

**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	U.S. Department of Defense
DQA	Data Quality Assessment
DQO	Data Quality Objective
FS	Feasibility Study
FWCUG	Facility-wide Cleanup Goal
FWQAPP	Facility-wide Quality Assurance Project Plan
LCS	Laboratory Control Sample
MDL	Method Detection Level
MPR	Monthly Progress Report
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Ohio EPA	Ohio Environmental Protection Agency
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	Ravenna Environmental Information Management System
RI	Remedial Investigation
RPD	Relative Percent Difference
RVAAP	Ravenna Army Ammunition Plant
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

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### 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:

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

A separate Chemical Data Usability Assessment Report has been completed by the U.S. Army Corps of Engineers (USACE) quality assurance (QA) representative (Attachment 1). The 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 assesses the analytical information gathered during the implementation of the RI at Upper and Lower Cobbs Ponds. It documents the quality of the data utilized for the RI/Feasibility Study (FS) 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/FS 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 this RI. 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 was 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. (herein referred to as TestAmerica) of

North Canton, Ohio (a subcontractor to White Water Associates, Inc. of Amasa, Michigan), as the laboratory for the project. During project execution, the TestAmerica facility in North Canton, Ohio, performed all of the analyses, except 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 included 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 – *Quality Systems Manual 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 in-depth review of raw data instrument output or 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;
- 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

Thirty-four environmental sediment, soil, and surface water samples were collected, resulting in approximately 5,100 discrete analyses (i.e., analytes) 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 99.8% of the sample analyses performed. Nine non-detectable soil results for antimony were rejected, and no sediment or surface water data were rejected.

Table C-1 summarizes the 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 results rejected during review, Table C-4 summarizes 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. Also, some data were estimated due to exceeded holding times, continuing calibrations, surrogate recovery deviations, internal standard area deviation, MS/matrix spike duplicate (MSD) deviations, and a few LCS recovery failures.

**Table C-1. Number of Samples Taken at Upper and Lower Cobbs Ponds**

Medium	Environmental Sample	Field Duplicate	USACE Split Sample	Trip Blank	Equipment Rinse Blank <sup>a</sup>	Source Water Blank <sup>b</sup>
Sediment	10	0	0	0	0	0
Soil	19	3	3	0		
Surface Water	5	1	1	3	2	2

<sup>a</sup>Equipment rinse blanks were collected at a frequency of two 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).

<sup>b</sup>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 Upper and Lower Cobbs Ponds**

Sample ID	Laboratory Sample Delivery Group	Field Duplicate	USACE Split Sample	Trip Blank <sup>a</sup>	Metals	Explosives	SVOCs	Propellants <sup>b</sup>	VOCs	Pesticides	PCBs	Hexavalent Chromium	Total Chromium
<i>Sediment</i>													
CPCSD-044-5022-SD	A0C300541	NS	NS	NS	X	X	X						
CPCSD-045-5023-SD	A0D020496	NS	NS	NS	X	X	X	X	X	X	X		
CPCSD-045-5783-SD	A0D020496	NS	NS	NS	X	X	X	X	X	X	X		
CPCSD-046-5024-SD	A0C250600	NS	NS	NS	X	X	X	X	X	X	X		
CPCSD-046-5784-SD	A0C250600	NS	NS	NS	X	X	X	X	X	X	X		
CPCSD-047-5025-SD	A0D020496	NS	NS	NS	X	X	X	X	X	X	X		
CPCSD-047-5785-SD	A0D020496	NS	NS	NS	X	X	X	X	X	X	X		
CPCSD-048-5026-SD	A0D020496	NS	NS	NS	X	X	X	X	X	X	X		
CPCSD-048-5786-SD	A0D020496	NS	NS	NS	X	X	X	X	X	X	X		
CPCSD-049-5032-SD	A0C250600	NS	NS	NS								X	X
<i>Soil</i>													
CPCSB-030-5105-SO	A0C300541	NS	NS	NS	X	X	X						
CPCSB-031-5109-SO	A0C250600	NS	NS	NS	X	X	X						
CPCSB-032-5113-SO	A0C250600	NS	NS	NS	X	X	X						
CPCSB-032-5114-SO	A0C250600	CPCSB-032-6073-FD	CPCSB-032-6075-QA	NS	X	X	X						
CPCSB-032-5115-SO	A0C250560, A0C250567	NS	NS	NS	X	X	X						
CPCSB-032-5116-SO	A0C250600	NS	NS	NS	X	X	X						
CPCSB-034-5119-SO	A0C300541	NS	NS	NS	X	X	X						
CPCSB-034-5120-SO	A0C300541	NS	NS	NS	X	X	X						
CPCSB-035-5123-SO	A0C300541	NS	NS	NS	X	X	X	X	X	X	X		
CPCSB-035-5124-SO	A0C300541	NS	NS	NS	X	X	X	X	X	X	X		
CPCSB-035-5125-SO	A0C300533, A0C300539	CPCSB-035-6072-FD	CPCSB-035-6074-QA	NS	X	X	X	X	X	X	X		
CPCSS-036-5014-SO	A0B240490	NS	NS	NS	X	X	X						
CPCSS-037-5015-SO	A0B240490	CPCSS-037-6041-FD	CPCSS-037-6040-QA	NS	X	X	X						
CPCSS-038-5016-SO	A0B240490	NS	NS	NS	X	X	X						
CPCSS-039-5017-SO	A0B240490	NS	NS	NS	X	X	X	X	X	X	X		
CPCSS-040-5018-SO	A0B240490	NS	NS	NS	X	X	X						
CPCSS-041-5019-SO	A0B240490	NS	NS	NS	X	X	X						
CPCSS-042-5020-SO	A0B240490	NS	NS	NS	X	X	X						
CPCSS-043-5021-SO	A0B240490	NS	NS	NS	X	X	X						

**Table C-2. Identification of Regular and QC Samples Taken at Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory Sample Delivery Group	Field Duplicates	USACE Split Samples	Trip Blanks <sup>a</sup>	Metals	Explosives	SVOCs	Propellants <sup>b</sup>	VOCs	Pesticides	PCBs	Hexavalent Chromium	Total Chromium
<i>Surface Water</i>													
CPCSW-044-5027-SW	A0C300541	NS	NS	PBA08-QC-6020-TB	X	X	X	X	X	X	X		
CPCSW-045-5028-SW	A0D020496	NS	NS	PBA08-QC-6023-TB	X	X	X	X	X	X	X		
CPCSW-046-5029-SW	A0C250600	NS	NS	PBA08-QC-6019-TB	X	X	X	X	X	X	X		
CPCSW-047-5030-SW	A0D020496	CPCSW-047-6045-FD	CPCSW-047-6044-QA	PBA08-QC-6023-TB	X	X	X	X	X	X	X		
CPCSW-048-5031-SW	A0D020496	NS	NS	PBA08-QC-6023-TB	X	X	X	X	X	X	X		

Equipment rinse blanks were collected at a frequency of two per field cycle for the entire Performance Based Acquisition 2008 (PBA08) Remedial Investigation (RI) for the 14 areas of concern (AOCs), as presented in Section 4.6 of the PBA08 Sampling and Analysis Plan (PBA08 SAP).

<sup>a</sup>Trip blanks only accompany samples for VOCs in water.

<sup>b</sup>Propellants include nitrocellulose and nitroguanidine

ID = Identifier.

NS = Not sampled.

PCB = Polychlorinated biphenyl.

QC = Quality control.

SVOC = Semi-volatile organic compound.

USACE = U.S. Army Corps of Engineers.

VOC = Volatile organic compound.

**Table C-3. Results Rejected in Validation for Samples from Upper and Lower Cobbs Ponds**

Sample Delivery Group	Sample ID	Station	Analysis Type	Chemical	Results (mg/kg)	Reporting Limit	Laboratory Qualifier	Validation Qualifier	Validation Code
A0B240490	CPCSS-036-5014-SO	CPCss-036	Metals	Antimony	0.66	0.66	U	R	MS-R
A0B240490	CPCSS-037-5015-SO	CPCss-037	Metals	Antimony	0.76	0.76	U	R	MS-R
A0B240490	CPCSS-037-6041-FD	CPCss-037	Metals	Antimony	0.74	0.74	U	R	MS-R
A0B240490	CPCSS-038-5016-SO	CPCss-038	Metals	Antimony	0.65	0.65	U	R	MS-R
A0B240490	CPCSS-039-5017-SO	CPCss-039	Metals	Antimony	0.63	0.63	U	R	MS-R
A0B240490	CPCSS-040-5018-SO	CPCss-040	Metals	Antimony	0.67	0.67	U	R	MS-R
A0B240490	CPCSS-041-5019-SO	CPCss-041	Metals	Antimony	0.66	0.66	U	R	MS-R
A0B240490	CPCSS-042-5020-SO	CPCss-042	Metals	Antimony	0.69	0.69	U	R	MS-R
A0C250560	CPCSB-032-5115-SO	CPCsb-032	Metals	Antimony	0.60	0.60	U	R	MS-R

ID = Identifier.

mg/kg = Milligrams per Kilogram.

MS = Matrix spike.

R = Rejected.

U = Not detected.

**Table C-4. Summary of Qualified Results for Samples from Upper and Lower Cobbs Ponds**

Analysis Group	Validation Qualifier <sup>a</sup>	Validation Reason Code <sup>b</sup>	Number Qualified	Total Number of Analyses	Percent Qualified
<i>Sediment</i>					
All Analyses	J	--	186	1,467	13
	UJ	--	218	1,467	15
	U	--	3	1,467	0.2
	None	--	1,060	1,467	72
Metals	J	LCS-J	4	208	1.9
	J	LCS-J, RepLimit-J	3	208	1.4
	J	MS-J	18	208	8.7
	J	MS-J, RepLimit-J	8	208	3.8
	J	ProJudge-J	16	208	7.7
	J	RepLimit-J	32	208	15
	UJ	MS-UJ	1	208	0.48
	None	None	126	208	61
Hexavalent Chromium	None	None	1	1	100
Explosives	J	RepLimit-J	10	144	6.9
	None	None	134	144	93
Propellants	J	RepLimit-J	5	16	31
	None	None	11	16	69
SVOCs	J	RepLimit-J	79	594	13
	UJ	HT-UJ	48	594	8.1
	UJ	HT-UJ, MS-UJ	2	594	0.34
	UJ	MS-UJ	3	594	0.51
	None	None	462	594	78
Pesticides	J	RepLimit-J, CCV-J	1	168	0.6
	UJ	CCV-UJ	34	168	20
	UJ	MS-UJ	1	168	0.6
	UJ	Surr-UJ	19	168	11
	UJ	Surr-UJ, CCV-UJ	2	168	1.2
	None	None	111	168	66
PCBs	UJ	Surr-UJ	28	56	50
	None	None	28	56	50
VOCs	J	RepLimit-J	7	280	2.5
	J	Surr-J, RepLimit-J	3	280	1.1
	UJ	CCV-UJ	6	280	2.1
	UJ	IntStd-UJ	1	280	0.36
	UJ	MB-U, RepLimit-J	6	280	2.1
	UJ	MB-U, Surr-J, RepLimit-J	2	280	0.71
	UJ	Surr-J, RepLimit-J, FldQC-U	1	280	0.36
	UJ	Surr-UJ	64	280	23
	U	MB-U	3	280	1.1
	None	None	187	280	67
<i>Soil</i>					
All Analyses	R	--	9	2,635	0.34
	J	--	301	2,635	11
	UJ	--	250	2,635	9.5
	None	--	2,075	2,635	79

**Table C-4. Summary of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Analysis Group	Validation Qualifier <sup>a</sup>	Validation Reason Code <sup>b</sup>	Number Qualified	Total Number of Analyses	Percent Qualified
Metals	R	MS-R	9	506	1.8
	J	LCS-J	7	506	1.4
	J	MS-J	134	506	26
	J	MS-J, RepLimit-J	8	506	1.6
	J	ProJudge-J	10	506	2
	J	RepLimit-J	92	506	18
	UJ	MS-UJ	5	506	0.99
	UJ	RepLimit-J, CalBlk-U	13	506	2.6
	None	None	228	506	45
	UJ	MS-UJ	2	352	0.57
Explosives	None	None	350	352	99
Propellants	J	MS-J, RepLimit-J	1	10	10
	J	RepLimit-J	2	10	20
	None	None	7	10	70
SVOCs	J	RepLimit-J	46	1,452	3.2
	UJ	MB-U, RepLimit-J	1	1,452	0.07
	UJ	MS-UJ	63	1,452	4.3
	None	None	1,342	1,452	92
Pesticides	J	RepLimit-J	1	105	0.95
	UJ	CCV-UJ	25	105	24
	None	None	79	105	75
PCBs	None	None	35	35	100
VOCs	UJ	CCV-UJ	1	175	0.57
	UJ	MB-U, Surr-J, RepLimit-J	4	175	2.3
	UJ	Surr-UJ	131	175	75
	UJ	Surr-UJ, MS-UJ	5	175	2.9
	None	None	34	175	19
<i>Surface Water</i>					
All Analyses	J	--	66	1,020	6.5
	UJ	--	61	1,020	6
	None	--	893	1,020	88
Metals	J	LCS-J, RepLimit-J	2	138	1.4
	J	RepLimit-J	56	138	41
	UJ	MB-U, RepLimit-J	2	138	1.4
	UJ	MS-UJ	1	138	0.72
	UJ	RepLimit-J, CalBlk-U	5	138	3.6
	None	None	72	138	52
Explosives	J	RepLimit-J	4	96	4.2
	None	None	92	96	96
Propellants	UJ	HT-UJ	6	12	50
	UJ	MS-UJ	1	12	8.3
	None	None	5	12	42
SVOCs	J	RepLimit-J	3	396	0.76
	UJ	LCS-UJ	2	396	0.51
	UJ	MB-U, RepLimit-J	3	396	0.76
	UJ	MB-U, RepLimit-J, FldQC-U	1	396	0.25
	UJ	MS-UJ	1	396	0.25
SVOCs	None	None	386	396	97

**Table C-4. Summary of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

<b>Analysis Group</b>	<b>Validation Qualifier<sup>a</sup></b>	<b>Validation Reason Code<sup>b</sup></b>	<b>Number Qualified</b>	<b>Total Number of Analyses</b>	<b>Percent Qualified</b>
Pesticides	J	RepLimit-J	1	126	0.79
	UJ	CCV-UJ	19	126	15
	None	None	106	126	84
PCBs	UJ	Surr-UJ	14	42	33
	None	None	28	42	67
VOCs	UJ	RepLimit-J, FldQC-U	6	210	2.9
	None	None	204	210	97

<sup>a</sup>Validation Qualifiers: J = estimated, R = rejected, U = not detected, and UJ = not detected and reporting limit estimated.

<sup>b</sup>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, RptLimit = reporting limit, and Surr = surrogate recovery.

PCB = Polychlorinated biphenyl.

SVOC = Semi-volatile organic compound.

VOC = Volatile organic compound.

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
<b>Metals</b>							
<b>Sediment (mg/kg)</b>							
CPCSD-045-5023-SD	A0D020496	Aluminum	16,200	576	-	J	ProJudge-J
CPCSD-045-5783-SD	A0D020496	Aluminum	13,400	144	-	J	ProJudge-J
CPCSD-046-5024-SD	A0C250600	Aluminum	18,400	64.8	-	J	ProJudge-J
CPCSD-046-5784-SD	A0C250600	Aluminum	8,500	142	-	J	ProJudge-J
CPCSD-047-5025-SD	A0D020496	Aluminum	17,300	642	-	J	ProJudge-J
CPCSD-047-5785-SD	A0D020496	Aluminum	9,150	145	-	J	ProJudge-J
CPCSD-048-5026-SD	A0D020496	Aluminum	6,620	17.6	-	J	ProJudge-J
CPCSD-048-5786-SD	A0D020496	Aluminum	9,120	15.1	-	J	ProJudge-J
CPCSD-044-5022-SD	A0C300541	Antimony	0.66	0.66	U	UJ	MS-UJ
CPCSD-045-5023-SD	A0D020496	Antimony	1.4	2.9	J	J	MS-J, RepLimit-J
CPCSD-045-5783-SD	A0D020496	Antimony	0.15	0.72	J	J	MS-J, RepLimit-J
CPCSD-046-5024-SD	A0C250600	Antimony	1.9	3.2	J	J	MS-J, RepLimit-J
CPCSD-046-5784-SD	A0C250600	Antimony	0.19	0.71	J	J	MS-J, RepLimit-J
CPCSD-047-5025-SD	A0D020496	Antimony	2.1	3.2	J	J	MS-J, RepLimit-J
CPCSD-047-5785-SD	A0D020496	Antimony	0.15	0.72	J	J	MS-J, RepLimit-J
CPCSD-048-5026-SD	A0D020496	Antimony	0.45	0.88	J	J	MS-J, RepLimit-J
CPCSD-048-5786-SD	A0D020496	Antimony	0.17	0.76	J	J	MS-J, RepLimit-J
CPCSD-046-5024-SD	A0C250600	Arsenic	18.8	3.2	-	J	ProJudge-J
CPCSD-046-5784-SD	A0C250600	Arsenic	5.5	0.71	-	J	ProJudge-J
CPCSD-044-5022-SD	A0C300541	Cadmium	0.10	0.26	J	J	RepLimit-J
CPCSD-047-5785-SD	A0D020496	Cadmium	0.24	0.29	J	J	RepLimit-J
CPCSD-048-5786-SD	A0D020496	Cadmium	0.28	0.30	J	J	RepLimit-J
CPCSD-044-5022-SD	A0C300541	Calcium	1,260	265	-	J	MS-J
CPCSD-046-5024-SD	A0C250600	Calcium	4,440	1,300	-	J	MS-J
CPCSD-046-5784-SD	A0C250600	Calcium	1,650	284	-	J	MS-J
CPCSD-045-5023-SD	A0D020496	Chromium	103	2.9	-	J	MS-J
CPCSD-045-5783-SD	A0D020496	Chromium	21.3	0.72	-	J	MS-J
CPCSD-047-5025-SD	A0D020496	Chromium	24.3	3.2	-	J	MS-J
CPCSD-047-5785-SD	A0D020496	Chromium	16.6	0.72	-	J	MS-J
CPCSD-048-5026-SD	A0D020496	Chromium	9.9	0.88	-	J	MS-J
CPCSD-048-5786-SD	A0D020496	Chromium	13.1	0.76	-	J	MS-J
CPCSD-045-5023-SD	A0D020496	Copper	103	2.9	-	J	ProJudge-J
CPCSD-045-5783-SD	A0D020496	Copper	18.0	0.72	-	J	ProJudge-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSD-047-5025-SD	A0D020496	Copper	62.3	3.2	-	J	ProJudge-J
CPCSD-047-5785-SD	A0D020496	Copper	14.0	0.72	-	J	ProJudge-J
PCSD-048-5026-SD	A0D020496	Copper	11.9	0.88	-	J	ProJudge-J
CPCSD-048-5786-SD	A0D020496	Copper	12.1	0.76	-	J	ProJudge-J
CPCSD-046-5024-SD	A0C250600	Lead	52.4	1.9	-	J	MS-J
CPCSD-046-5784-SD	A0C250600	Lead	13.5	0.43	-	J	MS-J
CPCSD-046-5024-SD	A0C250600	Magnesium	3,090	648	-	J	MS-J
CPCSD-046-5784-SD	A0C250600	Magnesium	1,770	142	-	J	MS-J
CPCSD-045-5023-SD	A0D020496	Mercury	0.082	0.58	J	J	RepLimit-J
CPCSD-045-5783-SD	A0D020496	Mercury	0.054	0.14	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Mercury	0.15	0.65	J	J	RepLimit-J
CPCSD-048-5026-SD	A0D020496	Mercury	0.036	0.18	J	J	RepLimit-J
CPCSD-048-5786-SD	A0D020496	Mercury	0.031	0.15	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Nickel	41.1	6.5	B	J	MS-J
CPCSD-046-5784-SD	A0C250600	Nickel	14.8	1.4	B	J	MS-J
CPCSD-046-5024-SD	A0C250600	Potassium	1,680	648	-	J	MS-J
CPCSD-046-5784-SD	A0C250600	Potassium	534	142	-	J	MS-J
CPCSD-044-5022-SD	A0C300541	Selenium	1.1	0.66	-	J	LCS-J
CPCSD-045-5023-SD	A0D020496	Selenium	2.2	2.9	J	J	LCS-J, RepLimit-J
CPCSD-045-5783-SD	A0D020496	Selenium	1.0	0.72	-	J	LCS-J
CPCSD-046-5024-SD	A0C250600	Selenium	2.9	3.2	J	J	RepLimit-J
CPCSD-047-5025-SD	A0D020496	Selenium	2.7	3.2	J	J	LCS-J, RepLimit-J
CPCSD-047-5785-SD	A0D020496	Selenium	0.77	0.72	-	J	LCS-J
CPCSD-048-5026-SD	A0D020496	Selenium	0.79	0.88	J	J	LCS-J, RepLimit-J
CPCSD-048-5786-SD	A0D020496	Selenium	0.86	0.76	-	J	LCS-J
CPCSD-044-5022-SD	A0C300541	Silver	0.052	0.66	J	J	RepLimit-J
CPCSD-045-5023-SD	A0D020496	Silver	1.7	2.9	J	J	RepLimit-J
CPCSD-045-5783-SD	A0D020496	Silver	0.075	0.72	J	J	RepLimit-J
CPCSD-046-5784-SD	A0C250600	Silver	0.090	0.71	J	J	RepLimit-J
CPCSD-047-5785-SD	A0D020496	Silver	0.25	0.72	J	J	RepLimit-J
CPCSD-048-5786-SD	A0D020496	Silver	0.71	0.76	J	J	RepLimit-J
CPCSD-044-5022-SD	A0C300541	Sodium	47.3	132	J	J	RepLimit-J
CPCSD-045-5023-SD	A0D020496	Sodium	142	576	J	J	RepLimit-J
CPCSD-045-5783-SD	A0D020496	Sodium	86.9	144	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Sodium	142	648	J	J	RepLimit-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSD-046-5784-SD	A0C250600	Sodium	58.4	142	J	J	RepLimit-J
CPCSD-047-5025-SD	A0D020496	Sodium	178	642	J	J	RepLimit-J
CPCSD-047-5785-SD	A0D020496	Sodium	56.9	145	J	J	RepLimit-J
CPCSD-048-5026-SD	A0D020496	Sodium	73.0	176	J	J	RepLimit-J
CPCSD-048-5786-SD	A0D020496	Sodium	85.5	151	J	J	RepLimit-J
CPCSD-044-5022-SD	A0C300541	Thallium	0.13	0.26	J	J	RepLimit-J
CPCSD-045-5023-SD	A0D020496	Thallium	0.41	1.2	J	J	RepLimit-J
CPCSD-045-5783-SD	A0D020496	Thallium	0.21	0.29	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Thallium	0.37	1.3	J	J	RepLimit-J
CPCSD-046-5784-SD	A0C250600	Thallium	0.13	0.28	J	J	RepLimit-J
CPCSD-047-5785-SD	A0D020496	Thallium	0.15	0.29	J	J	RepLimit-J
CPCSD-048-5026-SD	A0D020496	Thallium	0.16	0.35	J	J	RepLimit-J
CPCSD-048-5786-SD	A0D020496	Thallium	0.15	0.30	J	J	RepLimit-J
CPCSD-044-5022-SD	A0C300541	Zinc	53.1	5.3	-	J	MS-J
<b>Soil (mg/kg)</b>							
CPCSB-031-5109-SO	A0C250600	Aluminum	13,400	13.4	E	J	ProJudge-J
CPCSB-032-5113-SO	A0C250600	Aluminum	12,200	12.3	-	J	ProJudge-J
CPCSB-032-5114-SO	A0C250600	Aluminum	9,420	11.6	-	J	ProJudge-J
CPCSB-032-5116-SO	A0C250600	Aluminum	11,000	11.7	-	J	ProJudge-J
CPCSB-032-6073-FD	A0C250600	Aluminum	8,690	12.0	-	J	ProJudge-J
CPCSB-030-5105-SO	A0C300541	Antimony	0.67	0.67	U	UJ	MS-UJ
CPCSB-031-5109-SO	A0C250600	Antimony	0.12	0.67	J	J	MS-J, RepLimit-J
CPCSB-032-5113-SO	A0C250600	Antimony	0.086	0.62	J	J	MS-J, RepLimit-J
CPCSB-032-5114-SO	A0C250600	Antimony	0.13	0.58	J	J	MS-J, RepLimit-J
CPCSB-032-5115-SO	A0C250560	Antimony	0.60	0.60	U	R	MS-R
CPCSB-032-5116-SO	A0C250600	Antimony	0.58	0.58	U	UJ	MS-UJ
CPCSB-032-6073-FD	A0C250600	Antimony	0.60	0.60	U	UJ	MS-UJ
CPCSB-034-5119-SO	A0C300541	Antimony	0.72	0.72	U	UJ	MS-UJ
CPCSB-034-5120-SO	A0C300541	Antimony	0.64	0.64	U	UJ	MS-UJ
CPCSB-035-5123-SO	A0C300541	Antimony	0.088	0.66	J	J	MS-J, RepLimit-J
CPCSB-035-5124-SO	A0C300541	Antimony	0.084	0.62	J	J	MS-J, RepLimit-J
CPCSB-035-5125-SO	A0C300533	Antimony	0.086	0.62	J	J	MS-J, RepLimit-J
CPCSB-035-6072-FD	A0C300541	Antimony	0.079	0.62	J	J	MS-J, RepLimit-J
CPCSS-036-5014-SO	A0B240490	Antimony	0.66	0.66	U	R	MS-R
CPCSS-037-5015-SO	A0B240490	Antimony	0.76	0.76	U	R	MS-R

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSS-037-6041-FD	A0B240490	Antimony	0.74	0.74	U	R	MS-R
CPCSS-038-5016-SO	A0B240490	Antimony	0.65	0.65	U	R	MS-R
CPCSS-039-5017-SO	A0B240490	Antimony	0.63	0.63	U	R	MS-R
CPCSS-040-5018-SO	A0B240490	Antimony	0.67	0.67	U	R	MS-R
CPCSS-041-5019-SO	A0B240490	Antimony	0.66	0.66	U	R	MS-R
CPCSS-042-5020-SO	A0B240490	Antimony	0.69	0.69	U	R	MS-R
CPCSS-043-5021-SO	A0B240490	Antimony	0.23	1.1	J	J	MS-J, RepLimit-J
CPCSB-031-5109-SO	A0C250600	Arsenic	15.1	0.67	E	J	ProJudge-J
CPCSB-032-5113-SO	A0C250600	Arsenic	13.1	0.62	-	J	ProJudge-J
CPCSB-032-5114-SO	A0C250600	Arsenic	17.9	0.58	-	J	ProJudge-J
CPCSB-032-5116-SO	A0C250600	Arsenic	15.9	0.58	-	J	ProJudge-J
CPCSB-032-6073-FD	A0C250600	Arsenic	11.1	0.60	-	J	ProJudge-J
CPCSS-036-5014-SO	A0B240490	Arsenic	6.8	0.66	-	J	MS-J
CPCSS-037-5015-SO	A0B240490	Arsenic	6.7	0.76	-	J	MS-J
CPCSS-037-6041-FD	A0B240490	Arsenic	6.0	0.74	-	J	MS-J
CPCSS-038-5016-SO	A0B240490	Arsenic	11.2	0.65	-	J	MS-J
CPCSS-039-5017-SO	A0B240490	Arsenic	11.0	0.63	-	J	MS-J
CPCSS-040-5018-SO	A0B240490	Arsenic	6.2	0.67	-	J	MS-J
CPCSS-041-5019-SO	A0B240490	Arsenic	11.3	0.66	-	J	MS-J
CPCSS-042-5020-SO	A0B240490	Arsenic	7.1	0.69	-	J	MS-J
CPCSS-043-5021-SO	A0B240490	Arsenic	10.8	1.1	-	J	MS-J
CPCSB-032-5115-SO	A0C250560	Barium	49.1	1.2	-	J	MS-J
CPCSS-036-5014-SO	A0B240490	Barium	61.8	1.3	-	J	MS-J
CPCSS-037-5015-SO	A0B240490	Barium	57.6	1.5	-	J	MS-J
CPCSS-037-6041-FD	A0B240490	Barium	64.5	1.5	-	J	MS-J
CPCSS-038-5016-SO	A0B240490	Barium	43.3	1.3	-	J	MS-J
CPCSS-039-5017-SO	A0B240490	Barium	38.7	1.3	-	J	MS-J
CPCSS-040-5018-SO	A0B240490	Barium	62.9	1.3	-	J	MS-J
CPCSS-041-5019-SO	A0B240490	Barium	47.3	1.3	-	J	MS-J
CPCSS-042-5020-SO	A0B240490	Barium	57.3	1.4	-	J	MS-J
CPCSS-043-5021-SO	A0B240490	Barium	59.6	2.2	-	J	MS-J
CPCSB-032-6073-FD	A0C250600	Beryllium	0.58	0.60	J G	J	RepLimit-J
CPCSS-043-5021-SO	A0B240490	Beryllium	0.48	2.2	J G	J	RepLimit-J
CPCSB-030-5105-SO	A0C300541	Cadmium	0.053	0.27	J	J	RepLimit-J
CPCSB-031-5109-SO	A0C250600	Cadmium	0.17	0.27	J	J	RepLimit-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSB-032-5113-SO	A0C250600	Cadmium	0.095	0.25	J	J	RepLimit-J
CPCSB-032-5114-SO	A0C250600	Cadmium	0.046	0.23	J	J	RepLimit-J
CPCSB-032-5115-SO	A0C250560	Cadmium	0.035	0.24	J	J	RepLimit-J
CPCSB-032-5116-SO	A0C250600	Cadmium	0.032	0.23	J	J	RepLimit-J
CPCSB-032-6073-FD	A0C250600	Cadmium	0.069	0.24	J	J	RepLimit-J
CPCSB-034-5119-SO	A0C300541	Cadmium	0.19	0.29	J	J	RepLimit-J
CPCSB-034-5120-SO	A0C300541	Cadmium	0.068	0.25	J	J	RepLimit-J
CPCSB-035-5123-SO	A0C300541	Cadmium	0.20	0.26	J	J	RepLimit-J
CPCSB-035-5124-SO	A0C300541	Cadmium	0.18	0.25	J	J	RepLimit-J
CPCSB-035-5125-SO	A0C300533	Cadmium	0.053	0.25	J	J	RepLimit-J
CPCSB-035-6072-FD	A0C300541	Cadmium	0.078	0.25	J	J	RepLimit-J
CPCSS-036-5014-SO	A0B240490	Cadmium	0.058	0.26	J	J	RepLimit-J
CPCSS-037-5015-SO	A0B240490	Cadmium	0.26	0.30	J	J	RepLimit-J
CPCSS-037-6041-FD	A0B240490	Cadmium	0.20	0.30	J	J	RepLimit-J
CPCSS-038-5016-SO	A0B240490	Cadmium	0.058	0.26	J	J	RepLimit-J
CPCSS-039-5017-SO	A0B240490	Cadmium	0.10	0.25	J	J	RepLimit-J
CPCSS-040-5018-SO	A0B240490	Cadmium	0.10	0.27	J	J	RepLimit-J
CPCSS-041-5019-SO	A0B240490	Cadmium	0.18	0.26	J	J	RepLimit-J
CPCSS-042-5020-SO	A0B240490	Cadmium	0.17	0.27	J	J	RepLimit-J
CPCSS-043-5021-SO	A0B240490	Cadmium	0.20	0.45	J	J	RepLimit-J
CPCSB-030-5105-SO	A0C300541	Calcium	1,130	266	-	J	MS-J
CPCSB-031-5109-SO	A0C250600	Calcium	1,680	268	-	J	MS-J
CPCSB-032-5113-SO	A0C250600	Calcium	1,360	246	-	J	MS-J
CPCSB-032-5114-SO	A0C250600	Calcium	1,530	233	-	J	MS-J
CPCSB-032-5116-SO	A0C250600	Calcium	8,240	233	-	J	MS-J
CPCSB-032-6073-FD	A0C250600	Calcium	1,850	1,200	-	J	MS-J
CPCSB-034-5119-SO	A0C300541	Calcium	2,400	289	-	J	MS-J
CPCSB-034-5120-SO	A0C300541	Calcium	1,080	255	-	J	MS-J
CPCSB-035-5123-SO	A0C300541	Calcium	3,810	263	-	J	MS-J
CPCSB-035-5124-SO	A0C300541	Calcium	6,870	250	-	J	MS-J
CPCSB-035-5125-SO	A0C300533	Calcium	2,340	249	-	J	MS-J
CPCSB-035-6072-FD	A0C300541	Calcium	3,420	248	-	J	MS-J
CPCSS-036-5014-SO	A0B240490	Calcium	804	263	-	J	MS-J
CPCSS-037-5015-SO	A0B240490	Calcium	725	304	-	J	MS-J
CPCSS-037-6041-FD	A0B240490	Calcium	689	297	-	J	MS-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSS-038-5016-SO	A0B240490	Calcium	279	259	-	J	MS-J
CPCSS-039-5017-SO	A0B240490	Calcium	1,500	251	-	J	MS-J
CPCSS-040-5018-SO	A0B240490	Calcium	290	268	-	J	MS-J
CPCSS-041-5019-SO	A0B240490	Calcium	975	265	-	J	MS-J
CPCSS-042-5020-SO	A0B240490	Calcium	737	275	-	J	MS-J
CPCSS-043-5021-SO	A0B240490	Calcium	2,090	448	-	J	MS-J
CPCSS-036-5014-SO	A0B240490	Chromium	15.9	0.66	-	J	MS-J
CPCSS-037-5015-SO	A0B240490	Chromium	14.6	0.76	-	J	MS-J
CPCSS-037-6041-FD	A0B240490	Chromium	12.6	0.74	-	J	MS-J
CPCSS-038-5016-SO	A0B240490	Chromium	17.2	0.65	-	J	MS-J
CPCSS-039-5017-SO	A0B240490	Chromium	11.7	0.63	-	J	MS-J
CPCSS-040-5018-SO	A0B240490	Chromium	12.2	0.67	-	J	MS-J
CPCSS-041-5019-SO	A0B240490	Chromium	15.3	0.66	-	J	MS-J
CPCSS-042-5020-SO	A0B240490	Chromium	12.5	0.69	-	J	MS-J
CPCSS-043-5021-SO	A0B240490	Chromium	18.7	1.1	-	J	MS-J
CPCSS-036-5014-SO	A0B240490	Copper	12.3	0.66	-	J	MS-J
CPCSS-037-5015-SO	A0B240490	Copper	14.0	0.76	-	J	MS-J
CPCSS-037-6041-FD	A0B240490	Copper	10.2	0.74	-	J	MS-J
CPCSS-038-5016-SO	A0B240490	Copper	14.4	0.65	-	J	MS-J
CPCSS-039-5017-SO	A0B240490	Copper	19.9	0.63	-	J	MS-J
CPCSS-040-5018-SO	A0B240490	Copper	5.4	0.67	-	J	MS-J
CPCSS-041-5019-SO	A0B240490	Copper	11.9	0.66	-	J	MS-J
CPCSS-042-5020-SO	A0B240490	Copper	9.6	0.69	-	J	MS-J
CPCSS-043-5021-SO	A0B240490	Copper	20.2	1.1	-	J	MS-J
CPCSB-031-5109-SO	A0C250600	Lead	19.9	0.40	-	J	MS-J
CPCSB-032-5113-SO	A0C250600	Lead	15.7	0.37	-	J	MS-J
CPCSB-032-5114-SO	A0C250600	Lead	11.9	0.35	-	J	MS-J
CPCSB-032-5116-SO	A0C250600	Lead	11.2	0.35	-	J	MS-J
CPCSB-032-6073-FD	A0C250600	Lead	11.3	0.36	-	J	MS-J
CPCSB-031-5109-SO	A0C250600	Magnesium	3,540	134	-	J	MS-J
CPCSB-032-5113-SO	A0C250600	Magnesium	3,290	123	-	J	MS-J
CPCSB-032-5114-SO	A0C250600	Magnesium	2,830	116	-	J	MS-J
CPCSB-032-5115-SO	A0C250560	Magnesium	5,460	120	-	J	MS-J
CPCSB-032-5116-SO	A0C250600	Magnesium	7,120	117	-	J	MS-J
CPCSB-032-6073-FD	A0C250600	Magnesium	2,650	120	-	J	MS-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSS-036-5014-SO	A0B240490	Magnesium	2,200	132	-	J	MS-J
CPCSS-037-5015-SO	A0B240490	Magnesium	2,370	152	-	J	MS-J
CPCSS-037-6041-FD	A0B240490	Magnesium	2,080	148	-	J	MS-J
CPCSS-038-5016-SO	A0B240490	Magnesium	2,930	130	-	J	MS-J
CPCSS-039-5017-SO	A0B240490	Magnesium	1,980	126	-	J	MS-J
CPCSS-040-5018-SO	A0B240490	Magnesium	1,810	134	-	J	MS-J
CPCSS-041-5019-SO	A0B240490	Magnesium	2,350	132	-	J	MS-J
CPCSS-042-5020-SO	A0B240490	Magnesium	1,970	137	-	J	MS-J
CPCSS-043-5021-SO	A0B240490	Magnesium	3,230	224	-	J	MS-J
CPCSB-030-5105-SO	A0C300541	Mercury	0.023	0.13	J	J	RepLimit-J
CPCSB-031-5109-SO	A0C250600	Mercury	0.021	0.13	J	J	RepLimit-J
CPCSB-035-5123-SO	A0C300541	Mercury	0.034	0.13	J	J	RepLimit-J
CPCSB-035-5124-SO	A0C300541	Mercury	0.022	0.12	J	J	RepLimit-J
CPCSS-037-5015-SO	A0B240490	Mercury	0.045	0.15	J	J	RepLimit-J
CPCSS-037-6041-FD	A0B240490	Mercury	0.063	0.15	J	J	RepLimit-J
CPCSS-038-5016-SO	A0B240490	Mercury	0.052	0.13	J	J	RepLimit-J
CPCSS-039-5017-SO	A0B240490	Mercury	0.023	0.13	J	J	RepLimit-J
CPCSS-040-5018-SO	A0B240490	Mercury	0.052	0.13	J	J	RepLimit-J
CPCSS-041-5019-SO	A0B240490	Mercury	0.047	0.13	J	J	RepLimit-J
CPCSS-042-5020-SO	A0B240490	Mercury	0.072	0.14	J	J	RepLimit-J
CPCSS-043-5021-SO	A0B240490	Mercury	0.074	0.22	J	J	RepLimit-J
CPCSB-031-5109-SO	A0C250600	Nickel	24.6	1.3	B	J	MS-J
CPCSB-032-5113-SO	A0C250600	Nickel	25.7	1.2	B	J	MS-J
CPCSB-032-5114-SO	A0C250600	Nickel	26.5	1.2	B	J	MS-J
CPCSB-032-5115-SO	A0C250560	Nickel	27.7	1.2	-	J	MS-J
CPCSB-032-5116-SO	A0C250600	Nickel	31.7	1.2	B	J	MS-J
CPCSB-032-6073-FD	A0C250600	Nickel	21.5	1.2	B	J	MS-J
CPCSS-036-5014-SO	A0B240490	Nickel	12.3	1.3	-	J	MS-J
CPCSS-037-5015-SO	A0B240490	Nickel	16.5	1.5	-	J	MS-J
CPCSS-037-6041-FD	A0B240490	Nickel	14.3	1.5	-	J	MS-J
CPCSS-038-5016-SO	A0B240490	Nickel	18.0	1.3	-	J	MS-J
CPCSS-039-5017-SO	A0B240490	Nickel	17.6	1.3	-	J	MS-J
CPCSS-040-5018-SO	A0B240490	Nickel	10.8	1.3	-	J	MS-J
CPCSS-041-5019-SO	A0B240490	Nickel	13.9	1.3	-	J	MS-J
CPCSS-042-5020-SO	A0B240490	Nickel	12.4	1.4	-	J	MS-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSS-043-5021-SO	A0B240490	Nickel	23.2	2.2	-	J	MS-J
CPCSB-031-5109-SO	A0C250600	Potassium	1,040	134	-	J	MS-J
CPCSB-032-5113-SO	A0C250600	Potassium	1,090	123	-	J	MS-J
CPCSB-032-5114-SO	A0C250600	Potassium	1,050	116	-	J	MS-J
CPCSB-032-5115-SO	A0C250560	Potassium	1,890	120	-	J	MS-J
CPCSB-032-5116-SO	A0C250600	Potassium	2,190	117	-	J	MS-J
CPCSB-032-6073-FD	A0C250600	Potassium	959	602	-	J	MS-J
CPCSS-036-5014-SO	A0B240490	Potassium	571	132	-	J	MS-J
CPCSS-037-5015-SO	A0B240490	Potassium	788	152	-	J	MS-J
CPCSS-037-6041-FD	A0B240490	Potassium	560	148	-	J	MS-J
CPCSS-038-5016-SO	A0B240490	Potassium	785	130	-	J	MS-J
CPCSS-039-5017-SO	A0B240490	Potassium	612	126	-	J	MS-J
CPCSS-040-5018-SO	A0B240490	Potassium	671	134	-	J	MS-J
CPCSS-041-5019-SO	A0B240490	Potassium	1,090	132	-	J	MS-J
CPCSS-042-5020-SO	A0B240490	Potassium	786	137	-	J	MS-J
CPCSS-043-5021-SO	A0B240490	Potassium	840	224	-	J	MS-J
CPCSB-030-5105-SO	A0C300541	Selenium	0.79	0.67	-	J	LCS-J
CPCSB-032-5115-SO	A0C250560	Selenium	0.88	0.60	-	J	MS-J
CPCSB-034-5119-SO	A0C300541	Selenium	1.2	0.72	-	J	LCS-J
CPCSB-034-5120-SO	A0C300541	Selenium	1.2	0.64	-	J	LCS-J
CPCSB-035-5123-SO	A0C300541	Selenium	1.0	0.66	-	J	LCS-J
CPCSB-035-5124-SO	A0C300541	Selenium	1.0	0.62	-	J	LCS-J
CPCSB-035-5125-SO	A0C300533	Selenium	1.1	0.62	-	J	LCS-J
CPCSB-035-6072-FD	A0C300541	Selenium	1.5	0.62	-	J	LCS-J
CPCSS-038-5016-SO	A0B240490	Selenium	0.63	0.65	J	J	RepLimit-J
CPCSS-042-5020-SO	A0B240490	Selenium	0.67	0.69	J	J	RepLimit-J
CPCSS-043-5021-SO	A0B240490	Selenium	0.96	1.1	J	J	RepLimit-J
CPCSB-030-5105-SO	A0C300541	Silver	0.046	0.67	J	J	RepLimit-J
CPCSB-031-5109-SO	A0C250600	Silver	0.032	0.67	J	J	RepLimit-J
CPCSB-032-5113-SO	A0C250600	Silver	0.022	0.62	J	UJ	RepLimit-J, CalBlk-U
CPCSB-032-5114-SO	A0C250600	Silver	0.0078	0.58	J	UJ	RepLimit-J, CalBlk-U
CPCSB-032-5115-SO	A0C250560	Silver	0.029	0.60	J	J	RepLimit-J
CPCSB-032-5116-SO	A0C250600	Silver	0.024	0.58	J	UJ	RepLimit-J,

