate	U	340	337.423313	ug/kg
				Dibenzofuran	U	340	337.423313	ug/kg
				Dimethyl phthalate	U	340	337.423313	ug/kg
				Di-n-octyl phthalate	U	340	337.423313	ug/kg
				Hexachlorobenzene	U	340	337.423313	ug/kg
				Hexachlorobutadiene	U	340	337.423313	ug/kg
				HEXACHLOROCYCLOPENTADIE	U	340	#Error	ug/kg
				Hexachloroethane	U	340	337.423313	ug/kg
				Isophorone	U	340	337.423313	ug/kg
				Nitrobenzene	U	340	337.423313	ug/kg
				N-Nitrosodi-n-propylamine	U	340	337.423313	ug/kg
				N-Nitrosodiphenylamine	U	340	337.423313	ug/kg
				Pentachlorophenol	U	340	337.423313	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: 100 / (100 - Percent Moisture)

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
L10SS-092M-5549-SO	A0D140520021	8270C	SO	Phenol	U	340	337.423313	ug/kg
L10SS-092M-5549-SOVO	A0D140520022	8260B	SO	1,1,1-Trichloroethane	U	6.1	6.09756098	ug/kg
				1,1,2,2-Tetrachloroethane	U	6.1	6.09756098	ug/kg
				1,1,2-Trichloroethane	U	6.1	6.09756098	ug/kg
				1,1-Dichloroethane	U	6.1	6.09756098	ug/kg
				1,1-Dichloroethene	U	6.1	6.09756098	ug/kg
				1,2-Dibromoethane (Ethylene Dibro	U	6.1	6.09756098	ug/kg
				1,2-Dichloroethane	U	6.1	6.09756098	ug/kg
				1,2-Dichloroethene (total)	U	6.1	6.09756098	ug/kg
				1,2-Dichloropropane	U	6.1	6.09756098	ug/kg
				2-Butanone (MEK)	U	25	24.3902439	ug/kg
				2-Hexanone	U	25	24.3902439	ug/kg
				4-methyl-2-pentanone (MIBK)	U	25	24.3902439	ug/kg
				Benzene	U	6.1	6.09756098	ug/kg
				Bromochloromethane	U	6.1	6.09756098	ug/kg
				Bromodichloromethane	U	6.1	6.09756098	ug/kg
				Bromoform	U	6.1	6.09756098	ug/kg
				Bromomethane (Methyl bromide)	U	6.1	6.09756098	ug/kg
				Carbon disulfide	U	6.1	6.09756098	ug/kg
				Carbon tetrachloride	U	6.1	6.09756098	ug/kg
				Chlorobenzene	U	6.1	6.09756098	ug/kg
				Chlorodibromomethane	U	6.1	6.09756098	ug/kg
				Chloroethane	U	6.1	6.09756098	ug/kg
				Chloroform	U	6.1	6.09756098	ug/kg
				Chloromethane	U	6.1	6.09756098	ug/kg
				cis-1,3-Dichloropropene	U	6.1	6.09756098	ug/kg
				Ethylbenzene	U	6.1	6.09756098	ug/kg
				Styrene	U	6.1	6.09756098	ug/kg
				Tetrachloroethene	U	6.1	6.09756098	ug/kg
				Toluene	U	6.1	6.09756098	ug/kg
				trans-1,3-Dichloropropene	U	6.1	6.09756098	ug/kg
				Trichloroethene	U	6.1	6.09756098	ug/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCs RI

QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
L10SS-092M-5549-SOVO	A0D140520022	8260B	SO	Vinyl chloride	U	6.1	6.09756098	ug/kg
LL5SD-078-5797-SD	A0D140520001	8330B	SO	1,3,5-Trinitrobenzene	U	0.24	0.01507937	mg/kg
				1,3-Dinitrobenzene	U	0.24	0.37698413	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.24	0.37698413	mg/kg
				2,4-Dinitrotoluene	U	0.24	0.37698413	mg/kg
				2,6-Dinitrotoluene	U	0.24	0.37698413	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.24	0.37698413	mg/kg
				2-Nitrotoluene	U	0.24	0.37698413	mg/kg
				3-Nitrotoluene	U	0.24	0.37698413	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.24	0.37698413	mg/kg
				4-Nitrotoluene	U	0.48	0.75396825	mg/kg
				Nitrobenzene	U	0.24	0.37698413	mg/kg
LL5SW-078-5796-SW	A0D140520002	8330B	AQ	2-Amino-4,6-dinitrotoluene	U	0.29	0.288	ug/L

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

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QC Outlier Report: Trip Blank

Lab Reporting Batch :
Method/Preparation Batch :
Client Sample ID :
Lab Sample ID :

Lab ID:
Analysis Date :
Preparation Date :
Preparation Type :

Analysis Method :

No contamination was found.

