

**DRAFT**  
**Groundwater Sampling and Analysis Report**  
**2<sup>nd</sup> Quarter 2007**

**Camp Bonneville Military Reservation**

**23201 Northeast Pluss Road,  
Vancouver, WA 98682**



**Prepared For:**  
**Washington State  
Department of Ecology**

**Prepared By:**  
**Bonneville Conservation,  
Restoration & Renewal Team**

**August 2007**





**Baker**

**Engineering & Energy**

**Baker Environmental, Inc.**  
*A Unit of Michael Baker Corporation*

5261 Fountain Drive  
Suite A  
Crown Point, IN 46307

219-736-0263  
FAX 219-755-0233

August 31, 2007

Mr. Mike Gage  
Bonneville Conservation Restoration and Renewal Team, LLC (BCRRT)  
Camp Bonneville  
23201 NE Pluss Road  
Vancouver, WA 98682

**SUBJECT: Draft Groundwater Sampling and Analysis Report – 2<sup>nd</sup> Quarter, 2007 for the Camp Bonneville Facility located in Vancouver Washington**

Dear Mr. Gage:

This letter and its attachments constitute the Draft Groundwater Sampling and Analysis Report – 2<sup>nd</sup> Quarter, 2007 for submittal to the Washington Department of Ecology. Attached to this letter are:

- 1) Figures 1 and 2,
- 2) Landfill 4/Demolition Area 1 Groundwater Data,
- 3) Draft Groundwater Sampling and Analysis Report – 2<sup>nd</sup> Quarter, 2007 by PBS Engineering and Environmental (PBS),
- 4) August 27, 2007 PBS Letter Report for Additional Groundwater Sampling at Monitoring Well L4MW17 for Perchlorate; and
- 5) Electronic copies of the submittal on CD.

Following your review, please forward two copies of the entire submittal to the following:

Mr. Ben Amoah-Forson, Ph.D., P.E.  
Washington State Department of Ecology  
Toxics Cleanup Program  
PO Box 47600  
300 Desmond Drive  
Olympia, Washington 98504

### **Recent Groundwater Sampling Results at Boundary Area/Sentinel Wells**

Upon review of historic groundwater data at Landfill 4/Demolition Area 1, the following appears to be occurring at the site:

- Perchlorate concentrations in wells located in close proximity to the landfill excavation (LF4-MW-2A&B) are experiencing significant fluctuations both seasonally and over time.
- Perchlorate concentrations in wells with perchlorate detections (LF4-MW-3 A&B, LF4-MW-4 A, and LF4-MW-5A) are experiencing less severe fluctuations both seasonally and over time.

**ChallengeUs.**

Mr. Mike Gage  
August 31, 2007  
Draft Groundwater Sampling and Analysis Report – 2<sup>nd</sup> Quarter, 2007  
Camp Bonneville, Vancouver Washington  
Page 2

- Perchlorate concentrations (or non-detections) in the remaining wells (LF4-M2-1A&B, and LF4-MW-18) have had little change throughout the monitoring period.
- To confirm the slight detection of 1.7 part per billion Perchlorate reported in the 2<sup>nd</sup> Quarter LF4-MW-17 sample and address the potential for a non-representative/cross contaminated sample result, a replacement sample from well LF4-MW-17 was collected on August 1, 2007; the replacement sample results were non-detectable for Perchlorate.
- The increase in Perchlorate concentration observed in the 1<sup>st</sup> Quarter sample results from LF4-MW7B was not present in the 2<sup>nd</sup> Quarter when the Perchlorate concentrations returned to historical levels.
- The remaining volatile organic compound (VOC) detections have had little variation throughout the monitoring period with the exception of slight variations at well LF4-MW-2B.

Additional evaluations of the groundwater data for the Boundary Area/Sentinel wells and the Landfill 4/ Demolition Area 1 wells will be included in subsequent quarterly reports and ultimately in the Remedial Investigation/Feasibility Study (RI/FS) for RAU 2C and RAU 3 for groundwater.

Groundwater detections for VOCs are summarized in the attached tables and figures and monitoring well locations are shown on Figures 1 and 2. Completed details for the latest sampling event are included in the Attachment 3 – Draft Groundwater Sampling and Analysis Report – 2<sup>nd</sup> Quarter, 2007 and Attachment 4 - August 27, 2007 PBS Letter Report for Additional Groundwater Sampling at Monitoring Well L4MW17 for Perchlorate.


If you have any questions, please contact me at (219) 736-0263.

Very truly yours,

MICHAEL BAKER JR., INC.



James D. Peyton, PG  
Senior Geologist



Mark J. Knight, CHMM  
Assistant Vice President

JDP/amt

Mr. Mike Gage  
August 31, 2007  
Draft Groundwater Sampling and Analysis Report – 2<sup>nd</sup> Quarter, 2007  
Camp Bonneville, Vancouver Washington  
Page 3

Attachments



August 27, 2007

Mark Knight  
Michael Baker Jr.  
5261 Fountain Drive, Suite A  
Crown Point, IN 46307

Re: Camp Bonneville - Additional Groundwater Sampling  
Monitoring Well L4MW17 for Perchlorate

Dear Mark,

On August 13, 2007, PBS Engineering and Environmental (PBS) collected a groundwater sample from monitoring well L4MW17 at Camp Bonneville. This monitoring well is located at the west side of Lacamas Creek at the base of the hill downslope of Landfill 4. The purpose of this additional groundwater sampling was to provide a follow-up water quality check on the detection of perchlorate in this monitoring well during the 2<sup>nd</sup> Quarter 2007 (collected June 18, 2007) groundwater sampling event. This letter report presents the details of water sample collection and the results of the laboratory analyses.

The groundwater sample was collected by Andrew Harvey and Barb Lary, senior geologists at PBS. A low-flow, minimal drawdown technique was used for groundwater purging and sampling. The monitoring well was sampled in accordance with the procedures established in the revised Groundwater Sampling and Analysis Plan (SAP). Health and safety procedures followed during site activities were in compliance with the procedures established in the Site Health and Safety Plan (HASP). Field measurements were obtained for pH, specific conductance, temperature, oxidation-reduction potential, and dissolved oxygen in groundwater samples using a YSI Model 556 water quality meter. Turbidity was measured with a separate turbidity meter. Water color was noted visually. Depth to water in the casing was measured at 11.24 feet below top of casing prior to pumping. At the time of sample collection, the following groundwater parameters were measured:

- Depth to water: 13.00 feet below top of casing
- Temperature: 19.0 degrees C
- Conductivity: 210  $\mu$ S/cm
- Dissolved Oxygen: 3.52 mg/L
- pH: 7.16
- Oxidation-reduction Potential: -31.0 millivolts
- Turbidity: 6.31 NTUs
- Water color: clear

The groundwater sample was labeled L4MW17P, stored on ice, and shipped to Laucks Testing Laboratories in Seattle, Washington, under chain-of-custody on August 13, 2007. The sample was analyzed for perchlorate (EPA Method 314.0), total suspended solids (EPA Method E160.2) and total dissolved solids (EPA Method E160.1). Laucks Testing Laboratories has the following lab sample ID reference numbering on the sample receipt confirmation log: Sample number CAB35-001.

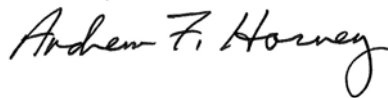
## Results and Evaluation

Perchlorate was not detected in the groundwater sample at a level above the laboratory detection limit of 1.0  $\mu\text{g/L}$  (micrograms per liter). The total dissolved solids concentration was 230 mg/L (milligrams per liter). The total suspended solids concentration was 4 mg/L.

In the June 2007 sampling event, perchlorate was detected in the groundwater sample from monitoring well L4MW17 at a concentration of 1.7  $\mu\text{g/L}$ , slightly above the laboratory detection limit of 1.0  $\mu\text{g/L}$ . With the exception of the June 2007 analysis, perchlorate has not been detected in monitoring well L4MW17 above the detection limit of 1.0  $\mu\text{g/L}$  in any quarterly sampling event since installation of the well in May 2004.

Copies of laboratory results and the chain of custody forms are attached.

Sincerely,

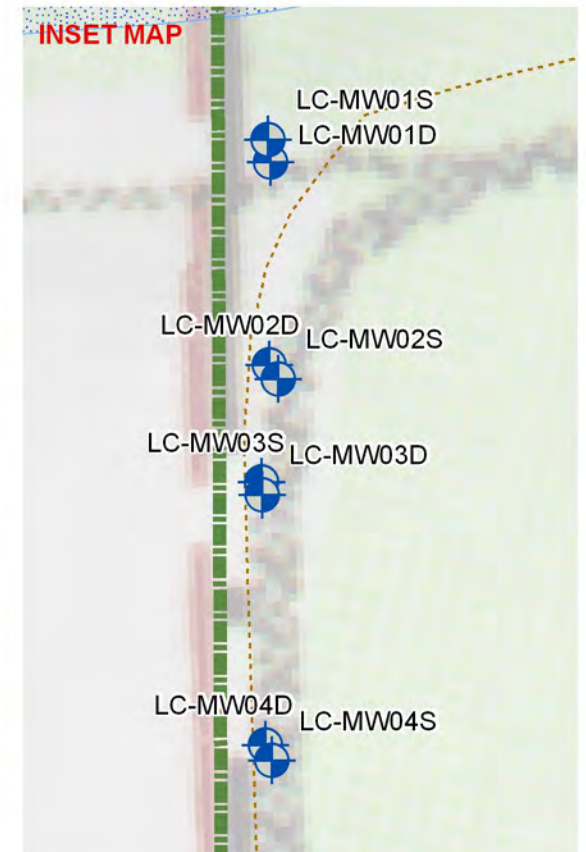
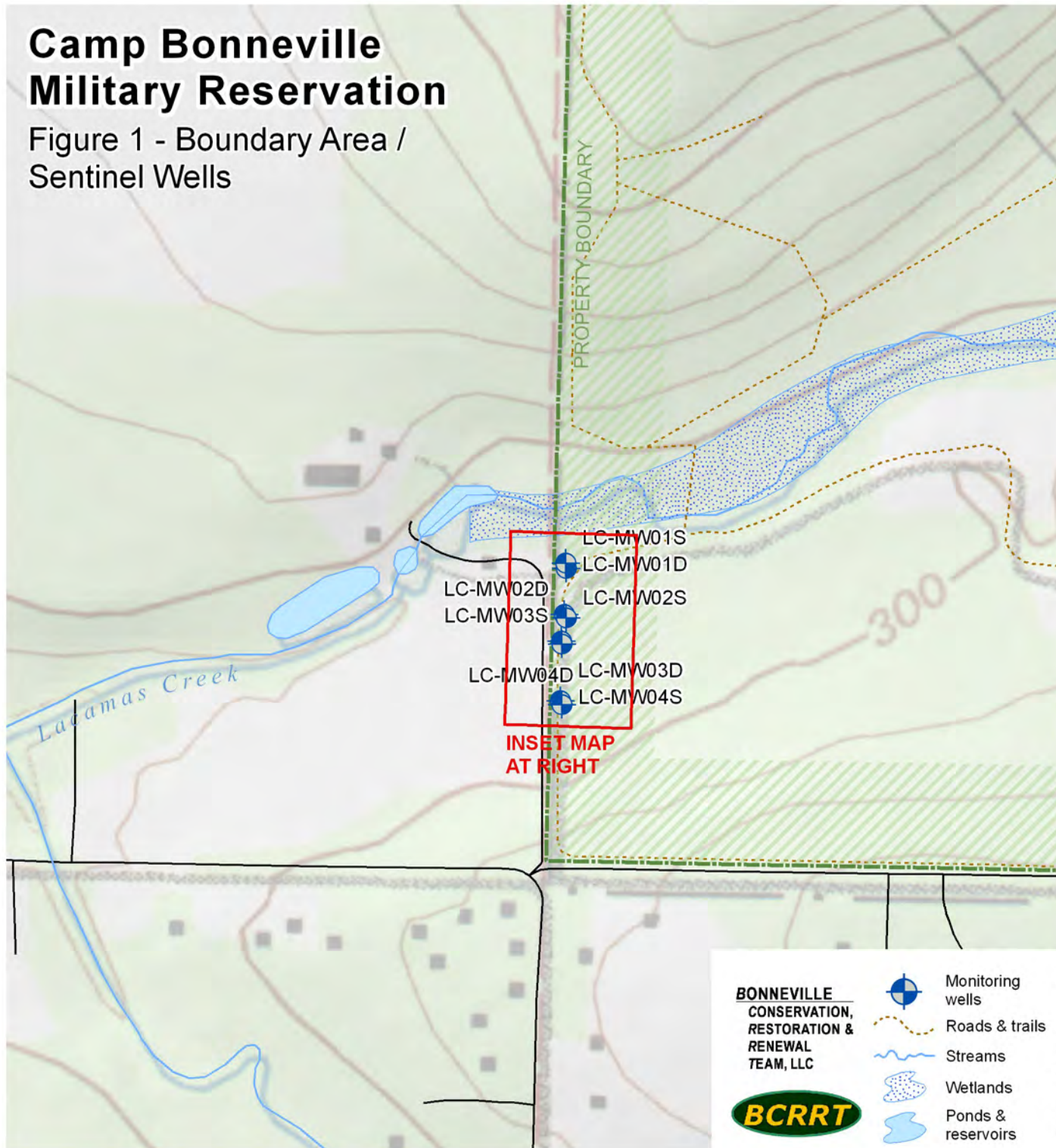
A handwritten signature in cursive script that reads "Andrew F. Harvey".

Andrew Harvey  
Senior Geologist/Project Manager

Attachments: Laboratory Data Reports

# Camp Bonneville Military Reservation

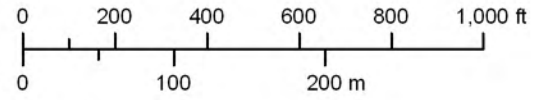
Figure 1 - Boundary Area /  
Sentinel Wells



**BONNEVILLE  
CONSERVATION,  
RESTORATION &  
RENEWAL  
TEAM, LLC**



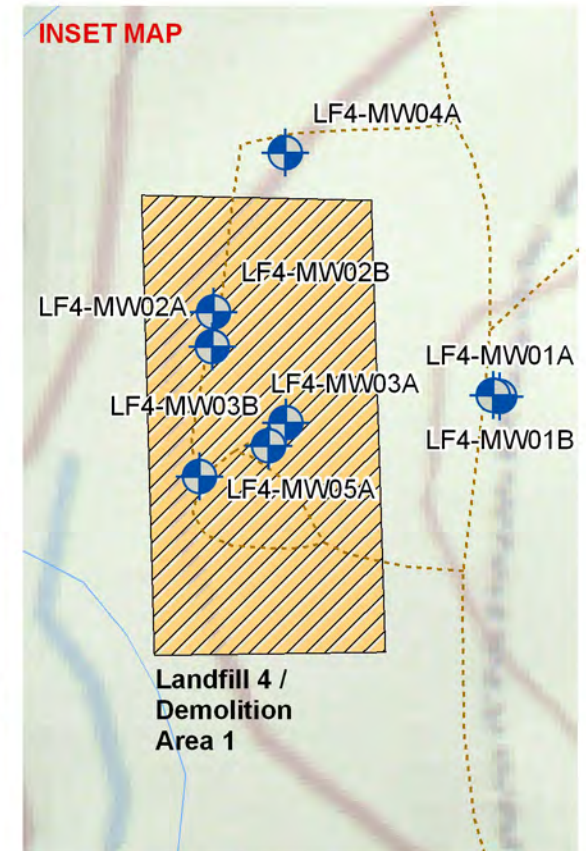
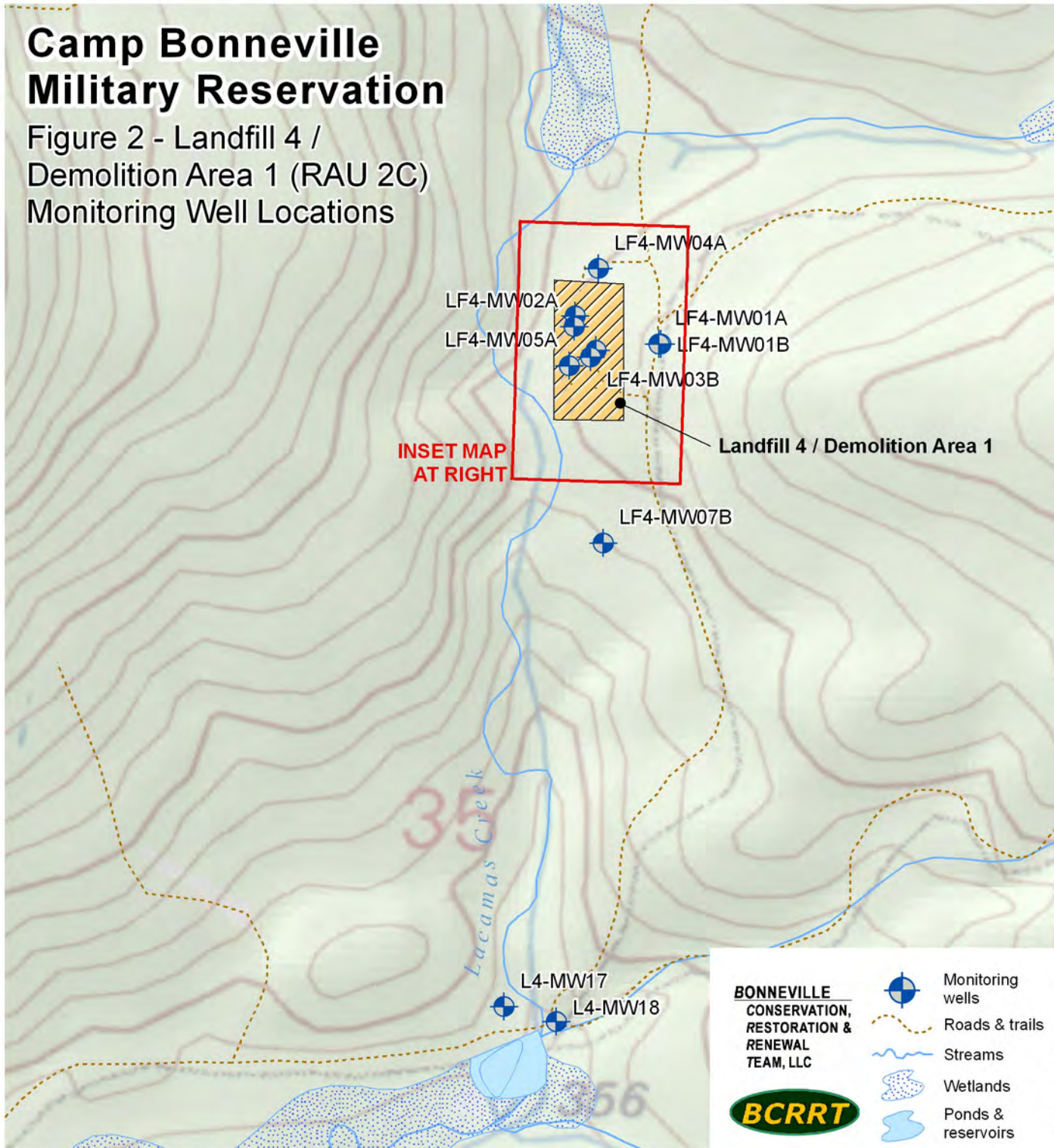
-  Monitoring wells
-  Roads & trails
-  Streams
-  Wetlands
-  Ponds & reservoirs



Scale - 1:5,000  
Projection - Lambert Conformal Conic  
Coordinate System - State Plane Washington South FIPS 4602  
Data - Parsons & U.S. Army Corps of Engineers  
© BCRRT March 2007

# Camp Bonneville Military Reservation

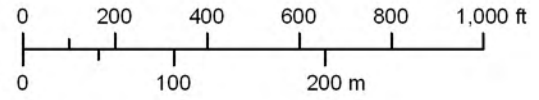
Figure 2 - Landfill 4 /  
Demolition Area 1 (RAU 2C)  
Monitoring Well Locations



**BONNEVILLE  
CONSERVATION,  
RESTORATION &  
RENEWAL  
TEAM, LLC**



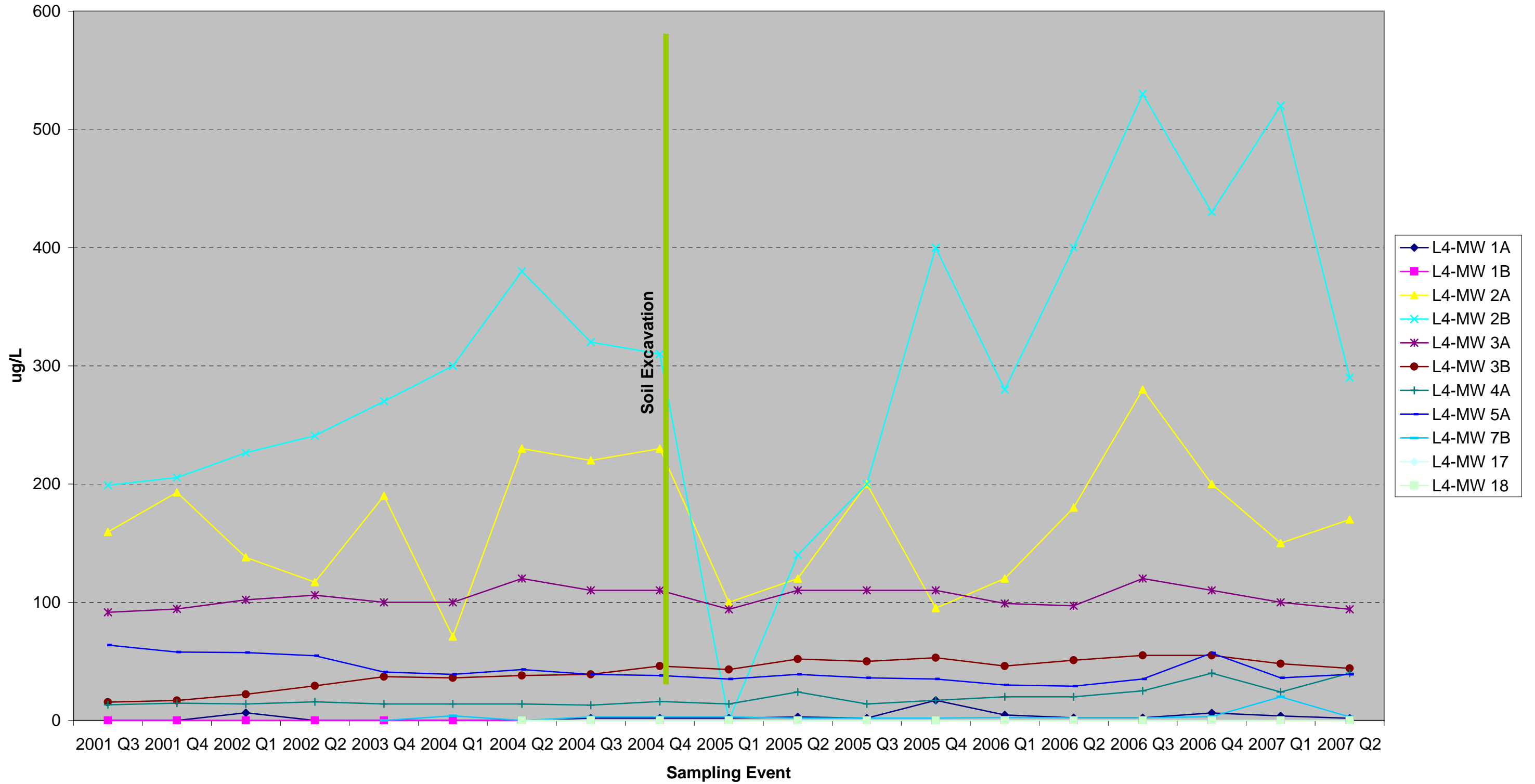
-  Monitoring wells
-  Roads & trails
-  Streams
-  Wetlands
-  Ponds & reservoirs



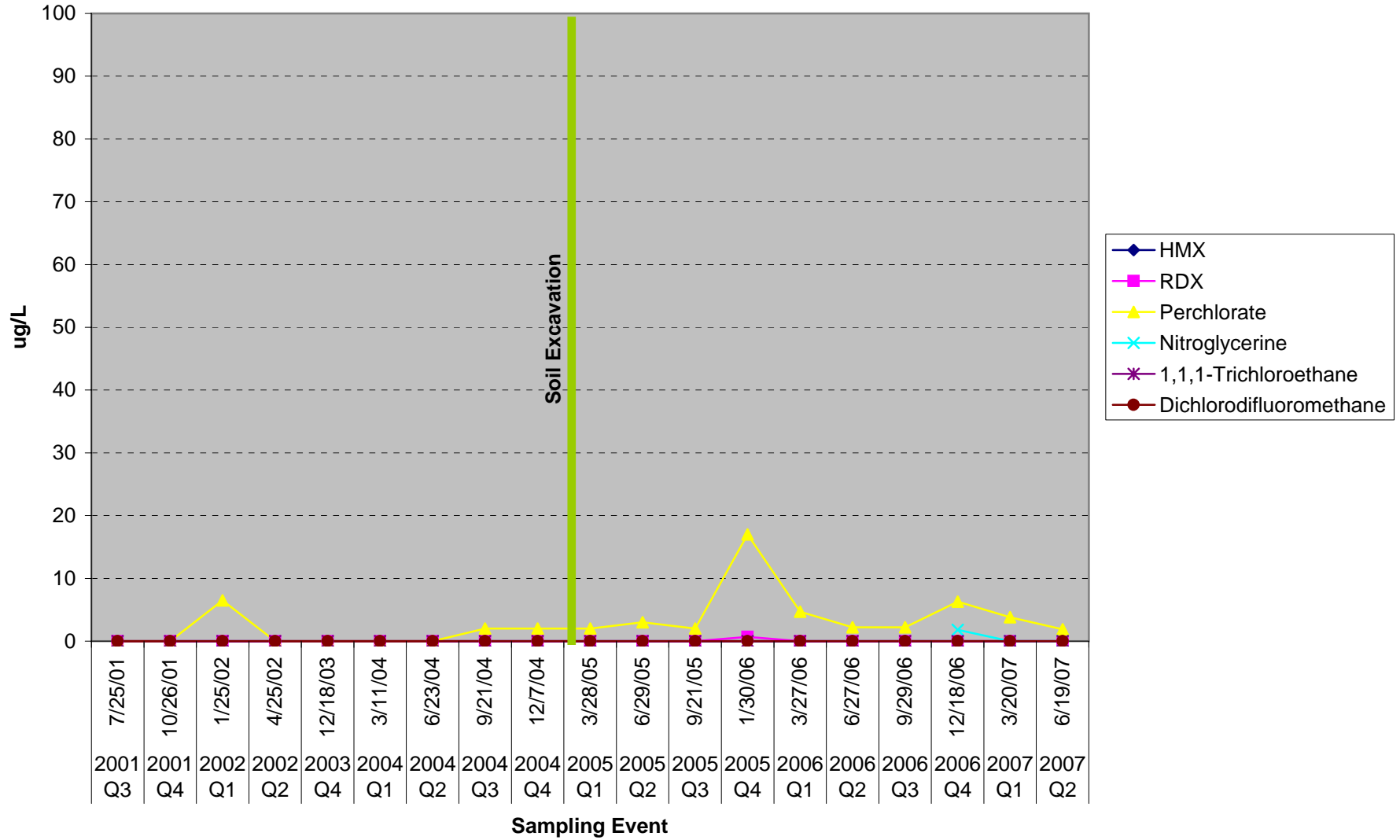
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Projection - Lambert Conformal Conic  
Coordinate System - State Plane Washington South FIPS 4602  
Data - Parsons & U.S. Army Corps of Engineers  
© BCRRT March 2007



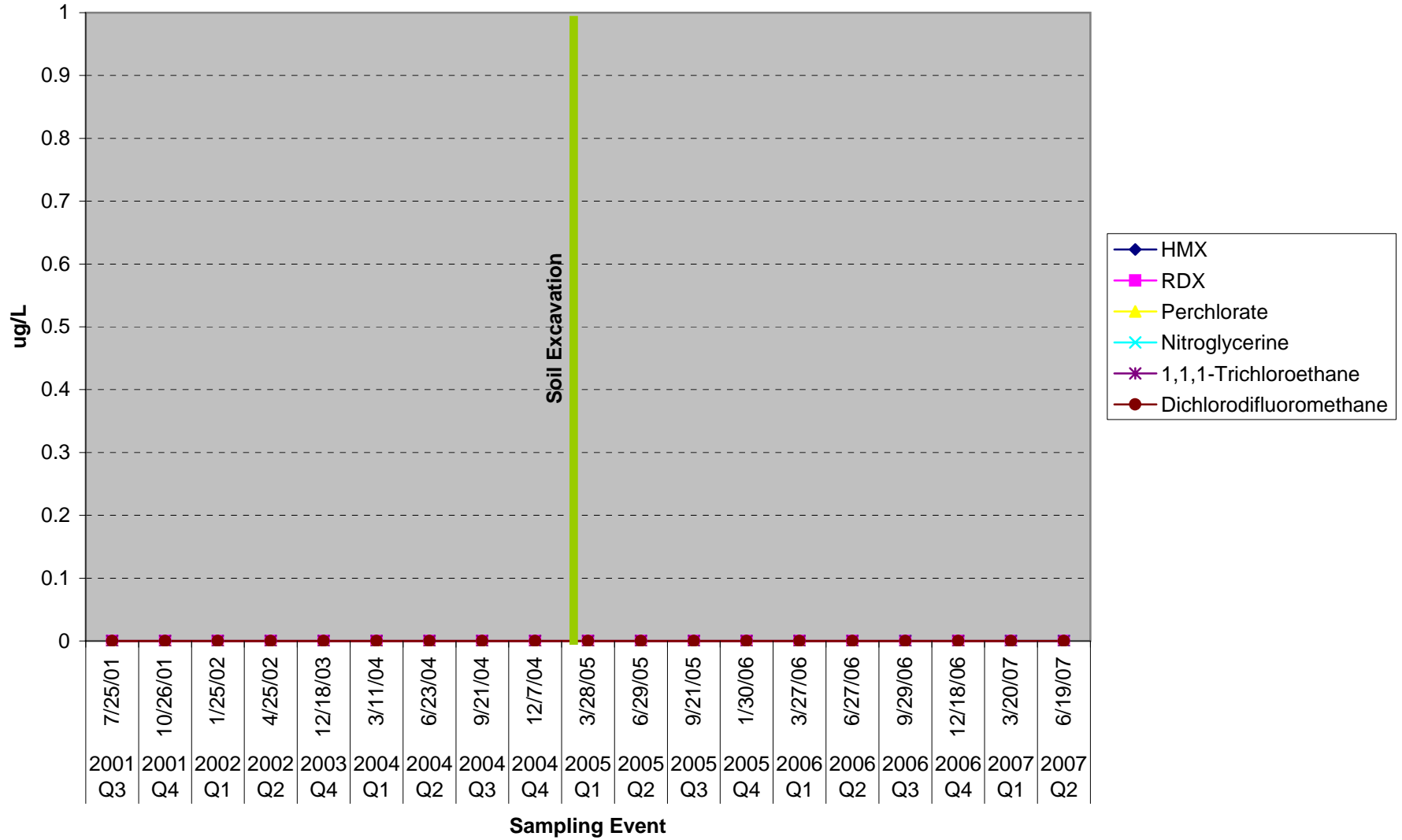
# Landfill 4 Perchlorate Results



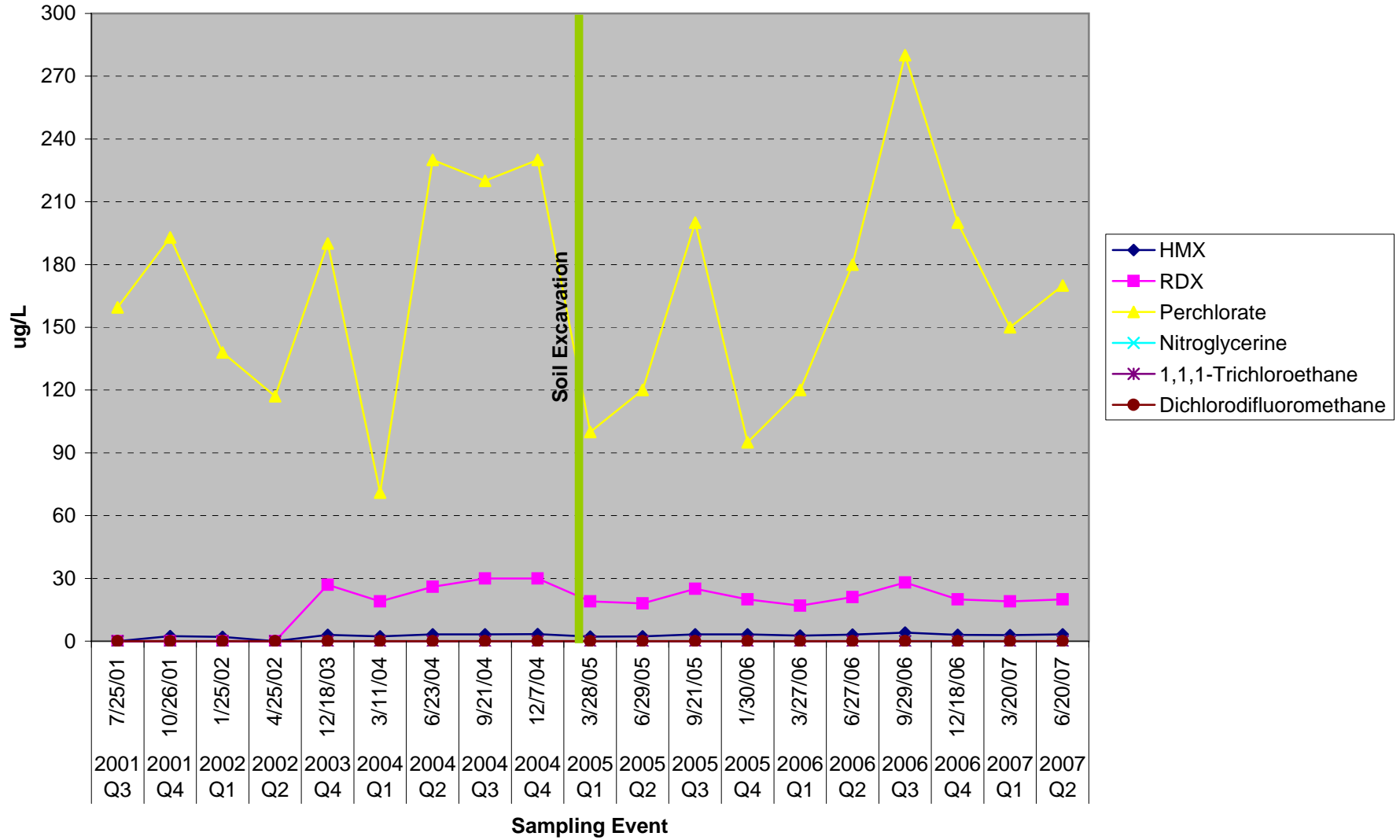
# L4-MW-1A



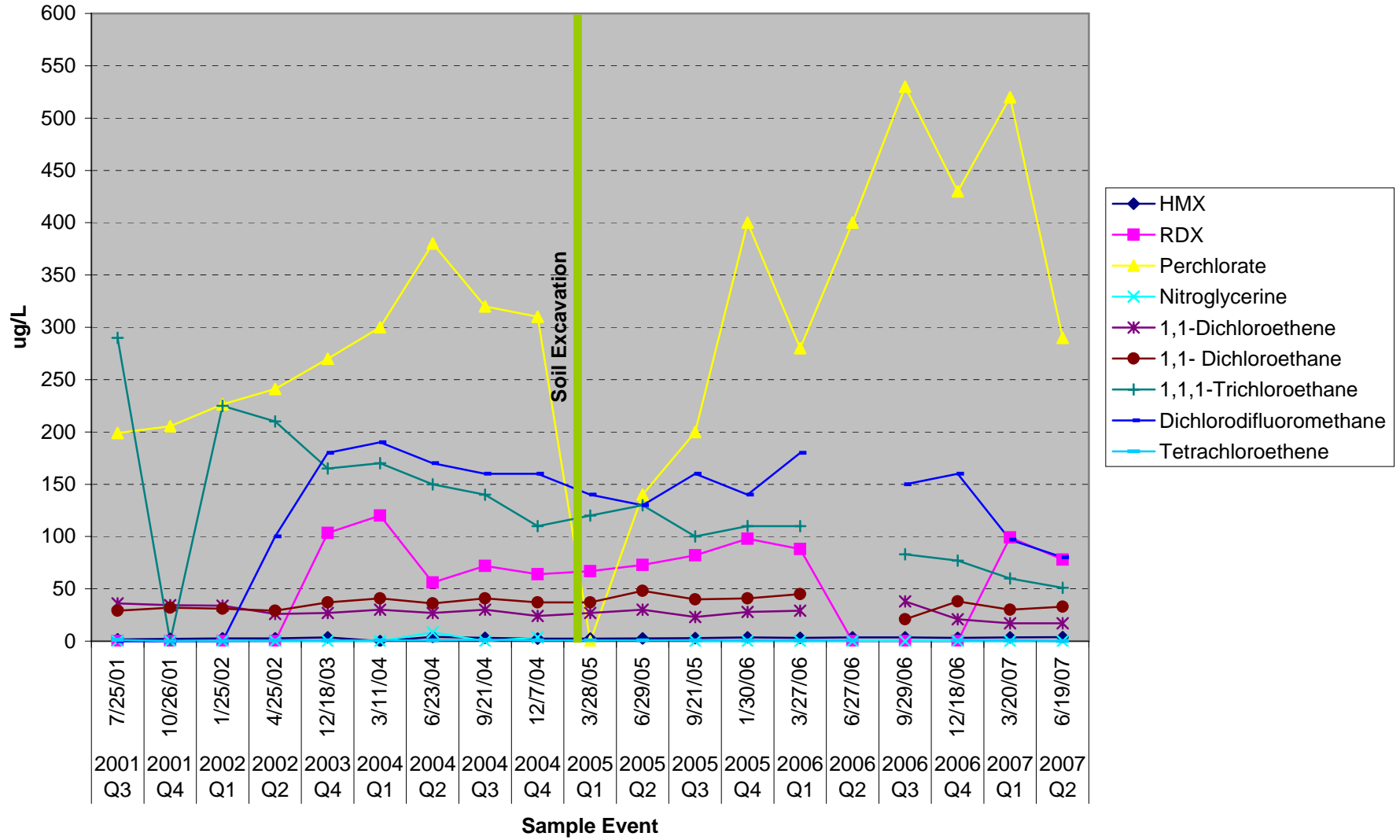
# L4-MW-1B



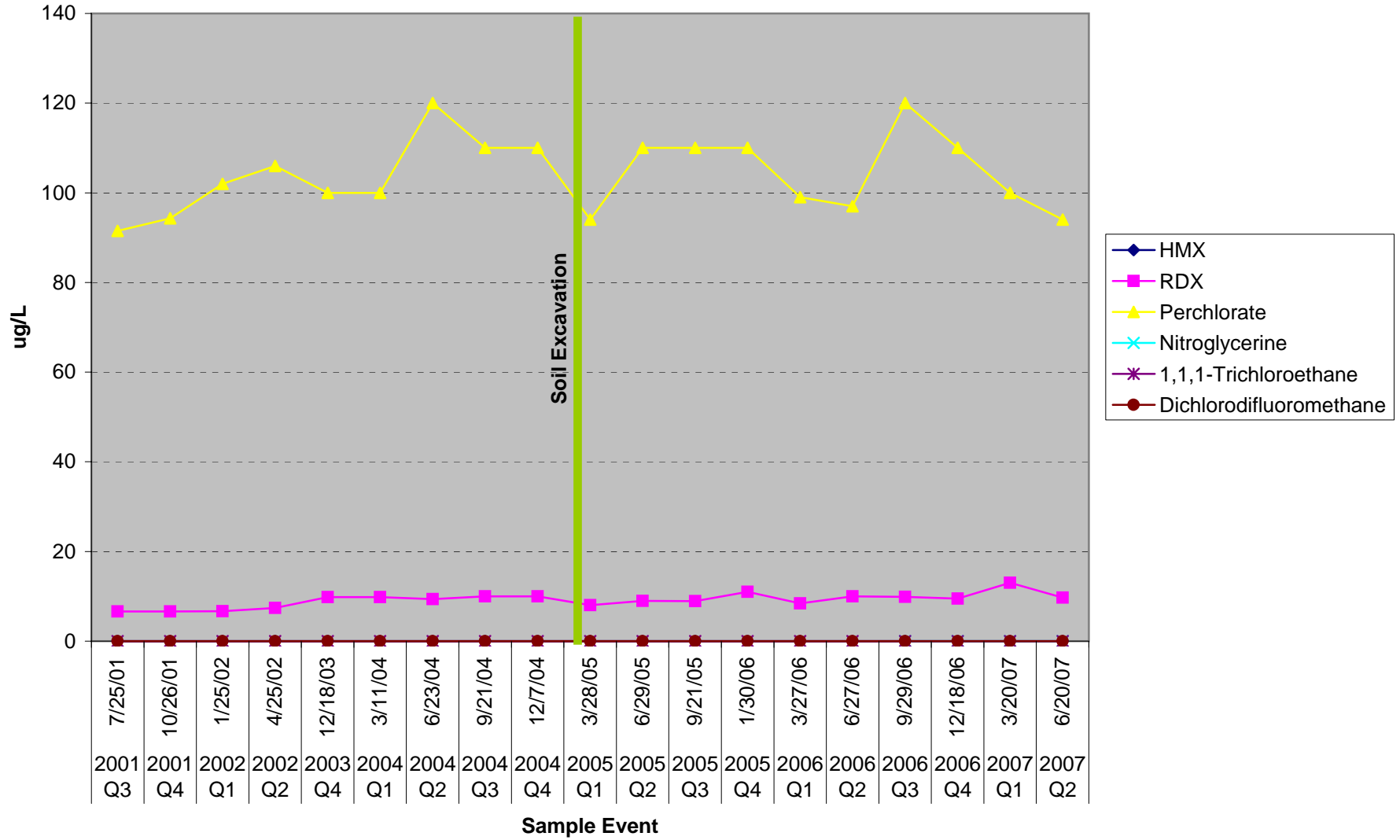
# L4-MW-2A



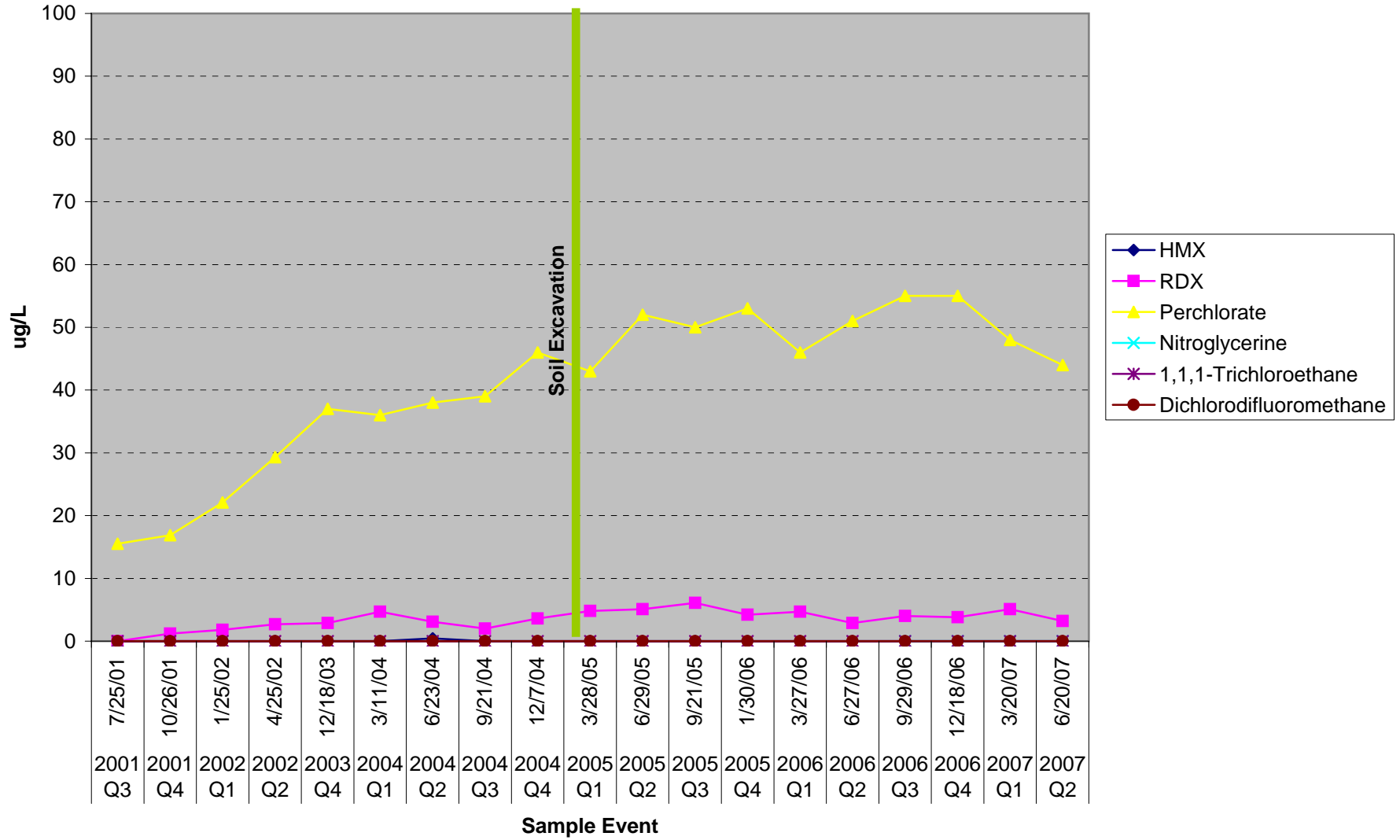
### L4-MW-2B



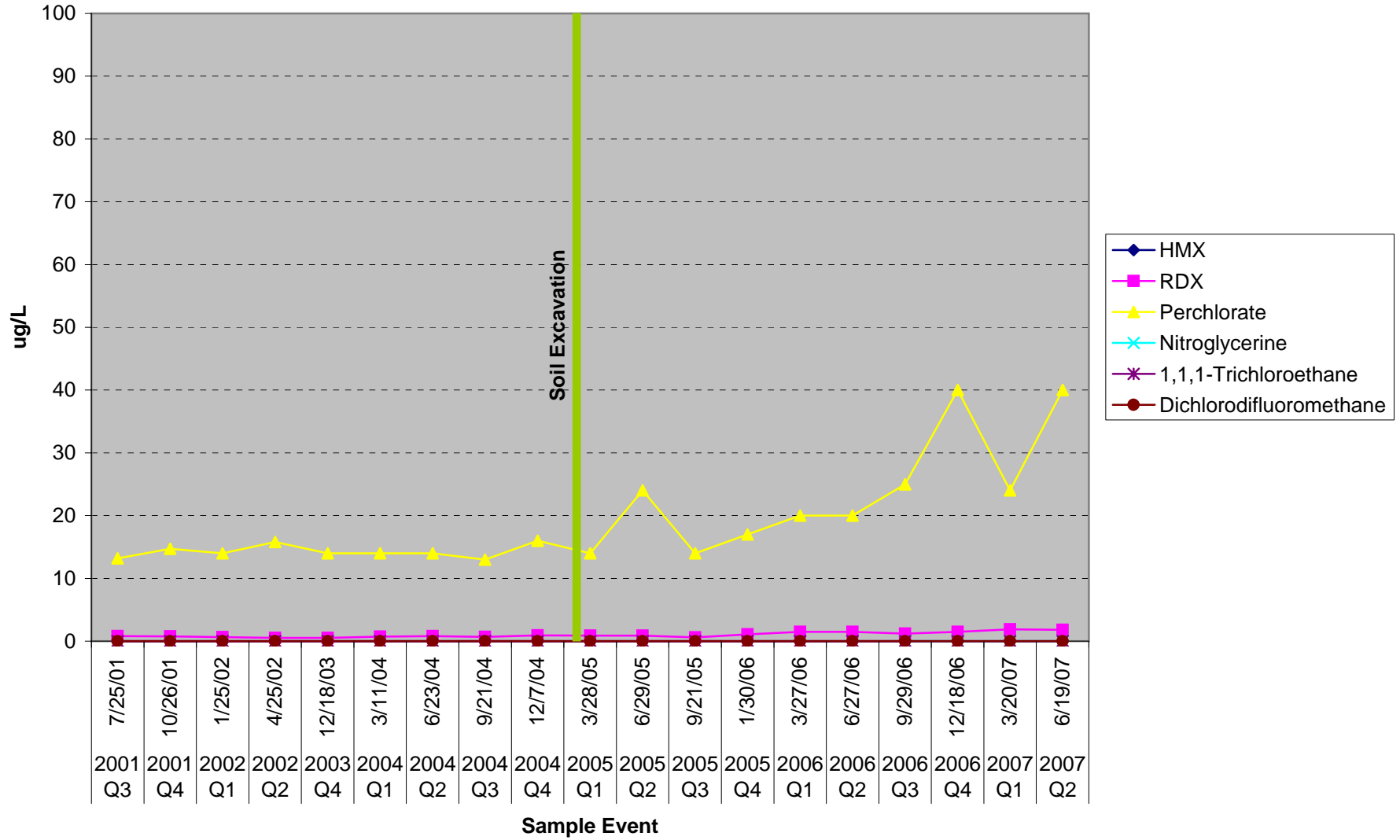
### L4-MW-3A



# L4-MW-3B

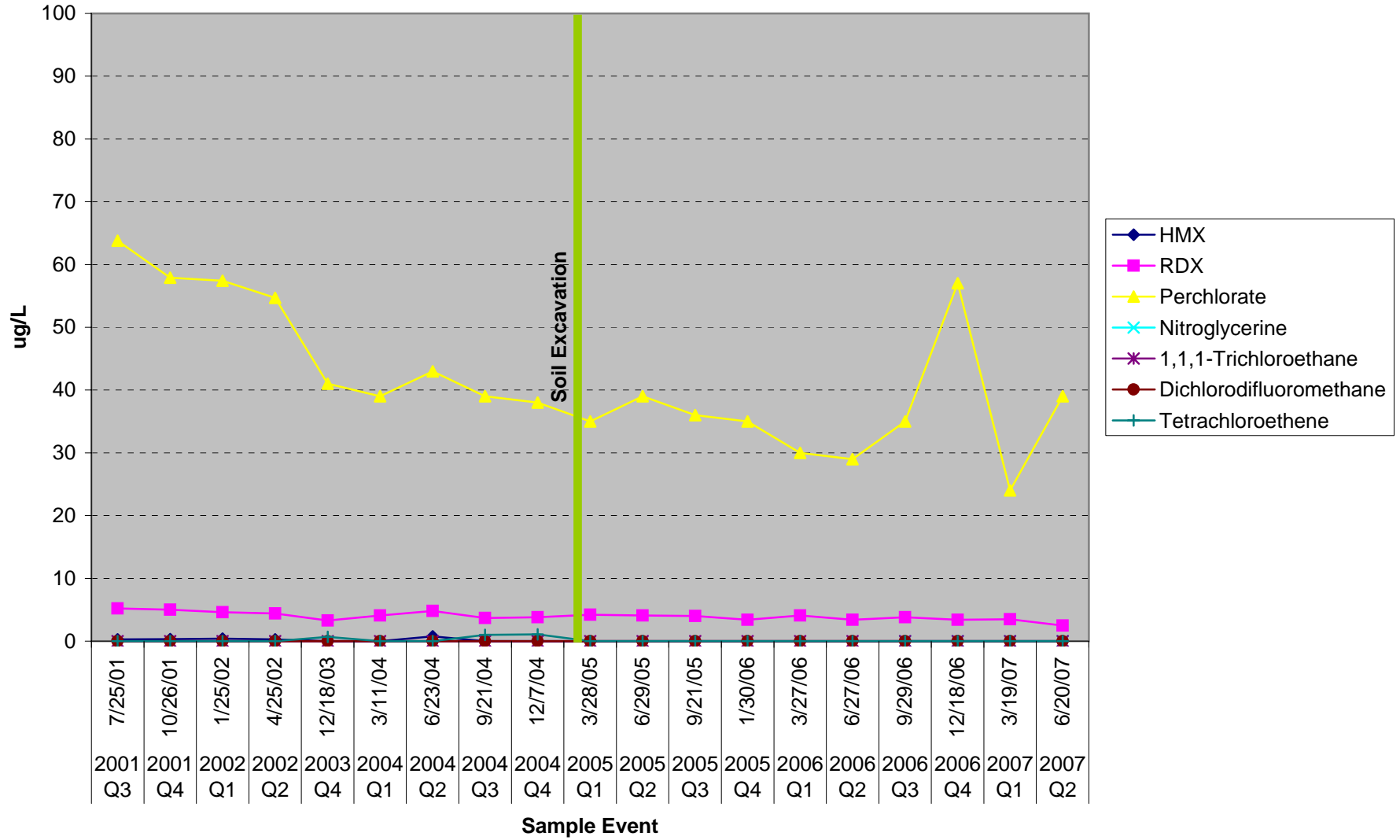


# L4-MW-4A

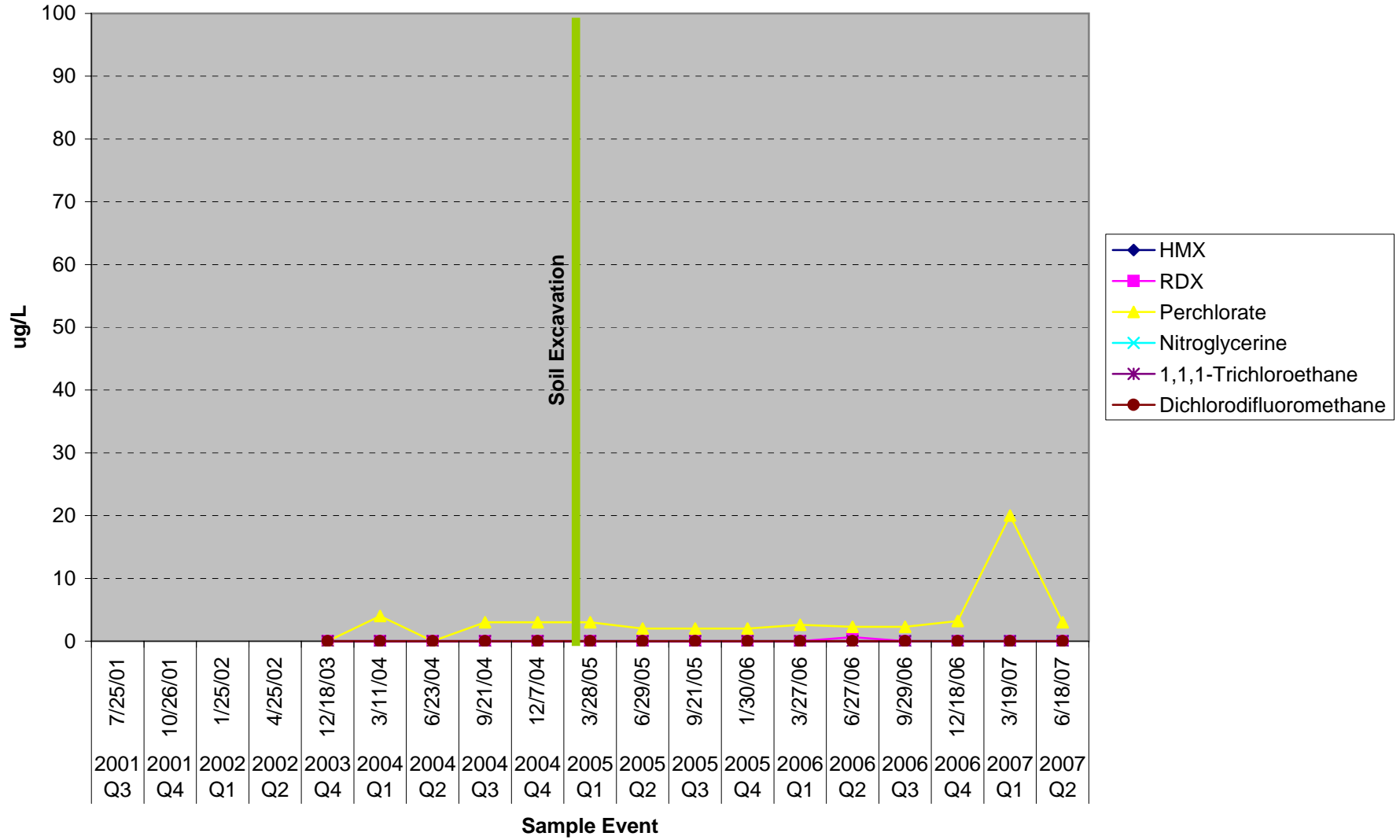




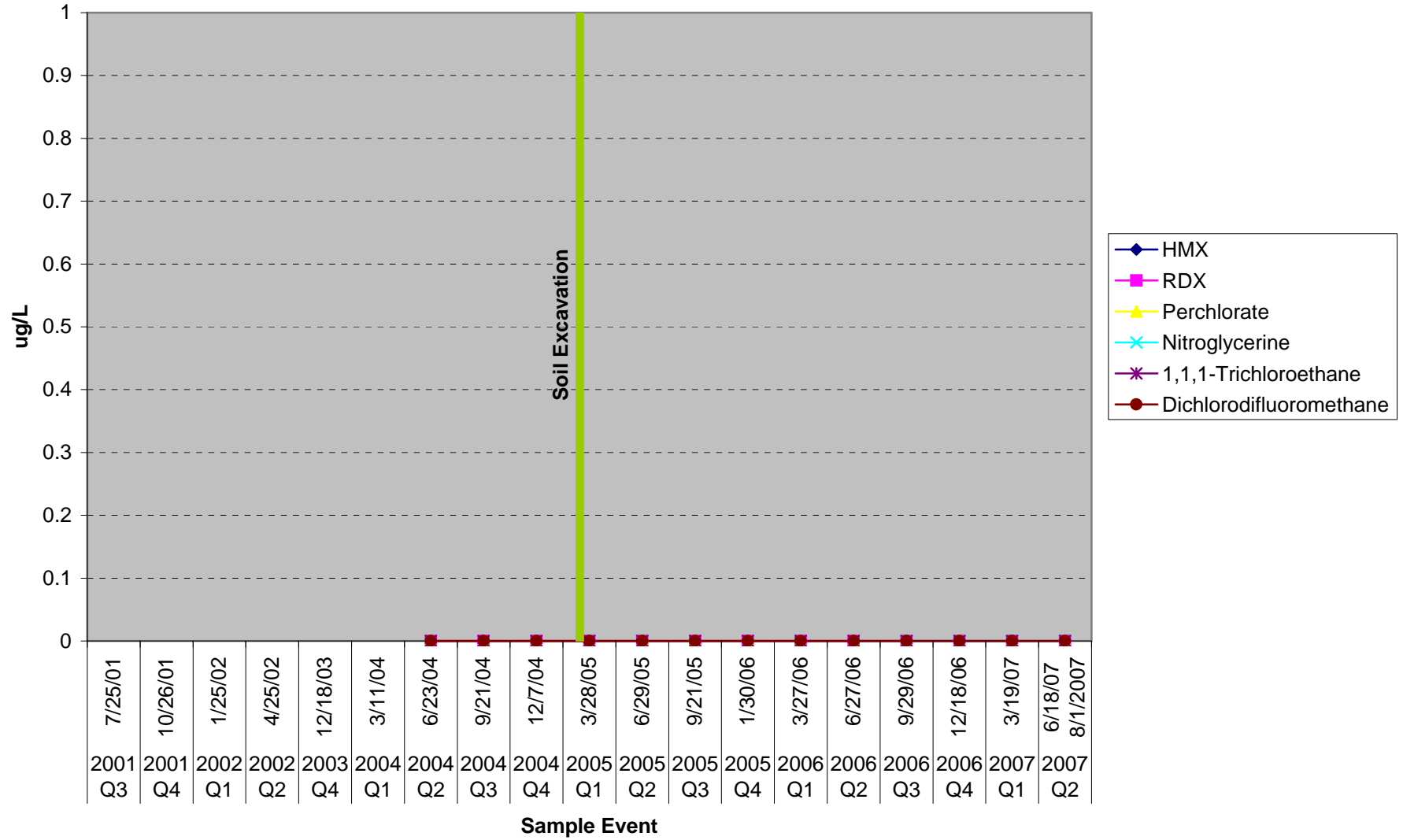
# L4-MW-5A



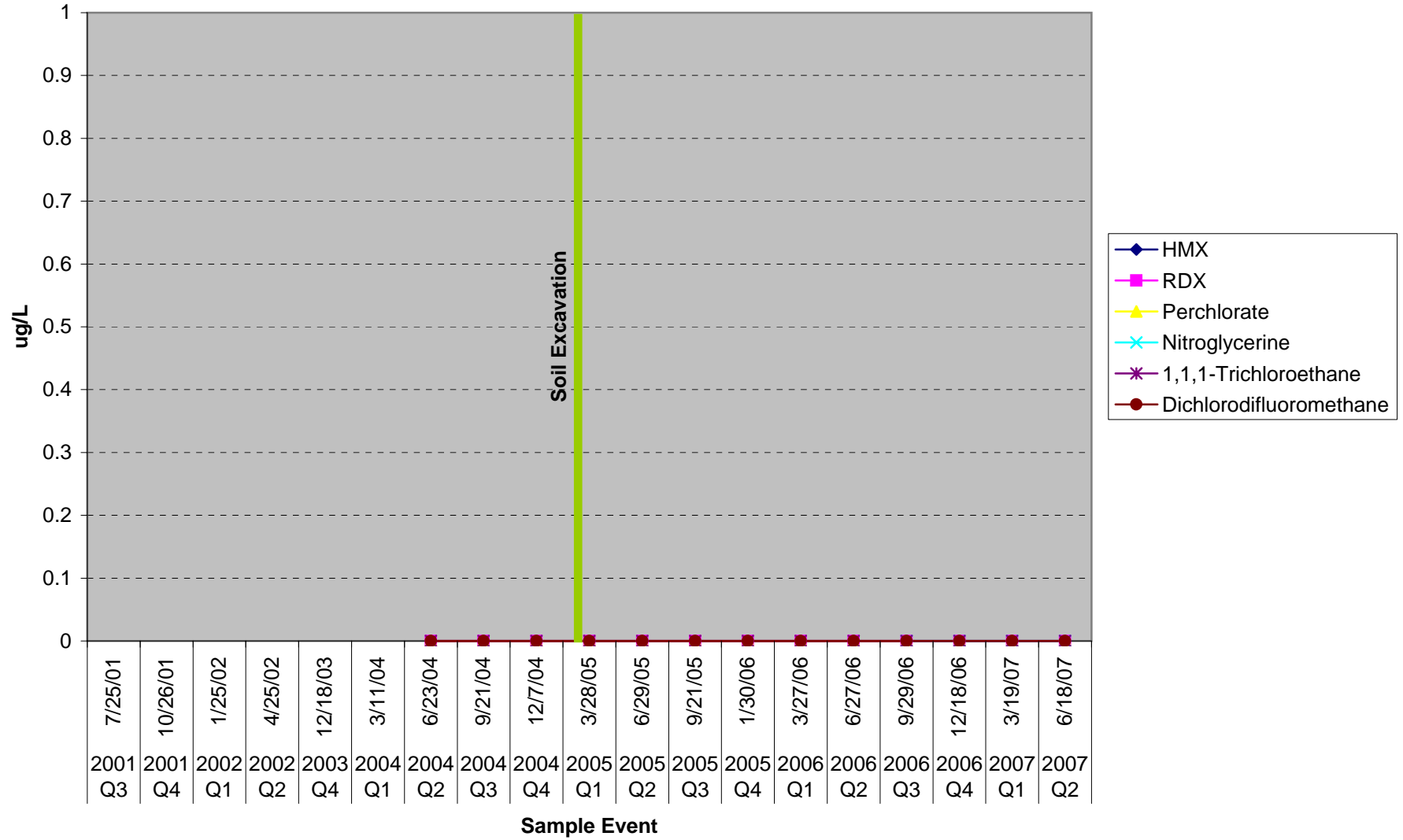
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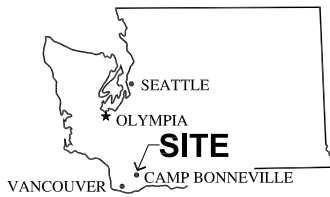
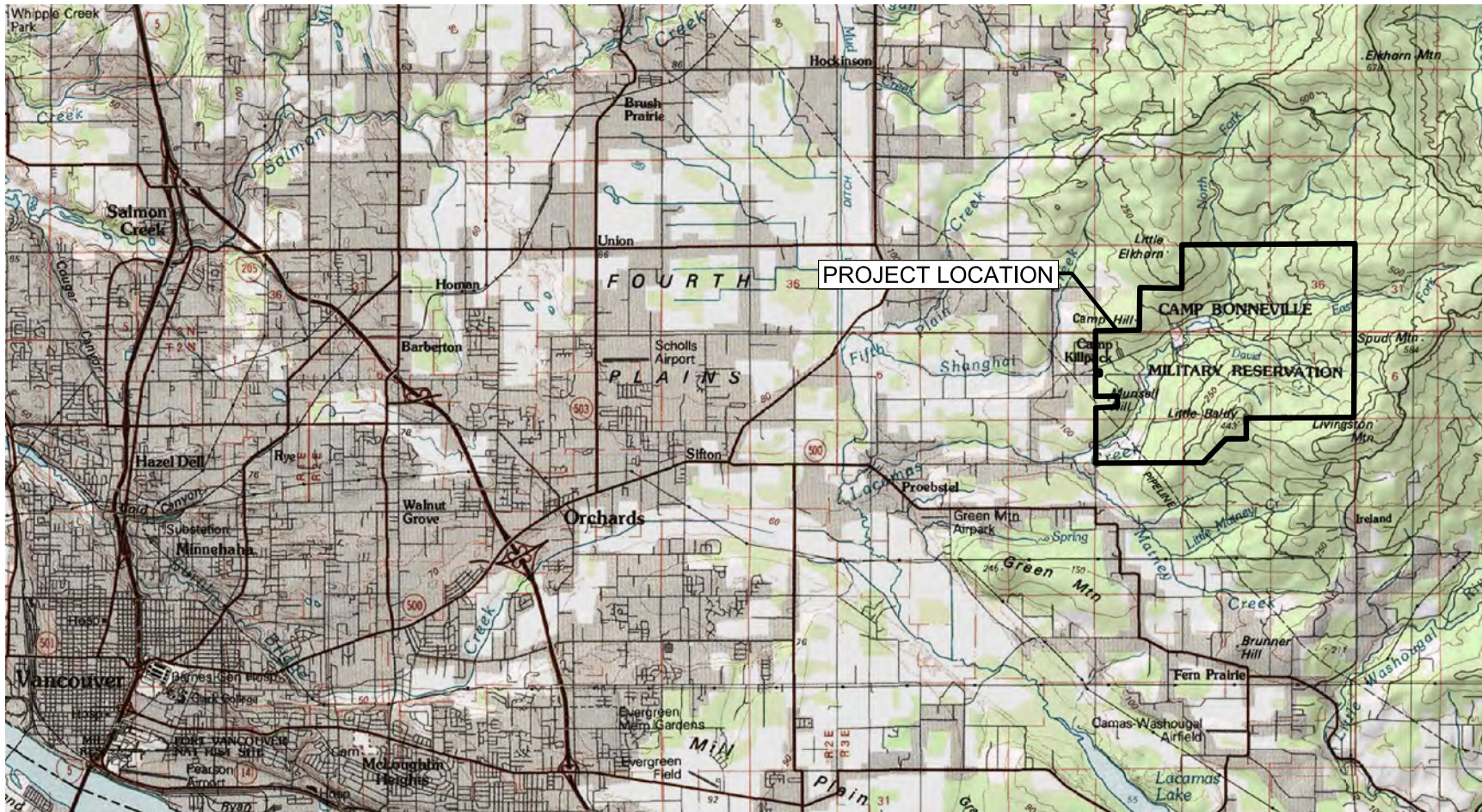