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
							CalBlk-U
CPCSB-032-6073-FD	A0C250600	Silver	0.016	0.60	J	UJ	RepLimit-J, CalBlk-U
CPCSB-034-5119-SO	A0C300541	Silver	0.014	0.72	J	UJ	RepLimit-J, CalBlk-U
CPCSB-034-5120-SO	A0C300541	Silver	0.0098	0.64	J	UJ	RepLimit-J, CalBlk-U
CPCSB-035-5123-SO	A0C300541	Silver	0.038	0.66	J	J	RepLimit-J
CPCSB-035-5124-SO	A0C300541	Silver	0.026	0.62	J	UJ	RepLimit-J, CalBlk-U
CPCSB-035-5125-SO	A0C300533	Silver	0.013	0.62	J	J	RepLimit-J
CPCSB-035-6072-FD	A0C300541	Silver	0.033	0.62	J	J	RepLimit-J
CPCSS-036-5014-SO	A0B240490	Silver	0.028	0.66	J	UJ	RepLimit-J, CalBlk-U
CPCSS-037-5015-SO	A0B240490	Silver	0.062	0.76	J	J	RepLimit-J
CPCSS-037-6041-FD	A0B240490	Silver	0.043	0.74	J	UJ	RepLimit-J, CalBlk-U
CPCSS-038-5016-SO	A0B240490	Silver	0.034	0.65	J	UJ	RepLimit-J, CalBlk-U
CPCSS-039-5017-SO	A0B240490	Silver	0.021	0.63	J	UJ	RepLimit-J, CalBlk-U
CPCSS-040-5018-SO	A0B240490	Silver	0.040	0.67	J	UJ	RepLimit-J, CalBlk-U
CPCSS-041-5019-SO	A0B240490	Silver	0.040	0.66	J	UJ	RepLimit-J, CalBlk-U
CPCSS-042-5020-SO	A0B240490	Silver	0.057	0.69	J	J	RepLimit-J
CPCSS-043-5021-SO	A0B240490	Silver	0.085	1.1	J	J	RepLimit-J
CPCSB-030-5105-SO	A0C300541	Sodium	38.4	133	J	J	RepLimit-J
CPCSB-031-5109-SO	A0C250600	Sodium	43.3	134	J	J	RepLimit-J
CPCSB-032-5113-SO	A0C250600	Sodium	47.0	123	J	J	RepLimit-J
CPCSB-032-5114-SO	A0C250600	Sodium	46.6	116	J	J	RepLimit-J
CPCSB-032-5115-SO	A0C250560	Sodium	78.4	120	J	J	RepLimit-J
CPCSB-032-5116-SO	A0C250600	Sodium	110	117	J	J	RepLimit-J
CPCSB-032-6073-FD	A0C250600	Sodium	46.6	120	J	J	RepLimit-J
CPCSB-034-5119-SO	A0C300541	Sodium	108	144	J	J	RepLimit-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSB-034-5120-SO	A0C300541	Sodium	40.8	127	J	J	RepLimit-J
CPCSB-035-5123-SO	A0C300541	Sodium	40.7	131	J	J	RepLimit-J
CPCSB-035-5124-SO	A0C300541	Sodium	44.5	125	J	J	RepLimit-J
CPCSB-035-5125-SO	A0C300533	Sodium	46.9	125	J	J	RepLimit-J
CPCSB-035-6072-FD	A0C300541	Sodium	58.8	124	J	J	RepLimit-J
CPCSS-036-5014-SO	A0B240490	Sodium	42.7	132	J	J	RepLimit-J
CPCSS-037-5015-SO	A0B240490	Sodium	62.8	152	J	J	RepLimit-J
CPCSS-037-6041-FD	A0B240490	Sodium	66.8	148	J	J	RepLimit-J
CPCSS-038-5016-SO	A0B240490	Sodium	51.0	130	J	J	RepLimit-J
CPCSS-039-5017-SO	A0B240490	Sodium	48.8	126	J	J	RepLimit-J
CPCSS-040-5018-SO	A0B240490	Sodium	47.6	134	J	J	RepLimit-J
CPCSS-041-5019-SO	A0B240490	Sodium	44.9	132	J	J	RepLimit-J
CPCSS-042-5020-SO	A0B240490	Sodium	46.5	137	J	J	RepLimit-J
CPCSS-043-5021-SO	A0B240490	Sodium	70.7	224	J	J	RepLimit-J
CPCSB-030-5105-SO	A0C300541	Thallium	0.12	0.27	J	J	RepLimit-J
CPCSB-031-5109-SO	A0C250600	Thallium	0.18	0.27	J	J	RepLimit-J
CPCSB-032-5113-SO	A0C250600	Thallium	0.18	0.25	J	J	RepLimit-J
CPCSB-032-5114-SO	A0C250600	Thallium	0.14	0.23	J	J	RepLimit-J
CPCSB-032-5115-SO	A0C250560	Thallium	0.17	0.24	J	J	RepLimit-J
CPCSB-032-5116-SO	A0C250600	Thallium	0.16	0.23	J	J	RepLimit-J
CPCSB-032-6073-FD	A0C250600	Thallium	0.12	0.24	J	J	RepLimit-J
CPCSB-034-5119-SO	A0C300541	Thallium	0.14	0.29	J	J	RepLimit-J
CPCSB-034-5120-SO	A0C300541	Thallium	0.093	0.25	J	J	RepLimit-J
CPCSB-035-5123-SO	A0C300541	Thallium	0.14	0.26	J	J	RepLimit-J
CPCSB-035-5124-SO	A0C300541	Thallium	0.13	0.25	J	J	RepLimit-J
CPCSB-035-5125-SO	A0C300533	Thallium	0.17	0.25	J	J	RepLimit-J
CPCSB-035-6072-FD	A0C300541	Thallium	0.19	0.25	J	J	RepLimit-J
CPCSS-036-5014-SO	A0B240490	Thallium	0.19	0.26	J	J	RepLimit-J
CPCSS-037-5015-SO	A0B240490	Thallium	0.17	0.30	J	J	RepLimit-J
CPCSS-037-6041-FD	A0B240490	Thallium	0.18	0.30	J	J	RepLimit-J
CPCSS-038-5016-SO	A0B240490	Thallium	0.18	0.26	J	J	RepLimit-J
CPCSS-039-5017-SO	A0B240490	Thallium	0.11	0.25	J	J	RepLimit-J
CPCSS-040-5018-SO	A0B240490	Thallium	0.20	0.27	J	J	RepLimit-J
CPCSS-041-5019-SO	A0B240490	Thallium	0.16	0.26	J	J	RepLimit-J
CPCSS-042-5020-SO	A0B240490	Thallium	0.16	0.27	J	J	RepLimit-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSS-043-5021-SO	A0B240490	Thallium	0.13	0.45	J	J	RepLimit-J
CPCSS-036-5014-SO	A0B240490	Vanadium	26.3	1.3	-	J	MS-J
CPCSS-037-5015-SO	A0B240490	Vanadium	18.7	1.5	-	J	MS-J
CPCSS-037-6041-FD	A0B240490	Vanadium	18.4	1.5	-	J	MS-J
CPCSS-038-5016-SO	A0B240490	Vanadium	21.5	1.3	-	J	MS-J
CPCSS-039-5017-SO	A0B240490	Vanadium	14.1	1.3	-	J	MS-J
CPCSS-040-5018-SO	A0B240490	Vanadium	17.6	1.3	-	J	MS-J
CPCSS-041-5019-SO	A0B240490	Vanadium	21.6	1.3	-	J	MS-J
CPCSS-042-5020-SO	A0B240490	Vanadium	18.4	1.4	-	J	MS-J
CPCSS-043-5021-SO	A0B240490	Vanadium	17.0	2.2	-	J	MS-J
CPCSB-030-5105-SO	A0C300541	Zinc	49.7	5.3	-	J	MS-J
CPCSB-034-5119-SO	A0C300541	Zinc	96.4	5.8	-	J	MS-J
CPCSB-034-5120-SO	A0C300541	Zinc	57.2	5.1	-	J	MS-J
CPCSB-035-5123-SO	A0C300541	Zinc	61.9	5.3	-	J	MS-J
CPCSB-035-5124-SO	A0C300541	Zinc	61.9	5.0	-	J	MS-J
CPCSB-035-5125-SO	A0C300533	Zinc	65.4	5.0	-	J	MS-J
CPCSB-035-6072-FD	A0C300541	Zinc	86.0	5.0	-	J	MS-J
CPCSS-036-5014-SO	A0B240490	Zinc	54.1	5.3	B	J	MS-J
CPCSS-037-5015-SO	A0B240490	Zinc	60.8	6.1	B	J	MS-J
CPCSS-037-6041-FD	A0B240490	Zinc	48.3	5.9	B	J	MS-J
CPCSS-038-5016-SO	A0B240490	Zinc	49.1	5.2	B	J	MS-J
CPCSS-039-5017-SO	A0B240490	Zinc	54.6	5.0	B	J	MS-J
CPCSS-040-5018-SO	A0B240490	Zinc	51.8	5.4	B	J	MS-J
CPCSS-041-5019-SO	A0B240490	Zinc	57.8	5.3	B	J	MS-J
CPCSS-042-5020-SO	A0B240490	Zinc	52.8	5.5	B	J	MS-J
CPCSS-043-5021-SO	A0B240490	Zinc	63.5	9.0	B	J	MS-J
<b>Surface Water (µg/L)</b>							
CPCSW-044-5027-SW	A0C300541	Antimony	0.73	5.0	J	J	RepLimit-J
CPCSW-045-5028-SW	A0D020496	Antimony	0.88	5.0	J	J	RepLimit-J
CPCSW-046-5029-SW	A0C250600	Antimony	0.94	5.0	J	J	RepLimit-J
CPCSW-047-5030-SW	A0D020496	Antimony	0.96	5.0	J	J	RepLimit-J
CPCSW-047-6045-FD	A0D020496	Antimony	0.95	5.0	J	J	RepLimit-J
CPCSW-048-5031-SW	A0D020496	Antimony	1.0	5.0	J	J	RepLimit-J
CPCSW-044-5027-SW	A0C300541	Arsenic	0.78	5.0	J	J	RepLimit-J
CPCSW-045-5028-SW	A0D020496	Arsenic	0.92	5.0	J	J	RepLimit-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSW-046-5029-SW	A0C250600	Arsenic	0.78	5.0	J	J	RepLimit-J
CPCSW-047-5030-SW	A0D020496	Arsenic	1.0	5.0	J	J	RepLimit-J
CPCSW-047-6045-FD	A0D020496	Arsenic	0.86	5.0	J	J	RepLimit-J
CPCSW-048-5031-SW	A0D020496	Arsenic	0.90	5.0	J	J	RepLimit-J
CPCSW-045-5028-SW	A0D020496	Beryllium	0.034	1.0	J	J	RepLimit-J
CPCSW-047-5030-SW	A0D020496	Beryllium	0.064	1.0	J	J	RepLimit-J
CPCSW-047-6045-FD	A0D020496	Beryllium	0.076	1.0	J	J	RepLimit-J
CPCSW-048-5031-SW	A0D020496	Beryllium	0.053	1.0	J	J	RepLimit-J
CPCSW-045-5028-SW	A0D020496	Cadmium	0.043	2.0	J	J	RepLimit-J
CPCSW-047-5030-SW	A0D020496	Cadmium	0.062	2.0	J	J	RepLimit-J
CPCSW-047-6045-FD	A0D020496	Cadmium	0.039	2.0	J	J	RepLimit-J
CPCSW-048-5031-SW	A0D020496	Cadmium	0.057	2.0	J	J	RepLimit-J
CPCSW-044-5027-SW	A0C300541	Chromium	0.72	5.0	J B	UJ	MB-U, RepLimit-J
CPCSW-046-5029-SW	A0C250600	Chromium	0.59	5.0	J	J	RepLimit-J
CPCSW-047-5030-SW	A0D020496	Chromium	0.62	5.0	J	J	RepLimit-J
CPCSW-048-5031-SW	A0D020496	Chromium	0.56	5.0	J	J	RepLimit-J
CPCSW-044-5027-SW	A0C300541	Cobalt	0.18	5.0	J	UJ	RepLimit-J, CalBlk-U
CPCSW-045-5028-SW	A0D020496	Cobalt	0.15	5.0	J	J	RepLimit-J
CPCSW-046-5029-SW	A0C250600	Cobalt	0.24	5.0	J B	UJ	MB-U, RepLimit-J
CPCSW-047-5030-SW	A0D020496	Cobalt	0.39	5.0	J	J	RepLimit-J
CPCSW-047-6045-FD	A0D020496	Cobalt	0.27	5.0	J	J	RepLimit-J
CPCSW-048-5031-SW	A0D020496	Cobalt	0.41	5.0	J	J	RepLimit-J
CPCSW-044-5027-SW	A0C300541	Copper	1.6	5.0	J	J	RepLimit-J
CPCSW-045-5028-SW	A0D020496	Copper	1.6	5.0	J	J	RepLimit-J
CPCSW-046-5029-SW	A0C250600	Copper	1.9	5.0	J	J	RepLimit-J
CPCSW-047-5030-SW	A0D020496	Copper	2.1	5.0	J	J	RepLimit-J
CPCSW-047-6045-FD	A0D020496	Copper	1.8	5.0	J	J	RepLimit-J
CPCSW-048-5031-SW	A0D020496	Copper	1.9	5.0	J	J	RepLimit-J
CPCSW-044-5027-SW	A0C300541	Lead	0.32	3.0	J	J	RepLimit-J
CPCSW-045-5028-SW	A0D020496	Lead	0.29	3.0	J	J	RepLimit-J
CPCSW-046-5029-SW	A0C250600	Lead	0.39	3.0	J	J	RepLimit-J
CPCSW-047-5030-SW	A0D020496	Lead	0.47	3.0	J	J	RepLimit-J
CPCSW-047-6045-FD	A0D020496	Lead	0.30	3.0	J	J	RepLimit-J
CPCSW-048-5031-SW	A0D020496	Lead	0.32	3.0	J	J	RepLimit-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSW-044-5027-SW	A0C300541	Mercury	0.20	0.20	U	UJ	MS-UJ
CPCSW-044-5027-SW	A0C300541	Nickel	1.6	10.0	J	J	RepLimit-J
CPCSW-045-5028-SW	A0D020496	Nickel	1.4	10.0	J	J	RepLimit-J
CPCSW-046-5029-SW	A0C250600	Nickel	1.9	10.0	J	J	RepLimit-J
CPCSW-047-5030-SW	A0D020496	Nickel	1.9	10.0	J	J	RepLimit-J
CPCSW-047-6045-FD	A0D020496	Nickel	1.7	10.0	J	J	RepLimit-J
CPCSW-048-5031-SW	A0D020496	Nickel	2.0	10.0	J	J	RepLimit-J
CPCSW-045-5028-SW	A0D020496	Selenium	0.32	5.0	J	J	RepLimit-J
CPCSW-046-5029-SW	A0C250600	Selenium	0.24	5.0	J	J	RepLimit-J
CPCSW-047-5030-SW	A0D020496	Selenium	0.23	5.0	J	J	RepLimit-J
CPCSW-047-6045-FD	A0D020496	Selenium	0.20	5.0	J	J	RepLimit-J
CPCSW-048-5031-SW	A0D020496	Selenium	0.31	5.0	J	J	RepLimit-J
CPCSW-045-5028-SW	A0D020496	Silver	0.029	5.0	J	UJ	RepLimit-J, CalBlk-U
CPCSW-047-5030-SW	A0D020496	Silver	0.070	5.0	J	UJ	RepLimit-J, CalBlk-U
CPCSW-047-6045-FD	A0D020496	Silver	0.038	5.0	J	UJ	RepLimit-J, CalBlk-U
CPCSW-048-5031-SW	A0D020496	Silver	0.053	5.0	J	UJ	RepLimit-J, CalBlk-U
CPCSW-045-5028-SW	A0D020496	Thallium	0.35	2.0	J	J	RepLimit-J
CPCSW-047-5030-SW	A0D020496	Thallium	0.46	2.0	J	J	RepLimit-J
CPCSW-044-5027-SW	A0C300541	Vanadium	0.63	10.0	J	J	RepLimit-J
CPCSW-046-5029-SW	A0C250600	Vanadium	0.89	10.0	J	J	RepLimit-J
CPCSW-047-5030-SW	A0D020496	Vanadium	0.51	10.0	J	J	RepLimit-J
CPCSW-047-6045-FD	A0D020496	Vanadium	0.54	10.0	J	J	RepLimit-J
CPCSW-047-5030-SW	A0D020496	Zinc	10.9	40.0	J	J	LCS-J, RepLimit-J
CPCSW-048-5031-SW	A0D020496	Zinc	10.1	40.0	J	J	LCS-J, RepLimit-J
<i>Explosives</i>							
<i>Sediment (mg/kg)</i>							
CPCSD-046-5024-SD	A0C250600	1,3-Dinitrobenzene	0.036	0.24	J PG	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	2,4,6-Trinitrotoluene (TNT)	0.15	0.24	J	J	RepLimit-J
CPCSD-048-5026-SD	A0D020496	2,4,6-Trinitrotoluene (TNT)	0.088	0.26	J PG	J	RepLimit-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSD-046-5024-SD	A0C250600	4-Amino-2,6-Dinitrotoluene	0.12	0.24	J PG	J	RepLimit-J
CPCSD-045-5023-SD	A0D020496	Methyl-2,4,6-trinitrophenylnitramine (tetryl)	0.022	0.26	J PG	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Methyl-2,4,6-trinitrophenylnitramine (tetryl)	0.019	0.24	J PG	J	RepLimit-J
CPCSD-047-5025-SD	A0D020496	Methyl-2,4,6-trinitrophenylnitramine (tetryl)	0.024	0.25	J PG	J	RepLimit-J
CPCSD-044-5022-SD	A0C300541	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.017	0.25	J	J	RepLimit-J
CPCSD-045-5783-SD	A0D020496	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.015	0.24	J PG	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.083	0.24	J PG	J	RepLimit-J
<b>Soil (mg/kg)</b>							
CPCSS-043-5021-SO	A0B240490	4-Amino-2,6-dinitrotoluene	0.25	0.25	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Nitroglycerin	0.50	0.50	U	UJ	MS-UJ
<b>Surface Water (µg/L)</b>							
CPCSW-046-5029-SW	A0C250600	4-Amino-2,6-dinitrotoluene	0.072	0.14	J PG	J	RepLimit-J
CPCSW-047-5030-SW	A0D020496	4-Amino-2,6-dinitrotoluene	0.043	0.15	J	J	RepLimit-J
CPCSW-047-6045-FD	A0D020496	4-Amino-2,6-dinitrotoluene	0.036	0.15	J	J	RepLimit-J
CPCSW-048-5031-SW	A0D020496	4-Amino-2,6-dinitrotoluene	0.070	0.15	J	J	RepLimit-J
<b>Propellants</b>							
<b>Sediment (mg/kg)</b>							
CPCSD-045-5023-SD	A0D020496	Nitrocellulose	7.8	28.8	B	J	RepLimit-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSD-045-5783-SD	A0D020496	Nitrocellulose	1.9	7.2	B	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Nitrocellulose	5.7	32.4	B	J	RepLimit-J
CPCSD-047-5025-SD	A0D020496	Nitrocellulose	10.4	32.1	B	J	RepLimit-J
CPCSD-048-5026-SD	A0D020496	Nitrocellulose	3.1	8.8	B	J	RepLimit-J
<b>Soil (mg/kg)</b>							
CPCSB-035-5123-SO	A0C300541	Nitrocellulose	1.5	6.6	B	J	MS-J, RepLimit-J
CPCSB-035-5124-SO	A0C300541	Nitrocellulose	1.6	6.2	B	J	RepLimit-J
CPCSS-039-5017-SO	A0B240490	Nitrocellulose	1.2	6.3	B	J	RepLimit-J
CPCSW-045-5028-SW	A0D020496	Nitrocellulose	0.50	0.50	U	UJ	MS-UJ
<b>Surface Water (µg/L)</b>							
CPCSW-044-5027-SW	A0C300541	Nitroguanidine	20	20	U	UJ	HT-UJ
CPCSW-045-5028-SW	A0D020496	Nitroguanidine	20	20	U	UJ	HT-UJ
CPCSW-046-5029-SW	A0C250600	Nitroguanidine	20	20	U	UJ	HT-UJ
CPCSW-047-5030-SW	A0D020496	Nitroguanidine	20	20	U	UJ	HT-UJ
CPCSW-047-6045-FD	A0D020496	Nitroguanidine	20	20	U	UJ	HT-UJ
CPCSW-048-5031-SW	A0D020496	Nitroguanidine	20	20	U	UJ	HT-UJ
<b>Polycyclic Aromatic Hydrocarbons</b>							
<b>Sediment (µg/kg)</b>							
CPCSD-045-5783-SD	A0D020496	Acenaphthene	9.9	72	J	J	RepLimit-J
CPCSD-046-5784-SD	A0C250600	Acenaphthylene	20	71	J	J	RepLimit-J
CPCSD-045-5783-SD	A0D020496	Anthracene	70	72	J	J	RepLimit-J
CPCSD-046-5784-SD	A0C250600	Anthracene	10	71	J	J	RepLimit-J
CPCSD-047-5025-SD	A0D020496	Anthracene	74	320	J	J	RepLimit-J
CPCSD-044-5022-SD	A0C300541	Benz(a)anthracene	21	66	J	J	RepLimit-J
CPCSD-045-5023-SD	A0D020496	Benz(a)anthracene	45	290	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Benz(a)anthracene	78	320	J	J	RepLimit-J
CPCSD-046-5784-SD	A0C250600	Benz(a)anthracene	50	71	J	J	RepLimit-J
CPCSD-047-5785-SD	A0D020496	Benz(a)anthracene	27	72	J	J	RepLimit-J
CPCSD-048-5026-SD	A0D020496	Benz(a)anthracene	58	88	J	J	RepLimit-J
CPCSD-048-5786-SD	A0D020496	Benz(a)anthracene	15	76	J	J	RepLimit-J
CPCSD-044-5022-SD	A0C300541	Benzo(a)pyrene	20	66	J	J	RepLimit-J
CPCSD-045-5023-SD	A0D020496	Benzo(a)pyrene	52	290	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Benzo(a)pyrene	120	320	J	J	RepLimit-J
CPCSD-046-5784-SD	A0C250600	Benzo(a)pyrene	63	71	J	J	RepLimit-J
CPCSD-047-5785-SD	A0D020496	Benzo(a)pyrene	32	72	J	J	RepLimit-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSD-048-5026-SD	A0D020496	Benzo(a)pyrene	63	88	J	J	RepLimit-J
CPCSD-048-5786-SD	A0D020496	Benzo(a)pyrene	12	76	J	J	RepLimit-J
CPCSD-044-5022-SD	A0C300541	Benzo(b)fluoranthene	38	66	J	J	RepLimit-J
CPCSD-045-5023-SD	A0D020496	Benzo(b)fluoranthene	75	290	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Benzo(b)fluoranthene	190	320	J	J	RepLimit-J
CPCSD-047-5785-SD	A0D020496	Benzo(b)fluoranthene	64	72	J	J	RepLimit-J
CPCSD-048-5786-SD	A0D020496	Benzo(b)fluoranthene	25	76	J	J	RepLimit-J
CPCSD-044-5022-SD	A0C300541	Benzo(g,h,i)perylene	14	66	J	J	RepLimit-J
CPCSD-045-5023-SD	A0D020496	Benzo(g,h,i)perylene	45	290	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Benzo(g,h,i)perylene	110	320	J	J	RepLimit-J
CPCSD-046-5784-SD	A0C250600	Benzo(g,h,i)perylene	61	71	J	J	RepLimit-J
CPCSD-047-5025-SD	A0D020496	Benzo(g,h,i)perylene	270	320	J	J	RepLimit-J
CPCSD-047-5785-SD	A0D020496	Benzo(g,h,i)perylene	29	72	J	J	RepLimit-J
CPCSD-048-5026-SD	A0D020496	Benzo(g,h,i)perylene	50	88	J	J	RepLimit-J
CPCSD-048-5786-SD	A0D020496	Benzo(g,h,i)perylene	11	76	J	J	RepLimit-J
CPCSD-044-5022-SD	A0C300541	Benzo(k)fluoranthene	13	66	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Benzo(k)fluoranthene	67	320	J	J	RepLimit-J
CPCSD-046-5784-SD	A0C250600	Benzo(k)fluoranthene	36	71	J	J	RepLimit-J
CPCSD-047-5025-SD	A0D020496	Benzo(k)fluoranthene	260	320	J	J	RepLimit-J
CPCSD-047-5785-SD	A0D020496	Benzo(k)fluoranthene	27	72	J	J	RepLimit-J
CPCSD-048-5026-SD	A0D020496	Benzo(k)fluoranthene	44	88	J	J	RepLimit-J
CPCSD-044-5022-SD	A0C300541	Chrysene	27	66	J	J	RepLimit-J
CPCSD-045-5023-SD	A0D020496	Chrysene	52	290	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Chrysene	110	320	J	J	RepLimit-J
CPCSD-046-5784-SD	A0C250600	Chrysene	62	71	J	J	RepLimit-J
CPCSD-047-5785-SD	A0D020496	Chrysene	48	72	J	J	RepLimit-J
CPCSD-048-5026-SD	A0D020496	Chrysene	60	88	J	J	RepLimit-J
CPCSD-048-5786-SD	A0D020496	Chrysene	14	76	J	J	RepLimit-J
CPCSD-044-5022-SD	A0C300541	Fluoranthene	42	66	J	J	RepLimit-J
CPCSD-045-5023-SD	A0D020496	Fluoranthene	95	290	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Fluoranthene	220	320	J	J	RepLimit-J
CPCSD-047-5785-SD	A0D020496	Fluoranthene	70	72	J	J	RepLimit-J
CPCSD-048-5786-SD	A0D020496	Fluoranthene	22	76	J	J	RepLimit-J
CPCSD-045-5783-SD	A0D020496	Fluorene	20	72	J	J	RepLimit-J
CPCSD-047-5025-SD	A0D020496	Fluorene	53	320	J	J	RepLimit-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSD-044-5022-SD	A0C300541	Indeno(1,2,3-cd)pyrene	14	66	J	J	RepLimit-J
CPCSD-045-5023-SD	A0D020496	Indeno(1,2,3-cd)pyrene	42	290	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Indeno(1,2,3-cd)pyrene	90	320	J	J	RepLimit-J
CPCSD-046-5784-SD	A0C250600	Indeno(1,2,3-cd)pyrene	54	71	J	J	RepLimit-J
CPCSD-047-5025-SD	A0D020496	Indeno(1,2,3-cd)pyrene	230	320	J	J	RepLimit-J
CPCSD-047-5785-SD	A0D020496	Indeno(1,2,3-cd)pyrene	26	72	J	J	RepLimit-J
CPCSD-048-5026-SD	A0D020496	Indeno(1,2,3-cd)pyrene	40	88	J	J	RepLimit-J
CPCSD-045-5783-SD	A0D020496	Naphthalene	38	72	J	J	RepLimit-J
CPCSD-044-5022-SD	A0C300541	Phenanthrene	14	66	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Phenanthrene	70	320	J	J	RepLimit-J
CPCSD-046-5784-SD	A0C250600	Phenanthrene	24	71	J	J	RepLimit-J
CPCSD-047-5785-SD	A0D020496	Phenanthrene	27	72	J	J	RepLimit-J
CPCSD-048-5026-SD	A0D020496	Phenanthrene	34	88	J	J	RepLimit-J
CPCSD-048-5786-SD	A0D020496	Phenanthrene	10	76	J	J	RepLimit-J
CPCSD-044-5022-SD	A0C300541	Pyrene	32	66	J	J	RepLimit-J
CPCSD-045-5023-SD	A0D020496	Pyrene	83	290	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Pyrene	180	320	J	J	RepLimit-J
CPCSD-046-5784-SD	A0C250600	Pyrene	69	71	J	J	RepLimit-J
CPCSD-047-5785-SD	A0D020496	Pyrene	53	72	J	J	RepLimit-J
CPCSD-048-5026-SD	A0D020496	Pyrene	84	88	J	J	RepLimit-J
CPCSD-048-5786-SD	A0D020496	Pyrene	19	76	J	J	RepLimit-J
CPCSD-047-5025-SD	A0D020496	Dibenz(a,h)anthracene	66	320	J	J	RepLimit-J
<b>Soil (µg/kg)</b>							
CPCSB-035-5123-SO	A0C300541	Acenaphthylene	12	66	J	J	RepLimit-J
CPCSB-034-5119-SO	A0C300541	Benz(a)anthracene	17	72	J	J	RepLimit-J
CPCSB-035-5123-SO	A0C300541	Benz(a)anthracene	35	66	J	J	RepLimit-J
CPCSB-035-5124-SO	A0C300541	Benz(a)anthracene	47	62	J	J	RepLimit-J
CPCSB-034-5119-SO	A0C300541	Benzo(a)pyrene	14	72	J	J	RepLimit-J
CPCSB-035-5123-SO	A0C300541	Benzo(a)pyrene	42	66	J	J	RepLimit-J
CPCSB-034-5119-SO	A0C300541	Benzo(b)fluoranthene	21	72	J	J	RepLimit-J
CPCSB-035-5123-SO	A0C300541	Benzo(b)fluoranthene	59	66	J	J	RepLimit-J
CPCSB-035-5123-SO	A0C300541	Benzo(g,h,i)perylene	31	66	J	J	RepLimit-J
CPCSB-035-5124-SO	A0C300541	Benzo(g,h,i)perylene	60	62	J	J	RepLimit-J
CPCSB-035-5123-SO	A0C300541	Benzo(k)fluoranthene	28	66	J	J	RepLimit-J
CPCSB-035-5124-SO	A0C300541	Benzo(k)fluoranthene	30	62	J	J	RepLimit-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSB-034-5119-SO	A0C300541	Chrysene	14	72	J	J	RepLimit-J
CPCSB-035-5123-SO	A0C300541	Chrysene	48	66	J	J	RepLimit-J
CPCSB-034-5119-SO	A0C300541	Fluoranthene	32	72	J	J	RepLimit-J
CPCSB-035-5123-SO	A0C300541	Indeno(1,2,3-cd)pyrene	26	66	J	J	RepLimit-J
CPCSB-035-5124-SO	A0C300541	Indeno(1,2,3-cd)pyrene	37	62	J	J	RepLimit-J
CPCSB-032-5116-SO	A0C250600	Phenanthrene	14	58	J	J	RepLimit-J
CPCSB-035-5123-SO	A0C300541	Phenanthrene	50	66	J	J	RepLimit-J
CPCSB-035-5124-SO	A0C300541	Phenanthrene	51	62	J	J	RepLimit-J
CPCSB-034-5119-SO	A0C300541	Pyrene	25	72	J	J	RepLimit-J
CPCSB-035-5124-SO	A0C300541	Dibenz(a,h)anthracene	21	62	J	J	RepLimit-J
<i>Semi-volatile Organic Compounds</i>							
Sediment (µg/kg)							
CPCSD-046-5024-SD	A0C250600	1,2,4-Trichlorobenzene	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	1,2-Dichlorobenzene	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	1,3-Dichlorobenzene	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	1,4-Dichlorobenzene	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	2,4,5-Trichlorophenol	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	2,4,6-Trichlorophenol	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	2,4-Dichlorophenol	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	2,4-Dimethylphenol	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	2,4-Dinitrophenol	5,200	5,200	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	2,4-Dinitrotoluene	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	2,6-Dinitrotoluene	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	2-Chloronaphthalene	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	2-Chlorophenol	2,100	2,100	U	UJ	HT-UJ
CPCSD-045-5783-SD	A0D020496	2-Methylnaphthalene	25	480	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	2-Methylnaphthalene	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	2-Methylphenol	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	2-Nitroaniline	5,200	5,200	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	2-Nitrophenol	2,100	2,100	U	UJ	HT-UJ
CPCSD-045-5023-SD	A0D020496	3,3'-Dichlorobenzidine	1,900	1,900	U	UJ	MS-UJ
CPCSD-046-5024-SD	A0C250600	3,3'-Dichlorobenzidine	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	3-Nitroaniline	5,200	5,200	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	3-Methylphenol/4-methylphenol	2,100	2,100	U	UJ	HT-UJ

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSD-046-5024-SD	A0C250600	4,6-Dinitro-2-methylphenol	5,200	5,200	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	4-Bromophenyl phenyl ether	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	4-Chloro-3-methylphenol	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	4-Chloroaniline	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	4-Chlorophenyl phenyl ether	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	4-Nitroaniline	5,200	5,200	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	4-Nitrophenol	5,200	5,200	U	UJ	HT-UJ
CPCSD-045-5023-SD	A0D020496	Benzoic Acid	4,600	4,600	U	UJ	MS-UJ
CPCSD-046-5024-SD	A0C250600	Benzoic Acid	5,200	5,200	U	UJ	HT-UJ, MS-UJ
CPCSD-046-5024-SD	A0C250600	Benzenemethanol	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	Bis(2-chloroisopropyl) ether	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	Butyl benzyl phthalate	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	Carbazole	320	320	U	UJ	HT-UJ
CPCSD-044-5022-SD	A0C300541	Di-n-butyl phthalate	22	440	J	J	RepLimit-J
CPCSD-045-5783-SD	A0D020496	Di-n-butyl phthalate	23	480	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Di-n-butyl phthalate	2,100	2,100	U	UJ	HT-UJ
CPCSD-048-5786-SD	A0D020496	Di-n-butyl phthalate	34	500	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Di-n-octyl phthalate	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	Dibenzofuran	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	Diethyl phthalate	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	Dimethyl phthalate	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	Hexachlorocyclo pentadiene	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	Hexachlorobenzene	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	Hexachlorobutadiene	2,100	2,100	U	UJ	HT-UJ
CPCSD-045-5023-SD	A0D020496	Hexachloroethane	1,900	1,900	U	UJ	MS-UJ
CPCSD-046-5024-SD	A0C250600	Hexachloroethane	2,100	2,100	U	UJ	HT-UJ, MS-UJ
CPCSD-046-5024-SD	A0C250600	Isophorone	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	N-Nitrosodi-n-propylamine	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	N-Nitrosodiphenylamine	2,100	2,100	U	UJ	HT-UJ

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSD-046-5024-SD	A0C250600	Nitrobenzene	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	Pentachlorophenol	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	Phenol	2,100	2,100	U	UJ	HT-UJ
		Bis(2-chloroethoxy)methane					
CPCSD-046-5024-SD	A0C250600	Bis(2-chloroethyl) ether	2,100	2,100	U	UJ	HT-UJ
CPCSD-046-5024-SD	A0C250600	Bis(2-ethylhexyl) phthalate	2,100	2,100	U	UJ	HT-UJ
CPCSD-047-5025-SD	A0D020496	Bis(2-ethylhexyl) phthalate	160	2,100	J	J	RepLimit-J
<b>Soil (µg/kg)</b>							
CPCSS-043-5021-SO	A0B240490	1,2,4-Trichlorobenzene	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	1,2-Dichlorobenzene	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	1,3-Dichlorobenzene	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	1,4-Dichlorobenzene	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	2,4,5-Trichlorophenol	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	2,4,6-Trichlorophenol	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	2,4-Dichlorophenol	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	2,4-Dimethylphenol	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	2,4-Dinitrophenol	7,200	7,200	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	2,4-Dinitrotoluene	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	2,6-Dinitrotoluene	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	2-Chloronaphthalene	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	2-Chlorophenol	3,000	3,000	U	UJ	MS-UJ
CPCSB-032-5116-SO	A0C250600	2-Methylnaphthalene	14	380	J	J	RepLimit-J
CPCSB-035-5123-SO	A0C300541	2-Methylnaphthalene	9.1	430	J	J	RepLimit-J
CPCSB-035-5124-SO	A0C300541	2-Methylnaphthalene	9.1	410	J	J	RepLimit-J
CPCSS-043-5021-SO	A0B240490	2-Methylnaphthalene	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	2-Methylphenol	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	2-Nitroaniline	7,200	7,200	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	2-Nitrophenol	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	3,3'-Dichlorobenzidine	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	3-Nitroaniline	7,200	7,200	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	3-Methylphenol/4-methylphenol	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	4,6-Dinitro-2-methylphenol	7,200	7,200	U	UJ	MS-UJ

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSS-043-5021-SO	A0B240490	4-Bromophenyl phenyl ether	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	4-Chloro-3-methylphenol	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	4-Chloroaniline	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	4-Chlorophenyl phenyl ether	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	4-Nitroaniline	7,200	7,200	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	4-Nitrophenol	7,200	7,200	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Acenaphthene	450	450	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Acenaphthylene	450	450	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Anthracene	450	450	U	UJ	MS-UJ
CPCSS-042-5020-SO	A0B240490	Benz(a)anthracene	66	69	J	J	RepLimit-J
CPCSS-043-5021-SO	A0B240490	Benz(a)anthracene	450	450	U	UJ	MS-UJ
CPCSS-042-5020-SO	A0B240490	Benzo(a)pyrene	57	69	J	J	RepLimit-J
CPCSS-043-5021-SO	A0B240490	Benzo(a)pyrene	450	450	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Benzo(b)fluoranthene	450	450	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Benzo(g,h,i)perylene	450	450	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Benzo(k)fluoranthene	450	450	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Benzenemethanol	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Bis(2-chloroisopropyl) ether	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Butyl benzyl phthalate	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Carbazole	450	450	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Chrysene	450	450	U	UJ	MS-UJ
CPCSB-030-5105-SO	A0C300541	Di-n-butyl phthalate	21	440	J	J	RepLimit-J
CPCSB-032-5115-SO	A0C250560	Di-n-butyl phthalate	19	400	J	J	RepLimit-J
CPCSB-034-5119-SO	A0C300541	Di-n-butyl phthalate	27	480	J	J	RepLimit-J
CPCSB-035-5125-SO	A0C300533	Di-n-butyl phthalate	410	410	J B	UJ	MB-U, RepLimit-J
CPCSB-035-6072-FD	A0C300541	Di-n-butyl phthalate	25	410	J	J	RepLimit-J
CPCSS-043-5021-SO	A0B240490	Di-n-butyl phthalate	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Di-n-octyl phthalate	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Dibenzofuran	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Diethyl phthalate	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Dimethyl phthalate	3,000	3,000	U	UJ	MS-UJ
CPCSS-036-5014-SO	A0B240490	Fluoranthene	12	66	J	J	RepLimit-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSS-037-5015-SO	A0B240490	Fluoranthene	23	76	J	J	RepLimit-J
CPCSS-037-6041-FD	A0B240490	Fluoranthene	21	74	J	J	RepLimit-J
CPCSS-040-5018-SO	A0B240490	Fluoranthene	18	67	J	J	RepLimit-J
CPCSS-041-5019-SO	A0B240490	Fluoranthene	33	66	J	J	RepLimit-J
CPCSS-043-5021-SO	A0B240490	Fluoranthene	450	450	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Fluorene	450	450	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Hexachlorobenzene	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Hexachlorobutadiene	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Hexachloroethane	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Indeno(1,2,3-cd)pyrene	450	450	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Isophorone	3,000	3,000	U	UJ	MS-UJ
		N-Nitrosodi-n-propylamine					
CPCSS-043-5021-SO	A0B240490	N-Nitrosodiphenylamine	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Naphthalene	450	450	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Nitrobenzene	3,000	3,000	U	UJ	MS-UJ
CPCSS-037-6041-FD	A0B240490	Phenanthrene	10	74	J	J	RepLimit-J
CPCSS-040-5018-SO	A0B240490	Phenanthrene	9.5	67	J	J	RepLimit-J
CPCSS-041-5019-SO	A0B240490	Phenanthrene	17	66	J	J	RepLimit-J
CPCSS-043-5021-SO	A0B240490	Phenanthrene	450	450	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Phenol	3,000	3,000	U	UJ	MS-UJ
CPCSS-036-5014-SO	A0B240490	Pyrene	11	66	J	J	RepLimit-J
CPCSS-037-5015-SO	A0B240490	Pyrene	16	76	J	J	RepLimit-J
CPCSS-037-6041-FD	A0B240490	Pyrene	16	74	J	J	RepLimit-J
CPCSS-040-5018-SO	A0B240490	Pyrene	16	67	J	J	RepLimit-J
CPCSS-041-5019-SO	A0B240490	Pyrene	28	66	J	J	RepLimit-J
CPCSS-043-5021-SO	A0B240490	Pyrene	450	450	U	UJ	MS-UJ
		Bis(2-chloroethoxy)methane					
CPCSS-043-5021-SO	A0B240490	Bis(2-chloroethyl) ether	3,000	3,000	U	UJ	MS-UJ
CPCSB-035-6072-FD	A0C300541	Bis(2-ethylhexyl) phthalate	24	410	J	J	RepLimit-J
CPCSS-039-5017-SO	A0B240490	Bis(2-ethylhexyl) phthalate	230	410	J	J	RepLimit-J
CPCSS-043-5021-SO	A0B240490	Bis(2-ethylhexyl) phthalate	3,000	3,000	U	UJ	MS-UJ
CPCSS-043-5021-SO	A0B240490	Dibenz(a,h)anthracene	450	450	U	UJ	MS-UJ

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
<b>Surface Water (µg/L)</b>							
CPCSW-044-5027-SW	A0C300541	2,4-Dinitrophenol	25	25	U	UJ	LCS-UJ
CPCSW-045-5028-SW	A0D020496	3,3'-Dichlorobenzidine	10	10	U	UJ	MS-UJ
CPCSW-044-5027-SW	A0C300541	Benzoic Acid	25	25	U	UJ	LCS-UJ
CPCSW-045-5028-SW	A0D020496	Benzenemethanol	4.9	10	J	J	RepLimit-J
CPCSW-045-5028-SW	A0D020496	Butyl benzyl phthalate	1.8	10	J	J	RepLimit-J
CPCSW-046-5029-SW	A0C250600	Di-n-butyl phthalate	10	10	J B	UJ	MB-U, RepLimit-J
CPCSW-045-5028-SW	A0D020496	Bis(2-ethylhexyl) phthalate	10	10	J B	UJ	MB-U, RepLimit-J
CPCSW-046-5029-SW	A0C250600	Bis(2-ethylhexyl) phthalate	1.9	10	J	J	RepLimit-J
CPCSW-047-5030-SW	A0D020496	Bis(2-ethylhexyl) phthalate	10	10	J B	UJ	MB-U, RepLimit-J, FldQC-U
CPCSW-048-5031-SW	A0D020496	Bis(2-ethylhexyl) phthalate	10	10	J B	UJ	MB-U, RepLimit-J
<b>Pesticides</b>							
<b>Sediment (µg/kg)</b>							
CPCSD-046-5024-SD	A0C250600	4,4'-DDD	65	65	U	UJ	CCV-UJ
CPCSD-046-5784-SD	A0C250600	4,4'-DDD	2.8	2.8	U	UJ	CCV-UJ
CPCSD-047-5025-SD	A0D020496	4,4'-DDD	64	64	U	UJ	Surr-UJ
CPCSD-048-5786-SD	A0D020496	4,4'-DDD	15	15	U	UJ	CCV-UJ
CPCSD-046-5024-SD	A0C250600	4,4'-DDE	55	55	U	UJ	CCV-UJ
CPCSD-046-5784-SD	A0C250600	4,4'-DDE	2.4	2.4	U	UJ	CCV-UJ
CPCSD-047-5025-SD	A0D020496	4,4'-DDE	55	55	U	UJ	Surr-UJ
CPCSD-048-5786-SD	A0D020496	4,4'-DDE	13	13	U	UJ	CCV-UJ
CPCSD-045-5023-SD	A0D020496	4,4'-DDT	58	58	U	UJ	CCV-UJ
CPCSD-045-5783-SD	A0D020496	4,4'-DDT	14	14	U	UJ	CCV-UJ
CPCSD-047-5025-SD	A0D020496	4,4'-DDT	64	64	U	UJ	Surr-UJ, CCV-UJ
CPCSD-047-5785-SD	A0D020496	4,4'-DDT	14	14	U	UJ	CCV-UJ
CPCSD-048-5026-SD	A0D020496	4,4'-DDT	18	18	U	UJ	CCV-UJ
CPCSD-048-5786-SD	A0D020496	4,4'-DDT	15	15	U	UJ	CCV-UJ
CPCSD-047-5025-SD	A0D020496	Aldrin	130	130	U	UJ	Surr-UJ
CPCSD-048-5786-SD	A0D020496	Aldrin	30	30	U	UJ	CCV-UJ
CPCSD-047-5025-SD	A0D020496	Dieldrin	55	55	U	UJ	Surr-UJ
CPCSD-048-5786-SD	A0D020496	Dieldrin	13	13	U	UJ	CCV-UJ
CPCSD-047-5025-SD	A0D020496	Endosulfan I	55	55	U	UJ	Surr-UJ
CPCSD-048-5786-SD	A0D020496	Endosulfan I	13	13	U	UJ	CCV-UJ

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSD-047-5025-SD	A0D020496	Endosulfan II	80	80	U	UJ	Surr-UJ
CPCSD-048-5786-SD	A0D020496	Endosulfan II	19	19	U	UJ	CCV-UJ
CPCSD-047-5025-SD	A0D020496	Endosulfan Sulfate	96	96	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	Endrin	55	55	U	UJ	CCV-UJ
CPCSD-046-5784-SD	A0C250600	Endrin	2.4	2.4	U	UJ	CCV-UJ
CPCSD-047-5025-SD	A0D020496	Endrin	55	55	U	UJ	Surr-UJ
CPCSD-048-5786-SD	A0D020496	Endrin	13	13	U	UJ	MS-UJ
CPCSD-047-5025-SD	A0D020496	Endrin Aldehyde	96	96	U	UJ	Surr-UJ
CPCSD-048-5786-SD	A0D020496	Endrin Aldehyde	23	23	U	UJ	CCV-UJ
CPCSD-047-5025-SD	A0D020496	Endrin Ketone	64	64	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	Heptachlor	110	110	U	UJ	CCV-UJ
CPCSD-046-5784-SD	A0C250600	Heptachlor	5.0	5.0	U	UJ	CCV-UJ
CPCSD-047-5025-SD	A0D020496	Heptachlor	110	110	U	UJ	Surr-UJ
CPCSD-048-5786-SD	A0D020496	Heptachlor	26	26	U	UJ	CCV-UJ
CPCSD-047-5025-SD	A0D020496	Heptachlor Epoxide	80	80	U	UJ	Surr-UJ
CPCSD-048-5786-SD	A0D020496	Heptachlor Epoxide	19	19	U	UJ	CCV-UJ
CPCSD-045-5023-SD	A0D020496	Methoxychlor	140	140	U	UJ	CCV-UJ
CPCSD-045-5783-SD	A0D020496	Methoxychlor	36	36	U	UJ	CCV-UJ
CPCSD-047-5025-SD	A0D020496	Methoxychlor	160	160	U	UJ	Surr-UJ, CCV-UJ
CPCSD-047-5785-SD	A0D020496	Methoxychlor	36	36	U	UJ	CCV-UJ
CPCSD-048-5026-SD	A0D020496	Methoxychlor	44	44	U	UJ	CCV-UJ
CPCSD-048-5786-SD	A0D020496	Methoxychlor	38	38	U	UJ	CCV-UJ
CPCSD-047-5025-SD	A0D020496	Toxaphene	2,200	2,200	U	UJ	Surr-UJ
CPCSD-047-5025-SD	A0D020496	alpha-BHC	80	80	U	UJ	Surr-UJ
CPCSD-048-5786-SD	A0D020496	alpha-BHC	19	19	U	UJ	CCV-UJ
CPCSD-047-5025-SD	A0D020496	alpha-Chlordane	96	96	U	UJ	Surr-UJ
CPCSD-048-5786-SD	A0D020496	alpha-Chlordane	23	23	U	UJ	CCV-UJ
CPCSD-047-5025-SD	A0D020496	beta-BHC	110	110	U	UJ	Surr-UJ
CPCSD-048-5786-SD	A0D020496	beta-BHC	26	26	U	UJ	CCV-UJ
CPCSD-046-5024-SD	A0C250600	delta-BHC	130	130	U	UJ	CCV-UJ
CPCSD-046-5784-SD	A0C250600	delta-BHC	1.8	5.7	J	J	RepLimit-J, CCV-J
CPCSD-047-5025-SD	A0D020496	delta-BHC	130	130	U	UJ	Surr-UJ
CPCSD-048-5786-SD	A0D020496	delta-BHC	30	30	U	UJ	CCV-UJ
CPCSD-047-5025-SD	A0D020496	gamma-BHC (lindane)	80	80	U	UJ	Surr-UJ
CPCSD-048-5786-SD	A0D020496	gamma-BHC (lindane)	19	19	U	UJ	CCV-UJ