Continuing Calibration (CCV) Outlier Report (Organics)

There are no Organic Continuing Calibrations with outliers

Continuing Calibration (CCAL) Outlier Report (Inorganics)

There are no Inorganic Continuing Calibrations with outliers

Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
L10SS-079M-5536-SO	A0D140520004	6020	SO	Antimony	J	0.18	0.51	mg/kg
				Silver	J	0.038	0.51	mg/kg
				Sodium	J	49.5	102	mg/kg
				Thallium	J	0.16	0.20	mg/kg
		7471A		Mercury	J	0.046	0.10	mg/kg
		8330B		Methyl-2,4,6-Trinitrophenylnitramine (T	J	0.023	0.24	mg/kg
L10SS-080M-5537-SO	A0D140520005	353.2 Modified		Nitrocellulose	B J	2.5	5.1	mg/kg
		6020		Antimony	J	0.39	0.51	mg/kg
				Cadmium	J	0.19	0.20	mg/kg
				Silver	J	0.032	0.51	mg/kg
				Sodium	J	79.2	102	mg/kg
				Thallium	J	0.17	0.20	mg/kg
		7471A		Mercury	J	0.027	0.10	mg/kg
		8082		Aroclor 1254	J	24	34	ug/kg
		8270C		2-Methylnaphthalene	J	410	3400	ug/kg
				Dibenzofuran	J	970	3400	ug/kg
		8330B		3-Nitrotoluene	J PG	0.025	0.24	mg/kg
				Methyl-2,4,6-Trinitrophenylnitramine (T	J PG	0.035	0.24	mg/kg
L10SS-080M-5537-SOVO	A0D140520006	8260B		Methylene chloride	J	0.96	6.2	ug/kg
L10SS-081M-5538-SO	A0D140520007	6020		Antimony	J	0.37	0.51	mg/kg
				Silver	J	0.030	0.51	mg/kg
				Sodium	J	39.1	102	mg/kg
				Thallium	J	0.16	0.20	mg/kg
		7471A		Mercury	J	0.037	0.10	mg/kg
L10SS-082M-5539-SO	A0D140520008	6020		Antimony	J	0.11	0.51	mg/kg
				Cadmium	J	0.15	0.20	mg/kg
				Silver	J	0.036	0.51	mg/kg
				Sodium	J	32.0	102	mg/kg
		7471A		Thallium	J	0.17	0.20	mg/kg
				Mercury	J	0.043	0.10	mg/kg
L10SS-083M-5540-SO	A0D140520009	6020		Antimony	J	0.14	0.51	mg/kg
				Cadmium	J	0.16	0.20	mg/kg
				Silver	J	0.032	0.51	mg/kg
				Sodium	J	33.5	102	mg/kg
		7471A		Thallium	J	0.15	0.20	mg/kg
				Mercury	J	0.036	0.10	mg/kg