# L4-MW-17



# L4-MW-18

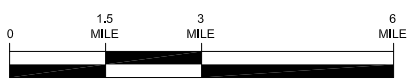




### WASHINGTON



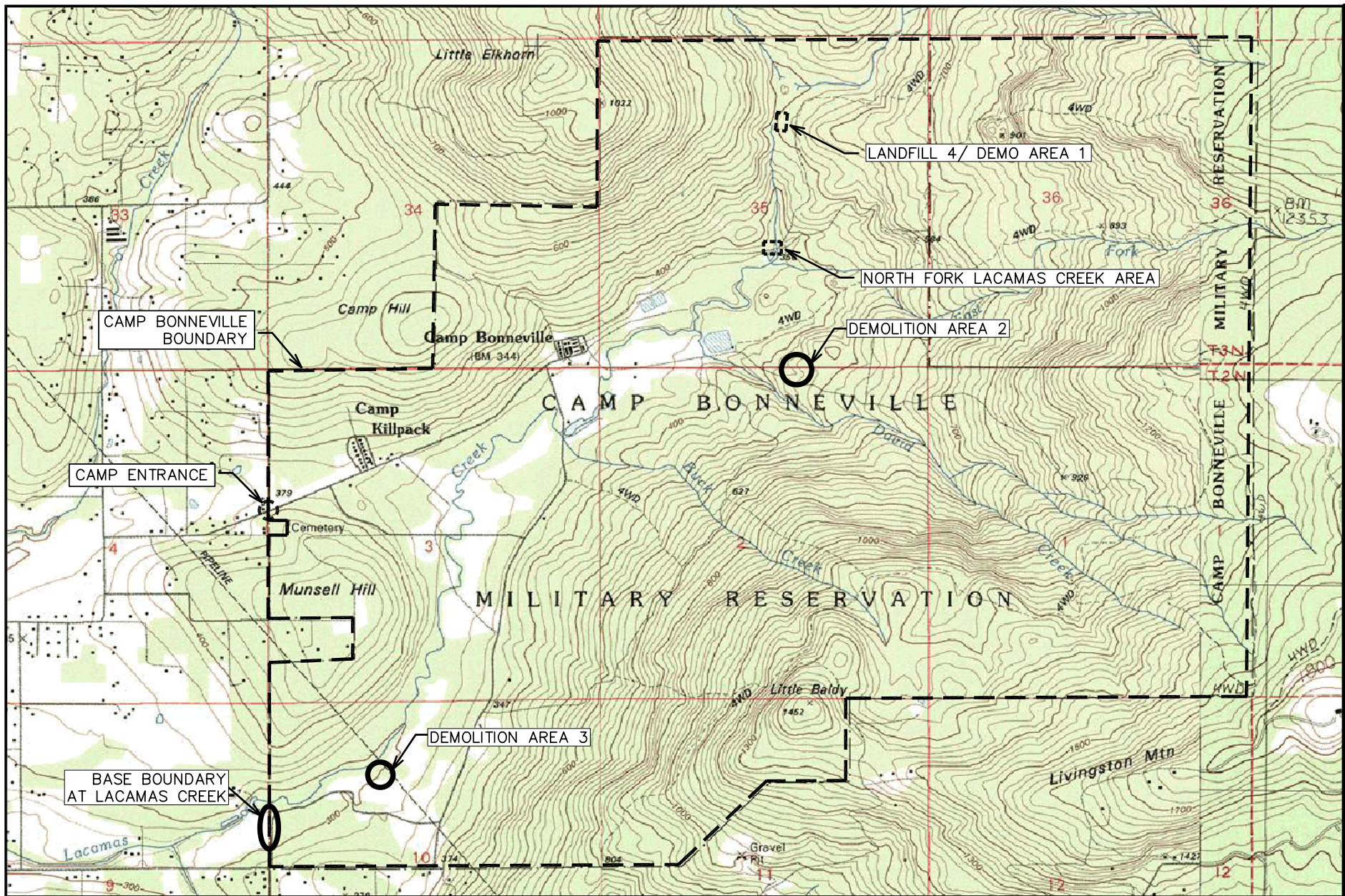
Project #: 70489.000  
 Task #: 6206  
 Date: AUGUST 2007



**SITE LOCATION MAP**  
 CAMP BONNEVILLE  
 CLARK COUNTY, WASHINGTON

**FIGURE 1**

L:\PORTLAND\70000\70489\_Camp\_Bonn\_MB\2nd Qtr 2007\DWG\70489.000\_FIG\_2-6.dwg Aug 20, 2007 08:31am johr

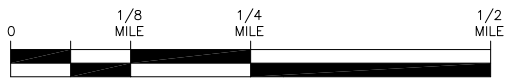
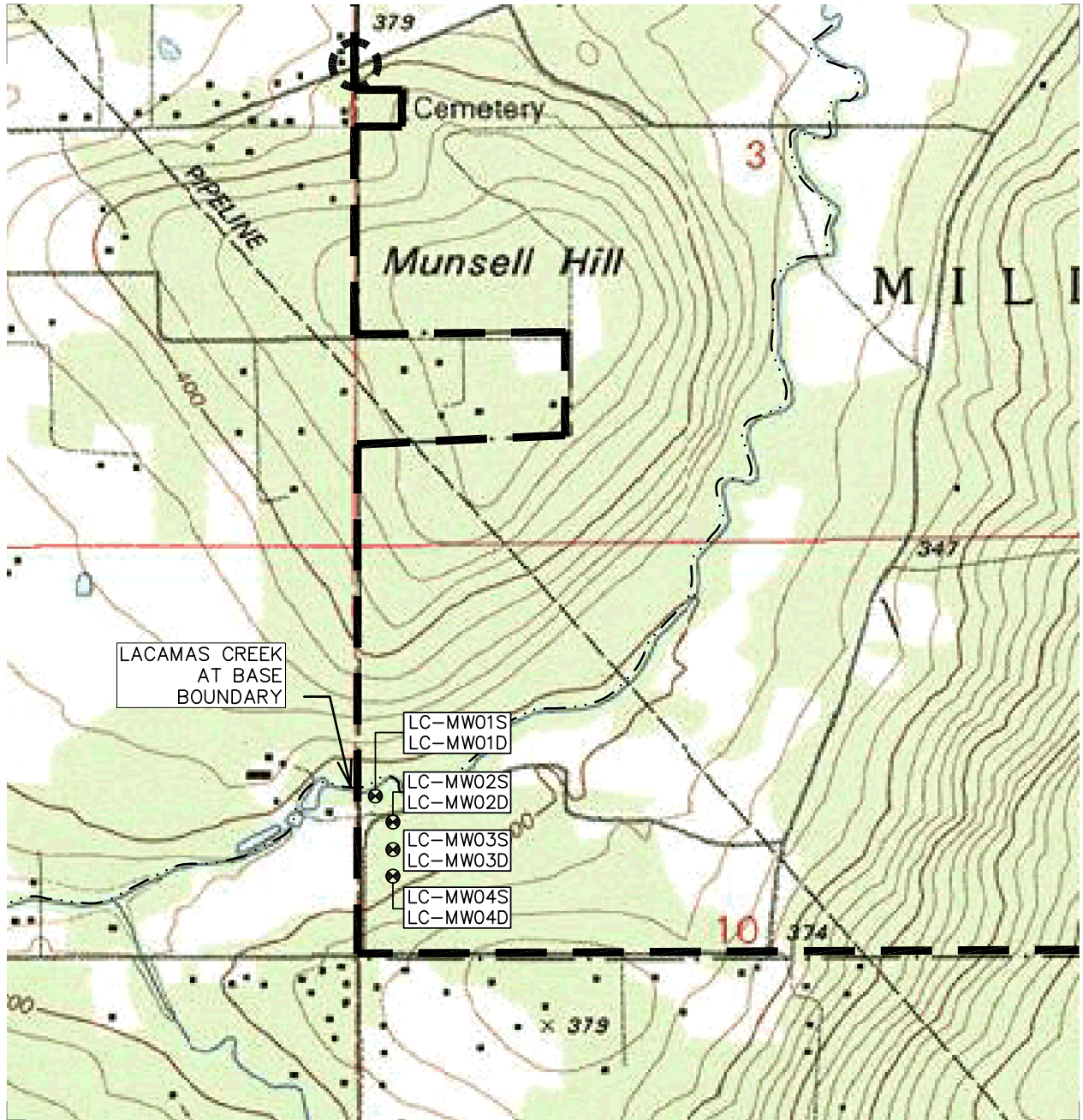


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 Task #: 6206  
 Date: AUGUST 2007



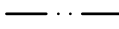



**INVESTIGATION AREAS WITHIN  
 CAMP BONNEVILLE BOUNDARY**  
 CAMP BONNEVILLE  
 CLARK COUNTY, WASHINGTON

FIGURE  
**2**



**LEGEND**

-  LC-MW04S MONITORING WELL AND WELL NUMBER
-  LC-MW04D
-  LACAMAS CREEK
-  BASE BOUNDARY



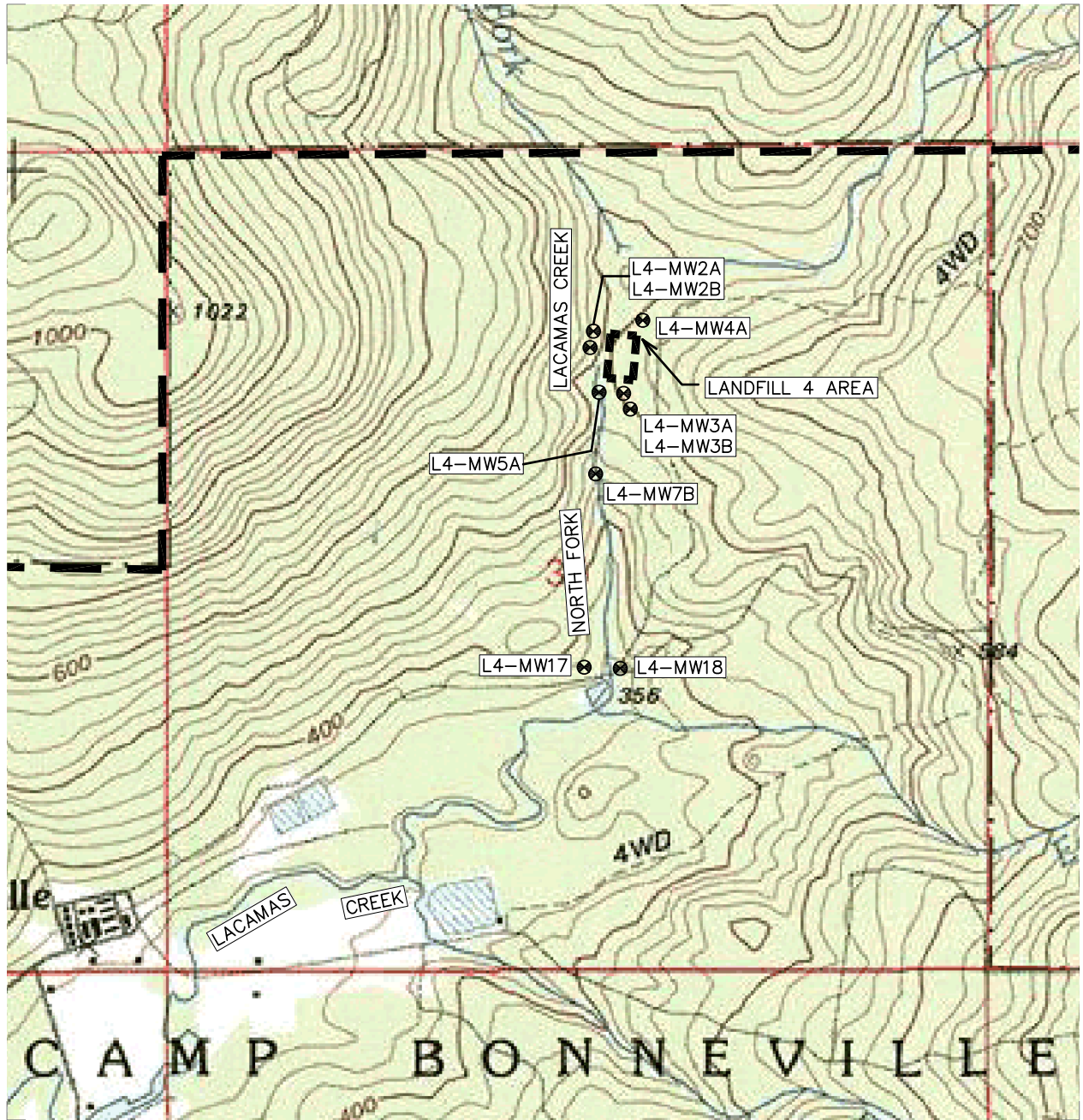
Project #:  
70489.000  
Task #: 6206  
Date:  
AUGUST 2007

**MONITORING WELL LOCATIONS NEAR  
BASE BOUNDARY AT LACAMAS CREEK**


CAMP BONNEVILLE  
CLARK COUNTY, WASHINGTON


FIGURE

**3**

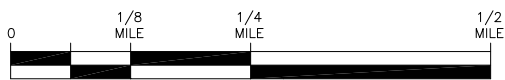


**LEGEND**

- 

 LC-MW2A    MONITORING WELL AND  
 LC-MW2B    WELL NUMBER
- 

 BASE BOUNDARY



Project #:  
70489.000  
Task #: 6206  
Date:  
AUGUST 2007

**MONITORING WELL LOCATIONS NEAR LANDFILL 4/DEMO AREA 1**

LANDFILL 4 - LACAMAS CREEK  
CLARK COUNTY, WASHINGTON

FIGURE

**4**



# Laucks

## Testing Laboratories, Inc.

940 South Harney St.  
Seattle, WA 98108  
(206) 767-5060 FAX (206) 767-5063

### FAX Cover Sheet

To: \_\_\_\_\_ FAX Number: \_\_\_\_\_  
Company: \_\_\_\_\_ Date: 8-24-07  
From: \_\_\_\_\_ No. of Pages  
(including cover (including cover  
page): 2

#### Preliminary Results for:

Workorders(s): N/A

SDG (s): CAB35

Analysis: TSS, TDS, Perc

Verified by: [Signature]

Do these samples need to be re-analyzed? Yes  No

If yes, which samples?: \_\_\_\_\_

Reason: \_\_\_\_\_

The preliminary results for the re-analysis will be faxed on (date): \_\_\_\_\_

Laucks does not certify that these results meet NELAC Standards because all NELAC required elements are not included in the facsimile. Please refer to the full report to review all NELAC required elements.

The information contained in or attached to this FAX message is intended only for the confidential use of the individual(s) named above. If you are not the named recipient, or an agent responsible for delivering it to the named recipient, you are hereby notified that you have received this document in error, and that review, dissemination, or copying of this communication is prohibited. If you have received this communication in error, please notify us immediately by telephone at 206-767-5060, and return the original documents to us by mail at the address listed above.



**LAUCKS TESTING LABORATORIES**

**SAMPLE DATA PACKAGE**

**PBS ENGINEERING & ENVIRONMENTAL**

**SDG NO.: CAB30**

**JULY 24, 2007**

# LAUCKS TESTING LABORATORIES

940 S. Harney  
Seattle, WA 98108

To: PBS Engineering & Environmental  
Project Name: Camp Bonneville  
SDG No.: CAB30  
Date of Report: July 24, 2007

## **SAMPLE RECEIPT, IDENTIFICATION, AND GENERAL COMMENTS:**

### **Sample Receipt and Identification:**

The samples submitted under the laboratory number(s) indicated above were identified and analyzed as tabulated below. The samples were collected and received on the dates noted on the enclosed chain-of-custody copies, Attachment A.

<b><u>Client Sample Identification</u></b>	<b><u>Laucks Sample Identification</u></b>	<b><u>Testing Analytical Request</u></b>
TRIP BLANK	CAB30-001	VOA
15L4MW01BW	CAB30-002	VOA/ORD/PERC
15L4MW01AW	CAB30-003	VOA/ORD/PERC
15L4MW04AW	CAB30-004	VOA
15L4MW02BW	CAB30-005	VOA
15L4MW425W	CAB30-006	VOA
15L4MW04AW	CAB30-007	ORD/PERC
15L4MW02BW	CAB30-008	ORD/PERC
15L4MW425W	CAB30-009	ORD/PERC

### **Analytical Request Key:**

VOA = Volatile Organics by Method 8260B  
ORD = Ordnance by Method 8330  
PERC = PETN/Nitroglycerin by Method 8332  
Ammonium Perchlorate by Method 314.0

### **Sample Receipt Comments:**

The temperature blanks measured above the control limit of 6° C.

One of the VOA trip blank vials contained an air bubble less than ¼ inch in size.

## **GENERAL REMARKS ON ORGANIC ANALYSES:**

The following comments describe general analysis conditions. For remarks specific to the samples reported in this case, see "SPECIFIC REMARKS ON ORGANIC ANALYSIS."

## LAUCKS TESTING LABORATORIES

940 S. Harney  
Seattle, WA 98108

### Manual Integrations:

One or more analytes may have been manually integrated on the data system quantitation reports. All manual integrations have been flagged, initialed, and dated by the analyst. A list of the manual integration flags is detailed below.

M	Manual integration due to irregular peak shape
MS	Manual integration due to split peak
MR	Manual integration due to retention time shift
MI	Manual integration of correct isomer
MT	Manual integration due to peak tailing
MB	Manual integration due to irregular baseline

### Holding Time Compliance:

#### *Volatile Organic Compounds:*

The holding time is 14 days calculated from date of collection in both soil and water samples. All samples were analyzed within holding time.

#### *Ordnance, PETN/Nitroglycerin:*

The holding time to extraction is 7 days in water and 14 days in soil calculated from date of collection. The holding time from extraction to analysis is 40 days. All samples were extracted and analyzed within holding time.

### Volatile Fraction (8260):

#### Initial Calibration

Analysis of the initial calibration yielded %RSD value for methylene chloride that exceeded 15% in the ICAL performed 06/04/2007. Using an alternative curve fit this analyte had  $r^2$  values greater than 0.990 ( $r$  values greater than 0.995) and was therefore compliant. The submitted Forms 6 and 7 document the evaluation of the initial calibration and continuing calibration standards using %RSD and %difference values. Additional forms have been submitted listing the  $r^2$  values and % drifts for analytes calibrated with alternative curve fits. These forms are located in the Standards Data section of the data package.

#### Continuing Calibration Verification (CCV):

Analysis of the CCV performed on 06/26/2007 yielded a percent difference value for dichlorodifluoromethane that exceeded 20% due to decreased response. Because sample results were reported well below the reporting limit (RL) the chance of reporting any false negatives for those compounds that recovered low at the RL was negligible.

### Ordnance Fraction:

All quality control parameters were met.

### PETN/Nitroglycerin Fraction:

All quality control parameters were met.

**LAUCKS TESTING LABORATORIES**

940 S. Harney  
Seattle, WA 98108

**GENERAL REMARKS ON INORGANIC ANALYSES:**

The following comments describe general analysis conditions. For remarks specific to the samples reported in this case, see "SPECIFIC REMARKS ON INORGANIC ANALYSES."

**SPECIFIC REMARKS ON INORGANIC ANALYSES:**

Holding Time Compliance:

Laucks calculates holding time compliance for inorganic determinations using the date on which reportable data were acquired.

Miscellaneous:

The following analytes do not have a Contract Laboratory Program holding time. The holding times tabulated below derive from the relevant EPA methods and are applicable when the sample was appropriately preserved and/or cooled. All samples submitted followed the preservation guidelines unless explicitly noted otherwise.

<u>Analyte</u>	<u>Holding Time</u>	<u>Violations</u>
Perchlorate	28 days	None

Miscellaneous Inorganics:

No comments.

## LAUCKS TESTING LABORATORIES

940 S. Harney  
Seattle, WA 98108

### ABBREVIATIONS

Several abbreviations can appear in our reports. The most commonly employed abbreviations are as follows:

- U The analyte of interest was not detected to the limit of detection indicated.
- SDL Sample Detection Limit. The SDL can vary from sample to sample, depending on sample size, matrix interferences, moisture content and other sample-specific conditions.
- PQL Practical Quantitation Limit. The limit is drawn from the test method and usually represents the SDL multiplied by a matrix-specific factor.
- DB Dry Basis. The value reported has been back-calculated to normalize for the moisture content of the sample.
- AR As-Received. The value has not been normalized for moisture.

### ORGANIC ANALYSES:

- B When used in relation to organics fractions, the "B" flag indicates that the analyte of interest was detected in the method blank associated with the sample, as well as in the sample itself. The "B" flag is applied without regard to the relative concentrations detected in the blank and sample.
- J The analyte of interest was detected below the routine reporting limit. This value should be regarded as an estimate.
- T The flagged values represent the SUM of two co-eluting compounds. The SUM of these two values is shown as though it were a result for each of them. The two figures should not be added together.
- E The flagged value was reported from an analysis that exceeded the linear range of the instrument. See additional comments for further discussion of the circumstances. Values so flagged should be considered estimates.
- P When a dual column GC technique is employed, this flag indicates that test results from the two columns differ by more than 25%. Generally, we report the higher value.
- C The flagged analyte has been confirmed by GC/MS analysis. The value reported may be derived from either the initial or confirmatory (GC/MS) analysis. See specific report comments for details.
- Z When two or more sets of results are submitted, the Z-flagged data indicates that this is the secondary result.
- CRQL Client requested Quantitation Limit, usually the limit of detection specified at your request. Might also be referred to as Contract Required Quantitation Limit.

## LAUCKS TESTING LABORATORIES

940 S. Harney  
Seattle, WA 98108

### INORGANIC ANALYSES:

- J The reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL). If the analyte was analyzed for but not detected, a "U" shall be entered.
  - E The reported value is estimated because of the presence of interference. The serial dilution was not within control limits.
  - N Spiked sample recovery not within control limits.
  - \* Duplicate analysis not within control limits.
- CRDL Client Requested Detection Limit, usually the limit of detection specified at your request. Might also be referred to as Contract Required Detection Limit.



**LAUCKS TESTING LABORATORIES**

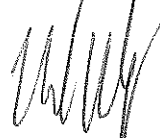
940 S. Harney  
Seattle, WA 98108

RELEASE OF DATA

Laucks certifies that these results meet all requirements of the NELAC standards, except where otherwise noted.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."

Respectfully submitted,



Mike Baxter  
Project Manager

24 July 2007  
(DATE)



Harry Romberg  
Quality Assurance Officer

7/24/07  
(DATE)

*HOW TO CONTACT US:*

All Laucks Testing Laboratories staff members can be reached at the same telephone and facsimile numbers: (206) 767-5060 by phone, (206) 767-5063 by FAX.

*REQUESTS FOR DUPLICATE COPIES:*

This packet has been checked for accuracy. All pages are present and in sequential order. Please see Attachment B for a detailed record.

In the event that duplicate data copies are needed, Laucks will accommodate your request at a fee of twenty-five cents (\$0.25) per copy, plus shipping. If the data are in storage, there will also be a fee for retrieval.

**LAUCKS TESTING LABORATORIES**

940 S. Harney  
Seattle, WA 98108

**ATTACHMENT A**

Chain-of-Custody Copies

LAUCKS TESTING LABORATORIES, INC. - SAMPLE CONFIRMATION LOG							
Sample ID (SDG-#)	VTSR	Collected On	Client ID	314.0 Perchlorate	8260B VOCs (LTL Routine)	8330 Explosives Residues	8332 Nitroglycerin & PETN
CAB30-001	06/20/2007 08:30 AM	06/19/2007 12:00 AM	TRIP BLANK		IN		
CAB30-002	06/20/2007 08:30 AM	06/19/2007 09:50 AM	15L4MW01BW	IN	IN	IN	IN
CAB30-003	06/20/2007 08:30 AM	06/19/2007 10:55 AM	15L4MW01AW	IN	IN	IN	IN
CAB30-004	06/20/2007 08:30 AM	06/19/2007 12:15 PM	15L4MW04AW		IN		
CAB30-005	06/20/2007 08:30 AM	06/19/2007 04:30 PM	15L4MW02BW		IN		
CAB30-006	06/20/2007 08:30 AM	06/19/2007 02:00 PM	15L4MW425W		IN		
CAB30-007	06/20/2007 08:30 AM	06/19/2007 12:15 PM	15L4MW04AW	IN		IN	IN
CAB30-008	06/20/2007 08:30 AM	06/19/2007 04:30 PM	15L4MW02BW	IN		IN	IN
CAB30-009	06/20/2007 08:30 AM	06/19/2007 02:00 PM	15L4MW425W	IN		IN	IN
Approved By: <i>[Signature]</i>				On: <i>6/20/07</i>			
Notes:							
Samples identified with a '*' client has requested QC for							
<b>LEGEND:</b> -:Started , +:Completed , IN:Logged In , P:Preparation , A:Analysis , X:Cancelled, PL:Pre-logged							
<b>FORM LTL-PM-8.0</b>							

Sample ID (SDG-#)	VTSR	Collected On	Client ID	314.0 Perchlorate	8260B VOCs (LTL Routine)	8330 Explosives Residues	8332 Nitroglycerin & PETN
CAB30-001	06/20/2007 08:30 AM	06/19/2007 12:00 AM	TRIP BLANK		IN		
CAB30-002	06/20/2007 08:30 AM	06/19/2007 09:50 AM	15L4MW01BW	IN	IN	IN	IN
CAB30-003	06/20/2007 08:30 AM	06/19/2007 10:55 AM	15L4MW01AW	IN	IN	IN	IN
CAB30-004	06/20/2007 08:30 AM	06/19/2007 12:15 PM	15L4MW04AW		IN		
CAB30-005	06/20/2007 08:30 AM	06/19/2007 04:30 PM	15L4MW02BW		IN		
CAB30-006	06/20/2007 08:30 AM	06/19/2007 02:00 PM	15L4MW425W		IN		
CAB30-007	06/20/2007 08:30 AM	06/19/2007 12:15 PM	15L4MW04AW	IN		IN	IN
CAB30-008	06/20/2007 08:30 AM	06/19/2007 04:30 PM	15L4MW02BW	IN		IN	IN
CAB30-009	06/20/2007 08:30 AM	06/19/2007 02:00 PM	15L4MW425W	IN		IN	IN

Approved By: *[Signature]*  
Notes:

On: *6/20/07*

Samples identified with a '\*' client has requested QC for

**LEGEND:** -:Started , +:Completed , IN:Logged In , P:Preparation , A:Analysis , X:Cancelled, PL:Pre-logged

**FORM LTL-PM-8.0**

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING (SEE BELOW)

COMPANY: PBS  
 ADDRESS: 4412 SW CORBERT AVE  
PORTLAND OR 97239  
 ATTENTION: DREW HARVEY  
CAMP BONDEVILLE  
 PROJECT NAME: DREW HARVEY  
 PROJECT CONTACT: DREW HARVEY  
 TELEPHONE: 503-417-7693 FAX: 503-248-0223  
 JOB/PO. NO.: 70489.000 T6206

CHAIN OF CUSTODY RECORD  
 43104  
 SDG # C4320

WORK ORDER ID# \_\_\_\_\_  
 PAGE 1 OF 1  
 SUBMITTED AT: \_\_\_\_\_

**Laucks**  
 Testing Laboratories, Inc.  
 940 South Hamer St, Seattle, WA 98105 (206) 767-5060 FAX 767-5063  
 1106 Lakewood Ave, Tumwater, WA 98562 (360) 235-4667 FAX 523-1265

MATRIX: WATER, SOIL OR SPECIFY	NO. OF CONTAINERS	EXPLOSIVES	PETN/NG	PERCHLORATE	VOCs
	8	X	X	X	X
	5	X	X	X	X
	3	X	X	X	X
	3	X	X	X	X

TESTS TO PERFORM \_\_\_\_\_  
 OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS \_\_\_\_\_

LAB #/A	SAMPLE ID / LOCATION	DATE	TIME
	TRIP BLANK	6/9/07	
	15L4MWD01BW	6/9/07	9:50 W
	15L4MWD01AW	6/9/07	10:55 W
	15L4MWD04AW	6/9/07	12:15 W
	15L4MWD03BW	6/9/07	16:30 W
	15L4MWD025W	6/9/07	14:10 W

A. A standard turnaround time is assumed unless otherwise marked.  
 B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

- INSTRUCTIONS:
1. USE ONE LINE PER SAMPLE.
  2. BE SPECIFIC IN TEST REQUESTS.
  3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

BILLING INFORMATION (IF DIFFERENT THAN ABOVE)  
 NAME \_\_\_\_\_ ADDRESS \_\_\_\_\_  
 ATTN: \_\_\_\_\_ CITY, STATE, ZIP \_\_\_\_\_

RECEIVED BY (SIGN AND PRINT) \_\_\_\_\_  
 DATE TIME \_\_\_\_\_

\* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL

TOTAL NO. OF CONTAINERS 27  
 TURNAROUND REQUEST:  
 STD. 10-14 WORKING DAYS  
 24-48 HRS. (100% SUR)  
 72 HRS. (75% SUR)  
 5 DAYS (60% SUR)  
 OTHER \_\_\_\_\_  
 TEMP \_\_\_\_\_  
 CUSTODY SEAL:  Y  N  N/A

RELINQUISHED BY (SIGN AND PRINT) Mike Hill / MICHAEL SODDEN  
 DATE TIME 6/14/07 1500  
 RECEIVED BY (SIGN AND PRINT) Michelle Montgomery  
 DATE TIME 6/20/07 8:30

**Cooler Receipt Form**  
**Laucks Testing Laboratories, Inc.**

SDG: CAB30 Taken By: CLIENT  
Cooler: UNLABELED Transferred: FEDEX  
COC #: 43104  
Project: Camp Bonneville (PBS Engineering and Environmental)

Date samples were received at the laboratory: 6/20/2007  
Date cooler was opened: 6/20/2007 8:30AM

**A. PRELIMINARY EXAMINATION PHASE:**

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES  
if YES, record carrier name and airbill number: **FEDEX 858863412877**
2. Were custody seals unbroken and intact at the date and time of arrival? ..... **INTACT**  
Date On Custody Seal: Custody Seals Description: **TWO ON FRONT**
3. Were custody papers sealed in a plastic bag and taped inside to the lid? ..... YES
4. Did you screen samples for radioactivity using the Geiger Counter? ..... NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... YES
6. Did you sign custody papers in the appropriate place? ..... YES
7. If required, was enough cooling material present? ..... YES
8. Have designated person initial here to acknowledge receipt of cooler:   *HH*

**B. LOG-IN PHASE:**

Date samples were logged-in: 6/20/2007 8:45AM  
Logged-in by   Helen Huizenga   (sign)   *Helen Huizenga*  

9. Describe type of packing in cooler:

10. Were all bottles sealed in separate plastic bags? ..... YES
11. Were labels in good condition? ..... YES
12. Were all bottle labels complete (ID,date,time signature,preservative,etc.)? ..... YES
13. Did all bottle labels agree with custody papers? ..... YES
14. Were correct containers used for the tests indicated? ..... YES
15. Were the correct pHs observed? ..... YES
16. Was a sufficient amount of sample sent for tests indicated? ..... YES
17. Were bubbles absent in VOA samples? ..... NO
18. Temperatures: 8.3

**DISCREPANCIES:**

ONE TRIP BLANK CONTAINS A BUBBLE <1/4".  
TEMPERATURE WAS HIGH.

**Supplemental Sample Receipt Log  
Laucks Testing Laboratories**

SDG: CAB30

Cooler: UNLABELED

Temperatures: 8.3

COC #: 43104

Sample	Bottle #	Bottle Description	pH	Bubbles
CAB30-001	0001	40 ml OTWS, clear glass, HCl	N/C	< 1/4
	0002	40 ml OTWS, clear glass, HCl	N/C	None
CAB30-002	0001	1000 mL boston round, amber glass	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	40 ml OTWS, clear glass, HCl	N/C	None
	0006	40 ml OTWS, clear glass, HCl	N/C	None
	0007	40 ml OTWS, clear glass, HCl	N/C	None
	0008	500 ml cylinder, poly	7	N/A
CAB30-003	0001	1000 mL boston round, amber glass	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	40 ml OTWS, clear glass, HCl	N/C	None
	0006	40 ml OTWS, clear glass, HCl	N/C	None
	0007	40 ml OTWS, clear glass, HCl	N/C	None
	0008	500 ml cylinder, poly	7	N/A
CAB30-004	0001	40 ml OTWS, clear glass, HCl	N/C	None
	0002	40 ml OTWS, clear glass, HCl	N/C	None
	0003	40 ml OTWS, clear glass, HCl	N/C	None
CAB30-005	0001	40 ml OTWS, clear glass, HCl	N/C	None
	0002	40 ml OTWS, clear glass, HCl	N/C	None
	0003	40 ml OTWS, clear glass, HCl	N/C	None
CAB30-006	0001	40 ml OTWS, clear glass, HCl	N/C	None
	0002	40 ml OTWS, clear glass, HCl	N/C	None
	0003	40 ml OTWS, clear glass, HCl	N/C	None

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH



**Cooler Receipt Form**  
**Laucks Testing Laboratories, Inc.**

SDG: CAB30 Taken By: CLIENT  
Cooler: AAD575 Transferred: FEDEX  
COC #: 43105  
Project: Camp Bonneville (PBS Engineering and Environmental)

Date samples were received at the laboratory: 6/20/2007  
Date cooler was opened: 6/20/2007 8:30AM

**A. PRELIMINARY EXAMINATION PHASE:**

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES  
if YES, record carrier name and airbill number: FEDEX858863412877
2. Were custody seals unbroken and intact at the date and time of arrival? ..... INTACT  
Date On Custody Seal: Custody Seals Description: TWO ON FRONT
3. Were custody papers sealed in a plastic bag and taped inside to the lid? ..... YES
4. Did you screen samples for radioactivity using the Geiger Counter? ..... NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... YES
6. Did you sign custody papers in the appropriate place? ..... YES
7. If required, was enough cooling material present? ..... YES
8. Have designated person initial here to acknowledge receipt of cooler: HH

**B. LOG-IN PHASE:**

Date samples were logged-in: 6/20/2007 8:50AM  
Logged-in by Helen Huizenga (sign) Helen Huizenga

9. Describe type of packing in cooler:
10. Were all bottles sealed in separate plastic bags? ..... NO
11. Were labels in good condition? ..... YES
12. Were all bottle labels complete (ID,date,time signature,preservative,etc.)? ..... YES
13. Did all bottle labels agree with custody papers? ..... YES
14. Were correct containers used for the tests indicated? ..... YES
15. Were the correct pHs observed? ..... YES
16. Was a sufficient amount of sample sent for tests indicated? ..... YES
17. Were bubbles absent in VOA samples? ..... YES
18. Temperatures: 6.7

DISCREPANCIES:

TEMPERATURE WAS HIGH



**Supplemental Sample Receipt Log**  
**Laucks Testing Laboratories**

SDG: CAB30  
 Cooler: AAD575  
 Temperatures: 6.7  
 COC #: 43105

Sample	Bottle #	Bottle Description	pH	Bubbles
CAB30-007	0001	1000 mL boston round, amber glass	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	1000 mL cylinder, poly	7	N/A

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH





**Supplemental Sample Receipt Log  
Laucks Testing Laboratories**

SDG: CAB30

Cooler: AAD576

Temperatures: 6.8

COC #: 43106

Sample	Bottle #	Bottle Description	pH	Bubbles
CAB30-008	0001	1000 mL boston round, amber glass	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	500 ml cylinder, poly	7	N/A
CAB30-009	0001	1000 mL boston round, amber glass	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	500 ml cylinder, poly	7	N/A

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2  
 Base Preserved pH pH must be greater than 12  
 NC Not Checked for pH

**LAUCKS TESTING LABORATORIES**

940 S. Harney  
Seattle, WA 98108

**ATTACHMENT B**

Index

**LAUCKS TESTING LABORATORIES**

940 S. Harney  
Seattle, WA 98108

**PBS Engineering & Environmental**

**SDG No.: CAB30**

- I. Narrative: 2-7
- II. Chain-of-Custody: 8-18
- III. Index: 19-20
- IV. Forms Summary: SUM- 1-119

Completed and checked by: Judy Ecklund Date: 7/24/07

**FORMS SUMMARY**

SDG CAB30

VOLATILES ANALYSIS

2  
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB30

Run Sequence: R019020

Level: (LOW/MED) NONE

CLIENT SAMPLE NUMBER	SMC1 (DBF) #	SMC2 (DCA) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
(CAB30-004) 15L4MW04AW	102	107	106	107	0
(CAB30-003) 15L4MW01AW	102	107	105	105	0
(CAB30-002) 15L4MW01BW	103	107	104	103	0
(CAB30-001) TRIP BLANK	101	104	107	108	0
(B062607MVOWB1) B062607MVOWB1	102	105	105	107	0
(S062607MVOWB2) S062607MVOWB2	102	103	106	106	0

	QC LIMITS
SMC1 (DBF) = Dibromofluoromethane	85-115
SMC2 (DCA) = 1,2-Dichloroethane-d4	70-120
SMC3 (TOL) = Toluene-d8	85-120
SMC4 (BFB) = 4-Bromofluorobenzene	75-120

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits



2  
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB30

Run Sequence: R019108

Level: (LOW/MED) NONE

CLIENT SAMPLE NUMBER	SMC1 (DBF) #	SMC2 (DCA) #	SMC3 (TOL) #	SMC4 (BFB) #	TOF OUT
(CAB30-006) 15L4MW425W	102	107	107	107	0
(CAB30-005) 15L4MW02BW	103	106	105	107	0
(B062807MVOWB1) B062807MVOWB1	100	106	107	108	0
(S062807MVOWB1) S062807MVOWB1	102	106	107	106	0

QC LIMITS

SMC1 (DBF) =	Dibromofluoromethane	85-115
SMC2 (DCA) =	1,2-Dichloroethane-d4	70-120
SMC3 (TOL) =	Toluene-d8	85-120
SMC4 (BFB) =	4-Bromofluorobenzene	75-120

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits

3B  
WATER VOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 BS Run Sequence: R019020 SDG No.: CAB30  
 BS Lab Sample ID: S062607MVOWB2  
 Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Dichlorodifluoromethane	50.0	34.91	70		30-155
Chloromethane	50.0	38.96	78		40-125
Vinyl chloride	50.0	41.69	83		50-145
Bromomethane	50.0	41.14	82		30-145
Chloroethane	50.0	40.97	82		60-135
Trichlorofluoromethane	50.0	44.6	89		60-145
1,1-Dichloroethene	50.0	54.68	109		70-130
Acetone	50.0	42.19	84		40-140
Carbon disulfide	50.0	52.84	106		35-160
Methylene chloride	50.0	46.9	94		55-140
trans-1,2-Dichloroethene	50.0	51.01	102		60-140
1,1-Dichloroethane	50.0	50.96	102		70-135
cis-1,2-Dichloroethene	50.0	49.01	98		70-125
2-Butanone	50.0	46.98	94		30-150
Chloroform	50.0	49.11	98		65-135
1,1,1-Trichloroethane	50.0	50.86	102		65-130
Carbon tetrachloride	50.0	49.55	99		65-140
Benzene	50.0	48.09	96		80-120
1,2-Dichloroethane	50.0	49.47	99		70-130
Trichloroethene	50.0	49.05	98		70-125
1,2-Dichloropropane	50.0	47.84	96		75-125
Bromodichloromethane	50.0	48.33	97		75-120
cis-1,3-Dichloropropene	50.0	55.52	111		70-130
4-Methyl-2-pentanone	50.0	46.78	94		60-135
Toluene	50.0	49.06	98		75-120
trans-1,3-Dichloropropene	50.0	44.22	88		55-140
1,1,2-Trichloroethane	50.0	47.75	96		75-125
Tetrachloroethene	50.0	49.06	98		45-150
2-Hexanone	50.0	53.54	107		55-130
Dibromochloromethane	50.0	48.93	98		60-135
Chlorobenzene	50.0	48.92	98		80-120
Ethylbenzene	50.0	48.77	98		75-125
m,p-Xylene	100	98.71	99		75-130
o-Xylene	50.0	48.19	96		80-120

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

Spike Recovery: 0 out of 37 outside limits

COMMENTS:

3B  
WATER VOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

BS Run Sequence: R019020 SDG No.: CAB30

BS Lab Sample ID: S062607MVOWB2

Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Styrene	50.0	46.92	94		65-135
Bromoform	50.0	42.29	85		70-130
1,1,2,2-Tetrachloroethane	50.0	48.74	97		65-130

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 37 outside limits

COMMENTS:

3B  
WATER VOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

BS Run Sequence: R019108 SDG No.: CAB30

BS Lab Sample ID: S062807MVOWB1

Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Dichlorodifluoromethane	50.0	26.82	54		30-155
Chloromethane	50.0	34.46	69		40-125
Vinyl chloride	50.0	36	72		50-145
Bromomethane	50.0	35.79	72		30-145
Chloroethane	50.0	34.79	70		60-135
Trichlorofluoromethane	50.0	40.01	80		60-145
1,1-Dichloroethene	50.0	56.45	113		70-130
Acetone	50.0	43.56	87		40-140
Carbon disulfide	50.0	49.03	98		35-160
Methylene chloride	50.0	50.81	102		55-140
trans-1,2-Dichloroethene	50.0	53.26	107		60-140
1,1-Dichloroethane	50.0	54.17	108		70-135
cis-1,2-Dichloroethene	50.0	51.49	103		70-125
2-Butanone	50.0	47.84	96		30-150
Chloroform	50.0	51.8	104		65-135
1,1,1-Trichloroethane	50.0	52.88	106		65-130
Carbon tetrachloride	50.0	51.37	103		65-140
Benzene	50.0	50.67	101		80-120
1,2-Dichloroethane	50.0	52.85	106		70-130
Trichloroethene	50.0	50.55	101		70-125
1,2-Dichloropropane	50.0	50.54	101		75-125
Bromodichloromethane	50.0	50.7	101		75-120
cis-1,3-Dichloropropene	50.0	58.1	116		70-130
4-Methyl-2-pentanone	50.0	48.23	96		60-135
Toluene	50.0	51.48	103		75-120
trans-1,3-Dichloropropene	50.0	45.97	92		55-140
1,1,2-Trichloroethane	50.0	48.61	97		75-125
Tetrachloroethene	50.0	50.11	100		45-150
2-Hexanone	50.0	53.02	106		55-130
Dibromochloromethane	50.0	49.35	99		60-135
Chlorobenzene	50.0	51.12	102		80-120
Ethylbenzene	50.0	51.12	102		75-125
m,p-Xylene	100	102.53	103		75-130
o-Xylene	50.0	50.19	100		80-120

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 37 outside limits

COMMENTS:

3B  
WATER VOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

BS Run Sequence: R019108 SDG No.: CAB30

BS Lab Sample ID: S062807MVOWB1

Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Styrene	50.0	48.75	98		65-135
Bromoform	50.0	42.36	85		70-130
1,1,2,2-Tetrachloroethane	50.0	50.65	101		65-130

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 37 outside limits

COMMENTS:

4  
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062607MVOWB1

Lab Name Laucks Testing Labs Contract: \_\_\_\_\_  
 SDG No.: CAB30  
 Lab File ID: B0626022.D Lab Sample ID: B062607MVOWB1  
 Date Analyzed: 06/26/2007 Time Analyzed: 18:22  
 GC Column: ZB-624 20m ID: 0.18 (mm) Heated Purge: (Y/N) N  
 Instrument ID: 5973B Matrix: Water

	CLIENT SAMPLE NO.	LAB SAMPLE ID.	LAB FILE ID.	DATE ANALYZED	TIME ANALYZED	RUN SEQUENCE
01	S062607MVOWB2	S062607MVOWB2	B0626020.D	06/26/2007	17:33	R019020
02	TRIP BLANK	CAB30-001	B0626023.D	06/26/2007	18:47	R019020
03	15L4MW01BW	CAB30-002	B0626031.D	06/26/2007	22:10	R019020
04	15L4MW01AW	CAB30-003	B0626032.D	06/26/2007	22:35	R019020
05	15L4MW04AW	CAB30-004	B0626033.D	06/26/2007	23:00	R019020
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COMMENTS: \_\_\_\_\_

4  
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062807MVOWB1

Lab Name Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB30

Lab File ID: B0628011.D

Lab Sample ID: B062807MVOWB1

Date Analyzed: 06/28/2007

Time Analyzed: 13:41

GC Column: ZB-624 20m ID: 0.18 (mm)

Heated Purge: (Y/N) N

Instrument ID: 5973B

Matrix: Water

	CLIENT SAMPLE NO.	LAB SAMPLE ID.	LAB FILE ID.	DATE ANALYZED	TIME ANALYZED	RUN SEQUENCE
01	S062807MVOWB1	S062807MVOWB1	B0628008.D	06/28/2007	12:25	R019108
02	15L4MW02BW	CAB30-005	B0628023.D	06/28/2007	18:51	R019108
03	15L4MW425W	CAB30-006	B0628024.D	06/28/2007	19:16	R019108
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COMMENTS: \_\_\_\_\_

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

BFB25NG

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: CAL948 SDG No.: CAB30  
 Lab File ID: B0604007.D BFB Injection Date: 06/04/2007  
 Instrument ID: 5973B BFB Injection Time: 10:14  
 GC Column ZB-624 20m ID: 0.18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15% to 40% of mass 95	16.6
75	30% to 60% of mass 95	43.3
95	base peak. 100% relative abundance	100
96	5% to 9% of mass 95	7.6
173	less than 2% of mass 174	0 () 1
174	greater than 50% of mass 95	97.7
175	5% to 9% of mass 17	7.4 () 1
176	greater than 95%. but less than 101% of mass 174	98.7 () 1
177	5% to 9% of mass 176	7 () 2

1 - Value is %mass 174

2 - Value is %mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD001	VSTD001	B0604009.D	06/04/2007	11:23
02	VSTD005	VSTD005	B0604011.D	06/04/2007	12:30
03	VSTD010	VSTD010	B0604012.D	06/04/2007	12:55
04	VSTD050	VSTD050	B0604013.D	06/04/2007	13:20
05	VSTD075	VSTD075	B0604014.D	06/04/2007	13:45
06	VSTD100	VSTD100	B0604015.D	06/04/2007	14:10
07	VSTD200	VSTD200	B0604016.D	06/04/2007	14:35
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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

BFBB2

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019020 SDG No.: CAB30  
 Lab File ID: B0626017.D BFB Injection Date: 06/26/2007  
 Instrument ID: 5973B BFB Injection Time: 16:12  
 GC Column ZB-624 20m ID: 0.18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15% to 40% of mass 95	17.2
75	30% to 60% of mass 95	45
95	base peak, 100% relative abundance	100
96	5% to 9% of mass 95	6.8
173	less than 2% of mass 174	0()1
174	greater than 50% of mass 95	104
175	5% to 9% of mass 17	7.2()1
176	greater than 95%. but less than 101% of mass 174	96.8()1
177	5% to 9% of mass 176	6.3()2

1 - Value is %mass 174

2 - Value is %mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050B6	VSTD050B6	B0626018.D	06/26/2007	16:37
02	S062607MVOWB2	S062607MVOWB2	B0626020.D	06/26/2007	17:33
03	B062607MVOWB1	B062607MVOWB1	B0626022.D	06/26/2007	18:22
04	TRIP BLANK	CAB30-001	B0626023.D	06/26/2007	18:47
05	15L4MW01BW	CAB30-002	B0626031.D	06/26/2007	22:10
06	15L4MW01AW	CAB30-003	B0626032.D	06/26/2007	22:35
07	15L4MW04AW	CAB30-004	B0626033.D	06/26/2007	23:00
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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROENZENE (BFB)

BFBB1

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019108 SDG No.: CAB30  
 Lab File ID: B0628006.D BFB Injection Date: 06/28/2007  
 Instrument ID: 5973B BFB Injection Time: 11:34  
 GC Column ZB-624 20m ID: 0.18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15% to 40% of mass 95	16.3
75	30% to 60% of mass 95	43.9
95	base peak, 100% relative abundance	100
96	5% to 9% of mass 95	6.7
173	less than 2% of mass 174	0 () 1
174	greater than 50% of mass 95	100
175	5% to 9% of mass 17	7.5 () 1
176	greater than 95% but less than 101% of mass 174	98.4 () 1
177	5% to 9% of mass 176	6.6 () 2

1 - Value is %mass 174

2 - Value is %mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050B1	VSTD050B1	B0628007.D	06/28/2007	11:58
02	S062807MVOWE1	S062807MVOWE1	B0628008.D	06/28/2007	12:25
03	B062807MVOWE1	B062807MVOWE1	B0628011.D	06/28/2007	13:41
04	15L4MW02BW	CAB30-005	B0628023.D	06/28/2007	18:51
05	15L4MW425W	CAB30-006	B0628024.D	06/28/2007	19:16
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## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019020 SDG No.: CAB30  
 Client Sample No. (VSTD050##): VSTD050B6 Date Analyzed: 06/26/2007  
 Lab File ID (Standard): B0626018.D Time Analyzed: 16:37  
 Instrument ID: 5973B Heated Purge: (Y/N) N  
 GC Column: ZB-624 20m ID: 0.18 (mm)

	IS1 (FBZ) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	604328	6.24	451357	9.42	236928	11.73
UPPER LIMIT	1208656	6.74	902714	9.92	473856	12.23
LOWER LIMIT	302164	5.74	225678.5	8.92	118464	11.23
CLIENT SAMPLE NO.						
01 S062607MVOWB2	576172	6.24	433766	9.42	229054	11.73
02 B062607MVOWB1	600255	6.24	446298	9.42	234498	11.73
03 TRIP BLANK	612524	6.24	447174	9.42	229795	11.73
04 15L4MW01BW	583027	6.24	440057	9.42	246502	11.73
05 15L4MW01AW	583739	6.24	438382	9.42	235354	11.73
06 15L4MW04AW	580329	6.24	433498	9.42	226815	11.73
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IS1 (FBZ) = Fluorobenzene  
 IS2 (CBZ) = Chlorobenzene-d5  
 IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area  
 AREA LOWER LIMIT = - 50% of internal standard area  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019108 SDG No.: CAB30  
 Client Sample No. (VSTD050##): VSTD050B1 Date Analyzed: 06/28/2007  
 Lab File ID (Standard): B0628007.D Time Analyzed: 11:58  
 Instrument ID: 5973B Heated Purge: (Y/N) N  
 GC Column: ZB-624 20m ID: 0.18 (mm)

	IS1 (FBZ) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	602968	6.24	446383	9.42	241161	11.74
UPPER LIMIT	1205936	6.74	892766	9.92	482322	12.24
LOWER LIMIT	301484	5.74	223191.5	8.92	120580.5	11.24
CLIENT SAMPLE NO.						
01 S062807MVOWB1	588603	6.24	441939	9.42	237818	11.73
02 B062807MVOWB1	592244	6.24	435738	9.42	224470	11.73
03 15L4MW02BW	562940	6.24	423152	9.42	224927	11.73
04 15L4MW425W	581768	6.24	429390	9.42	224158	11.73
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IS1 (FBZ) = Fluorobenzene  
 IS2 (CBZ) = Chlorobenzene-d5  
 IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area  
 AREA LOWER LIMIT = - 50% of internal standard area  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: \_\_\_\_\_ Contract: \_\_\_\_\_  
 SDG No.: CAB30 Run Sequence: R019020  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: CAB30-001  
 Sample wt/vol: 5.00 (g/mL) mL Lab File ID: B0626023.D  
 Level: (LOW/MED) \_\_\_\_\_ Date Collected: 06/19/2007  
 % Moisture: not dec. \_\_\_\_\_ Date/Time Analyzed: 06/26/2007 18:47  
 GC Column: ZB-624 20m ID: 0.18 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_(uL) Soil Aliquot Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB30

Run Sequence: R019020

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: CAB30-001

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0626023.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/19/2007

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/26/2007 18:47

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW01BW

Lab Name: \_\_\_\_\_ Contract: \_\_\_\_\_  
 SDG No.: CAB30 Run Sequence: R019020  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: CAB30-002  
 Sample wt/vol: 5.00 (g/mL) mL Lab File ID: B0626031.D  
 Level: (LOW/MED) \_\_\_\_\_ Date Collected: 06/19/2007  
 % Moisture: not dec. \_\_\_\_\_ Date/Time Analyzed: 06/26/2007 22:10  
 GC Column: ZB-624 20m ID: 0.18 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_(uL) Soil Aliquot Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW01BW

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB30

Run Sequence: R019020

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: CAB30-002

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0626031.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/19/2007

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/26/2007 22:10

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_(uL)

Soil Aliquot Volume: \_\_\_\_\_(uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	<u>ug/L</u>
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:



1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW01AW

Lab Name: \_\_\_\_\_  
 SDG No.: CAB30  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: CAB30-003  
 Lab File ID: B0626032.D  
 Date Collected: 06/19/2007  
 Date/Time Analyzed: 06/26/2007 22:35  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW01AW

Lab Name: \_\_\_\_\_  
 SDG No.: CAB30  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: CAB30-003  
 Lab File ID: B0626032.D  
 Date Collected: 06/19/2007  
 Date/Time Analyzed: 06/26/2007 22:35  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW04AW

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB30

Run Sequence: R019020

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: CAB30-004

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0626033.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/19/2007

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/26/2007 23:00

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
75-71-8	Dichlorodifluoromethane	1.0		U
74-87-3	Chloromethane	1.0		U
75-01-4	Vinyl chloride	1.0		U
74-83-9	Bromomethane	1.0		U
75-00-3	Chloroethane	1.0		U
75-69-4	Trichlorofluoromethane	1.0		U
75-35-4	1,1-Dichloroethene	1.0		U
67-64-1	Acetone	5.0		U
75-15-0	Carbon disulfide	1.0		U
75-09-2	Methylene chloride	1.0		U
156-60-5	trans-1,2-Dichloroethene	1.0		U
75-34-3	1,1-Dichloroethane	1.0		U
156-59-2	cis-1,2-Dichloroethene	1.0		U
78-93-3	2-Butanone	5.0		U
67-66-3	Chloroform	1.0		U
71-55-6	1,1,1-Trichloroethane	1.0		U
56-23-5	Carbon tetrachloride	1.0		U
71-43-2	Benzene	1.0		U
107-06-2	1,2-Dichloroethane	1.0		U
79-01-6	Trichloroethene	1.0		U
78-87-5	1,2-Dichloropropane	1.0		U
75-27-4	Bromodichloromethane	1.0		U
10061-01-	cis-1,3-Dichloropropene	1.0		U
108-10-1	4-Methyl-2-pentanone	5.0		U
108-88-3	Toluene	1.0		U
10061-02-	trans-1,3-Dichloropropene	1.0		U
79-00-5	1,1,2-Trichloroethane	1.0		U
127-18-4	Tetrachloroethene	1.0		U
591-78-6	2-Hexanone	5.0		U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW04AW

Lab Name: \_\_\_\_\_  
 SDG No.: CAB30  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: CAB30-004  
 Lab File ID: B0626033.D  
 Date Collected: 06/19/2007  
 Date/Time Analyzed: 06/26/2007 23:00  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW02BW

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB30

Run Sequence: R019108

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: CAB30-005

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0628023.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/19/2007

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/28/2007 18:51

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	80	
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	17	
67-64-1	Acetone	3.2	J
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	33	
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	2.0	J
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	51	
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	0.65	J
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW02BW

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB30

Run Sequence: R019108

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: CAB30-005

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0628023.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/19/2007

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/28/2007 18:51

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_(uL)

Soil Aliquot Volume: \_\_\_\_\_(uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.51	J

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW425W

Lab Name: \_\_\_\_\_ Contract: \_\_\_\_\_  
 SDG No.: CAB30 Run Sequence: R019108  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: CAB30-006  
 Sample wt/vol: 5.00 (g/mL) mL Lab File ID: B0628024.D  
 Level: (LOW/MED) \_\_\_\_\_ Date Collected: 06/19/2007  
 % Moisture: not dec. \_\_\_\_\_ Date/Time Analyzed: 06/28/2007 19:16  
 GC Column: ZB-624 20m ID: 0.18 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	69	
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	15	
67-64-1	Acetone	3.1	J
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	32	
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	1.8	J
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	50	
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	0.64	J
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW425W

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB30

Run Sequence: R019108

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: CAB30-006

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0628024.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/19/2007

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/28/2007 19:16

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_(uL)

Soil Aliquot Volume: \_\_\_\_\_(uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	0.52	J

Comments:



## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019020SDG No.: CAB30Instrument ID: 5973BCalibration Dates: 06/04/200714:35Heated Purge: (Y/N) NCalibration Times: 06/04/200714:35GC Column: ZB-624 20m ID: 0.15 (mm) Mean % RSD: 6.70

Analyte	Std 1	RF 1	Std 2	RF 2	Std 3	RF 3	Std 4	RF 4	Std 5	RF 5	Std 6	RF 6	Std 7	RF 7	Std 8	RF 8	RF	%RSD	R <sup>2</sup> COD	Eq Ty
Dichlorodifluoromethane	1	1.010E-01	5	1.160E-01	10	1.150E-01	50	1.470E-01	75	1.480E-01	100	1.310E-01	200	1.500E-01			0.130	15.09		A
Chloromethane	1	2.630E-01	5	2.840E-01	10	2.610E-01	50	2.829E-01	75	2.809E-01	100	2.640E-01	200	2.870E-01			0.274	4.19		A
Vinyl chloride	1	2.330E-01	5	2.490E-01	10	2.370E-01	50	2.630E-01	75	2.630E-01	100	2.389E-01	200	2.590E-01			0.249	5.23		A
Bromomethane	1	1.949E-01	5	1.680E-01	10	1.490E-01	50	1.580E-01	75	1.680E-01	100	1.540E-01	200	1.540E-01			0.164	9.54		A
Chloroethane	1	1.750E-01	5	1.680E-01	10	1.630E-01	50	1.610E-01	75	1.640E-01	100	1.420E-01	200	1.540E-01			0.161	6.54		A
Trichlorofluoromethane	1	2.649E-01	5	2.980E-01	10	2.700E-01	50	3.199E-01	75	3.150E-01	100	2.790E-01	200	2.980E-01			0.292	7.28		A
1,1-Dichloroethene	1	1.570E-01	5	1.949E-01	10	1.620E-01	50	1.959E-01	75	1.930E-01	100	1.690E-01	200	1.770E-01			0.178	9.17		A
Acetone	1	1.560E-01	5	1.320E-01	10	1.160E-01	50	1.250E-01	75	1.170E-01	100	1.140E-01	200	1.040E-01			0.123	13.72		A
Carbon disulfide	1	5.680E-01	5	6.579E-01	10	6.129E-01	50	7.969E-01	75	8.090E-01	100	7.160E-01	200	7.300E-01			0.699	12.94	1.000	Q
Methylene chloride	1	1.001E+00	5	3.170E-01	10	2.579E-01	50	2.640E-01	75	2.720E-01	100	2.590E-01	200	2.490E-01			0.374			A
trans-1,2-Dichloroethene	1	2.300E-01	5	2.780E-01	10	2.410E-01	50	2.739E-01	75	2.599E-01	100	2.410E-01	200	2.420E-01			0.252	7.38		A
1,1-Dichloroethane	1	4.560E-01	5	4.900E-01	10	4.400E-01	50	4.990E-01	75	4.740E-01	100	4.480E-01	200	4.460E-01			0.465	5.00		A
cis-1,2-Dichloroethene	1	2.829E-01	5	3.059E-01	10	2.619E-01	50	2.980E-01	75	2.879E-01	100	2.669E-01	200	2.720E-01			0.282	5.75		A
2-Butanone	1	2.480E-01	5	1.879E-01	10	1.940E-01	50	2.169E-01	75	2.110E-01	100	2.080E-01	200	1.930E-01			0.208	9.77		A
Chloroform	1	4.639E-01	5	4.819E-01	10	4.219E-01	50	4.720E-01	75	4.569E-01	100	4.280E-01	200	4.309E-01			0.451	5.26		A
1,1,1-Trichloroethane	1	3.129E-01	5	3.840E-01	10	3.300E-01	50	3.849E-01	75	3.590E-01	100	3.280E-01	200	3.290E-01			0.347	8.36		A
Carbon tetrachloride	1	2.579E-01	5	3.440E-01	10	2.850E-01	50	3.490E-01	75	3.240E-01	100	2.920E-01	200	2.969E-01			0.307	10.82		A
Benzene	1	1.070E+00	5	1.184E+00	10	1.026E+00	50	1.172E+00	75	1.113E+00	100	1.051E+00	200	1.054E+00			1.096	5.66		A
1,2-Dichloroethane	1	3.499E-01	5	3.600E-01	10	3.319E-01	50	3.600E-01	75	3.540E-01	100	3.400E-01	200	3.370E-01			0.347	3.29		A
Trichloroethene	1	2.809E-01	5	3.240E-01	10	2.780E-01	50	3.230E-01	75	3.059E-01	100	2.850E-01	200	2.910E-01			0.298	6.51		A
1,2-Dichloropropane	1	2.750E-01	5	2.890E-01	10	2.590E-01	50	2.899E-01	75	2.800E-01	100	2.680E-01	200	2.649E-01			0.275	4.28		A
Bromodichloromethane	1	3.389E-01	5	3.510E-01	10	3.269E-01	50	3.670E-01	75	3.580E-01	100	3.440E-01	200	3.440E-01			0.347	3.81		A
cis-1,3-Dichloropropene	1	3.750E-01	5	3.880E-01	10	3.610E-01	50	4.199E-01	75	4.070E-01	100	3.919E-01	200	3.910E-01			0.391	4.95		A
4-Methyl-2-pentanone	1	5.720E-01	5	4.149E-01	10	3.930E-01	50	4.269E-01	75	4.219E-01	100	4.100E-01	200	3.939E-01			0.433	14.48		A

Eq Ty = Equation Type  
Q=Quadratic, L=Linear, A=Average

\* SPCCs #

SUM - 27

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019020 SDG No.: CAB30  
 Instrument ID: 5973B Calibration Dates: 06/04/2007 14:35  
 Heated Purge: (Y/N) N Calibration Times: 06/04/2007 14:35  
 GC Column: ZB-624 20m ID: \_\_\_\_\_ Mean % RSD: 6.70  
 0.1E (mm)

Analyte	Std	RF 1	Std	RF 2	Std	RF 3	Std	RF 4	Std	RF 5	Std	RF 6	Std	RF 7	Std	RF 8	RF	%RSD	x <sup>2</sup> COD	Eq Ty
Toluene	1	8.470E-01	5	9.840E-01	10	8.399E-01	50	9.940E-01	75	9.279E-01	100	8.790E-01	200	8.909E-01	0.909	6.83			A	
trans-1,3-Dichloropropene	1	5.899E-01	5	6.160E-01	10	5.630E-01	50	6.510E-01	75	6.309E-01	100	6.169E-01	200	6.250E-01	0.614	4.69			A	
1,1,2-Trichloroethane	1	3.650E-01	5	3.709E-01	10	3.350E-01	50	3.700E-01	75	3.600E-01	100	3.510E-01	200	3.520E-01	0.358	3.59			A	
Tetrachloroethene	1	3.980E-01	5	4.740E-01	10	3.980E-01	50	4.799E-01	75	4.410E-01	100	4.110E-01	200	4.320E-01	0.433	7.78			A	
2-Hexanone	1	3.890E-01	5	3.800E-01	10	3.610E-01	50	4.239E-01	75	4.170E-01	100	4.100E-01	200	4.000E-01	0.397	5.60			A	
Dibromochloromethane	1	3.450E-01	5	3.960E-01	10	3.540E-01	50	4.170E-01	75	4.079E-01	100	3.989E-01	200	4.030E-01	0.389	7.13			A	
Chlorobenzene	1	1.010E+00	5	1.066E+00	10	9.359E-01	50	1.072E+00	75	1.031E+00	100	9.940E-01	200	1.005E+00	1.016	4.55			A	
Ethylbenzene	1	1.562E+00	5	1.779E+00	10	1.561E+00	50	1.823E+00	75	1.723E+00	100	1.644E+00	200	1.670E+00	1.680	6.03			A	
m,p-Xylene	2	6.169E-01	10	7.080E-01	20	6.160E-01	100	7.210E-01	150	6.850E-01	200	6.510E-01	400	6.570E-01	0.665	6.24			A	
o-Xylene	1	6.280E-01	5	6.740E-01	10	6.119E-01	50	6.970E-01	75	6.679E-01	100	6.430E-01	200	6.470E-01	0.653	4.48			A	
Styrene	1	1.115E+00	5	1.186E+00	10	1.082E+00	50	1.240E+00	75	1.206E+00	100	1.164E+00	200	1.172E+00	1.167	4.57			A	
Bromoform	1	3.400E-01	5	3.400E-01	10	3.089E-01	50	3.580E-01	75	3.610E-01	100	3.569E-01	200	3.660E-01	0.347	5.67			A	
1,1,2,2-Tetrachloroethane	1	8.930E-01	5	9.409E-01	10	8.909E-01	50	9.620E-01	75	9.639E-01	100	9.540E-01	200	9.380E-01	0.935	3.29			A	
Dibromofluoromethane	50	2.540E-01	55	2.460E-01	60	2.480E-01	65	2.389E-01	70	2.460E-01	75	2.399E-01	80	2.380E-01	0.245	2.32			A	
1,2-Dichloroethane-d4	50	2.640E-01	55	2.619E-01	60	2.599E-01	65	2.550E-01	70	2.619E-01	75	2.550E-01	80	2.520E-01	0.258	1.79			A	
Toluene-d8	50	1.206E+00	55	1.220E+00	60	1.201E+00	65	1.215E+00	70	1.209E+00	75	1.192E+00	80	1.195E+00	1.206	0.84			A	
4-Bromofluorobenzene	50	8.450E-01	55	8.290E-01	60	8.309E-01	65	8.100E-01	70	8.290E-01	75	8.259E-01	80	8.150E-01	0.827	1.37			A	

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average  
 \* SPCCs #

**INITIAL  
SECOND SOURCE CALIBRATION VERIFICATION**

Lab Name: Laucks Testing Laboratories, Inc.