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSD-047-5025-SD	A0D020496	gamma-Chlordane	55	55	U	UJ	Surr-UJ
CPCSD-048-5786-SD	A0D020496	gamma-Chlordane	13	13	U	UJ	CCV-UJ
<b>Soil (µg/kg)</b>							
CPCSB-035-5124-SO	A0C300541	4,4'-DDD	2.5	2.5	U	UJ	CCV-UJ
CPCSB-035-6072-FD	A0C300541	4,4'-DDD	2.5	2.5	U	UJ	CCV-UJ
CPCSS-039-5017-SO	A0B240490	4,4'-DDD	2.5	2.5	U	UJ	CCV-UJ
CPCSB-035-5124-SO	A0C300541	4,4'-DDE	2.1	2.1	U	UJ	CCV-UJ
CPCSB-035-6072-FD	A0C300541	4,4'-DDE	2.1	2.1	U	UJ	CCV-UJ
CPCSB-035-5125-SO	A0C300533	4,4'-DDT	2.5	2.5	U	UJ	CCV-UJ
CPCSB-035-5124-SO	A0C300541	Dieldrin	2.1	2.1	U	UJ	CCV-UJ
CPCSB-035-6072-FD	A0C300541	Dieldrin	2.1	2.1	U	UJ	CCV-UJ
CPCSB-035-5124-SO	A0C300541	Endosulfan I	2.1	2.1	U	UJ	CCV-UJ
CPCSB-035-6072-FD	A0C300541	Endosulfan I	2.1	2.1	U	UJ	CCV-UJ
CPCSB-035-5124-SO	A0C300541	Endrin	2.1	2.1	U	UJ	CCV-UJ
CPCSB-035-6072-FD	A0C300541	Endrin	2.1	2.1	U	UJ	CCV-UJ
CPCSB-035-5124-SO	A0C300541	Heptachlor	4.4	4.4	U	UJ	CCV-UJ
CPCSB-035-6072-FD	A0C300541	Heptachlor	4.3	4.3	U	UJ	CCV-UJ
CPCSB-035-5124-SO	A0C300541	Heptachlor Epoxide	3.1	3.1	U	UJ	CCV-UJ
CPCSB-035-6072-FD	A0C300541	Heptachlor Epoxide	3.1	3.1	U	UJ	CCV-UJ
CPCSB-035-5125-SO	A0C300533	Methoxychlor	6.2	6.2	U	UJ	CCV-UJ
CPCSB-035-5124-SO	A0C300541	alpha-BHC	3.1	3.1	U	UJ	CCV-UJ
CPCSB-035-6072-FD	A0C300541	alpha-BHC	3.1	3.1	U	UJ	CCV-UJ
CPCSB-035-5123-SO	A0C300541	beta-BHC	3.5	9.2	J	J	RepLimit-J
CPCSB-035-5124-SO	A0C300541	beta-BHC	4.4	4.4	U	UJ	CCV-UJ
CPCSB-035-6072-FD	A0C300541	beta-BHC	4.3	4.3	U	UJ	CCV-UJ
CPCSB-035-5124-SO	A0C300541	delta-BHC	5.0	5.0	U	UJ	CCV-UJ
CPCSB-035-6072-FD	A0C300541	delta-BHC	5.0	5.0	U	UJ	CCV-UJ
CPCSB-035-5124-SO	A0C300541	gamma-BHC (lindane)	3.1	3.1	U	UJ	CCV-UJ
CPCSB-035-6072-FD	A0C300541	gamma-BHC (lindane)	3.1	3.1	U	UJ	CCV-UJ
<b>Surface Water (µg/L)</b>							
CPCSW-044-5027-SW	A0C300541	4,4'-DDD	0.050	0.050	U	UJ	CCV-UJ
CPCSW-044-5027-SW	A0C300541	4,4'-DDE	0.050	0.050	U	UJ	CCV-UJ
CPCSW-045-5028-SW	A0D020496	4,4'-DDT	0.050	0.050	U	UJ	CCV-UJ
CPCSW-047-5030-SW	A0D020496	4,4'-DDT	0.10	0.10	U	UJ	CCV-UJ
CPCSW-047-6045-FD	A0D020496	4,4'-DDT	0.050	0.050	U	UJ	CCV-UJ

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSW-048-5031-SW	A0D020496	4,4'-DDT	0.050	0.050	U	UJ	CCV-UJ
CPCSW-044-5027-SW	A0C300541	Dieldrin	0.050	0.050	U	UJ	CCV-UJ
CPCSW-044-5027-SW	A0C300541	Endosulfan I	0.050	0.050	U	UJ	CCV-UJ
CPCSW-044-5027-SW	A0C300541	Endrin	0.050	0.050	U	UJ	CCV-UJ
CPCSW-044-5027-SW	A0C300541	Heptachlor	0.050	0.050	U	UJ	CCV-UJ
CPCSW-044-5027-SW	A0C300541	Heptachlor Epoxide	0.050	0.050	U	UJ	CCV-UJ
CPCSW-045-5028-SW	A0D020496	Methoxychlor	0.10	0.10	U	UJ	CCV-UJ
CPCSW-047-5030-SW	A0D020496	Methoxychlor	0.20	0.20	U	UJ	CCV-UJ
CPCSW-047-6045-FD	A0D020496	Methoxychlor	0.10	0.10	U	UJ	CCV-UJ
CPCSW-048-5031-SW	A0D020496	Methoxychlor	0.10	0.10	U	UJ	CCV-UJ
CPCSW-044-5027-SW	A0C300541	alpha-BHC	0.050	0.050	U	UJ	CCV-UJ
CPCSW-044-5027-SW	A0C300541	beta-BHC	0.050	0.050	U	UJ	CCV-UJ
CPCSW-047-6045-FD	A0D020496	beta-BHC	0.018	0.050	J	J	RepLimit-J
CPCSW-044-5027-SW	A0C300541	delta-BHC	0.050	0.050	U	UJ	CCV-UJ
CPCSW-044-5027-SW	A0C300541	gamma-BHC (lindane)	0.050	0.050	U	UJ	CCV-UJ
<b>Polychlorinated Biphenyls</b>							
<b>Sediment (µg/kg)</b>							
CPCSD-045-5023-SD	A0D020496	Aroclor 1016	190	190	U	UJ	Surr-UJ
CPCSD-047-5025-SD	A0D020496	Aroclor 1016	210	210	U	UJ	Surr-UJ
CPCSD-047-5785-SD	A0D020496	Aroclor 1016	48	48	U	UJ	Surr-UJ
CPCSD-048-5026-SD	A0D020496	Aroclor 1016	58	58	U	UJ	Surr-UJ
CPCSD-045-5023-SD	A0D020496	Aroclor 1221	190	190	U	UJ	Surr-UJ
CPCSD-047-5025-SD	A0D020496	Aroclor 1221	210	210	U	UJ	Surr-UJ
CPCSD-047-5785-SD	A0D020496	Aroclor 1221	48	48	U	UJ	Surr-UJ
CPCSD-048-5026-SD	A0D020496	Aroclor 1221	58	58	U	UJ	Surr-UJ
CPCSD-045-5023-SD	A0D020496	Aroclor 1232	190	190	U	UJ	Surr-UJ
CPCSD-047-5025-SD	A0D020496	Aroclor 1232	210	210	U	UJ	Surr-UJ
CPCSD-047-5785-SD	A0D020496	Aroclor 1232	48	48	U	UJ	Surr-UJ
CPCSD-048-5026-SD	A0D020496	Aroclor 1232	58	58	U	UJ	Surr-UJ
CPCSD-045-5023-SD	A0D020496	Aroclor 1242	190	190	U	UJ	Surr-UJ
CPCSD-047-5025-SD	A0D020496	Aroclor 1242	210	210	U	UJ	Surr-UJ
CPCSD-047-5785-SD	A0D020496	Aroclor 1242	48	48	U	UJ	Surr-UJ
CPCSD-048-5026-SD	A0D020496	Aroclor 1242	58	58	U	UJ	Surr-UJ
CPCSD-045-5023-SD	A0D020496	Aroclor 1248	190	190	U	UJ	Surr-UJ
CPCSD-047-5025-SD	A0D020496	Aroclor 1248	210	210	U	UJ	Surr-UJ

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSD-047-5785-SD	A0D020496	Aroclor 1248	48	48	U	UJ	Surr-UJ
CPCSD-048-5026-SD	A0D020496	Aroclor 1248	58	58	U	UJ	Surr-UJ
CPCSD-045-5023-SD	A0D020496	Aroclor 1254	190	190	U	UJ	Surr-UJ
CPCSD-047-5025-SD	A0D020496	Aroclor 1254	210	210	U	UJ	Surr-UJ
CPCSD-047-5785-SD	A0D020496	Aroclor 1254	48	48	U	UJ	Surr-UJ
CPCSD-048-5026-SD	A0D020496	Aroclor 1254	58	58	U	UJ	Surr-UJ
CPCSD-045-5023-SD	A0D020496	Aroclor 1260	190	190	U	UJ	Surr-UJ
CPCSD-047-5025-SD	A0D020496	Aroclor 1260	210	210	U	UJ	Surr-UJ
CPCSD-047-5785-SD	A0D020496	Aroclor 1260	48	48	U	UJ	Surr-UJ
CPCSD-048-5026-SD	A0D020496	Aroclor 1260	58	58	U	UJ	Surr-UJ
<b>Surface Water (µg/L)</b>							
CPCSW-046-5029-SW	A0C250600	Aroclor 1016	0.50	0.50	U	UJ	Surr-UJ
CPCSW-047-5030-SW	A0D020496	Aroclor 1016	0.50	0.50	U	UJ	Surr-UJ
CPCSW-046-5029-SW	A0C250600	Aroclor 1221	0.50	0.50	U	UJ	Surr-UJ
CPCSW-047-5030-SW	A0D020496	Aroclor 1221	0.50	0.50	U	UJ	Surr-UJ
CPCSW-046-5029-SW	A0C250600	Aroclor 1232	0.50	0.50	U	UJ	Surr-UJ
CPCSW-047-5030-SW	A0D020496	Aroclor 1232	0.50	0.50	U	UJ	Surr-UJ
CPCSW-046-5029-SW	A0C250600	Aroclor 1242	0.50	0.50	U	UJ	Surr-UJ
CPCSW-047-5030-SW	A0D020496	Aroclor 1242	0.50	0.50	U	UJ	Surr-UJ
CPCSW-046-5029-SW	A0C250600	Aroclor 1248	0.50	0.50	U	UJ	Surr-UJ
CPCSW-047-5030-SW	A0D020496	Aroclor 1248	0.50	0.50	U	UJ	Surr-UJ
CPCSW-046-5029-SW	A0C250600	Aroclor 1254	0.50	0.50	U	UJ	Surr-UJ
CPCSW-047-5030-SW	A0D020496	Aroclor 1254	0.50	0.50	U	UJ	Surr-UJ
CPCSW-046-5029-SW	A0C250600	Aroclor 1260	0.50	0.50	U	UJ	Surr-UJ
CPCSW-047-5030-SW	A0D020496	Aroclor 1260	0.50	0.50	U	UJ	Surr-UJ
<b>Volatile Organic Compounds</b>							
<b>Sediment (µg/kg)</b>							
CPCSD-046-5024-SD	A0C250600	1,1,1-Trichloroethane	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	1,1,1-Trichloroethane	7.1	7.1	U	UJ	Surr-UJ
CPCSD-045-5023-SD	A0D020496	1,1,2,2-Tetrachloroethane	29	29	U	UJ	IntStd-UJ
CPCSD-046-5024-SD	A0C250600	1,1,2,2-Tetrachloroethane	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	1,1,2,2-Tetrachloroethane	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	1,1,2-Trichloroethane	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	1,1,2-Trichloroethane	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	1,1-Dichloroethane	32	32	U	UJ	Surr-UJ

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSD-046-5784-SD	A0C250600	1,1-Dichloroethane	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	1,1-Dichloroethene	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	1,1-Dichloroethene	7.1	7.1	U	UJ	Surr-UJ
		1,2-Dibromoethane (ethylene dibromide)					
CPCSD-046-5024-SD	A0C250600	1,2-Dibromoethane (ethylene dibromide)	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	1,2-Dichloroethane	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	1,2-Dichloroethene (total)	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	1,2-Dichloroethene (total)	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	1,2-Dichloropropane	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	1,2-Dichloropropane	7.1	7.1	U	UJ	Surr-UJ
CPCSD-045-5023-SD	A0D020496	2-Butanone (MEK)	47	120	J	J	RepLimit-J
CPCSD-045-5783-SD	A0D020496	2-Butanone (MEK)	12	29	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	2-Butanone (MEK)	33	130	J	J	Surr-J, RepLimit-J
CPCSD-046-5784-SD	A0C250600	2-Butanone (MEK)	7.2	28	J	J	Surr-J, RepLimit-J
CPCSD-047-5025-SD	A0D020496	2-Butanone (MEK)	55	130	J	J	RepLimit-J
CPCSD-047-5785-SD	A0D020496	2-Butanone (MEK)	13	29	J	J	RepLimit-J
CPCSD-048-5026-SD	A0D020496	2-Butanone (MEK)	30	35	J	J	RepLimit-J
CPCSD-048-5786-SD	A0D020496	2-Butanone (MEK)	10	30	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	2-Hexanone	130	130	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	2-Hexanone	28	28	U	UJ	Surr-UJ
		4-Methyl-2-pentanone (MIBK)					
CPCSD-046-5024-SD	A0C250600	4-Methyl-2-pentanone (MIBK)	130	130	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	4-Methyl-2-pentanone (MIBK)	28	28	U	UJ	Surr-UJ
CPCSD-045-5783-SD	A0D020496	Acetone	52	29	B	U	MB-U
CPCSD-046-5024-SD	A0C250600	Acetone	91	130	J	J	Surr-J, RepLimit-J
CPCSD-046-5784-SD	A0C250600	Acetone	28	28	J	UJ	Surr-J, RepLimit-J, FldQC-U
CPCSD-047-5785-SD	A0D020496	Acetone	55	29	B	U	MB-U
CPCSD-048-5786-SD	A0D020496	Acetone	51	30	B	U	MB-U
CPCSD-046-5024-SD	A0C250600	Benzene	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Benzene	7.1	7.1	U	UJ	Surr-UJ

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSD-046-5024-SD	A0C250600	Bromochloromethane	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Bromochloromethane	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	Bromodichloromethane	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Bromodichloromethane	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	Bromoform	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Bromoform	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	Bromomethane (methyl bromide)	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Bromomethane (methyl bromide)	7.1	7.1	U	UJ	Surr-UJ
CPCSD-045-5023-SD	A0D020496	Carbon Disulfide	3.3	29	J	J	RepLimit-J
CPCSD-046-5024-SD	A0C250600	Carbon Disulfide	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Carbon Disulfide	7.1	7.1	U	UJ	Surr-UJ
CPCSD-045-5023-SD	A0D020496	Carbon Tetrachloride	29	29	U	UJ	CCV-UJ
CPCSD-045-5783-SD	A0D020496	Carbon Tetrachloride	7.2	7.2	U	UJ	CCV-UJ
CPCSD-046-5024-SD	A0C250600	Carbon Tetrachloride	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Carbon Tetrachloride	7.1	7.1	U	UJ	Surr-UJ
CPCSD-047-5025-SD	A0D020496	Carbon Tetrachloride	32	32	U	UJ	CCV-UJ
CPCSD-047-5785-SD	A0D020496	Carbon Tetrachloride	7.2	7.2	U	UJ	CCV-UJ
CPCSD-048-5026-SD	A0D020496	Carbon Tetrachloride	8.8	8.8	U	UJ	CCV-UJ
CPCSD-048-5786-SD	A0D020496	Carbon Tetrachloride	7.6	7.6	U	UJ	CCV-UJ
CPCSD-046-5024-SD	A0C250600	Chlorobenzene	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Chlorobenzene	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	Chlorodibromomethane	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Chlorodibromomethane	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	Chloroethane	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Chloroethane	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	Chloroform	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Chloroform	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	Chloromethane	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Chloromethane	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	Ethylbenzene	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Ethylbenzene	7.1	7.1	U	UJ	Surr-UJ
CPCSD-045-5023-SD	A0D020496	Methylene Chloride	29	29	J B	UJ	MB-U, RepLimit-J
CPCSD-045-5783-SD	A0D020496	Methylene Chloride	7.2	7.2	J B	UJ	MB-U, RepLimit-J

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSD-046-5024-SD	A0C250600	Methylene Chloride	32	32	J B	UJ	MB-U, Surr-J, RepLimit-J
CPCSD-046-5784-SD	A0C250600	Methylene Chloride	7.1	7.1	J B	UJ	MB-U, Surr-J, RepLimit-J
CPCSD-047-5025-SD	A0D020496	Methylene Chloride	32	32	J B	UJ	MB-U, RepLimit-J
CPCSD-047-5785-SD	A0D020496	Methylene Chloride	7.2	7.2	J B	UJ	MB-U, RepLimit-J
CPCSD-048-5026-SD	A0D020496	Methylene Chloride	8.8	8.8	J B	UJ	MB-U, RepLimit-J
CPCSD-048-5786-SD	A0D020496	Methylene Chloride	7.6	7.6	J B	UJ	MB-U, RepLimit-J
CPCSD-046-5024-SD	A0C250600	Styrene	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Styrene	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	Tetrachloroethene	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Tetrachloroethene	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	Toluene	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Toluene	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	Trichloroethene	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Trichloroethene	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	Vinyl Chloride	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Vinyl Chloride	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	Xylene (total)	65	65	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	Xylene (total)	14	14	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	<i>cis</i> -1,3-Dichloropropene	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	<i>cis</i> -1,3-Dichloropropene	7.1	7.1	U	UJ	Surr-UJ
CPCSD-046-5024-SD	A0C250600	<i>trans</i> -1,3-Dichloropropene	32	32	U	UJ	Surr-UJ
CPCSD-046-5784-SD	A0C250600	<i>trans</i> -1,3-Dichloropropene	7.1	7.1	U	UJ	Surr-UJ
<b>Soil (µg/kg)</b>							
CPCSB-035-5123-SO	A0C300541	1,1,1-Trichloroethane	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	1,1,1-Trichloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	1,1,1-Trichloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	1,1,1-Trichloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	1,1,2,2-Tetrachloroethane	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	1,1,2,2-Tetrachloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	1,1,2,2-Tetrachloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	1,1,2,2-Tetrachloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	1,1,2-Trichloroethane	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	1,1,2-Trichloroethane	6.2	6.2	U	UJ	Surr-UJ

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSB-035-5125-SO	A0C300533	1,1,2-Trichloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	1,1,2-Trichloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	1,1-Dichloroethane	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	1,1-Dichloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	1,1-Dichloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	1,1-Dichloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	1,1-Dichloroethene	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	1,1-Dichloroethene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	1,1-Dichloroethene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	1,1-Dichloroethene	6.2	6.2	U	UJ	Surr-UJ
		1,2-Dibromoethane (ethylene dibromide)					
CPCSB-035-5123-SO	A0C300541	1,2-Dibromoethane (ethylene dibromide)	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	1,2-Dibromoethane (ethylene dibromide)	6.2	6.2	U	UJ	Surr-UJ
		1,2-Dibromoethane (ethylene dibromide)					
CPCSB-035-5125-SO	A0C300533	1,2-Dibromoethane (ethylene dibromide)	6.2	6.2	U	UJ	Surr-UJ
		1,2-Dibromoethane (ethylene dibromide)					
CPCSB-035-6072-FD	A0C300541	1,2-Dibromoethane (ethylene dibromide)	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	1,2-Dichloroethane	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	1,2-Dichloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	1,2-Dichloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	1,2-Dichloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	1,2-Dichloroethene (total)	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	1,2-Dichloroethene (total)	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	1,2-Dichloroethene (total)	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	1,2-Dichloroethene (total)	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	1,2-Dichloropropane	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	1,2-Dichloropropane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	1,2-Dichloropropane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	1,2-Dichloropropane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	2-Butanone (MEK)	26	26	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	2-Butanone (MEK)	25	25	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	2-Butanone (MEK)	25	25	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	2-Butanone (MEK)	25	25	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	2-Hexanone	26	26	U	UJ	Surr-UJ

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSB-035-5124-SO	A0C300541	2-Hexanone	25	25	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	2-Hexanone	25	25	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	2-Hexanone	25	25	U	UJ	Surr-UJ
		4-Methyl-2-pentanone (MIBK)	26	26	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	4-Methyl-2-pentanone (MIBK)	25	25	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	4-Methyl-2-pentanone (MIBK)	25	25	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	4-Methyl-2-pentanone (MIBK)	25	25	U	UJ	Surr-UJ
		4-Methyl-2-pentanone (MIBK)	25	25	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Acetone	26	26	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	Acetone	25	25	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Acetone	25	25	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Acetone	25	25	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Acetone	25	25	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	Benzene	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Benzene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Benzene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Benzene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	Bromochloromethane	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Bromochloromethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Bromochloromethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Bromochloromethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	Bromodichloromethane	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Bromodichloromethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Bromodichloromethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Bromodichloromethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	Bromoform	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Bromoform	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Bromoform	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Bromoform	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	Bromomethane (methyl bromide)	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Bromomethane (methyl bromide)	6.2	6.2	U	UJ	Surr-UJ

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSB-035-5125-SO	A0C300533	Bromomethane (methyl bromide)	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Bromomethane (methyl bromide)	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	Carbon Disulfide	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Carbon Disulfide	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Carbon Disulfide	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Carbon Disulfide	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	Carbon Tetrachloride	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Carbon Tetrachloride	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Carbon Tetrachloride	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Carbon Tetrachloride	6.2	6.2	U	UJ	Surr-UJ
CPCSS-039-5017-SO	A0B240490	Carbon Tetrachloride	6.3	6.3	U	UJ	CCV-UJ
CPCSB-035-5123-SO	A0C300541	Chlorobenzene	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Chlorobenzene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Chlorobenzene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Chlorobenzene	6.2	6.2	U	UJ	Surr-UJ, MS-UJ
CPCSB-035-5123-SO	A0C300541	Chlorodibromomethane	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Chlorodibromomethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Chlorodibromomethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Chlorodibromomethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	Chloroethane	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Chloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Chloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Chloroethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	Chloroform	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Chloroform	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Chloroform	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Chloroform	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	Chloromethane	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Chloromethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Chloromethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Chloromethane	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	Ethylbenzene	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Ethylbenzene	6.2	6.2	U	UJ	Surr-UJ

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSB-035-5125-SO	A0C300533	Ethylbenzene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Ethylbenzene	6.2	6.2	U	UJ	Surr-UJ, MS-UJ
CPCSB-035-5123-SO	A0C300541	Methylene Chloride	6.6	6.6	J B	UJ	MB-U, Surr-J, RepLimit-J
CPCSB-035-5124-SO	A0C300541	Methylene Chloride	6.2	6.2	J B	UJ	MB-U, Surr-J, RepLimit-J
CPCSB-035-5125-SO	A0C300533	Methylene Chloride	6.2	6.2	J B	UJ	MB-U, Surr-J, RepLimit-J
CPCSB-035-6072-FD	A0C300541	Methylene Chloride	6.2	6.2	J B	UJ	MB-U, Surr-J, RepLimit-J
CPCSB-035-5123-SO	A0C300541	Styrene	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Styrene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Styrene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Styrene	6.2	6.2	U	UJ	Surr-UJ, MS-UJ
CPCSB-035-5123-SO	A0C300541	Tetrachloroethene	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Tetrachloroethene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Tetrachloroethene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Tetrachloroethene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	Toluene	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Toluene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Toluene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Toluene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	Trichloroethene	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Trichloroethene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Trichloroethene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Trichloroethene	6.2	6.2	U	UJ	Surr-UJ, MS-UJ
CPCSB-035-5123-SO	A0C300541	Vinyl Chloride	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Vinyl Chloride	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Vinyl Chloride	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Vinyl Chloride	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	Xylene (total)	13	13	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	Xylene (total)	12	12	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	Xylene (total)	12	12	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	Xylene (total)	12	12	U	UJ	Surr-UJ, MS-UJ
CPCSB-035-5123-SO	A0C300541	cis-1,3-Dichloropropene	6.6	6.6	U	UJ	Surr-UJ

**Table C-5. Detailed Listing of Qualified Results for Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Laboratory SDG	Chemical	Results	Reporting Limit	Laboratory Qualifier <sup>a</sup>	Validation Qualifier <sup>b</sup>	Validation Code <sup>c</sup>
CPCSB-035-5124-SO	A0C300541	<i>cis</i> -1,3-Dichloropropene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	<i>cis</i> -1,3-Dichloropropene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	<i>cis</i> -1,3-Dichloropropene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5123-SO	A0C300541	<i>trans</i> -1,3-Dichloropropene	6.6	6.6	U	UJ	Surr-UJ
CPCSB-035-5124-SO	A0C300541	<i>trans</i> -1,3-Dichloropropene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-5125-SO	A0C300533	<i>trans</i> -1,3-Dichloropropene	6.2	6.2	U	UJ	Surr-UJ
CPCSB-035-6072-FD	A0C300541	<i>trans</i> -1,3-Dichloropropene	6.2	6.2	U	UJ	Surr-UJ
<b>Surface Water (µg/L)</b>							
CPCSW-044-5027-SW	A0C300541	Acetone	10	10	J	UJ	RepLimit-J, FldQC-U
CPCSW-045-5028-SW	A0D020496	Acetone	10	10	J	UJ	RepLimit-J, FldQC-U
CPCSW-046-5029-SW	A0C250600	Acetone	10	10	J	UJ	RepLimit-J, FldQC-U
CPCSW-047-5030-SW	A0D020496	Acetone	10	10	J	UJ	RepLimit-J, FldQC-U
CPCSW-047-6045-FD	A0D020496	Acetone	10	10	J	UJ	RepLimit-J, FldQC-U
CPCSW-048-5031-SW	A0D020496	Acetone	10	10	J	UJ	RepLimit-J, FldQC-U

<sup>a</sup>Laboratory Qualifiers: B = analyte was detected in the associated blank as well as the sample, J = estimated because result is between the method detection limit and the reporting limit, U = not detected, E = inorganic result estimated because of the presence of interference, and PG = more than 40% difference between primary and confirmation analysis.

<sup>b</sup>Validation Qualifiers: J = estimated, U = not detected, UJ = not detected and reporting limit estimated, G = elevated reporting limit due to matrix interference, and R = rejected.

<sup>c</sup>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, RptLimit = reporting limit, and Surr = surrogate recovery.

BHC = Hexachlorocyclohexane.

DDD = Dichlorodiphenyldichloroethane.

DDE = Dichlorodiphenyldichloroethylene.

DDT = Dichlorodiphenyltrichloroethane.

ID = Identifier.

µg/kg = Micrograms per kilogram.

µg/L = Micrograms per liter.

mg/kg = Milligrams per kilogram.

SDG = Sample Delivery Group.

For this RVAAP study, a total of four field duplicates (three for soil and one for surface water) were analyzed for the PBA08 RI/FS Report. No sediment field duplicates were collected at the AOC. Three trip blanks for VOC were collected with the surface water samples. 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. 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.

## 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 were acceptable and did not impact the sediment or soil data. However, due to instrument blank contamination, 13 data points in soil (2.6% of soil data) were qualified as not detected below the reporting levels “UJ.” LCS recovery deviations caused various analyte results for seven sediment data points (3.4% of sediment data) and seven soil data points (1.4% of soil data) to be qualified as estimated “J.” Due to MS/MSD recoveries being outside control limit criteria for several analytes, 27 data points in sediment (13.0% of sediment data) and 147 data points in soil (29.0% of soil data) were qualified as estimated “J” or “UJ,” and 9 soil non-detectable concentration data points for antimony were rejected “R.” Other metals exhibited acceptable recoveries and were not qualified. Reporting levels are considered to be acceptable relative to QAPP goals. Due to professional judgment (laboratory duplicate or serial dilution), 16 sediment data points (7.7% of sediment data) and 10 soil data points (2.0% of soil data) were qualified as estimated “J.” Due to elevated target levels present, a total of 5 sediment samples and 10 soil samples required dilutions for various analytes.

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

Sample ID	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)	CAS Number				
<b>Metals</b>					
Antimony	7440-36-0	0.005	0.00019 J	<0.005 U	<0.005 U
Arsenic	7440-38-2	0.005	0.0012 J	<0.005 U	<0.005 U
Barium	7440-39-3	0.01	0.0472	<0.01 U	<0.01 U
Calcium	7440-70-2	0.1	65.6	<2 U	<2 U
Chromium	7440-47-3	0.005	<0.005 U	<0.005 U	<0.005 U
Cobalt	7440-48-4	0.005	<0.005 U	<0.005 U	0.00006 J
Copper	7440-50-8	0.005	0.00057 J	<0.005 U	<0.005 U
Iron	7439-89-6	0.1	0.78	<0.15 U	<0.15 U
Magnesium	7439-95-4	0.1	28.3	<1 U	<1 U
Manganese	7439-96-5	0.01	0.0919	<0.01 U	<0.01 U
Nickel	7440-02-0	0.0002	0.00035 J	<0.01 U	<0.01 U
Potassium	7440-09-7	0.2	2.86	<1 U	<1 U
Sodium	7440-23-5	0.2	40.1	<1 U	<1 U
Thallium	7440-28-0	0.002	0.00036 J	<0.002 U	<0.002 U
Vanadium	7440-62-2	0.01	<0.01 U	<0.01 U	0.00053 J
Zinc	7440-66-6	0.01	<0.0049 UJ	<0.04 U	0.0104 J
<b>Semi-volatile Organic Compounds</b>					
Benzenemethanol	100-51-6	0.01	<0.01 U	<0.01 U	<0.01 U
Bis(2-ethylhexyl)phthalate	117-81-7	0.01	<0.01 U	<0.01 UJ	<0.01 UJ
Di-n-butyl phthalate	84-74-2	0.01	<0.01 U	<0.01 U	<0.01 U
<b>Volatile Organic Compounds</b>					
2-Butanone	78-93-3	0.01	<0.01 U	<0.01 U	0.00072 J
Acetone	67-64-1	0.01	<0.01 U	<0.01 U	0.004 J
Toluene	108-88-3	0.001	<0.001 U	0.00053 J	0.00042 J
					0.00034 J

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

Sample ID	Project Reporting Level	CAS Number	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	Deionized Water	Equipment Rinse	Equipment Rinse
Analyte (mg/L)			Blank	Blank	Blank	Blank
<i>Miscellaneous</i>						
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.

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

Sample Type: FB = source water blank and ER = equipment rinse blank.

CAS = Chemical Abstract Service

ID = Identifier

mg/L = Milligrams per Liter

NA = Not available

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. None of the metals in sediment were rejected. Complete data summary tables, with associated qualifiers, are provided in Appendix D of the RI/FS 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 blanks and instrument blanks contained various low level target analytes, which did result in the qualification of seven data points (5.0% of water data) as estimated “UJ.” These qualifications did not impact the project’s ability to consistently meet reporting levels. MS recoveries were satisfactory for most analytes; however, low MS recovery resulted in one data point (9.72% of water data) being qualified as estimated “UJ.” Serial dilution and duplicate comparisons were acceptable within the data set. LCS recovery deviations resulted in two data points (1.4% of water data) being qualified as estimated “J.” Reporting levels are considered to be consistent with QAPP goals. Some data were qualified as estimated; however, none of the deviations were considered severe enough to reject any of the data. No dilutions were 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/FS 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 calibration criteria were achieved for all analyses. Continuing calibration percent difference deviations (less than -20%) caused six sediment results and one soil result to be qualified as estimated “UJ” and represented 1.5% of all sediment and soil data. Due to surrogate recovery failures, 70 sediment results (25% of sediment data) and 140 soil results (80% of soil data) were qualified as estimated “J” or “UJ” as required. Internal standard area counts and compound retention times were acceptable for all soil sample analyses. However, due to low internal standard area count, one sediment data point (0.36% of sediment data) was qualified as “UJ.” Method blanks contained low levels of various common laboratory contaminants, which caused 11 data points in sediment and 4 soil data points to be qualified as not detected “U,” as required in the associated samples. All LCS recoveries were within criteria. MS/MSD recoveries and relative percent difference (RPD) values were acceptable for sediment matrices; however, MS/MSD recovery deviations did result in the qualification of five soil data points as estimated “UJ.” 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/FS 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 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. Trip and rinsate blanks contained acetone and toluene below the reporting levels, which caused six data points (2.9% of water data) to be qualified as not detected “U.” Associated MS/MSD recoveries and RPDs were acceptable. All LCS recoveries were within acceptance criteria. No dilutions were required. No data were rejected for any reason. Although some analyses were flagged as estimated because analyte results were between the detection level and the reporting level, 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/FS 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 SVOC soil sediment and soil samples. However, due to an exceeded re-extraction holding time, 50 sediment results (8.4% of SVOC sediment data) were qualified as estimated “UJ.” Initial and continuing calibration criteria were acceptable. Surrogate recovery criteria were acceptable for all sediment and soil samples. Internal standard area counts and compound retention times were acceptable throughout the data analyses. Initial and continuing calibration criteria were met for all compounds. All sediment method blanks were free of contamination; however, due to soil method blank contamination, one soil data point (0.07% of soil data) was qualified as not detected below the reporting level “UJ.” All LCS recoveries were within criteria. MS/MSD deviations resulted in 5 sediment data points (0.84% of SVOC sediment data) and 63 soil data points (4.3% of SVOC soil data) being qualified as estimated “UJ.” Two soil samples required dilutions due to elevated target levels or matrix interferences. Reporting limits for nine undetected analytes in sample CPCSS-043-5021-SO were greater than the facility-wide cleanup goals (FWCUGs), however, MDLs remained below FWCUGs for all analytes except benzo(a)pyrene, dibenz(a,h)anthracene, and n-nitroso-di-n-propylamine. No sediment or soil data were rejected for any reason. Although several SVOC and polycyclic aromatic hydrocarbon 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/FS Report and can be found in REIMS.

#### **C.4.3.2 Surface Water**

Analytical holding times were met for SVOC water samples. All surrogate recoveries and internal standard areas/retention times were acceptable. Initial and continuing calibration criteria were met for all analytes. As a result of method blank levels, four data points (1.0% of SVOC water data) were qualified as not detected “UJ.” Due to LCS recovery deviations, two data points (0.51% of SVOC

water data) were qualified as estimated “UJ.” MS/MSD deviations caused one data point (0.25% of SVOC water data) to be qualified as estimated “UJ.” No water samples required dilutions. 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/FS Report and can be found in REIMS.

#### C.4.4 Pesticide Analyses

##### C.4.4.1 Sediment and Soil

Analytical holding times were met for all samples. Surrogate recoveries were within acceptance criteria in all soil samples; however, surrogate recovery deviations did result in 21 sediment data points (12.2% of pesticide sediment data) being qualified as estimated “UJ.” Initial calibrations were acceptable for all compounds. Continuing calibrations exceeded the 15% difference limit for several analytes, which caused results for 37 sediment data points (22% of pesticide sediment data) and 25 soil data points (24% of pesticide soil data) to be qualified as estimated “UJ.” All 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 recoveries and RPD values were acceptable for soil and sediment matrices with the exception of one pesticide sediment data point (0.6% of pesticide sediment data), which was qualified as estimated “UJ.” Due to matrix interferences or elevated target levels, seven sediment samples and one soil sample were reported as dilutions, which resulted in elevated reporting levels for the affected samples. All reporting levels were below FWCUGs with the exception of aldrin in sample CPCSW-047-5030-SW. However, the MDL was below the FWCUG and concentrations detected between the MDL and RL would have been reported as estimated values. No sediment or soil 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/FS Report and can be found in REIMS.

##### C.4.4.2 Surface Water

Analytical holding times were met for all samples. All initial criteria were met for all analytes. However, due to greater than 15% pesticides continuing calibration percent difference values, 19 data points (15% of pesticides water data) were qualified as estimated “UJ.” All method blanks were free of contamination and had no impact on the data. Surrogate recoveries were within criteria for all samples. All LCS recoveries were within criteria. MS/MSD recoveries and RPD values were acceptable. One pesticide sample was reported as a 1:2 dilution due to matrix interferences, which resulted in elevated reporting levels. 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/FS Report and can be found in REIMS.

## **C.4.5 Polychlorinated Biphenyl Analyses**

### **C.4.5.1 Sediment and Soil**

Analytical holding times were met for all samples. Surrogate recoveries were within acceptance criteria in all soil samples; however, surrogate recovery deviations did result in qualification of 28 sediment data points (50.0% of PCB sediment data) as estimated “UJ.” Initial and continuing calibration criteria were met for all compounds in sediment and soil. All 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 recoveries and RPD values were acceptable for soil and sediment matrices. No sediment or soil samples required dilutions. No sediment or soil 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/FS Report and can be found in REIMS.

### **C.4.5.2 Surface Water**

Analytical holding times were met for all samples. All initial and continuing calibration criteria were met for all analytes. All method blanks were free of contamination and had no impact on the data. Due to low surrogate recoveries, 14 data points (33% of PCB water data) were qualified as estimated “UJ.” All LCS recoveries were within criteria. MS/MSD recoveries and RPD values were acceptable. No water 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/FS 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 samples. Surrogate recoveries were within acceptance criteria. Initial and continuing calibration criteria were acceptable for soil and sediment. All sediment and soil method blanks were free of contamination and had no impact on the sample data. All LCS recoveries were within criteria. MS/MSD recoveries and RPD values were acceptable for sediment matrices. However, MS/MSD deviations did result in two soil data points (0.57% of soil data) being qualified as estimated “UJ.” No explosives 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/FS Report and can be found in REIMS.

#### **C.4.6.2 Surface Water**

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

### **C.4.7 Nitroguanidine and Nitrocellulose Analyses**

#### **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 free of contamination. All LCS recoveries were within criteria. Sediment MS/MSD recoveries and RPD values were acceptable for all applicable analytes. However, due to soil MS recovery deviation, one soil data point (10% of soil data) was qualified as estimated "J." 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/FS Report and can be found in REIMS.

#### **C.4.7.2 Surface Water**

Initial and continuing calibration criteria were met for all analytes. Method blanks were free of contamination and had no impact on the sample data. All LCS recoveries were within acceptance criteria. Due to holding time exceedances, six data points (50% of water data) were qualified as estimated "UJ." As a result of MS recovery deviation, one data point (8.3% of water data) was qualified as estimated "UJ." No dilutions were required for any samples. 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/FS 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 from the same sampling device, 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 both the regular and field duplicate sample, precision was considered acceptable and results were not included in the table. The RPD was calculated only when both samples were >5x the reporting level. When one or both sample values were between the reporting level and 5x the reporting level, the absolute difference (D) 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 1x the reporting limit for all matrices. Field duplicate comparisons for the AOC are considered good, with all results below an absolute difference of 1 or an RPD of 50% with the exception of two metal analytes for soil samples.

Beryllium at Upper and Lower Cobbs Ponds location CPCSB-035 and potassium at CPCSS-037 exceeded the absolute difference criteria at 2.4 and 1.5%D, respectively.

#### 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. 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 a few pesticide and SVOC analytes in some samples primarily due to dilution factors. With the exception of benzo(a)pyrene, dibenz(a,h)anthracene, and n-nitroso-di-n-propylamine results in sample CPCss-043-5021-SO, MDLs remained below FWCUGs. Actual laboratory MDLs achieved during this investigation achieved project quantitation level goals. Individual analyte reporting levels varied due to matrix differences and contaminant analyte concentrations. Reporting levels were elevated in soil and sediment due to dilution factors, inherent moisture content variability, and results being reported in the standard dry weight format. Reporting level variations were 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 5x the detected blank concentration 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 10x the detected blank concentration.

**Table C-7. Field Duplicate Pair Comparisons for Analytes Detected in Samples from Upper and Lower Cobbs Ponds**

Sample ID	Chemical	Regular Result	Duplicate Result	RPD % or (Absolute Difference) <sup>a</sup>	Test <sup>b</sup>
<i>Metals</i>					
<i>Soil (mg/kg)</i>					
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Aluminum	9,420 J	8,690 J	8%	RPD
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Antimony	0.13 J	0.6 UJ	(0.80)	D
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Arsenic	17.9 J	11.1 J	47%	RPD
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Barium	63.2	68.8	9%	RPD
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Beryllium	0.57	0.58 J	(0.03)	D
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Cadmium	0.046 J	0.069 J	(0.10)	D
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Calcium	1,530 J	1,850 J	19%	RPD
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Chromium	15.9	13.6	16%	RPD
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Cobalt	9.4	6.3	39%	RPD
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Copper	22.4	19.4	14%	RPD
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Iron	29,900	22,000	30%	RPD
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Lead	11.9 J	11.3 J	5%	RPD
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Magnesium	2,830 J	2,650 J	7%	RPD
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Manganese	181	131	32%	RPD
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Nickel	26.5 J	21.5 J	21%	RPD
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Potassium	1,050 J	959 J	9%	RPD
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Selenium	1.6	1.6	(0.00)	D
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Sodium	46.6 J	46.6 J	(0.00)	D
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Thallium	0.14 J	0.12 J	(0.09)	D
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Vanadium	17.3	16.3	6%	RPD
CPCSB-032-5114-SO/ CPCSB-032-6073-FD	Zinc	59.7	55.1	8%	RPD
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Aluminum	10,900	14,800	30%	RPD
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Antimony	0.086 J	0.079 J	(0.01)	D
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Arsenic	15.4	18.6	19%	RPD
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Barium	61	77.5	24%	RPD
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Beryllium	0.58	0.87	(2.40)	D *
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Cadmium	0.053 J	0.078 J	(0.10)	D
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Calcium	2,340 J	3,420 J	38%	RPD
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Chromium	15.5	22.4	36%	RPD
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Cobalt	14.1	16.5	16%	RPD

**Table C-7. Field Duplicate Pair Comparisons for Analytes Detected in Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Chemical	Regular Result	Duplicate Result	RPD % or (Absolute Difference) <sup>a</sup>	Test <sup>b</sup>
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Copper	23	27.5	18%	RPD
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Iron	27,300	37,600	32%	RPD
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Lead	13.4	15.5	15%	RPD
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Magnesium	3,570	5,250	38%	RPD
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Manganese	541	438	21%	RPD
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Nickel	26.1	35.9	32%	RPD
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Potassium	1,420	2,050	36%	RPD
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Selenium	1.1 J	1.5 J	(0.65)	D
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Silver	0.013 J	0.033 J	(0.03)	D
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Sodium	46.9 J	58.8 J	(0.10)	D
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Thallium	0.17 J	0.19 J	(0.08)	D
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Vanadium	17.9	24.9	33%	RPD
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Zinc	65.4 J	86 J	27%	RPD
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Di-n-butyl phthalate	0.41 UJ	0.025 J	(0.94)	D
CPCSB-035-5125-SO/ CPCSB-035-6072-FD	Bis(2-ethylhexyl) phthalate	0.41 U	0.024 J	(0.94)	D
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Aluminum	11,900	10,800	10%	RPD
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Arsenic	6.7 J	6 J	11%	RPD
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Barium	57.6 J	64.5 J	11%	RPD
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Beryllium	0.58	0.51	(0.47)	D
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Cadmium	0.26 J	0.2 J	(0.20)	D
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Calcium	725 J	689 J	(0.12)	D
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Chromium	14.6 J	12.6 J	15%	RPD
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Cobalt	8.1	8.8	8%	RPD
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Copper	14 J	10.2 J	31%	RPD
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Iron	19,300	18,000	7%	RPD
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Lead	14.2	12.7	11%	RPD
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Magnesium	2,370 J	2,080 J	13%	RPD
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Manganese	242	238	2%	RPD
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Mercury	0.045 J	0.063 J	(0.12)	D
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Nickel	16.5 J	14.3 J	14%	RPD
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Potassium	788 J	560 J	(1.50)	D *
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Selenium	0.92	0.76	(0.21)	D
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Silver	0.062 J	0.043 UJ	(0.03)	D
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Sodium	62.8 J	66.8 J	(0.03)	D

**Table C-7. Field Duplicate Pair Comparisons for Analytes Detected in Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Chemical	Regular Result	Duplicate Result	RPD % or (Absolute Difference) <sup>a</sup>	Test <sup>b</sup>
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Thallium	0.17 J	0.18 J	(0.03)	D
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Vanadium	18.7 J	18.4 J	2%	RPD
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Zinc	60.8 J	48.3 J	23%	RPD
<i>Semi-volatile Organic Compounds</i>					
Soil (mg/kg)					
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Fluoranthene	0.023 J	0.021 J	(0.03)	D
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Phenanthrene	0.076 U	0.01 J	(0.88)	D
CPCSS-037-5015-SO/ CPCSS-037-6041-FD	Pyrene	0.016 J	0.016 J	(0.00)	D
<i>Metals</i>					
Surface Water (mg/L)					
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Aluminum	0.357	0.254	(1.00)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Antimony	0.00096 J	0.00095 J	(0.00)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Arsenic	0.001 J	0.00086 J	(0.03)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Barium	0.0216	0.0161	(0.55)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Beryllium	0.000064 J	0.000076 J	(0.01)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Cadmium	0.000062 J	0.000039 J	(0.01)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Calcium	21.6	22.3	3%	RPD
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Chromium	0.00062 J	0.005 U	(0.88)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Cobalt	0.00039 J	0.00027 J	(0.02)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Copper	0.0021 J	0.0018 J	(0.06)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Iron	0.995	0.814	20%	RPD
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Lead	0.00047 J	0.0003 J	(0.06)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Magnesium	3.27	3.34	(0.07)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Manganese	0.136	0.102	29%	RPD
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Nickel	0.0019 J	0.0017 J	(0.02)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Potassium	1.49	1.42	(0.07)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Selenium	0.00023 J	0.0002 J	(0.01)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Sodium	1.6	1.66	(0.06)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Thallium	0.00046 J	0.002 U	(0.77)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Vanadium	0.00051 J	0.00054 J	(0.00)	D
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	Zinc	0.0109 J	0.04 U	(0.73)	D
<i>Explosives</i>					
Surface Water (mg/L)					
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	4-Amino-2,6-dinitrotoluene	0.000043 J	0.000036 J	(0.05)	D

**Table C-7. Field Duplicate Pair Comparisons for Analytes Detected in Samples from Upper and Lower Cobbs Ponds (continued)**

Sample ID	Chemical	Regular Result	Duplicate Result	RPD % or (Absolute Difference) <sup>a</sup>	Test <sup>b</sup>
<i>Pesticides</i>					
<b>Surface Water (mg/L)</b>					
CPCSW-047-5030-SW/ CPCSW-047-6045-FD	beta-BHC	0.0001 U	0.000018 J	(1.10)	D

<sup>a</sup>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.