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Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
L10SS-084M-5541-SO	A0D140520010	6020	SO	Antimony	J	0.12	0.51	mg/kg
				Cadmium	J	0.13	0.20	mg/kg
				Silver	J	0.037	0.51	mg/kg
				Sodium	J	38.8	102	mg/kg
				Thallium	J	0.17	0.20	mg/kg
		7471A		Mercury	J	0.036	0.10	mg/kg
L10SS-085M-5542-SO	A0D140520011	6020		Antimony	J	0.11	0.51	mg/kg
				Silver	J	0.033	0.51	mg/kg
				Sodium	J	37.7	102	mg/kg
				Thallium	J	0.15	0.20	mg/kg
				Mercury	J	0.040	0.10	mg/kg
L10SS-085M-6169-FD	A0D140520013	6020		Antimony	J	0.12	0.51	mg/kg
				Silver	J	0.036	0.51	mg/kg
				Sodium	J	38.0	102	mg/kg
				Thallium	J	0.15	0.20	mg/kg
				Mercury	J	0.041	0.10	mg/kg
L10SS-086M-5543-SO	A0D140520012	6020		Antimony	J	0.11	0.51	mg/kg
				Cadmium	J	0.15	0.20	mg/kg
				Silver	J	0.033	0.51	mg/kg
				Sodium	J	35.5	102	mg/kg
				Thallium	J	0.15	0.20	mg/kg
		7471A		Mercury	J	0.039	0.10	mg/kg
L10SS-087M-5544-SO	A0D140520014	6020		Antimony	J	0.16	0.51	mg/kg
				Cadmium	J	0.17	0.20	mg/kg
				Silver	J	0.038	0.51	mg/kg
				Sodium	J	33.1	102	mg/kg
				Thallium	J	0.17	0.20	mg/kg
		7471A		Mercury	J	0.046	0.10	mg/kg
L10SS-088M-5545-SO	A0D140520015	353.2 Modified		Nitrocellulose	B J	2.8	5.1	mg/kg
		6020		Antimony	J	0.22	0.51	mg/kg
				Cadmium	J	0.18	0.20	mg/kg
				Silver	J	0.029	0.51	mg/kg
				Sodium	J	71.2	102	mg/kg
				Thallium	J	0.16	0.20	mg/kg
		7471A		Mercury	J	0.034	0.10	mg/kg
		8270C		2-Methylnaphthalene	J	63	1300	ug/kg

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Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
L10SS-088M-5545-SO	A0D140520015	8270C	SO	Dibenzofuran	J	160	1300	ug/kg
		8330B		Methyl-2,4,6-Trinitrophenylnitramine (T	J PG	0.028	0.24	mg/kg
L10SS-088M-5545-SOVO	A0D140520016	8260B		Methylene chloride	J	1.3	6.5	ug/kg
L10SS-089M-5546-SO	A0D140520017	6020		Antimony	J	0.22	0.51	mg/kg
				Cadmium	J	0.14	0.20	mg/kg
				Silver	J	0.035	0.51	mg/kg
				Sodium	J	45.0	102	mg/kg
				Thallium	J	0.17	0.20	mg/kg
		7471A		Mercury	J	0.042	0.10	mg/kg
L10SS-089M-6171-FD	A0D140520018	6020		Antimony	J	0.24	0.51	mg/kg
				Cadmium	J	0.17	0.20	mg/kg
				Silver	J	0.034	0.51	mg/kg
				Sodium	J	46.1	102	mg/kg
				Thallium	J	0.17	0.20	mg/kg
		7471A		Mercury	J	0.044	0.10	mg/kg
L10SS-090M-5547-SO	A0D140520019	6020		Antimony	J	0.19	0.51	mg/kg
				Silver	J	0.033	0.51	mg/kg
				Sodium	J	64.7	102	mg/kg
				Thallium	J	0.16	0.20	mg/kg
		7471A		Mercury	J	0.037	0.10	mg/kg
		8330B		Methyl-2,4,6-Trinitrophenylnitramine (T	J PG	0.024	0.25	mg/kg
L10SS-091M-5548-SO	A0D140520020	6020		Antimony	J	0.34	0.51	mg/kg
				Cadmium	J	0.18	0.20	mg/kg
				Silver	J	0.028	0.51	mg/kg
				Sodium	J	42.9	102	mg/kg
				Thallium	J	0.15	0.20	mg/kg
		7471A		Mercury	J	0.033	0.10	mg/kg
L10SS-092M-5549-SO	A0D140520021	353.2 Modified		Nitrocellulose	B J	1.9	5.1	mg/kg
		6020		Antimony	J	0.18	0.51	mg/kg
				Cadmium	J	0.17	0.20	mg/kg
				Silver	J	0.039	0.51	mg/kg
				Sodium	J	38.9	102	mg/kg
				Thallium	J	0.16	0.20	mg/kg
		7471A		Mercury	J	0.041	0.10	mg/kg
		8081A		Heptachlor epoxide	J	25	26	ug/kg
		8270C		2-Methylnaphthalene	J	24	340	ug/kg