Initial Calibration ID: B8260W-060407

Instrument ID: 5973B

Concentration Units: ug/L

2nd Source ID: ICV060607MVOB1

Analyte	Equation Type	Expected	Found	%D
1,1,1,2-Tetrachloroethane	A	50.00	49.24	1.52
1,1,1-Trichloroethane	A	50.00	53.79	7.58
1,1,2,2-Tetrachloroethane	A	50.00	50.09	0.18
1,1,2-Trichloroethane	A	50.00	49.57	0.86
1,1-Dichloroethane	A	50.00	54.42	8.84
1,1-Dichloroethene	A	50.00	61.74	23.48
1,1-Dichloropropene	A	50.00	56.82	13.64
1,2,3-Trichlorobenzene	A	50.00	55.01	10.02
1,2,3-Trichloropropane	A	50.00	47.73	4.54
1,2,4-Trichlorobenzene	A	50.00	54.31	8.62
1,2,4-Trimethylbenzene	A	50.00	50.47	0.94
1,2-Dibromo-3-chloropropane	A	50.00	49.81	0.38
1,2-Dibromoethane	A	50.00	50.86	1.72
1,2-Dichlorobenzene	A	50.00	51.04	2.08
1,2-Dichloroethane	A	50.00	51.85	3.70
1,2-Dichloroethane-d4	A	50.00	50.27	0.54
1,2-Dichloropropane	A	50.00	50.72	1.44
1,3,5-Trimethylbenzene	A	50.00	49.94	0.12
1,3-Dichlorobenzene	A	50.00	50.64	1.28
1,3-Dichloropropane	A	50.00	49.61	0.78
1,4-Dichlorobenzene	A	50.00	51.11	2.22
1-Chlorohexane	A	50.00	54.76	9.52
2,2-Dichloropropane	A	50.00	51.18	2.36
2-Butanone	A	50.00	51.05	2.10
2-Chlorotoluene	A	50.00	49.94	0.12
2-Hexanone	A	50.00	51.14	2.28
4-Bromofluorobenzene	A	50.00	49.38	1.24
4-Chlorotoluene	A	50.00	50.00	0.00
4-Isopropyltoluene	A	50.00	52.39	4.78
4-Methyl-2-pentanone	A	50.00	49.24	1.52
Acetone	A	50.00	50.13	0.26
Benzene	A	50.00	51.60	3.20
Bromobenzene	A	50.00	48.39	3.22
Bromochloromethane	A	50.00	51.68	3.36
Bromodichloromethane	A	50.00	51.67	3.34
Bromoform	A	50.00	48.24	3.52
Bromomethane	A	50.00	40.01	19.98
Carbon disulfide	A	50.00	52.03	4.06
Carbon tetrachloride	A	50.00	53.74	7.48
Chlorobenzene	A	50.00	51.66	3.32
Chloroethane	A	50.00	41.80	16.40
Chloroform	A	50.00	52.51	5.02
Chloromethane	A	50.00	42.42	15.16

**INITIAL  
SECOND SOURCE CALIBRATION VERIFICATION**

Lab Name: Laucks Testing Laboratories, Inc.

Initial Calibration ID: B8260W-060407

Instrument ID: 5973B

Concentration Units: ug/L

2nd Source ID: ICV060607MVOB1

Analyte	Equation Type	Expected	Found	%D
cis-1,2-Dichloroethene	A	50.00	53.73	7.46
cis-1,3-Dichloropropene	A	50.00	59.33	18.66
Dibromochloromethane	A	50.00	52.66	5.32
Dibromofluoromethane	A	50.00	51.50	3.00
Dibromomethane	A	50.00	51.58	3.16
Dichlorodifluoromethane	A	50.00	40.14	19.72
Ethyl-t-Butyl Ether(ETBE)	A	50.00	53.27	6.54
Ethylbenzene	A	50.00	50.70	1.40
Hexachlorobutadiene	A	50.00	54.04	8.08
Isopropyl ether	A	50.00	51.97	3.94
Isopropylbenzene	A	50.00	51.78	3.56
m,p-Xylene	A	100.00	103.37	3.37
Methyl tert-butyl ether	A	50.00	56.55	13.10
Methylene chloride	Q	50.00	52.82	5.64
n-Butylbenzene	A	50.00	51.86	3.72
n-Propylbenzene	A	50.00	51.48	2.96
Naphthalene	A	50.00	54.73	9.46
o-Xylene	A	50.00	51.09	2.18
sec-Butylbenzene	A	50.00	53.45	6.90
Styrene	A	50.00	50.33	0.66
t-Amyl Methyl Ether(TAME)	A	50.00	52.66	5.32
t-Butyl Alcohol	A	500.00	565.69	13.14
tert-Butylbenzene	A	50.00	51.42	2.84
Tetrachloroethene	A	50.00	51.86	3.72
Toluene	A	50.00	50.75	1.50
Toluene-d8	A	50.00	51.28	2.56
trans-1,2-Dichloroethene	A	50.00	55.58	11.16
trans-1,3-Dichloropropene	A	50.00	45.29	9.42
Trichloroethene	A	50.00	53.18	6.36
Trichlorofluoromethane	A	50.00	42.86	14.28
Vinyl chloride	A	50.00	45.14	9.72

Q=Quadratic, L=Linear, A=Average

7  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs  
 Run Sequence: R019020  
 Instrument ID: 5973B  
 Lab File ID: B0626018.D  
 Client Sample No.: VSTD050B6  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 SDG No.: CAB30  
 Calibration Date: 06/26/2007 Time: 16:37  
 Init. Calib. Date(s): 06/04/2007  
 Init. Calib. Time(s): 10:14  
 GC Column: ZB-624 20m ID: 0.18 (mm)

Compound	Equation Type	RF 50.0	%D	%Drift
Dichlorodifluoromethane	A	0.095	26.65*	
Chloromethane	A	0.220	19.75	
Vinyl chloride	A	0.205	17.55	
Bromomethane	A	0.132	19.77	
Chloroethane	A	0.141	12.73	
Trichlorofluoromethane	A	0.256	12.32	
1,1-Dichloroethene	A	0.165	7.55	
Acetone	A	0.110	10.83	
Carbon disulfide	A	0.567	18.85	
Methylene chloride	Q	0.255		-5.80
trans-1,2-Dichloroethene	A	0.236	6.29	
1,1-Dichloroethane	A	0.445	4.31	
cis-1,2-Dichloroethene	A	0.260	7.84	
2-Butanone	A	0.216	-3.61	
Chloroform	A	0.432	4.28	
1,1,1-Trichloroethane	A	0.328	5.58	
Carbon tetrachloride	A	0.281	8.34	
Benzene	A	1.029	6.09	
1,2-Dichloroethane	A	0.342	1.50	
Trichloroethene	A	0.281	5.56	
1,2-Dichloropropane	A	0.258	6.17	
Bromodichloromethane	A	0.324	6.58	
cis-1,3-Dichloropropene	A	0.367	6.18	
4-Methyl-2-pentanone	A	0.427	1.28	
Toluene	A	0.885	2.59	
trans-1,3-Dichloropropene	A	0.598	2.65	
1,1,2-Trichloroethane	A	0.346	3.45	
Tetrachloroethene	A	0.418	3.36	
2-Hexanone	A	0.441	-11.20	
Dibromochloromethane	A	0.363	6.70	
Chlorobenzene	A	0.961	5.45	
Ethylbenzene	A	1.638	2.47	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019020SDG No.: CAB30Instrument ID: 5973BCalibration Date: 06/26/2007 Time: 16:37Lab File ID: B0626018.DInit. Calib. Date(s): 06/04/2007Client Sample No.: VSTD050B6Init. Calib. Time(s): 10:14Heated Purge: (Y/N) NGC Column: ZB-624 20m ID: 0.18 (mm)

Compound	Equation Type	RF 50.0	%D	%Drift
m,p-Xylene	A	0.642	3.49	
o-Xylene	A	0.611	6.43	
Styrene	A	1.095	6.16	
Bromoform	A	0.296	14.81	
1,1,2,2-Tetrachloroethane	A	0.916	1.99	
Dibromofluoromethane	A	0.225	8.11	
1,2-Dichloroethane-d4	A	0.243	5.75	
Toluene-d8	A	1.148	4.77	
4-Bromofluorobenzene	A	0.792	4.28	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019108SDG No.: CAB30Instrument ID: 5973BCalibration Date: 06/28/2007 Time: 11:58Lab File ID: B0628007.DInit. Calib. Date(s): 06/04/2007Client Sample No.: VSTD050B1Init. Calib. Time(s): 10:14Heated Purge: (Y/N) NGC Column: ZB-624 20m ID: 0.18 (mm)

Compound	Equation Type	RF 50.0	%D	%Drift
Dichlorodifluoromethane	A	0.120	7.72	
Chloromethane	A	0.244	10.98	
Vinyl chloride	A	0.218	12.47	
Bromomethane	A	0.131	19.97	
Chloroethane	A	0.145	9.70	
Trichlorofluoromethane	A	0.273	6.40	
1,1-Dichloroethene	A	0.159	10.93	
Acetone	A	0.137	-11.70	
Carbon disulfide	A	0.573	18.02	
Methylene chloride	Q	0.239		-12.04
trans-1,2-Dichloroethene	A	0.229	9.19	
1,1-Dichloroethane	A	0.443	4.79	
cis-1,2-Dichloroethene	A	0.254	10.03	
2-Butanone	A	0.230	-10.59	
Chloroform	A	0.422	6.34	
1,1,1-Trichloroethane	A	0.320	7.69	
Carbon tetrachloride	A	0.273	10.97	
Benzene	A	1.013	7.61	
1,2-Dichloroethane	A	0.337	3.01	
Trichloroethene	A	0.274	7.89	
1,2-Dichloropropane	A	0.258	6.12	
Bromodichloromethane	A	0.315	9.15	
cis-1,3-Dichloropropene	A	0.358	8.42	
4-Methyl-2-pentanone	A	0.437	-1.04	
Toluene	A	0.879	3.35	
trans-1,3-Dichloropropene	A	0.584	4.90	
1,1,2-Trichloroethane	A	0.337	5.91	
Tetrachloroethene	A	0.408	5.85	
2-Hexanone	A	0.447	-12.67	
Dibromochloromethane	A	0.345	11.20	
Chlorobenzene	A	0.947	6.82	
Ethylbenzene	A	1.623	3.42	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019108 SDG No.: CAB30  
 Instrument ID: 5973B Calibration Date: 06/28/2007 Time: 11:58  
 Lab File ID: B0628007.D Init. Calib. Date(s): 06/04/2007  
 Client Sample No.: VSTD050B1 Init. Calib. Time(s): 10:14  
 Heated Purge: (Y/N) N GC Column: ZB-624 20m ID: 0.18 (mm)

Compound	Equation Type	RF 50.0	%D	%Drift
m,p-Xylene	A	0.630	5.22	
o-Xylene	A	0.606	7.13	
Styrene	A	1.082	7.28	
Bromoform	A	0.280	19.33	
1,1,2,2-Tetrachloroethane	A	0.900	3.73	
Dibromofluoromethane	A	0.253	-3.37	
1,2-Dichloroethane-d4	A	0.281	-8.98	
Toluene-d8	A	1.302	-7.96	
4-Bromofluorobenzene	A	0.893	-7.93	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured



1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607MVOWB1

Lab Name: \_\_\_\_\_  
 SDG No.: CAB30  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: B062607MVOWB1  
 Lab File ID: B0626022.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/26/2007 18:22  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607MVOWB1

Lab Name: \_\_\_\_\_  
 SDG No.: CAB30  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: B062607MVOWB1  
 Lab File ID: B0626022.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/26/2007 18:22  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
124-48-1	Dibromochloromethane	1.0		U
108-90-7	Chlorobenzene	1.0		U
100-41-4	Ethylbenzene	1.0		U
179601-23	m,p-Xylene	2.0		U
95-47-6	o-Xylene	1.0		U
100-42-5	Styrene	1.0		U
75-25-2	Bromoform	1.0		U
79-34-5	1,1,2,2-Tetrachloroethane	1.0		U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062807MVOWB1

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB30

Run Sequence: R019108

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: B062807MVOWB1

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0628011.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/28/2007 13:41

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 1000 (uL)

Soil Aliquot Volume: 5000 (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062807MVOWB1

Lab Name: \_\_\_\_\_  
 SDG No.: CAB30  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: 1000 (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: B062807MVOWB1  
 Lab File ID: B0628011.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/28/2007 13:41  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: 5000 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	<u>ug/L</u>	
124-48-1	Dibromochloromethane	1.0		U
108-90-7	Chlorobenzene	1.0		U
100-41-4	Ethylbenzene	1.0		U
179601-23	m,p-Xylene	2.0		U
95-47-6	o-Xylene	1.0		U
100-42-5	Styrene	1.0		U
75-25-2	Bromoform	1.0		U
79-34-5	1,1,2,2-Tetrachloroethane	1.0		U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607MVOWB2

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB30

Run Sequence: R019020

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: S062607MVOWB2

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0626020.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/26/2007 17:33

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_(uL)

Soil Aliquot Volume: \_\_\_\_\_(uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	35	
74-87-3	Chloromethane	39	
75-01-4	Vinyl chloride	42	
74-83-9	Bromomethane	41	
75-00-3	Chloroethane	41	
75-69-4	Trichlorofluoromethane	45	
75-35-4	1,1-Dichloroethene	55	
67-64-1	Acetone	42	
75-15-0	Carbon disulfide	53	
75-09-2	Methylene chloride	47	
156-60-5	trans-1,2-Dichloroethene	51	
75-34-3	1,1-Dichloroethane	51	
156-59-2	cis-1,2-Dichloroethene	49	
78-93-3	2-Butanone	47	
67-66-3	Chloroform	49	
71-55-6	1,1,1-Trichloroethane	51	
56-23-5	Carbon tetrachloride	50	
71-43-2	Benzene	48	
107-06-2	1,2-Dichloroethane	49	
79-01-6	Trichloroethene	49	
78-87-5	1,2-Dichloropropane	48	
75-27-4	Bromodichloromethane	48	
10061-01-	cis-1,3-Dichloropropene	56	
108-10-1	4-Methyl-2-pentanone	47	
108-88-3	Toluene	49	
10061-02-	trans-1,3-Dichloropropene	44	
79-00-5	1,1,2-Trichloroethane	48	
127-18-4	Tetrachloroethene	49	
591-78-6	2-Hexanone	54	

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607MVOWB2

Lab Name: \_\_\_\_\_  
 SDG No.: CAB30  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: S062607MVOWB2  
 Lab File ID: B0626020.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/26/2007 17:33  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	<u>ug/L</u>	
124-48-1	Dibromochloromethane		49	
108-90-7	Chlorobenzene		49	
100-41-4	Ethylbenzene		49	
179601-23	m,p-Xylene		99	
95-47-6	o-Xylene		48	
100-42-5	Styrene		47	
75-25-2	Bromoform		42	
79-34-5	1,1,2,2-Tetrachloroethane		49	

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062807MVOWB1

Lab Name: \_\_\_\_\_  
 SDG No.: CAB30  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: 1000 (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: S062807MVOWB1  
 Lab File ID: B0628008.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/28/2007 12:25  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: 5000 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	27	
74-87-3	Chloromethane	34	
75-01-4	Vinyl chloride	36	
74-83-9	Bromomethane	36	
75-00-3	Chloroethane	35	
75-69-4	Trichlorofluoromethane	40	
75-35-4	1,1-Dichloroethene	56	
67-64-1	Acetone	44	
75-15-0	Carbon disulfide	49	
75-09-2	Methylene chloride	51	
156-60-5	trans-1,2-Dichloroethene	53	
75-34-3	1,1-Dichloroethane	54	
156-59-2	cis-1,2-Dichloroethene	51	
78-93-3	2-Butanone	48	
67-66-3	Chloroform	52	
71-55-6	1,1,1-Trichloroethane	53	
56-23-5	Carbon tetrachloride	51	
71-43-2	Benzene	51	
107-06-2	1,2-Dichloroethane	53	
79-01-6	Trichloroethene	51	
78-87-5	1,2-Dichloropropane	51	
75-27-4	Bromodichloromethane	51	
10061-01-	cis-1,3-Dichloropropene	58	
108-10-1	4-Methyl-2-pentanone	48	
108-88-3	Toluene	51	
10061-02-	trans-1,3-Dichloropropene	46	
79-00-5	1,1,2-Trichloroethane	49	
127-18-4	Tetrachloroethene	50	
591-78-6	2-Hexanone	53	

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062807MVOWB1

Lab Name: \_\_\_\_\_ Contract: \_\_\_\_\_  
 SDG No.: CAB30 Run Sequence: R019108  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: S062807MVOWB1  
 Sample wt/vol: 5.00 (g/mL) mL Lab File ID: B0628008.D  
 Level: (LOW/MED) \_\_\_\_\_ Date Collected: \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_ Date/Time Analyzed: 06/28/2007 12:25  
 GC Column: ZB-624 20m ID: 0.18 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: 1000 (uL) Soil Aliquot Volume: 5000 (uL)  
 Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	<u>ug/L</u>	
124-48-1	Dibromochloromethane		49	
108-90-7	Chlorobenzene		51	
100-41-4	Ethylbenzene		51	
179601-23	m,p-Xylene		100	
95-47-6	o-Xylene		50	
100-42-5	Styrene		49	
75-25-2	Bromoform		42	
79-34-5	1,1,2,2-Tetrachloroethane		51	

Comments:



# **Forms Summary**

CAB30

Ordinance by Method 8330

2  
WATER ORDINANCE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB30

Run Sequence: R019636

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (DNT) #	S2 ( ) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB30-009) 15L4MW425W	74				0
(CAB30-008) 15L4MW02BW	99				0
(CAB30-007) 15L4MW04AW	83				0
(CAB30-009DL) 15L4MW425W-DL	74				0
(CAB30-008DL) 15L4MW02BW-DL	100				0
(CAB30-003) 15L4MW01AW	88				0
(CAB30-002) 15L4MW01BW	98				0
(S062607HORWLG) S062607HORWLG	119				0
(B062607HORWLG) B062607HORWLG	80				0

QC LIMITS  
60-140

S1 (DNT) = 3,4-Dinitrotoluene  
S2 ( ) =  
S3 ( ) =  
S4 ( ) =

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits

3B  
WATER ORDNANCE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

BS Run Sequence: R019636 SDG No.: CAB30

BS Lab Sample ID: S062607HORWLG

Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
HMX	20.0	21.0228	105		80-115
RDX	20.0	21.5036	108		50-160
1,3,5-Trinitrobenzene	20.0	17.5962	88		65-140
1,3-Dinitrobenzene	20.0	17.771	89		45-160
Nitrobenzene	20.0	17.8355	89		50-140
Tetryl	20.0	16.0464	80		20-175
2,4,6-Trinitrotoluene	20.0	18.691	93		50-145
4-Amino-2,6-dinitrotoluene	20.0	17.92	90		55-155
2-Amino-4,6-dinitrotoluene	20.0	17.8793	89		50-155
2,6-Dinitrotoluene	20.0	16.1231	81		60-135
2,4-Dinitrotoluene	20.0	16.4553	82		60-135
2-Nitrotoluene	20.0	14.9209	75		45-135
4-Nitrotoluene	20.0	15.4368	77		50-130
3-Nitrotoluene	20.0	14.7105	74		50-130

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS:

ORDNANCE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062607HORWLG

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B062607HORWLG SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water Date Prepared: 06/26/2007  
 Lab File ID (1): O62807.b-O6280704.D Lab File ID (2): F71207A.b-F7120751.D  
 Date Analyzed (1): 06/28/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 13:19 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HPLC5 (Oscar) Instrument ID (2): HPLC5 (Oscar)  
 Column(1): Allure C18 ID: 4.60 (mm) Column(2): Synergi - EtPH ID: 4.60 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
15L4MW01BW	CAB30-002	1	O6280707.D	06/28/2007 15:19	R019636
		2			
15L4MW01AW	CAB30-003	1	O6280708.D	06/28/2007 15:59	R019636
		2			
15L4MW04AW	CAB30-007	1	O6280709.D	06/28/2007 16:39	R019636
		2	F7120754.D	07/13/2007 19:56	R019636
15L4MW02BW	CAB30-008	1	O6280710.D	06/28/2007 17:19	R019636
		2	F7120756.D	07/13/2007 21:12	R019636
15L4MW425W	CAB30-009	1	O6280711.D	06/28/2007 17:59	R019636
		2	F7120758.D	07/13/2007 22:28	R019636
S062607HORWLG	S062607HORWLG	1	O6280705.D	06/28/2007 13:59	R019636
		2	F7120752.D	07/13/2007 18:40	R019636
15L4MW02BW-DL	CAB30-008DL	1	O7100742.D	07/11/2007 12:29	R019636
		2	F7120755.D	07/13/2007 20:34	R019636
15L4MW425W-DL	CAB30-009DL	1	O7100743.D	07/11/2007 13:09	R019636
		2	F7120757.D	07/13/2007 21:50	R019636

COMMENTS:

\_\_\_\_\_

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW01BW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB30-002  
 Lab File ID: O6280707.D  
 Date Collected: 06/19/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.48	U
121-82-4	RDX	0.48	U
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW01AW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1020.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB30-003  
 Lab File ID: O6280708.D  
 Date Collected: 06/19/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.49	U
121-82-4	RDX	0.49	U
99-35-4	1,3,5-Trinitrobenzene	0.49	U
99-65-0	1,3-Dinitrobenzene	0.49	U
98-95-3	Nitrobenzene	0.49	U
479-45-8	Tetryl	0.49	U
118-96-7	2,4,6-Trinitrotoluene	0.49	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.49	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.49	U
606-20-2	2,6-Dinitrotoluene	0.49	U
121-14-2	2,4-Dinitrotoluene	0.49	U
88-72-2	2-Nitrotoluene	0.49	U
99-99-0	4-Nitrotoluene	0.49	U
99-08-1	3-Nitrotoluene	0.49	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW04AW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB30-007  
 Lab File ID: O6280709.D  
 Date Collected: 06/19/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.48	U
121-82-4	RDX	1.8	
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**15L4MW04AW**

Lab Name: Laucks Testing Labs, Inc.  
 Lab Sample ID: CAB30-007  
 Instrument ID: HPLC5 (Oscar)      Run Sequence ID: R019636  
 Column (1): Allure C18      Column (2): Synergi - EtPH  
 File (1): O62807.b-O6280709.D      File (2): F71207A.b-F7120754.D  
 Date Analyzed (1): 6/28/2007 4:39:00 PM      Date Analyzed (2): 7/13/2007 7:56:00 PM

ANALYTE	COL	CONCENTRATION Final Units: ug/L	RPD	RT	RT Window
RDX	1	1.65291	9.3 %	8.07	7.79 - 8.29
	2	1.81501 X		8.75	8.48 - 8.98

X = Concentration Reported



1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW02BW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1020.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB30-008  
 Lab File ID: F7120756.D  
 Date Collected: 06/19/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	3.9	
121-82-4	RDX	78	E
99-35-4	1,3,5-Trinitrobenzene	0.49	U
99-65-0	1,3-Dinitrobenzene	0.49	U
98-95-3	Nitrobenzene	0.49	U
479-45-8	Tetryl	0.49	U
118-96-7	2,4,6-Trinitrotoluene	0.49	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.49	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.49	U
606-20-2	2,6-Dinitrotoluene	0.49	U
121-14-2	2,4-Dinitrotoluene	0.49	U
88-72-2	2-Nitrotoluene	0.49	U
99-99-0	4-Nitrotoluene	0.49	U
99-08-1	3-Nitrotoluene	0.49	U

Comments:

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**15L4MW02BW**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: CAB30-008

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - EtPH

File (1): O62807.b-O6280710.D

File (2): F71207A.b-F7120756.D

Date Analyzed (1): 6/28/2007 5:19:00 PM

Date Analyzed (2): 7/13/2007 9:12:00 PM

ANALYTE	COL	CONCENTRATION Final Units: ug/L	RPD	RT	RT Window
HMX	1	2.96239	26.7 %	4.58	4.33 - 4.83
	2	3.87466 X		8.22	7.94 - 8.44
RDX	1	74.1656	5.1 %	8.04	7.79 - 8.29
	2	78.0675 X		8.75	8.48 - 8.98

X = Concentration Reported

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW02BW-DL

Lab Name: Laucks Testing Labs  
 SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1020.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB30-008DL  
 Lab File ID: F7120755.D  
 Date Collected: 06/19/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/11/2007  
 Dilution Factor: 4.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	3.9	
121-82-4	RDX	76	
99-35-4	1,3,5-Trinitrobenzene	0.98	U
99-65-0	1,3-Dinitrobenzene	0.98	U
98-95-3	Nitrobenzene	0.98	U
479-45-8	Tetryl	0.98	U
118-96-7	2,4,6-Trinitrotoluene	0.98	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.98	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.98	U
606-20-2	2,6-Dinitrotoluene	0.98	U
121-14-2	2,4-Dinitrotoluene	0.98	U
88-72-2	2-Nitrotoluene	0.98	U
99-99-0	4-Nitrotoluene	0.98	U
99-08-1	3-Nitrotoluene	0.98	U

Comments:

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**15L4MW02BW-DL**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: CAB30-008DL

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - EtPH

File (1): O71007.b-O7100742.D

File (2): F71207A.b-F7120755.D

Date Analyzed (1): 7/11/2007 12:29:00 PM

Date Analyzed (2): 7/13/2007 8:34:00 PM

ANALYTE	COL	CONCENTRATION Final Units: ug/L	RPD	RT	RT Window
HMX	1	3.05802	23.5 %	4.55	4.33 - 4.83
	2	3.87084 X		8.20	7.94 - 8.44
RDX	1	74.1057	2.6 %	7.93	7.79 - 8.29
	2	76.028 X		8.74	8.48 - 8.98

X = Concentration Reported

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW425W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB30-009  
 Lab File ID: F7120758.D  
 Date Collected: 06/19/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	2.9	
121-82-4	RDX	58	E
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**15L4MW425W**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: CAB30-009

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - EtPH

File (1): O62807.b-O6280711.D

File (2): F71207A.b-F7120758.D

Date Analyzed (1): 6/28/2007 5:59:00 PM

Date Analyzed (2): 7/13/2007 10:28:00 PM

ANALYTE	COL	CONCENTRATION Final Units: ug/L	RPD	RT	RT Window
HMX	1	2.20163	28.8 %	4.59	4.33 - 4.83
	2	2.94125 X		8.21	7.94 - 8.44
RDX	1	55.0299	6.0 %	8.05	7.79 - 8.29
	2	58.4503 X		8.74	8.48 - 8.98

X = Concentration Reported

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW425W-DL

Lab Name: Laucks Testing Labs  
 SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB30-009DL  
 Lab File ID: F7120757.D  
 Date Collected: 06/19/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/11/2007  
 Dilution Factor: 4.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	2.9	
121-82-4	RDX	56	
99-35-4	1,3,5-Trinitrobenzene	0.95	U
99-65-0	1,3-Dinitrobenzene	0.95	U
98-95-3	Nitrobenzene	0.95	U
479-45-8	Tetryl	0.95	U
118-96-7	2,4,6-Trinitrotoluene	0.95	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.95	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.95	U
606-20-2	2,6-Dinitrotoluene	0.95	U
121-14-2	2,4-Dinitrotoluene	0.95	U
88-72-2	2-Nitrotoluene	0.95	U
99-99-0	4-Nitrotoluene	0.95	U
99-08-1	3-Nitrotoluene	0.95	U

Comments:

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

**Client Sample ID**

**15L4MW425W-DL**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: CAB30-009DL

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - EIPH

File (1): O71007.b-O7100743.D

File (2): F71207A.b-F7120757.D

Date Analyzed (1): 7/11/2007 1:09:00 PM

Date Analyzed (2): 7/13/2007 9:50:00 PM

ANALYTE	COL	CONCENTRATION Final Units: ug/L	RPD	RT	RT Window
HMX	1	2.27577		4.55	4.33 - 4.83
	2	2.90048 X	24.1 %	8.21	7.94 - 8.44
RDX	1	54.9619		7.94	7.79 - 8.29
	2	56.3844 X	2.6 %	8.75	8.48 - 8.98

X = Concentration Reported



Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\oscar.i\022707.b\02270705.D  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270705.D  
 Level 2: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270706.D  
 Level 3: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270707.D  
 Level 4: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270708.D  
 Level 5: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270709.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
1 HMX	11.20000	10.69000	10.67000	10.45800	10.29740	10.66308	3.2
4 MNX	10.36000	9.730000	9.828000	9.526000	9.491400	9.797080	3.6
5 RDX	8.000000	7.680000	7.730000	7.591000	7.488000	7.697800	2.5
6 1,3,5-Trinitrobenzene	13.96000	13.18000	13.63800	13.28300	13.27440	13.46708	2.4
7 1,3-Dinitrobenzene	15.24000	14.54000	15.10800	14.68900	14.87580	14.89056	1.9
8 Tetryl	7.140000	6.840000	7.116000	6.929000	6.877000	6.980400	2.0
9 Nitrobenzene	8.660000	8.280000	8.712000	8.494000	8.653000	8.559800	2.1
11 2,4,6-Trinitrofluene	8.300000	7.880000	8.206000	7.946000	7.962000	8.058800	2.3
12 4-Amino-2,6-Dinitrofluene	5.940000	5.630000	5.896000	5.726000	5.686400	5.775680	2.3
13 2-Amino-4,6-Dinitrofluene	7.840000	7.670000	7.942000	7.738000	7.684600	7.774920	1.5
14 2,6-Dinitrofluene	5.220000	5.120000	5.310000	5.165000	5.188000	5.200600	1.4

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration )  
 RSD - Relative Standard Deviation.

Laucks Testing Labs  
Initial Calibration Linearity Summary

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CP	%RSD
15 2,4-Dinitrochloruene	8.980000	8.830000	9.198000	8.947000	9.015400	8.994080	1.5
16 2-Nitrochloruene	3.540000	3.480000	3.546000	3.463000	3.503400	3.506480	1.0
17 4-Nitrochloruene	2.700000	2.590000	2.682000	2.619000	2.659800	2.650160	1.7
18 3-Nitrochloruene	3.300000	3.090000	3.248000	3.159000	3.195000	3.198400	2.5
19 3,4-Dinitrochloruene	5.880000	5.570000	5.726000	5.555000	5.578200	5.661840	2.5
Average RSD :							2.1

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration ).  
RSD - Relative Standard Deviation.

02/28/2007 09:10

ICAL Linearity Summary v2.0

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP-Genie  
 Method File : \\ceres\labdata\hplc\oscar\oscar.i\022707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270705.D  
 Level 2: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270706.D  
 Level 3: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270707.D  
 Level 4: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270708.D  
 Level 5: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270709.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
1 HMX	4.69	4.69	4.69	4.69	4.69	4.690
4 MNX	7.09	7.09	7.08	7.08	7.09	7.089
5 RDX	8.36	8.36	8.35	8.35	8.36	8.358
6 1,3,5-Trinitrobenzene	12.11	12.13	12.12	12.12	12.13	12.125
7 1,3-Dinitrobenzene	15.02	15.08	15.05	15.07	15.07	15.057
8 Tetryl	17.11	17.22	17.17	17.20	17.20	17.180
9 Nitrobenzene	17.67	17.75	17.71	17.73	17.72	17.715
11 2,4,6-Trinitrotoluene	20.61	20.72	20.65	20.69	20.68	20.670
12 4-Amino-2,6-Dinitrotoluene	21.54	21.72	21.61	21.67	21.66	21.640
13 2-Amino-4,6-Dinitrotoluene	22.67	22.84	22.72	22.80	22.78	22.760
14 2,6-Dinitrotoluene	24.04	24.16	24.07	24.13	24.11	24.104

Retention times are expressed as minutes.

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\oscar.1\022707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
15 2,4-Dinitrotoluene	24.97	25.08	24.98	25.04	25.02	25.019
16 2-Nitrotoluene	30.36	30.41	30.32	30.37	30.38	30.367
17 4-Nitrotoluene	33.08	33.09	33.02	33.08	33.07	33.068
18 3-Nitrotoluene	35.60	35.59	35.53	35.60	35.62	35.589
10 3,4-Dinitrotoluene	18.40	18.51	18.45	18.48	18.48	18.464

Retention times are expressed as minutes.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\Oscar.i\022707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270705.D  
 Level 2: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270706.D  
 Level 3: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270707.D  
 Level 4: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270708.D  
 Level 5: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270709.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 HMX	50.00	100.00	500.00	1000.00	5000.00
4 MNX	50.00	100.00	500.00	1000.00	5000.00
5 RDX	50.00	100.00	500.00	1000.00	5000.00
6 1,3,5-Trinitrobenzene	50.00	100.00	500.00	1000.00	5000.00
7 1,3-Dinitrobenzene	50.00	100.00	500.00	1000.00	5000.00
8 Tetryl	50.00	100.00	500.00	1000.00	5000.00
9 Nitrobenzene	50.00	100.00	500.00	1000.00	5000.00
11 2,4,6-Trinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
12 4-Amino-2,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
13 2-Amino-4,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
14 2,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00

Standard concentrations are expressed as ng/mL.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\oscar.1\022707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
15 2,4-Dinitrofluorene	50.00	100.00	500.00	1000.00	5000.00
16 2-Nitrofluorene	50.00	100.00	500.00	1000.00	5000.00
17 4-Nitrofluorene	50.00	100.00	500.00	1000.00	5000.00
18 3-Nitrofluorene	50.00	100.00	500.00	1000.00	5000.00
19 3,4-Dinitrofluorene	50.00	100.00	500.00	1000.00	5000.00

Standard concentrations are expressed as ng/mL.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\Oscar.i\022707.b\02270707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270705.D  
 Level 2: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270706.D  
 Level 3: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270707.D  
 Level 4: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270708.D  
 Level 5: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270709.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 BMX	560.00000	1069.0000	5335.0000	10458.000	51487.000
4 MNX	518.00000	973.00000	4914.0000	9526.0000	47457.000
5 RDX	400.00000	768.00000	3865.0000	7591.0000	37440.000
6 1,3,5-Trinitrobenzene	698.00000	1318.0000	6819.0000	13283.000	66372.000
7 1,3-Dinitrobenzene	762.00000	1454.0000	7554.0000	14689.000	74379.000
8 Telryl	357.00000	684.00000	3558.0000	6929.0000	34385.000
9 Nitrobenzene	433.00000	828.00000	4356.0000	8494.0000	43265.000
11 2,4,6-Trinitrofluene	415.00000	788.00000	4103.0000	7946.0000	39810.000
12 4-Amino-2,6-Dinitrofluene	297.00000	563.00000	2948.0000	5726.0000	28432.000
13 2-Amino-4,6-Dinitrofluene	392.00000	767.00000	3971.0000	7738.0000	38423.000
14 2,6-Dinitrofluene	261.00000	512.00000	2655.0000	5165.0000	25940.000

Response is in Height units.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\Oscar.i\O22707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
15 2,4-Dinitrofluorene	449.00000	883.00000	4599.0000	8947.0000	45077.000
16 2-Nitrofluorene	177.00000	348.00000	1773.0000	3463.0000	17517.000
17 4-Nitrofluorene	135.00000	259.00000	1341.0000	2619.0000	13299.000
18 3-Nitrofluorene	165.00000	309.00000	1624.0000	3159.0000	15975.000
10 3,4-Dinitrofluorene	294.00000	557.00000	2863.0000	5555.0000	27891.000

Response is in Height units.



Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 12-JUL-2007 14:08  
 End Cal Date : 12-JUL-2007 17:18  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix\Felix.i\F71207.b\F7120709.m  
 Sublist : 8330syn.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120707.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120709.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120710.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120711.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120712.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
4 HMX	7.800000	7.600000	7.776000	7.753000	7.619600	7.709720	1.2
5 RDX	9.780000	9.640000	9.716000	9.719000	9.550800	9.681160	0.9
6 Nitrobenzene	17.30000	16.86000	17.63600	17.58000	17.54620	17.38444	1.8
7 4-Amino-2,6-Dinitroloene	10.34000	10.12000	10.25800	10.21200	10.04580	10.19516	1.1
8 2-Nitroloene	9.060000	8.880000	9.286000	9.223000	9.207600	9.131320	1.8
9 4-Nitroloene	449.6000	435.4900	456.3900	452.4680	455.0196	449.7935	1.9
10 2-Amino-4,6-Dinitroloene	13.72000	13.43000	13.74200	13.62900	13.45020	13.59424	1.1
11 1,3-Dinitrobenzene/3NT	9.870000	9.695000	10.09000	10.13200	9.998800	9.957160	1.8
13 2,6-Dinitroloene	7.720000	7.620000	7.852000	7.812000	7.704800	7.741760	1.2
14 2,4-Dinitroloene	12.86000	12.60000	12.88400	12.79700	12.63180	12.75456	1.0
15 1,3,5-Trinitrobenzene	8.640000	8.370000	8.522000	8.447000	8.355400	8.466880	1.4

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration )  
 RSD - Relative Standard Deviation.

Laucks Testing Labs  
Initial Calibration Linearity Summary

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
16 TetraYL	5.260000	5.060000	5.246000	5.172000	5.117000	5.171000	1.6
17 2,4,6-TNT	5.800000	5.610000	5.772000	5.712000	5.641200	5.707040	1.4
12 3,4-Dinitrotoluene	7.320000	7.110000	7.366000	7.305000	7.206600	7.261520	1.4
Average RSD :							1.4

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration ).  
RSD - Relative Standard Deviation.

07/13/2007 09:56

ICAL Linearity Summary v2.0

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 12-JUL-2007 14:08  
 End Cal Date : 12-JUL-2007 17:18  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix\Felix.i\F71207.b\8330syn71207.m  
 Sublist : 8330syn.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120707.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120709.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120710.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120711.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120712.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
4 HMX	8.20	8.19	8.17	8.16	8.18	8.179
5 RDX	8.73	8.73	8.70	8.70	8.72	8.716
6 Nitrobenzene	11.44	11.43	11.40	11.39	11.42	11.418
7 4-Amino-2,6-Dinitrotoluene	14.39	14.38	14.32	14.30	14.35	14.349
8 2-Nitrotoluene	14.84	14.83	14.78	14.76	14.81	14.804
9 4-Nitrotoluene	15.53	15.52	15.48	15.46	15.51	15.501
10 2-Amino-4,6-Dinitrotoluene	15.90	15.89	15.82	15.79	15.86	15.851
11 1,3-Dinitrobenzene/3NT	16.47	16.46	16.39	16.36	16.42	16.422
13 2,6-Dinitrotoluene	19.14	19.13	19.05	19.03	19.10	19.091
14 2,4-Dinitrotoluene	22.16	22.13	22.03	22.01	22.10	22.084
15 1,3,5-Trinitrobenzene	25.31	25.27	25.16	25.13	25.23	25.221

Retention times are expressed as minutes.

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 12-JUL-2007 14:08  
 End Cal Date : 12-JUL-2007 17:18  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix.i\F71207.b\8330syn71207.m  
 Sublist : 8330syn.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
16 Tetryl	29.29	29.23	29.04	29.04	29.18	29.157
17 2,4,6-TNT	32.89	32.83	32.63	32.65	32.79	32.758
12 3,4-Dinitrotoluene	17.70	17.68	17.61	17.59	17.66	17.648

Retention times are expressed as minutes.

07/13/2007 09:56

ICAL RT Summary V2.0

Page 2

Iaucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 12-JUL-2007 14:08  
 End Cal Date : 12-JUL-2007 17:18  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix.i\F71207.b\F7120710.D  
 Sublist : 8330syn.sub  
 Column : ETPH  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120707.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120709.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120710.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120711.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120712.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
4 HMX	50.00	100.00	500.00	1000.00	5000.00
5 RDY	50.00	100.00	500.00	1000.00	5000.00
6 Nitrobenzene	50.00	100.00	500.00	1000.00	5000.00
7 4-Amino-2,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
8 2-Nitrotoluene	50.00	100.00	500.00	1000.00	5000.00
9 4-Nitrotoluene	50.00	100.00	500.00	1000.00	5000.00
10 2-Amino-4,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
11 1,3-Dinitrobenzene/3NT	100.00	200.00	1000.00	2000.00	10000.00
13 2,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
14 2,4-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
15 1,3,5-Trinitrobenzene	50.00	100.00	500.00	1000.00	5000.00

Standard concentrations are expressed as ng/mL.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 12-JUL-2007 14:08  
 End Cal Date : 12-JUL-2007 17:18  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\felix\Felix.i\F71207.b\8330syn71207.m  
 Sublist : 8330syn.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
16 Tetryl	50.00	100.00	500.00	1000.00	5000.00
17 2,4,6-TNT	50.00	100.00	500.00	1000.00	5000.00
12 3,4-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00

Standard concentrations are expressed as ng/mL.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 12-JUL-2007 14:08  
 End Cal Date : 12-JUL-2007 17:18  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix\Felix.i\F71207.b\F7120710.m  
 Sublist : 8330syn.sub  
 Column : HtPh  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1 : //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120707.D  
 Level 2 : //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120709.D  
 Level 3 : //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120710.D  
 Level 4 : //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120711.D  
 Level 5 : //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120712.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
4 HMX	390.00000	760.00000	3888.0000	7753.0000	38098.000
5 RDX	489.00000	964.00000	4858.0000	9719.0000	47754.000
6 Nitrobenzene	865.00000	1686.0000	8818.0000	17580.000	87731.000
7 4-Amino-2,6-Dinitrotoluene	517.00000	1012.0000	5129.0000	10212.000	50229.000
8 2-Nitrotoluene	453.00000	888.00000	4643.0000	9223.0000	46038.000
9 4-Nitrotoluene	22480.000	43549.000	228195.00	452468.00	2275098.0
10 2-Amino-4,6-Dinitrotoluene	686.00000	1343.0000	6871.0000	13629.000	67251.000
11 1,3-Dinitrobenzene/3NT	987.00000	1939.0000	10090.000	20264.000	99988.000
13 2,6-Dinitrotoluene	386.00000	762.00000	3926.0000	7812.0000	38524.000
14 2,4-Dinitrotoluene	643.00000	1260.0000	6442.0000	12797.000	63159.000
15 1,3,5-Trinitrobenzene	432.00000	837.00000	4261.0000	8447.0000	41777.000

Response is in Height units.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 12-JUL-2007 14:08  
 End Cal Date : 12-JUL-2007 17:18  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix\Felix.i\F71207.b\8330syn71207.m  
 Sublist : 8330syn.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
16 Tetryl	263.00000	506.00000	2623.0000	5172.0000	25585.000
17 2,4,6-TNT	290.00000	561.00000	2886.0000	5712.0000	28206.000
12 3,4-Dinitrotoluene	366.00000	711.00000	3683.0000	7305.0000	36033.000

Response is in Height units.

07/13/2007 09:58

ICAL Responses Summary v2.0

Page 2



Laucks Testing Labs  
Initial Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/062807.b/06280703.D
Injection Date  : 28-JUN-2007 12:31
Sample Info     : STD04 1000PPB METHOD 8330
Misc. Info      : ICV
Laboratory ID   : STD04 1000PPB           Client ID   : HPLC1-16-8 20X
Instrument ID    : Oscar.i                 Operator    : MY
Method          : 8330FEB2707.m           Sublist     : 8330
Quantitation    : ESTD                     Integrator   : HP Genie
Dilution Factor : 1.00                    Sample Type : CCALIB_4
Column          : C18                       Column Size : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
HMX	4.58 #	4.33 - 4.83	10.66308	9.849000	7.6	
RDX	8.04 #	7.79 - 8.29	7.697800	7.344000	4.6	
1,3,5-Trinitrobenzene	11.63 #	11.38 - 11.88	13.46708	13.42300	0.3	
1,3-Dinitrobenzene	14.40 #	14.15 - 14.65	14.89056	14.73200	1.1	
Tetryl	16.20 #	15.95 - 16.45	6.980400	6.995000	-0.2	
Nitrobenzene	16.94 #	16.69 - 17.19	8.559800	8.535000	0.3	
3,4-Dinitrotoluene	17.40 #	17.15 - 17.65	5.661840	6.370000	-12.5	
2,4,6-Trinitrotoluene	19.66 #	19.41 - 19.91	8.058800	7.572000	6.0	
4-Amino-2,6-Dinitrotoluene	20.47 #	20.17 - 20.77	5.775680	5.955000	-3.1	
2-Amino-4,6-Dinitrotoluene	21.58 #	21.28 - 21.88	7.774920	7.875000	-1.3	
2,6-Dinitrotoluene	22.88 #	22.59 - 23.17	5.200600	5.292000	-1.8	
2,4-Dinitrotoluene	23.79 #	23.50 - 24.08	8.994080	9.090000	-1.1	
2-Nitrotoluene	28.81 #	28.45 - 29.17	3.506480	3.598000	-2.6	
4-Nitrotoluene	31.35 #	30.95 - 31.75	2.650160	2.743000	-3.5	
3-Nitrotoluene	33.73 #	33.29 - 34.17	3.198400	3.308000	-3.4	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O62807.b/O6280713.D
Injection Date  : 28-JUN-2007 19:19
Sample Info     : STD04 1000PPB
Misc. Info     : Method 8330
Laboratory ID   : STD04 1000PPB
Instrument ID   : Oscar.i
Method         : 8330FEB2707.m
Quantitation    : ESTD
Dilution Factor : 1.00
Column         : C18
Client ID      : HPLC1-16-8 20X
Operator       : MY
Sublist        : 8330
Integrator     : HP Genie
Sample Type    : CCALIB_4
Column Size    : 0.25m L- 4.60mm ID
    
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
HMX	4.58	4.33 - 4.83	10.66308	9.887000	7.3	
RDX	8.02	7.79 - 8.29	7.697800	7.414000	3.7	
1,3,5-Trinitrobenzene	11.60	11.38 - 11.88	13.46708	13.65800	-1.4	
1,3-Dinitrobenzene	14.35	14.15 - 14.65	14.89056	14.91600	-0.2	
Tetryl	16.12	15.95 - 16.45	6.980400	7.088000	-1.5	
Nitrobenzene	16.87	16.69 - 17.19	8.559800	8.607000	-0.6	
3,4-Dinitrotoluene	17.31	17.15 - 17.65	5.661840	6.578000	-16.2	
2,4,6-Trinitrotoluene	19.57	19.41 - 19.91	8.058800	7.593000	5.8	
4-Amino-2,6-Dinitrotoluene	20.31	20.17 - 20.77	5.775680	6.017000	-4.2	
2-Amino-4,6-Dinitrotoluene	21.41	21.28 - 21.88	7.774920	7.878000	-1.3	
2,6-Dinitrotoluene	22.77	22.59 - 23.17	5.200600	5.250000	-0.9	
2,4-Dinitrotoluene	23.67	23.50 - 24.08	8.994080	9.110000	-1.3	
2-Nitrotoluene	28.69	28.45 - 29.17	3.506480	3.620000	-3.2	
4-Nitrotoluene	31.20	30.95 - 31.75	2.650160	2.778000	-4.8	
3-Nitrotoluene	33.56	33.29 - 34.17	3.198400	3.348000	-4.7	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Initial Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O71007.b/O7100705.D
Injection Date  : 10-JUL-2007 11:48
Sample Info     : STD04 1000PPB METHOD 8330
Misc. Info      : ICV
Laboratory ID   : STD04 1000PPB           Client ID   : HPLC1-16-8 20X
Instrument ID    : Oscar.i                 Operator    : MY
Method          : 8330FEB2707.m          Sublist     : 8330
Quantitation    : ESTD                    Integrator  : HP Genie
Dilution Factor : 1.00                   Sample Type : CCALIB_4
Column          : C18                     Column Size : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
HMX	4.57 #	4.32 - 4.82	10.66308	9.490000	11.0	
RDX	7.99 #	7.74 - 8.23	7.697800	7.119000	7.5	
1,3,5-Trinitrobenzene	11.55 #	11.30 - 11.80	13.46708	12.97900	3.6	
1,3-Dinitrobenzene	14.28 #	14.04 - 14.54	14.89056	14.25600	4.3	
Tetryl	16.02 #	15.77 - 16.27	6.980400	6.757000	3.2	
Nitrobenzene	16.81 #	16.56 - 17.06	8.559800	8.269000	3.4	
3,4-Dinitrotoluene	17.22 #	16.97 - 17.47	5.661840	6.443000	-13.8	
2,4,6-Trinitrotoluene	19.46 #	19.21 - 19.71	8.058800	7.224000	10.4	
4-Amino-2,6-Dinitrotoluene	20.19 #	19.89 - 20.49	5.775680	5.852000	-1.3	
2-Amino-4,6-Dinitrotoluene	21.28 #	20.98 - 21.58	7.774920	7.575000	2.6	
2,6-Dinitrotoluene	22.66 #	22.37 - 22.95	5.200600	5.032000	3.2	
2,4-Dinitrotoluene	23.55 #	23.26 - 23.84	8.994080	8.707000	3.2	
2-Nitrotoluene	28.57 #	28.21 - 28.93	3.506480	3.463000	1.2	
4-Nitrotoluene	31.05 #	30.65 - 31.45	2.650160	2.646000	0.2	
3-Nitrotoluene	33.41 #	32.97 - 33.85	3.198400	3.178000	0.6	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/071007.b/07100739.D
Injection Date  : 11-JUL-2007 10:29
Sample Info     : STD04 1000PPB METHOD 8330
Misc. Info     : Method 8330
Laboratory ID   : STD04 1000PPB           Client ID    : HPLC1-16-8 20X
Instrument ID   : Oscar.i                 Operator     : MY
Method         : 8330FEB2707.m           Sublist      : 8330
Quantitation   : ESTD                    Integrator   : HP Genie
Dilution Factor : 1.00                  Sample Type  : CCALIB_4
Column         : C18                     Column Size  : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
HMX	4.56	4.32 - 4.82	10.66308	9.812000	8.0	
RDX	7.97	7.74 - 8.23	7.697800	7.367000	4.3	
1,3,5-Trinitrobenzene	11.54	11.30 - 11.80	13.46708	13.60800	-1.0	
1,3-Dinitrobenzene	14.28	14.04 - 14.54	14.89056	14.72600	1.1	
Tetryl	16.02	15.77 - 16.27	6.980400	6.780000	2.9	
Nitrobenzene	16.81	16.56 - 17.06	8.559800	8.172000	4.5	
3,4-Dinitrotoluene	17.23	16.97 - 17.47	5.661840	6.562000	-15.9	
2,4,6-Trinitrotoluene	19.46	19.21 - 19.71	8.058800	7.456000	7.5	
4-Amino-2,6-Dinitrotoluene	20.18	19.89 - 20.49	5.775680	6.125000	-6.0	
2-Amino-4,6-Dinitrotoluene	21.26	20.98 - 21.58	7.774920	7.893000	-1.5	
2,6-Dinitrotoluene	22.65	22.37 - 22.95	5.200600	5.229000	-0.5	
2,4-Dinitrotoluene	23.53	23.26 - 23.84	8.994080	9.057000	-0.7	
2-Nitrotoluene	28.53	28.21 - 28.93	3.506480	3.450000	1.6	
4-Nitrotoluene	30.99	30.65 - 31.45	2.650160	2.659000	-0.3	
3-Nitrotoluene	33.35	32.97 - 33.85	3.198400	3.177000	0.7	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O71007.b/O7100748.D
Injection Date  : 11-JUL-2007 16:29
Sample Info     : STD04 1000PPB METHOD 8330
Misc. Info     : Method 8330
Laboratory ID  : STD04 1000PPB
Instrument ID   : Oscar.i
Method         : 8330FEB2707.m
Quantitation   : ESTD
Dilution Factor : 1.00
Column        : C18
Client ID      : HPLC1-16-8 20X
Operator       : MY
Sublist       : 8330
Integrator    : HP Genie
Sample Type    : CCALIB_4
Column Size   : 0.25m L- 4.60mm ID
    
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
HMX	4.56	4.32 - 4.82	10.66308	9.850000	7.6	
RDX	7.94	7.74 - 8.23	7.697800	7.379000	4.1	
1,3,5-Trinitrobenzene	11.52	11.30 - 11.80	13.46708	13.58900	-0.9	
1,3-Dinitrobenzene	14.23	14.04 - 14.54	14.89056	14.79200	0.7	
Tetryl	15.96	15.77 - 16.27	6.980400	6.690000	4.2	
Nitrobenzene	16.78	16.56 - 17.06	8.559800	8.291000	3.1	
3,4-Dinitrotoluene	17.19	16.97 - 17.47	5.661840	6.664000	-17.7	
2,4,6-Trinitrotoluene	19.43	19.21 - 19.71	8.058800	7.492000	7.0	
4-Amino-2,6-Dinitrotoluene	20.01	19.89 - 20.49	5.775680	6.441000	-11.5	
2-Amino-4,6-Dinitrotoluene	21.06	20.98 - 21.58	7.774920	7.968000	-2.5	
2,6-Dinitrotoluene	22.59	22.37 - 22.95	5.200600	5.222000	-0.4	
2,4-Dinitrotoluene	23.44	23.26 - 23.84	8.994080	9.064000	-0.8	
2-Nitrotoluene	28.52	28.21 - 28.93	3.506480	3.446000	1.7	
4-Nitrotoluene	30.95	30.65 - 31.45	2.650160	2.678000	-1.1	
3-Nitrotoluene	33.33	32.97 - 33.85	3.198400	3.199000	-0.0	

Calibration Factor ( CF ) = Response divided by Concentration

Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100

\* = Percent Difference is outside the acceptance limits of +/-15%

# = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Initial Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/felix/Felix.i/F71207A.b/F7120717.D
Injection Date  : 12-JUL-2007 20:28
Sample Info     : STD04 1000PPB METHOD08330
Misc. Info     : ICV
Laboratory ID   : STD04 1000PPB           Client ID   : HPLC1-16-08 20X
Instrument ID   : Felix.i                 Operator    : MY
Method         : 8330syn71207.m          Sublist     : 8330syn
Quantitation    : ESTD                    Integrator  : HP Genie
Dilution Factor : 1.00                   Sample Type : CCALIB_4
Column         : EtPh                     Column Size : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
HMX	8.19 #	7.94 - 8.44	7.709720	7.620000	1.2	
RDX	8.73 #	8.48 - 8.98	9.681160	9.523000	1.6	
Nitrobenzene	11.43 #	11.18 - 11.68	17.38444	17.34300	0.2	
4-Amino-2,6-Dinitrotoluene	14.37 #	14.12 - 14.62	10.19516	10.04200	1.5	
2-Nitrotoluene	14.82 #	14.57 - 15.07	9.131320	9.092000	0.4	
4-Nitrotoluene	15.52 #	15.27 - 15.77	449.7935	448.3420	0.3	
2-Amino-4,6-Dinitrotoluene	15.87 #	15.62 - 16.12	13.59424	13.44900	1.1	
1,3-Dinitrobenzene/3NT	16.44 #	16.19 - 16.69	9.957160	9.802000	1.6	
3,4-Dinitrotoluene	17.66 #	17.42 - 17.92	7.261520	7.168000	1.3	
2,6-Dinitrotoluene	19.11 #	18.86 - 19.36	7.741760	7.681000	0.8	
2,4-Dinitrotoluene	22.09 #	21.84 - 22.34	12.75456	12.60700	1.2	
1,3,5-Trinitrobenzene	25.22 #	24.95 - 25.49	8.466880	8.310000	1.9	
Tetryl	29.16 #	28.72 - 29.58	5.171000	5.047000	2.4	
2,4,6-TNT	32.77 #	32.33 - 33.21	5.707040	5.547000	2.8	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/felix/Felix.i/F71207A.b/F7120750.D
Injection Date  : 13-JUL-2007 17:24
Sample Info     : STD04 1000PPB METHOD8330
Misc. Info      : Method 8330
Laboratory ID   : STD04 1000PPB           Client ID   : HPLC1-16-08 20X
Instrument ID    : Felix.i                 Operator    : MY
Method          : 8330syn71207.m          Sublist     : 8330syn
Quantitation    : ESTD                     Integrator  : HP Genie
Dilution Factor : 1.00                    Sample Type : CCALIB 4
Column          : EtPh                      Column Size : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
HMX	8.20	7.94 - 8.44	7.709720	7.834000	-1.6	
RDX	8.74	8.48 - 8.98	9.681160	9.753000	-0.7	
Nitrobenzene	11.46	11.18 - 11.68	17.38444	17.20200	1.0	
4-Amino-2,6-Dinitrotoluene	14.43	14.12 - 14.62	10.19516	10.17300	0.2	
2-Nitrotoluene	14.88	14.57 - 15.07	9.131320	9.066000	0.7	
4-Nitrotoluene	15.58	15.27 - 15.77	449.7935	453.0520	-0.7	
2-Amino-4,6-Dinitrotoluene	15.94	15.62 - 16.12	13.59424	13.63000	-0.3	
1,3-Dinitrobenzene/3NT	16.52	16.19 - 16.69	9.957160	9.799500	1.6	
3,4-Dinitrotoluene	17.74	17.42 - 17.92	7.261520	7.266000	-0.1	
2,6-Dinitrotoluene	19.20	18.86 - 19.36	7.741760	7.793000	-0.7	
2,4-Dinitrotoluene	22.20	21.84 - 22.34	12.75456	12.75600	-0.0	
1,3,5-Trinitrobenzene	25.34	24.95 - 25.49	8.466880	8.474000	-0.1	
Tetryl	29.30	28.72 - 29.58	5.171000	5.038000	2.6	
2,4,6-TNT	32.94	32.33 - 33.21	5.707040	5.608000	1.7	

Calibration Factor ( CF ) = Response divided by Concentration

Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100

\* = Percent Difference is outside the acceptance limits of +/-15%

# = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/felix/Felix.i/F71207A.b/F7120759.D
Injection Date  : 13-JUL-2007 23:06
Sample Info     : STD04 1000PPB METHOD08330
Misc. Info     : Method 8330
Laboratory ID  : STD04 1000PPB           Client ID   : HPLC1-16-08 20X
Instrument ID   : Felix.i                 Operator    : MY
Method         : 8330syn71207.m          Sublist     : 8330syn
Quantitation   : ESTD                    Integrator  : HP Genie
Dilution Factor : 1.00                  Sample Type : CCALIB_4
Column        : EtPh                     Column Size : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
HMX	8.19	7.94 - 8.44	7.709720	7.708000	0.0	
RDX	8.73	8.48 - 8.98	9.681160	9.655000	0.3	
Nitrobenzene	11.44	11.18 - 11.68	17.38444	17.16400	1.3	
4-Amino-2,6-Dinitrotoluene	14.39	14.12 - 14.62	10.19516	10.13600	0.6	
2-Nitrotoluene	14.84	14.57 - 15.07	9.131320	9.075000	0.6	
4-Nitrotoluene	15.54	15.27 - 15.77	449.7935	448.0220	0.4	
2-Amino-4,6-Dinitrotoluene	15.89	15.62 - 16.12	13.59424	13.62300	-0.2	
1,3-Dinitrobenzene/3NT	16.46	16.19 - 16.69	9.957160	9.864000	0.9	
3,4-Dinitrotoluene	17.69	17.42 - 17.92	7.261520	7.234000	0.4	
2,6-Dinitrotoluene	19.13	18.86 - 19.36	7.741760	7.745000	-0.0	
2,4-Dinitrotoluene	22.12	21.84 - 22.34	12.75456	12.69500	0.5	
1,3,5-Trinitrobenzene	25.25	24.95 - 25.49	8.466880	8.434000	0.4	
Tetryl	29.18	28.72 - 29.58	5.171000	5.070000	2.0	
2,4,6-TNT	32.80	32.33 - 33.21	5.707040	5.584000	2.2	

Calibration Factor ( CF ) = Response divided by Concentration

Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100

\* = Percent Difference is outside the acceptance limits of +/-15%

# = The compound retention time is the expected retention time in the method.



1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607HORWLG

Lab Name: Laucks Testing Labs  
 SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: B062607HORWLG  
 Lab File ID: O6280704.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.50	U
121-82-4	RDX	0.50	U
99-35-4	1,3,5-Trinitrobenzene	0.50	U
99-65-0	1,3-Dinitrobenzene	0.50	U
98-95-3	Nitrobenzene	0.50	U
479-45-8	Tetryl	0.50	U
118-96-7	2,4,6-Trinitrotoluene	0.50	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.50	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.50	U
606-20-2	2,6-Dinitrotoluene	0.50	U
121-14-2	2,4-Dinitrotoluene	0.50	U
88-72-2	2-Nitrotoluene	0.50	U
99-99-0	4-Nitrotoluene	0.50	U
99-08-1	3-Nitrotoluene	0.50	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607HORWLG

Lab Name: Laucks Testing Labs  
 SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: S062607HORWLG  
 Lab File ID: F7120752.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	21.0	
121-82-4	RDX	21.5	
99-35-4	1,3,5-Trinitrobenzene	17.6	
99-65-0	1,3-Dinitrobenzene	17.8	
98-95-3	Nitrobenzene	17.8	
479-45-8	Tetryl	16.0	
118-96-7	2,4,6-Trinitrotoluene	18.7	
19406-51-0	4-Amino-2,6-dinitrotoluene	17.9	
35572-78-2	2-Amino-4,6-dinitrotoluene	17.9	
606-20-2	2,6-Dinitrotoluene	16.1	
121-14-2	2,4-Dinitrotoluene	16.5	
88-72-2	2-Nitrotoluene	14.9	
99-99-0	4-Nitrotoluene	15.4	
99-08-1	3-Nitrotoluene	14.7	

Comments:

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**S062607HORWLG**

Lab Name: Laucks Testing Labs, Inc.  
 Lab Sample ID: S062607HORWLG  
 Instrument ID: HPLC5 (Oscar) Run Sequence ID: R019636  
 Column (1): Allure C18 Column (2): Synergi - EtPH  
 File (1): O62807.b-O6280705.D File (2): F71207A.b-F7120752.D  
 Date Analyzed (1): 6/28/2007 1:59:00 PM Date Analyzed (2): 7/13/2007 6:40:00 PM

ANALYTE	COL	CONCENTRATION Final Units: ug/L	RPD	RT	RT Window
HMX	1	18.8613	10.8 %	4.58	4.33 - 4.83
	2	21.0228 X		8.23	7.94 - 8.44
RDX	1	20.4357	5.1 %	8.03	7.79 - 8.29
	2	21.5036 X		8.77	8.48 - 8.98
1,3,5-Trinitrobenzene	1	17.5962 X	5.2 %	11.62	11.38 - 11.88
	2	16.698		25.38	24.97 - 25.47
1,3-Dinitrobenzene	1	17.771 X	62.5 %	14.37	14.16 - 14.66
	2	33.9163		16.53	16.19 - 16.69
Nitrobenzene	1	17.5658	1.5 %	16.89	16.69 - 17.19
	2	17.8355 X		11.49	11.18 - 11.68
Tetryl	1	16.0464 X	9.7 %	16.14	15.96 - 16.46
	2	14.562		29.36	28.91 - 29.41
2,4,6-Trinitrotoluene	1	17.7905	4.9 %	19.59	19.41 - 19.91
	2	18.691 X		32.99	32.52 - 33.02
4-Amino-2,6-dinitrotoluen	1	17.92 X	1.0 %	20.35	20.17 - 20.77
	2	17.7427		14.44	14.07 - 14.67
2-Amino-4,6-dinitrotoluen	1	17.8793 X	0.8 %	21.44	21.28 - 21.88
	2	17.7296		15.95	15.57 - 16.17
2,6-Dinitrotoluene	1	16.1231 X	1.5 %	22.79	22.59 - 23.17
	2	15.8879		19.21	18.82 - 19.40
2,4-Dinitrotoluene	1	16.4553 X	2.9 %	23.69	23.50 - 24.08
	2	15.977		22.23	21.80 - 22.38
2-Nitrotoluene	1	14.9209 X	0.6 %	28.71	28.45 - 29.17
	2	14.8259		14.89	14.46 - 15.18

X = Concentration Reported

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**S062607HORWLG**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: S062607HORWLG

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - EtPH

File (1): O62807.b-O6280705.D

File (2): F71207A.b-F7120752.D

Date Analyzed (1): 6/28/2007 1:59:00 PM

Date Analyzed (2): 7/13/2007 6:40:00 PM

ANALYTE	COL	CONCENTRATION Final Units: ug/L		RPD	RT	RT Window
4-Nitrotoluene	1	15.4368	X	6.6 %	31.22	30.95 - 31.75
	2	14.4544			15.59	15.12 - 15.92
3-Nitrotoluene	1	14.7105	X	79.0 %	33.59	33.29 - 34.17
	2	33.9163			16.53	16.00 - 16.88

X = Concentration Reported

# **Forms Summary**

CAB30

Ordinance by Method 8332

2  
WATER ORDNANCE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB30

Run Sequence: R019488

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (DNT) #	S2 ( ) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB30-009) 15L4MW425W	75				0
(CAB30-008) 15L4MW02BW	100				0
(CAB30-007) 15L4MW04AW	83				0
(CAB30-003) 15L4MW01AW	88				0
(CAB30-002) 15L4MW01BW	98				0
(S062607HORWLG2) S062607HORWLG2	84				0
(B062607HORWLG) B062607HORWLG	81				0

QC LIMITS  
60-140

S1 (DNT) = 3,4-Dinitrotoluene  
S2 ( ) =  
S3 ( ) =  
S4 ( ) =

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits

3B  
WATER ORDNANCE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

BS Run Sequence: R019488 SDG No.: CAB30

BS Lab Sample ID: S062607HORWLG2

Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Nitroglycerin	10.0	8.7516	88		60-140
PETN	5.00	3.3839	68		60-140

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

ORDNANCE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062607HORWLG

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B062607HORWLG SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water Date Prepared: 06/26/2007  
 Lab File ID (1): O62907.b-O6290704.D Lab File ID (2): \_\_\_\_\_  
 Date Analyzed (1): 06/29/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 11:04 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HPLC5 (Oscar) Instrument ID (2): \_\_\_\_\_  
 Column(1): Varian C18 ID: 4.60 (mm) Column(2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
15L4MW01BW	CAB30-002	1	O6290707.D	06/29/2007 12:22	R019488
15L4MW01AW	CAB30-003	1	O6290708.D	06/29/2007 12:48	R019488
15L4MW04AW	CAB30-007	1	O6290709.D	06/29/2007 13:14	R019488
15L4MW02BW	CAB30-008	1	O6290710.D	06/29/2007 13:40	R019488
15L4MW425W	CAB30-009	1	O6290711.D	06/29/2007 14:06	R019488
S062607HORWLG2	S062607HORWLG2	1	O6290705.D	06/29/2007 11:30	R019488

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_



1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW01BW
------------

Lab Name: Laucks Testing Labs  
 SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: CAB30-002  
 Lab File ID: O6290707.D  
 Date Collected: 06/19/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW01AW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: CAB30-003  
 Lab File ID: O6290708.D  
 Date Collected: 06/19/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW04AW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: CAB30-007  
 Lab File ID: O6290709.D  
 Date Collected: 06/19/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.  
15L4MW02BW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: CAB30-008  
 Lab File ID: O6290710.D  
 Date Collected: 06/19/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW425W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: CAB30-009  
 Lab File ID: O6290711.D  
 Date Collected: 06/19/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 10-JUL-2006 11:17  
End Cal Date : 10-JUL-2006 13:05  
Quant Method : ESTD

Cal Curve Type: Average CF  
Integrator : HP Genie  
Method File : \\SNAP568564B\tek4\oscar.i\071006ng.b\071006NG.m  
Sublist : all.sub  
Column : C18  
Column Size : 0m L - 4.60mm ID

Calibration Files:

Level 1: //SNAP568564B/tek4/oscar.i/071006ng.b/07100601.D  
Level 2: //SNAP568564B/tek4/oscar.i/071006ng.b/07100602.D  
Level 3: //SNAP568564B/tek4/oscar.i/071006ng.b/07100603.D  
Level 4: //SNAP568564B/tek4/oscar.i/071006ng.b/07100604.D  
Level 5: //SNAP568564B/tek4/oscar.i/071006ng.b/07100605.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
1 Nitroglycerin	348.3440	362.3640	357.0210	378.5100	373.9440	364.0366	3.4
3 PBTN	384.2240	428.2400	383.0820	416.1968	409.5208	404.2527	4.9
2 3,4-Dinitrotoluene	833.5840	891.7440	836.9660	887.3984	879.7140	865.8817	3.3
Average RSD :							3.9

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration ).  
RSD - Relative Standard Deviation.