<sup>b</sup>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 (D) if any result was less than 5x the reporting limit.

\*RPD or D outside criteria.

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

BHC = Hexachlorocyclohexane

ID = Identifier

mg/kg = Milligrams per Kilogram

mg/L = Milligrams per Liter

RPD = Relative Percent Difference

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 10x the action level, the data are not qualified and it is considered a positive value.
- When inorganic analyte sample concentrations are determined to be below 5 or 10x 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 10x 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 non-detectable concentration “U” according to the validation in Table C-4.

The common VOC laboratory contaminant acetone was detected in all three project trip blanks. The concentrations observed were 5.6, 4.8, and 4.6 µg/L (reporting level at 10 µg/L). The impact of these values has been assessed during data review, and values have been qualified where necessary in six water samples. It is, 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. The rinsate blank contained chromium, cobalt, iron, manganese, nickel, zinc, benzenemethanol, di-n-butylphthalate, bis(2-ethylhexyl)phthalate, acetone, and toluene well below the reporting limits, while manganese and acetone levels were slightly above reporting levels. No data were qualified based on the rinsate blank.

#### 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 proper preservation, holding times, use of standard sampling and analytical methods, and determination of 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 SVOCs for one sediment sample and nitrocellulose for three water samples; however, they were analyzed within two times the holding time, and the data are considered usable but estimated. No other holding time deviations were observed.

Comparability, like representativeness, is a qualitative term relative to an individual project data set. This RI/FS employed appropriate sampling methodologies, sample containers and preservation, site surveillance, use of standard sampling devices, uniform training, documentation of sampling, standard analytical protocols/procedures, QC checks with standard control limits, and universally accepted data reporting units to ensure comparability to other data sets. Through the proper implementation and documentation of these standard practices, the project has established the 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 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 the sample analyses performed.

### **C.5 DATA QUALITY ASSESSMENT SUMMARY**

In concurrence with the USACE Chemical Data Quality Assessment Report presented in Attachment 1, the overall quality of the RI/FS Report data and information meets or exceeds the established project objectives. Through proper implementation of 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.” Data that have been estimated provide indications of accuracy, precision, or sensitivity being less than desired but adequate for interpretation. Rejected data were relegated to nine antimony results in soil due to poor MS recoveries. 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.

**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 Hydrocarbon Compounds	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

°C = Degrees Celsius.

g = Gram.

Hg = Mercury.

K= Permeability.

NA = Not applicable.

oz = Ounce.

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 Hydrocarbon Compounds	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 <sub>3</sub> poly	300 mL	HNO <sub>3</sub> to pH <2 Cool, 4°C	180 days; Hg at 28 days

°C = Degrees Celsius.

HCl = Hydrochloric acid.

Hg = Mercury.

HNO<sub>3</sub> = Nitric acid.

L = Liter.

mL = Milliliter

TAL = Target analyte list.

## C.6 REFERENCES

- DoD (U.S. Department of Defense) 2006. *Quality Systems Manual for Environmental Laboratories*. Environmental Data Quality Workgroup. Version 3. January 2006.
- USACE (U.S. 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. *PBA 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. 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)

Upper and Lower Cobbs Ponds Remedial Investigation

#### 1. Purpose:

This memorandum represents and documents the evaluation of the quality and usability of the analytical data obtained during the Phase III Remedial Investigation (RI) of the Upper and Lower Cobbs Ponds (RVAAP-29) (Ponds). 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 Phase III Remedial Investigation Report and Feasibility Study for Soil, Sediment, and Surface Water at RVAAP-29 Upper and Lower Cobbs Ponds*, prepared by SAIC, March 30, 2012.
- 2.2 *Final Data Validation Report, Ravenna Army Ammunition Plant 18 Areas of Concern 2010 Sampling, Ravenna, Ohio*, prepared by MEC<sup>x</sup>, 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 of the Ponds 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 from February through April 2010 by Science Application International Corporation (SAIC). Thirty-four 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), volatiles (VOCs), hexavalent chromium, and total chromium.

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 rinsate 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 Phase III Remedial Investigation Report and Feasibility Study for Soil, Sediment, and Surface Water at RVAAP-29 Upper and Lower Cobbs Ponds*, (SAIC, 2012) and Section 20 of the *Final Data*

*Validation Report, Ravenna Army Ammunition Plant 18 Areas of Concern 2010 Sampling* (MEC<sup>x</sup>, 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<sup>x</sup>, 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 quality of the chemical data generated for the Ponds. This assessment includes 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 Ponds RI met the project DQOs. Usable definitive data of known and documented quality was produced for 99.8 % 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 contractor's 100% Level III evaluation, rejected data were relegated to 9 non-detectable soil results for antimony. Two of the same antimony results and three additional hexachlorocyclopentadiene results were rejected during the 10% Level IV data validation performed by MEC<sup>x</sup>. All results were nondetects.

### Upper and Lower Cobbs Ponds

#### Rejected Data

Sample	SDG	Analyte	Reason	Review
CPCSS-036-5014-SO	A0B240490	Antimony	MS Recovery (<30)	Level III (100%)
CPCSS-037-5015-SO				
CPCSS-037-6041-SO				
CPCSS-038-5016-SO				
CPCSS-039-5017-SO				
CPCSS-040-5018-SO				
CPCSS-041-5019-SO				
CPCSS-042-5020-SO				
CPCSB-032-5115-SO	A0C250560			
CPCSS-037-5015-SO	A0C240490	Hexachlorocyclopentadiene	MRL Recovery (<10%)	Level IV (10%)
		Antimony	MS Recovery (<30)	
CPCSS-039-5017-SO		Hexachlorocyclopentadiene	MRL Recovery (<10%)	
		Antimony	MS Recovery (<30)	
CPCSD-047-5785-SD	A0C240490	Hexachlorocyclopentadiene	MRL Recovery (<10%)	

### 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 primarily in regards to qualification of data due to MRL recovery outliers. Section 3.2 of the FWQAPP considers the QC limits “guidance”. As such, SAIC notes the outliers but doesn’t qualify based upon them. Based upon professional opinion, MECx qualifies data associated with missing MRL standards or those with recovery outliers.

### 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 Upper and Lower Cobbs Ponds RI are deemed acceptable for use with some exceptions. Rejected and unusable data are relegated to 12 sample results (all nondetects) out of approximately 5,100 results. Based upon this assessment, 99.8% 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.



Kathy Krantz  
Project Chemist  
USACE – Louisville District

**ATTACHMENT 2**

**Automated Data Review Outlier Reports**

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## QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0B240490

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature ( C )	Criteria	
					Lower Limit	Upper Limit
B12SB-028-5087-SO	A0B240490003	353.2 Modified	SO	0.8	2.0	6.0
B12SB-028-5088-SO	A0B240490004	353.2 Modified	SO	0.8	2.0	6.0
CPCSS-039-5017-SO	A0B240490016	353.2 Modified	SO	0.8	2.0	6.0
B12SB-028-5087-SO	A0B240490003	8081A	SO	0.8	2.0	
B12SB-028-5087-SOMS	A0B240490003S	8081A	SO	0.8	2.0	
B12SB-028-5087-SOMSD	A0B240490003D	8081A	SO	0.8	2.0	
B12SB-028-5088-SO	A0B240490004	8081A	SO	0.8	2.0	
CPCSS-039-5017-SO	A0B240490016	8081A	SO	0.8	2.0	
B12SB-028-5087-SO	A0B240490003	8082	SO	0.8	2.0	
B12SB-028-5088-SO	A0B240490004	8082	SO	0.8	2.0	
CPCSS-039-5017-SO	A0B240490016	8082	SO	0.8	2.0	
B12SB-028-5087-SO	A0B240490003	8260B	SO	0.8	2.0	
B12SB-028-5088-SO	A0B240490004	8260B	SO	0.8	2.0	
CPCSS-039-5017-SO	A0B240490016	8260B	SO	0.8	2.0	
B12SB-027-5083-SO	A0B240490001	8270C	SO	0.8	2.0	
B12SB-027-5083-SOMS	A0B240490001S	8270C	SO	0.8	2.0	
B12SB-027-5083-SOMSD	A0B240490001D	8270C	SO	0.8	2.0	
B12SB-027-5084-SO	A0B240490002	8270C	SO	0.8	2.0	
B12SB-028-5087-SO	A0B240490003	8270C	SO	0.8	2.0	
B12SB-028-5088-SO	A0B240490004	8270C	SO	0.8	2.0	
B12SB-030-5093-SO	A0B240490005	8270C	SO	0.8	2.0	
B12SB-030-5094-SO	A0B240490006	8270C	SO	0.8	2.0	
B12SB-030-6076-FD	A0B240490007	8270C	SO	0.8	2.0	
B12SB-031-5097-SO	A0B240490008	8270C	SO	0.8	2.0	
B12SB-031-5098-SO	A0B240490009	8270C	SO	0.8	2.0	
B12SB-032-5101-SO	A0B240490010	8270C	SO	0.8	2.0	
B12SB-032-5102-SO	A0B240490011	8270C	SO	0.8	2.0	
CPCSS-036-5014-SO	A0B240490012	8270C	SO	0.8	2.0	
CPCSS-037-5015-SO	A0B240490013	8270C	SO	0.8	2.0	

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## QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0B240490

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature ( C )	Criteria	
					Lower Limit	Upper Limit
CPCSS-037-6041-FD	A0B240490014	8270C	SO	0.8	2.0	
CPCSS-038-5016-SO	A0B240490015	8270C	SO	0.8	2.0	
CPCSS-039-5017-SO	A0B240490016	8270C	SO	0.8	2.0	
CPCSS-040-5018-SO	A0B240490017	8270C	SO	0.8	2.0	
CPCSS-041-5019-SO	A0B240490018	8270C	SO	0.8	2.0	
CPCSS-042-5020-SO	A0B240490019	8270C	SO	0.8	2.0	
CPCSS-043-5021-SO	A0B240490020	8270C	SO	0.8	2.0	
CPCSS-043-5021-SOMS	A0B240490020S	8270C	SO	0.8	2.0	
CPCSS-043-5021-SOMSD	A0B240490020D	8270C	SO	0.8	2.0	
B12SB-027-5083-SO	A0B240490001	8330B	SO	0.8	2.0	
B12SB-027-5083-SOMS	A0B240490001S	8330B	SO	0.8	2.0	
B12SB-027-5083-SOMSD	A0B240490001D	8330B	SO	0.8	2.0	
B12SB-027-5084-SO	A0B240490002	8330B	SO	0.8	2.0	
B12SB-028-5087-SO	A0B240490003	8330B	SO	0.8	2.0	
B12SB-028-5088-SO	A0B240490004	8330B	SO	0.8	2.0	
B12SB-030-5093-SO	A0B240490005	8330B	SO	0.8	2.0	
B12SB-030-5094-SO	A0B240490006	8330B	SO	0.8	2.0	
B12SB-030-6076-FD	A0B240490007	8330B	SO	0.8	2.0	
B12SB-031-5097-SO	A0B240490008	8330B	SO	0.8	2.0	
B12SB-031-5098-SO	A0B240490009	8330B	SO	0.8	2.0	
B12SB-032-5101-SO	A0B240490010	8330B	SO	0.8	2.0	
B12SB-032-5102-SO	A0B240490011	8330B	SO	0.8	2.0	
CPCSS-036-5014-SO	A0B240490012	8330B	SO	0.8	2.0	
CPCSS-037-5015-SO	A0B240490013	8330B	SO	0.8	2.0	
CPCSS-037-6041-FD	A0B240490014	8330B	SO	0.8	2.0	
CPCSS-038-5016-SO	A0B240490015	8330B	SO	0.8	2.0	
CPCSS-039-5017-SO	A0B240490016	8330B	SO	0.8	2.0	
CPCSS-040-5018-SO	A0B240490017	8330B	SO	0.8	2.0	
CPCSS-041-5019-SO	A0B240490018	8330B	SO	0.8	2.0	

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## QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0B240490

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature ( C )	Criteria	
					Lower Limit	Upper Limit
CPCSS-042-5020-SO	A0B240490019	8330B	SO	0.8	2.0	
CPCSS-043-5021-SO	A0B240490020	8330B	SO	0.8	2.0	
CPCSS-043-5021-SOMS	A0B240490020S	8330B	SO	0.8	2.0	
CPCSS-043-5021-SOMSD	A0B240490020D	8330B	SO	0.8	2.0	
B12SB-028-5087-SO	A0B240490003	8330M	SO	0.8	2.0	
B12SB-028-5088-SO	A0B240490004	8330M	SO	0.8	2.0	
CPCSS-039-5017-SO	A0B240490016	8330M	SO	0.8	2.0	

# Temperature Outlier Report

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**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		
								Detect Quals		Non-Detect Qual(s)	Detect Quals	
					Low	High	Gross Exceed	Non-Biased	Biased	Non-Biased	Biased	Non-Detect Qual(s)

# Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0056021  
 Preparation Batch : 0056021  
 Lab Reporting Batch : A0B240490

Analysis Method : 6020  
 Preparation Type : 3050B  
 Lab ID: TALCAN

Analysis Date : 02/26/2010  
 Preparation Date : 02/25/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
B12SB-027-5083-SOMS	A0B240490001S	SO	Antimony	25		30.00	75.00	125.00	20.00
			Cobalt	114		30.00	55.00	110.00	20.00
			Magnesium	160		30.00	70.00	130.00	20.00
			Nickel	184		30.00	10.00	176.00	20.00
			Potassium	142		30.00	70.00	130.00	20.00
			Vanadium	149		30.00	39.00	129.00	20.00
B12SB-027-5083-SOMS	A0B240490001D		Antimony	25		30.00	75.00	125.00	20.00
			Magnesium	158		30.00	70.00	130.00	20.00
			Nickel	177		30.00	10.00	176.00	20.00
			Vanadium	132		30.00	39.00	129.00	20.00
			Antimony	31		30.00	75.00	125.00	20.00
			Calcium	131		30.00	70.00	130.00	20.00
CPCSS-043-5021-SOMS	A0B240490020S		Antimony	29		30.00	75.00	125.00	20.00
			Calcium	170		30.00	70.00	130.00	20.00
			Magnesium	146		30.00	70.00	130.00	20.00

## Associated Samples: All samples in Method Batch

Client Sample ID	Lab Sample ID
B12SB-027-5083-SO	A0B240490001
B12SB-027-5084-SO	A0B240490002
B12SB-028-5087-SO	A0B240490003
B12SB-028-5088-SO	A0B240490004
B12SB-030-5093-SO	A0B240490005
B12SB-030-5094-SO	A0B240490006
B12SB-030-6076-FD	A0B240490007
B12SB-031-5097-SO	A0B240490008
B12SB-031-5098-SO	A0B240490009
B12SB-032-5101-SO	A0B240490010
B12SB-032-5102-SO	A0B240490011
CPCSS-036-5014-SO	A0B240490012
CPCSS-037-5015-SO	A0B240490013
CPCSS-037-6041-FD	A0B240490014
CPCSS-038-5016-SO	A0B240490015
CPCSS-039-5017-SO	A0B240490016
CPCSS-040-5018-SO	A0B240490017
CPCSS-041-5019-SO	A0B240490018
CPCSS-042-5020-SO	A0B240490019
CPCSS-043-5021-SO	A0B240490020

\* 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 : 0056031  
 Preparation Batch : 0056031  
 Lab Reporting Batch : A0B240490

Analysis Method : 8081A  
 Preparation Type : 3540C  
 Lab ID: TALCAN

Analysis Date : 03/11/2010  
 Preparation Date : 02/25/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
B12SB-028-5087-SOMS	A0B240490003S	SO	alpha-Chordane	194		0.00	65.00	120.00	65.00
			delta-BHC	53		0.00	55.00	130.00	34.00
B12SB-028-5087-SOMS	A0B240490003D		Endrin ketone	60		0.00	65.00	135.00	32.00
			4,4'-DDD	152	51	0.00	30.00	135.00	35.00
			alpha-Chordane	345		0.00	65.00	120.00	65.00
			delta-BHC		41	0.00	55.00	130.00	34.00
			Endosulfan II		44	0.00	35.00	140.00	27.00
			Endosulfan sulfate		49	0.00	60.00	135.00	34.00
			Endrin aldehyde		48	0.00	35.00	145.00	29.00
			Endrin ketone		50	0.00	65.00	135.00	32.00
			gamma-Chlordane	215	49	0.00	65.00	125.00	36.00
			Methoxychlor		47	0.00	55.00	145.00	41.00

## Associated Samples: Parent sample only

Client Sample ID	Lab Sample ID
B12SB-028-5087-SO	A0B240490003

\* 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 :** 0056039      **Analysis Method :** 8270C      **Analysis Date :** 03/05/2010  
**Preparation Batch :** 0056039      **Preparation Type :** 3540C      **Preparation Date :** 02/25/2010  
**Lab Reporting Batch :** A0B240490      **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
B12SB-027-5083-SOMS	A0B240490001S	SO	3-methylphenol/4-methylphenol	25					
B12SB-027-5083-SOMS	A0B240490001D		3-methylphenol/4-methylphenol	25					

## Associated Samples: Parent sample only

Client Sample ID	Lab Sample ID
B12SB-027-5083-SO	A0B240490001

\* 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 : 0056040	Analysis Method : 8270C	Analysis Date : 03/11/2010						
Preparation Batch : 0056040	Preparation Type : 3540C	Preparation Date : 02/25/2010						
Lab Reporting Batch : A0B240490	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

CPCSS-043-5021-SOMS A0B240490020S      SO

1,2,4-Trichlorobenzene	10	0.00	45.00	110.00	30.00
1,2-Dichlorobenzene	9.6	0.00	45.00	95.00	25.00
1,3-Dichlorobenzene	9.7	0.00	40.00	100.00	30.00
1,4-Dichlorobenzene	10	0.00	35.00	105.00	30.00
2,4,5-Trichlorophenol	11	0.00	50.00	110.00	30.00
2,4,6-Trichlorophenol	9.3	0.00	45.00	110.00	29.00
2,4-Dichlorophenol	8.4	0.00	45.00	110.00	30.00
2,4-Dimethylphenol	10	0.00	30.00	105.00	30.00
2,4-Dinitrophenol	0.0	0.00	15.00	130.00	30.00
2,4-Dinitrotoluene	0.0	0.00	50.00	115.00	30.00
2,6-Dinitrotoluene	16	0.00	50.00	110.00	39.00
2-Chloronaphthalene	9.0	0.00	45.00	105.00	28.00
2-Chlorophenol	9.9	0.00	45.00	105.00	54.00
2-Methylnaphthalene	13	0.00	45.00	105.00	27.00
2-Methylphenol	11	0.00	40.00	105.00	29.00
2-Nitroaniline	12	0.00	45.00	120.00	39.00
2-Nitrophenol	11	0.00	40.00	110.00	30.00
3,3'-Dichlorobenzidine	0.0	0.00	10.00	130.00	56.00
3-methylphenol/4-methylphenol	10				
3-Nitroaniline	13	0.00	25.00	110.00	45.00
4,6-Dinitro-2-methylphenol	0.0	0.00	30.00	135.00	30.00
4-Bromophenyl phenyl ether	9.2	0.00	45.00	115.00	30.00
4-Chloro-3-methylphenol	12	0.00	45.00	115.00	55.00
4-Chloroaniline	0.0	0.00	10.00	95.00	30.00
4-Chlorophenyl phenyl ether	10	0.00	45.00	110.00	29.00
4-Nitroaniline	19	0.00	35.00	115.00	30.00
4-Nitrophenol	0.0	0.00	15.00	140.00	30.00
Acenaphthene	10	0.00	45.00	110.00	44.00
Acenaphthylene	9.0	0.00	45.00	105.00	30.00
Anthracene	9.5	0.00	55.00	105.00	30.00
Benz[a]anthracene	22	0.00	50.00	110.00	30.00
Benzo[a]pyrene	9.6	0.00	50.00	110.00	30.00
Benzo[b]fluoranthene	13	0.00	45.00	115.00	30.00
Benzo[g,h,i]perylene	10	0.00	40.00	125.00	30.00
Benzo[k]fluoranthene	11	0.00	45.00	125.00	30.00
Benzyl alcohol	10	0.00	20.00	125.00	30.00
bis(2-Chloroethoxy)methane	10	0.00	45.00	110.00	30.00
bis(2-Chloroethyl) ether	10	0.00	40.00	105.00	30.00
Bis(2-chloroisopropyl) ether	11	0.00	20.00	115.00	30.00
bis(2-Ethylhexyl) phthalate	20	0.00	45.00	125.00	30.00

\* 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

CPCSS-043-5021-SOMS A0B240490020S	SO	Butyl benzyl phthalate	12	0.00	50.00	125.00	35.00
		Carbazole	11	0.00	45.00	115.00	20.00
		Chrysene	24	0.00	55.00	110.00	30.00
		dibenz[a,h]anthracene	17	0.00	40.00	125.00	30.00
		Dibenzofuran	9.6	0.00	50.00	105.00	30.00
		Diethyl phthalate	10	0.00	50.00	115.00	29.00
		Dimethyl phthalate	10	0.00	50.00	110.00	30.00
		Di-n-butyl phthalate	12	0.00	55.00	110.00	24.00
		Di-n-octyl phthalate	22	0.00	40.00	130.00	30.00
		Fluoranthene	12	0.00	55.00	115.00	30.00
		Fluorene	10	0.00	50.00	110.00	29.00
		Hexachlorobenzene	8.9	0.00	45.00	120.00	30.00
		Hexachlorobutadiene	10	0.00	40.00	115.00	25.00
		Hexachloroethane	0.0	0.00	35.00	110.00	29.00
		Indeno[1,2,3-cd]pyrene	8.6	0.00	40.00	120.00	30.00
		Isophorone	10	0.00	45.00	110.00	30.00
		Naphthalene	9.9	0.00	40.00	105.00	25.00
		Nitrobenzene	9.9	0.00	40.00	115.00	29.00
		N-Nitrosodi-n-propylamine	9.9	0.00	40.00	115.00	50.00
		N-Nitrosodiphenylamine	9.3	0.00	50.00	115.00	68.00
		Phenanthrene	9.7	0.00	50.00	110.00	20.00
		Phenol	11	0.00	40.00	100.00	30.00
		Pyrene	11	0.00	45.00	125.00	30.00
CPCSS-043-5021-SOMS A0B240490020D		1,2,4-Trichlorobenzene	138	0.00	45.00	110.00	30.00
		1,2-Dichlorobenzene	141	0.00	45.00	95.00	25.00
		1,3-Dichlorobenzene	138	0.00	40.00	100.00	30.00
		1,4-Dichlorobenzene	138	0.00	35.00	105.00	30.00
		2,4,5-Trichlorophenol	142	0.00	50.00	110.00	30.00
		2,4,6-Trichlorophenol	148	0.00	45.00	110.00	29.00
		2,4-Dichlorophenol	156	0.00	45.00	110.00	30.00
		2,4-Dimethylphenol	148	0.00	30.00	105.00	30.00
		2,4-Dinitrophenol	200	0.00	15.00	130.00	30.00
		2,4-Dinitrotoluene	200	0.00	50.00	115.00	30.00
		2,6-Dinitrotoluene	117	0.00	50.00	110.00	39.00
		2-Chloronaphthalene	145	0.00	45.00	105.00	28.00
		2-Chlorophenol	146	0.00	45.00	105.00	54.00
		2-Methylnaphthalene	142	0.00	45.00	105.00	27.00
		2-Methylphenol	147	0.00	40.00	105.00	29.00
		2-Nitroaniline	141	0.00	45.00	120.00	39.00
		2-Nitrophenol	139	0.00	40.00	110.00	30.00
		3,3'-Dichlorobenzidine	0.0	0.00	10.00	130.00	56.00
		3-methylphenol/4-methylphenol	69				
		3-Nitroaniline	23	57	0.00	25.00	110.00
		4,6-Dinitro-2-methylphenol	200	0.00	30.00	135.00	30.00
		4-Bromophenyl phenyl ether	142	0.00	45.00	115.00	30.00
		4-Chloro-3-methylphenol	146	0.00	45.00	115.00	55.00
		4-Chloroaniline	200	0.00	10.00	95.00	30.00
		4-Chlorophenyl phenyl ether	143	0.00	45.00	110.00	29.00

\* 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

CPCSS-043-5021-SOMS A0B240490020D	SO	4-Nitroaniline	27	37	0.00	35.00	115.00	30.00
		4-Nitrophenol		200	0.00	15.00	140.00	30.00
		Acenaphthene		139	0.00	45.00	110.00	44.00
		Acenaphthylene		148	0.00	45.00	105.00	30.00
		Anthracene		145	0.00	55.00	105.00	30.00
		Benz[a]anthracene		103	0.00	50.00	110.00	30.00
		Benzo[a]pyrene		145	0.00	50.00	110.00	30.00
		Benzo[b]fluoranthene		142	0.00	45.00	115.00	30.00
		Benzo[g,h,i]perylene		122	0.00	40.00	125.00	30.00
		Benzo[k]fluoranthene		136	0.00	45.00	125.00	30.00
		Benzyl alcohol		150	0.00	20.00	125.00	30.00
		bis(2-Chloroethoxy)methane		141	0.00	45.00	110.00	30.00
		bis(2-Chloroethyl) ether		142	0.00	40.00	105.00	30.00
		Bis(2-chloroisopropyl) ether		140	0.00	20.00	115.00	30.00
		bis(2-Ethylhexyl) phthalate		126	0.00	45.00	125.00	30.00
		Butyl benzyl phthalate		144	0.00	50.00	125.00	35.00
		Carbazole		138	0.00	45.00	115.00	20.00
		Chrysene		82	0.00	55.00	110.00	30.00
		dibenz[a,h]anthracene		119	0.00	40.00	125.00	30.00
		Dibenzofuran		145	0.00	50.00	105.00	30.00
		Diethyl phthalate		144	0.00	50.00	115.00	29.00
		Dimethyl phthalate		144	0.00	50.00	110.00	30.00
		Di-n-butyl phthalate		139	0.00	55.00	110.00	24.00
		Di-n-octyl phthalate		115	0.00	40.00	130.00	30.00
		Fluoranthene		138	0.00	55.00	115.00	30.00
		Fluorene		144	0.00	50.00	110.00	29.00
		Hexachlorobenzene		142	0.00	45.00	120.00	30.00
		Hexachlorobutadiene		134	0.00	40.00	115.00	25.00
		Hexachloroethane	18	200	0.00	35.00	110.00	29.00
		Indeno[1,2,3-cd]pyrene		154	0.00	40.00	120.00	30.00
		Isophorone		141	0.00	45.00	110.00	30.00
		Naphthalene		142	0.00	40.00	105.00	25.00
		Nitrobenzene		143	0.00	40.00	115.00	29.00
		N-Nitrosodi-n-propylamine		149	0.00	40.00	115.00	50.00
		N-Nitrosodiphenylamine		143	0.00	50.00	115.00	68.00
		Phenanthrene		143	0.00	50.00	110.00	20.00
		Phenol		143	0.00	40.00	100.00	30.00
		Pyrene		144	0.00	45.00	125.00	30.00

## Associated Samples: Parent sample only

Client Sample ID	Lab Sample ID
CPCSS-043-5021-SO	A0B240490020

\* 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 : 0063129  
 Preparation Batch : 0063129  
 Lab Reporting Batch : A0B240490

Analysis Method : 8330B  
 Preparation Type : 8330B  
 Lab ID: TALCAN

Analysis Date : 03/10/2010  
 Preparation Date : 03/04/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
CPCSS-043-5021-SOMS	A0B240490020S	SO	4-Amino-2,6-Dinitrotoluene	76		0.00	80.00	125.00	30.00
CPCSS-043-5021-SOMS	A0B240490020D		4-Amino-2,6-Dinitrotoluene	77		0.00	80.00	125.00	30.00
			Nitroglycerin	150	37	0.00	74.00	112.00	30.00

## Associated Samples: Parent sample only

Client Sample ID	Lab Sample ID
B12SB-027-5083-SO	A0B240490001
CPCSS-043-5021-SO	A0B240490020

\* 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

**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:** A0B240490

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
B12SB-027-5083-SO	A0B240490001	8330B	SO	1,3,5-Trinitrobenzene	U	0.26	0.0143662	mg/kg
				1,3-Dinitrobenzene	U	0.26	0.35915493	mg/kg
				2,4-Dinitrotoluene	U	0.26	0.35915493	mg/kg
				2,6-Dinitrotoluene	U	0.26	0.35915493	mg/kg
				2-Nitrotoluene	U	0.26	0.35915493	mg/kg
				3-Nitrotoluene	U	0.26	0.35915493	mg/kg
				Nitrobenzene	U	0.26	0.35915493	mg/kg
B12SB-027-5084-SO	A0B240490002	6020	SO	Antimony	U	0.63	0.625	mg/kg
		8330B		1,3,5-Trinitrobenzene	U	0.26	0.01275	mg/kg
				1,3-Dinitrobenzene	U	0.26	0.31875	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.26	0.31875	mg/kg
				2,4-Dinitrotoluene	U	0.26	0.31875	mg/kg
				2,6-Dinitrotoluene	U	0.26	0.31875	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.26	0.31875	mg/kg
				2-Nitrotoluene	U	0.26	0.31875	mg/kg
				3-Nitrotoluene	U	0.26	0.31875	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.26	0.31875	mg/kg
				Nitrobenzene	U	0.26	0.31875	mg/kg
B12SB-028-5087-SO	A0B240490003	8081A	SO	4,4'-DDE	U	44	43.5897436	ug/kg
				beta-BHC	U	90	89.7435897	ug/kg
				Dieldrin	U	44	43.5897436	ug/kg
				Endosulfan I	U	44	43.5897436	ug/kg
				Endosulfan sulfate	U	77	76.9230769	ug/kg
				Endrin	U	44	43.5897436	ug/kg
				Endrin aldehyde	U	77	76.9230769	ug/kg
				Heptachlor	U	90	89.7435897	ug/kg
				Methoxychlor	U	130	128.205128	ug/kg
		8260B		2-Butanone (MEK)	U	26	25.6410256	ug/kg
				2-Hexanone	U	26	25.6410256	ug/kg
				4-methyl-2-pentanone (MIBK)	U	26	25.6410256	ug/kg
				Acetone	U	26	25.6410256	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

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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:** A0B240490

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
B12SB-028-5087-SO	A0B240490003	8260B	SO	Xylene (Total)	U	13	12.8205128	ug/kg
B12SB-028-5088-SO	A0B240490004	8081A	SO	Toxaphene	U	410	408.536585	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 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
				Vinyl chloride	U	6.1	6.09756098	ug/kg
	8270C			Acenaphthene	U	61	60.9756098	ug/kg
				Acenaphthylene	U	61	60.9756098	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

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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:** A0B240490

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	
							Criteria*	Units
B12SB-028-5088-SO	A0B240490004	8270C	SO	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
				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
B12SB-030-5093-SO	A0B240490005	8330B	SO	1,3,5-Trinitrobenzene	U	0.26	0.012875	mg/kg
				1,3-Dinitrobenzene	U	0.26	0.321875	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.26	0.321875	mg/kg
				2,4-Dinitrotoluene	U	0.26	0.321875	mg/kg
				2,6-Dinitrotoluene	U	0.26	0.321875	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.26	0.321875	mg/kg
				2-Nitrotoluene	U	0.26	0.321875	mg/kg
				3-Nitrotoluene	U	0.26	0.321875	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.26	0.321875	mg/kg
				4-Nitrotoluene	U	0.52	0.64375	mg/kg
				Nitrobenzene	U	0.26	0.321875	mg/kg
B12SB-030-5094-SO	A0B240490006	6020	SO	Antimony	U	0.61	0.6097561	mg/kg
B12SB-032-5101-SO	A0B240490010	8330B	SO	1,3,5-Trinitrobenzene	U	0.24	0.0130137	mg/kg
				1,3-Dinitrobenzene	U	0.24	0.32534247	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.24	0.32534247	mg/kg
				2,4-Dinitrotoluene	U	0.24	0.32534247	mg/kg
				2,6-Dinitrotoluene	U	0.24	0.32534247	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.24	0.32534247	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

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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:** A0B240490

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Result	Criteria*	Units
B12SB-032-5101-SO	A0B240490010	8330B	SO	2-Nitrotoluene	U	0.24	0.32534247	mg/kg
				3-Nitrotoluene	U	0.24	0.32534247	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.24	0.32534247	mg/kg
				4-Nitrotoluene	U	0.48	0.65068493	mg/kg
				Nitrobenzene	U	0.24	0.32534247	mg/kg
CPCSS-036-5014-SO	A0B240490012	6020	SO	Antimony	U	0.66	0.65789474	mg/kg
				2,4-Dinitrophenol	U	1100	1052.63158	ug/kg
				2-Nitroaniline	U	1100	1052.63158	ug/kg
				3-Nitroaniline	U	1100	1052.63158	ug/kg
				4,6-Dinitro-2-methylphenol	U	1100	1052.63158	ug/kg
				4-Nitroaniline	U	1100	1052.63158	ug/kg
				4-Nitrophenol	U	1100	1052.63158	ug/kg
				Acenaphthene	U	66	65.7894737	ug/kg
				Acenaphthylene	U	66	65.7894737	ug/kg
				Anthracene	U	66	65.7894737	ug/kg
				Benz[a]anthracene	U	66	65.7894737	ug/kg
				Benzo[a]pyrene	U	66	65.7894737	ug/kg
				Benzo[b]fluoranthene	U	66	65.7894737	ug/kg
				Benzo[g,h,i]perylene	U	66	65.7894737	ug/kg
				Benzo[k]fluoranthene	U	66	65.7894737	ug/kg
				Benzoic acid	U	1100	1052.63158	ug/kg
				Carbazole	U	66	65.7894737	ug/kg
				Chrysene	U	66	65.7894737	ug/kg
				dibenz[a,h]anthracene	U	66	65.7894737	ug/kg
				Fluorene	U	66	65.7894737	ug/kg
				Indeno[1,2,3-cd]pyrene	U	66	65.7894737	ug/kg
				Naphthalene	U	66	65.7894737	ug/kg
				Phenanthrene	U	66	65.7894737	ug/kg
CPCSS-037-5015-SO	A0B240490013	6020	SO	Antimony	U	0.76	0.75757576	mg/kg
				Acenaphthene	U	76	75.7575758	ug/kg
				Acenaphthylene	U	76	75.7575758	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

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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:** A0B240490

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Result	Criteria*	Units
CPCSS-037-5015-SO	A0B240490013	8270C	SO	Anthracene	U	76	75.7575758	ug/kg
				Benz[a]anthracene	U	76	75.7575758	ug/kg
				Benzo[a]pyrene	U	76	75.7575758	ug/kg
				Benzo[b]fluoranthene	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
				Chrysene	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
				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
CPCSS-037-6041-FD	A0B240490014	8270C	SO	2,4-Dinitrophenol	U	1200	1194.02985	ug/kg
				2-Nitroaniline	U	1200	1194.02985	ug/kg
				3-Nitroaniline	U	1200	1194.02985	ug/kg
				4,6-Dinitro-2-methylphenol	U	1200	1194.02985	ug/kg
				4-Nitroaniline	U	1200	1194.02985	ug/kg
				4-Nitrophenol	U	1200	1194.02985	ug/kg
				Benzoic acid	U	1200	1194.02985	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

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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:** A0B240490

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Result	Criteria*	Units
CPCSS-038-5016-SO	A0B240490015	6020	SO	Antimony	U	0.65	0.64935065	mg/kg
				1,2,4-Trichlorobenzene	U	430	428.571429	ug/kg
		8270C		1,2-Dichlorobenzene	U	430	428.571429	ug/kg
				1,3-Dichlorobenzene	U	430	428.571429	ug/kg
		8270C		1,4-Dichlorobenzene	U	430	428.571429	ug/kg
				2,4,5-Trichlorophenol	U	430	428.571429	ug/kg
		8270C		2,4,6-Trichlorophenol	U	430	428.571429	ug/kg
				2,4-Dichlorophenol	U	430	428.571429	ug/kg
		8270C		2,4-Dimethylphenol	U	430	428.571429	ug/kg
				2,4-Dinitrotoluene	U	430	428.571429	ug/kg
		8270C		2,6-Dinitrotoluene	U	430	428.571429	ug/kg
				2-Chloronaphthalene	U	430	428.571429	ug/kg
		8270C		2-Chlorophenol	U	430	428.571429	ug/kg
				2-Methylnaphthalene	U	430	428.571429	ug/kg
		8270C		2-Methylphenol	U	430	428.571429	ug/kg
				2-Nitrophenol	U	430	428.571429	ug/kg
		8270C		3,3'-Dichlorobenzidine	U	430	428.571429	ug/kg
				3-methylphenol/4-methylphenol	U	430	#Error	ug/kg
		8270C		4-Bromophenyl phenyl ether	U	430	428.571429	ug/kg
				4-Chloro-3-methylphenol	U	430	428.571429	ug/kg
		8270C		4-Chloroaniline	U	430	428.571429	ug/kg
				4-Chlorophenyl phenyl ether	U	430	428.571429	ug/kg
		8270C		Acenaphthene	U	65	64.9350649	ug/kg
				Acenaphthylene	U	65	64.9350649	ug/kg
		8270C		Anthracene	U	65	64.9350649	ug/kg
				Benz[a]anthracene	U	65	64.9350649	ug/kg
		8270C		Benzo[a]pyrene	U	65	64.9350649	ug/kg
				Benzo[b]fluoranthene	U	65	64.9350649	ug/kg
		8270C		Benzo[g,h,i]perylene	U	65	64.9350649	ug/kg
				Benzo[k]fluoranthene	U	65	64.9350649	ug/kg
		8270C		bis(2-Chloroethoxy)methane	U	430	428.571429	ug/kg
				bis(2-Chloroethyl) ether	U	430	428.571429	ug/kg
		8270C		Bis(2-chloroisopropyl) ether	U	430	428.571429	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

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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:** A0B240490

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*		
							Criteria*	Units	
CPCSS-038-5016-SO	A0B240490015	8270C	SO	bis(2-Ethylhexyl) phthalate	U	430	428.571429	ug/kg	
				Butyl benzyl phthalate	U	430	428.571429	ug/kg	
				Carbazole	U	65	64.9350649	ug/kg	
				Chrysene	U	65	64.9350649	ug/kg	
				dibenz[a,h]anthracene	U	65	64.9350649	ug/kg	
				Dibenzofuran	U	430	428.571429	ug/kg	
				Diethyl phthalate	U	430	428.571429	ug/kg	
				Dimethyl phthalate	U	430	428.571429	ug/kg	
				Di-n-butyl phthalate	U	430	428.571429	ug/kg	
				Di-n-octyl phthalate	U	430	428.571429	ug/kg	
				Fluoranthene	U	65	64.9350649	ug/kg	
				Fluorene	U	65	64.9350649	ug/kg	
				Hexachlorobenzene	U	430	428.571429	ug/kg	
				Hexachlorobutadiene	U	430	428.571429	ug/kg	
				HEXACHLOROCYCLOPENTADIE	U	430	#Error	ug/kg	
				Hexachloroethane	U	430	428.571429	ug/kg	
				Indeno[1,2,3-cd]pyrene	U	65	64.9350649	ug/kg	
				Isophorone	U	430	428.571429	ug/kg	
				Naphthalene	U	65	64.9350649	ug/kg	
				Nitrobenzene	U	430	428.571429	ug/kg	
				N-Nitrosodi-n-propylamine	U	430	428.571429	ug/kg	
				N-Nitrosodiphenylamine	U	430	428.571429	ug/kg	
				Pentachlorophenol	U	430	428.571429	ug/kg	
				Phenanthrene	U	65	64.9350649	ug/kg	
				Phenol	U	430	428.571429	ug/kg	
				Pyrene	U	65	428.571429	ug/kg	
CPCSS-039-5017-SO	A0B240490016	6020	SO	Antimony	U	0.63	0.625	mg/kg	
				alpha-Chordane	U	3.8	3.75	ug/kg	
				beta-BHC	U	4.4	4.375	ug/kg	
				Endosulfan sulfate	U	3.8	3.75	ug/kg	
				Endrin aldehyde	U	3.8	3.75	ug/kg	
				Heptachlor	U	4.4	4.375	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

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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:** A0B240490

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	
							Criteria*	Units
CPCSS-039-5017-SO	A0B240490016	8081A	SO	Methoxychlor	U	6.3	6.25	ug/kg
				Toxaphene				
	8260B			1,1,1-Trichloroethane	U	6.3	6.25	ug/kg
				1,1,2,2-Tetrachloroethane				
				1,1,2-Trichloroethane	U	6.3	6.25	ug/kg
				1,1-Dichloroethane				
				1,1-Dichloroethene	U	6.3	6.25	ug/kg
				1,2-Dibromoethane (Ethylene Dibro)				
				1,2-Dichloroethane	U	6.3	6.25	ug/kg
				1,2-Dichloroethene (total)				
				1,2-Dichloropropane	U	6.3	6.25	ug/kg
				Benzene				
				Bromochloromethane	U	6.3	6.25	ug/kg
				Bromodichloromethane				
				Bromoform	U	6.3	6.25	ug/kg
				Bromomethane (Methyl bromide)				
				Carbon disulfide	U	6.3	6.25	ug/kg
				Carbon tetrachloride				
				Chlorobenzene	U	6.3	6.25	ug/kg
				Chlorodibromomethane				
				Chloroethane	U	6.3	6.25	ug/kg
				Chloroform				
				Chloromethane	U	6.3	6.25	ug/kg
				cis-1,3-Dichloropropene	U	6.3	6.25	ug/kg
				Ethylbenzene	U	6.3	6.25	ug/kg
				Methylene chloride	U	6.3	6.25	ug/kg
				Styrene	U	6.3	6.25	ug/kg
				Tetrachloroethene	U	6.3	6.25	ug/kg
				Toluene	U	6.3	6.25	ug/kg
				trans-1,3-Dichloropropene	U	6.3	6.25	ug/kg
				Trichloroethene	U	6.3	6.25	ug/kg
				Vinyl chloride	U	6.3	6.25	ug/kg
				Xylene (Total)	U	13	12.5	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

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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:** A0B240490

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	
							Criteria*	Units
CPCSS-039-5017-SO	A0B240490016	8270C	SO	Acenaphthene	U	63	62.5	ug/kg
				Acenaphthylene	U	63	62.5	ug/kg
				Anthracene	U	63	62.5	ug/kg
				Benz[a]anthracene	U	63	62.5	ug/kg
				Benzo[a]pyrene	U	63	62.5	ug/kg
				Benzo[b]fluoranthene	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
				Fluoranthene	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
				Phenanthrene	U	63	62.5	ug/kg
				Pyrene	U	63	412.5	ug/kg
CPCSS-040-5018-SO	A0B240490017	6020	SO	Antimony	U	0.67	0.66666667	mg/kg
		8270C		2,4-Dinitrophenol	U	1100	1066.66667	ug/kg
				2-Nitroaniline	U	1100	1066.66667	ug/kg
				3-Nitroaniline	U	1100	1066.66667	ug/kg
				4,6-Dinitro-2-methylphenol	U	1100	1066.66667	ug/kg
				4-Nitroaniline	U	1100	1066.66667	ug/kg
				4-Nitrophenol	U	1100	1066.66667	ug/kg
				Acenaphthene	U	67	66.6666667	ug/kg
				Acenaphthylene	U	67	66.6666667	ug/kg
				Anthracene	U	67	66.6666667	ug/kg
				Benz[a]anthracene	U	67	66.6666667	ug/kg
				Benzo[a]pyrene	U	67	66.6666667	ug/kg
				Benzo[b]fluoranthene	U	67	66.6666667	ug/kg
				Benzo[g,h,i]perylene	U	67	66.6666667	ug/kg
				Benzo[k]fluoranthene	U	67	66.6666667	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