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Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
L10SS-092M-5549-SO	A0D140520021	8270C	SO	bis(2-Ethylhexyl) phthalate	J B	32	340	ug/kg
				Diethyl phthalate	J	25	340	ug/kg
				Di-n-butyl phthalate	J	30	340	ug/kg
L10SS-092M-5549-SOVO	A0D140520022	8260B		Acetone	J	16	25	ug/kg
				Methylene chloride	J	1.3	6.1	ug/kg
L10SS-093M-5550-SO	A0D140520023	6020		Antimony	J	0.14	0.51	mg/kg
				Silver	J	0.033	0.51	mg/kg
				Sodium	J	40.5	102	mg/kg
				Thallium	J	0.16	0.20	mg/kg
				Mercury	J	0.045	0.10	mg/kg
LL5SD-078-5797-SD	A0D140520001	6020		Antimony	J	0.15	0.79	mg/kg
				Cadmium	J	0.24	0.32	mg/kg
				Silver	J	0.078	0.79	mg/kg
				Sodium	J	40.6	159	mg/kg
				Thallium	J	0.26	0.32	mg/kg
LL5SW-078-5796-SW	A0D140520002	6020	AQ	Mercury	J	0.075	0.16	mg/kg
				Arsenic	J	1.8	5.0	ug/L
				Cobalt	J	0.54	5.0	ug/L
				Copper	J	1.6	5.0	ug/L
				Lead	J	0.54	3.0	ug/L
				Nickel	J	1.4	10.0	ug/L
				Sodium	J	781	1000	ug/L
				Vanadium	J	0.54	10.0	ug/L
				Acetone	J	4.7	10	ug/L
				Toluene	J	0.22	1.0	ug/L
PBA08-QC-6024-TB	A0D140520003	8270C		bis(2-Ethylhexyl) phthalate	J B	1.1	10	ug/L
				Acetone	J	5.8	10	ug/L
				Methylene chloride	J	0.33	1.0	ug/L

Method Blank Outlier Report

Lab Reporting Batch : A0D140520

Lab ID: TALCAN

Analysis Method : 6020

Analysis Date : 04/21/2010

Preparation Type : 3005A

Preparation Date : 04/15/2010

Method Blank Lab Sample ID : A0D150000016B

Preparation Batch : 0105016

Aluminum	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	22.3	100	ug/L	J	

Aluminum contamination found in the method blank did not qualify any samples.

Method Blank Outlier Report

Lab Reporting Batch : A0D140520

Lab ID: TALCAN

Analysis Method : 8270C

Analysis Date : 05/03/2010

Preparation Type : 3520C

Preparation Date : 04/15/2010

Method Blank Lab Sample ID : A0D150000039B

Preparation Batch : 0105039

bis(2-Ethylhexyl) phthalate	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	1.0	10	ug/L	J	Common Contaminant

bis(2-Ethylhexyl) phthalate was qualified due to method blank contamination in the following associated samples:

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
LL5SW-078-5796-SW	A0D140520002	1	1.1	J B	ug/L

Di-n-butyl phthalate	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.73	10	ug/L	J	Common Contaminant

Di-n-butyl phthalate contamination found in the method blank did not qualify any samples.

Method Blank Outlier Report

Lab Reporting Batch : A0D140520

Lab ID: TALCAN

Analysis Method : 8260B

Analysis Date : 04/20/2010

Preparation Type : 5030B

Preparation Date : 04/20/2010

Method Blank Lab Sample ID : A0D200000251B

Preparation Batch : 0110251

Ethylbenzene	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.41	1.0	ug/L	J	

Ethylbenzene contamination found in the method blank did not qualify any samples.

Xylene (Total)	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.94	2.0	ug/L	J	

Xylene (Total) contamination found in the method blank did not qualify any samples.