07/24/2006 13:09

ICAL Linearity Summary v2.0

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 10-JUL-2006 11:17  
 End Cal Date : 10-JUL-2006 13:05  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\SNAP568564B\tek4\Oscar.i\071006ng.b\071006NG.m  
 Sublist : all.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100601.D  
 Level 2: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100602.D  
 Level 3: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100603.D  
 Level 4: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100604.D  
 Level 5: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100605.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
1 Nitroglycerin	9.46	9.44	9.45	9.45	9.44	9.449
3 PEHN	17.39	17.36	17.36	17.36	17.36	17.369
2 3,4-Dinitrotoluene	10.33	10.31	10.32	10.32	10.31	10.316

Retention times are expressed as minutes.

07/24/2006 13:09

ICAL RT Summary v2.0

Page 1

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 10-JUL-2006 11:17  
 End Cal Date : 10-JUL-2006 13:05  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\SNAP568564B\tek4\Oscar.i\071006ng.b\071006NG.m  
 Sublist : all.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100601.D  
 Level 2: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100602.D  
 Level 3: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100603.D  
 Level 4: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100604.D  
 Level 5: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100605.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 Nitroglycerin	250.00	500.00	1000.00	2500.00	5000.00
3 PBTN	125.00	250.00	500.00	1250.00	2500.00
2 3,4-Dinitrotoluene	125.00	250.00	500.00	1250.00	2500.00

Standard concentrations are expressed as ng/mL.



Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 10-JUL-2006 11:17  
 End Cal Date : 10-JUL-2006 13:05  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\SNAP568564B\tek4\Oscar.i\071006ng.b\071006NG.m  
 Sublist : all.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100601.D  
 Level 2: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100602.D  
 Level 3: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100603.D  
 Level 4: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100604.D  
 Level 5: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100605.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 Nitroglycerin	87086.000	181182.00	357021.00	946275.00	1869720.0
3 PBTN	48028.000	107060.00	191541.00	520246.00	1023802.0
2 3,4-Dinitrotoluene	104198.00	222936.00	418483.00	1109248.0	2199285.0

Response is in Area units.

07/24/2006 13:08

ICAL Responses Summary v2.0

Page 1

Laucks Testing Labs  
Initial Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O62907.b/O6290703.D
Injection Date  : 29-JUN-2007 10:31
Sample Info     : STD04 1000PPB METHOD 8332
Misc. Info      : ICV
Laboratory ID   : STD04 1000PPB           Client ID   : HPLC1-15-15 20X
Instrument ID    : Oscar.i                 Operator    : my
Method          : 071006NG.m              Sublist     : all
Quantitation    : ESTD                     Integrator  : HP Genie
Dilution Factor : 1.00                    Sample Type : CCALIB_3
Column          : C18                       Column Size : 0.15m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
Nitroglycerin	10.30 #	10.05 - 10.55	364.0366	359.7260	1.2	
3,4-Dinitrotoluene	11.35 #	11.10 - 11.60	865.8817	874.0680	-0.9	
PETN	19.64 #	19.39 - 19.89	404.2527	385.0800	4.7	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O62907.b/O6290713.D
Injection Date  : 29-JUN-2007 14:58
Sample Info     : STD04 1000PPB METHOD 8332
Misc. Info      : Method 8332
Laboratory ID   : STD04 1000PPB           Client ID   : HPLC1-15-15 20X
Instrument ID    : Oscar.i                 Operator    : MY
Method          : 071006NG.m              Sublist     : all
Quantitation    : ESTD                    Integrator  : HP Genie
Dilution Factor : 1.00                   Sample Type : CCALIB_3
Column          : C18                     Column Size : 0.15m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
Nitroglycerin	10.30	10.05 - 10.55	364.0366	358.3320	1.6	
3,4-Dinitrotoluene	11.35	11.10 - 11.60	865.8817	870.0720	-0.5	
PETN	19.65	19.39 - 19.89	404.2527	387.5460	4.1	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607HORWLG

Lab Name: Laucks Testing Labs  
 SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: B062607HORWLG  
 Lab File ID: O6290704.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607HORWLG2

Lab Name: Laucks Testing Labs  
 SDG No.: CAB30  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: S062607HORWLG2  
 Lab File ID: O6290705.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
55-63-0	Nitroglycerin	8.75	
78-11-5	PETN	3.38	

Comments:

**FORMS SUMMARY**

**CAB30**

**Miscellaneous Inorganics**

Laucks Testing Laboratories, Inc.

Final Results

Client: PBS Engineering and Environmental Project: Camp Bonneville  
SDG Number: CAB30  
Sample Number: 15L4MW01BW Date/Time Collected: 06/19/2007 09:50  
Lab Sample ID: CAB30-002 Date/Time Received: 06/20/2007 08:30  
Method: E314.0 Unit: ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	1	1.0	U	1.0	0.14	07/03/2007	07/04/2007	R019226

Laucks Testing Laboratories, Inc.

Final Results

Client: PBS Engineering and Environmental

Project: Camp Bonneville

SDG Number: CAB30

Sample Number: 15L4MW01AW

Date/Time Collected: 06/19/2007 10:55

Lab Sample ID: CAB30-003

Date/Time Received: 06/20/2007 08:30

Method: E314.0

Unit: ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	1	1.9		1.0	0.14	07/03/2007	07/04/2007	R019226



Laucks Testing Laboratories, Inc.

Final Results

Client: PBS Engineering and Environmental Project: Camp Bonneville  
SDG Number: CAB30  
Sample Number: 15L4MW04AW Date/Time Collected: 06/19/2007 12:15  
Lab Sample ID: CAB30-007 Date/Time Received: 06/20/2007 08:30  
Method: E314.0 Unit: ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	1	40		1.0	0.14	07/03/2007	07/04/2007	R019226

Laucks Testing Laboratories, Inc.

Final Results

**Client:** PBS Engineering and Environmental      **Project:** Camp Bonneville  
**SDG Number:** CAB30  
**Sample Number:** 15L4MW02BWRX      **Date/Time Collected:** 06/19/2007 16:30  
**Lab Sample ID:** CAB30-008      **Date/Time Received:** 06/20/2007 08:30  
**Method:** E314.0      **Unit:** ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	10	290		10	1.4	07/06/2007	07/07/2007	R019277

Laucks Testing Laboratories, Inc.

Final Results

Client: PBS Engineering and Environmental Project: Camp Bonneville  
SDG Number: CAB30  
Sample Number: 15L4MW425WRX Date/Time Collected: 06/19/2007 14:00  
Lab Sample ID: CAB30-009 Date/Time Received: 06/20/2007 08:30  
Method: E314.0 Unit: ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	10	290		10	1.4	07/06/2007	07/07/2007	R019277

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB30 Contract: \_\_\_\_\_  
 Run Sequence No. R019226 Concentration Units: ug/L  
 Determination Name: 314.0 Perchlorate  
 Initial Calibration Source: IC-7-24-15  
 Continuing Calibration Source: IC-7-24-17

Analyte	ICV 07/04/2007 18:32				CCV1 07/04/07 18:32			CCV2 07/04/07 18:32			CCV Limits
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	
Perchlorate	40.151	41.793	104.1	75-125	9.988	11.222	112.4	9.988	10.958	109.7	85-115

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB30 Contract: \_\_\_\_\_  
 Run Sequence No. R019226 Concentration Units: ug/L  
 Determination Name: 314.0 Perchlorate  
 Initial Calibration Source: IC-7-24-15  
 Continuing Calibration Source: IC-7-24-17

Analyte					CCV3 07/04/07 18:32						CCV
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	Limits
Perchlorate					9.988	11.142	111.6				85-115

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB30 Contract:  
 Run Sequence No. R019277 Concentration Units: ug/L  
 Determination Name: 314.0 Perchlorate  
 Initial Calibration Source: IC-7-24-15  
 Continuing Calibration Source: IC-7-24-17

Analyte	ICV 07/07/2007 12:46				CCVI 07/07/07 12:46						CCV
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	Limits
Perchlorate	40.151	40.575	101.1	75-125	9.988	10.515	105.3				85-115

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION BLANKS**

SDG No: CAB30 Contract:  
 Run Sequence No.: R019226 Concentration Units: ug/L  
 Determination Name: 314.0 Perchlorate

Analyte	ICB 07/04/2007 18:32			CCB1 07/04/2007 18:32		CCB2 07/04/2007 18:32		CCB3 07/04/2007 18:32		CCB Limit
	Found	C	Limit	Found	C	Found	C	Found	C	
Perchlorate	1.0	U	0.5	1.0	U	1.0	U	1.0	U	0.5

\* = Control limit exceeded

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION BLANKS**

SDG No: CAB30 Contract:  
 Run Sequence No.: R019277 Concentration Units: ug/L  
 Determination Name: 314.0 Perchlorate

Analyte	ICB 07/07/2007 12:46			CCB1 07/07/2007 12:46						CCB Limit
	Found	C	Limit	Found	C	Found	C	Found	C	
Perchlorate	1.0	U	0.5	1.0	U					0.5

\* = Control limit exceeded



# Laucks Testing Labs

## Blank Report

Test: 314.0 Perchlorate

SDG ID: CAB30

Lab Sample ID: B070307PERW02

Preparation Date: 7/3/2007

Run Sequence ID: R019226

Analysis Date: 07/04/2007 18:32

Units: ug/L

Matrix: Water

Analyte	Reported	Flag	Limit
Perchlorate	1.0	U	0.5

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB30-002	15L4MW01BW
CAB30-003	15L4MW01AW
CAB30-007	15L4MW04AW
CAB30-008	15L4MW02BW
CAB30-009	15L4MW425W

\* Measured blank concentration exceeded the established control limit

FORM LTL-RSR-9.0

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**SUM - 115**

**Laucks Testing Labs**  
**Blank Report**

Test: 314.0 Perchlorate

SDG ID: CAB30

Lab Sample ID: B070607PERW01

Preparation Date: 7/6/2007

Run Sequence ID: R019277

Analysis Date: 07/07/2007 12:46

Units: ug/L

Matrix: Water

Analyte	Reported	Flag	Limit
Perchlorate	1.0	U	0.5

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB30-008DL 10X	15L4MW02BWRX
CAB30-009DL 10X	15L4MW425WRX

\* Measured blank concentration exceeded the established control limit

FORM LTL-RSR-9.0

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**SUM - 116**

**Laucks Testing Laboratories**  
**Matrix Spike/Matrix Spike Duplicate Report**

Test: 314.0 Perchlorate

SDG ID: CAB30

MS Lab Sample ID: CAB30-009MS 10X

Preparation Date: 07/06/2007

MSD Lab Sample ID: CAB30-009MSD 10X

Run Sequence ID: R019277

Client Sample ID: 15L4MW425W

Analysis Date: 07/07/2007

Units: ug/L

Matrix: Water

Analyte	Sample Found	MS Spike	MS Found	MS Recovery	MSD Spike	MSD Found	MSD Recovery	RPD	Limits	
									Recovery	RPD
Perchlorate	293.8	200	491.06	99%	200	497.35	102%	3%	80-120	15

Associated Samples	
Lab Sample ID	Client Sample ID
CAB30-008DL 10X	15L4MW02BWRX
CAB30-009DL 10X	15L4MW425WRX

\* = RPD or percent recovery is outside established control limits

# = This RPD or percent recovery is not flagged as an exceedence because the Sample Found amount is five times or more than the Spike Added amount.

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

FORM LTL-RSR-11.0

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# Laucks Testing Laboratories

## BS/BSD Report

Test: 314.0 Perchlorate

SDG ID: CAB30

BS Sample ID: S070307

Preparation Date: 07/03/2007

BSD Sample ID: SD070307

Run Sequence ID: R019226

Analysis Date: 07/04/2007 18:32

Units: ug/L

Matrix: Water

Analyte	Blank Spike			Blank Spike Duplicate			RPD	Limits	
	Added	Found	Recovery	Added	Found	Recovery		Recovery	RPD
Perchlorate	20.0	18.301	92%	20.0	17.713	89%	3%	85-115	

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB30-002	15L4MW01BW
CAB30-003	15L4MW01AW
CAB30-007	15L4MW04AW
CAB30-008	15L4MW02BW
CAB30-009	15L4MW425W

\* = RPD or recovery is outside the established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

FORM LTL-RSR-7.0

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**SUM - 118**

**Laucks Testing Laboratories**  
**BS/BSD Report**

Test: 314.0 Perchlorate

SDG ID: CAB30

Preparation Date: 07/06/2007

BS Sample ID: S070607

Run Sequence ID: R019277

BSD Sample ID: SD070607

Analysis Date: 07/07/2007 12:46

Units: ug/L

Matrix: Water

Analyte	Blank Spike			Blank Spike Duplicate			RPD	Limits	
	Added	Found	Recovery	Added	Found	Recovery		Recovery	RPD
Perchlorate	20.0	18.407	92%	20.0	18.955	95%	3%	85-115	

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB30-008DL 10X	15L4MW02BWRX
CAB30-009DL 10X	15L4MW425WRX

\* = RPD or recovery is outside the established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-7.0*

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**LAUCKS TESTING LABORATORIES**

**SAMPLE DATA PACKAGE**

**PBS ENGINEERING & ENVIRONMENTAL**

**SDG NO.: CAB31**

**JULY 24, 2007**

# LAUCKS TESTING LABORATORIES

940 S. Harney  
Seattle, WA 98108

To: PBS Engineering & Environmental  
Project Name: Camp Bonneville  
SDG No.: CAB31  
Date of Report: July 24, 2007

## SAMPLE RECEIPT, IDENTIFICATION, AND GENERAL COMMENTS:

### Sample Receipt and Identification:

The samples submitted under the laboratory number(s) indicated above were identified and analyzed as tabulated below. The samples were collected and received on the dates noted on the enclosed chain-of-custody copies, Attachment A.

<u>Client Sample Identification</u>	<u>Laucks Sample Identification</u>	<u>Testing Analytical Request</u>
15L4MW02AW	CAB31-001	VOA/ORD/PERC
15L4MW03AW	CAB31-002	VOA/ORD/PERC
15L4MW03BW	CAB31-003	VOA/ORD/PERC
15L4MW05AW	CAB31-004	VOA/ORD/PERC
TRIP BLANK	CAB31-005	VOA
15LCMW420W	CAB31-006	VOA/SVOA/ORD/PIC/TPHD/TPHG/MET/ ALK/ANIONS/TOC/TSS/PERC
15LCMW430W	CAB31-007	MET
15LCMW420W (Filt.)	CAB31-008	MET/DOC
15LCMW430W (Filt.)	CAB31-009	MET

### Analytical Request Key:

VOA =	Volatile Organics by Method 8260B
SVOA =	Semi-Volatiles by Method 8270D
ORD =	Ordnance by Method 8330
	PETN/Nitroglycerin by Method 8332
PIC =	Picric Acid by Modified 8330
TPHD =	Total Petroleum Hydrocarbons-Diesel by NWTPH
TPHG =	Total Petroleum Hydrocarbons-Gasoline by NWTPH
MET =	Priority Pollutant Metals by Methods 6020/7470A
ALK =	Alkalinity, Carbonate and Bicarbonate by Method 310.1M
ANIONS =	Chloride, Nitrate, Nitrite, Sulfate by Method 300.0
TOC =	Total Organic Carbon by Method 415.1M*
DOC =	Dissolved Organic Carbon by Method 415.1M*
TSS =	Total Suspended Solids by Method 160.2
PERC =	Ammonium Perchlorate by Method 314.0

## LAUCKS TESTING LABORATORIES

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Seattle, WA 98108

### TOC/DOC\*:

Singleton analysis was performed for this project as approved by the client. This modification is less expensive and meets project DQOs but does not meet NELAC guidelines.

### Sample Receipt Comments:

Temperature blanks for the samples on COCs 43109 and 43108 measured above control limit of 6° C.

Two of two VOA trip blank vials contained air bubbles < 1/4" in size.

### GENERAL REMARKS ON ORGANIC ANALYSES:

The following comments describe general analysis conditions. For remarks specific to the samples reported in this case, see "SPECIFIC REMARKS ON ORGANIC ANALYSIS."

#### Manual Integrations:

One or more analytes may have been manually integrated on the data system quantitation reports. All manual integrations have been flagged, initialed, and dated by the analyst. A list of the manual integration flags is detailed below.

M	Manual integration due to irregular peak shape
MS	Manual integration due to split peak
MR	Manual integration due to retention time shift
MI	Manual integration of correct isomer
MT	Manual integration due to peak tailing
MB	Manual integration due to irregular baseline

### Holding Time Compliance:

#### *Volatile Organic Compounds:*

The holding time is 14 days calculated from date of collection in both soil and water samples. All samples were analyzed within holding time.

#### *Semi-Volatile Organic Compounds:*

The holding time to extraction is 7 days in water and 14 days in soil calculated from the date of collection. In either case, the holding time from extraction to analysis is 40 days. All samples were extracted and analyzed within holding time.

#### *Ordinance, PETN/Nitroglycerin, Picric Acid*

The holding time to extraction is 7 days in water and 14 days in soil calculated from date of collection. The holding time from extraction to analysis is 40 days. All samples were extracted and analyzed within holding time.

#### *TPH Gasoline Fraction:*

The holding time for analysis is 14 days in water and soil calculated from the date of collection. All samples were analyzed within holding times.



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### TPH Diesel Fraction:

The holding time to extraction, which is calculated from the date of collection, is 7 days for water samples and 14 days for soil samples. In either case, the holding time from extraction to analysis is 40 days. All samples were extracted and analyzed within holding times.

### Volatile Fraction (8260):

#### Continuing Calibration Verification (CCV):

In the CCV performed on 06/26/2007 the percent difference value for dichlorodifluoromethane exceeded 20% due to decreased response. Because sample results were reported well below the reporting limit (RL), the chance of reporting any false negatives for these compounds that recovered low at the RL was negligible.

All other quality control parameters were met.

### Semivolatiles Fraction:

#### Second Source Calibration Verification Analysis:

Analysis of the second source standard ICV071207-2 resulted in %D values for 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol and benzidine that exceeded 25% due to decreased response. However, because sample results are reported well below the reporting limit (RL) the chance of reporting any false negative for these compounds at the RL is negligible.

#### Continuing Calibration Verification (CCV):

Analysis of the CCV performed on 07/16/07 resulted in a %D value for benzoic acid that exceeded 20% due to decreased response. However, because sample results are reported well below the reporting limit (RL) the chance of reporting any false negative for this compound at the RL is negligible.

#### Blank Spike Analysis:

Analysis of the blank spike S062507MSVWLT yielded a slightly low recovery for 2,4,6-trichlorophenol. Because this recovery was within the marginal exceedance limits, no further action was taken.

### Ordnance Fraction:

#### Surrogate Recovery:

Analysis of sample extract 15L4MW05AW yielded a low recovery of the surrogate. The sample was re-extracted 20 days after the holding time had expired. Analysis of the re-extracted sample yielded an acceptable surrogate result. Data from both analyses have been submitted.

All quality control parameters were met.

### PETN/Nitroglycerin Fraction:

All quality control parameters were met.

### Picric Acid Fraction:

All quality control parameters were met.

## LAUCKS TESTING LABORATORIES

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### NWTPH Gasoline Fraction:

NWTPHG was used to quantitate the samples for gasoline. Gasoline range responses were determined by summing the responses of all components, resolved and unresolved, between toluene and naphthalene. Quantitation was based on the average calibration factor.

### Quality Control Analyses:

As a result of batching, MS/DUP analyses were performed on a sample not in this SDG and no data are included here. All MS/DUP data and results can be found in the data package for CAB33. All recoveries were within the control limits in the blank spike analysis.

All quality control parameters were met.

### NWTPH Diesel Fraction:

NWTPD-D was used to quantitate the samples for diesel and oil. Diesel range responses were determined by summing the responses of all components, resolved and unresolved, between C<sub>12</sub> and C<sub>24</sub> integrated to a horizontal baseline. Oil range responses were determined by summing the responses of all components, resolved and unresolved, between C<sub>24</sub> and C<sub>40</sub> integrated to a horizontal baseline. Quantitation was based on a linear regression.

### Quality Control Analyses:

As a result of extraction batching, QC analyses were performed on a sample not in this SDG and no data are included here. All results can be found in the data package for CAB33. All recoveries were within the control limits in the blank spike analysis.

## GENERAL REMARKS ON INORGANIC ANALYSES:

The following comments describe general analysis conditions. For remarks specific to the samples reported in this case, see "SPECIFIC REMARKS ON INORGANIC ANALYSES."

### ICP Metals:

On the first timed and dated page of each ICP-MS run, the data to be reported or rejected will be tabulated for that run.

### Mercury:

For Liquids:

Laucks purchases a 1000 mg/L Hg stock solution from Inorganic Ventures. The 0.5 mg/L working standard is made by diluting 100  $\mu$ L to 200 mL with 0.15% HNO<sub>3</sub>. The calibration curve is made by placing 0, 20, 50, 100, 200, 500 and 1000  $\mu$ L of the working standard digestion vessels and diluting up to 50 mL. The standard curve is equivalent to 0, 0.2, 0.5, 1.0, 2.0, 5.0 and 10.0  $\mu$ g/L.

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### SPECIFIC REMARKS ON INORGANIC ANALYSES:

#### Holding Time Compliance:

Laucks calculates holding time compliance for inorganic determinations using the date on which reportable data were acquired.

#### Metals:

The holding time for metals is six months from the date of collection, excepting mercury, which is 28 days. All analyses were performed within holding time.

#### Miscellaneous:

The following analytes do not have a Contract Laboratory Program holding time. The holding times tabulated below derive from the relevant EPA methods and are applicable when the sample was appropriately preserved and/or cooled. All samples submitted followed the preservation guidelines unless explicitly noted otherwise.

<u>Analyte</u>	<u>Holding Time</u>	<u>Violations</u>
Alkalinity	14 days	None
Chloride	28 days	None
Nitrate	48 hours	None
Nitrite	48 hours	None
Sulfate	28 days	None
Total Organic Carbon	28 days	None
Dissolved Organic Carbon	28 days	None
Total Suspended Solids	7 days	None
Perchlorate	28 days	None

Sample 15LCMW420W was analyzed one day past it's holding time for nitrate and nitrite due to sample receiving error.

#### ICP-MS Metals:

For the run sequence R019118, CCV2 exceeded the lower control limit for beryllium. No sample results for beryllium were associated with this CCV, therefore no corrective action was required. Data have not been flagged for this event.

For the run sequence R019118, several CCVs exceeded the upper control limit for beryllium. For the samples associated with these CCVs, only those samples containing concentrations of beryllium that were less than the CRDL have been reported. Quality control data for beryllium were reported and were within control limits. No corrective action was required. Data have not been flagged for these events.

#### Mercury:

No comments.

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Seattle, WA 98108

**Miscellaneous Inorganics:**

No comments.

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### ABBREVIATIONS

Several abbreviations can appear in our reports. The most commonly employed abbreviations are as follows:

- U The analyte of interest was not detected to the limit of detection indicated.
- SDL Sample Detection Limit. The SDL can vary from sample to sample, depending on sample size, matrix interferences, moisture content and other sample-specific conditions.
- PQL Practical Quantitation Limit. The limit is drawn from the test method and usually represents the SDL multiplied by a matrix-specific factor.
- DB Dry Basis. The value reported has been back-calculated to normalize for the moisture content of the sample.
- AR As-Received. The value has not been normalized for moisture.

### ORGANIC ANALYSES:

- B When used in relation to organics fractions, the "B" flag indicates that the analyte of interest was detected in the method blank associated with the sample, as well as in the sample itself. The "B" flag is applied without regard to the relative concentrations detected in the blank and sample.
- J The analyte of interest was detected below the routine reporting limit. This value should be regarded as an estimate.
- T The flagged values represent the SUM of two co-eluting compounds. The SUM of these two values is shown as though it were a result for each of them. The two figures should not be added together.
- E The flagged value was reported from an analysis that exceeded the linear range of the instrument. See additional comments for further discussion of the circumstances. Values so flagged should be considered estimates.
- P When a dual column GC technique is employed, this flag indicates that test results from the two columns differ by more than 25%. Generally, we report the higher value.
- C The flagged analyte has been confirmed by GC/MS analysis. The value reported may be derived from either the initial or confirmatory (GC/MS) analysis. See specific report comments for details.
- Z When two or more sets of results are submitted, the Z-flagged data indicates that this is the secondary result.
- CRQL Client requested Quantitation Limit, usually the limit of detection specified at your request. Might also be referred to as Contract Required Quantitation Limit.

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### INORGANIC ANALYSES:

- J The reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL). If the analyte was analyzed for but not detected, a "U" shall be entered.
  - E The reported value is estimated because of the presence of interference. The serial dilution was not within control limits.
  - N Spiked sample recovery not within control limits.
  - \* Duplicate analysis not within control limits.
- CRDL Client Requested Detection Limit, usually the limit of detection specified at your request. Might also be referred to as Contract Required Detection Limit.

**LAUCKS TESTING LABORATORIES**

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Seattle, WA 98108

RELEASE OF DATA

Laucks certifies that these results meet all requirements of the NELAC standards, except where otherwise noted.

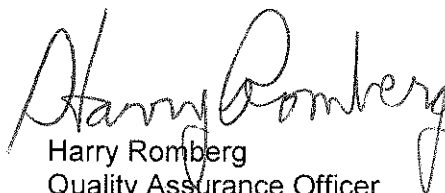
"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."

Respectfully submitted,



Mike Baxter  
Project Manager

24 July 2007  
(DATE)



Harry Romberg  
Quality Assurance Officer

7/24/07  
(DATE)

*HOW TO CONTACT US:*

All Laucks Testing Laboratories staff members can be reached at the same telephone and facsimile numbers: (206) 767-5060 by phone, (206) 767-5063 by FAX.

*REQUESTS FOR DUPLICATE COPIES:*

This packet has been checked for accuracy. All pages are present and in sequential order. Please see Attachment B for a detailed record.

In the event that duplicate data copies are needed, Laucks will accommodate your request at a fee of twenty-five cents (\$0.25) per copy, plus shipping. If the data are in storage, there will also be a fee for retrieval.

**LAUCKS TESTING LABORATORIES**

940 S. Harney  
Seattle, WA 98108

**ATTACHMENT A**

Chain-of-Custody Copies



SAMPLE CONFIRMATION LOG - CAB31

SAMPLE ID	VTSR	COLLECTED	CLIENT ID	NWTPH GAS	NWTPH DIESEL	LTL8303 PICRIC ACID	8332 NITROGLYCERIN & PETN	8330 EXPLOSIVES RESIDUES	8270C SVOCs (LTL ROUTINE 2-PH)	8260B VOCs (LTL ROUTINE)	7470 TOTAL MERCURY	7470 DISS. MERCURY	6020 TOTAL PRIORITY POLLUTANT METALS	6020 DISS. PRIORITY POLLUTANT METALS	415.1 TOTAL ORGANIC CARBON	415.1 DISSOLVED ORGANIC CARBON	314.0 PERCHLORATE	310.1M CARB./BICARB. ALKALINITY	300.0 NO3, NO2, CL, SO4	160.2 TOTAL SUSPENDED SOLIDS	
CAB31-001	6/21/2007 10:10	6/20/2007 10:00	15L4MMW02AW																		
CAB31-002	6/21/2007 10:10	6/20/2007 11:20	15L4MMW03AW																		
CAB31-003	6/21/2007 10:10	6/20/2007 13:50	15L4MMW03BW																		
CAB31-004	6/21/2007 10:10	6/20/2007 15:15	15L4MMW05AW																		
CAB31-005	6/21/2007 10:10	6/20/2007 0:00	TRIP BLANK																		
CAB31-006	6/21/2007 10:10	6/20/2007 15:50	15LCMW420W																		
CAB31-007	6/21/2007 10:10	6/20/2007 16:00	15LCMW430W																		
CAB31-008	6/21/2007 10:10	6/20/2007 15:50	15LCMW420W (Filt.)																		
CAB31-009	6/21/2007 10:10	6/20/2007 16:00	15LCMW430W (Filt.)																		

LEGEND: -:Started, +:Completed, IN:Logged In, P:Preparation, A:Analysis, X:Cancelled, PL:Pre-logged

Samples identified with a "\*" client has requested QC for

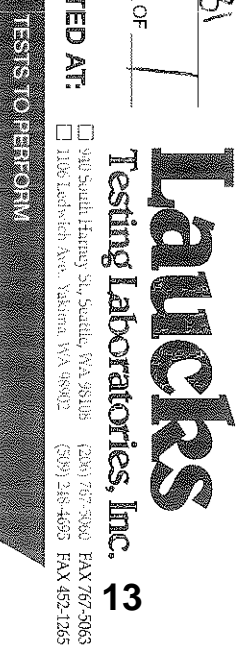
2087

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING (SEE BELOW)

COMPANY: PBS  
 ADDRESS: 4412 SW CORBETT  
PORTLAND, OR 97239  
 ATTENTION: DREW HARVEY  
CAMP BONNEVILLE  
 PROJECT NAME:  
 PROJECT CONTACT: DREW HARVEY  
 TELEPHONE: 503-417-7693 FAX: 503-248-0223  
 JOB/PO. NO.: 70489.000 T 6206

CHAIN OF CUSTODY RECORD SDG # CAR31  
 43109 PAGE 1 OF 1

WORK ORDER ID # \_\_\_\_\_  
 SUBMITTED AT:  940 South Henry St, Seattle, WA 98105 (206) 767-5060 FAX 767-5065  
 1106 Leach Ave, Yakima, WA 98902 (509) 248-4095 FAX 452-1265



LAB #/A#	SAMPLE ID / LOCATION	DATE	TIME
1	1514 NW 031AW	6/20/07	10:00 W
2	1514 NW 031AW	6/20/07	11:30 W
3	1514 NW 031BW	6/20/07	13:50 W
4	1514 NW 051AW	6/20/07	15:15 W
5	TRIP BLANK	6/20/07	15:50 W
6	1514 NW 031AW		

LAB #/A#	SAMPLE ID / LOCATION	DATE	TIME	MATRIX: WATER, SOIL OR SPECIFY					OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
				NO. OF CONTAINERS	EXPLOSIVES	PET N/ING	PERCHLORATE	VOL'S	
1	1514 NW 031AW	6/20/07	10:00 W	8	X	X	X	X	
2	1514 NW 031AW	6/20/07	11:30 W	3	X	X	X	X	
3	1514 NW 031BW	6/20/07	13:50 W	8	X	X	X	X	
4	1514 NW 051AW	6/20/07	15:15 W	2	X	X	X	X	
5	TRIP BLANK	6/20/07	15:50 W	3	X	X	X	X	
6	1514 NW 031AW								

A. A standard turnaround time is assumed unless otherwise marked.  
 INSTRUCTIONS:  
 1. USE ONE LINE PER SAMPLE  
 2. BE SPECIFIC IN TEST REQUESTS  
 3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.  
 BILLING INFORMATION: IF DIFFERENT THAN ABOVE  
 NAME: \_\_\_\_\_  
 ATTN: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 CITY, STATE, ZIP: \_\_\_\_\_

\* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL  
 RECEIVED BY (SIGN AND PRINT) Mike Golden DATE 6/20/07 TIME 13:30  
 RECEIVED BY (SIGN AND PRINT) Mike Kraker DATE 6/20/07 TIME 16:10  
 \* TOTAL NO. OF CONTAINERS 27  
 TURNAROUND REQUEST:  
 STD. 10-14 WORKING DAYS  
 24-48 HRS. (100% SUR)  
 72 HRS. (75% SUR)  
 5 DAYS (60% SUR)  
 OTHER \_\_\_\_\_  
 TEMP. \_\_\_\_\_  
 CUSTODY SEAL:  Y  N  N/A



**Supplemental Sample Receipt Log  
Laucks Testing Laboratories**

**SDG: CAB31**

**Cooler: AAD485**

**Temperatures: 14.0**

**COC #: 43109**

Sample	Bottle #	Bottle Description	pH	Bubbles
CAB31-001	0001	1000 mL boston round, amber glass	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	40 ml OTWS, clear glass, HCl	N/C	None
	0006	40 ml OTWS, clear glass, HCl	N/C	None
	0007	40 ml OTWS, clear glass, HCl	N/C	None
	0008	500 ml cylinder, poly	7	N/A
CAB31-002	0006	40 ml OTWS, clear glass, HCl	N/C	None
	0007	40 ml OTWS, clear glass, HCl	N/C	None
	0008	40 ml OTWS, clear glass, HCl	N/C	None
CAB31-003	0006	40 ml OTWS, clear glass, HCl	N/C	None
	0007	40 ml OTWS, clear glass, HCl	N/C	None
	0008	40 ml OTWS, clear glass, HCl	N/C	None
CAB31-004	0001	1000 mL boston round, amber glass	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	40 ml OTWS, clear glass, HCl	N/C	None
	0006	40 ml OTWS, clear glass, HCl	N/C	None
	0007	40 ml OTWS, clear glass, HCl	N/C	None
	0008	500 ml cylinder, poly	7	N/A
CAB31-005	0001	40 ml OTWS, clear glass, HCl	N/C	None
	0002	40 ml OTWS, clear glass, HCl	N/C	None

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING (SEE BELOW)

COMPANY: **PBS**  
ADDRESS: **4412 SW COBBETT**

ATTENTION: **POTLAND OR 97239**  
**DREW HARVEY**

PROJECT NAME: **CAMP BONNEVILLE**

PROJECT CONTACT: **DREW HARVEY**

TELEPHONE: **503-417-7693** FAX: **503-248-0223**

JOB/P.O. NO.: **76489.000** **T 62206**

CHAIN OF CUSTODY RECORD **SDG # 43108** **Case 1**

PAGE **1** OF **1**

SUBMITTED AT: **MIAMI**



940 South Henry St, Seattle, WA 98105  
1106 Eastman Ave, Portland, WA 98902

(206) 757-3000 FAX 757-5063  
(509) 226-4050 FAX 552-1265

MATRIX: WATER, SOIL OR SPECIFY	NO. OF CONTAINERS	TESTS TO PERFORM
	<b>5</b>	<b>PETN/NG</b>
	<b>5</b>	<b>EXPLOSIVES</b>
	<b>5</b>	<b>PERCHLORATE</b>
	<b>5</b>	<b>TOTAL METALS</b>
	<b>5</b>	<b>*DISSOLVED METALS</b>

LAB. S#	SAMPLE ID / LOCATION	DATE	TIME	NAME	ATTN.	CITY, STATE, ZIP	RECEIVED BY (SIGN AND PRINT)	DATE	TIME
2	1524 MW 034W	6/20/07	1:00	MIKE ROSSER			MIKE ROSSER	6/20/07	1:30
3	1524 MW 035W	6/20/07	1:30						
7	1524 MW 430 W	6/20/07	16:00 W						

**\*FIELD FILTERED**

A. A standard turnaround time is assumed unless otherwise marked.  
 1. USE ONE LINE PER SAMPLE  
 2. BE SPECIFIC IN TEST REQUESTS.  
 3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.  
 BILLING INFORMATION: **DIFFERENT THAN ABOVE**  
 ADDRESS:  
 CITY, STATE, ZIP:

**\* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL**

TURNAROUND REQUEST  
 STD. 10-14 WORKING DAYS  
 24-48 HRS. (100% SUR)  
 72 HRS. (75% SUR)  
 5 DAYS (50% SUR)  
 OTHER: \_\_\_\_\_  
 CUSTODY SEAL:  Y  N  NA



**Supplemental Sample Receipt Log  
Laucks Testing Laboratories**

SDG: CAB31

Cooler: AAD578

Temperatures: 11.0

COC #: 43108

Sample	Bottle #	Bottle Description	pH	Bubbles
CAB31-002	0001	1000 mL boston round, amber glass	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	500 ml cylinder, poly	7	N/A
CAB31-003	0001	1000 mL boston round, amber glass	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	500 ml cylinder, poly	7	N/A
CAB31-007	0001	1000 mL cylinder, poly, HNO3	<2	N/A
CAB31-009	0001	1000 mL cylinder, poly, HNO3 Filtered	<2	N/A

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH

COMPANY:

ADDRESS:

ATTENTION:

PROJECT NAME:

PROJECT CONTACT:

TELEPHONE:

JOB/PO. NO.:

PBS  
4412 S.W. OBETT  
PORTLAND OR 97239

DEAN HARVEY  
CAMP BOWNEVILLE

DEAN HARVEY

503-417-7693 x.503-348-0223

70489,000 T6206

CHAIN OF CUSTODY RECORD  
43110

SDG # A131  
PAGE 1 OF 1

WORK ORDER ID#

SUBMITTED AT:

TESTS TO PERFORM

Testing Laboratories, Inc. 19  
960 South Haney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063  
1116 Leachman Ave., Yakima, WA 98902 (509) 246-4995 FAX 452-1265



MATRIX: WATER, SOIL OR SPECIFY

- NO. OF CONTAINERS
- EXPLOSIVES
- PETN/NG
- PERCHLORATE
- SVOCs
- PICRIC ACID
- TSS/SALK/LIONS
- TOXAL METAL
- DISSOLVED METALS
- NWTPH-METALS
- NWTPH-DX
- DOC \*
- TOC

OBSERVATIONS,  
COMMENTS, SPECIAL  
INSTRUCTIONS

\*FIELD FILTERED

LAB SA# SAMPLE ID / LOCATION DATE TIME

15 152211W430W 6/20/07 1530 W 18

1

3

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

INSTRUCTIONS

1. USE ONE LINE PER SAMPLE.
2. BE SPECIFIC IN TEST REQUESTS.
3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

NAME

ATTN:

ADDRESS

CITY, STATE, ZIP

\* RUSH TURNAROUND IS  
SUBJECT TO PRIOR

LABORATORY APPROVAL

21 TOTAL NO. OF CONTAINERS

TURNAROUND REQUEST:

\* STD. 10-14 WORKING DAYS

\* 24-48 HRS. (100% SUR)

\* 72 HRS. (75% SUR)

\* 5 DAYS (50% SUR)

OTHER

TEMP.

CUSTODY SEAL:  Y  N  N/A

RELINQUISHED BY (SIGN AND PRINT)

Mike Bick / Mike Bick

DATE TIME

6/20/07 1530

RECEIVED BY (SIGN AND PRINT)

Mike Bick

DATE TIME

6/21/07 16:16



**Cooler Receipt Form**  
**Laucks Testing Laboratories, Inc.**

SDG: CAB31  
Cooler: AAP003  
COC #: 43110  
Project: Camp Bonneville (PBS Engineering and Environmental)

Taken By: CLIENT  
Transferred: FEDEX

Date samples were received at the laboratory: 6/21/2007  
Date cooler was opened: 6/21/2007 2:00AM

**A. PRELIMINARY EXAMINATION PHASE:**

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES  
if YES, record carrier name and airbill number: **FEDEX 862054469015**
2. Were custody seals unbroken and intact at the date and time of arrival? ..... INTACT  
Date On Custody Seal: ..... Custody Seals Description: **TWO ON FRONT**
3. Were custody papers sealed in a plastic bag and taped inside to the lid? ..... YES
4. Did you screen samples for radioactivity using the Geiger Counter? ..... NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... YES
6. Did you sign custody papers in the appropriate place? ..... YES
7. If required, was enough cooling material present? ..... YES
8. Have designated person initial here to acknowledge receipt of cooler: *HH*

**B. LOG-IN PHASE:**

Date samples were logged-in: 6/21/2007 2:20AM

Logged-in by Helen Huizenga (sign) *Helen Huizenga*

9. Describe type of packing in cooler:

10. Were all bottles sealed in separate plastic bags? ..... YES
11. Were labels in good condition? ..... YES
12. Were all bottle labels complete (ID,date,time signature,preservative,etc.)? ..... YES
13. Did all bottle labels agree with custody papers? ..... YES
14. Were correct containers used for the tests indicated? ..... YES
15. Were the correct pHs observed? ..... YES
16. Was a sufficient amount of sample sent for tests indicated? ..... YES
17. Were bubbles absent in VOA samples? ..... YES
18. Temperatures: **5.8**

DISCREPANCIES:

**Supplemental Sample Receipt Log  
Laucks Testing Laboratories**

SDG: CAB31

Cooler: AAP003

Temperatures: 5.8

COC #: 43110

Sample	Bottle #	Bottle Description	pH	Bubbles
CAB31-006	0001	1000 mL boston round, amber glass	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	1000 mL boston round, amber glass	7	N/A
	0006	1000 mL boston round, amber glass	7	N/A
	0007	1000 mL cylinder, poly	7	N/A
	0008	1000 mL cylinder, poly, HNO3	<2	N/A
	0010	40 ml OTWS, clear glass, HCl	N/C	None
	0011	40 ml OTWS, clear glass, HCl	N/C	None
	0012	40 ml OTWS, clear glass, HCl	N/C	None
	0013	40 ml OTWS, clear glass, HCl	N/C	None
	0014	40 ml OTWS, clear glass, HCl	N/C	None
	0015	40 ml OTWS, clear glass, HCl	N/C	None
	0020	500 ml boston round, clear glass, HCl	<2	N/A
	0021	500 ml cylinder, poly	7	N/A
	0025	1000 mL boston round, amber glass	7	N/A
	0026	1000 mL boston round, amber glass	7	N/A
	0028	500 ml boston round, clear glass, HCl	<2	N/A
	0029	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0030	40 ml OTWS, clear glass, H3PO4	N/C	N/A
CAB31-008	0001	1000 mL cylinder, poly, HNO3 Filtered	<2	N/A
	0002	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0003	40 ml OTWS, clear glass, H3PO4	N/C	N/A

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH

**LAUCKS TESTING LABORATORIES**

940 S. Harney  
Seattle, WA 98108

**ATTACHMENT B**

Index

**LAUCKS TESTING LABORATORIES**

940 S. Harney  
Seattle, WA 98108

**PBS Engineering & Environmental**

**SDG No.: CAB31**

- I. Narrative: 2-10
- II. Chain-of-Custody: 11-21
- III. Index: 22-23
- IV. Forms Summary: SUM- 1-254

Completed and checked by: Judy Ecklund Date: 7/24/07

**FORMS SUMMARY**

SDG CAB31

VOLATILES ANALYSIS

2  
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB31

Run Sequence: R019020

Level: (LOW/MED) NONE

CLIENT SAMPLE NUMBER	SMC1 (DBF) #	SMC2 (DCA) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
(CAB31-006) 15LCMW420W	103	108	106	107	0
(CAB31-004) 15L4MW05AW	99	107	105	106	0
(CAB31-003) 15L4MW03BW	102	106	105	109	0
(CAB31-002) 15L4MW03AW	102	108	107	107	0
(CAB31-001) 15L4MW02AW	103	108	104	107	0
(CAB31-005) TRIP BLANK	101	104	108	107	0
(B062607MVOWB1) B062607MVOWB1	102	105	105	107	0
(S062607MVOWB2) S062607MVOWB2	102	103	106	106	0

	QC LIMITS
SMC1 (DBF) = Dibromofluoromethane	85-115
SMC2 (DCA) = 1,2-Dichloroethane-d4	70-120
SMC3 (TOL) = Toluene-d8	85-120
SMC4 (BFB) = 4-Bromofluorobenzene	75-120

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits

3B  
WATER VOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

BS Run Sequence: R019020 SDG No.: CAB31

BS Lab Sample ID: S062607MVOWB2

Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Dichlorodifluoromethane	50.0	34.91	70		30-155
Chloromethane	50.0	38.96	78		40-125
Vinyl chloride	50.0	41.69	83		50-145
Bromomethane	50.0	41.14	82		30-145
Chloroethane	50.0	40.97	82		60-135
Trichlorofluoromethane	50.0	44.6	89		60-145
1,1-Dichloroethene	50.0	54.68	109		70-130
Acetone	50.0	42.19	84		40-140
Carbon disulfide	50.0	52.84	106		35-160
Methylene chloride	50.0	46.9	94		55-140
trans-1,2-Dichloroethene	50.0	51.01	102		60-140
1,1-Dichloroethane	50.0	50.96	102		70-135
cis-1,2-Dichloroethene	50.0	49.01	98		70-125
2-Butanone	50.0	46.98	94		30-150
Chloroform	50.0	49.11	98		65-135
1,1,1-Trichloroethane	50.0	50.86	102		65-130
Carbon tetrachloride	50.0	49.55	99		65-140
Benzene	50.0	48.09	96		80-120
1,2-Dichloroethane	50.0	49.47	99		70-130
Trichloroethene	50.0	49.05	98		70-125
1,2-Dichloropropane	50.0	47.84	96		75-125
Bromodichloromethane	50.0	48.33	97		75-120
cis-1,3-Dichloropropene	50.0	55.52	111		70-130
4-Methyl-2-pentanone	50.0	46.78	94		60-135
Toluene	50.0	49.06	98		75-120
trans-1,3-Dichloropropene	50.0	44.22	88		55-140
1,1,2-Trichloroethane	50.0	47.75	96		75-125
Tetrachloroethene	50.0	49.06	98		45-150
2-Hexanone	50.0	53.54	107		55-130
Dibromochloromethane	50.0	48.93	98		60-135
Chlorobenzene	50.0	48.92	98		80-120
Ethylbenzene	50.0	48.77	98		75-125
m,p-Xylene	100	98.71	99		75-130
o-Xylene	50.0	48.19	96		80-120

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 37 outside limits

COMMENTS:

3B  
WATER VOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

BS Run Sequence: R019020 SDG No.: CAB31

BS Lab Sample ID: S062607MVOWB2

Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Styrene	50.0	46.92	94		65-135
Bromoform	50.0	42.29	85		70-130
1,1,2,2-Tetrachloroethane	50.0	48.74	97		65-130

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 37 outside limits

COMMENTS:



4  
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062607MVOWB1

Lab Name Laucks Testing Labs Contract: \_\_\_\_\_  
 SDG No.: CAB31  
 Lab File ID: B0626022.D Lab Sample ID: B062607MVOWB1  
 Date Analyzed: 06/26/2007 Time Analyzed: 18:22  
 GC Column: ZB-624 20m ID: 0.18 (mm) Heated Purge: (Y/N) N  
 Instrument ID: 5973B Matrix: Water

	CLIENT SAMPLE NO.	LAB SAMPLE ID.	LAB FILE ID.	DATE ANALYZED	TIME ANALYZED	RUN SEQUENCE
01	S062607MVOWB2	S062607MVOWB2	B0626020.D	06/26/2007	17:33	R019020
02	TRIP BLANK	CAB31-005	B0626024.D	06/26/2007	19:13	R019020
03	15L4MW02AW	CAB31-001	B0626036.D	06/27/2007	00:16	R019020
04	15L4MW03AW	CAB31-002	B0626037.D	06/27/2007	00:42	R019020
05	15L4MW03BW	CAB31-003	B0626038.D	06/27/2007	01:07	R019020
06	15L4MW05AW	CAB31-004	B0626039.D	06/27/2007	01:32	R019020
07	15LCMW420W	CAB31-006	B0626040.D	06/27/2007	02:10	R019020
08						
09						
10						
11						
12						
13						
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15						
16						
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27						
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29						
30						

COMMENTS: \_\_\_\_\_

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

BFB25NG

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: CAL948 SDG No.: CAB31  
 Lab File ID: B0604007.D BFB Injection Date: 06/04/2007  
 Instrument ID: 5973B BFB Injection Time: 10:14  
 GC Column ZB-624 20m ID: 0.18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15% to 40% of mass 95	16.6
75	30% to 60% of mass 95	43.3
95	base peak. 100% relative abundance	100
96	5% to 9% of mass 95	7.6
173	less than 2% of mass 174	0()1
174	greater than 50% of mass 95	97.7
175	5% to 9% of mass 17	7.4()1
176	greater than 95%. but less than 101% of mass 174	98.7()1
177	5% to 9% of mass 176	7()2

1 - Value is %mass 174

2 - Value is %mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD001	VSTD001	B0604009.D	06/04/2007	11:23
02	VSTD005	VSTD005	B0604011.D	06/04/2007	12:30
03	VSTD010	VSTD010	B0604012.D	06/04/2007	12:55
04	VSTD050	VSTD050	B0604013.D	06/04/2007	13:20
05	VSTD075	VSTD075	B0604014.D	06/04/2007	13:45
06	VSTD100	VSTD100	B0604015.D	06/04/2007	14:10
07	VSTD200	VSTD200	B0604016.D	06/04/2007	14:35
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROENZENE (BFB)

BFBB2

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019020 SDG No.: CAB31  
 Lab File ID: B0626017.D BFB Injection Date: 06/26/2007  
 Instrument ID: 5973B BFB Injection Time: 16:12  
 GC Column ZB-624 20m ID: 0.18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15% to 40% of mass 95	17.2
75	30% to 60% of mass 95	45
95	base peak. 100% relative abundance	100
96	5% to 9% of mass 95	6.8
173	less than 2% of mass 174	0 ()1
174	greater than 50% of mass 95	104
175	5% to 9% of mass 17	7.2 ()1
176	greater than 95%. but less than 101% of mass 174	96.8 ()1
177	5% to 9% of mass 176	6.3 ()2

1 - Value is %mass 174

2 - Value is %mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050B6	VSTD050B6	B0626018.D	06/26/2007	16:37
02	S062607MVOWB2	S062607MVOWB2	B0626020.D	06/26/2007	17:33
03	B062607MVOWB1	B062607MVOWB1	B0626022.D	06/26/2007	18:22
04	TRIP BLANK	CAB31-005	B0626024.D	06/26/2007	19:13
05	15L4MW02AW	CAB31-001	B0626036.D	06/27/2007	00:16
06	15L4MW03AW	CAB31-002	B0626037.D	06/27/2007	00:42
07	15L4MW03BW	CAB31-003	B0626038.D	06/27/2007	01:07
08	15L4MW05AW	CAB31-004	B0626039.D	06/27/2007	01:32
09	15LCMW420W	CAB31-006	B0626040.D	06/27/2007	02:10
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019020 SDG No.: CAB31  
 Client Sample No.(VSTD050##): VSTD050B6 Date Analyzed: 06/26/2007  
 Lab File ID (Standard): B0626018.D Time Analyzed: 16:37  
 Instrument ID: 5973B Heated Purge: (Y/N) N  
 GC Column: ZB-624 20m ID: 0.18 (mm)

	IS1 (FBZ) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	604328	6.24	451357	9.42	236928	11.73
UPPER LIMIT	1208656	6.74	902714	9.92	473856	12.23
LOWER LIMIT	302164	5.74	225678.5	8.92	118464	11.23
CLIENT SAMPLE NO.						
01 S062607MVOWB2	576172	6.24	433766	9.42	229054	11.73
02 B062607MVOWB1	600255	6.24	446298	9.42	234498	11.73
03 TRIP BLANK	607996	6.24	447828	9.42	233346	11.73
04 15L4MW02AW	582397	6.24	435399	9.42	230319	11.73
05 15L4MW03AW	574057	6.24	426994	9.42	220838	11.73
06 15L4MW03BW	565445	6.24	424195	9.42	220060	11.73
07 15L4MW05AW	582925	6.24	438270	9.42	237261	11.73
08 15LCMW420W	585292	6.24	432423	9.42	225768	11.73
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (FBZ) = Fluorobenzene  
 IS2 (CBZ) = Chlorobenzene-d5  
 IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area  
 AREA LOWER LIMIT = - 50% of internal standard area  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW02AW

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB31

Run Sequence: R019020

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: CAB31-001

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0626036.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/20/2007

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/27/2007 00:16

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_(uL)

Soil Aliquot Volume: \_\_\_\_\_(uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW02AW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: CAB31-001  
 Lab File ID: B0626036.D  
 Date Collected: 06/20/2007  
 Date/Time Analyzed: 06/27/2007 00:16  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
124-48-1	Dibromochloromethane	1.0		U
108-90-7	Chlorobenzene	1.0		U
100-41-4	Ethylbenzene	1.0		U
179601-23	m,p-Xylene	2.0		U
95-47-6	o-Xylene	1.0		U
100-42-5	Styrene	1.0		U
75-25-2	Bromoform	1.0		U
79-34-5	1,1,2,2-Tetrachloroethane	1.0		U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW03AW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: CAB31-002  
 Lab File ID: B0626037.D  
 Date Collected: 06/20/2007  
 Date/Time Analyzed: 06/27/2007 00:42  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
75-71-8	Dichlorodifluoromethane	1.0		U
74-87-3	Chloromethane	1.0		U
75-01-4	Vinyl chloride	1.0		U
74-83-9	Bromomethane	1.0		U
75-00-3	Chloroethane	1.0		U
75-69-4	Trichlorofluoromethane	1.0		U
75-35-4	1,1-Dichloroethene	1.0		U
67-64-1	Acetone	5.0		U
75-15-0	Carbon disulfide	1.0		U
75-09-2	Methylene chloride	1.0		U
156-60-5	trans-1,2-Dichloroethene	1.0		U
75-34-3	1,1-Dichloroethane	1.0		U
156-59-2	cis-1,2-Dichloroethene	1.0		U
78-93-3	2-Butanone	5.0		U
67-66-3	Chloroform	1.0		U
71-55-6	1,1,1-Trichloroethane	1.0		U
56-23-5	Carbon tetrachloride	1.0		U
71-43-2	Benzene	1.0		U
107-06-2	1,2-Dichloroethane	1.0		U
79-01-6	Trichloroethene	1.0		U
78-87-5	1,2-Dichloropropane	1.0		U
75-27-4	Bromodichloromethane	1.0		U
10061-01-	cis-1,3-Dichloropropene	1.0		U
108-10-1	4-Methyl-2-pentanone	5.0		U
108-88-3	Toluene	1.0		U
10061-02-	trans-1,3-Dichloropropene	1.0		U
79-00-5	1,1,2-Trichloroethane	1.0		U
127-18-4	Tetrachloroethene	1.0		U
591-78-6	2-Hexanone	5.0		U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW03AW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: CAB31-002  
 Lab File ID: B0626037.D  
 Date Collected: 06/20/2007  
 Date/Time Analyzed: 06/27/2007 00:42  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
124-48-1	Dibromochloromethane	1.0		U
108-90-7	Chlorobenzene	1.0		U
100-41-4	Ethylbenzene	1.0		U
179601-23	m,p-Xylene	2.0		U
95-47-6	o-Xylene	1.0		U
100-42-5	Styrene	1.0		U
75-25-2	Bromoform	1.0		U
79-34-5	1,1,2,2-Tetrachloroethane	1.0		U

Comments:



1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW03BW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: CAB31-003  
 Lab File ID: B0626038.D  
 Date Collected: 06/20/2007  
 Date/Time Analyzed: 06/27/2007 01:07  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW03BW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: CAB31-003  
 Lab File ID: B0626038.D  
 Date Collected: 06/20/2007  
 Date/Time Analyzed: 06/27/2007 01:07  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW05AW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: CAB31-004  
 Lab File ID: B0626039.D  
 Date Collected: 06/20/2007  
 Date/Time Analyzed: 06/27/2007 01:32  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW05AW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: CAB31-004  
 Lab File ID: B0626039.D  
 Date Collected: 06/20/2007  
 Date/Time Analyzed: 06/27/2007 01:32  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 SDG No.: CAB31 Run Sequence: R019020  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: CAB31-005  
 Sample wt/vol: 5.00 (g/mL) mL Lab File ID: B0626024.D  
 Level: (LOW/MED) \_\_\_\_\_ Date Collected: 06/20/2007  
 % Moisture: not dec. \_\_\_\_\_ Date/Time Analyzed: 06/26/2007 19:13  
 GC Column: ZB-624 20m ID: 0.18 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_(uL) Soil Aliquot Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	0.79	J
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: CAB31-005  
 Lab File ID: B0626024.D  
 Date Collected: 06/20/2007  
 Date/Time Analyzed: 06/26/2007 19:13  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW420W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: CAB31-006  
 Lab File ID: B0626040.D  
 Date Collected: 06/20/2007  
 Date/Time Analyzed: 06/27/2007 02:10  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	2.4	J
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	5.5	
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW420W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: CAB31-006  
 Lab File ID: B0626040.D  
 Date Collected: 06/20/2007  
 Date/Time Analyzed: 06/27/2007 02:10  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:



## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019020SDG No.: CAB31Instrument ID: 5973BCalibration Dates: 06/04/200714:35Heated Purge: (Y/N) NCalibration Times: 06/04/200714:35GC Column: ZB-624 20m ID: \_\_\_\_\_ Mean % RSD: 6.700.1 $\mu$  (mm)

Analyte	Std 1	RF 1	Std 2	RF 2	Std 3	RF 3	Std 4	RF 4	Std 5	RF 5	Std 6	RF 6	Std 7	RF 7	Std 8	RF 8	RF	%RSD	r <sup>2</sup> COD	Eq Ty
Dichlorodifluoromethane	1	1.010E-01	5	1.160E-01	10	1.150E-01	50	1.470E-01	75	1.480E-01	100	1.310E-01	200	1.500E-01			0.130	15.09		A
Chloromethane	1	2.630E-01	5	2.840E-01	10	2.610E-01	50	2.829E-01	75	2.809E-01	100	2.640E-01	200	2.870E-01			0.274	4.19		A
Vinyl chloride	1	2.330E-01	5	2.490E-01	10	2.370E-01	50	2.630E-01	75	2.630E-01	100	2.389E-01	200	2.590E-01			0.249	5.23		A
Bromomethane	1	1.949E-01	5	1.680E-01	10	1.490E-01	50	1.580E-01	75	1.680E-01	100	1.540E-01	200	1.540E-01			0.164	9.54		A
Chloroethane	1	1.750E-01	5	1.680E-01	10	1.630E-01	50	1.610E-01	75	1.640E-01	100	1.420E-01	200	1.540E-01			0.161	6.54		A
Trichlorofluoromethane	1	2.649E-01	5	2.980E-01	10	2.700E-01	50	3.199E-01	75	3.150E-01	100	2.790E-01	200	2.980E-01			0.292	7.28		A
1,1-Dichloroethene	1	1.570E-01	5	1.949E-01	10	1.620E-01	50	1.959E-01	75	1.930E-01	100	1.690E-01	200	1.770E-01			0.178	9.17		A
Acetone	1	1.560E-01	5	1.320E-01	10	1.160E-01	50	1.250E-01	75	1.170E-01	100	1.140E-01	200	1.040E-01			0.123	13.72		A
Carbon disulfide	1	5.680E-01	5	6.579E-01	10	6.129E-01	50	7.969E-01	75	8.090E-01	100	7.160E-01	200	7.300E-01			0.699	12.94	1.000	Q
Methylene chloride	1	1.001E+00	5	3.170E-01	10	2.579E-01	50	2.640E-01	75	2.720E-01	100	2.590E-01	200	2.490E-01			0.374			A
trans-1,2-Dichloroethene	1	2.300E-01	5	2.780E-01	10	2.410E-01	50	2.739E-01	75	2.599E-01	100	2.410E-01	200	2.420E-01			0.252	7.38		A
1,1-Dichloroethane	1	4.560E-01	5	4.900E-01	10	4.400E-01	50	4.990E-01	75	4.740E-01	100	4.480E-01	200	4.460E-01			0.465	5.00		A
cis-1,2-Dichloroethene	1	2.829E-01	5	3.059E-01	10	2.619E-01	50	2.980E-01	75	2.879E-01	100	2.669E-01	200	2.720E-01			0.282	5.75		A
2-Butanone	1	2.480E-01	5	1.879E-01	10	1.940E-01	50	2.169E-01	75	2.110E-01	100	2.080E-01	200	1.930E-01			0.208	9.77		A
Chloroform	1	4.639E-01	5	4.819E-01	10	4.219E-01	50	4.720E-01	75	4.569E-01	100	4.280E-01	200	4.309E-01			0.451	5.26		A
1,1,1-Trichloroethane	1	3.129E-01	5	3.840E-01	10	3.300E-01	50	3.849E-01	75	3.590E-01	100	3.280E-01	200	3.290E-01			0.347	8.36		A
Carbon tetrachloride	1	2.579E-01	5	3.440E-01	10	2.850E-01	50	3.490E-01	75	3.240E-01	100	2.920E-01	200	2.969E-01			0.307	10.82		A
Benzene	1	1.070E+00	5	1.184E+00	10	1.026E+00	50	1.172E+00	75	1.113E+00	100	1.051E+00	200	1.054E+00			1.096	5.66		A
1,2-Dichloroethane	1	3.499E-01	5	3.600E-01	10	3.319E-01	50	3.600E-01	75	3.540E-01	100	3.400E-01	200	3.370E-01			0.347	3.29		A
Trichloroethene	1	2.809E-01	5	3.240E-01	10	2.780E-01	50	3.230E-01	75	3.059E-01	100	2.850E-01	200	2.910E-01			0.298	6.51		A
1,2-Dichloropropane	1	2.750E-01	5	2.890E-01	10	2.590E-01	50	2.899E-01	75	2.800E-01	100	2.680E-01	200	2.649E-01			0.275	4.28		A
Bromodichloromethane	1	3.389E-01	5	3.510E-01	10	3.269E-01	50	3.670E-01	75	3.580E-01	100	3.440E-01	200	3.440E-01			0.347	3.81		A
cis-1,3-Dichloropropene	1	3.750E-01	5	3.880E-01	10	3.610E-01	50	4.199E-01	75	4.070E-01	100	3.919E-01	200	3.910E-01			0.391	4.95		A
4-Methyl-2-pentanone	1	5.720E-01	5	4.149E-01	10	3.930E-01	50	4.269E-01	75	4.219E-01	100	4.100E-01	200	3.939E-01			0.433	14.48		A

Eq Ty = Equation Type  
Q=Quadratic, L=Linear, A=Average

\* SPCCS #

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## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019020 SDG No.: CAB31  
 Instrument ID: 5973B Calibration Dates: 06/04/2007 14:35  
 Heated Purge: (Y/N) N Calibration Times: 06/04/2007 14:35  
 GC Column: ZB-624 20m ID: 0.1E (mm) Mean % RSD: 6.70

Analyte	Std	RF 1	Std	RF 2	Std	RF 3	Std	RF 4	Std	RF 5	Std	RF 6	Std	RF 7	Std	RF 8	RF	%RSD	r <sup>2</sup> COD	Eq Ty
Toluene	1	8.470E-01	5	9.840E-01	10	8.399E-01	50	9.940E-01	75	9.279E-01	100	8.790E-01	200	8.909E-01			0.909	6.83		A
trans-1,3-Dichloropropene	1	5.899E-01	5	6.160E-01	10	5.630E-01	50	6.510E-01	75	6.309E-01	100	6.169E-01	200	6.250E-01			0.614	4.69		A
1,1,2-Trichloroethane	1	3.650E-01	5	3.709E-01	10	3.350E-01	50	3.700E-01	75	3.600E-01	100	3.510E-01	200	3.520E-01			0.358	3.59		A
Tetrachloroethene	1	3.980E-01	5	4.740E-01	10	3.980E-01	50	4.799E-01	75	4.410E-01	100	4.110E-01	200	4.320E-01			0.433	7.78		A
2-Hexanone	1	3.890E-01	5	3.800E-01	10	3.610E-01	50	4.239E-01	75	4.170E-01	100	4.100E-01	200	4.000E-01			0.397	5.60		A
Dibromochloromethane	1	3.450E-01	5	3.960E-01	10	3.540E-01	50	4.170E-01	75	4.079E-01	100	3.989E-01	200	4.030E-01			0.389	7.13		A
Chlorobenzene	1	1.010E+00	5	1.066E+00	10	9.359E-01	50	1.072E+00	75	1.031E+00	100	9.940E-01	200	1.005E+0			1.016	4.55		A
Ethylbenzene	1	1.562E+00	5	1.779E+00	10	1.561E+00	50	1.823E+00	75	1.723E+00	100	1.644E+00	200	1.670E+0			1.680	6.03		A
m,p-Xylene	2	6.169E-01	10	7.080E-01	20	6.160E-01	100	7.210E-01	150	6.850E-01	200	6.510E-01	400	6.570E-01			0.665	6.24		A
o-Xylene	1	6.280E-01	5	6.740E-01	10	6.119E-01	50	6.970E-01	75	6.679E-01	100	6.430E-01	200	6.470E-01			0.653	4.48		A
Styrene	1	1.115E+00	5	1.186E+00	10	1.082E+00	50	1.240E+00	75	1.206E+00	100	1.164E+00	200	1.172E+0			1.167	4.57		A
Bromoforn	1	3.400E-01	5	3.400E-01	10	3.089E-01	50	3.580E-01	75	3.610E-01	100	3.569E-01	200	3.660E-01			0.347	5.67		A
1,1,2,2-Tetrachloroethane	1	8.930E-01	5	9.409E-01	10	8.909E-01	50	9.620E-01	75	9.639E-01	100	9.540E-01	200	9.380E-01			0.935	3.29		A
Dibromofluoromethane	50	2.540E-01	55	2.460E-01	60	2.480E-01	65	2.389E-01	70	2.460E-01	75	2.399E-01	80	2.380E-01			0.245	2.32		A
1,2-Dichloroethane-d4	50	2.640E-01	55	2.619E-01	60	2.599E-01	65	2.550E-01	70	2.619E-01	75	2.550E-01	80	2.520E-01			0.258	1.79		A
Toluene-d8	50	1.206E+00	55	1.220E+00	60	1.201E+00	65	1.215E+00	70	1.209E+00	75	1.192E+00	80	1.195E+0			1.206	0.84		A
4-Bromofluorobenzene	50	8.450E-01	55	8.290E-01	60	8.309E-01	65	8.100E-01	70	8.290E-01	75	8.259E-01	80	8.150E-01			0.827	1.37		A

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average  
 \* SPCCS #

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**INITIAL  
SECOND SOURCE CALIBRATION VERIFICATION**

Lab Name: Laucks Testing Laboratories, Inc.