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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:** A0B240490

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Result	Criteria*	Units
CPCSS-040-5018-SO	A0B240490017	8270C	SO	Benzoic acid	U	1100	1066.666667	ug/kg
				Carbazole	U	67	66.6666667	ug/kg
				Chrysene	U	67	66.6666667	ug/kg
				dibenz[a,h]anthracene	U	67	66.6666667	ug/kg
				Fluorene	U	67	66.6666667	ug/kg
				Indeno[1,2,3-cd]pyrene	U	67	66.6666667	ug/kg
				Naphthalene	U	67	66.6666667	ug/kg
CPCSS-041-5019-SO	A0B240490018	6020 8270C	SO	Antimony	U	0.66	0.65789474	mg/kg
				1,2,4-Trichlorobenzene	U	440	434.210526	ug/kg
				1,2-Dichlorobenzene	U	440	434.210526	ug/kg
				1,3-Dichlorobenzene	U	440	434.210526	ug/kg
				1,4-Dichlorobenzene	U	440	434.210526	ug/kg
				2,4,5-Trichlorophenol	U	440	434.210526	ug/kg
				2,4,6-Trichlorophenol	U	440	434.210526	ug/kg
				2,4-Dichlorophenol	U	440	434.210526	ug/kg
				2,4-Dimethylphenol	U	440	434.210526	ug/kg
				2,4-Dinitrophenol	U	1100	1052.63158	ug/kg
				2,4-Dinitrotoluene	U	440	434.210526	ug/kg
				2,6-Dinitrotoluene	U	440	434.210526	ug/kg
				2-Chloronaphthalene	U	440	434.210526	ug/kg
				2-Chlorophenol	U	440	434.210526	ug/kg
				2-Methylnaphthalene	U	440	434.210526	ug/kg
				2-Methylphenol	U	440	434.210526	ug/kg
				2-Nitroaniline	U	1100	1052.63158	ug/kg
				2-Nitrophenol	U	440	434.210526	ug/kg
				3,3'-Dichlorobenzidine	U	440	434.210526	ug/kg
				3-methylphenol/4-methylphenol	U	440	#Error	ug/kg
				3-Nitroaniline	U	1100	1052.63158	ug/kg
				4,6-Dinitro-2-methylphenol	U	1100	1052.63158	ug/kg
				4-Bromophenyl phenyl ether	U	440	434.210526	ug/kg
				4-Chloro-3-methylphenol	U	440	434.210526	ug/kg
				4-Chloroaniline	U	440	434.210526	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

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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:** A0B240490

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*		
							Criteria*	Units	
CPCSS-041-5019-SO	A0B240490018	8270C	SO	4-Chlorophenyl phenyl ether	U	440	434.210526	ug/kg	
				4-Nitroaniline	U	1100	1052.63158	ug/kg	
				4-Nitrophenol	U	1100	1052.63158	ug/kg	
				Acenaphthene	U	66	65.7894737	ug/kg	
				Acenaphthylene	U	66	65.7894737	ug/kg	
				Anthracene	U	66	65.7894737	ug/kg	
				Benz[a]anthracene	U	66	65.7894737	ug/kg	
				Benzo[a]pyrene	U	66	65.7894737	ug/kg	
				Benzo[b]fluoranthene	U	66	65.7894737	ug/kg	
				Benzo[g,h,i]perylene	U	66	65.7894737	ug/kg	
				Benzo[k]fluoranthene	U	66	65.7894737	ug/kg	
				Benzoic acid	U	1100	1052.63158	ug/kg	
				Benzyl alcohol	U	440	434.210526	ug/kg	
				bis(2-Chloroethoxy)methane	U	440	434.210526	ug/kg	
				bis(2-Chloroethyl) ether	U	440	434.210526	ug/kg	
				Bis(2-chloroisopropyl) ether	U	440	434.210526	ug/kg	
				bis(2-Ethylhexyl) phthalate	U	440	434.210526	ug/kg	
				Butyl benzyl phthalate	U	440	434.210526	ug/kg	
				Carbazole	U	66	65.7894737	ug/kg	
				Chrysene	U	66	65.7894737	ug/kg	
				dibenz[a,h]anthracene	U	66	65.7894737	ug/kg	
				Dibenzofuran	U	440	434.210526	ug/kg	
				Diethyl phthalate	U	440	434.210526	ug/kg	
				Dimethyl phthalate	U	440	434.210526	ug/kg	
				Di-n-butyl phthalate	U	440	434.210526	ug/kg	
				Di-n-octyl phthalate	U	440	434.210526	ug/kg	
				Fluorene	U	66	65.7894737	ug/kg	
				Hexachlorobenzene	U	440	434.210526	ug/kg	
				Hexachlorobutadiene	U	440	434.210526	ug/kg	
				HEXACHLOROCYCLOPENTADIE	U	440	#Error	ug/kg	
				Hexachloroethane	U	440	434.210526	ug/kg	
				Indeno[1,2,3-cd]pyrene	U	66	65.7894737	ug/kg	
				Isophorone	U	440	434.210526	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

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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:** A0B240490

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Criteria*	Units	
CPCSS-041-5019-SO	A0B240490018	8270C	SO	Naphthalene	U	66	65.7894737	ug/kg
				Nitrobenzene	U	440	434.210526	ug/kg
				N-Nitrosodi-n-propylamine	U	440	434.210526	ug/kg
				N-Nitrosodiphenylamine	U	440	434.210526	ug/kg
				Pentachlorophenol	U	440	434.210526	ug/kg
				Phenol	U	440	434.210526	ug/kg
		8330B	SO	1,3,5-Trinitrobenzene	U	0.26	0.01342105	mg/kg
				1,3-Dinitrobenzene	U	0.26	0.33552632	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.26	0.33552632	mg/kg
				2,4-Dinitrotoluene	U	0.26	0.33552632	mg/kg
				2,6-Dinitrotoluene	U	0.26	0.33552632	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.26	0.33552632	mg/kg
				2-Nitrotoluene	U	0.26	0.33552632	mg/kg
				3-Nitrotoluene	U	0.26	0.33552632	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.26	0.33552632	mg/kg
				Nitrobenzene	U	0.26	0.33552632	mg/kg
CPCSS-042-5020-SO	A0B240490019	6020	SO	Antimony	U	0.69	0.68493151	mg/kg
				2,4-Dinitrophenol	U	1100	1095.89041	ug/kg
				2-Nitroaniline	U	1100	1095.89041	ug/kg
				3-Nitroaniline	U	1100	1095.89041	ug/kg
				4,6-Dinitro-2-methylphenol	U	1100	1095.89041	ug/kg
				4-Nitroaniline	U	1100	1095.89041	ug/kg
				4-Nitrophenol	U	1100	1095.89041	ug/kg
				Acenaphthene	U	69	68.4931507	ug/kg
				Acenaphthylene	U	69	68.4931507	ug/kg
				Anthracene	U	69	68.4931507	ug/kg
				Benzo[b]fluoranthene	U	69	68.4931507	ug/kg
				Benzo[g,h,i]perylene	U	69	68.4931507	ug/kg
				Benzo[k]fluoranthene	U	69	68.4931507	ug/kg
				Benzoic acid	U	1100	1095.89041	ug/kg
				Carbazole	U	69	68.4931507	ug/kg
				Chrysene	U	69	68.4931507	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

ADR 8.3

Report Date: 2/15/2011 10:46

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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:** A0B240490

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*		
							Criteria*	Units	
CPCSS-042-5020-SO	A0B240490019	8270C	SO	dibenz[a,h]anthracene	U	69	68.4931507	ug/kg	
				Fluorene	U	69	68.4931507	ug/kg	
				Indeno[1,2,3-cd]pyrene	U	69	68.4931507	ug/kg	
				Naphthalene	U	69	68.4931507	ug/kg	
CPCSS-043-5021-SO	A0B240490020	8270C	SO	1,2,4-Trichlorobenzene	U	3000	2933.33333	ug/kg	
				1,2-Dichlorobenzene	U	3000	2933.33333	ug/kg	
				1,3-Dichlorobenzene	U	3000	2933.33333	ug/kg	
				1,4-Dichlorobenzene	U	3000	2933.33333	ug/kg	
				2,4,5-Trichlorophenol	U	3000	2933.33333	ug/kg	
				2,4,6-Trichlorophenol	U	3000	2933.33333	ug/kg	
				2,4-Dichlorophenol	U	3000	2933.33333	ug/kg	
				2,4-Dimethylphenol	U	3000	2933.33333	ug/kg	
				2,4-Dinitrophenol	U	7200	7111.11111	ug/kg	
				2,4-Dinitrotoluene	U	3000	2933.33333	ug/kg	
				2,6-Dinitrotoluene	U	3000	2933.33333	ug/kg	
				2-Chloronaphthalene	U	3000	2933.33333	ug/kg	
				2-Chlorophenol	U	3000	2933.33333	ug/kg	
				2-Methylnaphthalene	U	3000	2933.33333	ug/kg	
				2-Methylphenol	U	3000	2933.33333	ug/kg	
				2-Nitroaniline	U	7200	7111.11111	ug/kg	
				2-Nitrophenol	U	3000	2933.33333	ug/kg	
				3,3'-Dichlorobenzidine	U	3000	2933.33333	ug/kg	
				3-methylphenol/4-methylphenol	U	3000	#Error	ug/kg	
				3-Nitroaniline	U	7200	7111.11111	ug/kg	
				4,6-Dinitro-2-methylphenol	U	7200	7111.11111	ug/kg	
				4-Bromophenyl phenyl ether	U	3000	2933.33333	ug/kg	
				4-Chloro-3-methylphenol	U	3000	2933.33333	ug/kg	
				4-Chloroaniline	U	3000	2933.33333	ug/kg	
				4-Chlorophenyl phenyl ether	U	3000	2933.33333	ug/kg	
				4-Nitroaniline	U	7200	7111.11111	ug/kg	
				4-Nitrophenol	U	7200	7111.11111	ug/kg	
				Acenaphthene	U	450	444.444444	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

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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:** A0B240490

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Result	Criteria*	Units
CPCSS-043-5021-SO	A0B240490020	8270C	SO	Acenaphthylene	U	450	444.444444	ug/kg
				Anthracene	U	450	444.444444	ug/kg
				Benz[a]anthracene	U	450	444.444444	ug/kg
				Benzo[a]pyrene	U	450	444.444444	ug/kg
				Benzo[b]fluoranthene	U	450	444.444444	ug/kg
				Benzo[g,h,i]perylene	U	450	444.444444	ug/kg
				Benzo[k]fluoranthene	U	450	444.444444	ug/kg
				Benzoic acid	U	7200	7111.11111	ug/kg
				Benzyl alcohol	U	3000	2933.33333	ug/kg
				bis(2-Chloroethoxy)methane	U	3000	2933.33333	ug/kg
				bis(2-Chloroethyl) ether	U	3000	2933.33333	ug/kg
				Bis(2-chloroisopropyl) ether	U	3000	2933.33333	ug/kg
				bis(2-Ethylhexyl) phthalate	U	3000	2933.33333	ug/kg
				Butyl benzyl phthalate	U	3000	2933.33333	ug/kg
				Carbazole	U	450	444.444444	ug/kg
				Chrysene	U	450	444.444444	ug/kg
				dibenz[a,h]anthracene	U	450	444.444444	ug/kg
				Dibenzofuran	U	3000	2933.33333	ug/kg
				Diethyl phthalate	U	3000	2933.33333	ug/kg
				Dimethyl phthalate	U	3000	2933.33333	ug/kg
				Di-n-butyl phthalate	U	3000	2933.33333	ug/kg
				Di-n-octyl phthalate	U	3000	2933.33333	ug/kg
				Fluoranthene	U	450	444.444444	ug/kg
				Fluorene	U	450	444.444444	ug/kg
				Hexachlorobenzene	U	3000	2933.33333	ug/kg
				Hexachlorobutadiene	U	3000	2933.33333	ug/kg
				HEXACHLOROCYCLOPENTADIE	U	3000	#Error	ug/kg
				Hexachloroethane	U	3000	2933.33333	ug/kg
				Indeno[1,2,3-cd]pyrene	U	450	444.444444	ug/kg
				Isophorone	U	3000	2933.33333	ug/kg
				Naphthalene	U	450	444.444444	ug/kg
				Nitrobenzene	U	3000	2933.33333	ug/kg
				N-Nitrosodi-n-propylamine	U	3000	2933.33333	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:** A0B240490

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Result	Criteria*	Units
CPCSS-043-5021-SO	A0B240490020	8270C	SO	N-Nitrosodiphenylamine	U	3000	2933.33333	ug/kg
				Pentachlorophenol	U	3000	2933.33333	ug/kg
				Phenanthrene	U	450	444.444444	ug/kg
				Phenol	U	3000	2933.33333	ug/kg
				Pyrene	U	450	2933.33333	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

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## Continuing Calibration (CCV) Outlier Report (Organics)

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**There are no Organic Continuing Calibrations with outliers**

# Continuing Calibration (CCAL) Outlier Report (Inorganics)

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**There are no Inorganic Continuing Calibrations with outliers**

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

Lab Report Batch: A0B240490

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	
							Units	
B12SB-027-5083-SO	A0B240490001	6020	SO	Antimony	J	0.10	0.71	mg/kg
				Cadmium	J	0.14	0.28	mg/kg
				Silver	J	0.029	0.71	mg/kg
				Sodium	J	66.1	141	mg/kg
				Thallium	J	0.16	0.28	mg/kg
		7471A		Mercury	J	0.059	0.14	mg/kg
				2,4,6-Trinitrotoluene (TNT)	J	0.051	0.26	mg/kg
				2-Amino-4,6-dinitrotoluene	J	0.074	0.26	mg/kg
				4-Amino-2,6-Dinitrotoluene	J	0.083	0.26	mg/kg
				Cadmium	J	0.12	0.25	mg/kg
B12SB-027-5084-SO	A0B240490002	6020		Silver	J	0.030	0.63	mg/kg
				Sodium	J	46.2	125	mg/kg
				Thallium	J	0.18	0.25	mg/kg
				Mercury	J	0.032	0.13	mg/kg
				Nitrocellulose	B	2.0	6.4	mg/kg
		353.2 Modified		Antimony	J	0.17	0.64	mg/kg
				Silver	J	0.036	0.64	mg/kg
				Thallium	J	0.17	0.26	mg/kg
				alpha-Chordane	J	57	77	ug/kg
				gamma-Chlordane	J	42	44	ug/kg
B12SB-028-5087-SO	A0B240490003	8081A		2-Methylnaphthalene	J	35	420	ug/kg
				Benz[a]anthracene	J	24	64	ug/kg
				Benzo[b]fluoranthene	J	37	64	ug/kg
				Chrysene	J	27	64	ug/kg
				Di-n-butyl phthalate	J	26	420	ug/kg
				Fluoranthene	J	31	64	ug/kg
				Naphthalene	J	15	64	ug/kg
		8270C		Phenanthrene	J	17	64	ug/kg
				Pyrene	J	25	64	ug/kg
				2-Amino-4,6-dinitrotoluene	J	0.028	0.23	mg/kg
				4-Amino-2,6-Dinitrotoluene	J	0.024	0.23	mg/kg
				Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	J PG	0.015	0.23	mg/kg
				Octahydro-1,3,5,7-tetrannitro-1,3,5,7-tetr	J	0.020	0.23	mg/kg
				Cadmium	J	0.18	0.24	mg/kg
B12SB-028-5088-SO	A0B240490004	353.2 Modified		Nitrocellulose	B	1.0	6.1	mg/kg
				Antimony	J	0.079	0.61	mg/kg
		6020		Cadmium	J			mg/kg

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

Lab Report Batch: A0B240490

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	
							Units	
B12SB-028-5088-SO	A0B240490004	6020	SO	Silver	J	0.018	0.61	mg/kg
				Thallium	J	0.10	0.24	mg/kg
		7471A		Mercury	J	0.020	0.12	mg/kg
		8260B		2-Butanone (MEK)	J B	4.4	24	ug/kg
				Carbon disulfide	J	0.80	6.1	ug/kg
		8270C		Pyrene	J	32	61	ug/kg
B12SB-030-5093-SO	A0B240490005	6020		Antimony	J	0.085	0.62	mg/kg
				Cadmium	J	0.097	0.25	mg/kg
				Silver	J	0.032	0.62	mg/kg
				Sodium	J	39.7	124	mg/kg
				Thallium	J	0.15	0.25	mg/kg
		7471A		Mercury	J	0.032	0.12	mg/kg
B12SB-030-5094-SO	A0B240490006	6020		Cadmium	J	0.023	0.24	mg/kg
				Selenium	J	0.54	0.61	mg/kg
				Silver	J	0.011	0.61	mg/kg
				Sodium	J	32.0	122	mg/kg
				Thallium	J	0.088	0.24	mg/kg
B12SB-030-6076-FD	A0B240490007			Antimony	J	0.096	0.64	mg/kg
				Cadmium	J	0.16	0.26	mg/kg
				Silver	J	0.043	0.64	mg/kg
				Sodium	J	41.9	129	mg/kg
				Thallium	J	0.17	0.26	mg/kg
		7471A		Mercury	J	0.042	0.13	mg/kg
B12SB-031-5097-SO	A0B240490008	6020		Cadmium	J	0.12	0.27	mg/kg
				Silver	J	0.026	0.66	mg/kg
				Sodium	J	43.5	133	mg/kg
				Thallium	J	0.19	0.27	mg/kg
		7471A		Mercury	J	0.035	0.13	mg/kg
B12SB-031-5098-SO	A0B240490009	6020		Antimony	J	0.12	0.65	mg/kg
				Cadmium	J	0.11	0.26	mg/kg
				Silver	J	0.022	0.65	mg/kg
				Sodium	J	48.6	129	mg/kg
				Thallium	J	0.17	0.26	mg/kg
		7471A		Mercury	J	0.027	0.13	mg/kg
B12SB-032-5101-SO	A0B240490010	6020		Cadmium	J	0.045	0.27	mg/kg
				Silver	J	0.034	0.68	mg/kg

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

Lab Report Batch: A0B240490

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit		Units
B12SB-032-5101-SO	A0B240490010	6020	SO	Sodium	J	35.0	136	mg/kg	
				Thallium	J	0.17	0.27	mg/kg	
			7471A	Mercury	J	0.057	0.14	mg/kg	
			8330B	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetr	J	0.015	0.24	mg/kg	
B12SB-032-5102-SO	A0B240490011	6020	Antimony		J	0.10	0.65	mg/kg	
				Cadmium	J	0.039	0.26	mg/kg	
				Silver	J	0.029	0.65	mg/kg	
			Sodium		J	57.6	130	mg/kg	
				Thallium	J	0.16	0.26	mg/kg	
CPCSS-036-5014-SO	A0B240490012	6020	Mercury		J	0.042	0.13	mg/kg	
				Cadmium	J	0.058	0.26	mg/kg	
				Silver	J	0.028	0.66	mg/kg	
			Sodium		J	42.7	132	mg/kg	
				Thallium	J	0.19	0.26	mg/kg	
CPCSS-037-5015-SO	A0B240490013	6020	Fluoranthene		J	12	66	ug/kg	
					J	11	66	ug/kg	
				Pyrene	J				
			Cadmium		J	0.26	0.30	mg/kg	
				Silver	J	0.062	0.76	mg/kg	
CPCSS-037-6041-FD	A0B240490014	6020	Sodium		J	62.8	152	mg/kg	
				Thallium	J	0.17	0.30	mg/kg	
				Mercury	J	0.045	0.15	mg/kg	
			Fluoranthene		J	23	76	ug/kg	
				Pyrene	J	16	76	ug/kg	
CPCSS-037-6041-FD	A0B240490014	6020	Cadmium		J	0.20	0.30	mg/kg	
				Silver	J	0.043	0.74	mg/kg	
				Sodium	J	66.8	148	mg/kg	
			Thallium		J	0.18	0.30	mg/kg	
				Mercury	J	0.063	0.15	mg/kg	
CPCSS-038-5016-SO	A0B240490015	6020	Fluoranthene		J	21	74	ug/kg	
					J	10	74	ug/kg	
				Phenanthrene	J	16	74	ug/kg	
			Pyrene		J				
				Selenium	J	63.0	130	mg/kg	
CPCSS-038-5016-SO	A0B240490015	6020	Silver		J	0.034	0.65	mg/kg	
				Sodium	J	51.0	130	mg/kg	
				Thallium	J	0.18	0.26	mg/kg	

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

Lab Report Batch: A0B240490

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	
							Units	
CPCSS-038-5016-SO	A0B240490015	7471A	SO	Mercury	J	0.052	0.13	mg/kg
CPCSS-039-5017-SO	A0B240490016	353.2 Modified	Nitrocellulose		B	1.2	6.3	mg/kg
		6020	Cadmium		J	0.10	0.25	mg/kg
			Silver		J	0.021	0.63	mg/kg
			Sodium		J	48.8	126	mg/kg
			Thallium		J	0.11	0.25	mg/kg
		7471A	Mercury		J	0.023	0.13	mg/kg
		8270C	bis(2-Ethylhexyl) phthalate		J	230	410	ug/kg
CPCSS-040-5018-SO	A0B240490017	6020	Cadmium		J	0.10	0.27	mg/kg
			Silver		J	0.040	0.67	mg/kg
			Sodium		J	47.6	134	mg/kg
			Thallium		J	0.20	0.27	mg/kg
		7471A	Mercury		J	0.052	0.13	mg/kg
		8270C	Fluoranthene		J	18	67	ug/kg
			Phenanthrene		J	9.5	67	ug/kg
			Pyrene		J	16	67	ug/kg
CPCSS-041-5019-SO	A0B240490018	6020	Cadmium		J	0.18	0.26	mg/kg
			Silver		J	0.040	0.66	mg/kg
			Sodium		J	44.9	132	mg/kg
			Thallium		J	0.16	0.26	mg/kg
		7471A	Mercury		J	0.047	0.13	mg/kg
		8270C	Fluoranthene		J	33	66	ug/kg
			Phenanthrene		J	17	66	ug/kg
			Pyrene		J	28	66	ug/kg
CPCSS-042-5020-SO	A0B240490019	6020	Cadmium		J	0.17	0.27	mg/kg
			Selenium		J	0.67	0.69	mg/kg
			Silver		J	0.057	0.69	mg/kg
			Sodium		J	46.5	137	mg/kg
			Thallium		J	0.16	0.27	mg/kg
		7471A	Mercury		J	0.072	0.14	mg/kg
		8270C	Benz[a]anthracene		J	66	69	ug/kg
			Benzo[a]pyrene		J	57	69	ug/kg
CPCSS-043-5021-SO	A0B240490020	6020	Antimony		J	0.23	1.1	mg/kg
			Beryllium		J G	0.48	2.2	mg/kg
			Cadmium		J	0.20	0.45	mg/kg
			Selenium		J	0.96	1.1	mg/kg

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

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Lab Report Batch: A0B240490

Lab ID: TALCAN

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Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	EDD		
						Result	Reporting Limit	Units
CPCSS-043-5021-SO	A0B240490020	6020	SO	Silver	J	0.085	1.1	mg/kg
				Sodium	J	70.7	224	mg/kg
				Thallium	J	0.13	0.45	mg/kg
				Mercury	J	0.074	0.22	mg/kg

## Method Blank Outlier Report

Lab Reporting Batch : A0B240490

Lab ID: TALCAN

Analysis Method : 6020

Analysis Date : 02/26/2010

Preparation Type : 3050B

Preparation Date : 02/25/2010

Method Blank Lab Sample ID : A0B250000021B

Preparation Batch : 0056021

Zinc	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	1.7	4.0	mg/kg	J	

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

# Method Blank Outlier Report

Lab Reporting Batch : A0B240490

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.

# Method Blank Outlier Report

Lab Reporting Batch : A0B240490

Lab ID: TALCAN

Analysis Method : 8260B

Analysis Date : 03/02/2010

Preparation Type : 5030B

Preparation Date : 03/02/2010

Method Blank Lab Sample ID : A0C030000288B

Preparation Batch : 0062288

2-Butanone (MEK)	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	4.6	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
B12SB-028-5088-SO	A0B240490004	1	4.4	J B	ug/kg

2-Hexanone	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	2.7	20	ug/kg	J	

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

4-methyl-2-pentanone (MIBK)	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.62	20	ug/kg	J	

4-methyl-2-pentanone (MIBK) 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 was qualified due to method blank contamination in the following associated samples:

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
B12SB-028-5088-SO	A0B240490004	1	28	B	ug/kg

Methylene chloride	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	2.1	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
B12SB-028-5087-SO	A0B240490003	1	8.2	B	ug/kg
B12SB-028-5088-SO	A0B240490004	1	8.0	B	ug/kg

## Surrogate Recovery Outlier Report

**Lab Report Batch:** A0B240490

**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	
B12SB-028-5087-SO	A0B240490003	8260B	1	SO	4-Bromofluorobenzene	76	85.0	120.0	10.0	All Target
B12SB-028-5088-SO	A0B240490004	8081A	5	SO	Decachlorobiphenyl	22	55.0	130.0	10.0	All Target
		8260B	1	SO	TETRACHLORO-M-XYLENE	18	55.0	130.0	10.0	All Target
					4-Bromofluorobenzene	79	85.0	120.0	10.0	All Target
CPCSS-043-5021-SOMS	A0B240490020S	8270C	4	SO	2-Fluorobiphenyl	9.9	45.0	105.0	10.0	Base/Neutral

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

**Lab Report Batch:**

**Lab ID:**

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

\*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: A0C250560

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature ( C )	Criteria	
					Lower Limit	Upper Limit
CPCSB-032-5115-SO	A0C250560001	8270C	SO	0.8	2.0	

# Temperature Outlier Report

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**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		
								Detect Quals		Non-Detect Qual(s)	Detect Quals	
					Low	High	Gross Exceed	Non-Biased	Biased	Non-Biased	Biased	Non-Detect Qual(s)

# Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch :

Analysis Method :

Analysis Date :

Preparation Batch :

Preparation Type :

Preparation Date :

Lab Reporting Batch :

Lab ID:

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD

\* 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

# 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:** A0C250560

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
CPCSB-032-5115-SO	A0C250560001	8270C	SO	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-Choronaphthalene	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
				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-octyl phthalate	U	400	397.590361	ug/kg
				Hexachlorobenzene	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 - Percent Moisture)

Water: 1

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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:** A0C250560

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Result	Criteria*	Units
CPCSB-032-5115-SO	A0C250560001	8270C	SO	Hexachlorobutadiene	U	400	397.590361	ug/kg
				HEXACHLOROCYCLOPENTADIENE	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

\* 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

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

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Lab Report Batch: A0C250560

Lab ID: TALCAN

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Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	EDD		
						Result	Reporting Limit	Units
CPCSB-032-5115-SO	A0C250560001	6020	SO	Cadmium	J	0.035	0.24	mg/kg
				Silver	J	0.029	0.60	mg/kg
				Sodium	J	78.4	120	mg/kg
				Thallium	J	0.17	0.24	mg/kg
			8270C	Di-n-butyl phthalate	J	19	400	ug/kg

## QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0C250567

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature ( C )	Criteria	
					Lower Limit	Upper Limit
CPCSB-032-5115-SO	A0C250567001	8330B	SO	0.8	2.0	

# Temperature Outlier Report

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**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		
								Detect Quals		Non-Detect Qual(s)	Detect Quals	
					Low	High	Gross Exceed	Non-Biased	Biased	Non-Biased	Biased	Non-Detect Qual(s)

## QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0C250600

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature ( C )	Criteria	
					Lower Limit	Upper Limit
CPCSD-046-5024-SD	A0C250600006	353.2 Modified	SO	0.8	2.0	6.0
CPCSD-046-5784-SD	A0C250600007	353.2 Modified	SO	0.8	2.0	6.0
CPCSD-046-5024-SD	A0C250600006	8081A	SO	0.8	2.0	
CPCSD-046-5784-SD	A0C250600007	8081A	SO	0.8	2.0	
CPCSD-046-5024-SD	A0C250600006	8082	SO	0.8	2.0	
CPCSD-046-5784-SD	A0C250600007	8082	SO	0.8	2.0	
CPCSD-046-5024-SD	A0C250600006	8260B	SO	0.8	2.0	
CPCSD-046-5784-SD	A0C250600007	8260B	SO	0.8	2.0	
CPCSB-031-5109-SO	A0C250600001	8270C	SO	0.8	2.0	
CPCSB-031-5109-SOMS	A0C250600001S	8270C	SO	0.8	2.0	
CPCSB-031-5109-SOMSD	A0C250600001D	8270C	SO	0.8	2.0	
CPCSB-032-5113-SO	A0C250600002	8270C	SO	0.8	2.0	
CPCSB-032-5114-SO	A0C250600003	8270C	SO	0.8	2.0	
CPCSB-032-5116-SO	A0C250600004	8270C	SO	0.8	2.0	
CPCSB-032-6073-FD	A0C250600005	8270C	SO	0.8	2.0	
CPCSD-046-5024-SD	A0C250600006	8270C	SO	0.8	2.0	
CPCSD-046-5024-SDMS	A0C250600006S	8270C	SO	0.8	2.0	
CPCSD-046-5024-SDMSD	A0C250600006D	8270C	SO	0.8	2.0	
CPCSD-046-5784-SD	A0C250600007	8270C	SO	0.8	2.0	
CPCSB-031-5109-SO	A0C250600001	8270C PAH	SO	0.8	2.0	
CPCSB-031-5109-SOMS	A0C250600001S	8270C PAH	SO	0.8	2.0	
CPCSB-031-5109-SOMSD	A0C250600001D	8270C PAH	SO	0.8	2.0	
CPCSB-032-5113-SO	A0C250600002	8270C PAH	SO	0.8	2.0	
CPCSB-032-5114-SO	A0C250600003	8270C PAH	SO	0.8	2.0	
CPCSB-032-5116-SO	A0C250600004	8270C PAH	SO	0.8	2.0	
CPCSB-032-6073-FD	A0C250600005	8270C PAH	SO	0.8	2.0	
CPCSD-046-5024-SD	A0C250600006	8270C PAH	SO	0.8	2.0	
CPCSD-046-5024-SDMS	A0C250600006S	8270C PAH	SO	0.8	2.0	
CPCSD-046-5024-SDMSD	A0C250600006D	8270C PAH	SO	0.8	2.0	

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## QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0C250600

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature ( C )	Criteria	
					Lower Limit	Upper Limit
CPCSD-046-5784-SD	A0C250600007	8270C PAH	SO	0.8	2.0	
CPCSB-031-5109-SO	A0C250600001	8330B	SO	0.8	2.0	
CPCSB-031-5109-SOMS	A0C250600001S	8330B	SO	0.8	2.0	
CPCSB-031-5109-SOMSD	A0C250600001D	8330B	SO	0.8	2.0	
CPCSB-032-5113-SO	A0C250600002	8330B	SO	0.8	2.0	
CPCSB-032-5114-SO	A0C250600003	8330B	SO	0.8	2.0	
CPCSB-032-5116-SO	A0C250600004	8330B	SO	0.8	2.0	
CPCSB-032-6073-FD	A0C250600005	8330B	SO	0.8	2.0	
CPCSD-046-5024-SD	A0C250600006	8330B	SO	0.8	2.0	
CPCSD-046-5784-SD	A0C250600007	8330B	SO	0.8	2.0	
CPCSD-046-5024-SD	A0C250600006	8330M	SO	0.8	2.0	
CPCSD-046-5784-SD	A0C250600007	8330M	SO	0.8	2.0	

# Temperature Outlier Report

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**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		
								Detect Quals		Non-Detect Qual(s)	Detect Quals	
					Low	High	Gross Exceed	Non-Biased	Biased	Non-Biased	Biased	Non-Detect Qual(s)

## QC Outlier Report: Holding Times

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**Lab Report Batch:** A0C250600

**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
CPCSD-046-5024-SD	A0C250600006	8270C	SO	3540C	20.0	2.0	14	40		Days	03/25/2010	04/14/2010	04/16/2010
CPCSD-046-5024-SD	A0C250600006S	8270C	SO	3540C	20.0	2.0	14	40		Days	03/25/2010	04/14/2010	04/16/2010
CPCSD-046-5024-SD	A0C250600006D	8270C	SO	3540C	20.0	2.0	14	40		Days	03/25/2010	04/14/2010	04/16/2010
CPCSW-046-5029-S	A0C250600009	8330M	AQ	Gen Prep	19.0	1.0	14	40		Days	03/25/2010	04/13/2010	04/14/2010

# Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0090026  
 Preparation Batch : 0090026  
 Lab Reporting Batch : A0C250600

Analysis Method : 6020  
 Preparation Type : 3050B  
 Lab ID: TALCAN

Analysis Date : 04/09/2010  
 Preparation Date : 03/31/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
CPCSB-031-5109-SOMS	A0C250600001S	SO	Antimony	28	30.00	75.00	125.00	20.00	
	A0C250600001D		Antimony	32	30.00	75.00	125.00	20.00	
			Cobalt	112	30.00	55.00	110.00	20.00	
WSASS-033M-5645-SO	A0C250600011S		Antimony	25	30.00	75.00	125.00	20.00	
			Calcium	4.3	30.00	70.00	130.00	20.00	
			Potassium	0.0	30.00	70.00	130.00	20.00	
WSASS-033M-5645-SO	A0C250600011D		Antimony	26	30.00	75.00	125.00	20.00	
			Calcium	4.0	30.00	70.00	130.00	20.00	
			Potassium	0.0	30.00	70.00	130.00	20.00	

## Associated Samples: All samples in Method Batch

Client Sample ID	Lab Sample ID
CPCSB-031-5109-SO	A0C250600001
CPCSB-032-5113-SO	A0C250600002
CPCSB-032-5114-SO	A0C250600003
CPCSB-032-5116-SO	A0C250600004
CPCSB-032-6073-FD	A0C250600005
CPCSD-046-5024-SD	A0C250600006
CPCSD-046-5784-SD	A0C250600007
CPCSD-049-5032-SD	A0C250600008
WSASS-030-5653-SO	A0C250600017
WSASS-031-5654-SO	A0C250600018
WSASS-032-5655-SO	A0C250600019
WSASS-033M-5645-SO	A0C250600011
WSASS-034M-5646-SO	A0C250600012
WSASS-034M-6195-FD	A0C250600013
WSASS-035M-5648-SO	A0C250600016
WSASS-036M-5647-SO	A0C250600014

\* 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 : 0090030	Analysis Method : 8270C	Analysis Date : 04/09/2010							
Preparation Batch : 0090030	Preparation Type : 3540C	Preparation Date : 03/31/2010							
Lab Reporting Batch : A0C250600	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

WSASS-033M-5645-SO	A0C250600011S	SO	1,2,4-Trichlorobenzene	26	0.00	45.00	110.00	30.00
			1,2-Dichlorobenzene	28	0.00	45.00	95.00	25.00
			1,3-Dichlorobenzene	27	0.00	40.00	100.00	30.00
			1,4-Dichlorobenzene	29	0.00	35.00	105.00	30.00
			2,4,5-Trichlorophenol	34	0.00	50.00	110.00	30.00
			2,4,6-Trichlorophenol	30	0.00	45.00	110.00	29.00
			2,4-Dichlorophenol	29	0.00	45.00	110.00	30.00
			2,4-Dimethylphenol	21	0.00	30.00	105.00	30.00
			2,4-Dinitrotoluene	33	0.00	50.00	115.00	30.00
			2,6-Dinitrotoluene	33	0.00	50.00	110.00	39.00
			2-Chloronaphthalene	29	0.00	45.00	105.00	28.00
			2-Chlorophenol	30	0.00	45.00	105.00	54.00
			2-Methylnaphthalene	29	0.00	45.00	105.00	27.00
			2-Methylphenol	32	0.00	40.00	105.00	29.00
			2-Nitroaniline	33	0.00	45.00	120.00	39.00
			2-Nitrophenol	27	0.00	40.00	110.00	30.00
			3,3'-Dichlorobenzidine	0.0	0.00	10.00	130.00	56.00
			3-methylphenol/4-methylphenol	30				
			3-Nitroaniline	13	0.00	25.00	110.00	45.00
			4,6-Dinitro-2-methylphenol	26	0.00	30.00	135.00	30.00
			4-Bromophenyl phenyl ether	32	0.00	45.00	115.00	30.00
			4-Chloro-3-methylphenol	32	0.00	45.00	115.00	55.00
			4-Chloroaniline	0.0	0.00	10.00	95.00	30.00
			4-Chlorophenyl phenyl ether	32	0.00	45.00	110.00	29.00
			4-Nitroaniline	20	0.00	35.00	115.00	30.00
			bis(2-Chloroethoxy)methane	28	0.00	45.00	110.00	30.00
			bis(2-Chloroethyl) ether	28	0.00	40.00	105.00	30.00
			bis(2-Ethylhexyl) phthalate	35	0.00	45.00	125.00	30.00
			Butyl benzyl phthalate	34	0.00	50.00	125.00	35.00
			Carbazole	32	0.00	45.00	115.00	20.00
			Dibenzofuran	32	0.00	50.00	105.00	30.00
			Diethyl phthalate	34	0.00	50.00	115.00	29.00
			Dimethyl phthalate	33	0.00	50.00	110.00	30.00
			Di-n-butyl phthalate	33	0.00	55.00	110.00	24.00
			Di-n-octyl phthalate	33	0.00	40.00	130.00	30.00
			Hexachlorobenzene	30	0.00	45.00	120.00	30.00
			Hexachlorobutadiene	25	0.00	40.00	115.00	25.00
			Hexachloroethane	28	0.00	35.00	110.00	29.00
			Isophorone	28	0.00	45.00	110.00	30.00
			Nitrobenzene	26	0.00	40.00	115.00	29.00

\* 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

WSASS-033M-5645-SO	A0C250600011S	SO	N-Nitrosodi-n-propylamine	31	0.00	40.00	115.00	50.00
			N-Nitrosodiphenylamine	29	0.00	50.00	115.00	68.00
			Phenol	33	0.00	40.00	100.00	30.00
WSASS-033M-5645-SO	A0C250600011D		1,2,4-Trichlorobenzene	41	45	0.00	45.00	110.00
			1,2-Dichlorobenzene		49	0.00	45.00	95.00
			1,3-Dichlorobenzene		45	0.00	40.00	100.00
			1,4-Dichlorobenzene		52	0.00	35.00	105.00
			2,4,5-Trichlorophenol		48	0.00	50.00	110.00
			2,4,6-Trichlorophenol		54	0.00	45.00	110.00
			2,4-Dichlorophenol		46	0.00	45.00	110.00
			2,4-Dimethylphenol		68	0.00	30.00	105.00
			2,4-Dinitrophenol		36	0.00	15.00	130.00
			2,4-Dinitrotoluene		48	0.00	50.00	115.00
			2,6-Dinitrotoluene		52	0.00	50.00	110.00
			2-Chloronaphthalene		52	0.00	45.00	105.00
			2-Chlorophenol		57	0.00	45.00	105.00
			2-Methylnaphthalene		49	0.00	45.00	105.00
			2-Methylphenol		58	0.00	40.00	105.00
			2-Nitroaniline		52	0.00	45.00	120.00
			2-Nitrophenol		54	0.00	40.00	110.00
			3,3'-Dichlorobenzidine		0.0	0.00	10.00	130.00
			3-methylphenol/4-methylphenol		56			
			3-Nitroaniline		14	0.00	25.00	110.00
			4,6-Dinitro-2-methylphenol		35	0.00	30.00	135.00
			4-Bromophenyl phenyl ether		51	0.00	45.00	115.00
			4-Chloroaniline		0.0	0.00	10.00	95.00
			4-Chlorophenyl phenyl ether		56	0.00	45.00	110.00
			4-Nitroaniline		26	0.00	35.00	115.00
			4-Nitrophenol		71	0.00	15.00	140.00
			Benzoic acid		65	0.00	0.00	110.00
			Benzyl alcohol		62	0.00	20.00	125.00
			bis(2-Chloroethoxy)methane		49	0.00	45.00	110.00
			bis(2-Chloroethyl) ether		101	0.00	40.00	105.00
			Bis(2-chloroisopropyl) ether		57	0.00	20.00	115.00
			bis(2-Ethylhexyl) phthalate		54	0.00	45.00	125.00
			Butyl benzyl phthalate		52	0.00	50.00	125.00
			Carbazole		44	0.00	45.00	115.00
			Dibenzofuran		47	0.00	50.00	105.00
			Diethyl phthalate		53	0.00	50.00	115.00
			Dimethyl phthalate		53	0.00	50.00	110.00
			Di-n-butyl phthalate		52	0.00	55.00	110.00
			Di-n-octyl phthalate		54	0.00	40.00	130.00
			Hexachlorobenzene		55	0.00	45.00	120.00
			Hexachlorobutadiene		49	0.00	40.00	115.00
			Hexachloroethane		40	0.00	35.00	110.00
			Isophorone		49	0.00	45.00	110.00
			Nitrobenzene		46	0.00	40.00	115.00
			N-Nitrosodi-n-propylamine		57	0.00	40.00	115.00

\* 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

WSASS-033M-5645-SO A0C250600011D SO Phenol 57 0.00 40.00 100.00 30.00

Associated Samples: Parent sample only	
Client Sample ID	Lab Sample ID
WSASS-033M-5645-SO	A0C250600011

\* 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 :** 0090040      **Analysis Method :** 8081A      **Analysis Date :** 04/15/2010  
**Preparation Batch :** 0090040      **Preparation Type :** 3540C      **Preparation Date :** 03/31/2010  
**Lab Reporting Batch :** A0C250600      **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
WSASS-036M-5647-SO	A0C250600014S	SO	Heptachlor epoxide	54		0.00	65.00	130.00	43.00
WSASS-036M-5647-SO	A0C250600014D		Heptachlor epoxide	47		0.00	65.00	130.00	43.00

## Associated Samples: Parent sample only

Client Sample ID	Lab Sample ID
WSASS-036M-5647-SO	A0C250600014

\* 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 : 0104295  
 Preparation Batch : 0104295  
 Lab Reporting Batch : A0C2506000

Analysis Method : 8270C  
 Preparation Type : 3540C  
 Lab ID: TALCAN

Analysis Date : 04/16/2010  
 Preparation Date : 04/14/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
CPCSD-046-5024-SDMS	A0C250600006S	SO	Hexachloroethane	23		0.00	35.00	110.00	29.00
CPCSD-046-5024-SDMS	A0C250600006D		Benzoic acid		44	0.00	0.00	110.00	20.00
			Hexachloroethane	27		0.00	35.00	110.00	29.00

## Associated Samples: Parent sample only

Client Sample ID	Lab Sample ID
CPCSD-046-5024-SD	A0C250600006

\* 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

# 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:** A0C250600

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
CPCSB-031-5109-SO	A0C250600001	8270C	SO	2,4-Dinitrophenol	U	1100	1066.66667	ug/kg
				2-Nitroaniline	U	1100	1066.66667	ug/kg
				3-Nitroaniline	U	1100	1066.66667	ug/kg
				4,6-Dinitro-2-methylphenol	U	1100	1066.66667	ug/kg
				4-Nitroaniline	U	1100	1066.66667	ug/kg
				4-Nitrophenol	U	1100	1066.66667	ug/kg
				Benzoic acid	U	1100	1066.66667	ug/kg
				Carbazole	U	67	66.6666667	ug/kg
CPCSB-032-5113-SO	A0C250600002	8270C	SO	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
				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

\* 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

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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:** A0C250600

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*		
							Criteria*	Units	
CPCSB-032-5113-SO	A0C250600002	8270C	SO	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	
				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	
				Dibenzofuran	U	410	407.407407	ug/kg	
				Diethyl phthalate	U	410	407.407407	ug/kg	
				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	
				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	
				Isophorone	U	410	407.407407	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	
				Phenol	U	410	407.407407	ug/kg	
8330B	8330B	1,3,5-Trinitrobenzene	U	1,3,5-Trinitrobenzene	U	0.26	0.01271605	mg/kg	
				1,3-Dinitrobenzene	U	0.26	0.31790123	mg/kg	
				2,4,6-Trinitrotoluene (TNT)	U	0.26	0.31790123	mg/kg	
				2,4-Dinitrotoluene	U	0.26	0.31790123	mg/kg	
				2,6-Dinitrotoluene	U	0.26	0.31790123	mg/kg	
				2-Amino-4,6-dinitrotoluene	U	0.26	0.31790123	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

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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:** A0C250600