Method Blank Outlier Report

Lab Reporting Batch : A0D140520

Lab ID: TALCAN

Analysis Method : 8270C

Analysis Date : 04/28/2010

Preparation Type : 3540C

Preparation Date : 04/22/2010

Method Blank Lab Sample ID : A0D220000049B

Preparation Batch : 0112049

bis(2-Ethylhexyl) phthalate	Result	Reporting Limit	Units	Lab Qual	Comments
	20	330	ug/kg	J	Common Contaminant

bis(2-Ethylhexyl) phthalate was qualified due to method blank contamination in the following associated samples:

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
L10SS-092M-5549-SO	A0D140520021	1	32	J B	ug/kg

Method Blank Outlier Report

Lab Reporting Batch : A0D140520

Lab ID: TALCAN

Analysis Method : 353.2 Modified

Analysis Date : 04/28/2010

Preparation Type : Gen Prep

Preparation Date : 04/27/2010

Method Blank Lab Sample ID : G0D270000208B

Preparation Batch : 0117208

Nitrocellulose	Result	Reporting Limit	Units	Lab Qual	Comments
	0.99	5.0	mg/kg	B	

Method Blank Result:

Nitrocellulose was qualified due to method blank contamination in the following associated samples:

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
L10SS-080M-5537-SO	A0D140520005	1	2.5	B J	mg/kg
L10SS-088M-5545-SO	A0D140520015	1	2.8	B J	mg/kg
L10SS-092M-5549-SO	A0D140520021	1	1.9	B J	mg/kg

Surrogate Recovery Outlier Report

Lab Report Batch: A0D140520

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Dilution	Matrix	Surrogate	Percent Recovery	Criteria (percent)			Associated Target Analytes
							Lower Limit	Upper Limit	Reject Point	
L10SS-080M-5537-SOMS	A0D140520005S	8081A	20	SO	Decachlorobiphenyl	173	55.0	130.0	10.0	All Target
					TETRACHLORO-M-XYLENE	140	55.0	130.0	10.0	All Target
L10SS-080M-5537-SOMSD	A0D140520005D	8081A	20	SO	Decachlorobiphenyl	248	55.0	130.0	10.0	All Target
L10SS-092M-5549-SO	A0D140520021	8081A	10	SO	TETRACHLORO-M-XYLENE	607	55.0	130.0	10.0	All Target
LL5SW-078-5796-SW	A0D140520002	8082	1	AQ	Decachlorobiphenyl	28	40.0	135.0	10.0	All Target

QC Outlier Report: Field Duplicates (Non-qualified Outliers)

Lab Report Batch:

Lab ID:

			Field Sample				Field Sample Duplicate						
Analysis Method	Matrix	Analyte Name	Client Sample ID	Ana Type	Result	Lab Qualifier	Client Sample Duplicate ID	Ana Type	Result	Lab Qualifiers	RPD Dup* (%)	RPD Criteria (%)	Result Units

**Note: Outlier report also includes analytes detected in one sample but not in the related sample, i.e., analyte was detected in the field sample but not in the field duplicate sample, or vice versa. In this case, RPD value assigned to the field duplicate sample is 200.*

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QC Outlier Report: Non-Qualified Outliers for Reporting Limits
(Sample is non-detect but reported result exceeds project requirements for reporting limit)

Lab Report Batch: A0J190534

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit	
							Criteria*	Units
LL5SS-075-5811-SO	A0J190534003	7196A	SO	Chromium, hexavalent	U	0.92	0.91954023	mg/kg

* Reporting Limit Criteria = (Dilution Factor) * (Reporting Limit from the reference project library) * (Percent Moisture Correction)

Percent Moisture Correction:

Soil: $100 / (100 - \text{Percent Moisture})$

Water: 1

Project Number and Name: 172819.00.09456.00.9200.02.200 - RVAAP PBA2008 17 AOCS RI

Reporting Limits Outlier Report (detected results reported below the reporting limit)

Lab Report Batch: A0J190534

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
F15SS-036-5814-SO	A0J190534008	7196A	SO	Chromium, hexavalent	J	0.40	0.98	mg/kg
LL7SS-080-5809-SO	A0J190534001			Chromium, hexavalent	J	0.53	1.0	mg/kg
LL8SS-072-5808-SO	A0J190534002			Chromium, hexavalent	J	0.41	1.0	mg/kg
LL9SS-101-5807-SO	A0J190534005			Chromium, hexavalent	J	0.74	0.96	mg/kg