Initial Calibration ID: B8260W-060407

Instrument ID: 5973B

Concentration Units: ug/L

2nd Source ID: ICV060607MVOB1

Analyte	Equation Type	Expected	Found	%D
1,1,1,2-Tetrachloroethane	A	50.00	49.24	1.52
1,1,1-Trichloroethane	A	50.00	53.79	7.58
1,1,2,2-Tetrachloroethane	A	50.00	50.09	0.18
1,1,2-Trichloroethane	A	50.00	49.57	0.86
1,1-Dichloroethane	A	50.00	54.42	8.84
1,1-Dichloroethene	A	50.00	61.74	23.48
1,1-Dichloropropene	A	50.00	56.82	13.64
1,2,3-Trichlorobenzene	A	50.00	55.01	10.02
1,2,3-Trichloropropane	A	50.00	47.73	4.54
1,2,4-Trichlorobenzene	A	50.00	54.31	8.62
1,2,4-Trimethylbenzene	A	50.00	50.47	0.94
1,2-Dibromo-3-chloropropane	A	50.00	49.81	0.38
1,2-Dibromoethane	A	50.00	50.86	1.72
1,2-Dichlorobenzene	A	50.00	51.04	2.08
1,2-Dichloroethane	A	50.00	51.85	3.70
1,2-Dichloroethane-d4	A	50.00	50.27	0.54
1,2-Dichloropropane	A	50.00	50.72	1.44
1,3,5-Trimethylbenzene	A	50.00	49.94	0.12
1,3-Dichlorobenzene	A	50.00	50.64	1.28
1,3-Dichloropropane	A	50.00	49.61	0.78
1,4-Dichlorobenzene	A	50.00	51.11	2.22
1-Chlorohexane	A	50.00	54.76	9.52
2,2-Dichloropropane	A	50.00	51.18	2.36
2-Butanone	A	50.00	51.05	2.10
2-Chlorotoluene	A	50.00	49.94	0.12
2-Hexanone	A	50.00	51.14	2.28
4-Bromofluorobenzene	A	50.00	49.38	1.24
4-Chlorotoluene	A	50.00	50.00	0.00
4-Isopropyltoluene	A	50.00	52.39	4.78
4-Methyl-2-pentanone	A	50.00	49.24	1.52
Acetone	A	50.00	50.13	0.26
Benzene	A	50.00	51.60	3.20
Bromobenzene	A	50.00	48.39	3.22
Bromochloromethane	A	50.00	51.68	3.36
Bromodichloromethane	A	50.00	51.67	3.34
Bromoform	A	50.00	48.24	3.52
Bromomethane	A	50.00	40.01	19.98
Carbon disulfide	A	50.00	52.03	4.06
Carbon tetrachloride	A	50.00	53.74	7.48
Chlorobenzene	A	50.00	51.66	3.32
Chloroethane	A	50.00	41.80	16.40
Chloroform	A	50.00	52.51	5.02
Chloromethane	A	50.00	42.42	15.16

**INITIAL  
SECOND SOURCE CALIBRATION VERIFICATION**

Lab Name: Laucks Testing Laboratories, Inc.

Initial Calibration ID: B8260W-060407

Instrument ID: 5973B

Concentration Units: ug/L

2nd Source ID: ICV060607MVOB1

Analyte	Equation Type	Expected	Found	%D
cis-1,2-Dichloroethene	A	50.00	53.73	7.46
cis-1,3-Dichloropropene	A	50.00	59.33	18.66
Dibromochloromethane	A	50.00	52.66	5.32
Dibromofluoromethane	A	50.00	51.50	3.00
Dibromomethane	A	50.00	51.58	3.16
Dichlorodifluoromethane	A	50.00	40.14	19.72
Ethyl-t-Butyl Ether(ETBE)	A	50.00	53.27	6.54
Ethylbenzene	A	50.00	50.70	1.40
Hexachlorobutadiene	A	50.00	54.04	8.08
Isopropyl ether	A	50.00	51.97	3.94
Isopropylbenzene	A	50.00	51.78	3.56
m,p-Xylene	A	100.00	103.37	3.37
Methyl tert-butyl ether	A	50.00	56.55	13.10
Methylene chloride	Q	50.00	52.82	5.64
n-Butylbenzene	A	50.00	51.86	3.72
n-Propylbenzene	A	50.00	51.48	2.96
Naphthalene	A	50.00	54.73	9.46
o-Xylene	A	50.00	51.09	2.18
sec-Butylbenzene	A	50.00	53.45	6.90
Styrene	A	50.00	50.33	0.66
t-Amyl Methyl Ether(TAME)	A	50.00	52.66	5.32
t-Butyl Alcohol	A	500.00	565.69	13.14
tert-Butylbenzene	A	50.00	51.42	2.84
Tetrachloroethene	A	50.00	51.86	3.72
Toluene	A	50.00	50.75	1.50
Toluene-d8	A	50.00	51.28	2.56
trans-1,2-Dichloroethene	A	50.00	55.58	11.16
trans-1,3-Dichloropropene	A	50.00	45.29	9.42
Trichloroethene	A	50.00	53.18	6.36
Trichlorofluoromethane	A	50.00	42.86	14.28
Vinyl chloride	A	50.00	45.14	9.72

Q=Quadratic, L=Linear, A=Average

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019020SDG No.: CAB31Instrument ID: 5973BCalibration Date: 06/26/2007 Time: 16:37Lab File ID: B0626018.DInit. Calib. Date(s): 06/04/2007Client Sample No.: VSTD050B6Init. Calib. Time(s): 10:14Heated Purge: (Y/N) NGC Column: ZB-624 20m ID: 0.18 (mm)

Compound	Equation Type	RF 50.0	%D	%Drift
Dichlorodifluoromethane	A	0.095	26.65*	
Chloromethane	A	0.220	19.75	
Vinyl chloride	A	0.205	17.55	
Bromomethane	A	0.132	19.77	
Chloroethane	A	0.141	12.73	
Trichlorofluoromethane	A	0.256	12.32	
1,1-Dichloroethene	A	0.165	7.55	
Acetone	A	0.110	10.83	
Carbon disulfide	A	0.567	18.85	
Methylene chloride	Q	0.255		-5.80
trans-1,2-Dichloroethene	A	0.236	6.29	
1,1-Dichloroethane	A	0.445	4.31	
cis-1,2-Dichloroethene	A	0.260	7.84	
2-Butanone	A	0.216	-3.61	
Chloroform	A	0.432	4.28	
1,1,1-Trichloroethane	A	0.328	5.58	
Carbon tetrachloride	A	0.281	8.34	
Benzene	A	1.029	6.09	
1,2-Dichloroethane	A	0.342	1.50	
Trichloroethene	A	0.281	5.56	
1,2-Dichloropropane	A	0.258	6.17	
Bromodichloromethane	A	0.324	6.58	
cis-1,3-Dichloropropene	A	0.367	6.18	
4-Methyl-2-pentanone	A	0.427	1.28	
Toluene	A	0.885	2.59	
trans-1,3-Dichloropropene	A	0.598	2.65	
1,1,2-Trichloroethane	A	0.346	3.45	
Tetrachloroethene	A	0.418	3.36	
2-Hexanone	A	0.441	-11.20	
Dibromochloromethane	A	0.363	6.70	
Chlorobenzene	A	0.961	5.45	
Ethylbenzene	A	1.638	2.47	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

7  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019020

SDG No.: CAB31

Instrument ID: 5973B

Calibration Date: 06/26/2007 Time: 16:37

Lab File ID: B0626018.D

Init. Calib. Date(s): 06/04/2007

Client Sample No.: VSTD050B6

Init. Calib. Time(s): 10:14

Heated Purge: (Y/N) N

GC Column: ZB-624 20m ID: 0.18 (mm)

Compound	Equation Type	RF 50.0	%D	%Drift
m,p-Xylene	A	0.642	3.49	
o-Xylene	A	0.611	6.43	
Styrene	A	1.095	6.16	
Bromoform	A	0.296	14.81	
1,1,2,2-Tetrachloroethane	A	0.916	1.99	
Dibromofluoromethane	A	0.225	8.11	
1,2-Dichloroethane-d4	A	0.243	5.75	
Toluene-d8	A	1.148	4.77	
4-Bromofluorobenzene	A	0.792	4.28	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607MVOWB1

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: B062607MVOWB1  
 Lab File ID: B0626022.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/26/2007 18:22  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607MVOWB1

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB31

Run Sequence: R019020

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: B062607MVOWB1

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0626022.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/26/2007 18:22

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_(uL)

Soil Aliquot Volume: \_\_\_\_\_(uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:



1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607MVOWB2

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: S062607MVOWB2  
 Lab File ID: B0626020.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/26/2007 17:33  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	35	
74-87-3	Chloromethane	39	
75-01-4	Vinyl chloride	42	
74-83-9	Bromomethane	41	
75-00-3	Chloroethane	41	
75-69-4	Trichlorofluoromethane	45	
75-35-4	1,1-Dichloroethene	55	
67-64-1	Acetone	42	
75-15-0	Carbon disulfide	53	
75-09-2	Methylene chloride	47	
156-60-5	trans-1,2-Dichloroethene	51	
75-34-3	1,1-Dichloroethane	51	
156-59-2	cis-1,2-Dichloroethene	49	
78-93-3	2-Butanone	47	
67-66-3	Chloroform	49	
71-55-6	1,1,1-Trichloroethane	51	
56-23-5	Carbon tetrachloride	50	
71-43-2	Benzene	48	
107-06-2	1,2-Dichloroethane	49	
79-01-6	Trichloroethene	49	
78-87-5	1,2-Dichloropropane	48	
75-27-4	Bromodichloromethane	48	
10061-01-	cis-1,3-Dichloropropene	56	
108-10-1	4-Methyl-2-pentanone	47	
108-88-3	Toluene	49	
10061-02-	trans-1,3-Dichloropropene	44	
79-00-5	1,1,2-Trichloroethane	48	
127-18-4	Tetrachloroethene	49	
591-78-6	2-Hexanone	54	

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607MVOWB2

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB31

Run Sequence: R019020

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: S062607MVOWB2

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0626020.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/26/2007 17:33

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_(uL)

Soil Aliquot Volume: \_\_\_\_\_(uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	<u>ug/L</u>	
124-48-1	Dibromochloromethane	49		
108-90-7	Chlorobenzene	49		
100-41-4	Ethylbenzene	49		
179601-23	m,p-Xylene	99		
95-47-6	o-Xylene	48		
100-42-5	Styrene	47		
75-25-2	Bromoform	42		
79-34-5	1,1,2,2-Tetrachloroethane	49		

Comments:

# **FORMS SUMMARY**

**SDG# CAB31**

**Semivolatiles**

2  
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB31

Run Sequence: R019608

Level: (LOW/MED) NONE

CLIENT SAMPLE NUMBER	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (2FB) #	TOT OUT
(CAB31-006) 15LCMW420W	35	57	73	65	
(S062507MSVWLT) S062507MSVWLT	42	65	84	76	
(B062507MSVWLT) B062507MSVWLT	35	61	82	70	

QC LIMITS

S1 (2FP) = 2-Fluorophenol	20-110
S2 (PHL) = Phenol-d5	10-115
S3 (NBZ) = Nitrobenzene-d5	40-110
S4 (2FB) = 2-Fluorobiphenyl	50-100

# Column to be used to flag recovery values  
 \* Values outside of contract required QC limits  
 D Surrogate diluted out

2  
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB31

Run Sequence: R019608

Level: (LOW/MED) NONE

CLIENT SAMPLE NUMBER	S5 (TBP) #	S6 (DTR) #	S7 ( ) #	S8 ( ) #	TOT OUT
(CAB31-006) 15LCMW420W	41	78			0
(S062507MSVWLT) S062507MSVWLT	58	76			0
(B062507MSVWLT) B062507MSVWLT	49	76			0

QC LIMITS

S5 (TBP) = 2,4,6-Tribromophenol

40-125

S6 (DTR) = Terphenyl-d14

50-135

S7 ( ) =

S8 ( ) =

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D Surrogate diluted out

3B  
WATER SEMIVOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 BS Run Sequence: R019608 SDG No.: CAB31  
 BS Lab Sample ID: S062507MSVWLT  
 Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
3 & 4-Methylphenol	20.0	17.27	86		30-110
Bis(2-chloroisopropyl)ether	20.0	16.28	81		35-110
Phenol	20.0	13.46	67		23-98
Bis(2-Chloroethyl)ether	20.0	18.38	92		35-110
2-Chlorophenol	20.0	13.29	66		35-105
1,3-Dichlorobenzene	20.0	10.71	54		30-100
1,4-Dichlorobenzene	20.0	10.47	52		30-100
Benzyl alcohol	20.0	17.49	87		30-110
1,2-Dichlorobenzene	20.0	11.29	56		35-100
2-Methylphenol	20.0	16.13	81		40-110
N-Nitroso-di-n-propylamine	20.0	20.03	100		35-130
Hexachloroethane	20.0	9.56	48		30-95
Nitrobenzene	20.0	17.47	87		45-110
Isophorone	20.0	16.25	81		50-110
2-Nitrophenol	20.0	9.88	49		40-115
2,4-Dimethylphenol	20.0	11.4	57		30-110
Benzoic acid	20.0	8.11	41		0-125
Bis(2-chloroethoxy)methane	20.0	16.82	84		45-105
2,4-Dichlorophenol	20.0	13.16	66		50-105
1,2,4-Trichlorobenzene	20.0	11.62	58		35-105
Naphthalene	20.0	13.2	66		40-100
4-Chloroaniline	20.0	12.38	62		15-110
Hexachlorobutadiene	20.0	9.32	47		25-105
4-Chloro-3-methylphenol	20.0	15.64	78		45-110
2-Methylnaphthalene	20.0	14.2	71		45-105
Hexachlorocyclopentadiene	20.0	3.72	19		10-49
2,4,6-Trichlorophenol	20.0	9.53	48	*	50-115
2,4,5-Trichlorophenol	20.0	11.91	60		50-110
2-Chloronaphthalene	20.0	15.46	77		50-105
2-Nitroaniline	20.0	14.72	74		50-115
Dimethylphthalate	20.0	16.72	84		25-125
2,6-Dinitrotoluene	20.0	10.97	55		50-115
Acenaphthylene	20.0	16.09	80		50-105
3-Nitroaniline	20.0	13.04	65		20-125

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

Spike Recovery: 1 out of 69 outside limits

COMMENTS:

3B  
WATER SEMIVOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 BS Run Sequence: R019608 SDG No.: CAR31  
 BS Lab Sample ID: S062507MSVWLT  
 Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Acenaphthene	20.0	16.28	81		45-110
2,4-Dinitrophenol	20.0	11.49	57		15-140
4-Nitrophenol	20.0	10.52	53		0-125
Dibenzofuran	20.0	16.54	83		55-105
2,4-Dinitrotoluene	20.0	12.73	64		50-120
Diethylphthalate	20.0	16.49	82		40-120
Fluorene	20.0	16.63	83		50-110
4-Chlorophenyl-phenylether	20.0	16.63	83		50-110
4-Nitroaniline	20.0	14.19	71		35-120
4,6-Dinitro-2-methylphenol	20.0	9	45		40-130
N-Nitrosodiphenylamine	20.0	13.54	68		50-110
Azobenzene	20.0	17.81	89		55-115
4-Bromophenyl-phenyl ether	20.0	16.55	83		50-115
Hexachlorobenzene	20.0	15.24	76		50-110
Pentachlorophenol	20.0	11.55	58		40-115
Phenanthrene	20.0	16.57	83		50-115
Anthracene	20.0	16.28	81		55-110
Carbazole	20.0	17.54	88		50-115
Di-n-butylphthalate	20.0	17.39	87		55-115
Fluoranthene	20.0	18.46	92		55-115
Benzidine	20.0	0	0		0-125
Pyrene	20.0	14.69	73		50-130
Butylbenzylphthalate	20.0	15.16	76		45-115
3,3'-Dichlorobenzidine	20.0	12.73	64		20-110
Benzo(a)anthracene	20.0	15.73	79		55-110
Bis(2-ethylhexyl)phthalate	20.0	15.06	75		40-125
Chrysene	20.0	16.74	84		55-110
Di-n-octylphthalate	20.0	12.85	64		35-135
Benzo(b)fluoranthene	20.0	15.34	77		45-120
Benzo(k)fluoranthene	20.0	18.09	90		45-125
Benzo(a)pyrene	20.0	15.68	78		55-110
Indeno(1,2,3-cd)pyrene	20.0	18.36	92		45-125
Dibenzo(a,h)anthracene	20.0	18.36	92		40-125
Benzo(g,h,i)perylene	20.0	18.77	94		40-125

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

Spike Recovery: 1 out of 69 outside limits

COMMENTS:

4  
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.  
B062507MSVWLT

Lab Name Laucks Testing Labs Contract: \_\_\_\_\_  
 SDG No.: CAB31  
 Lab File ID: L0716003.D Lab Sample ID: B062507MSVWLT  
 Date Analyzed: 07/16/2007 Time Analyzed: 17:00  
 GC Column: RTX-5Sil MS ID: 0.25 (mm) Heated Purge: (Y/N) N  
 Instrument ID: 5970L Matrix: Water

	CLIENT SAMPLE NO.	LAB SAMPLE ID.	LAB FILE ID.	DATE ANALYZED	TIME ANALYZED	RUN SEQUENCE
01	S062507MSVWLT	S062507MSVWLT	L0716004.D	07/16/2007	17:37	R019608
02	15LCMW420W	CAB31-006	L0716005.D	07/16/2007	18:14	R019608
03						
04						
05						
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30						

COMMENTS: \_\_\_\_\_



SEMIVOLATILE ORGANIC INSTRUMENT  
PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

DFTPP071207-1

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: CAL997 SDG No.: CAB31  
 Lab File ID: L0712001.D DFTPP Injection Date: 07/12/2007  
 Instrument ID: 5970L DFTPP Injection Time: 12:31

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30% to 60% of mass 198	48.5
68	less than 2% of mass 69	1.5 (1)
69	base peak. 100% relative abundance	100
70	less than 2% of mass 69	0.9 (1)
127	40% to 60% of mass 198	48.3
197	less than 1% of mass 198	0
198	base peak. 100% relative abundance	100
199	5% to 9% of mass 198	7.4
275	10% to 30% of mass 198	20.9
365	greater than 1% of mass 198	2
441	present but less than mass 443	76.2
442	greater than 40% of mass 198	64.5
443	17% to 23% of mass 442	19.5 (2)

1 - Value is %mass 69

2 - Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD001	SSTD001	L0712003.D	07/12/2007	13:43
02	SSTD040	SSTD040	L0712007.D	07/12/2007	16:13
03	SSTD060	SSTD060	L0712008.D	07/12/2007	16:51
04	SSTD080	SSTD080	L0712009.D	07/12/2007	17:28
05	SSTD005	SSTD005	L0712011.D	07/12/2007	18:43
06	SSTD010	SSTD010	L0712012.D	07/12/2007	19:21
07	SSTD025	SSTD025	L0712013.D	07/12/2007	19:58
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

SEMIVOLATILE ORGANIC INSTRUMENT  
PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

DFTPP071607-1

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
Run Sequence: R019608 SDG No.: CAB31  
Lab File ID: L0716001.D DFTPP Injection Date: 07/16/2007  
Instrument ID: 5970L DFTPP Injection Time: 15:40

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30% to 60% of mass 198	49.5
68	less than 2% of mass 69	1 (1)
69	base peak, 100% relative abundance	100
70	less than 2% of mass 69	0.6 (1)
127	40% to 60% of mass 198	46.8
197	less than 1% of mass 198	0
198	base peak, 100% relative abundance	100
199	5% to 9% of mass 198	6.9
275	10% to 30% of mass 198	21.9
365	greater than 1% of mass 198	1.8
441	present but less than mass 443	77.7
442	greater than 40% of mass 198	58.9
443	17% to 23% of mass 442	19.8 (2)

1 - Value is %mass 69

2 - Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV071607-1	CCV071607-1	L0716002.D	07/16/2007	16:05
02	B062507MSVWLT	B062507MSVWLT	L0716003.D	07/16/2007	17:00
03	S062507MSVWLT	S062507MSVWLT	L0716004.D	07/16/2007	17:37
04	15LCMW420W	CAB31-006	L0716005.D	07/16/2007	18:14
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019608 SDG No.: CAB31  
 Client Sample No.: CCV071607-1 Date Analyzed: 07/16/2007  
 Lab File ID (Standard): L0716002.D Time Analyzed: 16:05  
 Instrument ID: 5970L GC Column: RTX-5Sil MS ID: 0.25 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	15953	7.07	54716	8.73	28842	11.09
UPPER LIMIT	31906	7.57	109432	9.23	57684	11.59
LOWER LIMIT	7976.5	6.57	27358	8.23	14421	10.59
CLIENT SAMPLE NO.						
01 B062507MSVWLT	15501	7.07	53957	8.73	28626	11.09
02 S062507MSVWLT	14336	7.07	49768	8.72	26283	11.09
03 15LCMW420W	15225	7.07	52602	8.72	27619	11.09
04						
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14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (DCB) = 1,4-Dichlorobenzene-d4  
 IS2 (NPT) = Naphthalene-d8  
 IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area  
 AREA LOWER LIMIT = - 50% of internal standard area  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019608SDG No.: CAB31Client Sample No.: CCV071607-1Date Analyzed: 07/16/2007Lab File ID (Standard): L0716002.DTime Analyzed: 16:05Instrument ID: 5970LGC Column: RTX-5Sil MSID: 0.25 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	42612	13.09	25749	17.65	14139	21.32
UPPER LIMIT	85224	13.59	51498	18.15	28278	21.82
LOWER LIMIT	21306	12.59	12874.5	17.15	7069.5	20.82
CLIENT SAMPLE NO.						
01 B062507MSVWLT	42140	13.09	27046	17.65	14290	21.33
02 S062507MSVWLT	38475	13.09	24878	17.65	13633	21.32
03 I5LCMW420W	41191	13.09	24554	17.65	13717	21.32
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW420W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1040.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019608  
 Lab Sample ID: CAB31-006  
 Lab File ID: L0716005.D  
 Date Collected: 06/20/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/16/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	4.8	U
108-60-1	Bis(2-chloroisopropyl) ether	4.8	U
108-95-2	Phenol	4.8	U
111-44-4	Bis(2-Chloroethyl) ether	4.8	U
95-57-8	2-Chlorophenol	4.8	U
541-73-1	1,3-Dichlorobenzene	4.8	U
106-46-7	1,4-Dichlorobenzene	4.8	U
100-51-6	Benzyl alcohol	4.8	U
95-50-1	1,2-Dichlorobenzene	4.8	U
95-48-7	2-Methylphenol	4.8	U
621-64-7	N-Nitroso-di-n-propylamine	4.8	U
67-72-1	Hexachloroethane	4.8	U
98-95-3	Nitrobenzene	4.8	U
78-59-1	Isophorone	4.8	U
88-75-5	2-Nitrophenol	4.8	U
105-67-9	2,4-Dimethylphenol	4.8	U
65-85-0	Benzoic acid	9.6	U
111-91-1	Bis(2-chloroethoxy)methane	4.8	U
120-83-2	2,4-Dichlorophenol	4.8	U
120-82-1	1,2,4-Trichlorobenzene	4.8	U
91-20-3	Naphthalene	4.8	U
106-47-8	4-Chloroaniline	4.8	U
87-68-3	Hexachlorobutadiene	4.8	U
59-50-7	4-Chloro-3-methylphenol	4.8	U
91-57-6	2-Methylnaphthalene	4.8	U
77-47-4	Hexachlorocyclopentadiene	4.8	U

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW420W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1040.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019608  
 Lab Sample ID: CAB31-006  
 Lab File ID: L0716005.D  
 Date Collected: 06/20/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/16/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-06-2	2,4,6-Trichlorophenol	4.8	U
95-95-4	2,4,5-Trichlorophenol	4.8	U
91-58-7	2-Chloronaphthalene	4.8	U
88-74-4	2-Nitroaniline	4.8	U
131-11-3	Dimethylphthalate	4.8	U
606-20-2	2,6-Dinitrotoluene	4.8	U
208-96-8	Acenaphthylene	4.8	U
99-09-2	3-Nitroaniline	4.8	U
83-32-9	Acenaphthene	4.8	U
51-28-5	2,4-Dinitrophenol	9.6	U
100-02-7	4-Nitrophenol	4.8	U
132-64-9	Dibenzofuran	4.8	U
121-14-2	2,4-Dinitrotoluene	4.8	U
84-66-2	Diethylphthalate	4.8	U
86-73-7	Fluorene	4.8	U
7005-72-3	4-Chlorophenyl-phenylether	4.8	U
100-01-6	4-Nitroaniline	4.8	U
534-52-1	4,6-Dinitro-2-methylphenol	4.8	U
86-30-6	N-Nitrosodiphenylamine	4.8	U
122-66-7	Azobenzene	4.8	U
101-55-3	4-Bromophenyl-phenyl ether	4.8	U
118-74-1	Hexachlorobenzene	4.8	U
87-86-5	Pentachlorophenol	4.8	U
85-01-8	Phenanthrene	4.8	U
120-12-7	Anthracene	4.8	U
86-74-8	Carbazole	4.8	U
84-74-2	Di-n-butylphthalate	4.8	U
206-44-0	Fluoranthene	4.8	U

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW420W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1040.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019608  
 Lab Sample ID: CAB31-006  
 Lab File ID: L0716005.D  
 Date Collected: 06/20/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/16/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
92-87-5	Benzidine	4.8	U
129-00-0	Pyrene	4.8	U
85-68-7	Butylbenzylphthalate	4.8	U
91-94-1	3,3'-Dichlorobenzidine	4.8	U
56-55-3	Benzo(a)anthracene	4.8	U
117-81-7	Bis(2-ethylhexyl)phthalate	4.8	U
218-01-9	Chrysene	4.8	U
117-84-0	Di-n-octylphthalate	4.8	U
205-99-2	Benzo(b)fluoranthene	4.8	U
207-08-9	Benzo(k)fluoranthene	4.8	U
50-32-8	Benzo(a)pyrene	4.8	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.8	U
53-70-3	Dibenzo(a,h)anthracene	4.8	U
191-24-2	Benzo(g,h,i)perylene	4.8	U

Comments:

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SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019608 SDG No.: CAB31  
 Instrument ID: 5970L Calibration Dates: 07/12/2007 21:13  
 Heated Purge: (Y/N) N Calibration Times: 07/12/2007 21:13

GC Column: RTX-5Sil MS ID: \_\_\_\_\_ Mean % RSD: 11.87

Analyte	Std	RF 1	Std	RF 2	Std	RF 3	Std	RF 4	Std	RF 5	Std	RF 6	Std	RF 7	Std	RF 8	RF	%RSD	R <sup>2</sup> COD	Eq Ty
3 & 4-Methylphenol	1	1.188E+00	10	1.598E+00	25	1.416E+00	40	1.317E+00	60	1.165E+00	80	1.105E+00	80	2.477E+0	80	2.477E+0	1.298	14.24		A
Bis(2-chloroisopropyl)ether	1	2.503E+00	5	3.170E+00	10	2.984E+00	25	2.842E+00	40	2.678E+00	60	2.494E+00	60	1.872E+0	80	1.872E+0	2.736	9.95		A
Phenol	1	1.619E+00	5	2.415E+00	10	2.263E+00	25	2.062E+00	40	1.966E+00	60	1.790E+00	60	1.542E+0	80	1.542E+0	1.998	13.76		A
Bis(2-Chloroethyl)ether	1	1.376E+00	5	2.066E+00	10	1.957E+00	25	1.797E+00	40	1.675E+00	60	1.572E+00	60	1.375E+0	80	1.375E+0	1.712	14.22		A
2-Chlorophenol	1	1.189E+00	5	1.719E+00	10	1.612E+00	25	1.536E+00	40	1.480E+00	60	1.396E+00	60	1.200E+0	80	1.200E+0	1.473	11.77		A
1,3-Dichlorobenzene	1	1.369E+00	5	2.072E+00	10	1.890E+00	25	1.790E+00	40	1.733E+00	60	1.625E+00	60	1.465E+0	80	1.465E+0	1.730	12.87		A
1,4-Dichlorobenzene	1	1.388E+00	5	2.161E+00	10	1.952E+00	25	1.794E+00	40	1.763E+00	60	1.674E+00	60	1.465E+0	80	1.465E+0	1.769	13.78		A
Benzyl alcohol	1	7.940E-01	5	1.198E+00	10	1.116E+00	25	1.054E+00	40	1.022E+00	60	9.089E-01	60	1.251E+0	80	1.251E+0	0.999	13.92		A
1,2-Dichlorobenzene	1	1.296E+00	5	2.009E+00	10	1.865E+00	25	1.683E+00	40	1.613E+00	60	1.500E+00	60	1.251E+0	80	1.251E+0	1.633	14.96		A
2-Methylphenol	1	1.017E+00	5	1.593E+00	10	1.528E+00	25	1.445E+00	40	1.340E+00	60	1.263E+00	60	1.095E+00	80	1.095E+00	1.348	14.46		A
N-Nitroso-di-n-propylamine	1	9.660E-01	10	1.392E+00	25	1.250E+00	40	1.103E+00	60	1.001E+00	80	1.005E+00	80	7.120E-01	80	7.120E-01	1.120	15.07		A
Hexachloroethane	1	6.079E-01	5	8.859E-01	10	8.309E-01	25	7.699E-01	40	7.500E-01	60	7.070E-01	60	5.099E-01	80	5.099E-01	0.752	11.99		A
Nitrobenzene	1	3.939E-01	5	5.899E-01	10	5.609E-01	25	5.320E-01	40	5.019E-01	60	5.000E-01	60	8.380E-01	80	8.380E-01	0.513	12.07		A
Isophorone	1	7.649E-01	5	1.057E+00	10	1.054E+00	25	9.509E-01	40	8.730E-01	60	8.510E-01	60	1.790E-01	80	1.790E-01	0.913	12.24		A
2-Nitrophenol	1	1.270E-01	5	1.360E-01	10	1.350E-01	25	1.450E-01	40	1.739E-01	60	1.690E-01	60	4.540E-01	80	4.540E-01	0.152	14.02		A
2,4-Dimethylphenol	1	3.429E-01	5	5.669E-01	10	5.260E-01	25	4.990E-01	40	4.670E-01	60	4.580E-01	60	2.509E-01	80	2.509E-01	0.473	14.88		A
Benzoic acid	5	1.110E-01	10	1.600E-01	25	1.790E-01	40	2.200E-01	60	2.290E-01	80	2.509E-01	80	5.730E-01	80	5.730E-01	0.192	0.999		Q
Bis(2-chloroethoxy)methane	1	5.220E-01	5	7.390E-01	10	7.210E-01	25	6.530E-01	40	6.010E-01	60	5.770E-01	60	3.770E-01	80	3.770E-01	0.627	12.90		A
2,4-Dichlorophenol	1	2.960E-01	5	4.460E-01	10	4.449E-01	25	4.100E-01	40	3.910E-01	60	3.800E-01	60	4.379E-01	80	4.379E-01	0.392	13.02		A
1,2,4-Trichlorobenzene	1	3.790E-01	5	5.479E-01	10	5.040E-01	25	4.670E-01	40	4.490E-01	60	4.350E-01	60	1.179E+0	80	1.179E+0	0.460	11.75		A
Naphthalene	1	1.133E+00	5	1.557E+00	10	1.445E+00	25	1.318E+00	40	1.239E+00	60	1.198E+00	60	5.320E-01	80	5.320E-01	1.296	11.96		A
4-Chloroaniline	1	4.610E-01	5	6.589E-01	10	6.390E-01	25	5.839E-01	40	5.559E-01	60	5.500E-01	60	2.550E-01	80	2.550E-01	0.569	11.72		A
Hexachlorobutadiene	1	2.370E-01	5	3.129E-01	10	2.890E-01	25	2.730E-01	40	2.599E-01	60	2.509E-01	60	4.000E-01	80	4.000E-01	0.268	9.56		A
4-Chloro-3-methylphenol	1	3.150E-01	5	4.729E-01	10	4.790E-01	25	4.449E-01	40	4.160E-01	60	4.000E-01	60	3.899E-01	80	3.899E-01	0.417	13.57		A

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average  
 \* SPCCS #



## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019608 SDG No.: CAB31  
 Instrument ID: 5970L Calibration Dates: 07/12/2007 21:13  
 Heated Purge: (Y/N) N Calibration Times: 07/12/2007 21:13  
 GC Column: RTX-5Sil\_MS ID: \_\_\_\_\_ Mean % RSD: 11.87  
0.25 (mm)

Analyte	Std	RF 1	Std	RF 2	Std	RF 3	Std	RF 4	Std	RF 5	Std	RF 6	Std	RF 7	Std	RF 8	RF	%RSD	r <sup>2</sup> COD	Eq Ty
2-Methylnaphthalene	1	6.840E-01	5	9.269E-01	10	8.809E-01	25	8.040E-01	40	7.400E-01	60	7.160E-01	80	7.049E-01			0.780	12.06		A
Hexachlorocyclopentadiene	5	3.970E-01	10	3.709E-01	25	3.989E-01	40	4.659E-01	60	4.589E-01	80	4.749E-01					0.428	10.27		A
2,4,6-Trichlorophenol	5	4.449E-01	10	4.540E-01	25	5.440E-01	40	5.260E-01	60	4.910E-01	80	4.970E-01					0.493	7.85		A
2,4,5-Trichlorophenol	1	3.899E-01	5	6.470E-01	10	6.179E-01	25	5.080E-01	40	5.370E-01	60	5.360E-01	80	5.510E-01			0.541	15.34		A
2-Chloronaphthalene	1	1.313E+00	5	1.876E+00	10	1.684E+00	25	1.489E+00	40	1.480E+00	60	1.408E+00	80	1.415E+00			1.524	12.64		A
2-Nitroaniline	5	4.700E-01	10	4.889E-01	25	5.070E-01	40	4.980E-01	60	4.790E-01	80	4.910E-01					0.489	2.70		A
Dimethylphthalate	1	1.420E+00	5	2.056E+00	10	2.082E+00	25	1.851E+00	40	1.707E+00	60	1.582E+00	80	1.579E+00			1.754	14.39		A
2,6-Dinitrotoluene	5	3.989E-01	10	4.460E-01	25	4.379E-01	40	4.210E-01	60	4.020E-01	80	4.040E-01					0.418	4.72		A
Acenaphthylene	1	1.997E+00	5	2.934E+00	10	2.655E+00	25	2.417E+00	40	2.365E+00	60	2.174E+00	80	2.229E+00			2.396	13.14		A
3-Nitroaniline	5	4.030E-01	10	4.370E-01	25	4.260E-01	40	4.040E-01	60	3.910E-01	80	3.970E-01					0.410	4.38		A
Acenaphthene	1	1.205E+00	5	1.819E+00	10	1.675E+00	25	1.483E+00	40	1.451E+00	60	1.326E+00	80	1.351E+00			1.473	14.38		A
2,4-Dinitrophenol	1		5	4.100E-02	10	5.500E-02	25	7.000E-02	40	8.200E-02	60	7.900E-02	80	8.200E-02			0.068		0.999	L
4-Nitrophenol	5	1.360E-01	10	1.580E-01	25	1.729E-01	40	1.850E-01	60	1.729E-01	80	1.760E-01					0.167	10.34		A
Dibenzofuran	1	1.704E+00	5	2.539E+00	10	2.335E+00	25	2.122E+00	40	2.030E+00	60	1.868E+00	80	1.868E+00			2.067	14.11		A
2,4-Dinitrotoluene	5	3.939E-01	10	4.799E-01	25	5.099E-01	40	4.889E-01	60	4.630E-01	80	4.600E-01					0.466	8.54		A
Diethylphthalate	5	2.040E+00	10	2.066E+00	25	1.844E+00	40	1.694E+00	60	1.534E+00	80	1.493E+00					1.779	13.87		A
Fluorene	1	1.415E+00	5	1.983E+00	10	1.881E+00	25	1.620E+00	40	1.554E+00	60	1.415E+00	80	1.405E+00			1.611	14.64		A
4-Chlorophenyl-phenylether	1	6.790E-01	5	9.969E-01	10	9.369E-01	25	7.969E-01	40	7.780E-01	60	7.080E-01	80	7.009E-01			0.800	15.40		A
4-Nitroaniline	5	3.820E-01	10	4.260E-01	25	4.140E-01	40	3.860E-01	60	3.590E-01	80	3.680E-01					0.389	6.72		A
4,6-Dinitro-2-methylphenol	10	5.799E-02	25	7.100E-02	40	8.200E-02	60	8.100E-02	80	8.600E-02							0.076	14.86		A
N-Nitrosodiphenylamine	1	7.229E-01	5	1.082E+00	10	9.679E-01	25	9.229E-01	40	8.880E-01	60	8.840E-01	80	9.110E-01			0.911	11.78		A
Azobenzene	1	1.215E+00	5	1.792E+00	10	1.635E+00	25	1.534E+00	40	1.460E+00	60	1.426E+00	80	1.468E+00			1.504	11.95		A
4-Bromophenyl-phenyl ether	1	2.540E-01	5	3.800E-01	10	3.520E-01	25	3.290E-01	40	3.160E-01	60	3.010E-01	80	3.140E-01			0.321	12.35		A
Hexachlorobenzene	1	2.910E-01	5	4.480E-01	10	4.190E-01	25	3.869E-01	40	3.590E-01	60	3.319E-01	80	3.680E-01			0.372	14.10		A

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average

\* SPCCs #

6  
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019608 SDG No.: CAB31  
 Instrument ID: 5970L Calibration Dates: 07/12/2007 21:13  
 Heated Purge: (Y/N) N Calibration Times: 07/12/2007 21:13

GC Column: RTX-5Sil MS ID: 0.25 (mm) Mean % RSD: 11.87

Analyte	Std	RF 1	Std	RF 2	Std	RF 3	Std	RF 4	Std	RF 5	Std	RF 6	Std	RF 7	Std	RF 8	%RSD	R <sup>2</sup>	Eq Ty
Pentachlorophenol	5	9.399E-02	10	1.060E-01	25	1.380E-01	40	1.540E-01	60	1.570E-01	80	1.650E-01	80	1.462E+0			0.136	1.000	Q
Phenanthrene	1	1.268E+00	5	1.837E+00	10	1.670E+00	25	1.535E+00	40	1.495E+00	60	1.429E+00	60	1.416E+0	80	1.462E+0	11.89		A
Anthracene	1	1.233E+00	5	1.835E+00	10	1.695E+00	25	1.561E+00	40	1.450E+00	60	1.399E+00	60	1.226E+0	80	1.416E+0	13.34		A
Carbazole	1	1.011E+00	5	1.533E+00	10	1.452E+00	25	1.386E+00	40	1.292E+00	60	1.212E+00	60	1.535E+0	80	1.226E+0	13.37		A
Di-n-butylphthalate	1	1.568E+00	5	1.966E+00	10	1.991E+00	25	1.842E+00	40	1.635E+00	60	1.544E+00	60	1.175E+0	80	1.535E+0	11.69		A
Fluoranthene	1	1.071E+00	5	1.582E+00	10	1.477E+00	25	1.380E+00	40	1.242E+00	60	1.175E+00	60	1.181E+0	80	1.175E+0	14.13		A
Benzidine	5	6.489E-01	10	8.439E-01	25	9.639E-01	40	9.490E-01	60	8.790E-01	80	7.960E-01	80				0.847	13.67	A
Pyrene	1	2.053E+00	5	2.884E+00	10	2.734E+00	25	2.586E+00	40	2.527E+00	60	2.342E+00	60	2.210E+0	80	2.210E+0	11.83		A
Butylbenzylphthalate	1	6.079E-01	5	8.420E-01	10	9.139E-01	25	9.210E-01	40	9.030E-01	60	8.809E-01	60	9.319E-01	80	9.319E-01	0.857	13.29	A
3,3'-Dichlorobenzidine	5	4.480E-01	10	4.359E-01	25	4.490E-01	40	4.620E-01	60	4.639E-01	80	4.880E-01	80				0.458	3.91	A
Benzo(a)anthracene	1	1.332E+00	5	1.717E+00	10	1.720E+00	25	1.605E+00	40	1.522E+00	60	1.493E+00	60	1.535E+0	80	1.535E+0	1.561	8.70	A
Bis(2-ethylhexyl)phthalate	5	9.010E-01	10	9.309E-01	25	9.580E-01	40	1.031E+00	60	1.089E+00	80	1.194E+00	80				1.018	10.87	A
Chrysene	1	1.069E+00	5	1.633E+00	10	1.482E+00	25	1.419E+00	40	1.388E+00	60	1.369E+00	60	1.406E+0	80	1.406E+0	1.396	12.14	A
Di-n-octylphthalate	5	2.217E+00	10	2.285E+00	25	2.582E+00	40	2.714E+00	60	2.691E+00	80	2.895E+00	80				2.565	10.29	A
Benzo(b)fluoranthene	5	2.214E+00	10	2.186E+00	25	2.003E+00	40	2.019E+00	60	1.801E+00	80	1.815E+00	80				2.007	8.77	A
Benzo(k)fluoranthene	5	2.122E+00	10	1.975E+00	25	1.918E+00	40	1.609E+00	60	1.572E+00	80	1.688E+00	80				1.811	12.45	A
Benzo(a)pyrene	5	1.809E+00	10	1.735E+00	25	1.673E+00	40	1.642E+00	60	1.558E+00	80	1.598E+00	80				1.669	5.49	A
Indeno(1,2,3-cd)pyrene	5	1.089E+00	10	1.091E+00	25	1.380E+00	40	1.418E+00	60	1.434E+00	80	1.574E+00	80				1.331	14.86	A
Dibenzo(a,h)anthracene	5	9.060E-01	10	9.490E-01	25	1.172E+00	40	1.187E+00	60	1.198E+00	80	1.329E+00	80				1.123	14.45	A
Benzo(g,h,i)perylene	5	9.530E-01	10	9.459E-01	25	1.067E+00	40	1.117E+00	60	1.163E+00	80	1.253E+00	80				1.083	11.10	A
2-Fluorophenol	1	1.010E+00	5	1.468E+00	10	1.389E+00	25	1.315E+00	40	1.350E+00	60	1.271E+00	60	1.281E+0	80	1.281E+0	1.298	11.08	A
Phenol-d5	1	1.404E+00	5	2.206E+00	10	2.046E+00	25	1.893E+00	40	1.822E+00	60	1.684E+00	60	1.715E+0	80	1.715E+0	1.824	14.28	A
Nitrobenzene-d5	1	3.829E-01	5	5.709E-01	10	5.479E-01	25	4.819E-01	40	4.620E-01	60	4.630E-01	60	4.709E-01	80	4.709E-01	0.483	12.80	A
2-Fluorobiphenyl	1	1.449E+00	5	1.985E+00	10	1.814E+00	25	1.641E+00	40	1.623E+00	60	1.534E+00	60	1.570E+0	80	1.570E+0	1.659	11.00	A

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average

\* SPCCS #

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks\_Testing\_Labs Contract: \_\_\_\_\_  
 Run Sequence: R019608 SDG No.: CAB31  
 Instrument ID: 5970L Calibration Dates: 07/12/2007 21:13  
 Heated Purge: (Y/N) N Calibration Times: 07/12/2007 21:13  
 GC Column: RTX-5Sil\_MS ID: \_\_\_\_\_ Mean % RSD: 11.87

Analyte	Std	RF 1	Std	RF 2	Std	RF 3	Std	RF 4	Std	RF 5	Std	RF 6	Std	RF 7	Std	RF 8	RF	%RSD	I <sup>2</sup> COD	Eq Ty
2,4,6-Tribromophenol	5	1.100E-01	10	1.140E-01	25	1.410E-01	40	1.380E-01	60	1.500E-01	80	1.580E-01					0.135	14.22		A
Terphenyl-d14	1	1.217E+00	5	1.666E+00	10	1.667E+00	25	1.594E+00	40	1.503E+00	60	1.398E+00	80	1.336E+00			1.483	11.67		A

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average

\* SPCCS #

Calibration Standard Verification for Initial Calibration L8270M (07/12/07)

*** PROJECTED ***		*** ANALYSES ***			
Analyte(s)	Target Conc. ng/uL	Reference Solution	Amount Quanted ng/uL	Percent of Target	%D (<25%)
1,4-Dioxane	5	MS9-73-19	4.45	89	11
N-nitrosodimethylamine	32	MS9-73-19	27.64	86	14
Pyridine	32	MS9-73-19	26.4	83	18
2-Fluorophenol	64	MS9-73-19	59.08	92	8
Benzaldehyde	5	MS9-73-19	3.56	71	29
Phenol-d5	64	MS9-73-19	58.92	92	8
Phenol	32	MS9-73-19	29.88	93	7
Aniline	32	MS9-73-19	29.17	91	9
Bis(2-Chloroethyl)ether	32	MS9-73-19	27.9	87	13
2-Chlorophenol-d4	0	MS9-73-19	0	NA	NA
2-Chlorophenol	32	MS9-73-19	31.56	99	1
1,3-Dichlorobenzene	32	MS9-73-19	31.61	99	1
1,4-Dichlorobenzene	32	MS9-73-19	29.9	93	7
1,2-Dichlorobenzene-d4	0	MS9-73-19	0	NA	NA
Benzyl alcohol	32	MS9-73-19	27.26	85	15
1,2-Dichlorobenzene	32	MS9-73-19	31.68	99	1
2-Methylphenol	32	MS9-73-19	29.94	94	6
Bis(2-chloroisopropyl)ether	32	MS9-73-19	27.82	87	13
3 & 4-Methylphenol <sup>1</sup>	64	MS9-73-19	57.96	91	9
Acetophenone	32	MS9-73-19	33.13	104	4
n-Nitroso-di-n-propylamine	32	MS9-73-19	26.69	83	17
Hexachloroethane	32	MS9-73-19	28.57	89	11
Nitrobenzene-d5	32	MS9-73-19	28.23	88	12
Nitrobenzene	32	MS9-73-19	29.89	93	7
Isophorone	32	MS9-73-19	30.49	95	5
2-Nitrophenol	32	MS9-73-19	25.72	80	20
2,4-Dimethylphenol	32	MS9-73-19	30.09	94	6
bis(2-Chloroethoxy)methane	32	MS9-73-19	26.77	84	16
Benzoic acid	37	MS9-73-19	28.64	77	23
2,4-Dichlorophenol	32	MS9-73-19	30.11	94	6
1,2,4-Trichlorobenzene	32	MS9-73-19	30.46	95	5
Naphthalene	32	MS9-73-19	28.71	90	10
4-Chloroaniline	32	MS9-73-19	25.44	80	21
Hexachlorobutadiene	32	MS9-73-19	29.68	93	7
Caprolactam	5	MS9-73-19	4.18	84	16
4-Chloro-3-methylphenol	32	MS9-73-19	27.85	87	13
2-Methylnaphthalene	32	MS9-73-19	29.44	92	8
1-Methylnaphthalene	0	MS9-73-19	0	NA	NA
Hexachlorocyclopentadiene	32	MS9-73-19	29.98	94	6
1,2,4,5-Tetrachlorobenzene	37	MS9-73-19	38.31	104	4
2,4,6-Trichlorophenol	32	MS9-73-19	29.05	91	9
2,4,5-Trichlorophenol	32	MS9-73-19	31.41	98	2
2-Fluorobiphenyl	32	MS9-73-19	30.75	96	4
1,1'-Biphenyl	5	MS9-73-19	4.44	89	11
2-Chloronaphthalene	32	MS9-73-19	34.26	107	7
2-Nitroaniline	32	MS9-73-19	31.41	98	2
Dimethylphthalate	32	MS9-73-19	28.21	88	12
1,4-Dinitrobenzene	0	MS9-73-19	0	NA	NA
1,3-Dinitrobenzene	32	MS9-73-19	24.6	77	23
2,6-Dinitrotoluene	32	MS9-73-19	28.68	90	10
Acenaphthylene	32	MS9-73-19	30.37	95	5

*not a target  
analyte  
7/12/07 AP*

*** PROJECTED ***		*** ANALYSES ***			
Analyte(s)	Target Conc. ng/uL	Reference Solution	Amount Quanted ng/uL	Percent of Target	%D (<25%)
1,2-Dinitrobenzene	0	MS9-73-19	0	NA	NA
3-Nitroaniline	32	MS9-73-19	29.29	92	8
Acenaphthene	32	MS9-73-19	29.14	91	9
2,4-Dinitrophenol	32	MS9-73-19	23.82	74	26
4-Nitrophenol	32	MS9-73-19	24.1	75	25
Dibenzofuran	32	MS9-73-19	28.21	88	12
2,4-Dinitrotoluene	32	MS9-73-19	28.8	90	10
2,3,5,6-tetrachlorophenol	0	MS9-73-19	0	NA	NA
2,3,4,6-tetrachlorophenol	32	MS9-73-19	25.63	80	20
Diethylphthalate	32	MS9-73-19	26.94	84	16
Fluorene	32	MS9-73-19	27.48	86	14
4-Chlorophenyl-phenylether	32	MS9-73-19	27.64	86	14
4-Nitroaniline	32	MS9-73-19	29.79	93	7
4,6-Dinitro-2-methylphenol	32	MS9-73-19	23.17	72	28
N-nitrosodiphenylamine <sup>2</sup>	32	MS9-73-19	29.92	94	6
1,2-Diphenylhydrazine <sup>3</sup>	32	MS9-73-19	29.74	93	7
2,4,6-Tribromophenol	64	MS9-73-19	65.24	102	2
4-Bromophenyl-phenylether	32	MS9-73-19	30.28	95	5
Hexachlorobenzene	32	MS9-73-19	32.58	102	2
Atrazine	5	MS9-73-19	3.83	77	23
Pentachlorophenol	32	MS9-73-19	26.45	83	17
Phenanthrene	32	MS9-73-19	28.73	90	10
Anthracene	32	MS9-73-19	29.94	94	6
Carbazole	32	MS9-73-19	28.87	90	10
Di-n-butylphthalate	32	MS9-73-19	27.28	85	15
Fluoranthene	32	MS9-73-19	28.7	90	10
Benzidine	32	MS9-73-19	19.74	62	38
Pyrene	32	MS9-73-19	27.17	85	15
Terphenyl-d14	32	MS9-73-19	27	84	16
Butylbenzylphthalate	32	MS9-73-19	26.97	84	16
Bis(2-ethylhexyl)adipate	0	MS9-73-19	0	NA	NA
3,3'-Dichlorobenzidine	32	MS9-73-19	28.58	89	11
Benzo[a]anthracene	32	MS9-73-19	27.7	87	13
bis(2-Ethylhexyl)phthalate	32	MS9-73-19	29.8	93	7
Chrysene	32	MS9-73-19	28.82	90	10
Di-n-octylphthalate	32	MS9-73-19	26.64	83	17
Benzo[b]fluoranthene	32	MS9-73-19	27.28	85	15
Benzo[k]fluoranthene	32	MS9-73-19	28.38	89	11
Benzo[a]pyrene	32	MS9-73-19	28.95	90	10
Indeno[1,2,3-cd]pyrene	32	MS9-73-19	37.36	117	17
Dibenz[a,h]anthracene	32	MS9-73-19	38.43	120	20
Benzo[g,h,i]perylene	32	MS9-73-19	37.51	117	17

-see narr.

-see narr.

7/17/07  
AP

-see narr.

Analyst: AP  
Date analyzed: 07/12/07

<sup>1</sup> 3-methylphenol and 4-methylphenol do not have sufficient chromatographic resolution on the analytical column to allow them to be quantitated separately. Results for 3-methylphenol and 4-methylphenol are calculated using a single response factor.

<sup>2</sup> N-nitrosodiphenylamine (8270-listed analyte) decomposes to diphenylamine.

<sup>3</sup> 1,2-diphenylhydrazine (8270-listed analyte) decomposes to azobenzene.