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Criteria*	Units	
CPCSB-032-5113-SO	A0C250600002	8330B	SO	2-Nitrotoluene	U	0.26	0.31790123	mg/kg
				3-Nitrotoluene	U	0.26	0.31790123	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.26	0.31790123	mg/kg
				4-Nitrotoluene	U	0.52	0.63580247	mg/kg
				Nitrobenzene	U	0.26	0.31790123	mg/kg
CPCSB-032-5114-SO	A0C250600003	7471A 8330B	SO	Mercury	U	0.12	0.11627907	mg/kg
				1,3,5-Trinitrobenzene	U	0.26	0.01186047	mg/kg
				1,3-Dinitrobenzene	U	0.26	0.29651163	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.26	0.29651163	mg/kg
				2,4-Dinitrotoluene	U	0.26	0.29651163	mg/kg
				2,6-Dinitrotoluene	U	0.26	0.29651163	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.26	0.29651163	mg/kg
				2-Nitrotoluene	U	0.26	0.29651163	mg/kg
				3-Nitrotoluene	U	0.26	0.29651163	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.26	0.29651163	mg/kg
CPCSB-032-5116-SO	A0C250600004	7471A	SO	Mercury	U	0.12	0.11627907	mg/kg
CPCSB-032-6073-FD	A0C250600005	8270C	SO	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

\* 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

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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:** A0C250600

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	
							Criteria*	Units
CPCSB-032-6073-FD	A0C250600005	8270C	SO	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
				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
CPCSD-046-5784-SD	A0C250600007	8081A	SO	alpha-BHC	U	3.6	3.57142857	ug/kg
				alpha-Chordane	U	4.3	4.28571429	ug/kg
				Endosulfan II	U	3.6	3.57142857	ug/kg
				Endosulfan sulfate	U	4.3	4.28571429	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

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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:** A0C250600

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	
							Criteria*	Units
CPCSD-046-5784-SD	A0C250600007	8081A	SO	Endrin aldehyde	U	4.3	4.28571429	ug/kg
				gamma-BHC (Lindane)	U	3.6	3.57142857	ug/kg
				Heptachlor epoxide	U	3.6	3.57142857	ug/kg
				1,3,5-Trinitrobenzene	U	0.25	0.01414286	mg/kg
				1,3-Dinitrobenzene	U	0.25	0.35357143	mg/kg
		8330B	AQ	2,4,6-Trinitrotoluene (TNT)	U	0.25	0.35357143	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.35357143	mg/kg
				2,6-Dinitrotoluene	U	0.25	0.35357143	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.25	0.35357143	mg/kg
				2-Nitrotoluene	U	0.25	0.35357143	mg/kg
CPCSD-049-5032-SD	A0C250600008	7196A	SO	Chromium, hexavalent		U	3.1	3.07692308 mg/kg
				3-Nitrotoluene	U	0.48	0.475	ug/L
CPCSW-046-5029-SW	A0C250600009	8330B	AQ	Hexahydro-1,3,5-Trinitro-1,3,5-Triaz		U	0.24	0.2375 ug/L
WSASS-032-5655-SO	A0C250600019	7196A	SO	Chromium, hexavalent		U	1.1	1.05263158 mg/kg
WSASS-036M-5647-SO	A0C250600014	8081A	SO	Aldrin	U	4.1	4.08163265	ug/kg
				alpha-BHC	U	2.6	2.55102041	ug/kg
				beta-BHC	U	3.6	3.57142857	ug/kg
				delta-BHC	U	4.1	4.08163265	ug/kg
				Endosulfan II	U	2.6	2.55102041	ug/kg
		8082	AQ	Endrin aldehyde	U	3.1	3.06122449	ug/kg
				gamma-BHC (Lindane)	U	2.6	2.55102041	ug/kg
				Heptachlor	U	3.6	3.57142857	ug/kg
				Heptachlor epoxide	U	2.6	2.55102041	ug/kg
				Aroclor 1016	U	34	1.73469388	ug/kg
				Aroclor 1221	U	34	1.73469388	ug/kg
				Aroclor 1232	U	34	1.73469388	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

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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:** A0C250600

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
WSASS-036M-5647-SO	A0C250600014	8082	SO	Aroclor 1242	U	34	1.73469388	ug/kg
				Aroclor 1248	U	34	1.73469388	ug/kg
				Aroclor 1254	U	34	1.73469388	ug/kg
				Aroclor 1260	U	34	1.73469388	ug/kg
	8270C			1,2,4-Trichlorobenzene	U	340	336.734694	ug/kg
				1,2-Dichlorobenzene	U	340	336.734694	ug/kg
				1,3-Dichlorobenzene	U	340	336.734694	ug/kg
				1,4-Dichlorobenzene	U	340	336.734694	ug/kg
				2,4,5-Trichlorophenol	U	340	336.734694	ug/kg
				2,4,6-Trichlorophenol	U	340	336.734694	ug/kg
				2,4-Dichlorophenol	U	340	336.734694	ug/kg
				2,4-Dimethylphenol	U	340	336.734694	ug/kg
				2,4-Dinitrophenol	U	820	816.326531	ug/kg
				2,4-Dinitrotoluene	U	340	336.734694	ug/kg
				2,6-Dinitrotoluene	U	340	336.734694	ug/kg
				2-Chloronaphthalene	U	340	336.734694	ug/kg
				2-Chlorophenol	U	340	336.734694	ug/kg
				2-Methylphenol	U	340	336.734694	ug/kg
				2-Nitroaniline	U	820	816.326531	ug/kg
				2-Nitrophenol	U	340	336.734694	ug/kg
				3,3'-Dichlorobenzidine	U	340	336.734694	ug/kg
				3-methylphenol/4-methylphenol	U	340	#Error	ug/kg
				3-Nitroaniline	U	820	816.326531	ug/kg
				4,6-Dinitro-2-methylphenol	U	820	816.326531	ug/kg
				4-Bromophenyl phenyl ether	U	340	336.734694	ug/kg
				4-Chloro-3-methylphenol	U	340	336.734694	ug/kg
				4-Chloroaniline	U	340	336.734694	ug/kg
				4-Chlorophenyl phenyl ether	U	340	336.734694	ug/kg
				4-Nitroaniline	U	820	816.326531	ug/kg
				4-Nitrophenol	U	820	816.326531	ug/kg
				Benzoic acid	U	820	816.326531	ug/kg
				Benzyl alcohol	U	340	336.734694	ug/kg
				bis(2-Chloroethoxy)methane	U	340	336.734694	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

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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:** A0C250600

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Result	Limit	Units
WSASS-036M-5647-SO	A0C250600014	8270C	SO	bis(2-Chloroethyl) ether	U	340	336.734694	ug/kg
				Bis(2-chloroisopropyl) ether	U	340	336.734694	ug/kg
				bis(2-Ethylhexyl) phthalate	U	340	336.734694	ug/kg
				Butyl benzyl phthalate	U	340	336.734694	ug/kg
				Dibenzofuran	U	340	336.734694	ug/kg
				Diethyl phthalate	U	340	336.734694	ug/kg
				Dimethyl phthalate	U	340	336.734694	ug/kg
				Di-n-octyl phthalate	U	340	336.734694	ug/kg
				Hexachlorobenzene	U	340	336.734694	ug/kg
				Hexachlorobutadiene	U	340	336.734694	ug/kg
				HEXACHLOROCYCLOPENTADIE	U	340	#Error	ug/kg
				Hexachloroethane	U	340	336.734694	ug/kg
				Isophorone	U	340	336.734694	ug/kg
				Nitrobenzene	U	340	336.734694	ug/kg
				N-Nitrosodi-n-propylamine	U	340	336.734694	ug/kg
				N-Nitrosodiphenylamine	U	340	336.734694	ug/kg
				Pentachlorophenol	U	340	336.734694	ug/kg
				Phenol	U	340	336.734694	ug/kg
	8330B			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
WSASS-036M-5647-SOV	A0C250600015	8260B	SO	2-Butanone (MEK)	U	29	28.5714286	ug/kg
				2-Hexanone	U	29	28.5714286	ug/kg
				4-methyl-2-pentanone (MIBK)	U	29	28.5714286	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

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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: A0C250600

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
WSASS-036M-5647-SOV	A0C250600015	8260B	SO	Acetone	U	29	28.5714286	ug/kg

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\* 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

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# QC Outlier Report: Trip Blank

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Lab Reporting Batch :

Lab ID:

Method/Preparation Batch :

Analysis Date :

Client Sample ID :

Preparation Date :

Lab Sample ID :

Preparation Type :

Analysis Method :

**No contamination was found.**

## Continuing Calibration (CCV) Outlier Report (Organics)

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**There are no Organic Continuing Calibrations with outliers**

# Continuing Calibration (CCAL) Outlier Report (Inorganics)

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**There are no Inorganic Continuing Calibrations with outliers**

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

Lab Report Batch: A0C250600

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit		Units
CPCSB-031-5109-SO	A0C250600001	6020	SO	Antimony	J	0.12	0.67	mg/kg	
				Cadmium	J	0.17	0.27	mg/kg	
				Silver	J	0.032	0.67	mg/kg	
				Sodium	J	43.3	134	mg/kg	
				Thallium	J	0.18	0.27	mg/kg	
		7471A		Mercury	J	0.021	0.13	mg/kg	
CPCSB-032-5113-SO	A0C250600002	6020		Antimony	J	0.086	0.62	mg/kg	
				Cadmium	J	0.095	0.25	mg/kg	
				Silver	J	0.022	0.62	mg/kg	
				Sodium	J	47.0	123	mg/kg	
				Thallium	J	0.18	0.25	mg/kg	
CPCSB-032-5114-SO	A0C250600003			Antimony	J	0.13	0.58	mg/kg	
				Cadmium	J	0.046	0.23	mg/kg	
				Silver	J	0.0078	0.58	mg/kg	
				Sodium	J	46.6	116	mg/kg	
				Thallium	J	0.14	0.23	mg/kg	
CPCSB-032-5116-SO	A0C250600004			Cadmium	J	0.032	0.23	mg/kg	
				Silver	J	0.024	0.58	mg/kg	
				Sodium	J	110	117	mg/kg	
				Thallium	J	0.16	0.23	mg/kg	
		8270C		2-Methylnaphthalene	J	14	380	ug/kg	
CPCSB-032-6073-FD	A0C250600005	6020		Beryllium	J G	0.58	0.60	mg/kg	
				Cadmium	J	0.069	0.24	mg/kg	
				Silver	J	0.016	0.60	mg/kg	
				Sodium	J	46.6	120	mg/kg	
				Thallium	J	0.12	0.24	mg/kg	
CPCSD-046-5024-SD	A0C250600006	353.2 Modified		Nitrocellulose	B	5.7	32.4	mg/kg	
		6020		Antimony	J	1.9	3.2	mg/kg	
				Selenium	J	2.9	3.2	mg/kg	
				Sodium	J	142	648	mg/kg	
				Thallium	J	0.37	1.3	mg/kg	
		7471A		Mercury	J	0.15	0.65	mg/kg	
		8260B		2-Butanone (MEK)	J	33	130	ug/kg	
				Acetone	J	91	130	ug/kg	
				Methylene chloride	J B	25	32	ug/kg	
		8330B		1,3-Dinitrobenzene	J PG	0.036	0.24	mg/kg	

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

Lab Report Batch: A0C250600

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit		
							Units		
CPCSD-046-5024-SD	A0C250600006	8330B	SO	2,4,6-Trinitrotoluene (TNT)	J	0.15	0.24	mg/kg	
				4-Amino-2,6-Dinitrotoluene	J PG	0.12	0.24	mg/kg	
				Methyl-2,4,6-Trinitrophenylnitramine (T	J PG	0.019	0.24	mg/kg	
				Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetr	J PG	0.083	0.24	mg/kg	
CPCSD-046-5784-SD	A0C250600007	6020		Antimony	J	0.19	0.71	mg/kg	
				Silver	J	0.090	0.71	mg/kg	
				Sodium	J	58.4	142	mg/kg	
				Thallium	J	0.13	0.28	mg/kg	
				delta-BHC	J	1.8	5.7	ug/kg	
				8081A	J	7.2	28	ug/kg	
				8260B	J	24	28	ug/kg	
				2-Butanone (MEK)	J B	5.6	7.1	ug/kg	
CPCSW-046-5029-SW	A0C250600009	6020	AQ	Antimony	J	0.94	5.0	ug/L	
				Arsenic	J	0.78	5.0	ug/L	
				Chromium	J	0.59	5.0	ug/L	
				Cobalt	J B	0.24	5.0	ug/L	
				Copper	J	1.9	5.0	ug/L	
				Lead	J	0.39	3.0	ug/L	
				Nickel	J	1.9	10.0	ug/L	
				Selenium	J	0.24	5.0	ug/L	
				Vanadium	J	0.89	10.0	ug/L	
				8260B	J	2.4	10	ug/L	
				8270C	J	1.9	10	ug/L	
PBA08-QC-6019-TB	A0C250600010	8260B		bis(2-Ethylhexyl) phthalate	J	1.4	10	ug/L	
				Di-n-butyl phthalate	J B	0.072	0.14	ug/L	
				8330B	4-Amino-2,6-Dinitrotoluene	J PG	5.6	10	ug/L
				Acetone	J	0.52	1.2	mg/kg	
				WSASS-031-5654-SO A0C250600018	Chromium, hexavalent	J	0.11	0.20	mg/kg
WSASS-033M-5645-SO	A0C250600011	6020		Antimony	J	0.10	0.51	mg/kg	
				Cadmium	J	0.024	0.51	mg/kg	
				Silver	J	37.7	102	mg/kg	
				Sodium	J	0.16	0.20	mg/kg	
				Thallium	J	0.018	0.10	mg/kg	
				7471A	Mercury	J	0.12	0.51	mg/kg
				WSASS-034M-5646-SO A0C250600012	Antimony	J	0.12	0.20	mg/kg
				Cadmium	J	0.028	0.51	mg/kg	
				Silver	J	0.028	0.51	mg/kg	

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

Lab Report Batch: A0C250600

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit		Units
WSASS-034M-5646-SO	A0C250600012	6020	SO	Sodium	J	37.2	102	mg/kg	
				Thallium	J	0.16	0.20	mg/kg	
	7471A			Mercury	J	0.019	0.10	mg/kg	
				Antimony	J	0.13	0.51	mg/kg	
WSASS-034M-6195-FD	A0C250600013	6020		Cadmium	J	0.12	0.20	mg/kg	
				Silver	J	0.026	0.51	mg/kg	
				Sodium	J	40.4	102	mg/kg	
				Thallium	J	0.15	0.20	mg/kg	
	7471A			Mercury	J	0.023	0.10	mg/kg	
				Antimony	J	0.11	0.51	mg/kg	
				Cadmium	J	0.19	0.20	mg/kg	
				Silver	J	0.035	0.51	mg/kg	
WSASS-035M-5648-SO	A0C250600016	6020		Sodium	J	44.0	102	mg/kg	
				Thallium	J	0.15	0.20	mg/kg	
				Mercury	J	0.025	0.10	mg/kg	
				Antimony	J	0.11	0.51	mg/kg	
				Cadmium	J	0.11	0.20	mg/kg	
	7471A			Silver	J	0.023	0.51	mg/kg	
				Sodium	J	35.4	102	mg/kg	
				Thallium	J	0.16	0.20	mg/kg	
				Mercury	J	0.036	0.10	mg/kg	
				4,4'-DDE	J	0.40	1.7	ug/kg	
WSASS-036M-5647-SO	A0C250600014	6020		alpha-Chordane	J	2.1	3.1	ug/kg	
				Endosulfan sulfate	J	2.6	3.1	ug/kg	
				Endrin	J	0.69	1.7	ug/kg	
				2-Methylnaphthalene	J	9.0	340	ug/kg	
				Di-n-butyl phthalate	J B	20	340	ug/kg	
	8081A			Methylene chloride	J B	4.4	7.1	ug/kg	
				4,4'-DDE	J	0.40	1.7	ug/kg	
				alpha-Chordane	J	2.1	3.1	ug/kg	
				Endosulfan sulfate	J	2.6	3.1	ug/kg	
				Endrin	J	0.69	1.7	ug/kg	
WSASS-036M-5647-SOV	A0C250600015	8260B		2-Methylnaphthalene	J	9.0	340	ug/kg	
				Di-n-butyl phthalate	J B	20	340	ug/kg	
				Methylene chloride	J B	4.4	7.1	ug/kg	

## Method Blank Outlier Report

Lab Reporting Batch : A0C250600

Lab ID: TALCAN

Analysis Method : 6020

Analysis Date : 04/01/2010

Preparation Type : 3005A

Preparation Date : 03/26/2010

Method Blank Lab Sample ID : A0C260000016B

Preparation Batch : 0085016

Cobalt	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.062	5.0	ug/L	J	

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

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
CPCSW-046-5029-SW	A0C250600009	1	0.24	J B	ug/L

Manganese	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	1.9	10.0	ug/L	J	

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

# Method Blank Outlier Report

Lab Reporting Batch : A0C250600

Lab ID: TALCAN

Analysis Method : 8270C

Analysis Date : 04/13/2010

Preparation Type : 3520C

Preparation Date : 03/26/2010

Method Blank Lab Sample ID : A0C260000040B

Preparation Batch : 0085040

Di-n-butyl phthalate	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.96	10	ug/L	J	Common Contaminant

Di-n-butyl 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
CPCSW-046-5029-SW	A0C250600009	1	1.4	J B	ug/L

## Method Blank Outlier Report

Lab Reporting Batch : A0C250600

Lab ID: TALCAN

Analysis Method : 8260B

Analysis Date : 03/26/2010

Preparation Type : 5030B

Preparation Date : 03/26/2010

Method Blank Lab Sample ID : A0C290000407B

Preparation Batch : 0088407

Methylene chloride	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	3.3	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
CPCSD-046-5024-SD	A0C250600006	1	25	J B	ug/kg
CPCSD-046-5784-SD	A0C250600007	1	5.6	J B	ug/kg
WSASS-036M-5647-SOVOC	A0C250600015	1	4.4	J B	ug/kg

# Method Blank Outlier Report

Lab Reporting Batch : A0C250600

Lab ID: TALCAN

Analysis Method : 6020

Analysis Date : 04/09/2010

Preparation Type : 3050B

Preparation Date : 03/31/2010

Method Blank Lab Sample ID : A0C310000026B

Preparation Batch : 0090026

Nickel	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.46	1.0	mg/kg	J	

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

# Method Blank Outlier Report

Lab Reporting Batch : A0C250600

Lab ID: TALCAN

Analysis Method : 8270C

Analysis Date : 04/08/2010

Preparation Type : 3540C

Preparation Date : 04/03/2010

Method Blank Lab Sample ID : A0D030000017B

Preparation Batch : 0093017

Di-n-butyl phthalate	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	19	330	ug/kg	J	Common Contaminant

Di-n-butyl 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
WSASS-036M-5647-SO	A0C250600014	1	20	J B	ug/kg

## Surrogate Recovery Outlier Report

**Lab Report Batch:** A0C250600

**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	
CPCSD-046-5024-SD	A0C250600006	8260B	1	SO	4-Bromofluorobenzene	71	85.0	120.0	10.0	All Target
					Toluene-d8	82	85.0	115.0	10.0	All Target
CPCSD-046-5784-SD	A0C250600007	8260B	1	SO	4-Bromofluorobenzene	74	85.0	120.0	10.0	All Target
					Toluene-d8	82	85.0	115.0	10.0	All Target
CPCSW-046-5029-SW	A0C250600009	8082	1	AQ	Decachlorobiphenyl	27	40.0	135.0	10.0	All Target
WSASS-036M-5647-SOVCOS	A0C250600015	8260B	1	SO	4-Bromofluorobenzene	80	85.0	120.0	10.0	All Target

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

**Lab Report Batch:**

**Lab ID:**

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

\*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: A0C300533

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature ( C )	Criteria	
					Lower Limit	Upper Limit
CPCSB-035-5125-SO	A0C300533001	8081A	SO	1.4	2.0	
		8082	SO	1.4	2.0	
		8260B	SO	1.4	2.0	
	8270C PAH	8270C	SO	1.4	2.0	
			SO	1.4	2.0	

# Temperature Outlier Report

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**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		
								Detect Quals		Non-Detect Qual(s)	Detect Quals	
					Low	High	Gross Exceed	Non-Biased	Biased		Non-Biased	Biased

# Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch :

Analysis Method :

Analysis Date :

Preparation Batch :

Preparation Type :

Preparation Date :

Lab Reporting Batch :

Lab ID:

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD

\* 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 :	Analysis Method :	Analysis Date :				
Preparation Batch :	Preparation Type :	Preparation Date :				
Lab Reporting Batch :	Lab ID:					
<hr/>						
LCS Lab Sample ID	Matrix	Analyte Name	Reported Values	Project Limits (Percent)		
			Percent Recovery	RPD	Rejection Point	Lower Limit

## Associated Samples

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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: A0C300533

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
CPCSB-035-5125-SO	A0C300533001	8081A	SO	beta-BHC	U	4.4	4.375	ug/kg
				Heptachlor				

\* 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

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## Continuing Calibration (CCV) Outlier Report (Organics)

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**There are no Organic Continuing Calibrations with outliers**

## Continuing Calibration (CCAL) Outlier Report (Inorganics)

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**There are no Inorganic Continuing Calibrations with outliers**

## Method Blank Outlier Report

Lab Reporting Batch : A0C300533

Lab ID: TALCAN

Analysis Method : 6020

Analysis Date : 04/01/2010

Preparation Type : 3050B

Preparation Date : 03/31/2010

Method Blank Lab Sample ID : A0C310000020B

Preparation Batch : 0090020

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.

Nickel	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.12	1.0	mg/kg	J	

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

## Method Blank Outlier Report

Lab Reporting Batch : A0C300533

Lab ID: TALCAN

Analysis Method : 8260B

Analysis Date : 03/30/2010

Preparation Type : 5030B

Preparation Date : 03/30/2010

Method Blank Lab Sample ID : A0C310000390B

Preparation Batch : 0090390

Methylene chloride	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.72	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
CPCSB-035-5125-SO	A0C300533001	1	1.3	J B	ug/kg

# Method Blank Outlier Report

Lab Reporting Batch : A0C300533

Lab ID: TALCAN

Analysis Method : 8270C

Analysis Date : 04/08/2010

Preparation Type : 3540C

Preparation Date : 04/03/2010

Method Blank Lab Sample ID : A0D030000017B

Preparation Batch : 0093017

Di-n-butyl phthalate	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	19	330	ug/kg	J	Common Contaminant

Di-n-butyl 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
CPCSB-035-5125-SO	A0C300533001	1	22	J B	ug/kg

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

Lab Report Batch: A0C300533

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	
							Units	
CPCSB-035-5125-SO	A0C300533001	6020	SO	Antimony	J	0.086	0.62	mg/kg
				Cadmium	J	0.053	0.25	mg/kg
				Silver	J	0.013	0.62	mg/kg
				Sodium	J	46.9	125	mg/kg
				Thallium	J	0.17	0.25	mg/kg
				8260B	Methylene chloride	J B	1.3	6.2 ug/kg
				8270C	Di-n-butyl phthalate	J B	22	410 ug/kg

## Surrogate Recovery Outlier Report

Lab Report Batch: A0C300533

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	
CPCSB-035-5125-SO	A0C300533001	8260B	1	SO	4-Bromofluorobenzene	84	85.0	120.0	10.0	All Target

## QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0C300539

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature ( C )	Criteria	
					Lower Limit	Upper Limit
CPCSB-035-5125-SO	A0C300539001	353.2 Modified	SO	1.4	2.0	6.0
		8330B	SO	1.4	2.0	
		8330M	SO	1.4	2.0	

# Temperature Outlier Report

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**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		
								Detect Quals		Non-Detect Qual(s)	Detect Quals	
					Low	High	Gross Exceed	Non-Biased	Biased		Non-Biased	Biased

## QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0C300541

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature ( C )	Criteria	
					Lower Limit	Upper Limit
CPCSB-035-5123-SO	A0C300541004	353.2 Modified	SO	1.4	2.0	6.0
CPCSB-035-5123-SOMS	A0C300541004S	353.2 Modified	SO	1.4	2.0	6.0
CPCSB-035-5123-SOMSD	A0C300541004D	353.2 Modified	SO	1.4	2.0	6.0
CPCSB-035-5124-SO	A0C300541005	353.2 Modified	SO	1.4	2.0	6.0
CPCSB-035-6072-FD	A0C300541006	353.2 Modified	SO	1.4	2.0	6.0
CPCSB-035-5123-SO	A0C300541004	8081A	SO	1.4	2.0	
CPCSB-035-5124-SO	A0C300541005	8081A	SO	1.4	2.0	
CPCSB-035-6072-FD	A0C300541006	8081A	SO	1.4	2.0	
CPCSB-035-5123-SO	A0C300541004	8082	SO	1.4	2.0	
CPCSB-035-5124-SO	A0C300541005	8082	SO	1.4	2.0	
CPCSB-035-6072-FD	A0C300541006	8082	SO	1.4	2.0	
CPCSB-035-5123-SO	A0C300541004	8260B	SO	1.4	2.0	
CPCSB-035-5124-SO	A0C300541005	8260B	SO	1.4	2.0	
CPCSB-035-6072-FD	A0C300541006	8260B	SO	1.4	2.0	
CPCSB-035-6072-FDMS	A0C300541006S	8260B	SO	1.4	2.0	
CPCSB-035-6072-FDMSD	A0C300541006D	8260B	SO	1.4	2.0	
CPCSB-030-5105-SO	A0C300541001	8270C	SO	1.4	2.0	
CPCSB-034-5119-SO	A0C300541002	8270C	SO	1.4	2.0	
CPCSB-034-5120-SO	A0C300541003	8270C	SO	1.4	2.0	
CPCSB-035-5123-SO	A0C300541004	8270C	SO	1.4	2.0	
CPCSB-035-5124-SO	A0C300541005	8270C	SO	1.4	2.0	
CPCSB-035-6072-FD	A0C300541006	8270C	SO	1.4	2.0	
CPCSB-030-5105-SO	A0C300541001	8270C PAH	SO	1.4	2.0	
CPCSB-034-5119-SO	A0C300541002	8270C PAH	SO	1.4	2.0	
CPCSB-034-5120-SO	A0C300541003	8270C PAH	SO	1.4	2.0	
CPCSB-035-5123-SO	A0C300541004	8270C PAH	SO	1.4	2.0	
CPCSB-035-5124-SO	A0C300541005	8270C PAH	SO	1.4	2.0	
CPCSB-035-6072-FD	A0C300541006	8270C PAH	SO	1.4	2.0	
CPCSB-030-5105-SO	A0C300541001	8330B	SO	1.4	2.0	

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## QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0C300541

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature ( C )	Criteria	
					Lower Limit	Upper Limit
CPCSB-034-5119-SO	A0C300541002	8330B	SO	1.4	2.0	
CPCSB-034-5120-SO	A0C300541003	8330B	SO	1.4	2.0	
CPCSB-035-5123-SO	A0C300541004	8330B	SO	1.4	2.0	
CPCSB-035-5124-SO	A0C300541005	8330B	SO	1.4	2.0	
CPCSB-035-6072-FD	A0C300541006	8330B	SO	1.4	2.0	
CPCSB-035-5123-SO	A0C300541004	8330M	SO	1.4	2.0	
CPCSB-035-5124-SO	A0C300541005	8330M	SO	1.4	2.0	
CPCSB-035-6072-FD	A0C300541006	8330M	SO	1.4	2.0	

# Temperature Outlier Report

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**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		
								Detect Quals		Non-Detect Qual(s)	Detect Quals	
					Low	High	Gross Exceed	Non-Biased	Biased		Non-Biased	Biased

## QC Outlier Report: Holding Times

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**Lab Report Batch:** A0C300541

**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
CPCSW-044-5027-S	A0C300541008	8330M	AQ	Gen Prep	15.0	1.0		14	40		Days	03/29/2010	04/13/2010	04/14/2010

# Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0090017	Analysis Method : 7470A	Analysis Date : 03/31/2010
Preparation Batch : 0090017	Preparation Type : 7470A	Preparation Date : 03/31/2010
Lab Reporting Batch : A0C300541	Lab ID: TALCAN	

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Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
CPCSW-044-5027-SWM	A0C300541008D	AQ	Mercury	78	29	30.00	80.00	120.00	20.00

## Associated Samples: All samples in Method Batch

Client Sample ID	Lab Sample ID
CPCSW-044-5027-SW	A0C300541008

\* 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 : 0090020  
 Preparation Batch : 0090020  
 Lab Reporting Batch : A0C300541

Analysis Method : 6020  
 Preparation Type : 3050B  
 Lab ID: TALCAN

Analysis Date : 04/01/2010  
 Preparation Date : 03/31/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
CPCSB-030-5105-SOMS	A0C300541001S	SO	Antimony	32	30.00	75.00	125.00	20.00	
			Calcium	56	30.00	70.00	130.00	20.00	
CPCSB-030-5105-SOMS	A0C300541001D		Antimony	28	30.00	75.00	125.00	20.00	
			Calcium	66	30.00	70.00	130.00	20.00	
			Zinc	202	30.00	10.00	199.00	20.00	

## Associated Samples: All samples in Method Batch

Client Sample ID	Lab Sample ID
CPCSB-030-5105-SO	A0C300541001
CPCSB-034-5119-SO	A0C300541002
CPCSB-034-5120-SO	A0C300541003
CPCSB-035-5123-SO	A0C300541004
CPCSB-035-5124-SO	A0C300541005
CPCSB-035-6072-FD	A0C300541006
CPCSD-044-5022-SD	A0C300541007

\* 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 : 0090390  
 Preparation Batch : 0090390  
 Lab Reporting Batch : A0C300541

Analysis Method : 8260B  
 Preparation Type : 5030B  
 Lab ID: TALCAN

Analysis Date : 03/31/2010  
 Preparation Date : 03/30/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
CPCSB-035-6072-FDMS	A0C300541006D	SO	Chlorobenzene	73		0.00	75.00	125.00	30.00
			Ethylbenzene	74		0.00	75.00	125.00	30.00
			Styrene	73		0.00	75.00	125.00	30.00
			Trichloroethene	74		0.00	75.00	125.00	30.00

## Associated Samples: Parent sample only

Client Sample ID	Lab Sample ID
CPCSB-035-6072-FD	A0C300541006

\* 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 :** 0106198      **Analysis Method :** 353.2 Modified      **Analysis Date :** 04/19/2010  
**Preparation Batch :** 0106198      **Preparation Type :** Gen Prep      **Preparation Date :** 04/16/2010  
**Lab Reporting Batch :** A0C300541      **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
CPCSB-035-5123-SOMS	A0C300541004S	SO	Nitrocellulose	29		10.00	34.00	115.00	71.00
CPCSB-035-5123-SOMS	A0C300541004D		Nitrocellulose	28		10.00	34.00	115.00	71.00

Associated Samples: All samples in Method Batch	
Client Sample ID	Lab Sample ID
CPCSB-035-5123-SO	A0C300541004
CPCSB-035-5124-SO	A0C300541005
CPCSB-035-6072-FD	A0C300541006

\* 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 :** 0090315      **Analysis Method :** 8270C      **Analysis Date :** 04/21/2010  
**Preparation Batch :** 0090315      **Preparation Type :** 3520C      **Preparation Date :** 04/01/2010  
**Lab Reporting Batch :** A0C300541      **Lab ID:** TALCAN

LCS Lab Sample ID	Matrix	Analyte Name	Reported Values		Project Limits (Percent)		
			Percent Recovery	RPD	Rejection Point	Lower Limit	Upper Limit
A0C310000315L	AQ	2,4-Dinitrophenol	52	35	10.00	15.00	140.00
		Benzoic acid	26	54	0.00	0.00	125.00
<b>Associated Samples</b>							
Client Sample ID	Lab Sample ID						
CPCSW-044-5027-SW	A0C300541008						

**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:** A0C300541

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
CPCSB-030-5105-SO	A0C300541001	6020 8270C	SO	Antimony	U	0.67	0.66666667	mg/kg
				2,4-Dinitrophenol	U	1100	1066.66667	ug/kg
				2-Nitroaniline	U	1100	1066.66667	ug/kg
				3-Nitroaniline	U	1100	1066.66667	ug/kg
				4,6-Dinitro-2-methylphenol	U	1100	1066.66667	ug/kg
				4-Nitroaniline	U	1100	1066.66667	ug/kg
				4-Nitrophenol	U	1100	1066.66667	ug/kg
				Benzoic acid	U	1100	1066.66667	ug/kg
CPCSB-034-5119-SO	A0C300541002	8270C	SO	Carbazole	U	67	66.6666667	ug/kg
				1,2,4-Trichlorobenzene	U	480	478.26087	ug/kg
				1,2-Dichlorobenzene	U	480	478.26087	ug/kg
				1,3-Dichlorobenzene	U	480	478.26087	ug/kg
				1,4-Dichlorobenzene	U	480	478.26087	ug/kg
				2,4,5-Trichlorophenol	U	480	478.26087	ug/kg
				2,4,6-Trichlorophenol	U	480	478.26087	ug/kg
				2,4-Dichlorophenol	U	480	478.26087	ug/kg
				2,4-Dimethylphenol	U	480	478.26087	ug/kg
				2,4-Dinitrophenol	U	1200	1159.42029	ug/kg
				2,4-Dinitrotoluene	U	480	478.26087	ug/kg
				2,6-Dinitrotoluene	U	480	478.26087	ug/kg
				2-Chloronaphthalene	U	480	478.26087	ug/kg
				2-Chlorophenol	U	480	478.26087	ug/kg
				2-Methylnaphthalene	U	480	478.26087	ug/kg
				2-Methylphenol	U	480	478.26087	ug/kg
				2-Nitroaniline	U	1200	1159.42029	ug/kg
				2-Nitrophenol	U	480	478.26087	ug/kg
				3,3'-Dichlorobenzidine	U	480	478.26087	ug/kg
				3-methylphenol/4-methylphenol	U	480	#Error	ug/kg
				3-Nitroaniline	U	1200	1159.42029	ug/kg
				4,6-Dinitro-2-methylphenol	U	1200	1159.42029	ug/kg
				4-Bromophenyl phenyl ether	U	480	478.26087	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

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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:** A0C300541

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Criteria*	Units	
CPCSB-034-5119-SO	A0C300541002	8270C	SO	4-Chloro-3-methylphenol	U	480	478.26087	ug/kg
				4-Chloroaniline	U	480	478.26087	ug/kg
				4-Chlorophenyl phenyl ether	U	480	478.26087	ug/kg
				4-Nitroaniline	U	1200	1159.42029	ug/kg
				4-Nitrophenol	U	1200	1159.42029	ug/kg
				Benzoic acid	U	1200	1159.42029	ug/kg
				Benzyl alcohol	U	480	478.26087	ug/kg
				bis(2-Chloroethoxy)methane	U	480	478.26087	ug/kg
				bis(2-Chloroethyl) ether	U	480	478.26087	ug/kg
				Bis(2-chloroisopropyl) ether	U	480	478.26087	ug/kg
				bis(2-Ethylhexyl) phthalate	U	480	478.26087	ug/kg
				Butyl benzyl phthalate	U	480	478.26087	ug/kg
				Dibenzofuran	U	480	478.26087	ug/kg
				Diethyl phthalate	U	480	478.26087	ug/kg
				Dimethyl phthalate	U	480	478.26087	ug/kg
				Di-n-octyl phthalate	U	480	478.26087	ug/kg
				Hexachlorobenzene	U	480	478.26087	ug/kg
				Hexachlorobutadiene	U	480	478.26087	ug/kg
				HEXACHLOROCYCLOPENTADIE	U	480	#Error	ug/kg
				Hexachloroethane	U	480	478.26087	ug/kg
				Isophorone	U	480	478.26087	ug/kg
				Nitrobenzene	U	480	478.26087	ug/kg
				N-Nitrosodi-n-propylamine	U	480	478.26087	ug/kg
				N-Nitrosodiphenylamine	U	480	478.26087	ug/kg
				Pentachlorophenol	U	480	478.26087	ug/kg
				Phenol	U	480	478.26087	ug/kg
CPCSB-034-5120-SO	A0C300541003	7471A	SO	Mercury	U	0.13	0.12820513	mg/kg
				1,3,5-Trinitrobenzene	U	0.24	0.01217949	mg/kg
				1,3-Dinitrobenzene	U	0.24	0.30448718	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.24	0.30448718	mg/kg
				2,4-Dinitrotoluene	U	0.24	0.30448718	mg/kg
				2,6-Dinitrotoluene	U	0.24	0.30448718	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

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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:** A0C300541

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Criteria*	Units	
CPCSB-034-5120-SO	A0C300541003	8330B	SO	2-Amino-4,6-dinitrotoluene	U	0.24	0.30448718	mg/kg
				2-Nitrotoluene	U	0.24	0.30448718	mg/kg
				3-Nitrotoluene	U	0.24	0.30448718	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.24	0.30448718	mg/kg
				4-Nitrotoluene	U	0.48	0.60897436	mg/kg
				Nitrobenzene	U	0.24	0.30448718	mg/kg
CPCSB-035-5123-SO	A0C300541004	8081A	SO	4,4'-DDD	U	5.3	5.26315789	ug/kg
				4,4'-DDE	U	4.5	4.47368421	ug/kg
				4,4'-DDT	U	5.3	5.26315789	ug/kg
				Aldrin	U	11	10.5263158	ug/kg
				alpha-BHC	U	6.6	6.57894737	ug/kg
				alpha-Chordane	U	7.9	7.89473684	ug/kg
				delta-BHC	U	11	10.5263158	ug/kg
				Dieldrin	U	4.5	4.47368421	ug/kg
				Endosulfan I	U	4.5	4.47368421	ug/kg
				Endosulfan II	U	6.6	6.57894737	ug/kg
				Endosulfan sulfate	U	7.9	7.89473684	ug/kg
				Endrin	U	4.5	4.47368421	ug/kg
				Endrin aldehyde	U	7.9	7.89473684	ug/kg
				Endrin ketone	U	5.3	5.26315789	ug/kg
				gamma-BHC (Lindane)	U	6.6	6.57894737	ug/kg
				gamma-Chlordane	U	4.5	4.47368421	ug/kg
				Heptachlor epoxide	U	6.6	6.57894737	ug/kg
				Toxaphene	U	180	176.315789	ug/kg
8260B		8260B	SO	1,1,1-Trichloroethane	U	6.6	6.57894737	ug/kg
				1,1,2,2-Tetrachloroethane	U	6.6	6.57894737	ug/kg
				1,1,2-Trichloroethane	U	6.6	6.57894737	ug/kg
				1,1-Dichloroethane	U	6.6	6.57894737	ug/kg
				1,1-Dichloroethene	U	6.6	6.57894737	ug/kg
				1,2-Dibromoethane (Ethylene Dibro)	U	6.6	6.57894737	ug/kg
				1,2-Dichloroethane	U	6.6	6.57894737	ug/kg
				1,2-Dichloroethene (total)	U	6.6	6.57894737	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

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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:** A0C300541

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	
							Criteria*	Units
CPCSB-035-5123-SO	A0C300541004	8260B	SO	1,2-Dichloropropane	U	6.6	6.57894737	ug/kg
				Benzene	U	6.6	6.57894737	ug/kg
				Bromochloromethane	U	6.6	6.57894737	ug/kg
				Bromodichloromethane	U	6.6	6.57894737	ug/kg
				Bromoform	U	6.6	6.57894737	ug/kg
				Bromomethane (Methyl bromide)	U	6.6	6.57894737	ug/kg
				Carbon disulfide	U	6.6	6.57894737	ug/kg
				Carbon tetrachloride	U	6.6	6.57894737	ug/kg
				Chlorobenzene	U	6.6	6.57894737	ug/kg
				Chlorodibromomethane	U	6.6	6.57894737	ug/kg
				Chloroethane	U	6.6	6.57894737	ug/kg
				Chloroform	U	6.6	6.57894737	ug/kg
				Chloromethane	U	6.6	6.57894737	ug/kg
				cis-1,3-Dichloropropene	U	6.6	6.57894737	ug/kg
				Ethylbenzene	U	6.6	6.57894737	ug/kg
				Styrene	U	6.6	6.57894737	ug/kg
				Tetrachloroethene	U	6.6	6.57894737	ug/kg
				Toluene	U	6.6	6.57894737	ug/kg
				trans-1,3-Dichloropropene	U	6.6	6.57894737	ug/kg
				Trichloroethene	U	6.6	6.57894737	ug/kg
				Vinyl chloride	U	6.6	6.57894737	ug/kg
8270C		2,4-Dinitrophenol	U		1100	1052.63158	ug/kg	
				2-Nitroaniline	U	1100	1052.63158	ug/kg
				3-Nitroaniline	U	1100	1052.63158	ug/kg
				4,6-Dinitro-2-methylphenol	U	1100	1052.63158	ug/kg
				4-Nitroaniline	U	1100	1052.63158	ug/kg
				4-Nitrophenol	U	1100	1052.63158	ug/kg
				Benzoic acid	U	1100	1052.63158	ug/kg
				Carbazole	U	66	65.7894737	ug/kg
				1,3,5-Trinitrobenzene	U	0.24	0.01236842	mg/kg
				1,3-Dinitrobenzene	U	0.24	0.30921053	mg/kg
8330B		2,4,6-Trinitrotoluene (TNT)	U		0.24	0.30921053	mg/kg	
				2,4-Dinitrotoluene	U	0.24	0.30921053	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

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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:** A0C300541

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Result	Criteria*	Units
CPCSB-035-5123-SO	A0C300541004	8330B	SO	2,6-Dinitrotoluene	U	0.24	0.30921053	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.24	0.30921053	mg/kg
				2-Nitrotoluene	U	0.24	0.30921053	mg/kg
				3-Nitrotoluene	U	0.24	0.30921053	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.24	0.30921053	mg/kg
				Nitrobenzene	U	0.24	0.30921053	mg/kg
CPCSB-035-5124-SO	A0C300541005	8081A	SO	beta-BHC	U	4.4	4.375	ug/kg
				Heptachlor	U	4.4	4.375	ug/kg
				Toxaphene	U	84	83.75	ug/kg
CPCSB-035-6072-FD	A0C300541006	353.2 Modified SO 8081A	Nitrocellulose 4,4'-DDD 4,4'-DDE 4,4'-DDT Aldrin alpha-BHC delta-BHC Dieldrin Endosulfan I Endosulfan II Endrin Endrin ketone gamma-BHC (Lindane) gamma-Chlordane Heptachlor epoxide Methoxychlor Toxaphene 8082 Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248	U	6.2	6.17283951	mg/kg	
				U	2.5	2.46913580	ug/kg	
				U	2.1	2.09876543	ug/kg	
				U	2.5	2.46913580	ug/kg	
				U	5.0	4.93827160	ug/kg	
				U	3.1	3.08641975	ug/kg	
				U	5.0	4.93827160	ug/kg	
				U	2.1	2.09876543	ug/kg	
				U	2.1	2.09876543	ug/kg	
				U	3.1	3.08641975	ug/kg	
				U	2.1	2.09876543	ug/kg	
				U	2.5	2.46913580	ug/kg	
				U	3.1	3.08641975	ug/kg	
				U	6.2	6.17283951	ug/kg	
				U	83	82.7160494	ug/kg	
				U	41	2.09876543	ug/kg	
				U	41	2.09876543	ug/kg	
				U	41	2.09876543	ug/kg	
				U	41	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

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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:** A0C300541

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*		
							Criteria*	Units	
CPCSB-035-6072-FD	A0C300541006	8082	SO	Aroclor 1254	U	41	2.09876543	ug/kg	
				Aroclor 1260	U	41	2.09876543	ug/kg	
		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	
				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	

\* 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

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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:** A0C300541

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*		
							Criteria*	Units	
CPCSB-035-6072-FD	A0C300541006	8260B	SO	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	
				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	
				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	

\* 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

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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:** A0C300541

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*		
							Criteria*	Units	
CPCSB-035-6072-FD	A0C300541006	8270C	SO	Bis(2-chloroisopropyl) ether	U	410	407.407407	ug/kg	
				Butyl benzyl phthalate	U	410	407.407407	ug/kg	
				Carbazole	U	62	61.7283951	ug/kg	
				Dibenzofuran	U	410	407.407407	ug/kg	
				Diethyl phthalate	U	410	407.407407	ug/kg	
				Dimethyl phthalate	U	410	407.407407	ug/kg	
				Di-n-octyl phthalate	U	410	407.407407	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	
				Isophorone	U	410	407.407407	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	
				Phenol	U	410	407.407407	ug/kg	
		8330M		Nitroguanidine	U	0.25	0.30555556	mg/kg	
CPCSD-044-5022-SD	A0C300541007	6020	SO	Antimony	U	0.66	0.65789474	mg/kg	
		8270C		1,2,4-Trichlorobenzene	U	440	434.210526	ug/kg	
				1,2-Dichlorobenzene	U	440	434.210526	ug/kg	
				1,3-Dichlorobenzene	U	440	434.210526	ug/kg	
				1,4-Dichlorobenzene	U	440	434.210526	ug/kg	
				2,4,5-Trichlorophenol	U	440	434.210526	ug/kg	
				2,4,6-Trichlorophenol	U	440	434.210526	ug/kg	
				2,4-Dichlorophenol	U	440	434.210526	ug/kg	
				2,4-Dimethylphenol	U	440	434.210526	ug/kg	
				2,4-Dinitrophenol	U	1100	1052.63158	ug/kg	
				2,4-Dinitrotoluene	U	440	434.210526	ug/kg	
				2,6-Dinitrotoluene	U	440	434.210526	ug/kg	
				2-Chloronaphthalene	U	440	434.210526	ug/kg	
				2-Chlorophenol	U	440	434.210526	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

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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:** A0C300541