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019608SDG No.: CAB31Instrument ID: 5970LCalibration Date: 07/16/2007 Time: 16:05Lab File ID: L0716002.DInit. Calib. Date(s): 07/12/2007Client Sample No.: CCV071607-1Init. Calib. Time(s): 12:31Heated Purge: (Y/N) NGC Column: RTX-5Sil MS ID: 0.25 (mm)

Compound	Equation Type	RF 716.0	%D	%Drift
3 & 4-Methylphenol	A	1.397	-7.66	
Bis(2-chloroisopropyl)ether	A	2.756	-0.72	
Phenol	A	1.986	0.58	
Bis(2-Chloroethyl)ether	A	1.758	-2.66	
2-Chlorophenol	A	1.455	1.23	
1,3-Dichlorobenzene	A	1.700	1.74	
1,4-Dichlorobenzene	A	1.766	0.18	
Benzyl alcohol	A	0.994	0.51	
1,2-Dichlorobenzene	A	1.593	2.43	
2-Methylphenol	A	1.367	-1.40	
N-Nitroso-di-n-propylamine	A	1.167	-4.17	
Hexachloroethane	A	0.750	0.25	
Nitrobenzene	A	0.527	-2.81	
Isophorone	A	0.892	2.34	
2-Nitrophenol	A	0.140	7.92	
2,4-Dimethylphenol	A	0.462	2.29	
Benzoic acid	Q	0.146		-20.42*
Bis(2-chloroethoxy)methane	A	0.623	0.63	
2,4-Dichlorophenol	A	0.374	4.68	
1,2,4-Trichlorobenzene	A	0.435	5.34	
Naphthalene	A	1.243	4.11	
4-Chloroaniline	A	0.553	2.81	
Hexachlorobutadiene	A	0.250	6.86	
4-Chloro-3-methylphenol	A	0.407	2.34	
2-Methylnaphthalene	A	0.739	5.20	
Hexachlorocyclopentadiene	A	0.442	-3.35	
2,4,6-Trichlorophenol	A	0.419	14.91	
2,4,5-Trichlorophenol	A	0.528	2.36	
2-Chloronaphthalene	A	1.486	2.46	
2-Nitroaniline	A	0.467	4.59	
Dimethylphthalate	A	1.668	4.92	
2,6-Dinitrotoluene	A	0.385	7.80	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019608SDG No.: CAB31Instrument ID: 5970LCalibration Date: 07/16/2007 Time: 16:05Lab File ID: L0716002.DInit. Calib. Date(s): 07/12/2007Client Sample No.: CCV071607-1Init. Calib. Time(s): 12:31Heated Purge: (Y/N) NGC Column: RTX-5Sil MS ID: 0.25 (mm)

Compound	Equation Type	RF 716.0	%D	%Drift
Acenaphthylene	A	2.324	3.01	
3-Nitroaniline	A	0.382	6.71	
Acenaphthene	A	1.446	1.84	
2,4-Dinitrophenol	L	0.077		3.07
4-Nitrophenol	A	0.168	-0.34	
Dibenzofuran	A	2.004	3.02	
2,4-Dinitrotoluene	A	0.450	3.53	
Diethylphthalate	A	1.670	6.15	
Fluorene	A	1.558	3.30	
4-Chlorophenyl-phenylether	A	0.756	5.51	
4-Nitroaniline	A	0.390	-0.17	
4,6-Dinitro-2-methylphenol	A	0.079	-3.55	
N-Nitrosodiphenylamine	A	0.868	4.73	
Azobenzene	A	1.523	-1.23	
4-Bromophenyl-phenyl ether	A	0.299	6.97	
Hexachlorobenzene	A	0.354	4.86	
Pentachlorophenol	Q	0.128		-8.41
Phenanthrene	A	1.473	3.58	
Anthracene	A	1.480	2.15	
Carbazole	A	1.297	0.42	
Di-n-butylphthalate	A	1.670	3.26	
Fluoranthene	A	1.316	-1.16	
Benzidine	A	0.870	-2.77	
Pyrene	A	2.238	9.65	
Butylbenzylphthalate	A	0.792	7.64	
3,3'-Dichlorobenzidine	A	0.441	3.71	
Benzo(a)anthracene	A	1.467	6.01	
Bis(2-ethylhexyl)phthalate	A	0.907	10.89	
Chrysene	A	1.393	0.24	
Di-n-octylphthalate	A	2.102	18.07	
Benzo(b)fluoranthene	A	1.928	3.92	
Benzo(k)fluoranthene	A	1.648	8.98	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019608SDG No.: CAB31Instrument ID: 5970LCalibration Date: 07/16/2007 Time: 16:05Lab File ID: L0716002.DInit. Calib. Date(s): 07/12/2007Client Sample No.: CCV071607-1Init. Calib. Time(s): 12:31Heated Purge: (Y/N) NGC Column: RTX-5Sil MS ID: 0.25 (mm)

Compound	Equation Type	RF 716.0	%D	%Drift
Benzo(a)pyrene	A	1.584	5.08	
Indeno(1,2,3-cd)pyrene	A	1.403	-5.38	
Dibenzo(a,h)anthracene	A	1.160	-3.28	
Benzo(g,h,i)perylene	A	1.184	-9.37	
2-Fluorophenol	A	1.313	-1.15	
Phenol-d5	A	1.842	-1.01	
Nitrobenzene-d5	A	0.528	-9.38	
2-Fluorobiphenyl	A	1.615	2.64	
2,4,6-Tribromophenol	A	0.129	4.54	
Terphenyl-d14	A	1.339	9.73	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured



1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062507MSVWLT

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019608  
 Lab Sample ID: B062507MSVWLT  
 Lab File ID: L0716003.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/16/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	5.0	U
108-60-1	Bis(2-chloroisopropyl) ether	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	Bis(2-Chloroethyl) ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
100-51-6	Benzyl alcohol	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
95-48-7	2-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
65-85-0	Benzoic acid	10	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062507MSVWLT

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019608  
 Lab Sample ID: B062507MSVWLT  
 Lab File ID: L0716003.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/16/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	5.0	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	5.0	U
83-32-9	Acenaphthene	5.0	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	5.0	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	5.0	U
534-52-1	4,6-Dinitro-2-methylphenol	5.0	U
86-30-6	N-Nitrosodiphenylamine	5.0	U
122-66-7	Azobenzene	5.0	U
101-55-3	4-Bromophenyl-phenyl ether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
87-86-5	Pentachlorophenol	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
86-74-8	Carbazole	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062507MSVWLT

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019608  
 Lab Sample ID: B062507MSVWLT  
 Lab File ID: L0716003.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/16/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
92-87-5	Benzidine	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
117-81-7	Bis(2-ethylhexyl)phthalate	5.0	U
218-01-9	Chrysene	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U

Comments:

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062507MSVWLT

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL)      mL  
 Level: (LOW/MED)                       
 % Moisture:            Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH:           

Contract:                                       
 Run Sequence: R019608  
 Lab Sample ID: S062507MSVWLT  
 Lab File ID: L0716004.D  
 Date Collected:                               
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/16/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	17	
108-60-1	Bis(2-chloroisopropyl) ether	16	
108-95-2	Phenol	13	
111-44-4	Bis(2-Chloroethyl) ether	18	
95-57-8	2-Chlorophenol	13	
541-73-1	1,3-Dichlorobenzene	11	
106-46-7	1,4-Dichlorobenzene	10	
100-51-6	Benzyl alcohol	17	
95-50-1	1,2-Dichlorobenzene	11	
95-48-7	2-Methylphenol	16	
621-64-7	N-Nitroso-di-n-propylamine	20	
67-72-1	Hexachloroethane	9.6	
98-95-3	Nitrobenzene	17	
78-59-1	Isophorone	16	
88-75-5	2-Nitrophenol	9.9	
105-67-9	2,4-Dimethylphenol	11	
65-85-0	Benzoic acid	8.1	J
111-91-1	Bis(2-chloroethoxy)methane	17	
120-83-2	2,4-Dichlorophenol	13	
120-82-1	1,2,4-Trichlorobenzene	12	
91-20-3	Naphthalene	13	
106-47-8	4-Chloroaniline	12	
87-68-3	Hexachlorobutadiene	9.3	
59-50-7	4-Chloro-3-methylphenol	16	
91-57-6	2-Methylnaphthalene	14	
77-47-4	Hexachlorocyclopentadiene	3.7	J

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062507MSVWLT

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019608  
 Lab Sample ID: S062507MSVWLT  
 Lab File ID: L0716004.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/16/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-06-2	2,4,6-Trichlorophenol	9.5	
95-95-4	2,4,5-Trichlorophenol	12	
91-58-7	2-Chloronaphthalene	15	
88-74-4	2-Nitroaniline	15	
131-11-3	Dimethylphthalate	17	
606-20-2	2,6-Dinitrotoluene	11	
208-96-8	Acenaphthylene	16	
99-09-2	3-Nitroaniline	13	
83-32-9	Acenaphthene	16	
51-28-5	2,4-Dinitrophenol	11	
100-02-7	4-Nitrophenol	11	
132-64-9	Dibenzofuran	17	
121-14-2	2,4-Dinitrotoluene	13	
84-66-2	Diethylphthalate	16	
86-73-7	Fluorene	17	
7005-72-3	4-Chlorophenyl-phenylether	17	
100-01-6	4-Nitroaniline	14	
534-52-1	4,6-Dinitro-2-methylphenol	9.0	
86-30-6	N-Nitrosodiphenylamine	14	
122-66-7	Azobenzene	18	
101-55-3	4-Bromophenyl-phenyl ether	17	
118-74-1	Hexachlorobenzene	15	
87-86-5	Pentachlorophenol	12	
85-01-8	Phenanthrene	17	
120-12-7	Anthracene	16	
86-74-8	Carbazole	18	
84-74-2	Di-n-butylphthalate	17	
206-44-0	Fluoranthene	18	

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062507MSVWLT

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL)      mL  
 Level: (LOW/MED)       
 % Moisture:      Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH:     

Contract:       
 Run Sequence: R019608  
 Lab Sample ID: S062507MSVWLT  
 Lab File ID: L0716004.D  
 Date Collected:       
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/16/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
92-87-5	Benzidine	5.0	U
129-00-0	Pyrene	15	
85-68-7	Butylbenzylphthalate	15	
91-94-1	3,3'-Dichlorobenzidine	13	
56-55-3	Benzo(a)anthracene	16	
117-81-7	Bis(2-ethylhexyl)phthalate	15	
218-01-9	Chrysene	17	
117-84-0	Di-n-octylphthalate	13	
205-99-2	Benzo(b)fluoranthene	15	
207-08-9	Benzo(k)fluoranthene	18	
50-32-8	Benzo(a)pyrene	16	
193-39-5	Indeno(1,2,3-cd)pyrene	18	
53-70-3	Dibenzo(a,h)anthracene	18	
191-24-2	Benzo(g,h,i)perylene	19	

Comments:

# Forms Summary

CAB31

Ordinance by Method 8330

2  
WATER ORDINANCE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB31

Run Sequence: R019636

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (DNT) #	S2 ( ) #	S3 ( ) #	S4 ( ) #	TOT OUT
(S071807HORWLG) S071807HORWLG	107				0
(CAB31-004RX) 15L4MW05AWRX	102				0
(B071807HORWLG) B071807HORWLG	116				0
(CAB31-003) 15L4MW03BW	71				0
(CAB31-001) 15L4MW02AW	93				0
(CAB31-006) 15LCMW420W	85				0
(CAB31-004) 15L4MW05AW	59 *				1
(CAB31-002) 15L4MW03AW	92				0
(S062607HORWLG) S062607HORWLG	119				0
(B062607HORWLG) B062607HORWLG	80				0

QC LIMITS  
60-140

S1 (DNT) = 3,4-Dinitrotoluene  
S2 ( ) =  
S3 ( ) =  
S4 ( ) =

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits



3B  
WATER ORDNANCE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
BS Run Sequence: R019636 SDG No.: CAB31  
BS Lab Sample ID: S062607HORWLG  
Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
HMX	20.0	21.0228	105		80-115
RDX	20.0	21.5036	108		50-160
1,3,5-Trinitrobenzene	20.0	17.5962	88		65-140
1,3-Dinitrobenzene	20.0	17.771	89		45-160
Nitrobenzene	20.0	17.8355	89		50-140
Tetryl	20.0	16.0464	80		20-175
2,4,6-Trinitrotoluene	20.0	18.691	93		50-145
4-Amino-2,6-dinitrotoluene	20.0	17.92	90		55-155
2-Amino-4,6-dinitrotoluene	20.0	17.8793	89		50-155
2,6-Dinitrotoluene	20.0	16.1231	81		60-135
2,4-Dinitrotoluene	20.0	16.4553	82		60-135
2-Nitrotoluene	20.0	14.9209	75		45-135
4-Nitrotoluene	20.0	15.4368	77		50-130
3-Nitrotoluene	20.0	14.7105	74		50-130

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS:

3B  
WATER ORDNANCE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 BS Run Sequence: R019636 SDG No.: CAB31  
 BS Lab Sample ID: S071807HORWLG  
 Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
HMX	20.0	20.1461	101		80-115
RDX	20.0	22.5286	113		50-160
1,3,5-Trinitrobenzene	20.0	21.3974	107		65-140
1,3-Dinitrobenzene	20.0	20.9213	105		45-160
Nitrobenzene	20.0	21.6492	108		50-140
Tetryl	20.0	20.6048	103		20-175
2,4,6-Trinitrotoluene	20.0	21.6943	108		50-145
4-Amino-2,6-dinitrotoluene	20.0	19.7736	99		55-155
2-Amino-4,6-dinitrotoluene	20.0	21.0688	105		50-155
2,6-Dinitrotoluene	20.0	20.6667	103		60-135
2,4-Dinitrotoluene	20.0	20.131	101		60-135
2-Nitrotoluene	20.0	20.0758	100		45-135
4-Nitrotoluene	20.0	20.0101	100		50-130
3-Nitrotoluene	20.0	19.2628	96		50-130

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS:

ORDNANCE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062607HORWLG

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B062607HORWLG SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water Date Prepared: 06/26/2007  
 Lab File ID (1): O62807.b-O6280704.D Lab File ID (2): F71207A.b-F7120751.D  
 Date Analyzed (1): 06/28/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 13:19 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HPLC5 (Oscar) Instrument ID (2): HPLC5 (Oscar)  
 Column(1): Allure C18 ID: 4.60 (mm) Column(2): Synergi - EtPH ID: 4.60 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
15L4MW02AW	CAB31-001	1	O6280712.D	06/28/2007 18:39	R019636
		2	F7120760.D	07/13/2007 23:44	R019636
15L4MW03AW	CAB31-002	1	O6280714.D	06/28/2007 19:59	R019636
		2	F7120761.D	07/14/2007 00:22	R019636
15L4MW03BW	CAB31-003	1	O6280715.D	06/28/2007 20:39	R019636
		2	F7120762.D	07/14/2007 01:00	R019636
15L4MW05AW	CAB31-004	1	O6280716.D	06/28/2007 21:19	R019636
		2	F7120763.D	07/14/2007 01:38	R019636
15LCMW420W	CAB31-006	1	O6280717.D	06/28/2007 21:59	R019636
		2			
S062607HORWLG	S062607HORWLG	1	O6280705.D	06/28/2007 13:59	R019636
		2	F7120752.D	07/13/2007 18:40	R019636

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

ORDNANCE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B071807HORWLG

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B071807HORWLG SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water Date Prepared: 07/18/2007  
 Lab File ID (1): 071807.b-07180713.D Lab File ID (2): F71907.b-F7190706.D  
 Date Analyzed (1): 07/18/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 18:07 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HPLC5 (Oscar) Instrument ID (2): HPLC5 (Oscar)  
 Column(1): Allure C18 ID: 4.60 (mm) Column(2): Synergi - EtPH ID: 4.60 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
15L4MW05AWRX	CAB31-004RX	1	O7180715.D	07/18/2007 19:27	R019636
		2	F7190708.D	07/19/2007 16:30	R019636
S071807HORWLG	S071807HORWLG	1	O7180714.D	07/18/2007 18:47	R019636
		2	F7190707.D	07/19/2007 15:52	R019636

COMMENTS: \_\_\_\_\_

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW02AW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB31-001  
 Lab File ID: F7120760.D  
 Date Collected: 06/20/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	3.2	
121-82-4	RDX	20	
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**15L4MW02AW**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: CAB31-001

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - EPH

File (1): O62807.b-O6280712.D

File (2): F71207A.b-F7120760.D

Date Analyzed (1): 6/28/2007 6:39:00 PM

Date Analyzed (2): 7/13/2007 11:44:00 PM

ANALYTE	COL	CONCENTRATION Final Units: ug/L	RPD	RT	RT Window
HMX	1	2.93402	7.3 %	4.59	4.33 - 4.83
	2	3.15743 X		8.22	7.94 - 8.44
RDX	1	19.4514	4.1 %	8.04	7.79 - 8.29
	2	20.271 X		8.76	8.48 - 8.98

X = Concentration Reported

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW03AW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB31-002  
 Lab File ID: O6280714.D  
 Date Collected: 06/20/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
2691-41-0	HMX	0.48		U
121-82-4	RDX	9.7		
99-35-4	1,3,5-Trinitrobenzene	0.48		U
99-65-0	1,3-Dinitrobenzene	0.48		U
98-95-3	Nitrobenzene	0.48		U
479-45-8	Tetryl	0.48		U
118-96-7	2,4,6-Trinitrotoluene	0.48		U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48		U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48		U
606-20-2	2,6-Dinitrotoluene	0.48		U
121-14-2	2,4-Dinitrotoluene	0.48		U
88-72-2	2-Nitrotoluene	0.48		U
99-99-0	4-Nitrotoluene	0.48		U
99-08-1	3-Nitrotoluene	0.48		U

Comments:

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**15L4MW03AW**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: CAB31-002

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - EIPH

File (1): O62807.b-O6280714.D

File (2): F71207A.b-F7120761.D

Date Analyzed (1): 6/28/2007 7:59:00 PM

Date Analyzed (2): 7/14/2007 12:22:00 AM

ANALYTE	COL	CONCENTRATION Final Units: ug/L	RPD	RT	RT Window
RDX	1	9.24073		8.04	7.79 - 8.29
	2	9.71943 X	5.0 %	8.75	8.48 - 8.98

X = Concentration Reported



1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW03BW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB31-003  
 Lab File ID: O6280715.D  
 Date Collected: 06/20/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.48	U
121-82-4	RDX	3.2	
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**15L4MW03BW**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: CAB31-003

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - EtPH

File (1): O62807.b-O6280715.D

File (2): F71207A.b-F7120762.D

Date Analyzed (1): 6/28/2007 8:39:00 PM

Date Analyzed (2): 7/14/2007 1:00:00 AM

ANALYTE	COL	CONCENTRATION Final Units: ug/L	RPD	RT	RT Window
RDX	1	2.99406		8.05	7.79 - 8.29
	2	3.17651 X	5.9 %	8.75	8.48 - 8.98

X = Concentration Reported

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW05AW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1030.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB31-004  
 Lab File ID: O6280716.D  
 Date Collected: 06/20/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.49	U
121-82-4	RDX	2.5	
99-35-4	1,3,5-Trinitrobenzene	0.49	U
99-65-0	1,3-Dinitrobenzene	0.49	U
98-95-3	Nitrobenzene	0.49	U
479-45-8	Tetryl	0.49	U
118-96-7	2,4,6-Trinitrotoluene	0.49	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.49	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.49	U
606-20-2	2,6-Dinitrotoluene	0.49	U
121-14-2	2,4-Dinitrotoluene	0.49	U
88-72-2	2-Nitrotoluene	0.49	U
99-99-0	4-Nitrotoluene	0.49	U
99-08-1	3-Nitrotoluene	0.49	U

Comments:

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**15L4MW05AW**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: CAB31-004

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - EPH

File (1): O62807.b-O6280716.D

File (2): F71207A.b-F7120763.D

Date Analyzed (1): 6/28/2007 9:19:00 PM

Date Analyzed (2): 7/14/2007 1:38:00 AM

ANALYTE	COL	CONCENTRATION Final Units: ug/L	RPD	RT	RT Window
RDX	1	2.38121	6.2 %	8.04	7.79 - 8.29
	2	2.53419 X		8.76	8.48 - 8.98

X = Concentration Reported

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW05AWRX

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB31-004RX  
 Lab File ID: 07180715.D  
 Date Collected: 06/20/2007  
 Date Extracted: 07/18/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.48	U
121-82-4	RDX	3.8	
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

**Client Sample ID**

**15L4MW05AWRX**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: CAB31-004RX

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - EtPH

File (1): O71807.b-O7180715.D

File (2): F71907.b-F7190708.D

Date Analyzed (1): 7/18/2007 7:27:00 PM

Date Analyzed (2): 7/19/2007 4:30:00 PM

ANALYTE	COL	CONCENTRATION Final Units: ug/L	RPD	RT	RT Window
RDX	1	3.52852		7.98	7.79 - 8.29
	2	3.77044 X	6.6 %	8.76	8.48 - 8.98

X = Concentration Reported

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW420W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB31-006  
 Lab File ID: O6280717.D  
 Date Collected: 06/20/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.48	U
121-82-4	RDX	0.48	U
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 12-JUL-2007 14:08  
 End Cal Date : 12-JUL-2007 17:18  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\felix\Felix.i\F71207.b\F7120710.D  
 Sublist : 8330syn.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120707.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120709.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120710.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120711.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120712.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
4 HMX	7.800000	7.600000	7.776000	7.753000	7.619600	7.709720	1.2
5 RDX	9.780000	9.640000	9.716000	9.719000	9.550800	9.681160	0.9
6 Nitrobenzene	17.300000	16.860000	17.636000	17.580000	17.546200	17.384440	1.8
7 4-Amino-2,6-Dinitrofluorene	10.340000	10.120000	10.258000	10.212000	10.045800	10.195160	1.1
8 2-Nitrofluorene	9.060000	8.880000	9.286000	9.223000	9.207600	9.131320	1.8
9 4-Nitrofluorene	449.6000	435.4900	456.3900	452.4680	455.0196	449.7935	1.9
10 2-Amino-4,6-Dinitrofluorene	13.720000	13.430000	13.742000	13.629000	13.450200	13.594240	1.1
11 1,3-Dinitrobenzene/3MT	9.870000	9.695000	10.090000	10.132000	9.998800	9.957160	1.8
13 2,6-Dinitrofluorene	7.720000	7.620000	7.852000	7.812000	7.704800	7.741760	1.2
14 2,4-Dinitrofluorene	12.860000	12.600000	12.884000	12.797000	12.631800	12.754560	1.0
15 1,3,5-Trinitrobenzene	8.640000	8.370000	8.522000	8.447000	8.355400	8.466880	1.4

Amount = Response divided by CF

CF = Calibration Factor ( response divided by concentration )  
 RSD = Relative Standard Deviation.



Laucks Testing Labs  
Initial Calibration Linearity Summary

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
16 Tetryl	5.260000	5.060000	5.246000	5.172000	5.117000	5.171000	1.6
17 2,4,6-TNT	5.800000	5.610000	5.772000	5.712000	5.641200	5.707040	1.4
12 3,4-Dinitrochloruene	7.320000	7.110000	7.366000	7.305000	7.206600	7.261520	1.4
Average RSD :							1.4

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration ).  
RSD - Relative Standard Deviation.

07/13/2007 09:56

ICAL Linearity Summary v2.0

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 12-JUL-2007 14:08  
 End Cal Date : 12-JUL-2007 17:18  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix\Felix.i\F71207.b\F7120710.D  
 Sublist : 8330syn.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/Felix/Felix.i/F71207.b/F7120707.D  
 Level 2: //ceres/labdata/hplc/Felix/Felix.i/F71207.b/F7120709.D  
 Level 3: //ceres/labdata/hplc/Felix/Felix.i/F71207.b/F7120710.D  
 Level 4: //ceres/labdata/hplc/Felix/Felix.i/F71207.b/F7120711.D  
 Level 5: //ceres/labdata/hplc/Felix/Felix.i/F71207.b/F7120712.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
4 HMX	8.20	8.19	8.17	8.16	8.18	8.179
5 RDX	8.73	8.73	8.70	8.70	8.72	8.716
6 Nitrobenzene	11.44	11.43	11.40	11.39	11.42	11.418
7 4-Amino-2,6-Dinitrotoluene	14.39	14.38	14.32	14.30	14.35	14.349
8 2-Nitrotoluene	14.84	14.83	14.78	14.76	14.81	14.804
9 4-Nitrotoluene	15.53	15.52	15.48	15.46	15.51	15.501
10 2-Amino-4,6-Dinitrotoluene	15.90	15.89	15.82	15.79	15.86	15.851
11 1,3-Dinitrobenzene/3MT	16.47	16.46	16.39	16.36	16.42	16.422
13 2,6-Dinitrotoluene	19.14	19.13	19.05	19.03	19.10	19.091
14 2,4-Dinitrotoluene	22.16	22.13	22.03	22.01	22.10	22.084
15 1,3,5-Trinitrobenzene	25.31	25.27	25.16	25.13	25.23	25.221

Retention times are expressed as minutes.

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 12-JUL-2007 14:08  
 End Cal Date : 12-JUL-2007 17:18  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\felix\Felix.i\F71207.b\8330syn71207.m  
 Sublist : 8330syn.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
16 Tetrayl	29.29	29.23	29.04	29.04	29.18	29.157
17 2,4,6-TNT	32.89	32.83	32.63	32.65	32.79	32.758
12 3,4-Dinitrotoluene	17.70	17.68	17.61	17.59	17.66	17.648

Retention times are expressed as minutes.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 12-JUL-2007 14:08  
 End Cal Date: 12-JUL-2007 17:18  
 Quant Method: ESTD  
 Cal Curve Type: Average CF  
 Integrator: HP Genie  
 Method File: \\ceres\labdata\hplc\Felix.i\F71207.b\F7120710.D  
 Sublist: 8330syn.sub  
 Column: EtPh  
 Column Size: 0m L - 4.60mm ID

Calibration Files:

Level 1: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120707.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120709.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120710.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120711.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120712.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
4 HMX	50.00	100.00	500.00	1000.00	5000.00
5 RDX	50.00	100.00	500.00	1000.00	5000.00
6 Nitrobenzene	50.00	100.00	500.00	1000.00	5000.00
7 4-Amino-2,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
8 2-Nitrotoluene	50.00	100.00	500.00	1000.00	5000.00
9 4-Nitrotoluene	50.00	100.00	500.00	1000.00	5000.00
10 2-Amino-4,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
11 1,3-Dinitrobenzene/3NT	100.00	200.00	1000.00	2000.00	10000.00
13 2,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
14 2,4-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
15 1,3,5-Trinitrobenzene	50.00	100.00	500.00	1000.00	5000.00

Standard concentrations are expressed as ng/mL.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 12-JUL-2007 14:08  
 End Cal Date : 12-JUL-2007 17:18  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\felix\Felix.i\F71207.b\8330syn71207.m  
 Sublist : 8330syn.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
16 Tetryl	50.00	100.00	500.00	1000.00	5000.00
17 2,4,6-TNT	50.00	100.00	500.00	1000.00	5000.00
12 3,4-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00

Standard concentrations are expressed as ng/mL.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 12-JUL-2007 14:08  
 End Cal Date : 12-JUL-2007 17:18  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\felix\Felix.i\F71207.b\F7120710.D  
 Sublist : 8330syn.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120707.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120709.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120710.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120711.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.i/F71207.b/F7120712.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
4 HMX	390.00000	760.00000	3888.0000	7753.0000	38098.000
5 RDX	489.00000	964.00000	4858.0000	9719.0000	47754.000
6 Nitrobenzene	865.00000	1686.0000	8818.0000	17580.000	87731.000
7 4-Amino-2,6-Dinitrotoluene	517.00000	1012.0000	5129.0000	10212.000	50229.000
8 2-Nitrotoluene	453.00000	888.00000	4643.0000	9223.0000	46038.000
9 4-Nitrotoluene	22480.000	43549.000	228195.00	452468.00	2275098.0
10 2-Amino-4,6-Dinitrotoluene	686.00000	1343.0000	6871.0000	13629.000	67251.000
11 1,3-Dinitrobenzene/3MT	987.00000	1939.0000	10090.000	20264.000	99988.000
13 2,6-Dinitrotoluene	386.00000	762.00000	3926.0000	7812.0000	38524.000
14 2,4-Dinitrotoluene	643.00000	1260.0000	6442.0000	12797.000	63159.000
15 1,3,5-Trinitrobenzene	432.00000	837.00000	4261.0000	8447.0000	41777.000

Response is in Height units.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 12-JUL-2007 14:08  
 End Cal Date : 12-JUL-2007 17:18  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\felix\Felix.i\F71207.b\8330syn71207.m  
 Sublist : 8330syn.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
16 Tetryl	263.00000	506.00000	2523.0000	5172.0000	25585.000
17 2,4,6-TNT	290.00000	561.00000	2886.0000	5712.0000	28206.000
12 3,4-Dinitrotoluene	366.00000	711.00000	3683.0000	7305.0000	36033.000

Response is in Height units.

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date : 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\Oscar.i\022707.b\02270707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270705.D  
 Level 2: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270706.D  
 Level 3: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270707.D  
 Level 4: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270708.D  
 Level 5: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270709.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
1 HMX	11.20000	10.69000	10.67000	10.45800	10.29740	10.66308	3.2
4 MNX	10.36000	9.730000	9.828000	9.526000	9.491400	9.787080	3.6
5 RDX	8.000000	7.680000	7.730000	7.591000	7.488000	7.697800	2.5
6 1,3,5-Trinitrobenzene	13.96000	13.18000	13.63800	13.28300	13.27440	13.46708	2.4
7 1,3-Dinitrobenzene	15.24000	14.54000	15.10800	14.68900	14.87580	14.89056	1.9
8 Tetryl	7.140000	6.840000	7.116000	6.929000	6.877000	6.980400	2.0
9 Nitrobenzene	8.660000	8.280000	8.712000	8.494000	8.653000	8.559800	2.1
11 2,4,6-Trinitrofluorene	8.300000	7.880000	8.206000	7.946000	7.962000	8.058800	2.3
12 4-Amino-2,6-Dinitrofluorene	5.940000	5.630000	5.896000	5.726000	5.686400	5.775680	2.3
13 2-Amino-4,6-Dinitrofluorene	7.840000	7.670000	7.942000	7.738000	7.684600	7.774920	1.5
14 2,6-Dinitrofluorene	5.220000	5.120000	5.310000	5.165000	5.188000	5.200600	1.4

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration ).  
 RSD - Relative Standard Deviation.



Laucks Testing Labs  
Initial Calibration Linearity Summary

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
15 2,4-Dinitrotoluene	9.980000	8.830000	9.198000	8.947000	9.015400	8.994080	1.5
16 2-Nitrotoluene	3.540000	3.480000	3.546000	3.463000	3.503400	3.506480	1.0
17 4-Nitrotoluene	2.700000	2.580000	2.682000	2.619000	2.659800	2.650160	1.7
18 3-Nitrotoluene	3.300000	3.090000	3.248000	3.159000	3.195000	3.198400	2.5
10 3,4-Dinitrotoluene	5.880000	5.570000	5.726000	5.555000	5.578200	5.661840	2.5
Average RSD :							2.1

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration ).  
RSD - Relative Standard Deviation.

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ICAL Linearity Summary v2.0

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\oscar.i\022707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270705.D  
 Level 2: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270706.D  
 Level 3: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270707.D  
 Level 4: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270708.D  
 Level 5: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270709.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
1 HMX	4.69	4.69	4.69	4.69	4.69	4.690
4 MNX	7.09	7.09	7.08	7.08	7.09	7.089
5 RDX	8.36	8.36	8.35	8.35	8.36	8.358
6 1,3,5-Trinitrobenzene	12.11	12.13	12.12	12.12	12.13	12.125
7 1,3-Dinitrobenzene	15.02	15.08	15.05	15.07	15.07	15.057
8 Tetryl	17.11	17.22	17.17	17.20	17.20	17.180
9 Nitrobenzene	17.67	17.75	17.71	17.73	17.72	17.715
11 2,4,6-Trinitrotoluene	20.61	20.72	20.65	20.69	20.68	20.670
12 4-Amino-2,6-Dinitrotoluene	21.54	21.72	21.61	21.67	21.66	21.640
13 2-Amino-4,6-Dinitrotoluene	22.67	22.84	22.72	22.80	22.78	22.760
14 2,6-Dinitrotoluene	24.04	24.16	24.07	24.13	24.11	24.104

Retention times are expressed as minutes.

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\oscar.i\022707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
15 2,4-Dinitrotoluene	24.97	25.08	24.98	25.04	25.02	25.019
16 2-Nitrotoluene	30.36	30.41	30.32	30.37	30.38	30.367
17 4-Nitrotoluene	33.08	33.09	33.02	33.08	33.07	33.068
18 3-Nitrotoluene	35.60	35.59	35.53	35.60	35.62	35.589
10 3,4-Dinitrotoluene	18.40	18.51	18.45	18.48	18.48	18.464

Retention times are expressed as minutes.

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ICAL RT Summary V2.0

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Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\Oscar.i\022707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270705.D  
 Level 2: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270706.D  
 Level 3: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270707.D  
 Level 4: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270708.D  
 Level 5: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270709.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 HMX	50.00	100.00	500.00	1000.00	5000.00
4 MNX	50.00	100.00	500.00	1000.00	5000.00
5 RDX	50.00	100.00	500.00	1000.00	5000.00
6 1,3,5-Trinitrobenzene	50.00	100.00	500.00	1000.00	5000.00
7 1,3-Dinitrobenzene	50.00	100.00	500.00	1000.00	5000.00
8 Tetryl	50.00	100.00	500.00	1000.00	5000.00
9 Nitrobenzene	50.00	100.00	500.00	1000.00	5000.00
11 2,4,6-Trinitrocoluene	50.00	100.00	500.00	1000.00	5000.00
12 4-Amino-2,6-Dinitrocoluene	50.00	100.00	500.00	1000.00	5000.00
13 2-Amino-4,6-Dinitrocoluene	50.00	100.00	500.00	1000.00	5000.00
14 2,6-Dinitrocoluene	50.00	100.00	500.00	1000.00	5000.00

Standard concentrations are expressed as ng/mL.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\Oscar.i\022707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
15 2,4-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
16 2-Nitrotoluene	50.00	100.00	500.00	1000.00	5000.00
17 4-Nitrotoluene	50.00	100.00	500.00	1000.00	5000.00
18 3-Nitrotoluene	50.00	100.00	500.00	1000.00	5000.00
10 3,4-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00

Standard concentrations are expressed as ng/mL.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\oscar.i\022707.b\02270705.D  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270705.D  
 Level 2: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270706.D  
 Level 3: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270707.D  
 Level 4: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270708.D  
 Level 5: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270709.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 HMX	560.00000	1069.0000	5335.0000	10458.000	51487.000
4 MNX	518.00000	973.00000	4914.0000	9526.0000	47457.000
5 RDX	400.00000	768.00000	3865.0000	7591.0000	37440.000
6 1,3,5-Trinitrobenzene	698.00000	1318.0000	6819.0000	13283.000	66372.000
7 1,3-Dinitrobenzene	762.00000	1454.0000	7554.0000	14689.000	74379.000
8 Tetryl	357.00000	684.00000	3558.0000	6929.0000	34385.000
9 Nitrobenzene	433.00000	828.00000	4356.0000	8494.0000	43265.000
11 2,4,6-Trinitroloene	415.00000	788.00000	4103.0000	7946.0000	39810.000
12 4-Amino-2,6-Dinitroloene	297.00000	563.00000	2948.0000	5726.0000	28432.000
13 2-Amino-4,6-Dinitroloene	392.00000	767.00000	3971.0000	7738.0000	38423.000
14 2,6-Dinitroloene	261.00000	512.00000	2655.0000	5165.0000	25940.000

Response is in Height units.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\oscar.1\O22707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
15 2,4-Dinitrotoluene	449.00000	883.00000	4599.0000	8947.0000	45077.000
16 2-Nitrotoluene	177.00000	348.00000	1773.0000	3463.0000	17517.000
17 4-Nitrotoluene	135.00000	259.00000	1341.0000	2619.0000	13299.000
18 3-Nitrotoluene	165.00000	309.00000	1624.0000	3159.0000	15975.000
10 3,4-Dinitrotoluene	294.00000	557.00000	2863.0000	5555.0000	27891.000

Response is in Height units.

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 18-JUL-2007 16:16  
 End Cal Date : 18-JUL-2007 18:48  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix\Felix.i\F71807.b\F7180708.D  
 Sublist : 8330mnm2.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180707.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180708.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180709.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180710.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180711.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
3 MNX	521.4400	543.8600	514.5300	539.0620	463.8844	516.5553	6.2
4 HMX	7.780000	7.270000	7.878000	7.285000	7.275600	7.497720	4.1
5 RDX	10.08000	9.460000	10.31600	9.508000	9.487200	9.770240	4.1
6 Nitrobenzene	17.26000	16.85000	17.42200	16.88800	17.26680	17.13736	1.5
7 4-Amino-2,6-Dinitrotoluene	10.62000	9.750000	10.55800	9.764000	9.660400	10.07048	4.7
8 2-Nitrotoluene	9.280000	8.540000	8.902000	8.630000	8.838000	8.838000	3.3
9 4-Nitrotoluene	462.7600	427.1300	438.3740	422.3400	438.0682	437.7344	3.6
10 2-Amino-4,6-Dinitrotoluene	13.96000	12.89000	13.97600	12.92800	12.86580	13.32396	4.4
11 1,3-Dinitrobenzene/3MT	10.16000	9.465000	10.07400	9.442000	9.469100	9.722020	3.7
13 2,6-Dinitrotoluene	7.700000	7.210000	7.782000	7.247000	7.248800	7.437560	3.8
14 2,4-Dinitrotoluene	13.42000	12.53000	13.61800	12.57400	12.60520	12.94944	4.1

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration ).  
 RSD - Relative Standard Deviation.



Laucks Testing Labs  
Initial Calibration Linearity Summary

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
15 1,3,5-Trinitrobenzene	8.900000	8.120000	8.772000	8.085000	8.061600	8.387720	4.9
16 Tetryl	5.680000	5.230000	5.682000	5.250000	5.289000	5.426200	4.3
17 2,4,6-TNT	6.640000	6.330000	6.662000	6.162000	6.190000	6.396800	3.6
12 3,4-Dinitrofluene	7.880000	7.400000	7.948000	7.353000	7.358200	7.587840	3.9
Average RSD :							4.0

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration ).  
RSD - Relative Standard Deviation.

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ICAL Linearity Summary v2.0

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 18-JUL-2007 16:16  
 End Cal Date : 18-JUL-2007 18:48  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\felix\Felix.i\F71807.b\8330syn711807MNX.m  
 Sublist : 8330mxx2.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180707.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180708.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180709.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180710.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180711.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
3 MNX	7.88	7.89	7.89	7.89	7.88	7.887
4 HMX	8.19	8.21	8.21	8.21	8.20	8.201
5 RDX	8.73	8.74	8.75	8.74	8.73	8.739
6 Nitrobenzene	11.44	11.45	11.46	11.45	11.45	11.451
7 4-Amino-2,6-Dinitrotoluene	14.39	14.41	14.43	14.41	14.41	14.409
8 2-Nitrotoluene	14.84	14.86	14.87	14.85	14.85	14.855
9 4-Nitrotoluene	15.53	15.56	15.57	15.55	15.55	15.552
10 2-Amino-4,6-Dinitrotoluene	15.89	15.92	15.94	15.91	15.92	15.917
11 1,3-Dinitrobenzene/3NT	16.47	16.49	16.51	16.48	16.49	16.487
13 2,6-Dinitrotoluene	19.14	19.17	19.19	19.17	19.18	19.170
14 2,4-Dinitrotoluene	22.13	22.18	22.20	22.17	22.19	22.174

Retention times are expressed as minutes.

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 18-JUL-2007 16:16  
 End Cal Date : 18-JUL-2007 18:48  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix\Felix.i\F71807.b\8330syn711807MNX.m  
 Sublist : 8330mnx2.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
15 1,3,5-Trinitrobenzene	25.26	25.32	25.34	25.32	25.36	25.319
16 Tetryl	29.22	29.30	29.31	29.30	29.34	29.293
17 2,4,6-TNT	32.86	32.94	32.96	32.95	32.98	32.937
12 3,4-Dinitrocoluene	17.69	17.72	17.74	17.71	17.72	17.718

Retention times are expressed as minutes.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 18-JUL-2007 16:16  
 End Cal Date : 18-JUL-2007 18:48  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix.i\F71807.b\F7180708.D  
 Sublist : 8330mmx2.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180707.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180708.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180709.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180710.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180711.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
3 MNX	50.00	100.00	500.00	1000.00	5000.00
4 HMX	50.00	100.00	500.00	1000.00	5000.00
5 RDX	50.00	100.00	500.00	1000.00	5000.00
6 Nitrobenzene	50.00	100.00	500.00	1000.00	5000.00
7 4-Amino-2,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
8 2-Nitrotoluene	50.00	100.00	500.00	1000.00	5000.00
9 4-Nitrotoluene	50.00	100.00	500.00	1000.00	5000.00
10 2-Amino-4,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
11 1,3-Dinitrobenzene/3NT	100.00	200.00	1000.00	2000.00	10000.00
13 2,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
14 2,4-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00

Standard concentrations are expressed as ng/mL.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 18-JUL-2007 16:16  
 End Cal Date : 18-JUL-2007 18:48  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix\Felix.i\F71807.b\8330syn711807MNX.m  
 Sublist : 8330mxx2.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
15 1,3,5-Trinitrobenzene	50.00	100.00	500.00	1000.00	5000.00
16 TetraYl	50.00	100.00	500.00	1000.00	5000.00
17 2,4,6-TNT	50.00	100.00	500.00	1000.00	5000.00
12 3,4-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00

Standard concentrations are expressed as ng/mL.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 18-JUL-2007 16:16  
 End Cal Date : 18-JUL-2007 18:48  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\felix\Felix.i\F71807.b\F7180709.D  
 Sublist : 8330mmx2.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180707.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180708.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180709.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180710.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.i/F71807.b/F7180711.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
3 MNX	26072.000	54386.000	257265.00	539062.00	2319422.0
4 HMX	389.00000	727.00000	3939.0000	7285.0000	36378.000
5 RDX	504.00000	946.00000	5158.0000	9508.0000	47436.000
6 Nitrobenzene	863.00000	1685.0000	8711.0000	16888.000	86334.000
7 4-Amino-2,6-Dinitrotoluene	531.00000	975.00000	5279.0000	9764.0000	48302.000
8 2-Nitrotoluene	464.00000	854.00000	4451.0000	8630.0000	44190.000
9 4-Nitrotoluene	23138.000	42713.000	219187.00	422340.00	2190341.0
10 2-Amino-4,6-Dinitrotoluene	698.00000	1289.0000	6988.0000	12928.000	64329.000
11 1,3-Dinitrobenzene/3NT	1016.0000	1893.0000	10074.000	18884.000	94691.000
13 2,6-Dinitrotoluene	385.00000	721.00000	3891.0000	7247.0000	36244.000
14 2,4-Dinitrotoluene	671.00000	1253.0000	6809.0000	12574.000	63026.000

Response is in Height units.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 18-JUL-2007 16:16  
 End Cal Date : 18-JUL-2007 18:48  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix\Felix.i\F71807.b\8330syn711807MNX.m  
 Sublist : 8330mmx2.sub  
 Column : EtPh  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
15 1,3,5-Trinitrobenzene	445.00000	812.00000	4386.0000	8085.0000	40308.000
16 Tetryl	284.00000	523.00000	2841.0000	5250.0000	26445.000
17 2,4,6-TNT	332.00000	633.00000	3331.0000	6162.0000	30950.000
12 3,4-Dinitrotoluene	394.00000	740.00000	3974.0000	7353.0000	36791.000

Response is in Height units.

Laucks Testing Labs  
Initial Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/062807.b/06280703.D
Injection Date  : 28-JUN-2007 12:31
Sample Info     : STD04 1000PPB METHOD 8330
Misc. Info     : ICV
Laboratory ID  : STD04 1000PPB           Client ID   : HPLC1-16-8 20X
Instrument ID   : Oscar.i                Operator    : MY
Method         : 8330FEB2707.m          Sublist     : 8330
Quantitation   : ESTD                    Integrator  : HP Genie
Dilution Factor : 1.00                  Sample Type : CCALIB_4
Column         : C18                     Column Size : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
HMX	4.58 #	4.33 - 4.83	10.66308	9.849000	7.6	
RDX	8.04 #	7.79 - 8.29	7.697800	7.344000	4.6	
1,3,5-Trinitrobenzene	11.63 #	11.38 - 11.88	13.46708	13.42300	0.3	
1,3-Dinitrobenzene	14.40 #	14.15 - 14.65	14.89056	14.73200	1.1	
Tetryl	16.20 #	15.95 - 16.45	6.980400	6.995000	-0.2	
Nitrobenzene	16.94 #	16.69 - 17.19	8.559800	8.535000	0.3	
3,4-Dinitrotoluene	17.40 #	17.15 - 17.65	5.661840	6.370000	-12.5	
2,4,6-Trinitrotoluene	19.66 #	19.41 - 19.91	8.058800	7.572000	6.0	
4-Amino-2,6-Dinitrotoluene	20.47 #	20.17 - 20.77	5.775680	5.955000	-3.1	
2-Amino-4,6-Dinitrotoluene	21.58 #	21.28 - 21.88	7.774920	7.875000	-1.3	
2,6-Dinitrotoluene	22.88 #	22.59 - 23.17	5.200600	5.292000	-1.8	
2,4-Dinitrotoluene	23.79 #	23.50 - 24.08	8.994080	9.090000	-1.1	
2-Nitrotoluene	28.81 #	28.45 - 29.17	3.506480	3.598000	-2.6	
4-Nitrotoluene	31.35 #	30.95 - 31.75	2.650160	2.743000	-3.5	
3-Nitrotoluene	33.73 #	33.29 - 34.17	3.198400	3.308000	-3.4	

Calibration Factor ( CF ) = Response divided by Concentration

Percent Difference ( %D ) = (Ave CF - ICV CF ) divided by Ave CF times 100

\* = Percent Difference is outside the acceptance limits of +/-15%

# = The compound retention time is the expected retention time in the method.



Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O62807.b/O6280713.D
Injection Date  : 28-JUN-2007 19:19
Sample Info     : STD04 1000PPB
Misc. Info     : Method 8330
Laboratory ID  : STD04 1000PPB
Instrument ID   : Oscar.i
Method         : 8330FEB2707.m
Quantitation   : ESTD
Dilution Factor : 1.00
Column        : C18
Client ID      : HPLC1-16-8 20X
Operator       : MY
Sublist        : 8330
Integrator     : HP Genie
Sample Type    : CCALIB_4
Column Size    : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
HMX	4.58	4.33 - 4.83	10.66308	9.887000	7.3	
RDX	8.02	7.79 - 8.29	7.697800	7.414000	3.7	
1,3,5-Trinitrobenzene	11.60	11.38 - 11.88	13.46708	13.65800	-1.4	
1,3-Dinitrobenzene	14.35	14.15 - 14.65	14.89056	14.91600	-0.2	
Tetryl	16.12	15.95 - 16.45	6.980400	7.088000	-1.5	
Nitrobenzene	16.87	16.69 - 17.19	8.559800	8.607000	-0.6	
3,4-Dinitrotoluene	17.31	17.15 - 17.65	5.661840	6.578000	-16.2	
2,4,6-Trinitrotoluene	19.57	19.41 - 19.91	8.058800	7.593000	5.8	
4-Amino-2,6-Dinitrotoluene	20.31	20.17 - 20.77	5.775680	6.017000	-4.2	
2-Amino-4,6-Dinitrotoluene	21.41	21.28 - 21.88	7.774920	7.878000	-1.3	
2,6-Dinitrotoluene	22.77	22.59 - 23.17	5.200600	5.250000	-0.9	
2,4-Dinitrotoluene	23.67	23.50 - 24.08	8.994080	9.110000	-1.3	
2-Nitrotoluene	28.69	28.45 - 29.17	3.506480	3.620000	-3.2	
4-Nitrotoluene	31.20	30.95 - 31.75	2.650160	2.778000	-4.8	
3-Nitrotoluene	33.56	33.29 - 34.17	3.198400	3.348000	-4.7	

Calibration Factor ( CF ) = Response divided by Concentration

Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100

\* = Percent Difference is outside the acceptance limits of +/-15%

# = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O62807.b/O6280722.D
Injection Date  : 29-JUN-2007 01:19
Sample Info     : STD04 1000PPB
Misc. Info     : Method 8330
Laboratory ID  : STD04 1000PPB
Instrument ID   : Oscar.i
Method         : 8330FEB2707.m
Quantitation   : ESTD
Dilution Factor : 1.00
Column         : C18

Client ID      : HPLC1-16-8 20X
Operator       : MY
Sublist        : 8330
Integrator     : HP Genie
Sample Type    : CCALIB_4
Column Size    : 0.25m L- 4.60mm ID
    
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
===== HMX	4.58	4.33 - 4.83	10.66308	9.959000	6.6	
RDX	8.02	7.79 - 8.29	7.697800	7.397000	3.9	
1,3,5-Trinitrobenzene	11.61	11.38 - 11.88	13.46708	13.69000	-1.7	
1,3-Dinitrobenzene	14.36	14.15 - 14.65	14.89056	15.06300	-1.2	
Tetryl	16.13	15.95 - 16.45	6.980400	7.171000	-2.7	
Nitrobenzene	16.88	16.69 - 17.19	8.559800	8.615000	-0.6	
3,4-Dinitrotoluene	17.31	17.15 - 17.65	5.661840	6.628000	-17.1	
2,4,6-Trinitrotoluene	19.57	19.41 - 19.91	8.058800	7.690000	4.6	
4-Amino-2,6-Dinitrotoluene	20.32	20.17 - 20.77	5.775680	6.102000	-5.6	
2-Amino-4,6-Dinitrotoluene	21.43	21.28 - 21.88	7.774920	7.973000	-2.5	
2,6-Dinitrotoluene	22.78	22.59 - 23.17	5.200600	5.328000	-2.4	
2,4-Dinitrotoluene	23.68	23.50 - 24.08	8.994080	9.179000	-2.1	
2-Nitrotoluene	28.69	28.45 - 29.17	3.506480	3.611000	-3.0	
4-Nitrotoluene	31.20	30.95 - 31.75	2.650160	2.763000	-4.3	
3-Nitrotoluene	33.57	33.29 - 34.17	3.198400	3.318000	-3.7	

Calibration Factor ( CF ) = Response divided by Concentration

Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100

\* = Percent Difference is outside the acceptance limits of +/-15%

# = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Initial Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O71807.b/O7180704.D
Injection Date  : 18-JUL-2007 12:06
Sample Info     : STD04 1000PPB METHOD 8330
Misc. Info     : ICV
Laboratory ID  : STD04 1000PPB           Client ID   : HPLC1-16-8 20X
Instrument ID   : Oscar.i               Operator    : MY
Method         : 8330FEB2707.m         Sublist     : 8330MNX
Quantitation   : ESTD                  Integrator  : HP Genie
Dilution Factor : 1.00                Sample Type : CCALIB_4
Column        : C18                    Column Size: 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
HMX	4.55 #	4.30 - 4.80	10.66308	9.137000	14.3	
MNX	6.77 #	6.52 - 7.02	9.787080	9.347000	4.5	
RDX	7.92 #	7.67 - 8.17	7.697800	6.914000	10.2	
1,3,5-Trinitrobenzene	11.46 #	11.21 - 11.71	13.46708	12.57200	6.6	
1,3-Dinitrobenzene	14.16 #	13.91 - 14.41	14.89056	13.85400	7.0	
Tetryl	15.82 #	15.57 - 16.07	6.980400	6.515000	6.7	
Nitrobenzene	16.65 #	16.40 - 16.90	8.559800	8.100000	5.4	
3,4-Dinitrotoluene	16.99 #	16.74 - 17.24	5.661840	6.661000	-17.6	
2,4,6-Trinitrotoluene	19.23 #	18.98 - 19.48	8.058800	6.955000	13.7	
4-Amino-2,6-Dinitrotoluene	19.94 #	19.64 - 20.24	5.775680	5.736000	0.7	
2-Amino-4,6-Dinitrotoluene	21.02 #	20.72 - 21.32	7.774920	7.340000	5.6	
2,6-Dinitrotoluene	22.38 #	22.09 - 22.67	5.200600	4.888000	6.0	
2,4-Dinitrotoluene	23.28 #	22.99 - 23.57	8.994080	8.415000	6.4	
2-Nitrotoluene	28.23 #	27.87 - 28.59	3.506480	3.383000	3.5	
4-Nitrotoluene	30.67 #	30.27 - 31.07	2.650160	2.587000	2.4	
3-Nitrotoluene	33.00 #	32.56 - 33.44	3.198400	3.110000	2.8	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = ( Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O71807.b/O7180709.D
Injection Date  : 18-JUL-2007 15:27
Sample Info     : STD04 1000PPB METHOD 8330
Misc. Info     : Method 8330
Laboratory ID  : STD04 1000PPB
Instrument ID   : Oscar.i
Method         : 8330FEB2707.m
Quantitation   : ESTD
Dilution Factor : 1.00
Column        : C18

Client ID      : HPLC1-16-8 20X
Operator      : MY
Sublist       : 8330MNX
Integrator    : HP Genie
Sample Type   : CCALIB_4
Column Size   : 0.25m L- 4.60mm ID
    
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
===== HMX	4.55	4.30 - 4.80	10.66308	9.517000	10.7	
MNX	6.78	6.52 - 7.02	9.787080	9.834000	-0.5	
RDX	7.93	7.67 - 8.17	7.697800	7.271000	5.5	
1,3,5-Trinitrobenzene	11.48	11.21 - 11.71	13.46708	13.11200	2.6	
1,3-Dinitrobenzene	14.20	13.91 - 14.41	14.89056	14.45100	3.0	
Tetryl	15.88	15.57 - 16.07	6.980400	6.691000	4.1	
Nitrobenzene	16.70	16.40 - 16.90	8.559800	8.266000	3.4	
3,4-Dinitrotoluene	17.06	16.74 - 17.24	5.661840	6.774000	-19.6	
2,4,6-Trinitrotoluene	19.30	18.98 - 19.48	8.058800	7.195000	10.7	
4-Amino-2,6-Dinitrotoluene	20.03	19.64 - 20.24	5.775680	5.945000	-2.9	
2-Amino-4,6-Dinitrotoluene	21.12	20.72 - 21.32	7.774920	7.650000	1.6	
2,6-Dinitrotoluene	22.47	22.09 - 22.67	5.200600	5.105000	1.8	
2,4-Dinitrotoluene	23.36	22.99 - 23.57	8.994080	8.821000	1.9	
2-Nitrotoluene	28.32	27.87 - 28.59	3.506480	3.465000	1.2	
4-Nitrotoluene	30.79	30.27 - 31.07	2.650160	2.650000	0.0	
3-Nitrotoluene	33.12	32.56 - 33.44	3.198400	3.197000	0.0	

Calibration Factor ( CF ) = Response divided by Concentration

Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100

\* = Percent Difference is outside the acceptance limits of +/-15%

# = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O71807.b/O7180716.D
Injection Date  : 18-JUL-2007 20:07
Sample Info     : STD04 1000PPB METHOD 8330
Misc. Info      : Method 8330
Laboratory ID   : STD04 1000PPB           Client ID   : HPLC1-16-8 20X
Instrument ID   : Oscar.i                 Operator    : MY
Method          : 8330FEB2707.m          Sublist     : 8330MNX
Quantitation    : ESTD                    Integrator   : HP Genie
Dilution Factor : 1.00                   Sample Type : CCALIB_4
Column          : C18                     Column Size : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
HMX	4.55	4.30 - 4.80	10.66308	9.196000	13.8	
MNX	6.78	6.52 - 7.02	9.787080	9.380000	4.2	
RDX	7.94	7.67 - 8.17	7.697800	6.919000	10.1	
1,3,5-Trinitrobenzene	11.49	11.21 - 11.71	13.46708	12.59000	6.5	
1,3-Dinitrobenzene	14.22	13.91 - 14.41	14.89056	13.79400	7.4	
Tetryl	15.91	15.57 - 16.07	6.980400	6.384000	8.5	
Nitrobenzene	16.72	16.40 - 16.90	8.559800	7.973000	6.9	
3,4-Dinitrotoluene	17.08	16.74 - 17.24	5.661840	6.516000	-15.1	
2,4,6-Trinitrotoluene	19.32	18.98 - 19.48	8.058800	6.924000	14.1	
4-Amino-2,6-Dinitrotoluene	20.09	19.64 - 20.24	5.775680	5.646000	2.2	
2-Amino-4,6-Dinitrotoluene	21.20	20.72 - 21.32	7.774920	7.271000	6.5	
2,6-Dinitrotoluene	22.52	22.09 - 22.67	5.200600	4.871000	6.3	
2,4-Dinitrotoluene	23.42	22.99 - 23.57	8.994080	8.409000	6.5	
2-Nitrotoluene	28.38	27.87 - 28.59	3.506480	3.353000	4.4	
4-Nitrotoluene	30.84	30.27 - 31.07	2.650160	2.563000	3.3	
3-Nitrotoluene	33.16	32.56 - 33.44	3.198400	3.082000	3.6	

Calibration Factor ( CF ) = Response divided by Concentration

Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100

\* = Percent Difference is outside the acceptance limits of +/-15%

# = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Initial Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/felix/Felix.i/F71207A.b/F7120717.D
Injection Date  : 12-JUL-2007 20:28
Sample Info     : STD04 1000PPB METHOD8330
Misc. Info     : ICV
Laboratory ID  : STD04 1000PPB           Client ID   : HPLC1-16-08 20X
Instrument ID   : Felix.i                 Operator    : MY
Method         : 8330syn71207.m          Sublist     : 8330syn
Quantitation   : ESTD                     Integrator  : HP Genie
Dilution Factor : 1.00                   Sample Type : CCALIB_4
Column        : EtPh                       Column Size : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
=====						
HMX	8.19 #	7.94 - 8.44	7.709720	7.620000	1.2	
RDX	8.73 #	8.48 - 8.98	9.681160	9.523000	1.6	
Nitrobenzene	11.43 #	11.18 - 11.68	17.38444	17.34300	0.2	
4-Amino-2,6-Dinitrotoluene	14.37 #	14.12 - 14.62	10.19516	10.04200	1.5	
2-Nitrotoluene	14.82 #	14.57 - 15.07	9.131320	9.092000	0.4	
4-Nitrotoluene	15.52 #	15.27 - 15.77	449.7935	448.3420	0.3	
2-Amino-4,6-Dinitrotoluene	15.87 #	15.62 - 16.12	13.59424	13.44900	1.1	
1,3-Dinitrobenzene/3NT	16.44 #	16.19 - 16.69	9.957160	9.802000	1.6	
3,4-Dinitrotoluene	17.66 #	17.42 - 17.92	7.261520	7.168000	1.3	
2,6-Dinitrotoluene	19.11 #	18.86 - 19.36	7.741760	7.681000	0.8	
2,4-Dinitrotoluene	22.09 #	21.84 - 22.34	12.75456	12.60700	1.2	
1,3,5-Trinitrobenzene	25.22 #	24.95 - 25.49	8.466880	8.310000	1.9	
Tetryl	29.16 #	28.72 - 29.58	5.171000	5.047000	2.4	
2,4,6-TNT	32.77 #	32.33 - 33.21	5.707040	5.547000	2.8	

Calibration Factor ( CF ) = Response divided by Concentration

Percent Difference ( %D ) = (Ave CF - ICV CF ) divided by Ave CF times 100

\* = Percent Difference is outside the acceptance limits of +/-15%

# = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/felix/Felix.i/F71207A.b/F7120750.D
Injection Date  : 13-JUL-2007 17:24
Sample Info     : STD04 1000PPB METHOD8330
Misc. Info     : Method 8330
Laboratory ID  : STD04 1000PPB          Client ID   : HPLC1-16-08 20X
Instrument ID   : Felix.i                Operator    : MY
Method         : 8330syn71207.m         Sublist     : 8330syn
Quantitation   : ESTD                   Integrator  : HP Genie
Dilution Factor : 1.00                 Sample Type : CCALIB 4
Column         : EtPh                   Column Size : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
HMX	8.20	7.94 - 8.44	7.709720	7.834000	-1.6	
RDX	8.74	8.48 - 8.98	9.681160	9.753000	-0.7	
Nitrobenzene	11.46	11.18 - 11.68	17.38444	17.20200	1.0	
4-Amino-2,6-Dinitrotoluene	14.43	14.12 - 14.62	10.19516	10.17300	0.2	
2-Nitrotoluene	14.88	14.57 - 15.07	9.131320	9.066000	0.7	
4-Nitrotoluene	15.58	15.27 - 15.77	449.7935	453.0520	-0.7	
2-Amino-4,6-Dinitrotoluene	15.94	15.62 - 16.12	13.59424	13.63000	-0.3	
1,3-Dinitrobenzene/3NT	16.52	16.19 - 16.69	9.957160	9.799500	1.6	
3,4-Dinitrotoluene	17.74	17.42 - 17.92	7.261520	7.266000	-0.1	
2,6-Dinitrotoluene	19.20	18.86 - 19.36	7.741760	7.793000	-0.7	
2,4-Dinitrotoluene	22.20	21.84 - 22.34	12.75456	12.75600	-0.0	
1,3,5-Trinitrobenzene	25.34	24.95 - 25.49	8.466880	8.474000	-0.1	
Tetryl	29.30	28.72 - 29.58	5.171000	5.038000	2.6	
2,4,6-TNT	32.94	32.33 - 33.21	5.707040	5.608000	1.7	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/felix/Felix.i/F71207A.b/F7120759.D
Injection Date  : 13-JUL-2007 23:06
Sample Info     : STD04 1000PPB METHOD8330
Misc. Info     : Method 8330
Laboratory ID  : STD04 1000PPB          Client ID   : HPLC1-16-08 20X
Instrument ID   : Felix.i              Operator    : MY
Method         : 8330syn71207.m       Sublist     : 8330syn
Quantitation   : ESTD                 Integrator  : HP Genie
Dilution Factor : 1.00               Sample Type : CCALIB_4
Column         : EtPh                 Column Size : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
===== HMX	8.19	7.94 - 8.44	7.709720	7.708000	0.0	
RDX	8.73	8.48 - 8.98	9.681160	9.655000	0.3	
Nitrobenzene	11.44	11.18 - 11.68	17.38444	17.16400	1.3	
4-Amino-2,6-Dinitrotoluene	14.39	14.12 - 14.62	10.19516	10.13600	0.6	
2-Nitrotoluene	14.84	14.57 - 15.07	9.131320	9.075000	0.6	
4-Nitrotoluene	15.54	15.27 - 15.77	449.7935	448.0220	0.4	
2-Amino-4,6-Dinitrotoluene	15.89	15.62 - 16.12	13.59424	13.62300	-0.2	
1,3-Dinitrobenzene/3NT	16.46	16.19 - 16.69	9.957160	9.864000	0.9	
3,4-Dinitrotoluene	17.69	17.42 - 17.92	7.261520	7.234000	0.4	
2,6-Dinitrotoluene	19.13	18.86 - 19.36	7.741760	7.745000	-0.0	
2,4-Dinitrotoluene	22.12	21.84 - 22.34	12.75456	12.69500	0.5	
1,3,5-Trinitrobenzene	25.25	24.95 - 25.49	8.466880	8.434000	0.4	
Tetryl	29.18	28.72 - 29.58	5.171000	5.070000	2.0	
2,4,6-TNT	32.80	32.33 - 33.21	5.707040	5.584000	2.2	

Calibration Factor ( CF ) = Response divided by Concentration

Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100

\* = Percent Difference is outside the acceptance limits of +/-15%

# = The compound retention time is the expected retention time in the method.



Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/felix/Felix.i/F71207A.b/F7120769.D
Injection Date  : 14-JUL-2007 05:27
Sample Info     : STD04 1000PPB METHOD8330
Misc. Info     : Method 8330
Laboratory ID  : STD04 1000PPB           Client ID   : HPLC1-16-08 20X
Instrument ID   : Felix.i                 Operator    : MY
Method         : 8330syn71207.m          Sublist     : 8330syn
Quantitation   : ESTD                     Integrator  : HP Genie
Dilution Factor : 1.00                   Sample Type : CCALIB 4
Column         : EtPh                      Column Size : 0.25m L- 4.60mm ID
    
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
=====						
HMX	8.20	7.94 - 8.44	7.709720	7.797000	-1.1	
RDX	8.73	8.48 - 8.98	9.681160	9.783000	-1.1	
Nitrobenzene	11.45	11.18 - 11.68	17.38444	17.16800	1.2	
4-Amino-2,6-Dinitrotoluene	14.40	14.12 - 14.62	10.19516	10.25200	-0.6	
2-Nitrotoluene	14.84	14.57 - 15.07	9.131320	9.042000	1.0	
4-Nitrotoluene	15.54	15.27 - 15.77	449.7935	450.2350	-0.1	
2-Amino-4,6-Dinitrotoluene	15.91	15.62 - 16.12	13.59424	13.69300	-0.7	
1,3-Dinitrobenzene/3NT	16.48	16.19 - 16.69	9.957160	9.840000	1.2	
3,4-Dinitrotoluene	17.71	17.42 - 17.92	7.261520	7.255000	0.1	
2,6-Dinitrotoluene	19.16	18.86 - 19.36	7.741760	7.742000	-0.0	
2,4-Dinitrotoluene	22.17	21.84 - 22.34	12.75456	12.76000	-0.0	
1,3,5-Trinitrobenzene	25.31	24.95 - 25.49	8.466880	8.484000	-0.2	
Tetryl	29.28	28.72 - 29.58	5.171000	5.096000	1.5	
2,4,6-TNT	32.91	32.33 - 33.21	5.707040	5.626000	1.4	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Initial Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/felix/Felix.i/F71907.b/F7190703.D
Injection Date  : 19-JUL-2007 13:08
Sample Info     : STD04 1000PPB METHOD8330
Misc. Info     : ICV
Laboratory ID  : STD04 1000PPB          Client ID : HPLC1-17-02 20X
Instrument ID   : Felix.i              Operator  : MY
Method         : 8330syn711807mnx.m    Sublist   : 8330mnx2
Quantitation   : ESTD                  Integrator: HP Genie
Dilution Factor : 1.00                Sample Type: CCALIB 4
Column         : EtPh                  Column Size: 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
MNX	7.87 #	7.62 - 8.12	516.5553	438.5600	15.1	
HMX	8.18 #	7.93 - 8.43	7.497720	7.270000	3.0	
RDX	8.72 #	8.47 - 8.97	9.770240	9.474000	3.0	
Nitrobenzene	11.42 #	11.17 - 11.67	17.13736	17.29700	-0.9	
4-Amino-2,6-Dinitrotoluene	14.35 #	14.10 - 14.60	10.07048	9.758000	3.1	
2-Nitrotoluene	14.80 #	14.55 - 15.05	8.838000	8.887000	-0.6	
4-Nitrotoluene	15.50 #	15.25 - 15.75	437.7344	430.7680	1.6	
2-Amino-4,6-Dinitrotoluene	15.85 #	15.60 - 16.10	13.32396	12.92800	3.0	
1,3-Dinitrobenzene/3NT	16.42 #	16.17 - 16.67	9.722020	9.634500	0.9	
3,4-Dinitrotoluene	17.64 #	17.39 - 17.89	7.587840	7.406000	2.4	
2,6-Dinitrotoluene	19.08 #	18.83 - 19.33	7.437560	7.320000	1.6	
2,4-Dinitrotoluene	22.07 #	21.82 - 22.32	12.94944	12.72900	1.7	
1,3,5-Trinitrobenzene	25.20 #	24.93 - 25.47	8.387720	8.216000	2.0	
Tetryl	29.10 #	28.67 - 29.53	5.426200	5.460000	-0.6	
2,4,6-TNT	32.72 #	32.28 - 33.16	6.396800	6.278000	1.9	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = ( Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/felix/Felix.i/F71907.b/F7190709.D
Injection Date  : 19-JUL-2007 17:08
Sample Info     : STD04 1000PPB METHOD8330
Misc. Info     : Method 8330
Laboratory ID  : STD04 1000PPB
Instrument ID   : Felix.i
Method         : 8330syn711807mnx.m
Quantitation   : ESTD
Dilution Factor : 1.00
Column        : EtPh
Client ID      : HPLC1-17-02 20X
Operator       : MY
Sublist       : 8330mnx2
Integrator    : HP Genie
Sample Type   : CCALIB_4
Column Size   : 0.25m L- 4.60mm ID
    
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
MNX	7.87	7.62 - 8.12	516.5553	443.9500	14.1	
HMX	8.18	7.93 - 8.43	7.497720	7.370000	1.7	
RDX	8.72	8.47 - 8.97	9.770240	9.589000	1.9	
Nitrobenzene	11.43	11.17 - 11.67	17.13736	17.39200	-1.5	
4-Amino-2,6-Dinitrotoluene	14.39	14.10 - 14.60	10.07048	9.754000	3.1	
2-Nitrotoluene	14.84	14.55 - 15.05	8.838000	8.883000	-0.5	
4-Nitrotoluene	15.53	15.25 - 15.75	437.7344	440.0970	-0.5	
2-Amino-4,6-Dinitrotoluene	15.90	15.60 - 16.10	13.32396	12.97600	2.6	
1,3-Dinitrobenzene/3NT	16.47	16.17 - 16.67	9.722020	9.593000	1.3	
3,4-Dinitrotoluene	17.70	17.39 - 17.89	7.587840	7.460000	1.7	
2,6-Dinitrotoluene	19.15	18.83 - 19.33	7.437560	7.398000	0.5	
2,4-Dinitrotoluene	22.14	21.82 - 22.32	12.94944	12.78300	1.3	
1,3,5-Trinitrobenzene	25.29	24.93 - 25.47	8.387720	8.199000	2.2	
Tetryl	29.24	28.67 - 29.53	5.426200	5.401000	0.5	
2,4,6-TNT	32.86	32.28 - 33.16	6.396800	6.312000	1.3	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607HORWLG

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: B062607HORWLG  
 Lab File ID: O6280704.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
2691-41-0	HMX	0.50		U
121-82-4	RDX	0.50		U
99-35-4	1,3,5-Trinitrobenzene	0.50		U
99-65-0	1,3-Dinitrobenzene	0.50		U
98-95-3	Nitrobenzene	0.50		U
479-45-8	Tetryl	0.50		U
118-96-7	2,4,6-Trinitrotoluene	0.50		U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.50		U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.50		U
606-20-2	2,6-Dinitrotoluene	0.50		U
121-14-2	2,4-Dinitrotoluene	0.50		U
88-72-2	2-Nitrotoluene	0.50		U
99-99-0	4-Nitrotoluene	0.50		U
99-08-1	3-Nitrotoluene	0.50		U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B071807HORWLG

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: B071807HORWLG  
 Lab File ID: O7180713.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 07/18/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.50	U
121-82-4	RDX	0.50	U
99-35-4	1,3,5-Trinitrobenzene	0.50	U
99-65-0	1,3-Dinitrobenzene	0.50	U
98-95-3	Nitrobenzene	0.50	U
479-45-8	Tetryl	0.50	U
118-96-7	2,4,6-Trinitrotoluene	0.50	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.50	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.50	U
606-20-2	2,6-Dinitrotoluene	0.50	U
121-14-2	2,4-Dinitrotoluene	0.50	U
88-72-2	2-Nitrotoluene	0.50	U
99-99-0	4-Nitrotoluene	0.50	U
99-08-1	3-Nitrotoluene	0.50	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607HORWLG

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: S062607HORWLG  
 Lab File ID: F7120752.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	21.0	
121-82-4	RDX	21.5	
99-35-4	1,3,5-Trinitrobenzene	17.6	
99-65-0	1,3-Dinitrobenzene	17.8	
98-95-3	Nitrobenzene	17.8	
479-45-8	Tetryl	16.0	
118-96-7	2,4,6-Trinitrotoluene	18.7	
19406-51-0	4-Amino-2,6-dinitrotoluene	17.9	
35572-78-2	2-Amino-4,6-dinitrotoluene	17.9	
606-20-2	2,6-Dinitrotoluene	16.1	
121-14-2	2,4-Dinitrotoluene	16.5	
88-72-2	2-Nitrotoluene	14.9	
99-99-0	4-Nitrotoluene	15.4	
99-08-1	3-Nitrotoluene	14.7	

Comments:

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**S062607HORWLG**

Lab Name: Laucks Testing Labs, Inc.  
 Lab Sample ID: S062607HORWLG  
 Instrument ID: HPLC5 (Oscar) Run Sequence ID: R019636  
 Column (1): Allure C18 Column (2): Synergi - EtPH  
 File (1): O62807.b-O6280705.D File (2): F71207A.b-F7120752.D  
 Date Analyzed (1): 6/28/2007 1:59:00 PM Date Analyzed (2): 7/13/2007 6:40:00 PM

ANALYTE	COL	CONCENTRATION Final Units: ug/L	RPD	RT	RT Window
HMX	1	18.8613	10.8 %	4.58	4.33 - 4.83
	2	21.0228 X		8.23	7.94 - 8.44
RDX	1	20.4357	5.1 %	8.03	7.79 - 8.29
	2	21.5036 X		8.77	8.48 - 8.98
1,3,5-Trinitrobenzene	1	17.5962 X	5.2 %	11.62	11.38 - 11.88
	2	16.698		25.38	24.97 - 25.47
1,3-Dinitrobenzene	1	17.771 X	62.5 %	14.37	14.16 - 14.66
	2	33.9163		16.53	16.19 - 16.69
Nitrobenzene	1	17.5658	1.5 %	16.89	16.69 - 17.19
	2	17.8355 X		11.49	11.18 - 11.68
Tetryl	1	16.0464 X	9.7 %	16.14	15.96 - 16.46
	2	14.562		29.36	28.91 - 29.41
2,4,6-Trinitrotoluene	1	17.7905	4.9 %	19.59	19.41 - 19.91
	2	18.691 X		32.99	32.52 - 33.02
4-Amino-2,6-dinitrotoluen	1	17.92 X	1.0 %	20.35	20.17 - 20.77
	2	17.7427		14.44	14.07 - 14.67
2-Amino-4,6-dinitrotoluen	1	17.8793 X	0.8 %	21.44	21.28 - 21.88
	2	17.7296		15.95	15.57 - 16.17
2,6-Dinitrotoluene	1	16.1231 X	1.5 %	22.79	22.59 - 23.17
	2	15.8879		19.21	18.82 - 19.40
2,4-Dinitrotoluene	1	16.4553 X	2.9 %	23.69	23.50 - 24.08
	2	15.977		22.23	21.80 - 22.38
2-Nitrotoluene	1	14.9209 X	0.6 %	28.71	28.45 - 29.17
	2	14.8259		14.89	14.46 - 15.18

X = Concentration Reported

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**S062607HORWLG**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: S062607HORWLG

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - EtPH

File (1): O62807.b-O6280705.D

File (2): F71207A.b-F7120752.D

Date Analyzed (1): 6/28/2007 1:59:00 PM

Date Analyzed (2): 7/13/2007 6:40:00 PM

ANALYTE	COL	CONCENTRATION Final Units: ug/L		RPD	RT	RT Window
4-Nitrotoluene	1	15.4368	X	6.6 %	31.22	30.95 - 31.75
	2	14.4544			15.59	15.12 - 15.92
3-Nitrotoluene	1	14.7105	X	79.0 %	33.59	33.29 - 34.17
	2	33.9163			16.53	16.00 - 16.88

X = Concentration Reported



1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S071807HORWLG

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: S071807HORWLG  
 Lab File ID: O7180714.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 07/18/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
2691-41-0	HMX	20.1	
121-82-4	RDX	22.5	
99-35-4	1,3,5-Trinitrobenzene	21.4	
99-65-0	1,3-Dinitrobenzene	20.9	
98-95-3	Nitrobenzene	21.6	
479-45-8	Tetryl	20.6	
118-96-7	2,4,6-Trinitrotoluene	21.7	
19406-51-0	4-Amino-2,6-dinitrotoluene	19.8	
35572-78-2	2-Amino-4,6-dinitrotoluene	21.1	
606-20-2	2,6-Dinitrotoluene	20.7	
121-14-2	2,4-Dinitrotoluene	20.1	
88-72-2	2-Nitrotoluene	20.1	
99-99-0	4-Nitrotoluene	20.0	
99-08-1	3-Nitrotoluene	19.3	

Comments:

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**S071807HORWLG**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: S071807HORWLG

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - E1PH

File (1): O71807.b-O7180714.D

File (2): F71907.b-F7190707.D

Date Analyzed (1): 7/18/2007 6:47:00 PM

Date Analyzed (2): 7/19/2007 3:52:00 PM

ANALYTE	COL	CONCENTRATION Final Units: ug/L	RPD	RT	RT Window
HMX	1	20.1461 X	14.8 %	4.56	4.33 - 4.83
	2	23.3604		8.20	7.94 - 8.44
RDX	1	21.2152	6.0 %	7.97	7.79 - 8.29
	2	22.5286 X		8.74	8.48 - 8.98
1,3,5-Trinitrobenzene	1	21.3974 X	0.7 %	11.49	11.38 - 11.88
	2	21.2406		25.29	24.97 - 25.47
1,3-Dinitrobenzene	1	20.9213 X	67.7 %	14.22	14.16 - 14.66
	2	42.3328		16.50	16.19 - 16.69
Nitrobenzene	1	20.7003	4.5 %	16.72	16.69 - 17.19
	2	21.6492 X		11.46	11.18 - 11.68
Tetryl	1	20.6048 X	9.8 %	15.91	15.96 - 16.46
	2	18.6871		29.23	28.91 - 29.41
2,4,6-Trinitrotoluene	1	21.6943 X	5.0 %	19.32	19.41 - 19.91
	2	20.6384		32.85	32.52 - 33.02
4-Amino-2,6-dinitrotoluen	1	19.6947	0.4 %	20.09	20.17 - 20.77
	2	19.7736 X		14.41	14.07 - 14.67
2-Amino-4,6-dinitrotoluen	1	20.4992	2.7 %	21.18	21.28 - 21.88
	2	21.0688 X		15.92	15.57 - 16.17
2,6-Dinitrotoluene	1	19.6362	5.1 %	22.50	22.59 - 23.17
	2	20.6667 X		19.16	18.82 - 19.40
2,4-Dinitrotoluene	1	20.131 X	0.7 %	23.40	23.50 - 24.08
	2	19.9846		22.16	21.80 - 22.38
2-Nitrotoluene	1	19.2615	4.1 %	28.37	28.45 - 29.17
	2	20.0758 X		14.86	14.46 - 15.18

X = Concentration Reported

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**S071807HORWLG**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: S071807HORWLG

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - EtPH

File (1): O71807.b-O7180714.D

File (2): F71907.b-F7190707.D

Date Analyzed (1): 7/18/2007 6:47:00 PM

Date Analyzed (2): 7/19/2007 3:52:00 PM

ANALYTE	COL	CONCENTRATION Final Units: ug/L		RPD	RT	RT Window
4-Nitrotoluene	1	20.0101	X	3.4 %	30.83	30.95 - 31.75
	2	19.3364			15.56	15.12 - 15.92
3-Nitrotoluene	1	19.2628	X	74.9 %	33.15	33.29 - 34.17
	2	42.3328			16.50	16.00 - 16.88

X = Concentration Reported

# **Forms Summary**

CAB31

Ordinance by Method 8332

2  
WATER ORDNANCE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB31

Run Sequence: R019488

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (DNT) #	S2 ( ) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB31-006) 15LCMW420W	87				0
(CAB31-004) 15L4MW05AW	60				0
(CAB31-003) 15L4MW03BW	73				0
(CAB31-002) 15L4MW03AW	96				0
(CAB31-001) 15L4MW02AW	95				0
(S062607HORWLG2) S062607HORWLG2	84				0
(B062607HORWLG) B062607HORWLG	81				0

QC LIMITS

S1 (DNT) = 3,4-Dinitrotoluene

60-140

S2 ( ) =

S3 ( ) =

S4 ( ) =

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits

3B  
WATER ORDNANCE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
BS Run Sequence: R019488 SDG No.: CAB31  
BS Lab Sample ID: S062607HORWLG2  
Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec #	Rec Limit
Nitroglycerin	10.0	8.7516	88	60-140
PETN	5.00	3.3839	68	60-140

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

ORDNANCE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062607HORWLG

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B062607HORWLG SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water Date Prepared: 06/26/2007  
 Lab File ID (1): 062907.b-06290704.D Lab File ID (2): \_\_\_\_\_  
 Date Analyzed (1): 06/29/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 11:04 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HPLC5 (Oscar) Instrument ID (2): \_\_\_\_\_  
 Column(1): Varian C18 ID: 4.60 (mm) Column(2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
15L4MW02AW	CAB31-001	1	O6290712.D	06/29/2007 14:32	R019488
15L4MW03AW	CAB31-002	1	O6290714.D	06/29/2007 15:24	R019488
15L4MW03BW	CAB31-003	1	O6290715.D	06/29/2007 15:50	R019488
15L4MW05AW	CAB31-004	1	O6290716.D	06/29/2007 16:16	R019488
15LCMW420W	CAB31-006	1	O6290717.D	06/29/2007 16:42	R019488
S062607HORWLG2	S062607HORWLG2	1	O6290705.D	06/29/2007 11:30	R019488

COMMENTS:

\_\_\_\_\_

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW02AW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: CAB31-001  
 Lab File ID: O6290712.D  
 Date Collected: 06/20/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:



1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW03AW

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB31

Run Sequence: R019488

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB31-002

Sample wt/vol: 1000.0 (g/mL) mL

Lab File ID: 06290714.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: 06/20/2007

Extraction: (Type) SPE

Date Extracted: 06/26/2007

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 06/29/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	ug/L
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW03BW

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB31

Run Sequence: R019488

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB31-003

Sample wt/vol: 1000.0 (g/mL) mL

Lab File ID: O6290715.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: 06/20/2007

Extraction: (Type) SPE

Date Extracted: 06/26/2007

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 06/29/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW05AW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: CAB31-004  
 Lab File ID: O6290716.D  
 Date Collected: 06/20/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments: .

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW420W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: CAB31-006  
 Lab File ID: O6290717.D  
 Date Collected: 06/20/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 10-JUL-2006 11:17  
 End Cal Date : 10-JUL-2006 13:05  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\SNAP568564B\tek4\oscar.i\071006mg.b\071006NG.m  
 Sublist : all.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:

Level 1: //SNAP568564B/tek4/oscar.i/071006mg.b/07100601.D  
 Level 2: //SNAP568564B/tek4/oscar.i/071006mg.b/07100602.D  
 Level 3: //SNAP568564B/tek4/oscar.i/071006mg.b/07100603.D  
 Level 4: //SNAP568564B/tek4/oscar.i/071006mg.b/07100604.D  
 Level 5: //SNAP568564B/tek4/oscar.i/071006mg.b/07100605.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
1 Nitroglycerin	348.3440	362.3640	357.0210	378.5100	373.9440	364.0386	3.4
3 PETN	384.2240	428.2400	383.0820	416.1968	409.5208	404.2527	4.9
2 3,4-Dinitrotoluene	833.5840	891.7440	836.9660	887.3984	879.7140	865.8817	3.3
Average RSD :							3.9

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration ).  
 RSD - Relative Standard Deviation.

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ICAL Linearity Summary v2.0

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 10-JUL-2006 11:17  
 End Cal Date : 10-JUL-2006 13:05  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\SNAP568564B\tek4\Oscar.i\071006ng.b\071006NG.m  
 Sublist : all.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100601.D  
 Level 2: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100602.D  
 Level 3: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100603.D  
 Level 4: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100604.D  
 Level 5: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100605.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
1 Nitroglycerin	9.46	9.44	9.45	9.45	9.44	9.449
3 PFTN	17.39	17.36	17.36	17.36	17.36	17.369
2 3,4-Dinitrotoluene	10.33	10.31	10.32	10.32	10.31	10.316

Retention times are expressed as minutes.

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ICAL RT Summary v2.0

Page 1

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 10-JUL-2006 11:17  
 End Cal Date : 10-JUL-2006 13:05  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\SNAP568564B\tek4\Oscar.i\071006ng.b\071006NG.m  
 Sublist : all.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:

Level 1: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100601.D  
 Level 2: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100602.D  
 Level 3: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100603.D  
 Level 4: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100604.D  
 Level 5: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100605.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 Nitroglycerin	250.00	500.00	1000.00	2500.00	5000.00
3 PETN	125.00	250.00	500.00	1250.00	2500.00
2 3,4-Dinitrotoluene	125.00	250.00	500.00	1250.00	2500.00

Standard concentrations are expressed as ng/mL.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 10-JUL-2006 11:17  
End Cal Date : 10-JUL-2006 13:05  
Quant Method : ESTD  
Cal Curve Type: Average CF  
Integrator : HP Genie  
Method File : \\SNAP568564B\tek4\Oscar.i\071006ng.b\071006NG.m  
Sublist : all.sub  
Column : C18  
Column Size : 0m L - 4.60mm ID

Calibration Files:

Level 1: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100601.D  
Level 2: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100602.D  
Level 3: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100603.D  
Level 4: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100604.D  
Level 5: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100605.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 Nitroglycerin	87086.000	181182.00	357021.00	946275.00	1869720.0
3 PETN	48028.000	107060.00	191541.00	520246.00	1023802.0
2 3,4-Dinitrotoluene	104198.00	222936.00	418483.00	1109248.0	2199285.0

Response is in Area units.

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ICAL Responses Summary v2.0

Page 1



Laucks Testing Labs  
Initial Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/062907.b/06290703.D
Injection Date  : 29-JUN-2007 10:31
Sample Info     : STD04 1000PPB METHOD 8332
Misc. Info      : ICV
Laboratory ID   : STD04 1000PPB           Client ID   : HPLC1-15-15 20X
Instrument ID    : Oscar.i                 Operator    : MY
Method          : 071006NG.m             Sublist     : all
Quantitation    : ESTD                    Integrator  : HP Genie
Dilution Factor : 1.00                   Sample Type : CCALIB_3
Column          : C18                     Column Size : 0.15m L- 4.60mm ID
    
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
Nitroglycerin	10.30 #	10.05 - 10.55	364.0366	359.7260	1.2	
3,4-Dinitrotoluene	11.35 #	11.10 - 11.60	865.8817	874.0680	-0.9	
PETN	19.64 #	19.39 - 19.89	404.2527	385.0800	4.7	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O62907.b/O6290713.D
Injection Date  : 29-JUN-2007 14:58
Sample Info     : STD04 1000PPB METHOD 8332
Misc. Info     : Method 8332
Laboratory ID  : STD04 1000PPB           Client ID   : HPLC1-15-15 20X
Instrument ID   : Oscar.i                 Operator    : MY
Method         : 071006NG.m              Sublist     : all
Quantitation   : ESTD                    Integrator  : HP Genie
Dilution Factor : 1.00                  Sample Type : CCALIB_3
Column         : C18                     Column Size : 0.15m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
Nitroglycerin	10.30	10.05 - 10.55	364.0366	358.3320	1.6	
3,4-Dinitrotoluene	11.35	11.10 - 11.60	865.8817	870.0720	-0.5	
PETN	19.65	19.39 - 19.89	404.2527	387.5460	4.1	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/062907.b/06290722.D
Injection Date  : 29-JUN-2007 18:52
Sample Info     : STD04 1000PPB METHOD 8332
Misc. Info     : Method 8332
Laboratory ID  : STD04 1000PPB           Client ID   : HPLC1-15-15 20X
Instrument ID   : Oscar.i                 Operator    : MY
Method         : 071006NG.m              Sublist     : all
Quantitation   : ESTD                    Integrator  : HP Genie
Dilution Factor : 1.00                  Sample Type: CCALIB_3
Column        : C18                      Column Size: 0.15m L- 4.60mm ID
    
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
Nitroglycerin	10.30	10.05 - 10.55	364.0366	361.2050	0.8	
3,4-Dinitrotoluene	11.35	11.10 - 11.60	865.8817	868.9060	-0.3	
PETN	19.70	19.39 - 19.89	404.2527	386.9900	4.3	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607HORWLG

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: B062607HORWLG  
 Lab File ID: O6290704.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607HORWLG2

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB31

Run Sequence: R019488

Matrix: (SOIL/WATER) Water

Lab Sample ID: S062607HORWLG2

Sample wt/vol: 1000.0 (g/mL) mL

Lab File ID: O6290705.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: \_\_\_\_\_

Extraction: (Type) SPE

Date Extracted: 06/26/2007

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 06/29/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	8.75	
78-11-5	PETN	3.38	

Comments:

# **Forms Summary**

CAB31

Ordinance by Method 8303

2  
WATER ORDNANCE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB31

Run Sequence: R019702

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (D2M) #	S2 ( ) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB31-006) 15LCMW420W	97				0
(S062607HSVWLS) S062607HSVWLS	102				0
(B062607HSVWLS) B062607HSVWLS	102				0

QC LIMITS

70-115

S1 (D2M) = 4,6-Dinitro-2-methylpheno

S2 ( ) =

S3 ( ) =

S4 ( ) =

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

3B  
WATER ORDNANCE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

BS Run Sequence: R019702 SDG No.: CAB31

BS Lab Sample ID: S062607HSVWLS

Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Picric Acid	4.00	3.3821	85		61-128
Picramic Acid	4.00	3.9577	99		47-110

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:



ORDNANCE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062607HSVWLS

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B062607HSVWLS SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water Date Prepared: 06/26/2007  
 Lab File ID (1): F71707A.b-F7170719.D Lab File ID (2): \_\_\_\_\_  
 Date Analyzed (1): 07/17/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 16:38 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HPLC3 (Felix) Instrument ID (2): \_\_\_\_\_  
 Column(1): Supelcosil LC-CN ID: 4.60 (mm) Column(2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
15LCMW420W	CAB31-006	1	F7170721.D	07/17/2007 17:02	R019702
S062607HSVWLS	S062607HSVWLS	1	F7170720.D	07/17/2007 16:50	R019702

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW420W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: 8.5-9

Contract: N/A  
 Run Sequence: R019702  
 Lab Sample ID: CAB31-006  
 Lab File ID: F7170721.D  
 Date Collected: 06/20/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
88-89-1	Picric Acid	1.0	U
96-91-3	Picramic Acid	1.0	U

Comments:

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 17-JUL-2007 14:55  
 End Cal Date : 17-JUL-2007 15:44  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix\Felix.i\F71707.b\F71707PICN.m  
 Sublist : all.sub  
 Column : CN  
 Column Size : 0m L - 4.60mm ID

Calibration Files:

Level 1: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170711.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170712.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170713.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170714.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170715.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
1 Picramic Acid	353.4140	344.7840	346.9592	344.6130	338.7560	345.7052	1.5
2 Picric Acid	70.44000	68.37800	72.53480	75.06050	77.69160	72.82098	5.1
3 4,6-Dinitro-o-Cresol	303.8020	297.0350	301.0240	303.2348	300.6900	301.1552	0.9
Average RSD :							2.5

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration ).  
 RSD - Relative Standard Deviation.

07/18/2007 09:17

ICAL Linearity Summary v2.0

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 17-JUL-2007 14:55  
 End Cal Date : 17-JUL-2007 15:44  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix.i\F71707.b\F71707PICCN.m  
 Sublist : all.sub  
 Column : CN  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170711.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170712.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170713.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170714.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170715.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
1 Picramic Acid	3.65	3.65	3.64	3.64	3.63	3.642
2 Picric Acid	3.22	3.21	3.18	3.17	3.16	3.190
3 4,6-Dinitro-o-Cresol	5.96	5.90	5.78	5.72	5.70	5.814

Retention times are expressed as minutes.

07/18/2007 09:17

ICAL RT Summary v2.0

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Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 17-JUL-2007 14:55  
 End Cal Date : 17-JUL-2007 15:44  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix.i\F71707.b\F71707PICCN.m  
 Sublist : all.sub  
 Column : CN  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170711.D  
 Level 2: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170712.D  
 Level 3: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170713.D  
 Level 4: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170714.D  
 Level 5: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170715.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 Picramic Acid	500.00	1000.00	2500.00	4000.00	5000.00
2 Picric Acid	500.00	1000.00	2500.00	4000.00	5000.00
3 4,6-Dinitro-o-Cresol	500.00	1000.00	2500.00	4000.00	5000.00

Standard concentrations are expressed as ng/mL.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 17-JUL-2007 14:55  
 End Cal Date : 17-JUL-2007 15:44  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix\Felix.i\F71707.b\F71707PICCN.m  
 Sublist : all.sub  
 Column : CN  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170711.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170712.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170713.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170714.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170715.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 Picramic Acid	176707.00	344784.00	867398.00	1378452.0	1693780.0
2 Picric Acid	35220.000	68378.000	181337.00	300242.00	388458.00
3 4,6-Dinitro-o-Cresol	151901.00	297035.00	752560.00	1212939.0	1503400.0

Response is in Area units.

Laucks Testing Labs  
Initial Calibration Verification Summary

```

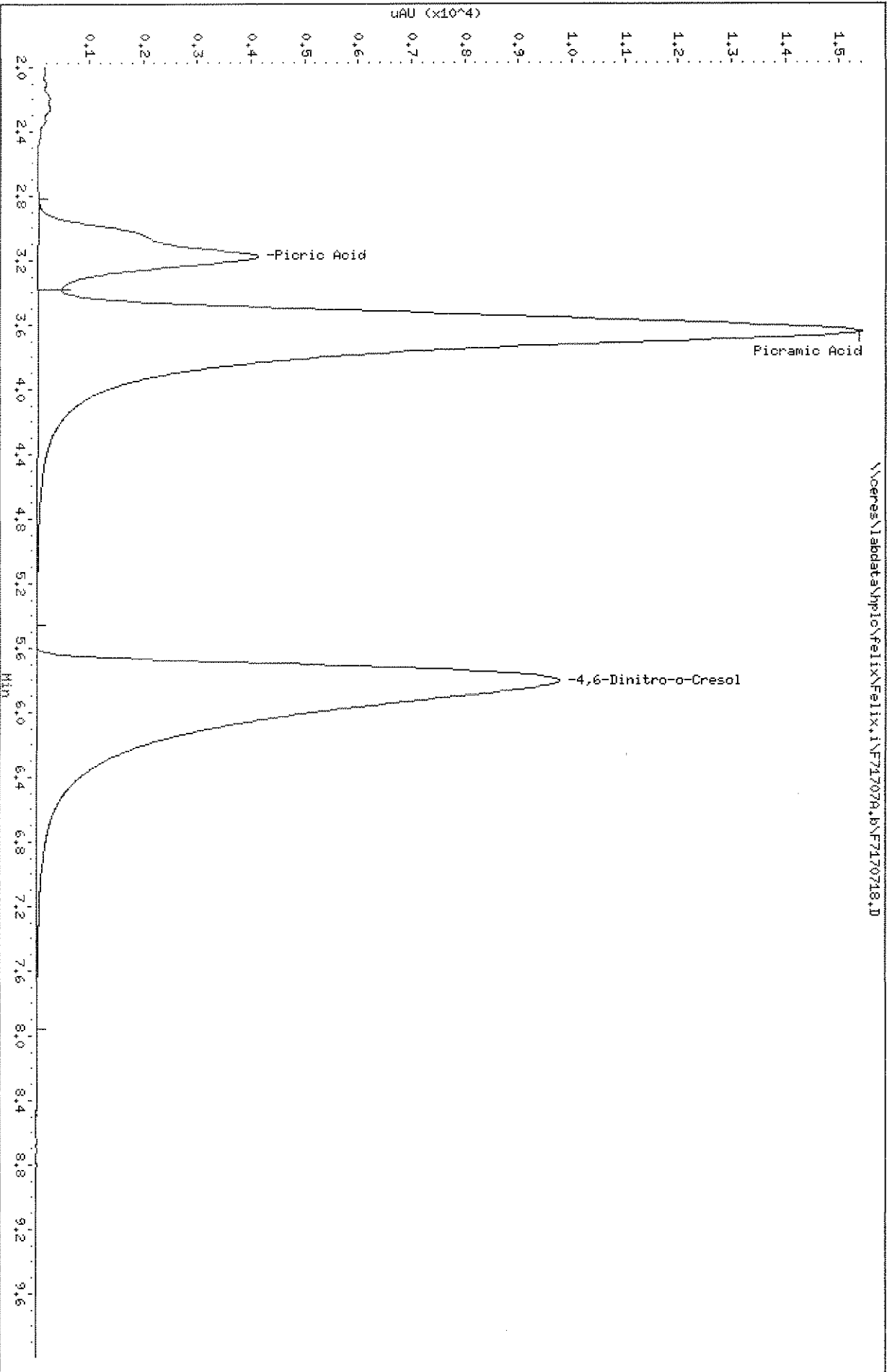
Data File       : //ceres/labdata/hplc/felix/Felix.i/F71707A.b/F7170718.D
Injection Date  : 17-JUL-2007 16:26
Sample Info     : STD03 2500PPB LTL 8303
Misc. Info      : ICV
Laboratory ID   : STD03 2500PPB           Client ID   : HPLC1-16-17 4X
Instrument ID   : Felix.i                 Operator    : MY
Method          : F71707PICCN.m          Sublist     : all
Quantitation    : ESTD                    Integrator  : HP Genie
Dilution Factor : 1.00                   Sample Type : CCALIB_3
Column          : CN                      Column Size : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
Picric Acid	3.18	2.28 - 4.08	72.82098	72.75360	0.1	
Picramic Acid	3.64	3.39 - 3.89	345.7052	348.2684	-0.7	
4,6-Dinitro-o-Cresol	5.80	4.84 - 6.76	301.1552	301.4824	-0.1	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Data File: \\voeres\labdata\hplc\Felix\Felix.i\F71707A.B\F7170718.D  
Date: 17-JUL-2007 16:26  
Client ID: HPLC-16-17 4X  
Sample Info: STD03 2500PPB LTL 8303  
Column phase: CN

Instrument: Felix.i  
Operator: MY  
Column diameter: 4.60





Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/felix/Felix.i/F71707A.b/F7170728.D
Injection Date  : 17-JUL-2007 18:26
Sample Info     : STD03 2500PPB LTL 8303
Misc. Info     : SOP#:LTL-8303
Laboratory ID  : STD03 2500PPB
Instrument ID   : Felix.i
Method         : F71707PICCN.m
Quantitation   : ESTD
Dilution Factor : 1.00
Column        : CN
Client ID      : HPLC1-16-17
Operator       : MY
Sublist       : all
Integrator    : HP Genie
Sample Type    : CCALIB_3
Column Size   : 0.25m L- 4.60mm ID
    
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
Picric Acid	3.20	2.28 - 4.08	72.82098	82.54360	-13.4	
Picramic Acid	3.63	3.39 - 3.89	345.7052	331.9600	4.0	
4,6-Dinitro-o-Cresol	5.74	4.84 - 6.76	301.1552	301.2832	-0.0	

Calibration Factor ( CF ) = Response divided by Concentration

Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100

\* = Percent Difference is outside the acceptance limits of +/-15%

# = The compound retention time is the expected retention time in the method.

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607HSVWLS

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB31

Run Sequence: R019702

Matrix: (SOIL/WATER) Water

Lab Sample ID: B062607HSVWLS

Sample wt/vol: 1000.0 (g/mL) mL

Lab File ID: F7170719.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: \_\_\_\_\_

Extraction: (Type) SEPF

Date Extracted: 06/26/2007

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/17/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: 8.5-9

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
88-89-1	Picric Acid	1.1		U
96-91-3	Picramic Acid	1.1		U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607HSVWLS

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB31

Run Sequence: R019702

Matrix: (SOIL/WATER) Water

Lab Sample ID: S062607HSVWLS

Sample wt/vol: 1000.0 (g/mL) mL

Lab File ID: F7170720.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: \_\_\_\_\_

Extraction: (Type) SEPF

Date Extracted: 06/26/2007

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/17/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: 8.5-9

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
88-89-1	Picric Acid	3.4	
96-91-3	Picramic Acid	4.0	

Comments:

# **Forms Summary**

NWTPH-Gasoline

CAB31

2  
WATER GASOLINE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB31

Run Sequence: R019234

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (BFB) #	S2 (TFT) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB31-006) 15LCMW420W	92	99			0
(S070407GVOWI1) S070407GVOWI1	95	99			0
(B070407GVOWI1) B070407GVOWI1	94	101			0

S1 (BFB) = 4-Bromofluorobenzene  
 S2 (TFT) = Trifluorotoluene  
 S3 ( ) =  
 S4 ( ) =

QC LIMITS

50-150  
50-150

# Column to be used to flag recovery values  
 \* Values outside of contract required QC limits

3B  
WATER GASOLINE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
BS Run Sequence: R019234 SDG No.: CAB31  
BS Lab Sample ID: S070407GVOWI1  
Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Gasoline Range Organics	100	80.8854	81		71-122

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

COMMENTS:

GASOLINE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B070407GVOWI1

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B070407GVOWI1 SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water Date Prepared: 07/04/2007  
 Lab File ID (1): I7047-2.b-I704704.d Lab File ID (2): \_\_\_\_\_  
 Date Analyzed (1): 07/04/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 11:06 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HP 5890I Instrument ID (2): \_\_\_\_\_  
 Column(1): DB-VRX 30m/0.45u ID: 0.45 (mm) Column(2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
S070407GVOWI1	S070407GVOWI1	1	I704705.d	07/04/2007 11:44	R019234
I5LCMW420W	CAB31-006	1	I704706.d	07/04/2007 12:23	R019234

COMMENTS: \_\_\_\_\_

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW420W

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB31 Run Sequence: R019234  
 Matrix: (SOIL/WATER) Water Lab Sample ID: CAB31-006  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I704706.d  
 pH: <2 Decanted: (Y/N) N Date Collected: 06/20/2007  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/04/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/04/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	<u>Q</u>
TPH-Gasoline	Gasoline Range Organics	25	<u>U</u>

Comments:



Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 02-AUG-2006 17:57  
 End Cal Date : 02-AUG-2006 21:09  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : Falcon  
 Method File : \\Ares\Target\Chem\58901.i\I8026N2.b\GN80201.m  
 Sublist : all-j.sub  
 Column : DB-VRX  
 Column Size : 30m L - 0.53mm ID

Calibration Files:

Level 1: //Ares/Target/Chem/58901.i/I8026N2.b/I802607.d  
 Level 2: //Ares/Target/Chem/58901.i/I8026N2.b/I802608.d  
 Level 3: //Ares/Target/Chem/58901.i/I8026N2.b/I802609.d  
 Level 4: //Ares/Target/Chem/58901.i/I8026N2.b/I802610.d  
 Level 5: //Ares/Target/Chem/58901.i/I8026N2.b/I802611.d  
 Level 6: //Ares/Target/Chem/58901.i/I8026N2.b/I802612.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Ave CF	%RSD
3 Gasoline	+++++	428.2400	438.0220	416.4760	410.3944	410.6138	420.7492	2.9
1 Trifluorotoluene	+++++	534.9600	548.1500	545.8200	543.9700	545.8275	543.7455	0.9
2 Bromofluorobenzene	+++++	406.0800	411.5000	406.9400	415.8767	424.2000	412.9193	1.8
Average RSD :								1.9

Amount = Response divided by CF

+++ - Standard Level not used in linearity determination.

CF - Calibration Factor ( response divided by concentration )  
 RSD - Relative Standard Deviation.

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ICNL Linearity Summary v2.0

Page 1

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 02-AUG-2006 17:57  
 End Cal Date : 02-AUG-2006 21:09  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : Falcon  
 Method File : \\Ares\Target\Chem\58901.i\I8026N2.b\GN80201.m  
 Sublist : all-j.sub  
 Column : DB-VRX  
 Column Size : 30m L - 0.53mm ID

Calibration Files:

Level 1: //Ares/Target/Chem/58901.i/I8026N2.b/I802607.d  
 Level 2: //Ares/Target/Chem/58901.i/I8026N2.b/I802608.d  
 Level 3: //Ares/Target/Chem/58901.i/I8026N2.b/I802609.d  
 Level 4: //Ares/Target/Chem/58901.i/I8026N2.b/I802610.d  
 Level 5: //Ares/Target/Chem/58901.i/I8026N2.b/I802611.d  
 Level 6: //Ares/Target/Chem/58901.i/I8026N2.b/I802612.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
3 Gasoline	+++++	107060.00	219011.00	416476.00	1025986.0	2053069.0
1 Trifluorotoluene	+++++	26748.000	54815.000	109164.00	163191.00	218331.00
2 Bromofluorobenzene	+++++	20304.000	41150.000	81388.000	124763.00	169680.00

+++ - Standard Level not used in linearity determination.  
 Response is in Area units.

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 02-AUG-2006 17:57  
 End Cal Date : 02-AUG-2006 21:09  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : Falcorn  
 Method File : \\Ares\Target\Chem\58901.i\18026N2.b\GN80201.m  
 Sublist : all-j.sub  
 Column : DB-VRX  
 Column Size : 30m L - 0.53mm ID

Calibration Files:

Level 1: //Ares/Target/Chem/58901.i/18026N2.b/1802607.d  
 Level 2: //Ares/Target/Chem/58901.i/18026N2.b/1802608.d  
 Level 3: //Ares/Target/Chem/58901.i/18026N2.b/1802609.d  
 Level 4: //Ares/Target/Chem/58901.i/18026N2.b/1802610.d  
 Level 5: //Ares/Target/Chem/58901.i/18026N2.b/1802611.d  
 Level 6: //Ares/Target/Chem/58901.i/18026N2.b/1802612.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Ave RT
1 Trifluorotoluene	+++++	6.44	6.44	6.44	6.45	6.45	6.445
2 Bromofluorobenzene	+++++	11.96	11.96	11.96	11.96	11.96	11.958

+++ - Standard level not used in linearity determination.  
 Retention times are expressed as minutes.

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ICAL RT Summary v2.0

Page 1

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 02-AUG-2006 17:57  
 End Cal Date : 02-AUG-2006 21:09  
 Quant Method : ESTD  
 Cal Curve Type: Average CP  
 Integrator : Falcon  
 Method File : \\Ares\Target\Chem\58901.i\18026N2.b\GN80201.m  
 Sublist : all-j.sub  
 Column : DB-VRX  
 Column Size : 30m L - 0.53mm ID

Calibration Files:  
 Level 1: //Ares/Target/Chem/58901.i/18026N2.b/1802607.d  
 Level 2: //Ares/Target/Chem/58901.i/18026N2.b/1802608.d  
 Level 3: //Ares/Target/Chem/58901.i/18026N2.b/1802609.d  
 Level 4: //Ares/Target/Chem/58901.i/18026N2.b/1802610.d  
 Level 5: //Ares/Target/Chem/58901.i/18026N2.b/1802611.d  
 Level 6: //Ares/Target/Chem/58901.i/18026N2.b/1802612.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
3 Gasoline	+++++++	250.00	500.00	1000.00	2500.00	5000.00
1 Trifluorotoluene	+++++++	50.00	100.00	200.00	300.00	400.00
2 Bromofluorobenzene	+++++++	50.00	100.00	200.00	300.00	400.00

+++ - Standard Level not used in linearity determination.  
 Standard concentrations are expressed as ng.

Laboratory Name  
Initial Calibration Verification Summary

```

Data File       : \\Diana\Target\5890i.i\I7047-2.b\I704702.d
Injection Date  : 04-JUL-2007 09:49
Sample Info     : CCV_GAS_0704A
Misc. Info     : ICV_NWTPHGx
Laboratory ID   : CCV_GAS_0704A
Instrument ID   : 5890i.i
Method         : GN80216.m
Quantitation    : ESTD
Dilution Factor : 1.00
Column         : DB-VRX
Client ID      : 10ul VOA5-42-7
Sublist       : all-j
Integrator    : Falcon
Sample Type   : CCALIB_3
Column Size   : 30.00m L- 0.53mm ID
    
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
Trifluorotoluene	6.57 #	6.52 - 6.62	543.7455	545.2300	0.3	
Bromofluorobenzene	12.06 #	12.01 - 12.11	412.9193	398.6550	-3.5	
Gasoline		8.04 - 18.53	420.7492	433.7120	3.1	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laboratory Name  
Continuing Calibration Verification Summary

```

Data File       : \\Diana\Target\5890i.i\I7047-2.b\I704713.d
Injection Date  : 04-JUL-2007 16:52
Sample Info     : CCV GAS_0704B
Misc. Info      : NWTPHGx
Laboratory ID   : CCV GAS_0704B           Client ID   : 10ul VOA5-42-7
Instrument ID   : 5890i.i
Method          : GN80216.m               Sublist      : all-j
Quantitation    : ESTD                    Integrator    : Falcon
Dilution Factor : 1.00                   Sample Type  : CCALIB_3
Column          : DB-VRX                  Column Size  : 30.00m L- 0.53mm ID
  
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
Trifluorotoluene	6.57	6.52 - 6.62	543.7455	517.4000	-4.8	
Bromofluorobenzene	12.05	12.01 - 12.11	412.9193	375.8000	-9.0	
Gasoline		8.04 - 18.53	420.7492	404.4290	-3.9	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B070407GVOW11

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB31 Run Sequence: R019234  
 Matrix: (SOIL/WATER) Water Lab Sample ID: B070407GVOW11  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I704704.d  
 pH: \_\_\_\_\_ Decanted: (Y/N) N Date Collected: \_\_\_\_\_  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/04/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/04/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
TPH-Gasoline	Gasoline Range Organics	25	U

Comments:

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S070407GVOWI1

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB31 Run Sequence: R019234  
 Matrix: (SOIL/WATER) Water Lab Sample ID: S070407GVOWI1  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I704705.d  
 pH: \_\_\_\_\_ Decanted: (Y/N) N Date Collected: \_\_\_\_\_  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/04/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/04/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
TPH-Gasoline	Gasoline Range Organics	81	

Comments:



# **Forms Summary**

NWTHP-Diesel

CAB31

2  
WATER DIESEL SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB31

Run Sequence: R019594

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (2FB) #	S2 (TER) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB31-006) 15LCMW420W	98	102			0
(S062707GSVWLS) S062707GSVWLS	95	104			0
(B062707GSVWLS) B062707GSVWLS	94	102			0

QC LIMITS

S1 (2FB) = 2-Fluorobiphenyl  
S2 (TER) = o-Terphenyl  
S3 ( ) =  
S4 ( ) =

50-150  
50-150

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits

3B  
WATER DIESEL BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
BS Run Sequence: R019594 SDG No.: CAB31  
BS Lab Sample ID: S062707GSVWLS  
Level: N/A Units: mg/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Diesel Range Organics	1.25	1.2211	98		51-147

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

COMMENTS:

DIESEL METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062707GSVWLS

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B062707GSVWLS SDG No.: CAB31  
 Matrix: (SOIL/WATER) Water Date Prepared: 06/27/2007  
 Lab File ID (1): C7167WA.b-C716706.d Lab File ID (2): \_\_\_\_\_  
 Date Analyzed (1): 07/16/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 09:36 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HP 5890C Instrument ID (2): \_\_\_\_\_  
 Column(1): RTX-5 ID: 0.25 (mm) Column(2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
I5LCMW420W	CAB31-006	1	C716708.d	07/16/2007 11:12	R019594
S062707GSVWLS	S062707GSVWLS	1	C716707.d	07/16/2007 10:24	R019594

COMMENTS:

\_\_\_\_\_

\_\_\_\_\_

1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW420W

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB31

Run Sequence: R019594

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB31-006

Sample wt/vol: 480.0 (g/mL) mL

Lab File ID: C716708.d

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: 06/20/2007

Extraction: (Type) SEPF

Date Extracted: 06/27/2007

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/16/2007

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: <2

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	0.10	U
TPH-Oil	Oil Range Organics	0.42	U

Comments:

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 12-JUL-2007 18:07  
 End Cal Date : 12-JUL-2007 22:56  
 Quant Method : ESTD  
 Cal Curve Type: Linear  
 Integrator : Falcon  
 Method File : \\diana\Target\5890c.i\C7127WA.b\CDX71201.m  
 Sublist : all.d.sub  
 Column : RTX-5  
 Column Size : 30m L - 0.25mm ID

Calibration Files:

Level 1: //diana/Target/5890c.i/C7127WA.b/C712710.d  
 Level 2: //diana/Target/5890c.i/C7127WA.b/C712711.d  
 Level 3: //diana/Target/5890c.i/C7127WA.b/C712712.d  
 Level 4: //diana/Target/5890c.i/C7127WA.b/C712713.d  
 Level 5: //diana/Target/5890c.i/C7127WA.b/C712714.d  
 Level 6: //diana/Target/5890c.i/C7127WA.b/C712715.d  
 Level 7: //diana/Target/5890c.i/C7127WA.b/C712716.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Slope	Y-int	R <sup>2</sup>
1 Diesel	34946.00	579092.00	953341.00	1703381.0	4136141.0	7917017.0	15319226	7582.10000	-30.423	0.99981
3 2-Fluorobiphenyl	13027.00	36149.00	74573.00	148117.00	386143.00	784970.00	++++++	7689.80000	0.326	0.99993
4 o-Terphenyl	19778.00	50085.00	99162.00	191866.00	495136.00	974727.00	++++++	9762.20000	-0.089	0.99991
Average RSD :	1.0									

Amount = ( Response divided by Slope ) Plus Y-int

+++ Standard Level not used in linearity determination.

Responses expressed are Area units.  
 R<sup>2</sup> = The correlation co-efficient.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 12-JUL-2007 18:07  
 End Cal Date : 12-JUL-2007 22:56  
 Quant Method : ESTD  
 Cal Curve Type: Linear  
 Integrator : Palcon  
 Method File : \\diana\Target\5890c.i\C7127WA.b\CDX71201.m  
 Sublist : all.d.sub  
 Column : RTX-5  
 Column Size : 30m L - 0.25mm ID

Calibration Files:

Level 1: //diana/Target/5890c.i/C7127WA.b/C712710.d  
 Level 2: //diana/Target/5890c.i/C7127WA.b/C712711.d  
 Level 3: //diana/Target/5890c.i/C7127WA.b/C712712.d  
 Level 4: //diana/Target/5890c.i/C7127WA.b/C712713.d  
 Level 5: //diana/Target/5890c.i/C7127WA.b/C712714.d  
 Level 6: //diana/Target/5890c.i/C7127WA.b/C712715.d  
 Level 7: //diana/Target/5890c.i/C7127WA.b/C712716.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
1 Diesel	20.00	50.00	100.00	200.00	500.00	1000.00	2000.00
3 2-Fluorobiphenyl	2.00	5.00	10.00	20.00	50.00	100.00	++++++
4 o-Terphenyl	2.00	5.00	10.00	20.00	50.00	100.00	++++++

+++ - Standard Level not used in linearity determination.  
 Standard concentrations are expressed as ug/ml.

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 15-JUL-2007 08:22  
 End Cal Date : 15-JUL-2007 13:08  
 Quant Method : ESTD  
 Cal Curve Type: Linear  
 Integrator : Falcon  
 Method File : \\diana\Target\5890c.i\C7127WC.b\CDX71203.m  
 Sublist : mo.sub  
 Column : RTX-5  
 Column Size : 30m L - 0.25mm ID

Calibration Files:

Level 1: //diana/Target/5890c.i/C7127WC.b/C712787.d  
 Level 2: //diana/Target/5890c.i/C7127WC.b/C712788.d  
 Level 3: //diana/Target/5890c.i/C7127WC.b/C712789.d  
 Level 4: //diana/Target/5890c.i/C7127WC.b/C712790.d  
 Level 5: //diana/Target/5890c.i/C7127WC.b/C712791.d  
 Level 6: //diana/Target/5890c.i/C7127WC.b/C712792.d  
 Level 7: //diana/Target/5890c.i/C7127WC.b/C712793.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Slope	Y-int	R <sup>2</sup>	
2 Motor Oil	1706304.0	2297239.0	4205304.0	7202610.0	12920670	15524061	++++++	5786.40000	-213.205	0.99937	
Average RSD :	1.0										

Amount = ( Response divided by Slope ) plus Y-int

+++ Standard Level not used in linearity determination.

Responses expressed are Area units.  
 R<sup>2</sup> = The correlation co-efficient.



Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 15-JUL-2007 08:22  
 End Cal Date : 15-JUL-2007 13:08  
 Quant Method : ESTD  
 Cal Curve Type: Linear  
 Integrator : FALCON  
 Method File : \\diana\Target\5890c.i\C7127WC.b\CDX71203.m  
 Sublist : mo.sub  
 Column : RTX-5  
 Column Size : 30m L - 0.25mm ID

Calibration Files:  
 Level 1: //diana/Target/5890c.i/C7127WC.b/C712787.d  
 Level 2: //diana/Target/5890c.i/C7127WC.b/C712788.d  
 Level 3: //diana/Target/5890c.i/C7127WC.b/C712789.d  
 Level 4: //diana/Target/5890c.i/C7127WC.b/C712790.d  
 Level 5: //diana/Target/5890c.i/C7127WC.b/C712791.d  
 Level 6: //diana/Target/5890c.i/C7127WC.b/C712792.d  
 Level 7: //diana/Target/5890c.i/C7127WC.b/C712793.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
2 Motor Oil	100.00	200.00	500.00	1000.00	2000.00	2500.00	+++++++

+++ - Standard Level not used in linearity determination.  
 Standard concentrations are expressed as ug/ml.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : \\diana\Target\5890c.i\C7167WA.b\C716703.d
Injection Date  : 16-JUL-2007 07:13
Sample Info     : D250PPM
Misc. Info      : NWTPHDx / 8015mod - Diesel
Laboratory ID   : D250PPM
Instrument ID    : 5890c.i
Method          : CDX71204.m
Quantitation    : ESTD
Dilution Factor : 1.00
Column          : RTX-5
Client ID       : MA8-31-20
Operator        : CMP
Sublist         : alld
Integrator      : Falcon
Sample Type     : CCALIB_3
Column Size     : 30.00m L- 0.25mm ID
  
```

Compound	RT	RT Window	Expected Continuing		%D	Flag
			Amount	Amount		
2-Fluorobiphenyl	12.66	12.61 - 12.71	20.000	20.137	0.7	
Diesel		9.93 - 23.98	250.00	237.32	-5.1	
o-Terphenyl	19.32	19.28 - 19.38	20.000	19.178	-4.1	

%Drift ( %D ) = Continuing Amount - Expected Amount divided by Expected Amount times 100

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : \\diana\Target\5890c.i\C7167WA.b\C716704.d
Injection Date  : 16-JUL-2007 08:00
Sample Info     : 02000PPM
Misc. Info      : NWTPHDx / 8015mod - Diesel
Laboratory ID   : 02000PPM           Client ID    : MA8-31-19
Instrument ID    : 5890c.i           Operator     : CMP
Method          : CDX71204.m        Sublist      : mo
Quantitation    : ESTD              Integrator   : Falcon
Dilution Factor : 1.00             Sample Type  : CCALIB_3
Column          : RTX-5             Column Size  : 30.00m L- 0.25mm ID
  
```

Compound	RT	RT Window	Expected Continuing		%D	Flag
			Amount	Amount		
Motor Oil		23.98 - 37.48	2000.0	1949.4	-2.5	

%Drift ( %D ) = Continuing Amount - Expected Amount divided by Expected Amount times 100

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : \\diana\Target\5890c.i\C7167WA.b\C716715.d
Injection Date  : 16-JUL-2007 16:47
Sample Info     : D250PPM
Misc. Info      : NWTPHDx / 8015mod - Diesel
Laboratory ID   : D250PPM           Client ID    : MA8-31-20
Instrument ID    : 5890c.i           Operator     : CMP
Method          : CDX71204.m        Sublist      : alld
Quantitation    : ESTD               Integrator    : Falcon
Dilution Factor : 1.00              Sample Type  : CCALIB_3
Column          : RTX-5              Column Size  : 30.00m L- 0.25mm ID
    
```

Compound	RT	RT Window	Expected Continuing		%D	Flag
			Amount	Amount		
2-Fluorobiphenyl	12.66	12.61 - 12.71	20.000	19.660	-1.7	
Diesel		9.93 - 23.98	250.00	229.67	-8.1	
o-Terphenyl	19.32	19.28 - 19.38	20.000	18.558	-7.2	

%Drift ( %D ) = Continuing Amount - Expected Amount divided by Expected Amount times 100