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*		
							Criteria*	Units	
CPCSD-044-5022-SD	A0C300541007	8270C	SO	2-Methylnaphthalene	U	440	434.210526	ug/kg	
				2-Methylphenol	U	440	434.210526	ug/kg	
				2-Nitroaniline	U	1100	1052.63158	ug/kg	
				2-Nitrophenol	U	440	434.210526	ug/kg	
				3,3'-Dichlorobenzidine	U	440	434.210526	ug/kg	
				3-methylphenol/4-methylphenol	U	440	#Error	ug/kg	
				3-Nitroaniline	U	1100	1052.63158	ug/kg	
				4,6-Dinitro-2-methylphenol	U	1100	1052.63158	ug/kg	
				4-Bromophenyl phenyl ether	U	440	434.210526	ug/kg	
				4-Chloro-3-methylphenol	U	440	434.210526	ug/kg	
				4-Chloroaniline	U	440	434.210526	ug/kg	
				4-Chlorophenyl phenyl ether	U	440	434.210526	ug/kg	
				4-Nitroaniline	U	1100	1052.63158	ug/kg	
				4-Nitrophenol	U	1100	1052.63158	ug/kg	
				Benzoic acid	U	1100	1052.63158	ug/kg	
				Benzyl alcohol	U	440	434.210526	ug/kg	
				bis(2-Chloroethoxy)methane	U	440	434.210526	ug/kg	
				bis(2-Chloroethyl) ether	U	440	434.210526	ug/kg	
				Bis(2-chloroisopropyl) ether	U	440	434.210526	ug/kg	
				bis(2-Ethylhexyl) phthalate	U	440	434.210526	ug/kg	
				Butyl benzyl phthalate	U	440	434.210526	ug/kg	
				Carbazole	U	66	65.7894737	ug/kg	
				Dibenzofuran	U	440	434.210526	ug/kg	
				Diethyl phthalate	U	440	434.210526	ug/kg	
				Dimethyl phthalate	U	440	434.210526	ug/kg	
				Di-n-octyl phthalate	U	440	434.210526	ug/kg	
				Hexachlorobenzene	U	440	434.210526	ug/kg	
				Hexachlorobutadiene	U	440	434.210526	ug/kg	
				HEXACHLOROCYCLOPENTADIE	U	440	#Error	ug/kg	
				Hexachloroethane	U	440	434.210526	ug/kg	
				Isophorone	U	440	434.210526	ug/kg	
				Nitrobenzene	U	440	434.210526	ug/kg	
				N-Nitrosodi-n-propylamine	U	440	434.210526	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

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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: A0C300541

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Result	Criteria*	Units
CPCSD-044-5022-SD	A0C300541007	8270C	SO	N-Nitrosodiphenylamine	U	440	434.210526	ug/kg
				Pentachlorophenol	U	440	434.210526	ug/kg
				Phenol	U	440	434.210526	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

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# QC Outlier Report: Trip Blank

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Lab Reporting Batch :

Lab ID:

Method/Preparation Batch :

Analysis Date :

Client Sample ID :

Preparation Date :

Lab Sample ID :

Preparation Type :

Analysis Method :

**No contamination was found.**

## Continuing Calibration (CCV) Outlier Report (Organics)

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**There are no Organic Continuing Calibrations with outliers**

## Continuing Calibration (CCAL) Outlier Report (Inorganics)

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**There are no Inorganic Continuing Calibrations with outliers**

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

Lab Report Batch: A0C300541

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit		Units
CPCSB-030-5105-SO	A0C300541001	6020	SO	Cadmium	J	0.053	0.27	mg/kg	
				Silver	J	0.046	0.67	mg/kg	
				Sodium	J	38.4	133	mg/kg	
				Thallium	J	0.12	0.27	mg/kg	
		7471A		Mercury	J	0.023	0.13	mg/kg	
		8270C		Di-n-butyl phthalate	J	21	440	ug/kg	
CPCSB-034-5119-SO	A0C300541002	6020		Cadmium	J	0.19	0.29	mg/kg	
				Silver	J	0.014	0.72	mg/kg	
				Sodium	J	108	144	mg/kg	
				Thallium	J	0.14	0.29	mg/kg	
		8270C		Di-n-butyl phthalate	J	27	480	ug/kg	
CPCSB-034-5120-SO	A0C300541003	6020		Cadmium	J	0.068	0.25	mg/kg	
				Silver	J	0.0098	0.64	mg/kg	
				Sodium	J	40.8	127	mg/kg	
				Thallium	J	0.093	0.25	mg/kg	
CPCSB-035-5123-SO	A0C300541004	353.2 Modified		Nitrocellulose	B	1.5	6.6	mg/kg	
		6020		Antimony	J	0.088	0.66	mg/kg	
				Cadmium	J	0.20	0.26	mg/kg	
				Silver	J	0.038	0.66	mg/kg	
				Sodium	J	40.7	131	mg/kg	
				Thallium	J	0.14	0.26	mg/kg	
		7471A		Mercury	J	0.034	0.13	mg/kg	
		8081A		beta-BHC	J	3.5	9.2	ug/kg	
		8260B		Methylene chloride	J B	3.0	6.6	ug/kg	
		8270C		2-Methylnaphthalene	J	9.1	430	ug/kg	
CPCSB-035-5124-SO	A0C300541005	353.2 Modified		Nitrocellulose	B	1.6	6.2	mg/kg	
		6020		Antimony	J	0.084	0.62	mg/kg	
				Cadmium	J	0.18	0.25	mg/kg	
				Silver	J	0.026	0.62	mg/kg	
				Sodium	J	44.5	125	mg/kg	
				Thallium	J	0.13	0.25	mg/kg	
		7471A		Mercury	J	0.022	0.12	mg/kg	
		8260B		Methylene chloride	J B	1.9	6.2	ug/kg	
		8270C		2-Methylnaphthalene	J	9.1	410	ug/kg	
CPCSB-035-6072-FD	A0C300541006	6020		Antimony	J	0.079	0.62	mg/kg	
				Cadmium	J	0.078	0.25	mg/kg	

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

Lab Report Batch: A0C300541

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit		Units
CPCSB-035-6072-FD	A0C300541006	6020	SO	Silver	J	0.033	0.62	mg/kg	
				Sodium	J	58.8	124	mg/kg	
				Thallium	J	0.19	0.25	mg/kg	
		8260B		Methylene chloride	J B	1.9	6.2	ug/kg	
				bis(2-Ethylhexyl) phthalate	J	24	410	ug/kg	
				Di-n-butyl phthalate	J	25	410	ug/kg	
CPCSD-044-5022-SD	A0C300541007	6020		Cadmium	J	0.10	0.26	mg/kg	
				Silver	J	0.052	0.66	mg/kg	
				Sodium	J	47.3	132	mg/kg	
		8270C		Thallium	J	0.13	0.26	mg/kg	
				Di-n-butyl phthalate	J	22	440	ug/kg	
				8330B	J	0.017	0.25	mg/kg	
CPCSW-044-5027-SW	A0C300541008	6020	AQ	Antimony	J	0.73	5.0	ug/L	
				Arsenic	J	0.78	5.0	ug/L	
				Chromium	J B	0.72	5.0	ug/L	
				Cobalt	J	0.18	5.0	ug/L	
				Copper	J	1.6	5.0	ug/L	
				Lead	J	0.32	3.0	ug/L	
				Nickel	J	1.6	10.0	ug/L	
				Vanadium	J	0.63	10.0	ug/L	
				8260B	J	1.7	10	ug/L	
				Acetone	J	4.8	10	ug/L	
PBA08-QC-6020-TB	A0C300541009			Acetone					

## Method Blank Outlier Report

Lab Reporting Batch : A0C300541

Lab ID: TALCAN

Analysis Method : 6020

Analysis Date : 04/01/2010

Preparation Type : 3005A

Preparation Date : 03/31/2010

Method Blank Lab Sample ID : A0C310000017B

Preparation Batch : 0090017

Chromium	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.63	5.0	ug/L	J	

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

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
CPCSW-044-5027-SW	A0C300541008	1	0.72	J B	ug/L

Iron	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	89.2	150	ug/L	J	

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

## Method Blank Outlier Report

Lab Reporting Batch : A0C300541

Lab ID: TALCAN

Analysis Method : 6020

Analysis Date : 04/01/2010

Preparation Type : 3050B

Preparation Date : 03/31/2010

Method Blank Lab Sample ID : A0C310000020B

Preparation Batch : 0090020

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.

Nickel	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.12	1.0	mg/kg	J	

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

# Method Blank Outlier Report

Lab Reporting Batch : A0C300541

Lab ID: TALCAN

Analysis Method : 8260B

Analysis Date : 03/30/2010

Preparation Type : 5030B

Preparation Date : 03/30/2010

Method Blank Lab Sample ID : A0C310000390B

Preparation Batch : 0090390

Methylene chloride	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.72	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
CPCS-B-035-5123-SO	A0C300541004	1	3.0	J B	ug/kg
CPCS-B-035-5124-SO	A0C300541005	1	1.9	J B	ug/kg
CPCS-B-035-6072-FD	A0C300541006	1	1.9	J B	ug/kg

## Method Blank Outlier Report

Lab Reporting Batch : A0C300541

Lab ID: TALCAN

Analysis Method : 8330B

Analysis Date : 04/16/2010

Preparation Type : 3535

Preparation Date : 04/02/2010

Method Blank Lab Sample ID : G0D020000105B

Preparation Batch : 0092105

1,3,5-Trinitrobenzene	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.042	0.10	ug/L	J	

1,3,5-Trinitrobenzene contamination found in the method blank did not qualify any samples.

## Surrogate Recovery Outlier Report

**Lab Report Batch:** A0C300541

**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	
CPCSB-035-5123-SO	A0C300541004	8260B	1	SO	4-Bromofluorobenzene	79	85.0	120.0	10.0	All Target
CPCSB-035-5124-SO	A0C300541005	8260B	1	SO	4-Bromofluorobenzene	78	85.0	120.0	10.0	All Target
CPCSB-035-6072-FD	A0C300541006	8260B	1	SO	4-Bromofluorobenzene	78	85.0	120.0	10.0	All Target

## QC Outlier Report: Temperature (Non-qualified Outliers)

Lab Report Batch: A0D020496

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Sample Temperature ( C )	Criteria	
					Lower Limit	Upper Limit
CPCSW-045-5028-SW	A0D020496007	353.2 Modified	AQ	1.7	2.0	6.0
CPCSW-045-5028-SWMS	A0D020496007S	353.2 Modified	AQ	1.7	2.0	6.0
CPCSW-045-5028-SWMS	A0D020496007D	353.2 Modified	AQ	1.7	2.0	6.0
CPCSW-047-6045-FD	A0D020496009	353.2 Modified	AQ	0.2	2.0	6.0
CPCSW-045-5028-SW	A0D020496007	8081A	AQ	1.7	2.0	
CPCSW-047-6045-FD	A0D020496009	8081A	AQ	0.2	2.0	
CPCSW-045-5028-SW	A0D020496007	8082	AQ	1.7	2.0	
CPCSW-047-6045-FD	A0D020496009	8082	AQ	0.2	2.0	
CPCSW-045-5028-SW	A0D020496007	8260B	AQ	1.7	2.0	
CPCSW-047-6045-FD	A0D020496009	8260B	AQ	0.2	2.0	
PBA08-QC-6023-TB	A0D020496011	8260B	AQ	1.7	2.0	
CPCSW-045-5028-SW	A0D020496007	8270C	AQ	1.7	2.0	
CPCSW-045-5028-SWMS	A0D020496007S	8270C	AQ	1.7	2.0	
CPCSW-045-5028-SWMS	A0D020496007D	8270C	AQ	1.7	2.0	
CPCSW-047-6045-FD	A0D020496009	8270C	AQ	0.2	2.0	
CPCSW-045-5028-SW	A0D020496007	8270C PAH	AQ	1.7	2.0	
CPCSW-045-5028-SWMS	A0D020496007S	8270C PAH	AQ	1.7	2.0	
CPCSW-045-5028-SWMS	A0D020496007D	8270C PAH	AQ	1.7	2.0	
CPCSW-047-6045-FD	A0D020496009	8270C PAH	AQ	0.2	2.0	
CPCSW-045-5028-SW	A0D020496007	8330B	AQ	1.7	2.0	
CPCSW-047-6045-FD	A0D020496009	8330B	AQ	0.2	2.0	
CPCSW-045-5028-SW	A0D020496007	8330M	AQ	1.7	2.0	
CPCSW-045-5028-SWMS	A0D020496007S	8330M	AQ	1.7	2.0	
CPCSW-045-5028-SWMS	A0D020496007D	8330M	AQ	1.7	2.0	
CPCSW-047-6045-FD	A0D020496009	8330M	AQ	0.2	2.0	

# Temperature Outlier Report

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**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		
								Detect Quals		Non-Detect Qual(s)	Detect Quals	
					Low	High	Gross Exceed	Non-Biased	Biased	Non-Biased	Biased	Non-Detect Qual(s)

## QC Outlier Report: Holding Times

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**Lab Report Batch:** A0D020496

**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
CPCSD-045-5783-SD	A0D020496002	8082	SO	3540C	15.0	3.0		14	40		Days	04/01/2010	04/16/2010	04/19/2010
CPCSD-045-5783-SD	A0D020496002S	8082	SO	3540C	15.0	3.0		14	40		Days	04/01/2010	04/16/2010	04/19/2010
CPCSD-045-5783-SD	A0D020496002D	8082	SO	3540C	15.0	3.0		14	40		Days	04/01/2010	04/16/2010	04/19/2010
CPCSW-045-5028-S	A0D020496007	8330M	AQ	Gen Prep	19.0	1.0		14	40		Days	04/01/2010	04/20/2010	04/21/2010
CPCSW-045-5028-S	A0D020496007S	8330M	AQ	Gen Prep	19.0	1.0		14	40		Days	04/01/2010	04/20/2010	04/21/2010
CPCSW-045-5028-S	A0D020496007D	8330M	AQ	Gen Prep	19.0	1.0		14	40		Days	04/01/2010	04/20/2010	04/21/2010
CPCSW-047-5030-S	A0D020496008	8330M	AQ	Gen Prep	19.0	1.0		14	40		Days	04/01/2010	04/20/2010	04/21/2010
CPCSW-047-6045-F	A0D020496009	8330M	AQ	Gen Prep	19.0	1.0		14	40		Days	04/01/2010	04/20/2010	04/21/2010
CPCSW-048-5031-S	A0D020496010	8330M	AQ	Gen Prep	19.0	1.0		14	40		Days	04/01/2010	04/20/2010	04/21/2010
LL6SW-084-5794-SW	A0D020496012	8330M	AQ	Gen Prep	19.0	1.0		14	40		Days	04/01/2010	04/20/2010	04/21/2010
LNWSS-077M-5287-	A0D020496023	8081A	SO	3540C	28.0	6.0		14	40		Days	04/01/2010	04/29/2010	05/05/2010
		8270C	SO	3540C	18.0	2.0		14	40		Days	04/01/2010	04/19/2010	04/21/2010
LNWSS-077M-5287-	A0D020496023S	8081A	SO	3540C	28.0	6.0		14	40		Days	04/01/2010	04/29/2010	05/05/2010
LNWSS-077M-5287-	A0D020496023D	8081A	SO	3540C	28.0	6.0		14	40		Days	04/01/2010	04/29/2010	05/05/2010
PBA08-QC-6002-ER	A0D020496014	8330M	AQ	Gen Prep	19.0	1.0		14	40		Days	04/01/2010	04/20/2010	04/21/2010

# Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0095035  
 Preparation Batch : 0095035  
 Lab Reporting Batch : A0D020496

Analysis Method : 8270C  
 Preparation Type : 3540C  
 Lab ID: TALCAN

Analysis Date : 04/20/2010  
 Preparation Date : 04/05/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
CPCSD-045-5023-SDMS	A0D020496001S	SO	Hexachloroethane	22		0.00	35.00	110.00	29.00
			3,3'-Dichlorobenzidine	8.1		0.00	10.00	130.00	56.00
			Benzoic acid			62	0.00	0.00	110.00
			Hexachloroethane	19		0.00	35.00	110.00	29.00

## Associated Samples: Parent sample only

Client Sample ID	Lab Sample ID
CPCSD-045-5023-SD	A0D020496001

\* 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

# Matrix Spike / Matrix Spike Duplicate Recovery and RPD Outlier Report

Method Batch : 0095037  
 Preparation Batch : 0095037  
 Lab Reporting Batch : A0D020496

Analysis Method : 8270C  
 Preparation Type : 3520C  
 Lab ID: TALCAN

Analysis Date : 04/20/2010  
 Preparation Date : 04/05/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
CPCSW-045-5028-SWM	A0D020496007S	AQ	3,3'-Dichlorobenzidine	14		0.00	20.00	110.00	56.00
CPCSW-045-5028-SWM	A0D020496007D		3,3'-Dichlorobenzidine	8.6		0.00	20.00	110.00	56.00

## Associated Samples: Parent sample only

Client Sample ID	Lab Sample ID
CPCSW-045-5028-SW	A0D020496007

\* 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 : 0097020  
 Preparation Batch : 0097020  
 Lab Reporting Batch : A0D020496

Analysis Method : 6020  
 Preparation Type : 3050B  
 Lab ID: TALCAN

Analysis Date : 04/14/2010  
 Preparation Date : 04/07/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LNWSS-072M-5282-SO	A0D020496018S	SO	Antimony	31		30.00	75.00	125.00	20.00
LNWSS-072M-5282-SO	A0D020496018D		Antimony	29		30.00	75.00	125.00	20.00

Associated Samples: All samples in Method Batch	
Client Sample ID	Lab Sample ID
CPCSD-045-5023-SD	A0D020496001
CPCSD-045-5783-SD	A0D020496002
CPCSD-047-5025-SD	A0D020496003
CPCSD-047-5785-SD	A0D020496004
CPCSD-048-5026-SD	A0D020496005
CPCSD-048-5786-SD	A0D020496006
LL6SD-084-5795-SD	A0D020496013
LNWSS-070M-5280-SO	A0D020496015
LNWSS-071M-5281-SO	A0D020496016
LNWSS-072M-5282-SO	A0D020496018
LNWSS-072M-6103-FD	A0D020496017
LNWSS-073M-5283-SO	A0D020496019
LNWSS-074M-5284-SO	A0D020496020
LNWSS-075M-5285-SO	A0D020496021
LNWSS-076M-5286-SO	A0D020496022
LNWSS-077M-5287-SO	A0D020496023
LNWSS-078M-5288-SO	A0D020496025
LNWSS-079M-5289-SO	A0D020496026

\* 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 : 0097044  
 Preparation Batch : 0097044  
 Lab Reporting Batch : A0D020496

Analysis Method : 8270C  
 Preparation Type : 3540C  
 Lab ID: TALCAN

Analysis Date : 04/14/2010  
 Preparation Date : 04/07/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LNWSS-072M-5282-SO	A0D020496018S	SO	3,3'-Dichlorobenzidine	0.0		0.00	10.00	130.00	56.00
			3-Nitroaniline	19		0.00	25.00	110.00	45.00
			4-Nitroaniline	30		0.00	35.00	115.00	30.00
LNWSS-072M-5282-SO	A0D020496018D		3,3'-Dichlorobenzidine	0.0		0.00	10.00	130.00	56.00

## Associated Samples: Parent sample only

Client Sample ID	Lab Sample ID
LNWSS-072M-5282-SO	A0D020496018

\* 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 : 0102179  
 Preparation Batch : 0102179  
 Lab Reporting Batch : A0D020496

Analysis Method : 8260B  
 Preparation Type : 5030B  
 Lab ID: TALCAN

Analysis Date : 04/12/2010  
 Preparation Date : 04/12/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
PBA08-QC-6002-ERMS	A0D020496014S	AQ	Bromoform	59		0.00	70.00	130.00	30.00
PBA08-QC-6002-ERMSD	A0D020496014D		Bromoform	61		0.00	70.00	130.00	30.00

## Associated Samples: Parent sample only

Client Sample ID	Lab Sample ID
PBA08-QC-6002-ER	A0D020496014

\* 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 :** 0110205      **Analysis Method :** 353.2 Modified      **Analysis Date :** 04/21/2010  
**Preparation Batch :** 0110205      **Preparation Type :** 3535      **Preparation Date :** 04/20/2010  
**Lab Reporting Batch :** A0D020496      **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
CPCSW-045-5028-SWM	A0D020496007D	AQ	Nitrocellulose	48			26.00	144.00	45.00

## Associated Samples: All samples in Method Batch

Client Sample ID	Lab Sample ID
CPCSW-045-5028-SW	A0D020496007
CPCSW-047-5030-SW	A0D020496008
CPCSW-047-6045-FD	A0D020496009
CPCSW-048-5031-SW	A0D020496010
LL6SW-084-5794-SW	A0D020496012
PBA08-QC-6002-ER	A0D020496014

\* 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 : 0118073	Analysis Method : 8081A	Analysis Date : 05/05/2010						
Preparation Batch : 0118073	Preparation Type : 3540C	Preparation Date : 04/29/2010						
Lab Reporting Batch : A0D020496	Lab ID: TALCAN							
<hr/>								
Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *	Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit

LNWSS-077M-5287-SO	A0D020496023S	SO	alpha-Chordane	58	0.00	65.00	120.00	65.00
LNWSS-077M-5287-SO	A0D020496023D		alpha-Chordane	52	0.00	65.00	120.00	65.00

  

Associated Samples: Parent sample only	
Client Sample ID	Lab Sample ID
LNWSS-077M-5287-SO	A0D020496023

\* 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 : 0095035  
 Preparation Batch : 0095035  
 Lab Reporting Batch : A0D020496

Analysis Method : 8270C  
 Preparation Type : 3540C  
 Lab ID: TALCAN

Analysis Date : 04/20/2010  
 Preparation Date : 04/05/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
CPCSD-045-5023-SDMS	A0D020496001S	SO	Hexachloroethane	22		0.00	35.00	110.00	29.00
			3,3'-Dichlorobenzidine	8.1		0.00	10.00	130.00	56.00
			Benzoic acid			62	0.00	0.00	110.00
			Hexachloroethane	19		0.00	35.00	110.00	29.00

## Associated Samples: Parent sample only

Client Sample ID	Lab Sample ID
CPCSD-045-5023-SD	A0D020496001

\* 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 : 0095037	Analysis Method : 8270C	Analysis Date : 04/20/2010						
Preparation Batch : 0095037	Preparation Type : 3520C	Preparation Date : 04/05/2010						
Lab Reporting Batch : A0D020496	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

CPCSW-045-5028-SWM	A0D020496007S	AQ	3,3'-Dichlorobenzidine	14	0.00	20.00	110.00	56.00
CPCSW-045-5028-SWM	A0D020496007D		3,3'-Dichlorobenzidine	8.6	0.00	20.00	110.00	56.00

<b>Associated Samples: Parent sample only</b>		
Client Sample ID	Lab Sample ID	
CPCSW-045-5028-SW	A0D020496007	

\* 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 : 0097020  
 Preparation Batch : 0097020  
 Lab Reporting Batch : A0D020496

Analysis Method : 6020  
 Preparation Type : 3050B  
 Lab ID: TALCAN

Analysis Date : 04/14/2010  
 Preparation Date : 04/07/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LNWSS-072M-5282-SO	A0D020496018S	SO	Antimony	31		30.00	75.00	125.00	20.00
LNWSS-072M-5282-SO	A0D020496018D		Antimony	29		30.00	75.00	125.00	20.00

Associated Samples: All samples in Method Batch	
Client Sample ID	Lab Sample ID
CPCSD-045-5023-SD	A0D020496001
CPCSD-045-5783-SD	A0D020496002
CPCSD-047-5025-SD	A0D020496003
CPCSD-047-5785-SD	A0D020496004
CPCSD-048-5026-SD	A0D020496005
CPCSD-048-5786-SD	A0D020496006
LL6SD-084-5795-SD	A0D020496013
LNWSS-070M-5280-SO	A0D020496015
LNWSS-071M-5281-SO	A0D020496016
LNWSS-072M-5282-SO	A0D020496018
LNWSS-072M-6103-FD	A0D020496017
LNWSS-073M-5283-SO	A0D020496019
LNWSS-074M-5284-SO	A0D020496020
LNWSS-075M-5285-SO	A0D020496021
LNWSS-076M-5286-SO	A0D020496022
LNWSS-077M-5287-SO	A0D020496023
LNWSS-078M-5288-SO	A0D020496025
LNWSS-079M-5289-SO	A0D020496026

\* 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 : 0097044  
 Preparation Batch : 0097044  
 Lab Reporting Batch : A0D020496

Analysis Method : 8270C  
 Preparation Type : 3540C  
 Lab ID: TALCAN

Analysis Date : 04/14/2010  
 Preparation Date : 04/07/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LNWSS-072M-5282-SO	A0D020496018S	SO	3,3'-Dichlorobenzidine	0.0		0.00	10.00	130.00	56.00
			3-Nitroaniline	19		0.00	25.00	110.00	45.00
			4-Nitroaniline	30		0.00	35.00	115.00	30.00
LNWSS-072M-5282-SO	A0D020496018D		3,3'-Dichlorobenzidine	0.0		0.00	10.00	130.00	56.00

## Associated Samples: Parent sample only

Client Sample ID	Lab Sample ID
LNWSS-072M-5282-SO	A0D020496018

\* 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 : 0102179  
 Preparation Batch : 0102179  
 Lab Reporting Batch : A0D020496

Analysis Method : 8260B  
 Preparation Type : 5030B  
 Lab ID: TALCAN

Analysis Date : 04/12/2010  
 Preparation Date : 04/12/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
PBA08-QC-6002-ERMS	A0D020496014S	AQ	Bromoform	59		0.00	70.00	130.00	30.00
PBA08-QC-6002-ERMSD	A0D020496014D		Bromoform	61		0.00	70.00	130.00	30.00

## Associated Samples: Parent sample only

Client Sample ID	Lab Sample ID
PBA08-QC-6002-ER	A0D020496014

\* 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 :** 0110205      **Analysis Method :** 353.2 Modified      **Analysis Date :** 04/21/2010  
**Preparation Batch :** 0110205      **Preparation Type :** 3535      **Preparation Date :** 04/20/2010  
**Lab Reporting Batch :** A0D020496      **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
CPCSW-045-5028-SWM	A0D020496007D	AQ	Nitrocellulose	48			26.00	144.00	45.00

## Associated Samples: All samples in Method Batch

Client Sample ID	Lab Sample ID
CPCSW-045-5028-SW	A0D020496007
CPCSW-047-5030-SW	A0D020496008
CPCSW-047-6045-FD	A0D020496009
CPCSW-048-5031-SW	A0D020496010
LL6SW-084-5794-SW	A0D020496012
PBA08-QC-6002-ER	A0D020496014

\* 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 : 0118073  
 Preparation Batch : 0118073  
 Lab Reporting Batch : A0D020496

Analysis Method : 8081A  
 Preparation Type : 3540C  
 Lab ID: TALCAN

Analysis Date : 05/05/2010  
 Preparation Date : 04/29/2010

Client Sample ID	Lab Sample ID	Matrix	Analyte Name	Reported *		Project Limits (Percent)			
				Percent Recovery	RPD	Rejection Point**	Lower Limit	Upper Limit	RPD
LNWSS-077M-5287-SO	A0D020496023S	SO	alpha-Chordane	58		0.00	65.00	120.00	65.00
LNWSS-077M-5287-SO	A0D020496023D		alpha-Chordane	52		0.00	65.00	120.00	65.00

## Associated Samples: Parent sample only

Client Sample ID	Lab Sample ID
LNWSS-077M-5287-SO	A0D020496023

\* 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 : 0096017  
Preparation Batch : 0096017  
Lab Reporting Batch : A0D020496

Analysis Method : 6020  
Preparation Type : 3005A  
Lab ID: TALCAN

Analysis Date : 04/14/2010  
Preparation Date : 04/06/2010

LCS Lab Sample ID	Matrix	Analyte Name	Reported Values		Project Limits (Percent)		
			Percent Recovery	RPD	Rejection Point	Lower Limit	Upper Limit
A0D060000017C	AQ	Zinc	132	50.00	80.00	120.00	20.00

Associated Samples	
Client Sample ID	Lab Sample ID
CPCSW-045-5028-SW	A0D020496007
CPCSW-047-5030-SW	A0D020496008
CPCSW-047-6045-FD	A0D020496009
CPCSW-048-5031-SW	A0D020496010
LL6SW-084-5794-SW	A0D020496012
PBA08-QC-6002-ER	A0D020496014

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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 :** 0097044      **Analysis Method :** 8270C      **Analysis Date :** 04/09/2010  
**Preparation Batch :** 0097044      **Preparation Type :** 3540C      **Preparation Date :** 04/07/2010  
**Lab Reporting Batch :** A0D020496      **Lab ID:** TALCAN

LCS Lab Sample ID	Matrix	Analyte Name	Reported Values		Project Limits (Percent)			
			Percent Recovery	RPD	Rejection Point	Lower Limit	Upper Limit	
A0D070000044C	SO	2,4,6-Trichlorophenol	37		10.00	45.00	110.00	29.00

<b>Associated Samples</b>	
<b>Client Sample ID</b>	<b>Lab Sample ID</b>
LNWSS-070M-5280-SO	A0D020496015
LNWSS-071M-5281-SO	A0D020496016
LNWSS-072M-5282-SO	A0D020496018
LNWSS-072M-6103-FD	A0D020496017
LNWSS-073M-5283-SO	A0D020496019
LNWSS-074M-5284-SO	A0D020496020
LNWSS-075M-5285-SO	A0D020496021
LNWSS-076M-5286-SO	A0D020496022
LNWSS-078M-5288-SO	A0D020496025

*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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
CPCSD-045-5023-SD	A0D020496001	8081A	SO	Aldrin	U	120	117.647059	ug/kg
				delta-BHC	U	120	117.647059	ug/kg
	8260B			2-Hexanone	U	120	117.647059	ug/kg
				4-methyl-2-pentanone (MIBK)	U	120	117.647059	ug/kg
	8330B	8330B	SO	1,3,5-Trinitrobenzene	U	0.26	0.06058824	mg/kg
				1,3-Dinitrobenzene	U	0.26	1.51470588	mg/kg
				2,4,6-Trinitrotoluene (TNT)	U	0.26	1.51470588	mg/kg
				2,4-Dinitrotoluene	U	0.26	1.51470588	mg/kg
				2,6-Dinitrotoluene	U	0.26	1.51470588	mg/kg
				2-Amino-4,6-dinitrotoluene	U	0.26	1.51470588	mg/kg
				2-Nitrotoluene	U	0.26	1.51470588	mg/kg
				3-Nitrotoluene	U	0.26	1.51470588	mg/kg
				4-Amino-2,6-Dinitrotoluene	U	0.26	1.51470588	mg/kg
				4-Nitrotoluene	U	0.52	3.02941176	mg/kg
	8330M		SO	Nitrobenzene	U	0.26	1.51470588	mg/kg
				Nitroguanidine	U	0.26	1.51470588	mg/kg
CPCSD-045-5783-SD	A0D020496002	8081A	SO	Aldrin	U	29	28.9855072	ug/kg
				alpha-Chordane	U	22	21.7391304	ug/kg
	8082		SO	delta-BHC	U	29	28.9855072	ug/kg
				Endosulfan sulfate	U	22	21.7391304	ug/kg
	8082		SO	Endrin aldehyde	U	22	21.7391304	ug/kg
				Aroclor 1016	U	48	2.46376812	ug/kg
	8082		SO	Aroclor 1016	U	48	2.46376812	ug/kg
				Aroclor 1221	U	48	2.46376812	ug/kg
	8082		SO	Aroclor 1221	U	48	2.46376812	ug/kg
				Aroclor 1232	U	48	2.46376812	ug/kg
	8082		SO	Aroclor 1232	U	48	2.46376812	ug/kg
				Aroclor 1242	U	48	2.46376812	ug/kg
	8082		SO	Aroclor 1242	U	48	2.46376812	ug/kg
				Aroclor 1248	U	48	2.46376812	ug/kg
	8082		SO	Aroclor 1248	U	48	2.46376812	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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	
							Criteria*	Units
CPCSD-045-5783-SD	A0D020496002	8082	SO	Aroclor 1254	U	48	2.46376812	ug/kg
				Aroclor 1254	U	48	2.46376812	ug/kg
				Aroclor 1260	U	48	2.46376812	ug/kg
				Aroclor 1260	U	48	2.46376812	ug/kg
	8260B			2-Hexanone	U	29	28.9855072	ug/kg
				4-methyl-2-pentanone (MIBK)	U	29	28.9855072	ug/kg
	8270C			1,2,4-Trichlorobenzene	U	480	478.26087	ug/kg
				1,2-Dichlorobenzene	U	480	478.26087	ug/kg
				1,3-Dichlorobenzene	U	480	478.26087	ug/kg
				1,4-Dichlorobenzene	U	480	478.26087	ug/kg
				2,4,5-Trichlorophenol	U	480	478.26087	ug/kg
				2,4,6-Trichlorophenol	U	480	478.26087	ug/kg
				2,4-Dichlorophenol	U	480	478.26087	ug/kg
				2,4-Dimethylphenol	U	480	478.26087	ug/kg
				2,4-Dinitrophenol	U	1200	1159.42029	ug/kg
				2,4-Dinitrotoluene	U	480	478.26087	ug/kg
				2,6-Dinitrotoluene	U	480	478.26087	ug/kg
				2-Chloronaphthalene	U	480	478.26087	ug/kg
				2-Chlorophenol	U	480	478.26087	ug/kg
				2-Methylphenol	U	480	478.26087	ug/kg
				2-Nitroaniline	U	1200	1159.42029	ug/kg
				2-Nitrophenol	U	480	478.26087	ug/kg
				3,3'-Dichlorobenzidine	U	480	478.26087	ug/kg
				3-methylphenol/4-methylphenol	U	480	#Error	ug/kg
				3-Nitroaniline	U	1200	1159.42029	ug/kg
				4,6-Dinitro-2-methylphenol	U	1200	1159.42029	ug/kg
				4-Bromophenyl phenyl ether	U	480	478.26087	ug/kg
				4-Chloro-3-methylphenol	U	480	478.26087	ug/kg
				4-Chloroaniline	U	480	478.26087	ug/kg
				4-Chlorophenyl phenyl ether	U	480	478.26087	ug/kg
				4-Nitroaniline	U	1200	1159.42029	ug/kg
				4-Nitrophenol	U	1200	1159.42029	ug/kg
				Benzoic acid	U	1200	1159.42029	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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Criteria*	Units	
CPCSD-045-5783-SD	A0D020496002	8270C	SO	Benzyl alcohol	U	480	478.26087	ug/kg
				bis(2-Chloroethoxy)methane	U	480	478.26087	ug/kg
				bis(2-Chloroethyl) ether	U	480	478.26087	ug/kg
				Bis(2-chloroisopropyl) ether	U	480	478.26087	ug/kg
				bis(2-Ethylhexyl) phthalate	U	480	478.26087	ug/kg
				Butyl benzyl phthalate	U	480	478.26087	ug/kg
				Dibenzofuran	U	480	478.26087	ug/kg
				Diethyl phthalate	U	480	478.26087	ug/kg
				Dimethyl phthalate	U	480	478.26087	ug/kg
				Di-n-octyl phthalate	U	480	478.26087	ug/kg
				Hexachlorobenzene	U	480	478.26087	ug/kg
				Hexachlorobutadiene	U	480	478.26087	ug/kg
				HEXACHLOROCYCLOPENTADIE	U	480	#Error	ug/kg
				Hexachloroethane	U	480	478.26087	ug/kg
				Isophorone	U	480	478.26087	ug/kg
				Nitrobenzene	U	480	478.26087	ug/kg
				N-Nitrosodi-n-propylamine	U	480	478.26087	ug/kg
				N-Nitrosodiphenylamine	U	480	478.26087	ug/kg
				Pentachlorophenol	U	480	478.26087	ug/kg
				Phenol	U	480	478.26087	ug/kg
CPCSD-047-5025-SD	A0D020496003	6020	SO	Thallium	U	1.3	1.25	mg/kg
		7471A		Mercury	U	0.64	0.625	mg/kg
		8081A		4,4'-DDD	U	64	62.5	ug/kg
				4,4'-DDE	U	55	53.125	ug/kg
				4,4'-DDT	U	64	62.5	ug/kg
				Aldrin	U	130	125	ug/kg
				alpha-BHC	U	80	78.125	ug/kg
				alpha-Chordane	U	96	93.75	ug/kg
				beta-BHC	U	110	109.375	ug/kg
				delta-BHC	U	130	125	ug/kg
				Dieldrin	U	55	53.125	ug/kg
				Endosulfan I	U	55	53.125	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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
CPCSD-047-5025-SD	A0D020496003	8081A	SO	Endosulfan II	U	80	78.125	ug/kg
				Endosulfan sulfate	U	96	93.75	ug/kg
				Endrin	U	55	53.125	ug/kg
				Endrin aldehyde	U	96	93.75	ug/kg
				Endrin ketone	U	64	62.5	ug/kg
				gamma-BHC (Lindane)	U	80	78.125	ug/kg
				gamma-Chlordane	U	55	53.125	ug/kg
				Heptachlor	U	110	109.375	ug/kg
				Heptachlor epoxide	U	80	78.125	ug/kg
				Methoxychlor	U	160	156.25	ug/kg
8082		8082	Aroclor 1016	Toxaphene	U	2200	2093.75	ug/kg
				Aroclor 1221	U	210	10.625	ug/kg
				Aroclor 1232	U	210	10.625	ug/kg
				Aroclor 1242	U	210	10.625	ug/kg
				Aroclor 1248	U	210	10.625	ug/kg
				Aroclor 1254	U	210	10.625	ug/kg
				Aroclor 1260	U	210	10.625	ug/kg
				8260B	1,1,1-Trichloroethane	U	32	31.25 ug/kg
				1,1,2,2-Tetrachloroethane	U	32	31.25	ug/kg
				1,1,2-Trichloroethane	U	32	31.25	ug/kg
8260B		8260B	Aroclor 1242	1,1-Dichloroethane	U	32	31.25	ug/kg
				1,1-Dichloroethene	U	32	31.25	ug/kg
				1,2-Dibromoethane (Ethylene Dibro)	U	32	31.25	ug/kg
				1,2-Dichloroethane	U	32	31.25	ug/kg
				1,2-Dichloroethene (total)	U	32	31.25	ug/kg
				1,2-Dichloropropane	U	32	31.25	ug/kg
				2-Hexanone	U	130	125	ug/kg
				4-methyl-2-pentanone (MIBK)	U	130	125	ug/kg
				Benzene	U	32	31.25	ug/kg
				Bromochloromethane	U	32	31.25	ug/kg
8260B		8260B	Aroclor 1242	Bromodichloromethane	U	32	31.25	ug/kg
				Bromoform	U	32	31.25	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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
CPCSD-047-5025-SD	A0D020496003	8260B	SO	Bromomethane (Methyl bromide)	U	32	31.25	ug/kg
				Carbon disulfide	U	32	31.25	ug/kg
				Carbon tetrachloride	U	32	31.25	ug/kg
				Chlorobenzene	U	32	31.25	ug/kg
				Chlorodibromomethane	U	32	31.25	ug/kg
				Chloroethane	U	32	31.25	ug/kg
				Chloroform	U	32	31.25	ug/kg
				Chloromethane	U	32	31.25	ug/kg
				cis-1,3-Dichloropropene	U	32	31.25	ug/kg
				Ethylbenzene	U	32	31.25	ug/kg
				Styrene	U	32	31.25	ug/kg
				Tetrachloroethene	U	32	31.25	ug/kg
				Toluene	U	32	31.25	ug/kg
				trans-1,3-Dichloropropene	U	32	31.25	ug/kg
				Trichloroethene	U	32	31.25	ug/kg
				Vinyl chloride	U	32	31.25	ug/kg
				Xylene (Total)	U	64	62.5	ug/kg
	8270C			1,2,4-Trichlorobenzene	U	2100	2062.5	ug/kg
				1,2-Dichlorobenzene	U	2100	2062.5	ug/kg
				1,3-Dichlorobenzene	U	2100	2062.5	ug/kg
				1,4-Dichlorobenzene	U	2100	2062.5	ug/kg
				2,4,5-Trichlorophenol	U	2100	2062.5	ug/kg
				2,4,6-Trichlorophenol	U	2100	2062.5	ug/kg
				2,4-Dichlorophenol	U	2100	2062.5	ug/kg
				2,4-Dimethylphenol	U	2100	2062.5	ug/kg
				2,4-Dinitrophenol	U	5100	5000	ug/kg
				2,4-Dinitrotoluene	U	2100	2062.5	ug/kg
				2,6-Dinitrotoluene	U	2100	2062.5	ug/kg
				2-Chloronaphthalene	U	2100	2062.5	ug/kg
				2-Chlorophenol	U	2100	2062.5	ug/kg
				2-Methylnaphthalene	U	2100	2062.5	ug/kg
				2-Methylphenol	U	2100	2062.5	ug/kg
				2-Nitroaniline	U	5100	5000	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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
CPCSD-047-5025-SD	A0D020496003	8270C	SO	2-Nitrophenol	U	2100	2062.5	ug/kg
				3,3'-Dichlorobenzidine	U	2100	2062.5	ug/kg
				3-methylphenol/4-methylphenol	U	2100	#Error	ug/kg
				3-Nitroaniline	U	5100	5000	ug/kg
				4,6-Dinitro-2-methylphenol	U	5100	5000	ug/kg
				4-Bromophenyl phenyl ether	U	2100	2062.5	ug/kg
				4-Chloro-3-methylphenol	U	2100	2062.5	ug/kg
				4-Chloroaniline	U	2100	2062.5	ug/kg
				4-Chlorophenyl phenyl ether	U	2100	2062.5	ug/kg
				4-Nitroaniline	U	5100	5000	ug/kg
				4-Nitrophenol	U	5100	5000	ug/kg
				Benzoic acid	U	5100	5000	ug/kg
				Benzyl alcohol	U	2100	2062.5	ug/kg
				bis(2-Chloroethoxy)methane	U	2100	2062.5	ug/kg
				bis(2-Chloroethyl) ether	U	2100	2062.5	ug/kg
				Bis(2-chloroisopropyl) ether	U	2100	2062.5	ug/kg
				Butyl benzyl phthalate	U	2100	2062.5	ug/kg
				Carbazole	U	320	312.5	ug/kg
				Dibenzofuran	U	2100	2062.5	ug/kg
				Diethyl phthalate	U	2100	2062.5	ug/kg
				Dimethyl phthalate	U	2100	2062.5	ug/kg
				Di-n-butyl phthalate	U	2100	2062.5	ug/kg
				Di-n-octyl phthalate	U	2100	2062.5	ug/kg
				Hexachlorobenzene	U	2100	2062.5	ug/kg
				Hexachlorobutadiene	U	2100	2062.5	ug/kg
				HEXACHLOROCYCLOPENTADIE	U	2100	#Error	ug/kg
				Hexachloroethane	U	2100	2062.5	ug/kg
				Isophorone	U	2100	2062.5	ug/kg
				Nitrobenzene	U	2100	2062.5	ug/kg
				N-Nitrosodi-n-propylamine	U	2100	2062.5	ug/kg
				N-Nitrosodiphenylamine	U	2100	2062.5	ug/kg
				Pentachlorophenol	U	2100	2062.5	ug/kg
				Phenol	U	2100	2062.5	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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
CPCSD-047-5025-SD	A0D020496003	8330M	SO	Nitroguanidine	U	0.26	1.59375	mg/kg
CPCSD-047-5785-SD	A0D020496004	8081A	SO	Aldrin	U	29	28.9855072	ug/kg
				alpha-Chordane	U	22	21.7391304	ug/kg
				delta-BHC	U	29	28.9855072	ug/kg
				Endosulfan sulfate	U	22	21.7391304	ug/kg
				Endrin aldehyde	U	22	21.7391304	ug/kg
		8082		Aroclor 1016	U	48	2.46376812	ug/kg
				Aroclor 1221	U	48	2.46376812	ug/kg
				Aroclor 1232	U	48	2.46376812	ug/kg
				Aroclor 1242	U	48	2.46376812	ug/kg
				Aroclor 1248	U	48	2.46376812	ug/kg
				Aroclor 1254	U	48	2.46376812	ug/kg
				Aroclor 1260	U	48	2.46376812	ug/kg
	8260B			2-Hexanone	U	29	28.9855072	ug/kg
				4-methyl-2-pentanone (MIBK)	U	29	28.9855072	ug/kg
	8270C			1,2,4-Trichlorobenzene	U	480	478.26087	ug/kg
				1,2-Dichlorobenzene	U	480	478.26087	ug/kg
				1,3-Dichlorobenzene	U	480	478.26087	ug/kg
				1,4-Dichlorobenzene	U	480	478.26087	ug/kg
				2,4,5-Trichlorophenol	U	480	478.26087	ug/kg
				2,4,6-Trichlorophenol	U	480	478.26087	ug/kg
				2,4-Dichlorophenol	U	480	478.26087	ug/kg
				2,4-Dimethylphenol	U	480	478.26087	ug/kg
				2,4-Dinitrophenol	U	1200	1159.42029	ug/kg
				2,4-Dinitrotoluene	U	480	478.26087	ug/kg
				2,6-Dinitrotoluene	U	480	478.26087	ug/kg
				2-Chloronaphthalene	U	480	478.26087	ug/kg
				2-Chlorophenol	U	480	478.26087	ug/kg
				2-Methylnaphthalene	U	480	478.26087	ug/kg
				2-Methylphenol	U	480	478.26087	ug/kg
				2-Nitroaniline	U	1200	1159.42029	ug/kg
				2-Nitrophenol	U	480	478.26087	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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Result	Criteria*	Units
CPCSD-047-5785-SD	A0D020496004	8270C	SO	3,3'-Dichlorobenzidine	U	480	478.26087	ug/kg
				3-methylphenol/4-methylphenol	U	480	#Error	ug/kg
				3-Nitroaniline	U	1200	1159.42029	ug/kg
				4,6-Dinitro-2-methylphenol	U	1200	1159.42029	ug/kg
				4-Bromophenyl phenyl ether	U	480	478.26087	ug/kg
				4-Chloro-3-methylphenol	U	480	478.26087	ug/kg
				4-Chloroaniline	U	480	478.26087	ug/kg
				4-Chlorophenyl phenyl ether	U	480	478.26087	ug/kg
				4-Nitroaniline	U	1200	1159.42029	ug/kg
				4-Nitrophenol	U	1200	1159.42029	ug/kg
				Benzoic acid	U	1200	1159.42029	ug/kg
				Benzyl alcohol	U	480	478.26087	ug/kg
				bis(2-Chloroethoxy)methane	U	480	478.26087	ug/kg
				bis(2-Chloroethyl) ether	U	480	478.26087	ug/kg
				Bis(2-chloroisopropyl) ether	U	480	478.26087	ug/kg
				bis(2-Ethylhexyl) phthalate	U	480	478.26087	ug/kg
				Butyl benzyl phthalate	U	480	478.26087	ug/kg
				Dibenzofuran	U	480	478.26087	ug/kg
				Diethyl phthalate	U	480	478.26087	ug/kg
				Dimethyl phthalate	U	480	478.26087	ug/kg
				Di-n-butyl phthalate	U	480	478.26087	ug/kg
				Di-n-octyl phthalate	U	480	478.26087	ug/kg
				Hexachlorobenzene	U	480	478.26087	ug/kg
				Hexachlorobutadiene	U	480	478.26087	ug/kg
				HEXACHLOROCYCLOPENTADIE	U	480	#Error	ug/kg
				Hexachloroethane	U	480	478.26087	ug/kg
				Isophorone	U	480	478.26087	ug/kg
				Nitrobenzene	U	480	478.26087	ug/kg
				N-Nitrosodi-n-propylamine	U	480	478.26087	ug/kg
				N-Nitrosodiphenylamine	U	480	478.26087	ug/kg
				Pentachlorophenol	U	480	478.26087	ug/kg
				Phenol	U	480	478.26087	ug/kg
	8330B			1,3,5-Trinitrobenzene	U	0.25	0.01434783	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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*		Units
							Criteria*	Units	
CPCSD-047-5785-SD	A0D020496004	8330B	SO	1,3-Dinitrobenzene	U	0.25	0.35869565	mg/kg	
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.35869565	mg/kg	
				2,4-Dinitrotoluene	U	0.25	0.35869565	mg/kg	
				2,6-Dinitrotoluene	U	0.25	0.35869565	mg/kg	
				2-Amino-4,6-dinitrotoluene	U	0.25	0.35869565	mg/kg	
				2-Nitrotoluene	U	0.25	0.35869565	mg/kg	
				3-Nitrotoluene	U	0.25	0.35869565	mg/kg	
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.35869565	mg/kg	
				4-Nitrotoluene	U	0.50	0.71739130	mg/kg	
				Nitrobenzene	U	0.25	0.35869565	mg/kg	
CPCSD-048-5026-SD	A0D020496005	8081A	SO	4,4'-DDD	U	18	17.5438596	ug/kg	
				4,4'-DDE	U	15	14.9122807	ug/kg	
				4,4'-DDT	U	18	17.5438596	ug/kg	
				alpha-BHC	U	22	21.9298246	ug/kg	
				beta-BHC	U	31	30.7017544	ug/kg	
				Dieldrin	U	15	14.9122807	ug/kg	
				Endosulfan I	U	15	14.9122807	ug/kg	
				Endosulfan II	U	22	21.9298246	ug/kg	
				Endrin	U	15	14.9122807	ug/kg	
				Endrin ketone	U	18	17.5438596	ug/kg	
CPCSD-048-5026-SD	A0D020496005	8082	SO	gamma-BHC (Lindane)	U	22	21.9298246	ug/kg	
				gamma-Chlordane	U	15	14.9122807	ug/kg	
				Heptachlor	U	31	30.7017544	ug/kg	
				Heptachlor epoxide	U	22	21.9298246	ug/kg	
				Methoxychlor	U	44	43.8596491	ug/kg	
				Toxaphene	U	590	587.719298	ug/kg	
				Aroclor 1016	U	58	2.98245614	ug/kg	
				Aroclor 1221	U	58	2.98245614	ug/kg	
				Aroclor 1232	U	58	2.98245614	ug/kg	
				Aroclor 1242	U	58	2.98245614	ug/kg	
				Aroclor 1248	U	58	2.98245614	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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
CPCSD-048-5026-SD	A0D020496005	8082	SO	Aroclor 1254	U	58	2.98245614	ug/kg
				Aroclor 1260	U	58	2.98245614	ug/kg
		8260B		1,1,1-Trichloroethane	U	8.8	8.77192982	ug/kg
				1,1,2,2-Tetrachloroethane	U	8.8	8.77192982	ug/kg
				1,1,2-Trichloroethane	U	8.8	8.77192982	ug/kg
				1,1-Dichloroethane	U	8.8	8.77192982	ug/kg
				1,1-Dichloroethene	U	8.8	8.77192982	ug/kg
				1,2-Dibromoethane (Ethylene Dibro)	U	8.8	8.77192982	ug/kg
				1,2-Dichloroethane	U	8.8	8.77192982	ug/kg
				1,2-Dichloroethene (total)	U	8.8	8.77192982	ug/kg
				1,2-Dichloropropane	U	8.8	8.77192982	ug/kg
				Benzene	U	8.8	8.77192982	ug/kg
				Bromochloromethane	U	8.8	8.77192982	ug/kg
				Bromodichloromethane	U	8.8	8.77192982	ug/kg
				Bromoform	U	8.8	8.77192982	ug/kg
				Bromomethane (Methyl bromide)	U	8.8	8.77192982	ug/kg
				Carbon disulfide	U	8.8	8.77192982	ug/kg
				Carbon tetrachloride	U	8.8	8.77192982	ug/kg
				Chlorobenzene	U	8.8	8.77192982	ug/kg
				Chlorodibromomethane	U	8.8	8.77192982	ug/kg
				Chloroethane	U	8.8	8.77192982	ug/kg
				Chloroform	U	8.8	8.77192982	ug/kg
				Chloromethane	U	8.8	8.77192982	ug/kg
				cis-1,3-Dichloropropene	U	8.8	8.77192982	ug/kg
				Ethylbenzene	U	8.8	8.77192982	ug/kg
				Styrene	U	8.8	8.77192982	ug/kg
				Tetrachloroethene	U	8.8	8.77192982	ug/kg
				Toluene	U	8.8	8.77192982	ug/kg
				trans-1,3-Dichloropropene	U	8.8	8.77192982	ug/kg
				Trichloroethene	U	8.8	8.77192982	ug/kg
				Vinyl chloride	U	8.8	8.77192982	ug/kg
				Xylene (Total)	U	18	17.5438596	ug/kg
		8270C		1,2,4-Trichlorobenzene	U	580	578.947368	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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*		
							Criteria*	Units	
CPCSD-048-5026-SD	A0D020496005	8270C	SO	1,2-Dichlorobenzene	U	580	578.947368	ug/kg	
				1,3-Dichlorobenzene	U	580	578.947368	ug/kg	
				1,4-Dichlorobenzene	U	580	578.947368	ug/kg	
				2,4,5-Trichlorophenol	U	580	578.947368	ug/kg	
				2,4,6-Trichlorophenol	U	580	578.947368	ug/kg	
				2,4-Dichlorophenol	U	580	578.947368	ug/kg	
				2,4-Dimethylphenol	U	580	578.947368	ug/kg	
				2,4-Dinitrotoluene	U	580	578.947368	ug/kg	
				2,6-Dinitrotoluene	U	580	578.947368	ug/kg	
				2-Chloronaphthalene	U	580	578.947368	ug/kg	
				2-Chlorophenol	U	580	578.947368	ug/kg	
				2-Methylnaphthalene	U	580	578.947368	ug/kg	
				2-Methylphenol	U	580	578.947368	ug/kg	
				2-Nitrophenol	U	580	578.947368	ug/kg	
				3,3'-Dichlorobenzidine	U	580	578.947368	ug/kg	
				3-methylphenol/4-methylphenol	U	580	#Error	ug/kg	
				4-Bromophenyl phenyl ether	U	580	578.947368	ug/kg	
				4-Chloro-3-methylphenol	U	580	578.947368	ug/kg	
				4-Chloroaniline	U	580	578.947368	ug/kg	
				4-Chlorophenyl phenyl ether	U	580	578.947368	ug/kg	
				Benzyl alcohol	U	580	578.947368	ug/kg	
				bis(2-Chloroethoxy)methane	U	580	578.947368	ug/kg	
				bis(2-Chloroethyl) ether	U	580	578.947368	ug/kg	
				Bis(2-chloroisopropyl) ether	U	580	578.947368	ug/kg	
				bis(2-Ethylhexyl) phthalate	U	580	578.947368	ug/kg	
				Butyl benzyl phthalate	U	580	578.947368	ug/kg	
				Carbazole	U	88	87.7192982	ug/kg	
				Dibenzofuran	U	580	578.947368	ug/kg	
				Diethyl phthalate	U	580	578.947368	ug/kg	
				Dimethyl phthalate	U	580	578.947368	ug/kg	
				Di-n-butyl phthalate	U	580	578.947368	ug/kg	
				Di-n-octyl phthalate	U	580	578.947368	ug/kg	
				Hexachlorobenzene	U	580	578.947368	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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*			
						Result	Limit	Units	
CPCSD-048-5026-SD	A0D020496005	8270C	SO	Hexachlorobutadiene	U	580	578.947368	ug/kg	
				HEXACHLOROCYCLOPENTADIENE	U	580	#Error	ug/kg	
				Hexachloroethane	U	580	578.947368	ug/kg	
				Isophorone	U	580	578.947368	ug/kg	
				Nitrobenzene	U	580	578.947368	ug/kg	
				N-Nitrosodi-n-propylamine	U	580	578.947368	ug/kg	
				N-Nitrosodiphenylamine	U	580	578.947368	ug/kg	
				Pentachlorophenol	U	580	578.947368	ug/kg	
				Phenol	U	580	578.947368	ug/kg	
			8330B	1,3,5-Trinitrobenzene	U	0.26	0.01789474	mg/kg	
CPCSD-048-5786-SD	A0D020496006	353.2 Modified SO		1,3-Dinitrobenzene	U	0.26	0.44736842	mg/kg	
				2,4-Dinitrotoluene	U	0.26	0.44736842	mg/kg	
				2,6-Dinitrotoluene	U	0.26	0.44736842	mg/kg	
				2-Amino-4,6-dinitrotoluene	U	0.26	0.44736842	mg/kg	
				2-Nitrotoluene	U	0.26	0.44736842	mg/kg	
				3-Nitrotoluene	U	0.26	0.44736842	mg/kg	
				4-Amino-2,6-Dinitrotoluene	U	0.26	0.44736842	mg/kg	
				Nitrobenzene	U	0.26	0.44736842	mg/kg	
				Nitrocellulose	U	7.6	7.57575758	mg/kg	
				4,4'-DDE	U	13	12.8787879	ug/kg	
CPCSD-048-5786-SD	A0D020496006	353.2 Modified SO	8081A	alpha-BHC	U	19	18.9393939	ug/kg	
				alpha-Chordane	U	23	22.7272727	ug/kg	
				Dieldrin	U	13	12.8787879	ug/kg	
				Endosulfan I	U	13	12.8787879	ug/kg	
				Endosulfan II	U	19	18.9393939	ug/kg	
				Endosulfan sulfate	U	23	22.7272727	ug/kg	
				Endrin	U	13	12.8787879	ug/kg	
				Endrin aldehyde	U	23	22.7272727	ug/kg	
				gamma-BHC (Lindane)	U	19	18.9393939	ug/kg	
				gamma-Chlordane	U	13	12.8787879	ug/kg	
				Heptachlor epoxide	U	19	18.9393939	ug/kg	
				Methoxychlor	U	38	37.8787879	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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Result	Criteria*	Units
CPCSD-048-5786-SD	A0D020496006	8081A	SO	Toxaphene	U	510	507.575758	ug/kg
				1,1,1-Trichloroethane	U	7.6	7.57575758	ug/kg
		8260B		1,1,2,2-Tetrachloroethane	U	7.6	7.57575758	ug/kg
				1,1,2-Trichloroethane	U	7.6	7.57575758	ug/kg
		8260B		1,1-Dichloroethane	U	7.6	7.57575758	ug/kg
				1,1-Dichloroethene	U	7.6	7.57575758	ug/kg
		8260B		1,2-Dibromoethane (Ethylene Dibro)	U	7.6	7.57575758	ug/kg
				1,2-Dichloroethane	U	7.6	7.57575758	ug/kg
		8260B		1,2-Dichloroethene (total)	U	7.6	7.57575758	ug/kg
				1,2-Dichloropropane	U	7.6	7.57575758	ug/kg
		8260B		Benzene	U	7.6	7.57575758	ug/kg
				Bromochloromethane	U	7.6	7.57575758	ug/kg
		8260B		Bromodichloromethane	U	7.6	7.57575758	ug/kg
				Bromoform	U	7.6	7.57575758	ug/kg
		8260B		Bromomethane (Methyl bromide)	U	7.6	7.57575758	ug/kg
				Carbon disulfide	U	7.6	7.57575758	ug/kg
		8260B		Carbon tetrachloride	U	7.6	7.57575758	ug/kg
				Chlorobenzene	U	7.6	7.57575758	ug/kg
		8260B		Chlorodibromomethane	U	7.6	7.57575758	ug/kg
				Chloroethane	U	7.6	7.57575758	ug/kg
		8260B		Chloroform	U	7.6	7.57575758	ug/kg
				Chloromethane	U	7.6	7.57575758	ug/kg
		8260B		cis-1,3-Dichloropropene	U	7.6	7.57575758	ug/kg
				Ethylbenzene	U	7.6	7.57575758	ug/kg
		8260B		Styrene	U	7.6	7.57575758	ug/kg
				Tetrachloroethene	U	7.6	7.57575758	ug/kg
		8260B		Toluene	U	7.6	7.57575758	ug/kg
				trans-1,3-Dichloropropene	U	7.6	7.57575758	ug/kg
		8260B		Trichloroethene	U	7.6	7.57575758	ug/kg
				Vinyl chloride	U	7.6	7.57575758	ug/kg
		8270C		Carbazole	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

\* 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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Result	Criteria*	Units
CPCSD-048-5786-SD	A0D020496006	8330B	SO	2,4,6-Trinitrotoluene (TNT)	U	0.25	0.375	mg/kg
				2,4-Dinitrotoluene	U	0.25	0.375	mg/kg
				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
				Nitroguanidine	U	0.26	0.38636364	mg/kg
CPCSW-045-5028-SW	A0D020496007	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
CPCSW-047-5030-SW	A0D020496008	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
				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

\* 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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
CPCSW-047-5030-SW	A0D020496008	8330B	AQ	Nitrobenzene	U	0.15	0.1485	ug/L
				Octahydro-1,3,5,7-tetranitro-1,3,5,7				
CPCSW-047-6045-FD	A0D020496009	8330B	AQ	1,3-Dinitrobenzene	U	0.15	0.147	ug/L
				2,4,6-Trinitrotoluene (TNT)				
				2,4-Dinitrotoluene				
				2,6-Dinitrotoluene				
				2-Nitrotoluene				
				Methyl-2,4,6-Trinitrophenylnitramin				
				Nitrobenzene				
				Octahydro-1,3,5,7-tetranitro-1,3,5,7				
CPCSW-048-5031-SW	A0D020496010	8330B	AQ	1,3-Dinitrobenzene	U	0.15	0.1485	ug/L
				2,4,6-Trinitrotoluene (TNT)				
				2,4-Dinitrotoluene				
				2,6-Dinitrotoluene				
				2-Amino-4,6-dinitrotoluene				
				2-Nitrotoluene				
				3-Nitrotoluene				
				Hexahydro-1,3,5-Trinitro-1,3,5-Triaz				
				Methyl-2,4,6-Trinitrophenylnitramin				
				Nitrobenzene				
LL6SW-084-5794-SW	A0D020496012	8330B	AQ	1,3-Dinitrobenzene	U	0.15	0.147	ug/L
				2,4,6-Trinitrotoluene (TNT)				
				2,4-Dinitrotoluene				
				2,6-Dinitrotoluene				
				2-Nitrotoluene				
				4-Amino-2,6-Dinitrotoluene				
				Methyl-2,4,6-Trinitrophenylnitramin				
				Nitrobenzene				
LNWSS-071M-5281-SO	A0D020496016	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01011236	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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*		Units
							Criteria*	Units	
LNWSS-071M-5281-SO	A0D020496016	8330B	SO	1,3-Dinitrobenzene	U	0.25	0.25280899	mg/kg	
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.25280899	mg/kg	
				2,4-Dinitrotoluene	U	0.25	0.25280899	mg/kg	
				2,6-Dinitrotoluene	U	0.25	0.25280899	mg/kg	
				2-Amino-4,6-dinitrotoluene	U	0.25	0.25280899	mg/kg	
				2-Nitrotoluene	U	0.25	0.25280899	mg/kg	
				3-Nitrotoluene	U	0.25	0.25280899	mg/kg	
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.25280899	mg/kg	
				4-Nitrotoluene	U	0.50	0.50561798	mg/kg	
				Nitrobenzene	U	0.25	0.25280899	mg/kg	
LNWSS-072M-5282-SO	A0D020496018	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	
LNWSS-075M-5285-SO	A0D020496021	8330B	SO	1,3,5-Trinitrobenzene	U	0.25	0.01004057	mg/kg	
				1,3-Dinitrobenzene	U	0.25	0.2510142	mg/kg	
				2,4,6-Trinitrotoluene (TNT)	U	0.25	0.2510142	mg/kg	
				2,4-Dinitrotoluene	U	0.25	0.2510142	mg/kg	
				2,6-Dinitrotoluene	U	0.25	0.2510142	mg/kg	
				2-Amino-4,6-dinitrotoluene	U	0.25	0.2510142	mg/kg	
				2-Nitrotoluene	U	0.25	0.2510142	mg/kg	
				3-Nitrotoluene	U	0.25	0.2510142	mg/kg	
				4-Amino-2,6-Dinitrotoluene	U	0.25	0.2510142	mg/kg	
				4-Nitrotoluene	U	0.50	0.5020284	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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*	Units
LNWSS-075M-5285-SO	A0D020496021	8330B	SO	Nitrobenzene	U	0.25	0.2510142	mg/kg
LNWSS-077M-5287-SO	A0D020496023	8081A	SO	Aldrin	U	4.1	4.06917599	ug/kg
				Aldrin	U	4.1	4.06917599	ug/kg
				alpha-Chordane	U	3.1	3.05188199	ug/kg
				beta-BHC	U	3.6	3.56052899	ug/kg
				delta-BHC	U	4.1	4.06917599	ug/kg
				delta-BHC	U	4.1	4.06917599	ug/kg
				Endosulfan sulfate	U	3.1	3.05188199	ug/kg
				Endosulfan sulfate	U	3.1	3.05188199	ug/kg
				Endrin aldehyde	U	3.1	3.05188199	ug/kg
				Endrin aldehyde	U	3.1	3.05188199	ug/kg
				Heptachlor	U	3.6	3.56052899	ug/kg
				Heptachlor	U	3.6	3.56052899	ug/kg
				Methoxychlor	U	5.1	5.08646999	ug/kg
				Methoxychlor	U	5.1	5.08646999	ug/kg
	8082			Aroclor 1016	U	34	1.7293998	ug/kg
				Aroclor 1221	U	34	1.7293998	ug/kg
				Aroclor 1232	U	34	1.7293998	ug/kg
				Aroclor 1242	U	34	1.7293998	ug/kg
				Aroclor 1248	U	34	1.7293998	ug/kg
				Aroclor 1254	U	34	1.7293998	ug/kg
				Aroclor 1260	U	34	1.7293998	ug/kg
	8270C			1,2,4-Trichlorobenzene	U	340	335.707019	ug/kg
				1,2-Dichlorobenzene	U	340	335.707019	ug/kg
				1,3-Dichlorobenzene	U	340	335.707019	ug/kg
				1,4-Dichlorobenzene	U	340	335.707019	ug/kg
				2,4,5-Trichlorophenol	U	340	335.707019	ug/kg
				2,4,6-Trichlorophenol	U	340	335.707019	ug/kg
				2,4-Dichlorophenol	U	340	335.707019	ug/kg
				2,4-Dimethylphenol	U	340	335.707019	ug/kg
				2,4-Dinitrotoluene	U	340	335.707019	ug/kg
				2,6-Dinitrotoluene	U	340	335.707019	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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	Reporting Limit Criteria*		
							Criteria*	Units	
LNWSS-077M-5287-SO	A0D020496023	8270C	SO	2-Chloronaphthalene	U	340	335.707019	ug/kg	
				2-Chlorophenol	U	340	335.707019	ug/kg	
				2-Methylphenol	U	340	335.707019	ug/kg	
				2-Nitrophenol	U	340	335.707019	ug/kg	
				3,3'-Dichlorobenzidine	U	340	335.707019	ug/kg	
				3-methylphenol/4-methylphenol	U	340	#Error	ug/kg	
				4-Bromophenyl phenyl ether	U	340	335.707019	ug/kg	
				4-Chloro-3-methylphenol	U	340	335.707019	ug/kg	
				4-Chloroaniline	U	340	335.707019	ug/kg	
				4-Chlorophenyl phenyl ether	U	340	335.707019	ug/kg	
				Benzyl alcohol	U	340	335.707019	ug/kg	
				bis(2-Chloroethoxy)methane	U	340	335.707019	ug/kg	
				bis(2-Chloroethyl) ether	U	340	335.707019	ug/kg	
				Bis(2-chloroisopropyl) ether	U	340	335.707019	ug/kg	
				Butyl benzyl phthalate	U	340	335.707019	ug/kg	
				Carbazole	U	51	50.8646999	ug/kg	
				Dibenzofuran	U	340	335.707019	ug/kg	
				Dimethyl phthalate	U	340	335.707019	ug/kg	
				Di-n-octyl phthalate	U	340	335.707019	ug/kg	
				Hexachlorobenzene	U	340	335.707019	ug/kg	
				Hexachlorobutadiene	U	340	335.707019	ug/kg	
				HEXACHLOROCYCLOPENTADIE	U	340	#Error	ug/kg	
				Hexachloroethane	U	340	335.707019	ug/kg	
				Isophorone	U	340	335.707019	ug/kg	
				Nitrobenzene	U	340	335.707019	ug/kg	
				N-Nitrosodi-n-propylamine	U	340	335.707019	ug/kg	
				N-Nitrosodiphenylamine	U	340	335.707019	ug/kg	
				Pentachlorophenol	U	340	335.707019	ug/kg	
				Phenol	U	340	335.707019	ug/kg	
LNWSS-077M-5287-SO(V	A0D020496024	8260B	SO	2-Butanone (MEK)	U	26	25.6410256	ug/kg	
				2-Hexanone	U	26	25.6410256	ug/kg	
				4-methyl-2-pentanone (MIBK)	U	26	25.6410256	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

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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:** A0D020496

**Lab ID:** TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Reporting Limit Criteria*		
						Result	Criteria*	Units
LNWSS-077M-5287-SO(V	A0D020496024	8260B	SO	Acetone	U	26	25.6410256	ug/kg
				Xylene (Total)	U	13	12.8205128	ug/kg
PBA08-QC-6002-ER	A0D020496014	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

\* 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: Equipment Blank

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Lab Reporting Batch :                                                          Lab ID:  
Method/Preparation Batch :                                                  Analysis Date :  
Client Sample ID :                                                          Preparation Date :  
Lab Sample ID :                                                              Preparation Type :  
Analysis Method :

**No contamination was found.**

# QC Outlier Report: Trip Blank

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Lab Reporting Batch :

Lab ID:

Method/Preparation Batch :

Analysis Date :

Client Sample ID :

Preparation Date :

Lab Sample ID :

Preparation Type :

Analysis Method :

**No contamination was found.**

## Continuing Calibration (CCV) Outlier Report (Organics)

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**There are no Organic Continuing Calibrations with outliers**

## Continuing Calibration (CCAL) Outlier Report (Inorganics)

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**There are no Inorganic Continuing Calibrations with outliers**

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

Lab Report Batch: A0D020496

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	
							Units	
CPCSD-045-5023-SD	A0D020496001	353.2 Modified SO	Nitrocellulose		B	7.8	28.8	mg/kg
			6020	Antimony	J	1.4	2.9	mg/kg
				Selenium	J	2.2	2.9	mg/kg
				Silver	J	1.7	2.9	mg/kg
				Sodium	J	142	576	mg/kg
		7471A		Thallium	J	0.41	1.2	mg/kg
				Mercury	J	0.082	0.58	mg/kg
			8260B	2-Butanone (MEK)	J	47	120	ug/kg
				Carbon disulfide	J	3.3	29	ug/kg
				Methylene chloride	J B	7.2	29	ug/kg
CPCSD-045-5783-SD	A0D020496002	353.2 Modified	Nitrocellulose		B	1.9	7.2	mg/kg
			6020	Antimony	J	0.15	0.72	mg/kg
				Silver	J	0.075	0.72	mg/kg
				Sodium	J	86.9	144	mg/kg
				Thallium	J	0.21	0.29	mg/kg
		7471A		Mercury	J	0.054	0.14	mg/kg
			8260B	2-Butanone (MEK)	J	12	29	ug/kg
				Methylene chloride	J B	1.8	7.2	ug/kg
			8270C	2-Methylnaphthalene	J	25	480	ug/kg
				Di-n-butyl phthalate	J	23	480	ug/kg
CPCSD-047-5025-SD	A0D020496003	353.2 Modified	Nitrocellulose		B	10.4	32.1	mg/kg
			6020	Antimony	J	2.1	3.2	mg/kg
				Selenium	J	2.7	3.2	mg/kg
				Sodium	J	178	642	mg/kg
			8260B	2-Butanone (MEK)	J	55	130	ug/kg
		8330B		Methylene chloride	J B	12	32	ug/kg
			8270C	bis(2-Ethylhexyl) phthalate	J	160	2100	ug/kg
				Methyl-2,4,6-Trinitrophenylnitramine (T)	J PG	0.024	0.25	mg/kg
CPCSD-047-5785-SD	A0D020496004	6020	Antimony		J	0.15	0.72	mg/kg
			Cadmium		J	0.24	0.29	mg/kg
			Silver		J	0.25	0.72	mg/kg
			Sodium		J	56.9	145	mg/kg
			Thallium		J	0.15	0.29	mg/kg
		8260B	2-Butanone (MEK)		J	13	29	ug/kg

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

Lab Report Batch: A0D020496

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit	Units
CPCSD-047-5785-SD	A0D020496004	8260B	SO	Methylene chloride	J B	2.8	7.2	ug/kg
CPCSD-048-5026-SD	A0D020496005	353.2 Modified		Nitrocellulose	B	3.1	8.8	mg/kg
		6020		Antimony	J	0.45	0.88	mg/kg
				Selenium	J	0.79	0.88	mg/kg
				Sodium	J	73.0	176	mg/kg
				Thallium	J	0.16	0.35	mg/kg
		7471A		Mercury	J	0.036	0.18	mg/kg
		8260B		2-Butanone (MEK)	J	30	35	ug/kg
				Methylene chloride	J B	1.8	8.8	ug/kg
		8330B		2,4,6-Trinitrotoluene (TNT)	J PG	0.088	0.26	mg/kg
CPCSD-048-5786-SD	A0D020496006	6020		Antimony	J	0.17	0.76	mg/kg
				Cadmium	J	0.28	0.30	mg/kg
				Silver	J	0.71	0.76	mg/kg
				Sodium	J	85.5	151	mg/kg
				Thallium	J	0.15	0.30	mg/kg
		7471A		Mercury	J	0.031	0.15	mg/kg
		8260B		2-Butanone (MEK)	J	10	30	ug/kg
				Methylene chloride	J B	3.2	7.6	ug/kg
		8270C		Di-n-butyl phthalate	J	34	500	ug/kg
CPCSW-045-5028-SW	A0D020496007	6020	AQ	Antimony	J	0.88	5.0	ug/L
				Arsenic	J	0.92	5.0	ug/L
				Beryllium	J	0.034	1.0	ug/L
				Cadmium	J	0.043	2.0	ug/L
				Cobalt	J	0.15	5.0	ug/L
				Copper	J	1.6	5.0	ug/L
				Lead	J	0.29	3.0	ug/L
				Nickel	J	1.4	10.0	ug/L
				Selenium	J	0.32	5.0	ug/L
				Silver	J	0.029	5.0	ug/L
				Thallium	J	0.35	2.0	ug/L
		8260B		Acetone	J	1.8	10	ug/L
		8270C		Benzyl alcohol	J	4.9	10	ug/L
				bis(2-Ethylhexyl) phthalate	J B	0.90	10	ug/L
				Butyl benzyl phthalate	J	1.8	10	ug/L
CPCSW-047-5030-SW	A0D020496008	6020		Antimony	J	0.96	5.0	ug/L
				Arsenic	J	1.0	5.0	ug/L

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

Lab Report Batch: A0D020496

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit		Units
CPCSW-047-5030-SW	A0D020496008	6020	AQ	Beryllium	J	0.064	1.0	ug/L	
				Cadmium	J	0.062	2.0	ug/L	
				Chromium	J	0.62	5.0	ug/L	
				Cobalt	J	0.39	5.0	ug/L	
				Copper	J	2.1	5.0	ug/L	
				Lead	J	0.47	3.0	ug/L	
				Nickel	J	1.9	10.0	ug/L	
				Selenium	J	0.23	5.0	ug/L	
				Silver	J	0.070	5.0	ug/L	
				Thallium	J	0.46	2.0	ug/L	
				Vanadium	J	0.51	10.0	ug/L	
				Zinc	J	10.9	40.0	ug/L	
	8260B			Acetone	J	2.6	10	ug/L	
	8270C			bis(2-Ethylhexyl) phthalate	J B	2.0	10	ug/L	
	8330B			4-Amino-2,6-Dinitrotoluene	J	0.043	0.15	ug/L	
CPCSW-047-6045-FD	A0D020496009	6020		Antimony	J	0.95	5.0	ug/L	
				Arsenic	J	0.86	5.0	ug/L	
				Beryllium	J	0.076	1.0	ug/L	
				Cadmium	J	0.039	2.0	ug/L	
				Cobalt	J	0.27	5.0	ug/L	
				Copper	J	1.8	5.0	ug/L	
				Lead	J	0.30	3.0	ug/L	
				Nickel	J	1.7	10.0	ug/L	
				Selenium	J	0.20	5.0	ug/L	
				Silver	J	0.038	5.0	ug/L	
				Vanadium	J	0.54	10.0	ug/L	
	8081A			beta-BHC	J	0.018	0.050	ug/L	
	8260B			Acetone	J	2.7	10	ug/L	
	8330B			4-Amino-2,6-Dinitrotoluene	J	0.036	0.15	ug/L	
CPCSW-048-5031-SW	A0D020496010	6020		Antimony	J	1.0	5.0	ug/L	
				Arsenic	J	0.90	5.0	ug/L	
				Beryllium	J	0.053	1.0	ug/L	
				Cadmium	J	0.057	2.0	ug/L	
				Chromium	J	0.56	5.0	ug/L	
				Cobalt	J	0.41	5.0	ug/L	
				Copper	J	1.9	5.0	ug/L	

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

Lab Report Batch: A0D020496

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit		
							Units		
CPCSW-048-5031-SW	A0D020496010	6020	AQ	Lead	J	0.32	3.0	ug/L	
				Nickel	J	2.0	10.0	ug/L	
				Selenium	J	0.31	5.0	ug/L	
				Silver	J	0.053	5.0	ug/L	
				Zinc	J	10.1	40.0	ug/L	
				8260B	Acetone	J	2.2	10	ug/L
LL6SD-084-5795-SD	A0D020496013	6020	SO	bis(2-Ethylhexyl) phthalate	J B	1.1	10	ug/L	
				8330B	4-Amino-2,6-Dinitrotoluene	J	0.070	0.15	ug/L
				Antimony	J	1.7	4.5	mg/kg	
				Beryllium	J	0.65	0.89	mg/kg	
				Cadmium	J	0.88	1.8	mg/kg	
				Selenium	J	1.4	4.5	mg/kg	
LL6SW-084-5794-SW	A0D020496012	6020	AQ	Silver	J	0.21	4.5	mg/kg	
				Sodium	J	148	891	mg/kg	
				8330B	Methyl-2,4,6-Trinitrophenylnitramine (T	J PG	0.031	0.25	mg/kg
				Antimony	J	0.29	5.0	ug/L	
				Arsenic	J	0.81	5.0	ug/L	
				Barium	J	9.9	10.0	ug/L	
LNWSS-070M-5280-SO	A0D020496015	6020	SO	Cobalt	J	0.090	5.0	ug/L	
				Copper	J	2.4	5.0	ug/L	
				Lead	J	0.28	3.0	ug/L	
				Sodium	J	582	1000	ug/L	
				8081A	beta-BHC	J	0.044	0.10	ug/L
				8260B	Acetone	J	2.3	10	ug/L
LNWSS-071M-5281-SO	A0D020496016	6020		8330B	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetr	J	0.062	0.15	ug/L
				Antimony	J	0.14	0.51	mg/kg	
				Silver	J	0.028	0.51	mg/kg	
				Sodium	J	50.5	102	mg/kg	
				Thallium	J	0.13	0.20	mg/kg	
				7471A	Mercury	J	0.046	0.10	mg/kg
LNWSS-072M-5282-SO	A0D020496018	6020		Antimony	J	0.44	0.51	mg/kg	
				Silver	J	0.058	0.51	mg/kg	
				Sodium	J	40.4	102	mg/kg	
				Thallium	J	0.16	0.20	mg/kg	
				7471A	Mercury	J	0.040	0.10	mg/kg
				Antimony	J	0.25	0.51	mg/kg	

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

Lab Report Batch: A0D020496

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit		
							Units		
LNWSS-072M-5282-SO	A0D020496018	6020	SO	Silver	J	0.18	0.51	mg/kg	
				Sodium	J	41.0	102	mg/kg	
				Thallium	J	0.12	0.20	mg/kg	
			7471A	Mercury	J	0.036	0.10	mg/kg	
				Antimony	J	0.30	0.51	mg/kg	
LNWSS-072M-6103-FD	A0D020496017	6020		Silver	J	0.23	0.51	mg/kg	
				Sodium	J	48.4	102	mg/kg	
				Thallium	J	0.14	0.20	mg/kg	
			7471A	Mercury	J	0.055	0.10	mg/kg	
				Antimony	J	0.11	0.51	mg/kg	
LNWSS-073M-5283-SO	A0D020496019	6020		Cadmium	J	0.12	0.20	mg/kg	
				Silver	J	0.032	0.51	mg/kg	
				Sodium	J	35.3	102	mg/kg	
				Thallium	J	0.16	0.20	mg/kg	
			7471A	Mercury	J	0.034	0.10	mg/kg	
LNWSS-074M-5284-SO	A0D020496020	6020		8330B	Nitroglycerin	J PG	0.14	0.50	mg/kg
				Antimony	J	0.14	0.51	mg/kg	
				Cadmium	J	0.15	0.20	mg/kg	
				Silver	J	0.036	0.51	mg/kg	
				Sodium	J	68.4	102	mg/kg	
LNWSS-075M-5285-SO	A0D020496021	6020		Thallium	J	0.16	0.20	mg/kg	
				7471A	Mercury	J	0.025	0.10	mg/kg
				Antimony	J	0.19	0.51	mg/kg	
				Silver	J	0.13	0.51	mg/kg	
				Sodium	J	39.8	101	mg/kg	
LNWSS-076M-5286-SO	A0D020496022	6020		Thallium	J	0.12	0.20	mg/kg	
				7471A	Mercury	J	0.018	0.10	mg/kg
				Antimony	J	0.11	0.51	mg/kg	
				Cadmium	J	0.12	0.20	mg/kg	
				Silver	J	0.027	0.51	mg/kg	
LNWSS-077M-5287-SO	A0D020496023	353.2 Modified 6020	Nitrocellulose	Sodium	J	30.0	101	mg/kg	
				Thallium	J	0.11	0.20	mg/kg	
				Antimony	J	0.11	0.51	mg/kg	
				Silver	J	0.028	0.51	mg/kg	
				Sodium	J	32.1	102	mg/kg	

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

Lab Report Batch: A0D020496

Lab ID: TALCAN

Client Sample ID	Lab Sample ID	Analysis Method	Matrix	Analyte Name	Lab Qualifier	Result	EDD Reporting Limit		Units
LNWSS-077M-5287-SO	A0D020496023	6020	SO	Thallium	J	0.12	0.20	mg/kg	
		7471A		Mercury	J	0.026	0.10	mg/kg	
		8081A		4,4'-DDT	J	1.1	2.0	ug/kg	
		8270C		2-Methylnaphthalene	J	10	340	ug/kg	
				bis(2-Ethylhexyl) phthalate	J	23	340	ug/kg	
				Diethyl phthalate	J	22	340	ug/kg	
				Di-n-butyl phthalate	J	32	340	ug/kg	
		8330M		Nitroguanidine	J	0.11	0.25	mg/kg	
LNWSS-077M-5287-SO(V	A0D020496024	8260B		Methylene chloride	J B	1.5	6.4	ug/kg	
LNWSS-078M-5288-SO	A0D020496025	6020		Antimony	J	0.18	0.51	mg/kg	
				Cadmium	J	0.16	0.20	mg/kg	
				Silver	J	0.037	0.51	mg/kg	
				Sodium	J	42.8	102	mg/kg	
				Thallium	J	0.13	0.20	mg/kg	
		7471A		Mercury	J	0.041	0.10	mg/kg	
LNWSS-079M-5289-SO	A0D020496026	6020		Antimony	J	0.13	0.51	mg/kg	
				Cadmium	J	0.17	0.20	mg/kg	
				Silver	J	0.042	0.51	mg/kg	
				Sodium	J	33.3	102	mg/kg	
				Thallium	J	0.15	0.20	mg/kg	
		7471A		Mercury	J	0.047	0.10	mg/kg	
		8330B		Methyl-2,4,6-Trinitrophenylnitramine (T	J PG	0.016	0.25	mg/kg	
LNWSS-082-5292-SO	A0D020496029	7196A		Chromium, hexavalent	J	0.92	1.1	mg/kg	
PBA08-QC-6002-ER	A0D020496014	6020	AQ	Aluminum	J B	25.7	100	ug/L	
				Chromium	J	1.2	5.0	ug/L	
				Cobalt	J	0.058	5.0	ug/L	
				Iron	J	95.7	150	ug/L	
				Nickel	J	1.2	10.0	ug/L	
				Zinc	J	10.4	40.0	ug/L	
		8260B		Toluene	J	0.34	1.0	ug/L	
		8270C		Benzyl alcohol	J	0.78	10	ug/L	
				Di-n-butyl phthalate	J	0.68	10	ug/L	
PBA08-QC-6023-TB	A0D020496011	8260B		Acetone	J	4.6	10	ug/L	

# Method Blank Outlier Report

Lab Reporting Batch : A0D020496

Lab ID: TALCAN

Analysis Method : 8270C

Analysis Date : 04/20/2010

Preparation Type : 3520C

Preparation Date : 04/05/2010

Method Blank Lab Sample ID : A0D050000037B

Preparation Batch : 0095037

bis(2-Ethylhexyl) phthalate	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	0.95	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
CPCSW-045-5028-SW	A0D020496007	1	0.90	J B	ug/L
CPCSW-047-5030-SW	A0D020496008	1	2.0	J B	ug/L
CPCSW-048-5031-SW	A0D020496010	1	1.1	J B	ug/L

## Method Blank Outlier Report

Lab Reporting Batch : A0D020496

Lab ID: TALCAN

Analysis Method : 6020

Analysis Date : 04/14/2010

Preparation Type : 3005A

Preparation Date : 04/06/2010

Method Blank Lab Sample ID : A0D060000017B

Preparation Batch : 0096017

Aluminum	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	33.5	100	ug/L	J	

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

Client Sample ID	Lab Sample ID	Dilution	Result	Lab Qual	Result Units
PBA08-QC-6002-ER	A0D020496014	1	25.7	J B	ug/L

## Method Blank Outlier Report

---

**Lab Reporting Batch :** A0D020496

**Lab ID:** TALCAN

**Analysis Method :** 8260B

**Analysis Date :** 04/05/2010

**Preparation Type :** 5030B

**Preparation Date :** 04/05/2010

**Method Blank Lab Sample ID :** A0D060000054B

**Preparation Batch :** 0096054

<b>2-Hexanone</b>	<b>Result</b>	<b>Reporting Limit</b>	<b>Units</b>	<b>Lab Qual</b>	<b>Comments</b>
Method Blank Result:	0.86	20	ug/kg	J	

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

<b>Acetone</b>	<b>Result</b>	<b>Reporting Limit</b>	<b>Units</b>	<b>Lab Qual</b>	<b>Comments</b>
Method Blank Result:	8.6	20	ug/kg	J	Common Contaminant

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

<b>Client Sample ID</b>	<b>Lab Sample ID</b>	<b>Dilution</b>	<b>Result</b>	<b>Lab Qual</b>	<b>Result Units</b>
CPCSD-045-5783-SD	A0D020496002	1	52	B	ug/kg

<b>Methylene chloride</b>	<b>Result</b>	<b>Reporting Limit</b>	<b>Units</b>	<b>Lab Qual</b>	<b>Comments</b>
Method Blank Result:	1.3	5.0	ug/kg	J	Common Contaminant

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

<b>Client Sample ID</b>	<b>Lab Sample ID</b>	<b>Dilution</b>	<b>Result</b>	<b>Lab Qual</b>	<b>Result Units</b>
CPCSD-045-5023-SD	A0D020496001	1	7.2	J B	ug/kg
CPCSD-045-5783-SD	A0D020496002	1	1.8	J B	ug/kg
CPCSD-048-5026-SD	A0D020496005	1	1.8	J B	ug/kg
LNWSS-077M-5287-SO(VOC)	A0D020496024	1	1.5	J B	ug/kg

# Method Blank Outlier Report

Lab Reporting Batch : A0D020496

Lab ID: TALCAN

Analysis Method : 8260B

Analysis Date : 04/06/2010

Preparation Type : 5030B

Preparation Date : 04/06/2010

Method Blank Lab Sample ID : A0D080000449B

Preparation Batch : 0098449

Acetone	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	6.7	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
CPCSD-047-5785-SD	A0D020496004	1	55	B	ug/kg
CPCSD-048-5786-SD	A0D020496006	1	51	B	ug/kg

Methylene chloride	Result	Reporting Limit	Units	Lab Qual	Comments
Method Blank Result:	2.2	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
CPCSD-047-5025-SD	A0D020496003	1	12	J B	ug/kg
CPCSD-047-5785-SD	A0D020496004	1	2.8	J B	ug/kg
CPCSD-048-5786-SD	A0D020496006	1	3.2	J B	ug/kg

# Surrogate Recovery Outlier Report

**Lab Report Batch:** A0D020496

**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	
CPCSD-045-5023-SD	A0D020496001	8082	1	SO	Decachlorobiphenyl	56	60.0	125.0	10.0	All Target
CPCSD-047-5025-SD	A0D020496003	8081A	5	SO	TETRACHLORO-M-XYLENE	47	55.0	130.0	10.0	All Target
		8082	1	SO	Decachlorobiphenyl	56	60.0	125.0	10.0	All Target
CPCSD-047-5785-SD	A0D020496004	8082	1	SO	Decachlorobiphenyl	55	60.0	125.0	10.0	All Target
CPCSD-048-5026-SD	A0D020496005	8082	1	SO	Decachlorobiphenyl	56	60.0	125.0	10.0	All Target
CPCS-W-047-5030-SW	A0D020496008	8082	1	AQ	Decachlorobiphenyl	27	40.0	135.0	10.0	All Target
LL6SW-084-5794-SW	A0D020496012	8270C	1	AQ	2,4,6-Tribromophenol	24	40.0	125.0	10.0	Acid
					2-Fluorophenol	0.0	20.0	110.0	10.0	Acid
					Phenol-d5	6.3	10.0	115.0	10.0	Acid
					2-Fluorobiphenyl	36	50.0	110.0	10.0	Base/Neutral
					Nitrobenzene-d5	39				Base/Neutral
LNWSS-077M-5287-SO	A0D020496023	8081A	1	SO	Decachlorobiphenyl	51	55.0	130.0	10.0	All Target
					TETRACHLORO-M-XYLENE	38	55.0	130.0	10.0	All Target
					Decachlorobiphenyl	39	60.0	125.0	10.0	All Target
PBA08-QC-6002-ER	A0D020496014	8082	1	AQ	Decachlorobiphenyl	34	40.0	135.0	10.0	All Target

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

**Lab Report Batch:**

**Lab ID:**

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

\*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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