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : \\diana\Target\5890c.i\C7167WA.b\C716716.d
Injection Date  : 16-JUL-2007 17:35
Sample Info     : O2000PPM
Misc. Info      : NWTPHDx / 8015mod - Diesel
Laboratory ID   : O2000PPM           Client ID    : MA8-31-19
Instrument ID    : 5890c.i           Operator     : CMP
Method          : CDX71204.m        Sublist      : mo
Quantitation    : ESTD              Integrator    : Falcon
Dilution Factor : 1.00             Sample Type  : CCALIB_3
Column          : RTX-5             Column Size  : 30.00mL- 0.25mm ID
  
```

Compound	RT	RT Window	Expected Continuing		%D	Flag
			Amount	Amount		
Motor Oil		23.98 - 37.48	2000.0	1908.7	-4.6	

%Drift ( %D ) = Continuing Amount - Expected Amount divided by Expected Amount times 100

1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062707GSVWLS

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB31

Run Sequence: R019594

Matrix: (SOIL/WATER) Water

Lab Sample ID: B062707GSVWLS

Sample wt/vol: 400.0 (g/mL) mL

Lab File ID: C716706.d

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: \_\_\_\_\_

Extraction: (Type) SEPF

Date Extracted: 06/27/2007

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/16/2007

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: <2

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	0.13	U
TPH-Oil	Oil Range Organics	0.50	U

Comments:

1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062707GSVWLS

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB31

Run Sequence: R019594

Matrix: (SOIL/WATER) Water

Lab Sample ID: S062707GSVWLS

Sample wt/vol: 400.0 (g/mL) mL

Lab File ID: C716707.d

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: \_\_\_\_\_

Extraction: (Type) SEPF

Date Extracted: 06/27/2007

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/16/2007

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: <2

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	1.2	

Comments:

**FORMS SUMMARY**

**CAB31**

**Metals Data**



## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW420W

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB31Matrix (soil/water): WaterLab Sample ID: CAB31-006Level (low/med): LOWDate Received: 06/21/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.260	J		M	R019118
7440-38-2	Arsenic	0.100	U		M	R019118
7440-41-7	Beryllium	0.0430	U		M	R019118
7440-43-9	Cadmium	0.143	J		M	R019118
7440-47-3	Chromium	0.991	J		M	R019118
7440-50-8	Copper	0.520	U		M	R019118
7439-92-1	Lead	0.0750	U		M	R019118
7439-97-6	Mercury	0.0180	U		CV	R019018
7440-02-0	Nickel	0.216	J		M	R019118
7782-49-2	Selenium	0.110	U		M	R019118
7440-22-4	Silver	0.0850	U		M	R019118
7440-28-0	Thallium	0.0440	U		M	R019118
7440-66-6	Zinc	1.80	U		M	R019118

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW430W

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB31Matrix (soil/water): WaterLab Sample ID: CAB31-007Level (low/med): LOWDate Received: 06/21/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.0560	U		M	R019118
7440-38-2	Arsenic	0.100	U		M	R019118
7440-41-7	Beryllium	0.0430	U		M	R019118
7440-43-9	Cadmium	0.372	J		M	R019118
7440-47-3	Chromium	0.453	J		M	R019118
7440-50-8	Copper	0.520	U		M	R019118
7439-92-1	Lead	0.0750	U		M	R019118
7439-97-6	Mercury	0.0180	U		CV	R019018
7440-02-0	Nickel	0.735	J		M	R019118
7782-49-2	Selenium	0.110	U		M	R019118
7440-22-4	Silver	0.0850	U		M	R019118
7440-28-0	Thallium	0.0440	U		M	R019118
7440-66-6	Zinc	1.80	U		M	R019118

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: NoComment \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW420W (Filt.)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB31Matrix (soil/water): WaterLab Sample ID: CAB31-008Level (low/med): LOWDate Received: 06/21/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.0560	U		M	R019118
7440-38-2	Arsenic	0.100	U		M	R019118
7440-41-7	Beryllium	0.0430	U		M	R019118
7440-43-9	Cadmium	0.388	J		M	R019118
7440-47-3	Chromium	0.835	J		M	R019118
7440-50-8	Copper	0.520	U		M	R019118
7439-92-1	Lead	0.0750	U		M	R019118
7439-97-6	Mercury	0.0180	U		CV	R019018
7440-02-0	Nickel	1.13			M	R019118
7782-49-2	Selenium	0.110	U		M	R019118
7440-22-4	Silver	0.0850	U		M	R019118
7440-28-0	Thallium	0.0440	U		M	R019118
7440-66-6	Zinc	1.80	U		M	R019118

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW430W (Filt.)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB31Matrix (soil/water): WaterLab Sample ID: CAB31-009Level (low/med): LOWDate Received: 06/21/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.0560	U		M	R019118
7440-38-2	Arsenic	0.100	U		M	R019118
7440-41-7	Beryllium	0.0430	U		M	R019118
7440-43-9	Cadmium	0.609	J		M	R019118
7440-47-3	Chromium	0.585	J		M	R019118
7440-50-8	Copper	0.520	U		M	R019118
7439-92-1	Lead	0.0750	U		M	R019118
7439-97-6	Mercury	0.0180	U		CV	R019018
7440-02-0	Nickel	0.138	J		M	R019118
7782-49-2	Selenium	0.110	U		M	R019118
7440-22-4	Silver	0.0850	U		M	R019118
7440-28-0	Thallium	0.0440	U		M	R019118
7440-66-6	Zinc	1.85	J		M	R019118

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_

SW-846

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31 Run Sequence ID: R019118

Initial Calibration Source: ME-15-151-16

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration ICV				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV1			CCV2			
	Limits	True	Found	%R(1)	Limits	True	Found	%R(1)	Found	%R(1)	
Antimony	90-110	60	60.367	100.6	90 - 110	50.000	48.582	97.2	48.547	97.1	M
Arsenic	90-110	60	58.653	97.8	90 - 110	50.000	49.541	99.1	49.892	99.8	M
Beryllium	90-110	60	59.325	98.9	90 - 110	50.000	48.929	97.9	42.853	85.7	M
Cadmium	90-110	60	61.303	102.2	90 - 110	50.000	50.266	100.5	48.068	96.1	M
Chromium	90-110	60	62.073	103.5	90 - 110	50.000	50.681	101.4	54.935	109.9	M
Copper	90-110	60	61.763	102.9	90 - 110	50.000	51.932	103.9	50.569	101.1	M
Lead	90-110	60	65.163	108.6	90 - 110	50.000	52.342	104.7	49.929	99.9	M
Nickel	90-110	60	60.571	101.0	90 - 110	50.000	49.099	98.2	50.276	100.6	M
Selenium	90-110	60	60.510	100.8	90 - 110	50.000	47.827	95.7	47.220	94.4	M
Silver	90-110	60	58.753	97.9	90 - 110	50.000	50.217	100.4	49.246	98.5	M
Thallium	90-110	60	64.131	106.9	90 - 110	50.000	51.596	103.2	49.214	98.4	M
Zinc	90-110	60	60.263	100.4	90 - 110	50.000	50.191	100.4	48.594	97.2	M

SW-846

2A

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_Lab Code: LAUCKS SDG No.: CAB31 Run Sequence ID: R019118

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV3			CCV4			
					Limits	True	Found	%R(1)	Found	%R(1)	
Antimony					90 - 110	50.000	49.524	99.0	50.138	100.3	M
Arsenic					90 - 110	50.000	49.391	98.8	49.713	99.4	M
Beryllium					90 - 110	50.000	47.777	95.6	51.039	102.1	M
Cadmium					90 - 110	50.000	50.619	101.2	51.724	103.4	M
Chromium					90 - 110	50.000	54.361	108.7	52.243	104.5	M
Copper					90 - 110	50.000	50.904	101.8	53.113	106.2	M
Lead					90 - 110	50.000	49.407	98.8	49.001	98.0	M
Nickel					90 - 110	50.000	49.692	99.4	48.521	97.0	M
Selenium					90 - 110	50.000	47.990	96.0	47.015	94.0	M
Silver					90 - 110	50.000	50.695	101.4	53.092	106.2	M
Thallium					90 - 110	50.000	49.463	98.9	47.977	96.0	M
Zinc					90 - 110	50.000	49.581	99.2	50.327	100.7	M

SW-846

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31 Run Sequence ID: R019118

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV5		CCV6				
					Limits	True	Found	%R(1)	Found	%R(1)	
Antimony					90 - 110	50.000	50.714	101.4	48.956	97.9	M
Arsenic					90 - 110	50.000	48.937	97.9	49.604	99.2	M
Beryllium					90 - 110	50.000	53.136	106.3	58.490	117.0	M
Cadmium					90 - 110	50.000	53.017	106.0	52.127	104.3	M
Chromium					90 - 110	50.000	52.218	104.4	51.781	103.6	M
Copper					90 - 110	50.000	50.852	101.7	50.999	102.0	M
Lead					90 - 110	50.000	49.095	98.2	49.957	99.9	M
Nickel					90 - 110	50.000	48.317	96.6	47.967	95.9	M
Selenium					90 - 110	50.000	45.578	91.2	45.682	91.4	M
Silver					90 - 110	50.000	53.429	106.9	51.401	102.8	M
Thallium					90 - 110	50.000	48.501	97.0	49.065	98.1	M
Zinc					90 - 110	50.000	50.295	100.6	50.176	100.4	M

SW-846

2A

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31Run Sequence ID: R019118

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV7		CCV8				
					Limits	True	Found	%R(1)	Found	%R(1)	
Antimony					90 - 110	50.000	49.110	98.2	49.058	98.1	M
Arsenic					90 - 110	50.000	49.690	99.4	48.655	97.3	M
Beryllium					90 - 110	50.000	57.028	114.1	58.808	117.6	M
Cadmium					90 - 110	50.000	49.837	99.7	50.884	101.8	M
Chromium					90 - 110	50.000	52.483	105.0	51.656	103.3	M
Copper					90 - 110	50.000	48.566	97.1	50.197	100.4	M
Lead					90 - 110	50.000	51.800	103.6	51.628	103.3	M
Nickel					90 - 110	50.000	47.196	94.4	48.632	97.3	M
Selenium					90 - 110	50.000	46.767	93.5	45.469	90.9	M
Silver					90 - 110	50.000	51.209	102.4	51.396	102.8	M
Thallium					90 - 110	50.000	51.576	103.2	51.655	103.3	M
Zinc					90 - 110	50.000	49.156	98.3	48.900	97.8	M



SW-846

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31

Run Sequence ID: R019118

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV9				CCV10		
					Limits	True	Found	%R(1)	Found	%R(1)	
Antimony					90 - 110	50.000	51.841	103.7	50.635	101.3	M
Arsenic					90 - 110	50.000	51.014	102.0	49.693	99.4	M
Beryllium					90 - 110	50.000	56.852	113.7	55.809	111.6	M
Cadmium					90 - 110	50.000	51.225	102.4	50.937	101.9	M
Chromium					90 - 110	50.000	50.931	101.9	50.976	102.0	M
Copper					90 - 110	50.000	52.065	104.1	49.019	98.0	M
Lead					90 - 110	50.000	51.423	102.8	51.157	102.3	M
Nickel					90 - 110	50.000	51.122	102.2	46.643	93.3	M
Selenium					90 - 110	50.000	47.427	94.9	45.928	91.9	M
Silver					90 - 110	50.000	52.857	105.7	51.477	103.0	M
Thallium					90 - 110	50.000	49.827	99.7	49.709	99.4	M
Zinc					90 - 110	50.000	51.550	103.1	48.691	97.4	M

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2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31 Run Sequence ID: R019118

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations CCV11						M
	Limits	True	Found	%R(1)	Limits	True	Found	%R(1)	Found	%R(1)	
Antimony					90 - 110	50.000	50.232	100.5			M
Arsenic					90 - 110	50.000	47.598	95.2			M
Beryllium					90 - 110	50.000	55.917	111.8			M
Cadmium					90 - 110	50.000	49.898	99.8			M
Chromium					90 - 110	50.000	50.455	100.9			M
Copper					90 - 110	50.000	48.866	97.7			M
Lead					90 - 110	50.000	52.404	104.8			M
Nickel					90 - 110	50.000	47.453	94.9			M
Selenium					90 - 110	50.000	45.528	91.1			M
Silver					90 - 110	50.000	51.477	103.0			M
Thallium					90 - 110	50.000	51.435	102.9			M
Zinc					90 - 110	50.000	48.858	97.7			M

SW-846  
2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
Lab Code: LAUCKS SDG No.: CAB31 Run Sequence ID: R019018  
Initial Calibration Source: ME-15-159-3  
Continuing Calibration Source: ME-15-162-1

Concentration Units: ug/L

Analyte	Initial Calibration ICV				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV1		CCV2				
Limits					True	Found	%R(1)	Found	%R(1)	Found	%R(1)
Mercury	90-110	4.04	4.102	101.5	80-120	5.000	5.116	102.3	5.115	102.3	CV

SW-846

2B-IN

CRDL STANDARD FOR METALS

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB31 Run Sequence ID: R019118  
 ICP CRDL Standard Source: ME-15-154-3

Concentration Units: ug/L

Analyte	CRDL Standard for ICP					
	Initial CRI			Final		
	True	Found	%R	Found	%R	Limits
Antimony	1	0.9	90.2			
Arsenic	1	1.01	100.9			
Beryllium	1	1.06	105.9			
Cadmium	1	1.01	101			
Chromium	1	0.97	96.5			
Copper	2	2.18	109.2			
Lead	1	1.08	108.3			
Nickel	1	1	99.8			
Selenium	1	0.85	85.4			
Silver	1	1.02	101.7			
Thallium	1	1.08	108.5			
Zinc	10	10.34	103.4			

Control Limits: no limits have been established by EPA at this time

SW-846

2B-IN

CRDL STANDARD FOR METALS

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31 Run Sequence ID: R019018

ICP CRDL Standard Source: ME-15-162-1

Concentration Units: ug/L

Analyte	CRDL Standard for ICP					
	Initial CRA			Final		
	True	Found	%R	Found	%R	Limits
Mercury	0.2	0.19	94.5			

Control Limits: no limits have been established by EPA at this time

SW-846

3A

## INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31Run Sequence ID: R019118Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
	ICB		CCB1		CCB2		CCB3	
		C	1	C	2	C	3	C
Antimony	0.327	J	0.196	J	0.0730	J	0.0711	J
Arsenic	0.100	U	0.100	U	0.100	U	0.100	U
Beryllium	0.0430	U	0.0430	U	0.0430	U	0.0430	U
Cadmium	0.0940	U	0.0940	U	0.0940	U	0.0940	U
Chromium	0.120	U	0.120	U	0.179	J	0.120	U
Copper	0.520	U	0.520	U	0.520	U	0.520	U
Lead	0.0750	U	0.0750	U	0.0750	U	0.0750	U
Nickel	0.110	U	0.110	U	0.110	U	0.110	U
Selenium	0.110	U	0.110	U	0.110	U	0.110	U
Silver	0.0850	U	0.0850	U	0.0850	U	0.0850	U
Thallium	0.0440	U	0.0440	U	0.0440	U	0.0440	U
Zinc	1.80	U	1.80	U	1.80	U	1.80	U

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3A

## INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31Run Sequence ID: R019118Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
			CCB4		CCB5		CCB6	
		C	1	C	2	C	3	C
Antimony			0.0560	U	-0.0824	J	0.0560	U
Arsenic			0.100	U	0.100	U	0.100	U
Beryllium			0.0430	U	0.0430	U	0.0430	U
Cadmium			0.0940	U	0.0940	U	0.0940	U
Chromium			0.120	U	0.120	U	0.120	U
Copper			0.520	U	0.520	U	0.520	U
Lead			0.0750	U	0.0750	U	0.0750	U
Nickel			0.110	U	0.110	U	0.110	U
Selenium			0.110	U	-0.167	J	-0.214	J
Silver			0.0850	U	0.0850	U	0.0850	U
Thallium			0.0440	U	0.0440	U	0.0440	U
Zinc			1.80	U	1.80	U	1.80	U

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3A

## INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31Run Sequence ID: R019118Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
			CCB7		CCB8		CCB9	
			1	C	2	C	3	C
Antimony			0.0560	U	0.0560	U	0.339	J
Arsenic			0.100	U	0.100	U	0.100	U
Beryllium			0.0430	U	0.0430	U	0.0430	U
Cadmium			0.0940	U	0.0940	U	0.0940	U
Chromium			0.120	U	0.120	U	0.120	U
Copper			0.520	U	0.520	U	0.520	U
Lead			0.0750	U	0.0750	U	0.0750	U
Nickel			0.110	U	0.110	U	0.110	U
Selenium			-0.236	J	-0.146	J	0.110	U
Silver			0.0850	U	0.0850	U	0.0850	U
Thallium			0.0440	U	0.0440	U	0.0440	U
Zinc			1.80	U	1.80	U	1.80	U



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3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31

Run Sequence ID: R019118

Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
			CCB10		CCB11			
		C	1	C	2	C	3	C
Antimony			0.292	J	0.300	J		
Arsenic			0.100	U	0.100	U		
Beryllium			0.0430	U	0.0430	U		
Cadmium			0.0940	U	0.0940	U		
Chromium			0.120	U	0.120	U		
Copper			0.520	U	0.520	U		
Lead			0.0750	U	0.0750	U		
Nickel			0.110	U	0.110	U		
Selenium			0.110	U	0.110	U		
Silver			0.0850	U	0.0850	U		
Thallium			0.0440	U	0.0440	U		
Zinc			1.80	U	1.80	U		

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3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31

Run Sequence ID: R019018

Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
	ICB	C	CCB1		CCB2		3	C
			1	C	2	C		
Mercury	0.0180	U	-0.0266	J	0.0180	U		

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3B

BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31

Run Sequence ID: R019118

Lab Sample ID: B062507ICPMSW02

Prep Batch ID: P019680

Matrix (soil/water): Water

Date Prepared: 06/25/2007

Concentration Units: ug/L

Analyte	Preparation Blank			M
	Limits		C	
Antimony	0.5	-0.261	J	M
Arsenic	0.5	0.100	U	M
Beryllium	0.5	0.0430	U	M
Cadmium	0.5	0.0940	U	M
Chromium	0.5	0.120	U	M
Copper	1	0.520	U	M
Lead	0.5	0.0750	U	M
Nickel	0.5	0.110	U	M
Selenium	0.5	0.110	U	M
Silver	0.5	0.0850	U	M
Thallium	0.5	0.0440	U	M
Zinc	5	1.80	U	M

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3B  
BLANKS

Lab Name: Laucks Laboratories  
Lab Code: LAUCKS SDG No.: CAB31  
Lab Sample ID: B062607HGW01  
Matrix (soil/water): Water  
Concentration Units: ug/L

Contract: \_\_\_\_\_  
Run Sequence ID: R019018  
Prep Batch ID: P019698  
Date Prepared: 06/26/2007

Analyte	Preparation Blank			
	Limits		C	M
Mercury	0.1	0.0180	U	CV

## ICP INTERFERENCE CHECK SAMPLE

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_Lab Code: LAUCKS SDG No.: CAB31 Run Sequence ID: R019118ICS Source: ME-15-153-19, ME-15-161-8, ME-15-161-9ICP ID Number: ICPMS (PE ELAN 6100) Concentration Units: ug/L

Analyte	True		Initial Found			Final Found			Limits
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R	
Antimony	0	20.0	-0.0890	19.2	95.8				
Arsenic	0	20.0	0.0438	19.8	98.9				
Beryllium	0	20.0	-0.00418	19.4	97.1				
Cadmium	0	20.0	0.0254	20.8	104.2				
Chromium	0	20.0	0.271	20.6	103.2				
Copper	0	20.0	0.290	21.0	105				
Lead	0	20.0	0.0203	20.6	103				
Nickel	0	20.0	0.524	20.5	102.7				
Selenium	0	20.0	-0.00491	19.3	96.6				
Silver	0	20.0	-0.00689	20.1	100.6				
Thallium	0	20.0	0.00584	20.2	101				
Zinc	0	20.0	1.24	20.8	104				

Interference Check Sample Recover Limits: 80 - 120

Form IV - IN

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**SUM - 201**

SW-846

5A

SAMPLE NO.

SPIKE SAMPLE RECOVERY

15LCMW420WMS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31

Run Sequence ID: R019018

Lab Sample ID: CAB31-006MS

Prep Batch ID: P019698

Matrix (soil/water): Water

Level (low/med): LOW

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	% R	Q	M
Mercury	85-115	4.8693		0.0180	U	5.00	97.4		CV

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SW-846

5A

SAMPLE NO.

SPIKE SAMPLE RECOVERY

15LCMW420W (Filt.)MS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS      SDG No.: CAB31

Run Sequence ID: R019018

Lab Sample ID: CAB31-008MS

Prep Batch ID: P019698

Matrix (soil/water): Water

Level (low/med): LOW

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	% R	Q	M
Mercury	85 - 115	4.9873	0.0180 U	5.00	99.7		CV

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SW-846

5A

SAMPLE NO.

## SPIKE SAMPLE RECOVERY

15LCMW430W (Filt.)MS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31Run Sequence ID: R019118Lab Sample ID: CAB31-009MSPrep Batch ID: P019680Matrix (soil/water): WaterLevel (low/med): LOW

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	% R	Q	M
Antimony	75 - 125	49.7281		0.0560	U	50.00	99.5		M
Arsenic	75 - 125	46.6452		0.1000	U	50.00	93.2		M
Beryllium	75 - 125	53.0665		0.0430	U	50.00	106.1		M
Cadmium	75 - 125	50.6449		0.6089	J	50.00	100.1		M
Chromium	75 - 125	49.0790		0.5855	J	50.00	97.0		M
Copper	75 - 125	51.1197		0.5200	U	50.00	101.7		M
Lead	75 - 125	53.7675		0.0750	U	50.00	107.4		M
Nickel	75 - 125	50.5065		0.1379	J	50.00	100.7		M
Selenium	75 - 125	44.2262		0.1100	U	50.00	88.3		M
Silver	75 - 125	50.7544		0.0850	U	50.00	101.5		M
Thallium	75 - 125	51.0009		0.0440	U	50.00	102.0		M
Zinc	75 - 125	48.8360		1.8466	J	50.00	94.0		M

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



SW-846

5B

SAMPLE NO.

## POST DIGEST SPIKE RECOVERY

15LCMW430W (Filt.)P

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31Run Sequence ID: R019118Lab Sample ID: CAB31-009PMatrix (soil/water): WaterLevel (low/med): LOWConcentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	% R	Q	M
Antimony		51.0336		0.0560	U	50.00	102.1		M
Arsenic		46.7307		0.1000	U	50.00	93.4		M
Beryllium		52.1059		0.0430	U	50.00	104.2		M
Cadmium		52.1446		0.6089	J	50.00	103.1		M
Chromium		50.2979		0.5855	J	50.00	99.4		M
Copper		50.2581		0.5200	U	50.00	99.9		M
Lead		53.1367		0.0750	U	50.00	106.2		M
Nickel		49.8698		0.1379	J	50.00	99.5		M
Selenium		45.0842		0.1100	U	50.00	90.0		M
Silver		50.9254		0.0850	U	50.00	101.9		M
Thallium		52.2898		0.0440	U	50.00	104.6		M
Zinc		48.1158		1.8466	J	50.00	92.5		M

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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6  
DUPLICATES

SAMPLE NO.  
15LCMW420WD

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31

Run Sequence ID: R019018

Lab Sample ID: CAB31-006D

Prep Batch ID: P019698

Level (low/med): LOW

Matrix (soil/water): Water

% Solids for Duplicate \_\_\_\_\_

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit	Sample		Duplicate (D)		RPD	Q	M
		C	U	C	U			
Mercury	0.2	0.0180	U	0.0180	U			CV

SW-846  
6  
DUPLICATES

SAMPLE NO.

15LCMW420W (Filt.)D

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31

Run Sequence ID: R019018

Lab Sample ID: CAB31-008D

Prep Batch ID: P019698

Level (low/med): LOW

Matrix (soil/water): Water

% Solids for Duplicate \_\_\_\_\_

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit	Sample		Duplicate (D)		RPD	Q	M
			C		C			
Mercury	0.2	0.0180	U	0.0180	U			CV

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6

SAMPLE NO.

DUPLICATES

15LCMW430W (Filt.)D

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31Run Sequence ID: R019118Lab Sample ID: CAB31-009DPrep Batch ID: P019680Level (low/med): LOWMatrix (soil/water): Water

% Solids for Duplicate \_\_\_\_\_

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit	Sample		Duplicate (D)		RPD	Q	M
			C		C			
Antimony	1	0.0560	U	0.0560	U			M
Arsenic	1	0.1000	U	0.1000	U			M
Beryllium	1	0.0430	U	0.0430	U			M
Cadmium	1	0.6089	J	0.7107	J	15.4		M
Chromium	1	0.5855	J	0.3360	J	54.1		M
Copper	2	0.5200	U	0.5200	U			M
Lead	1	0.0750	U	0.0750	U			M
Nickel	1	0.1379	J	0.1811	J	27.1		M
Selenium	1	0.1100	U	0.1100	U			M
Silver	1	0.0850	U	0.0850	U			M
Thallium	1	0.0440	U	0.0440	U			M
Zinc	10	1.8466	J	1.8000	U			M

SW-846  
7C

SAMPLE NO.

DUPLICATE LABORATORY CONTROL SAMPLE

S062507ICPMSW02D

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31

Run Sequence ID: \_\_\_\_\_

LCS Lab Sample ID: S062507ICPMSW02

Prep Batch ID: P019680

Duplicate LCS ID: S062507ICPMSW02D

Level (low/med): LOW

% Solids for LCS: 100 % Solids for Duplicate LCS: 100

Matrix (soil/water): Water

Concentration Units: ug/L

Analyte	Control Limits		LCS						Duplicate LCS						RPD
	%R	RPD	Results	C	Added	%R	Q	M	Results	C	Added	%R	Q	M	
Antimony	80 - 120	20	52.5281		50.0	105		M	50.6864		50.0	101		M	4%
Arsenic	80 - 120	20	48.4804		50.0	97		M	47.0619		50.0	94		M	3%
Beryllium	80 - 120	20	54.2693		50.0	109		M	53.3163		50.0	107		M	2%
Cadmium	80 - 120	20	54.8455		50.0	110		M	52.3579		50.0	105		M	5%
Chromium	80 - 120	20	50.6407		50.0	101		M	49.4443		50.0	99		M	2%
Copper	80 - 120	20	52.2728		50.0	105		M	51.561		50.0	103		M	1%
Lead	80 - 120	20	55.812		50.0	112		M	53.3706		50.0	107		M	4%
Nickel	80 - 120	20	51.7719		50.0	104		M	49.9248		50.0	100		M	4%
Selenium	80 - 120	20	44.876		50.0	90		M	45.4961		50.0	91		M	1%
Silver	80 - 120	20	52.0875		50.0	104		M	50.2558		50.0	101		M	4%
Thallium	80 - 120	20	53.5434		50.0	107		M	51.7366		50.0	103		M	3%
Zinc	80 - 120	20	51.6014		50.0	103		M	50.5727		50.0	101		M	2%

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SW-846

7A

LABORATORY CONTROL SAMPLE

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
Lab Code: LAUCKS SDG No.: CAB31 Run Sequence ID: R019018  
Lab Sample ID: S062607HGW01 Prep Batch ID: P019698  
LCS Source: ME-15-159-3

Analyte	Concentration Units: ug/L					
	True	Found	C	%R Limits		%R
Mercury	4.04	4.1711		85	115	103.2

## ICP SERIAL DILUTIONS

15LCMW430W (Filt.)L

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_Lab Code: LAUCKS SDG No.: CAB31 Run Sequence ID: R019118Matrix (soil/water): Water Level (low/med): LOWLab Sample ID: CAB31-009L

Analyte	Actual Results (ug/L)			Final Results (ug/L)				%D	Q	M
	Initial Sample (i)	Dilution Sample (S)	IDL	Initial Sample (i)	C	Dilution Sample (S)	C			
Antimony	-0.1722	-1.2586	0.0800	0.0560	U	0.280	U			M
Arsenic	0.0458	0.1152	0.0330	0.100	U	0.500	U	151.7		M
Beryllium	0.0171	0.0184	0.0200	0.0430	U	0.215	U			M
Cadmium	0.6089	0.6211	0.0150	0.609	J	0.621	J	2.0		M
Chromium	0.5855	0.9553	0.0700	0.585	J	0.955	J	63.2		M
Copper	0.2902	0.2221	0.0070	0.520	U	2.60	U	23.5		M
Lead	0.0532	-0.0659	0.0020	0.0750	U	0.375	U	100.0		M
Nickel	0.1379	0.0908	0.0320	0.138	J	0.550	U	34.1		M
Selenium	0.0914	-0.0936	0.1050	0.110	U	0.550	U			M
Silver	-0.0386	-0.2150	0.0250	0.0850	U	0.425	U			M
Thallium	-0.0124	-0.0536	0.0080	0.0440	U	0.220	U			M
Zinc	1.8466	1.8490	0.0220	1.85	J	9.00	U	0.1		M

## INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB31Instrument ID: ICPMS (PE ELAN 6100)Date: 08/18/2004

Analyte	Isotope	A	B	C	D	M
		LTL PQL (ug/L)	LTL PQL (ug/L)	MDL (ug/L)	MDL (ug/L)	
Antimony	121	1	1	0.056	0.056	M
Arsenic	75	1	1	0.1	0.1	M
Beryllium	9	1	1	0.043	0.043	M
Cadmium	111	1	1	0.094	0.094	M
Chromium	52	1	1	0.12	0.12	M
Copper	63	2	2	0.52	0.52	M
Lead	208	1	1	0.075	0.075	M
Nickel	60	1	1	0.11	0.11	M
Selenium	82	1	1	0.11	0.11	M
Silver	107	1	1	0.085	0.085	M
Thallium	205	1	1	0.044	0.044	M
Zinc	66	10	10	1.8	1.8	M

A = Upper Estimated (J Flag) Range in Determination Units

B = Upper Estimated (J Flag) Range in Actual Units

C = Lower Estimated (J Flag) Range in Determination Units

D = Lower Estimated (J Flag) Range in Actual Units



## INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB31Instrument ID: FIMS (FIMS400)Date: 04/11/2006

Analyte	Isotope	A	B	C	D	M
		LTL PQL (ug/L)	LTL PQL (ug/L)	MDL (ug/L)	MDL (ug/L)	
Mercury		0.2	0.2	0.018	0.018	CV

A = Upper Estimated (J Flag) Range in Determination Units

B = Upper Estimated (J Flag) Range in Actual Units

C = Lower Estimated (J Flag) Range in Determination Units

D = Lower Estimated (J Flag) Range in Actual Units

## ICP LINEAR RANGES (QUARTERLY)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB31ICP ID Number: ICPMS (PE ELAN 6100)Date: 03/08/2007

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Antimony	0.002	1000.0	M
Arsenic	0.001	1000.0	M
Beryllium	0.002	1000.0	M
Cadmium	0.001	1000.0	M
Chromium	0.001	1000.0	M
Copper	0.001	1000.0	M
Lead	0.001	1000.0	M
Nickel	0.001	1000.0	M
Selenium	0.002	1000.0	M
Silver	0.002	1000.0	M
Thallium	0.001	1000.0	M
Zinc	0.002	1000.0	M

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ICP LINEAR RANGES (QUARTERLY)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS

SDG No.: CAB31

ICP ID Number: FIMS (FIMS400)

Date: 09/08/2005

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Mercury		20.0	CV

## PREPARATION LOG

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB31 Prep Batch ID: P019680  
 Method: 6020

Client Sample No.	Lab Sample ID	Preparation Date	Initial Volume	Volume (mL)
B062507ICPMSW02	B062507ICPMSW02	06/25/2007	100.0 mL	100
S062507ICPMSW02	S062507ICPMSW02	06/25/2007	100.0 mL	100
S062507ICPMSW02D	S062507ICPMSW02D	06/25/2007	100.0 mL	100
15LCMW420W	CAB31-006	06/25/2007	100.0 mL	100
15LCMW430W	CAB31-007	06/25/2007	100.0 mL	100
15LCMW420W (Filt.)	CAB31-008	06/25/2007	100.0 mL	100
15LCMW430W (Filt.)	CAB31-009	06/25/2007	100.0 mL	100
15LCMW430W (Filt.)D	CAB31-009D	06/25/2007	100.0 mL	100
15LCMW430W (Filt.)MS	CAB31-009MS	06/25/2007	100.0 mL	100

## PREPARATION LOG

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB31Prep Batch ID: P019698Method: 7470A

Client Sample No.	Lab Sample ID	Preparation Date	Initial Volume	Volume (mL)
B062607HGW01	B062607HGW01	06/26/2007	50.0 mL	50
S062607HGW01	S062607HGW01	06/26/2007	50.0 mL	50
15LCMW420W	CAB31-006	06/26/2007	50.0 mL	50
15LCMW420WD	CAB31-006D	06/26/2007	50.0 mL	50
15LCMW420WMS	CAB31-006MS	06/26/2007	50.0 mL	50
15LCMW430W	CAB31-007	06/26/2007	50.0 mL	50
15LCMW420W (Filt.)	CAB31-008	06/26/2007	50.0 mL	50
15LCMW420W (Filt.)D	CAB31-008D	06/26/2007	50.0 mL	50
15LCMW420W (Filt.)MS	CAB31-008MS	06/26/2007	50.0 mL	50
15LCMW430W (Filt.)	CAB31-009	06/26/2007	50.0 mL	50

ANALYSIS RUN LOG

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB31 Run Sequence ID: R019118  
 Instrument ID Number: ICPMS (PE ELAN 6100) Method: 6020  
 Start Date: 06/28/2007 End Date: 06/29/2007

Client Sample No.	D/F	Time	Analytes																																	
			A	A	A	A	A	B	B	C	C	C	C	F	H	K	L	M	M	M	N	N	N	P	S	S	S	S	T	T	T	U	V	Z	C	B
Blank	1	11:53	X										X	X									X	X					X				X			
Standard 1	1	11:58	X										X	X									X	X					X				X			
Standard 2	1	12:03	X										X	X									X	X					X				X			
Standard 3	1	12:09	X										X	X									X	X					X				X			
Standard 4	1	12:14	X										X	X									X	X					X				X			
Standard 5	1	12:19	X										X	X									X	X					X				X			
ICV	1	12:24	X										X	X									X	X					X				X			
ICB	1	12:28	X										X	X									X	X					X				X			
CRU	1	12:32	X										X	X									X	X					X				X			
ICSA	1	12:36	X										X	X									X	X					X				X			
ICSAB	1	12:39	X										X	X									X	X					X				X			
zzzzz1	1	12:42																																		
CCV1	1	12:47	X										X	X									X	X					X				X			
CCB1	1	12:51	X										X	X									X	X					X				X			
zzzzz	1	12:55																																		
zzzzz	10	13:00																																		
zzzzz	10	13:04																																		
zzzzz	1	13:08																																		
zzzzz	5	13:13																																		
zzzzz	1	13:17																																		
zzzzz	10	13:22																																		
zzzzz	1	13:26																																		
zzzzz	1	13:30																																		
CCV2	1	13:34	X										X	X									X	X					X				X			
CCB2	1	13:39	X										X	X									X	X					X				X			
zzzzz2	1	13:54																																		
zzzzz3	1	13:58																																		

ANALYSIS RUN LOG

Lab Name: Laucks Laboratories Contract:
Lab Code: LAUCKS SDG No.: CAB31 Run Sequence ID: R019118
Instrument ID Number: ICPMS (PE ELAN 6100) Method: 6020
Start Date: 06/28/2007 End Date: 06/29/2007

Table with columns: Client Sample No., D/F, Time, and 26 Analytes (A through Z). Rows include sample IDs like zzzzzz4, CCV3, CCB3, etc., with 'X' marks indicating detection results.

ANALYSIS RUN LOG

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB31 Run Sequence ID: R019118  
 Instrument ID Number: ICPMS (PE ELAN 6100) Method: 6020  
 Start Date: 06/28/2007 End Date: 06/29/2007

Client Sample No.	D/F	Time	Analytes																													
			A	A	A	A	B	B	C	C	C	C	F	H	K	L	M	M	M	N	N	N	P	S	S	S	S	S				
zzzzz25	1	16:43																														
zzzzz26	1	16:48																														
zzzzz27	1	16:52																														
zzzzz28	1	16:57																														
zzzzz29	1	17:01																														
zzzzz30	1	17:05																														
zzzzz31	1	17:10																														
zzzzz32	1	17:14																														
zzzzz33	1	17:18																														
zzzzz34	1	17:23																														
CCV6	1	17:27	X					X		X	X											X	X	X								
CCB6	1	17:31	X					X		X	X											X	X	X								
zzzzz35	1	17:35																														
zzzzz36	1	17:40																														
zzzzz37	1	17:44																														
zzzzz38	1	17:48																														
zzzzz39	1	17:53																														
zzzzz40	1	17:57																														
zzzzz41	1	18:01																														
zzzzz42	1	18:06																														
zzzzz43	1	18:10																														
zzzzz44	1	18:14																														
zzzzz45	1	18:19																														
CCV7	1	18:23	X					X		X	X											X	X	X								
CCB7	1	18:27	X					X		X	X											X	X	X								
B062507ICPMSW02	1	18:48	X					X		X	X											X	X	X								
zzzzz46	1	18:52																														



ANALYSIS RUN LOG

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB31 Run Sequence ID: R019118  
 Instrument ID Number: \_\_\_\_\_ Method: 6020  
 Start Date: 06/28/2007 End Date: 06/29/2007

Client Sample No.	D/F	Time	Analytes																																			
			A G L	A A	A B	A S	A E	C A	C B	C D	C O	C R	C U	F E	H G	K	L I	M N	M O	M A	N I	P B	S B	S E	S N	S R	T H	T I	T L	U	V	Z N	C N	B N	S I			
ZZZZZ	1	18:56																																				
ZZZZZ47	1	19:00																																				
ZZZZZ48	1	19:05																																				
ZZZZZ49	1	19:09																																				
ZZZZZ	1	19:13																																				
ZZZZZ50	1	19:18																																				
CCV8	1	19:22	X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X			
CCB8	1	19:26	X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X			
S062507ICPMSW02	1	19:31	X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X			
S062507ICPMSW02D	1	19:36	X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X			
ZZZZZ51	1	19:40																																				
ZZZZZ52	1	19:44																																				
ZZZZZ	1	19:49																																				
ZZZZZ	1	19:53																																				
ZZZZZ53	1	19:57																																				
ZZZZZ54	1	20:02																																				
CCV9	1	20:06	X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X			
CCB9	1	20:10	X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X			
ZZZZZ55	1	20:14																																				
ZZZZZ56	1	20:19																																				
ZZZZZ57	1	20:23																																				
ZZZZZ58	1	20:27																																				
ZZZZZ	1	20:32																																				
ZZZZZ	1	20:36																																				
ZZZZZ59	1	20:40																																				
ZZZZZ60	1	20:45																																				
CCV10	1	20:49	X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X			

ANALYSIS RUN LOG

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB31 Run Sequence ID: R019118  
 Instrument ID Number: ICPMS (PE ELAN 6100) Method: 6020  
 Start Date: 06/28/2007 End Date: 06/29/2007

Client Sample No.	D/F	Time	Analytes																																			
			A G	A L	A S	A B	A B	A E	C A	C D	C O	C C	C R	C U	F E	H G	K	L	L I	M G	M N	M O	N A	N I	P B	S B	S E	S N	S R	T H	T I	T L	U	V	Z N	C N	B	S
CCB10	1	20:53	X		X	X			X	X	X	X	X										X	X	X	X	X							X	X			
15LCMW420W	1	20:58	X		X	X			X	X	X	X	X										X	X	X	X	X							X	X			
15LCMW430W	1	21:02	X		X	X			X	X	X	X	X										X	X	X	X	X							X	X			
15LCMW420W (Fit.)	1	21:06	X		X	X			X	X	X	X	X										X	X	X	X	X							X	X			
15LCMW430W (Fit.)	1	21:11	X		X	X			X	X	X	X	X										X	X	X	X	X							X	X			
15LCMW430W (Fit.)	5	21:15	X		X	X			X	X	X	X	X										X	X	X	X	X							X	X			
15LCMW430W (Fit.)	1	21:19	X		X	X			X	X	X	X	X										X	X	X	X	X							X	X			
15LCMW430W (Fit.)	1	21:24	X		X	X			X	X	X	X	X										X	X	X	X	X							X	X			
15LCMW430W (Fit.)	1	21:28	X		X	X			X	X	X	X	X										X	X	X	X	X							X	X			
CCV11	1	21:32	X		X	X			X	X	X	X	X										X	X	X	X	X							X	X			
CCB11	1	21:36	X		X	X			X	X	X	X	X										X	X	X	X	X							X	X			

**FORMS SUMMARY**

**CAB31**

**Miscellaneous Inorganics**

Laucks Testing Laboratories, Inc.

Final Results

Client: PBS Engineering and Environmental

Project: Camp Bonneville

SDG Number: CAB31

Sample Number: 15L4MW02AWRX

Date/Time Collected: 06/20/2007 10:00

Lab Sample ID: CAB31-001

Date/Time Received: 06/21/2007 10:10

Method: E314.0

Unit: ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	5	170		5.0	0.70	07/10/2007	07/11/2007	R019390

Laucks Testing Laboratories, Inc.

Final Results

**Client:** PBS Engineering and Environmental

**Project:** Camp Bonneville

**SDG Number:** CAB31

**Sample Number:** 15L4MW03AWRX

**Date/Time Collected:** 06/20/2007 11:20

**Lab Sample ID:** CAB31-002

**Date/Time Received:** 06/21/2007 10:10

**Method:** E314.0

**Unit:** ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	5	94		5.0	0.70	07/10/2007	07/11/2007	R019390

Laucks Testing Laboratories, Inc.

Final Results

Client: PBS Engineering and Environmental

Project: Camp Bonneville

SDG Number: CAB31

Sample Number: 15L4MW03BW

Date/Time Collected: 06/20/2007 13:50

Lab Sample ID: CAB31-003

Date/Time Received: 06/21/2007 10:10

Method: E314.0

Unit: ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	1	44		1.0	0.14	07/06/2007	07/07/2007	R019277

Laucks Testing Laboratories, Inc.

Final Results

Client: PBS Engineering and Environmental

Project: Camp Bonneville

SDG Number: CAB31

Sample Number: 15L4MW05AW

Date/Time Collected: 06/20/2007 15:15

Lab Sample ID: CAB31-004

Date/Time Received: 06/21/2007 10:10

Method: E314.0

Unit: ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	1	39		1.0	0.14	07/06/2007	07/07/2007	R019277

**Laucks Testing Laboratories, Inc.**

Final Results

**Client:** PBS Engineering and Environmental

**Project:** Camp Bonneville

**SDG Number:** CAB31

**Sample Number:** 15LCMW420W

**Date/Time Collected:** 06/20/2007 15:50

**Lab Sample ID:** CAB31-006

**Date/Time Received:** 06/21/2007 10:10

**Method:** E160.2

**Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Suspended Solids, Total	TSS	1	2	U	2	2	06/25/2007	06/27/2007	R018986

**Method:** E300.0

**Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Nitrate - N	14797-55-8	1	0.20	U	0.20	0.055	06/23/2007	06/23/2007	R018997
Nitrite - N	14797-65-0	1	0.10	U	0.10	0.017	06/23/2007	06/23/2007	R018997
Sulfate as SO4	14808-79-8	1	1.0	U	1.0	0.17	06/23/2007	06/23/2007	R018997
Chloride	16887-00-6	1	1.0	U	1.0	0.076	06/23/2007	06/23/2007	R018997

**Method:** E310.1

**Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Alkalinity, Carbonate (As CaCO3)	3812-32-6	1	2	U	2	2	07/03/2007	07/03/2007	R019262
Alkalinity, Bicarbonate (As CaCO3)	71-52-3	1	2	U	2	2	07/03/2007	07/03/2007	R019262

**Method:** E314.0

**Unit:** ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	1	1.0	U	1.0	0.14	07/06/2007	07/07/2007	R019277

**Method:** E415.1

**Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Organic Carbon, Total	TOC	1	1.0	U	1.0	0.070	06/28/2007	06/28/2007	R019123



Laucks Testing Laboratories, Inc.

Final Results

**Client:** PBS Engineering and Environmental

**Project:** Camp Bonneville

**SDG Number:** CAB31

**Sample Number:** 15LCMW420W (Filt.)

**Date/Time Collected:** 06/20/2007 15:50

**Lab Sample ID:** CAB31-008

**Date/Time Received:** 06/21/2007 10:10

**Method:** E415.1

**Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Dissolved Organic Carbon	DOC	1	1.0	U	1.0	1.0	06/28/2007	06/28/2007	R019123

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB31 Contract:  
 Run Sequence No. R018997 Concentration Units: mg/L  
 Determination Name: 300.0 NO3, NO2, Cl, SO4  
 Initial Calibration Source: IC-7-22-18  
 Continuing Calibration Source: IC-7-24-12

Analyte	ICV 06/23/2007 13:32				CCV1 06/23/07 16:10			CCV2 06/23/07 19:19			CCV Limits
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	
Chloride	1.500	1.399	93.3	90-110	5.023	4.782	95.2	5.023	4.849	96.5	90-110
Nitrate - N	1.125	1.081	96.1	90-110	2.004	1.932	96.4	2.004	1.944	97	90-110
Nitrite - N	1.522	1.647	108.2	90-110	1.000	0.975	97.4	1.000	0.982	98.1	90-110
Sulfate as SO4	7.450	7.326	98.3	90-110	10.018	9.607	95.9	10.018	9.59	95.7	90-110

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB31 Contract:  
 Run Sequence No. R019277 Concentration Units: ug/L  
 Determination Name: 314.0 Perchlorate  
 Initial Calibration Source: IC-7-24-15  
 Continuing Calibration Source: IC-7-24-17

Analyte	ICV 07/07/2007 12:46				CCV1 07/07/07 12:46			CCV2 07/07/07 12:46			CCV Limits
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	
	Perchlorate	40.151	40.575	101.1	75-125	9.988	10.515	105.3	9.988	9.541	

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB31 Contract:  
 Run Sequence No. R019390 Concentration Units: ug/L  
 Determination Name: 314.0 Perchlorate  
 Initial Calibration Source: IC-7-24-15  
 Continuing Calibration Source: IC-7-24-17

Analyte	ICV 07/11/2007 12:24				CCV1 07/11/07 12:24			CCV2 07/11/07 12:24			CCV Limits
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	
Perchlorate	40.151	38.82	96.7	75-125	9.988	9.626	96.4	9.988	10.09	101	85-115

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB31 Contract:   
 Run Sequence No. R019390 Concentration Units: ug/L   
 Determination Name: 314.0 Perchlorate   
 Initial Calibration Source: IC-7-24-15   
 Continuing Calibration Source: IC-7-24-17

Analyte					CCV3 07/11/07 12:24						CCV Limits
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	
Perchlorate					9.988	9.868	98.8				85-115

\* = Percent recovery not within control limits

Laucks Testing Laboratories, Inc.

INITIAL AND CONTINUING CALIBRATION VERIFICATION

SDG No: CAB31 Contract:  
 Run Sequence No. R019123 Concentration Units: mg/L  
 Determination Name: 415.1 Total Organic Carbon  
 Initial Calibration Source: TOC-4-28-2  
 Continuing Calibration Source: TOC-4-29-20

Analyte	ICV 06/28/2007 11:34				CCV01 06/28/07 13:16			CCV02 06/28/07 14:42			CCV Limits
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	
Organic Carbon, Total	10.000	9.929	99.3	90-110	5.001	4.796	95.9	5.001	4.638	92.7	90-110

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB31 Contract:   
 Run Sequence No. R019123 Concentration Units: mg/L   
 Determination Name: 415.1 Total Organic Carbon   
 Initial Calibration Source: TOC-4-28-2   
 Continuing Calibration Source: TOC-4-29-20

Analyte					CCV03 06/28/07 15:51						CCV Limits
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	
Organic Carbon, Total					5.001	5.065	101.3				90-110

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION BLANKS**

SDG No: CAB31 Contract:  
 Run Sequence No.: R018997 Concentration Units: mg/L  
 Determination Name: 300.0 NO3, NO2, Cl, SO4

Analyte	ICB 06/23/2007 13:48			CCB1 06/23/2007 16:26		CCB2 06/23/2007 19:35				CCB
	Found	C	Limit	Found	C	Found	C	Found	C	Limit
Chloride	1.0	U	0.5	1.0	U	1.0	U			0.5
Nitrate - N	0.20	U	0.1	0.20	U	0.20	U			0.1
Nitrite - N	0.10	U	0.05	0.10	U	0.10	U			0.05
Sulfate as SO4	1.0	U	0.5	1.0	U	1.0	U			0.5

\* = Control limit exceeded



**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION BLANKS**

SDG No: CAB31

Contract:

Run Sequence No.: R019277

Concentration Units: ug/L

Determination Name: 314.0 Perchlorate

Analyte	ICB 07/07/2007 12:46			CCB1 07/07/2007 12:46		CCB2 07/07/2007 12:46				CCB
	Found	C	Limit	Found	C	Found	C	Found	C	Limit
Perchlorate	1.0	U	0.5	1.0	U	1.0	U			0.5

\* = Control limit exceeded

Laucks Testing Laboratories, Inc.

INITIAL AND CONTINUING CALIBRATION BLANKS

SDG No: CAB31

Contract:

Run Sequence No.: R019390

Concentration Units: ug/L

Determination Name: 314.0 Perchlorate

Analyte	ICB 07/11/2007 12:24			CCB1 07/11/2007 12:24		CCB2 07/11/2007 12:24		CCB3 07/11/2007 12:24		CCB Limit
	Found	C	Limit	Found	C	Found	C	Found	C	
	Perchlorate	1.0	U	0.5	1.0	U	1.0	U	1.0	U

\* = Control limit exceeded

Laucks Testing Laboratories, Inc.

INITIAL AND CONTINUING CALIBRATION BLANKS

SDG No: CAB31 Contract:  
 Run Sequence No.: R019123 Concentration Units: mg/L  
 Determination Name: 415.1 Total Organic Carbon

Analyte	ICB 06/28/2007 11:40			CCB01 06/28/2007 13:22		CCB02 06/28/2007 14:49		CCB03 06/28/2007 15:57		CCB
	Found	C	Limit	Found	C	Found	C	Found	C	Limit
Organic Carbon, Total	1.0	U	0.5	1.0	U	1.0	U	1.0	U	0.5

\* = Control limit exceeded

# Laucks Testing Labs

## Blank Report

Test: 310.1M Carb./Bicarb. Alkalinity

SDG ID: CAB31

Preparation Date: 7/3/2007

Lab Sample ID: B070307ALKW01

Run Sequence ID: R019262

Analysis Date: 07/03/2007 17:00

Units: mg/L

Matrix: Water

Analyte	Reported	Flag	Limit
Alkalinity, Bicarbonate (As CaCO3)	2	U	2
Alkalinity, Carbonate (As CaCO3)	2	U	2

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB31-006	15LCMW420W

\* Measured blank concentration exceeded the established control limit

FORM LTL-RSR-9.0

**SUM - 240**

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# Laucks Testing Labs

## Blank Report

Test: 300.0 NO3, NO2, Cl, SO4

SDG ID: CAB31

Preparation Date: 6/23/2007

Lab Sample ID: B062307IAIW01

Run Sequence ID: R018997

Analysis Date: 06/23/2007 13:48

Units: mg/L

Matrix: Water

Analyte	Reported	Flag	Limit
Chloride	1.0	U	0.5
Nitrate - N	0.20	U	0.1
Nitrite - N	0.10	U	0.05
Sulfate as SO4	1.0	U	0.5

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB31-006	15LCMW420W

\* Measured blank concentration exceeded the established control limit

FORM LTL-RSR-9.0

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# Laucks Testing Labs

## Blank Report

Test: 314.0 Perchlorate

SDG ID: CAB31

Preparation Date: 7/6/2007

Lab Sample ID: B070607PERW01

Run Sequence ID: R019277

Analysis Date: 07/07/2007 12:46

Units: ug/L

Matrix: Water

Analyte	Reported	Flag	Limit
Perchlorate	1.0	U	0.5

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB31-001	15L4MW02AW
CAB31-002	15L4MW03AW
CAB31-003	15L4MW03BW
CAB31-004	15L4MW05AW
CAB31-006	15LCMW420W

\* Measured blank concentration exceeded the established control limit

FORM LTL-RSR-9.0

**SUM - 242**

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**Laucks Testing Labs**  
**Blank Report**

Test: 314.0 Perchlorate

SDG ID: CAB31

Lab Sample ID: B071007PERW01

Preparation Date: 7/10/2007

Run Sequence ID: R019390

Analysis Date: 07/11/2007 12:24

Units: ug/L

Matrix: Water

Analyte	Reported	Flag	Limit
Perchlorate	1.0	U	0.5

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB31-001DL 5X	15L4MW02A WRX
CAB31-002DL 5X	15L4MW03A WRX

\* Measured blank concentration exceeded the established control limit

FORM LTL-RSR-9.0

**SUM - 243**

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**Laucks Testing Labs**  
**Blank Report**

Test:	415.1 Total Organic Carbon	SDG ID:	CAB31
		Preparation Date:	6/28/2007
Lab Sample ID:	B062807TOCW01	Run Sequence ID:	R019123
		Analysis Date:	06/28/2007 12:02
		Units:	mg/L
		Matrix:	Water

Analyte	Reported	Flag	Limit
Organic Carbon, Total	1.0	U	0.5

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB31-006	15LCMW420W
CAB31-008	15LCMW420W (Filt.)

\* Measured blank concentration exceeded the established control limit



# Laucks Testing Labs

## Blank Report

Test: 160.2 Total Suspended Solids

SDG ID: CAB31

Preparation Date: 6/25/2007

Lab Sample ID: B062507TSSW01

Run Sequence ID: R018986

Analysis Date: 06/27/2007 16:30

Units: mg/L

Matrix: Water

Analyte	Reported	Flag	Limit
Suspended Solids, Total	2	U	2

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB31-006	15LCMW420W

\* Measured blank concentration exceeded the established control limit

FORM LTL-RSR-9.0

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**Laucks Testing Laboratories**  
**Matrix Spike/Matrix Spike Duplicate Report**

Test: 300.0 NO3, NO2, Cl, SO4

SDG ID: CAB31

Preparation Date: 06/23/2007

MS Lab Sample ID: CAB31-006MS 20X

Run Sequence ID: R018997

MSD Lab Sample ID: CAB31-006MSD 20X

Analysis Date: 06/23/2007

Client Sample ID: 15LCMW420W

Units: mg/L

Matrix: Water

Analyte	Sample Found	MS Spike	MS Found	MS Recovery	MSD Spike	MSD Found	MSD Recovery	RPD	Limits	
									Recovery	RPD
Chloride	0	40.2	38.6468	96%	40.2	38.1958	95%	1%	90-110	11
Nitrate - N	0	16.0	15.0158	94%	16.0	15.1757	95%	1%	90-110	10
Nitrite - N	0	8.00	7.1945	90% <sup>#</sup>	8.00	7.3984	92%	3%	90-110	10
Sulfate as SO4	0	80.1	77.1482	96%	80.1	74.8902	93%	3%	90-110	10

Associated Samples	
Lab Sample ID	Client Sample ID
CAB31-006	15LCMW420W

\* = RPD or percent recovery is outside established control limits

# = This RPD or percent recovery is not flagged as an exceedence because the Sample Found amount is five times or more than the Spike Added amount.

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

**Laucks Testing Laboratories**  
**Matrix Spike/Matrix Spike Duplicate Report**

Test:	415.1 Dissolved Organic Carbon	SDG ID:	CAB31
		Preparation Date:	06/28/2007
MS Lab Sample ID:	CAB31-008MS	Run Sequence ID:	R019123
MSD Lab Sample ID:	CAB31-008MSD	Analysis Date:	06/28/2007
Client Sample ID:	15LCMW420W (Filt.)	Units:	mg/L
		Matrix:	Water

Analyte	Sample Found	MS Spike	MS Found	MS Recovery	MSD Spike	MSD Found	MSD Recovery	RPD	Limits	
									Recovery	RPD
Dissolved Organic Carbon	0.278	10.0	10.1387	99%	10.0	10.2283	99%	1%	70-119	11

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB31-006	15LCMW420W
CAB31-008	15LCMW420W (Filt.)

\* = RPD or percent recovery is outside established control limits  
 # = This RPD or percent recovery is not flagged as an exceedance because the Sample Found amount is five times or more than the Spike Added amount.

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

**Laucks Testing Laboratories**  
**Matrix Spike/Matrix Spike Duplicate Report**

Test:	314.0 Perchlorate	SDG ID:	CAB31
		Preparation Date:	07/06/2007
MS Lab Sample ID:	CAB31-006MS 5X	Run Sequence ID:	R019277
MSD Lab Sample ID:	CAB31-006MSD 5X	Analysis Date:	07/07/2007
Client Sample ID:	15LCMW420W	Units:	ug/L
		Matrix:	Water

Analyte	Sample Found	MS Spike	MS Found	MS Recovery	MSD Spike	MSD Found	MSD Recovery	RPD	Limits	
									Recovery	RPD
Perchlorate	0	99.9	96.405	97%	99.9	93.575	94%	3%	80-120	15

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB31-001	15L4MW02AW
CAB31-002	15L4MW03AW
CAB31-003	15L4MW03BW
CAB31-004	15L4MW05AW
CAB31-006	15LCMW420W

\* = RPD or percent recovery is outside established control limits

# = This RPD or percent recovery is not flagged as an exceedence because the Sample Found amount is five times or more than the Spike Added amount.

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

**Laucks Testing Laboratories**  
**Matrix Spike/Matrix Spike Duplicate Report**

Test:	415.1 Total Organic Carbon	SDG ID:	CAB31
		Preparation Date:	06/28/2007
MS Lab Sample ID:	CAB31-006MS	Run Sequence ID:	R019123
MSD Lab Sample ID:	CAB31-006MSD	Analysis Date:	06/28/2007
Client Sample ID:	15LCMW420W	Units:	mg/L
		Matrix:	Water

Analyte	Sample Found	MS Spike	MS Found	MS Recovery	MSD Spike	MSD Found	MSD Recovery	RPD	Limits	
									Recovery	RPD
Organic Carbon, Total	0.1079	10.0	11.324	112%	10.0	11.5208	114%	2%	70-119	11

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB31-006	15LCMW420W
CAB31-008	15LCMW420W (Filt.)

\* = RPD or percent recovery is outside established control limits

# = This RPD or percent recovery is not flagged as an exceedance because the Sample Found amount is five times or more than the Spike Added amount.

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

# Laucks Testing Laboratories

## Duplicate Report

Test: 160.2 Total Suspended Solids      SDG ID: CAB31  
Preparation Date: 6/25/2007  
Lab Sample ID: CAB31-006D      Run Sequence ID: R018986  
Client Sample ID: 15LCMW420W      Analysis Date: 06/27/2007 16:30  
Units: mg/L  
Matrix: Water

Analyte	Parent Found	Duplicate Found	RPD	Limit
Suspended Solids, Total	1	0	200%#	20

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB31-006	15LCMW420W

# = RPD Value is not flagged as an outlier because either the parent found amount or duplicate found amount or both are less than five times the reporting limit

\* = Value exceeded established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

# Laucks Testing Laboratories

## BS/BSD Report

Test: 300.0 NO3, NO2, Cl, SO4

SDG ID: CAB31

Preparation Date: 06/23/2007

BS Sample ID: S062307

Run Sequence ID: R018997

BSD Sample ID: SD062307

Analysis Date: 06/23/2007 18:47

Units: mg/L

Matrix: Water

Analyte	Blank Spike			Blank Spike Duplicate			RPD	Limits	
	Added	Found	Recovery	Added	Found	Recovery		Recovery	RPD
Chloride	2.01	2.1318	106%	2.01	2.0629	103%	3%	90-110	11
Nitrate - N	0.802	0.743	93%	0.802	0.7555	94%	2%	90-110	10
Nitrite - N	0.400	0.3767	94%	0.400	0.3671	92%	3%	90-110	10
Sulfate as SO4	4.01	3.9152	98%	4.01	3.9664	99%	1%	90-110	10

Associated Samples	
<u>Lab Sample ID</u> CAB31-006	<u>Client Sample ID</u> 15LCMW420W

\* = RPD or recovery is outside the established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

# Laucks Testing Laboratories

## BS/BSD Report

Test:	415.1 Dissolved Organic Carbon	SDG ID:	CAB31
		Preparation Date:	06/28/2007
BS Sample ID:	S062807TOCW01	Run Sequence ID:	R019123
BSD Sample ID:	S062807TOCW01D	Analysis Date:	06/28/2007 11:48
		Units:	mg/L
		Matrix:	Water

Analyte	Blank Spike			Blank Spike Duplicate			RPD	Limits	
	Added	Found	Recovery	Added	Found	Recovery		Recovery	RPD
Dissolved Organic Carbon	10.0	9.7452	97%	10.0	9.5033	95%	3%	70-119	

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB31-006	15LCMW420W
CAB31-008	15LCMW420W (Filt.)

\* = RPD or recovery is outside the established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.



# Laucks Testing Laboratories

## SRM Report

Test Name:	310.1M Carb./Bicarb. Alkalinity	SDG ID:	CAB31
		Preparation Date:	07/03/2007
Lab Sample ID:	SRM-MIN QCI02712-438/439-202	Run Sequence ID:	R019262
		Analysis Date:	07/03/2007 17:00
		Units:	mg/L CaCO3
		Matrix:	Water

Analyte	Result	True Value	Control Limits	
			LCL	UCL
Alkalinity, Bicarbonate (As CaCO3)	36.0	35.6	30.3	42.2

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB31-006	15LCMW420W

\* = Value exceeded established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-19.0*

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# Laucks Testing Laboratories

## SRM Report

Test Name: 300.0 NO3, NO2, Cl, SO4

SDG ID: CAB31

Preparation Date: 06/23/2007

Lab Sample ID: SRM-IC 34-72AS-160

Run Sequence ID: R018997

Analysis Date: 06/23/2007 13:32

Units: mg/L

Matrix: Water

Analyte	Result	True Value	Control Limits	
			LCL	UCL
Chloride	28.0	30	27	33
Nitrate - N	21.6	22.5	20.2	24.8
Nitrite - N	32.9	30.4	27.4	33.5
Sulfate as SO4	147	149	134	164

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB31-006	15LCMW420W

\* = Value exceeded established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-19.0*

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**LAUCKS TESTING LABORATORIES**

**SAMPLE DATA PACKAGE**

**PBS ENGINEERING & ENVIRONMENTAL**

**SDG NO.: CAB32**

**JULY 13, 2007**

# LAUCKS TESTING LABORATORIES

940 S. Harney  
Seattle, WA 98108

To: PBS Engineering & Environmental  
Project Name: Camp Bonneville  
SDG No.: CAB32  
Date of Report: July 13, 2007

## **SAMPLE RECEIPT, IDENTIFICATION, AND GENERAL COMMENTS:**

### **Sample Receipt and Identification:**

The samples submitted under the laboratory number(s) indicated above were identified and analyzed as tabulated below. The samples were collected and received on the dates noted on the enclosed chain-of-custody copies, Attachment A.

<b><u>Client Sample Identification</u></b>	<b><u>Laucks Sample Identification</u></b>	<b><u>Testing Analytical Request</u></b>
15L4MW17W	CAB32-001	VOA/ORD/PERC
15L4MW18W	CAB32-002	VOA/ORD/PERC
15L4MW07BW	CAB32-003	VOA
TRIP BLANK	CAB32-004	VOA
15L4MW07BW	CAB32-005	ORD/PERC

### **Analytical Request Key:**

VOA =	Volatile Organics by Method 8260B
ORD =	Ordinance by Method 8330
	PETN/Nitroglycerin by Method 8332
PERC =	Ammonium Perchlorate by Method 314.0

### **Sample Receipt Comments:**

The temperature blank measured above the control limit of 6 deg C.

One of the VOA trip blank vials contained an air bubble less than ¼ inch in size.

## **GENERAL REMARKS ON ORGANIC ANALYSES:**

The following comments describe general analysis conditions. For remarks specific to the samples reported in this case, see "SPECIFIC REMARKS ON ORGANIC ANALYSIS."

## LAUCKS TESTING LABORATORIES

940 S. Harney  
Seattle, WA 98108

### Manual Integrations:

One or more analytes may have been manually integrated on the data system quantitation reports. All manual integrations have been flagged, initialed, and dated by the analyst. A list of the manual integration flags is detailed below.

M	Manual integration due to irregular peak shape
MS	Manual integration due to split peak
MR	Manual integration due to retention time shift
MI	Manual integration of correct isomer
MT	Manual integration due to peak tailing
MB	Manual integration due to irregular baseline

### Holding Time Compliance:

#### *Volatile Organic Compounds:*

The holding time is 14 days calculated from date of collection in both soil and water samples. All samples were analyzed within holding time.

#### *Ordnance, PETN/Nitroglycerin:*

The holding time to extraction is 7 days in water and 14 days in soil calculated from date of collection. The holding time from extraction to analysis is 40 days. All samples were extracted and analyzed within holding time.

### Volatile Fraction (8260):

#### Initial Calibration

Analysis of the initial calibration yielded %RSD value for methylene chloride that exceeded 15% in the ICAL performed 06/04/2007. Using an alternative curve fit, this analyte had  $r^2$  values greater than 0.990 ( $r$  values greater than 0.995) and was therefore compliant. The submitted Forms 6 and 7 document the evaluation of the initial calibration and continuing calibration standards using %RSD and %difference values. Additional forms have been submitted listing the  $r^2$  values and % drifts for analytes calibrated with alternative curve fits. These forms are located in the Standards Data section of the data package.

#### Continuing Calibration Verification (CCV):

In the CCV performed on 06/20/2007 the percent difference value for 1,2-dichloroethane exceeded 20% due to an increase in response. In the CCV performed on 06/26/2007 the percent difference value for dichlorodifluoromethane exceeded 20% due to decreased response. These analytes were not detected in any associated samples. Because sample results were reported well below the reporting limit (RL) the chance of reporting any false negatives for those compounds that recovered low at the RL was negligible.

All other quality control parameters were met.

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Seattle, WA 98108

**Ordinance Fraction:**

All quality control parameters were met.

**PETN/Nitroglycerin Fraction:**

All quality control parameters were met.

**GENERAL REMARKS ON INORGANIC ANALYSES:**

The following comments describe general analysis conditions. For remarks specific to the samples reported in this case, see "SPECIFIC REMARKS ON INORGANIC ANALYSES."

**SPECIFIC REMARKS ON INORGANIC ANALYSES:**

*Holding Time Compliance:*

Laucks calculates holding time compliance for inorganic determinations using the date on which reportable data were acquired.

*Miscellaneous:*

The following analytes do not have a Contract Laboratory Program holding time. The holding times tabulated below derive from the relevant EPA methods and are applicable when the sample was appropriately preserved and/or cooled. All samples submitted followed the preservation guidelines unless explicitly noted otherwise.

<u>Analyte</u>	<u>Holding Time</u>	<u>Violations</u>
Perchlorate	28 days	None

**Miscellaneous Inorganics:**

No comments.

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Seattle, WA 98108

### ABBREVIATIONS

Several abbreviations can appear in our reports. The most commonly employed abbreviations are as follows:

- U The analyte of interest was not detected to the limit of detection indicated.
- SDL Sample Detection Limit. The SDL can vary from sample to sample, depending on sample size, matrix interferences, moisture content and other sample-specific conditions.
- PQL Practical Quantitation Limit. The limit is drawn from the test method and usually represents the SDL multiplied by a matrix-specific factor.
- DB Dry Basis. The value reported has been back-calculated to normalize for the moisture content of the sample.
- AR As-Received. The value has not been normalized for moisture.

### ORGANIC ANALYSES:

- B When used in relation to organics fractions, the "B" flag indicates that the analyte of interest was detected in the method blank associated with the sample, as well as in the sample itself. The "B" flag is applied without regard to the relative concentrations detected in the blank and sample.
- J The analyte of interest was detected below the routine reporting limit. This value should be regarded as an estimate.
- T The flagged values represent the SUM of two co-eluting compounds. The SUM of these two values is shown as though it were a result for each of them. The two figures should not be added together.
- E The flagged value was reported from an analysis that exceeded the linear range of the instrument. See additional comments for further discussion of the circumstances. Values so flagged should be considered estimates.
- P When a dual column GC technique is employed, this flag indicates that test results from the two columns differ by more than 25%. Generally, we report the higher value.
- C The flagged analyte has been confirmed by GC/MS analysis. The value reported may be derived from either the initial or confirmatory (GC/MS) analysis. See specific report comments for details.
- Z When two or more sets of results are submitted, the Z-flagged data indicates that this is the secondary result.
- CRQL Client requested Quantitation Limit, usually the limit of detection specified at your request. Might also be referred to as Contract Required Quantitation Limit.

## LAUCKS TESTING LABORATORIES

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Seattle, WA 98108

### INORGANIC ANALYSES:

- J The reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL). If the analyte was analyzed for but not detected, a "U" shall be entered.
- E The reported value is estimated because of the presence of interference. The serial dilution was not within control limits.
- N Spiked sample recovery not within control limits.
- \* Duplicate analysis not within control limits.

CRDL Client Requested Detection Limit, usually the limit of detection specified at your request. Might also be referred to as Contract Required Detection Limit.



**LAUCKS TESTING LABORATORIES**

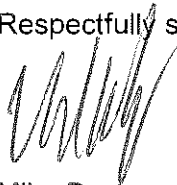
940 S. Harney  
Seattle, WA 98108

RELEASE OF DATA

Laucks certifies that these results meet all requirements of the NELAC standards, except where otherwise noted.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."

Respectfully submitted,



Mike Baxter  
Project Manager

13 July 2007  
(DATE)



Harry Romberg  
Quality Assurance Officer

7/13/07  
(DATE)

*HOW TO CONTACT US:*

All Laucks Testing Laboratories staff members can be reached at the same telephone and facsimile numbers: (206) 767-5060 by phone, (206) 767-5063 by FAX.

*REQUESTS FOR DUPLICATE COPIES:*

This packet has been checked for accuracy. All pages are present and in sequential order. Please see Attachment B for a detailed record.

In the event that duplicate data copies are needed, Laucks will accommodate your request at a fee of twenty-five cents (\$0.25) per copy, plus shipping. If the data are in storage, there will also be a fee for retrieval.

**LAUCKS TESTING LABORATORIES**

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Seattle, WA 98108

**ATTACHMENT A**

Chain-of-Custody Copies

LAUCKS TESTING LABORATORIES, INC. - SAMPLE CONFIRMATION LOG							
Sample ID (SDG-#)	VTSR	Collected On	Client ID	314.0 Perchlorate	8260B VOCs (LTL Routine)	8330 Explosives Residues	8332 Nitroglycerin & PETN
CAB32-001	06/19/2007 10:00 AM	06/18/2007 01:55 PM	15L4MW17W	IN	A-	P-	P-
CAB32-002	06/19/2007 10:00 AM	06/18/2007 02:50 PM	15L4MW18W	IN	A-	P-	P-
CAB32-003	06/19/2007 10:00 AM	06/18/2007 04:00 PM	15L4MW07BW		A-		
CAB32-004	06/19/2007 10:00 AM	06/18/2007 12:00 AM	TRIP BLANK		A-		
CAB32-005	06/19/2007 10:00 AM	06/18/2007 04:00 PM	15L4MW07BW	IN		P-	P-
Approved By: <i>[Signature]</i>				On: 6/20/07			
Notes:							
Samples identified with a '*' client has requested QC for							
<b>LEGEND:</b> -:Started , +:Completed , IN:Logged In , P:Preparation , A:Analysis , X:Cancelled, PL:Pre-logged							
<b>FORM LTL-PM-8.0</b>							

Sample ID (SDG-#)	VTSR	Collected On	Client ID	314.0 Perchlorate	8260B VOCs (LTL Routine)	8330 Explosives Residues	8332 Nitroglycerin & PETN
CAB32-001	06/19/2007 10:00 AM	06/18/2007 01:55 PM	15L4MW17W	IN	A-	P-	P-
CAB32-002	06/19/2007 10:00 AM	06/18/2007 02:50 PM	15L4MW18W	IN	A-	P-	P-
CAB32-003	06/19/2007 10:00 AM	06/18/2007 04:00 PM	15L4MW07BW		A-		
CAB32-004	06/19/2007 10:00 AM	06/18/2007 12:00 AM	TRIP BLANK		A-		
CAB32-005	06/19/2007 10:00 AM	06/18/2007 04:00 PM	15L4MW07BW	IN		P-	P-

Approved By: *[Signature]*  
Notes:

On: 6/20/07

Samples identified with a '\*' client has requested QC for

**LEGEND:** -:Started , +:Completed , IN:Logged In , P:Preparation , A:Analysis , X:Cancelled, PL:Pre-logged

**FORM LTL-PM-8.0**

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING (SEE BELOW)

2557

COMPANY: PBS  
 ADDRESS: 4412 SW CORBET AVE  
PORTLAND OR 97239  
 ATTENTION: DREW HARVEY  
CHP BOUNVILLE  
 PROJECT NAME: DREW HARVEY  
 PROJECT CONTACT: DREW HARVEY  
 TELEPHONE: 503-417-7668 503-248-0223  
70489 000 6206  
 JOB/PO. NO.:

CHAIN OF CUSTODY RECORD SDG #

43107

WORK ORDER ID# CAB32 SUBMITTED AT:  
 1100 South Hanover St, Seattle, WA 98106  
 1100 Eastman Ave., Yakima, WA 98902

PAGE 1 OF 1

# Lauck's

Testing Laboratories, Inc.

(206) 767-3060 FAX 767-5065  
(509) 249-8995 FAX 452-1265

MATRIX: WATER, SOIL OR SPECIFY

NO. OF CONTAINERS	
EXPLOSIVES	
PETN/NG	
PERCHLORATE	
VOCs	

TESTS TO PERFORM

OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS

LAB #/#	SAMPLE ID / LOCATION	DATE	TIME																
1	15 L4 MW / 7W	6/19/07	1355	N															
2	15 L4 MW / 8W	6/19/07	1458	N	X	X	X	X	X										
3	15 L4 MW / 7 BW	6/19/07	1511	N	X	X	X	X	X										
4	TRIP BLANK																		

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

**INSTRUCTIONS**

- USE ONE LINE PER SAMPLE.
- BE SPECIFIC IN TEST REQUESTS.
- CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

**BILLING INFORMATION - DIFFERENT THAN ABOVE**

NAME: \_\_\_\_\_ ADDRESS: \_\_\_\_\_  
 CITY, STATE, ZIP: \_\_\_\_\_

ATTN: \_\_\_\_\_

RELINQUISHED BY (SIGN AND PRINT): Mike Todd / Mike Todd  
 DATE TIME: 6/18/07 / 1700

RECEIVED BY (SIGN AND PRINT): Joseph G. West / Joseph G. West  
 DATE TIME: 6/19/07 / 1010

**\* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL**

**28 TOTAL NO. OF CONTAINERS**

TURNAROUND REQUEST

STD. 10-14 WORKING DAYS

24-48 HRS. (100% SUR)

72 HRS. (75% SUR)

5 DAYS (60% SUR)

OTHER: \_\_\_\_\_

TEMP: \_\_\_\_\_

CUSTODY SEAL:  Y  N  N/A

Financial Charges and/or Collection Fees may be applied to delinquent accounts.

FINAL REPORT COPY

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING (SEE BELOW)

CHAIN OF CUSTODY RECORD SDG #

43125 CAB 33

PAGE 1 OF 1

# Laucks

Testing Laboratories, Inc.

940 South Haney St., Seattle, WA 98108 (206) 767-5460 FAX 767-5063  
1100 Leitch Ave., Yakima, WA 98902 (509) 245-4695 FAX 452-1265

WORK ORDER ID#

CAB 333

SUBMITTED AT:

TESTS TO PERFORM

940 South Haney St., Seattle, WA 98108  
 1100 Leitch Ave., Yakima, WA 98902

COMMENTS, SPECIAL INSTRUCTIONS

2557

COMPANY:

PBS

ADDRESS:

4412 SW COBBETT AVE  
BETLAND OR 97139

ATTENTION:

DEAN HARVEY

PROJECT NAME:

CAMP BONNEVILLE

PROJECT CONTACT:

DEAN HARVEY

TELEPHONE:

503-417-7693 503-248-0223

JOB/P.O. NO.:

70489.000 T46206

LAB S/N#

1514MWD78W

DATE

TIME

W

S

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

MATRIX: WATER, SOIL OR SPECIFY  
NO. OF CONTAINERS  
EXPLOSIVES  
PETN/NG  
PERCHLORATE

OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

INSTRUCTIONS

- 1. USE ONE LINE PER SAMPLE.
- 2. BE SPECIFIC IN TEST REQUESTS.
- 3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

NAME

BILLING INFORMATION IF DIFFERENT THAN ABOVE  
ADDRESS

\* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL

5 TOTAL NO. OF CONTAINERS

ATTN:

CITY, STATE, ZIP

RELINQUISHED BY (SIGN AND PRINT)

RECEIVED BY (SIGN AND PRINT)

DATE

TIME

DATE

TIME

6/15/07  
1700

6/19/07  
10:00

STD. 10-14 WORKING DAYS  
 24-48 HRS. (100% SUR)  
 72 HRS. (75% SUR)  
 5 DAYS (50% SUR)  
 OTHER:  
 TEMP.  
 CUSTODY SEAL:  Y  N  N/A

Mike Bell

MIKE GARDEN

Serials

Serials

1

3

Finance Charges and/or Collection Fees may be applied to delinquent accounts.

FINAL REPORT COPY

**Cooler Receipt Form**  
**Laucks Testing Laboratories, Inc.**

SDG: CAB32 Taken By: CLIENT

Cooler: AAD571 Transferred: FED EX

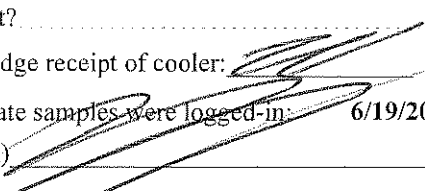
COC #: 43107

Project: Camp Bonneville (PBS Engineering and Environmental)

Date samples were received at the laboratory: 6/19/2007

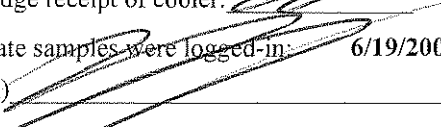
Date cooler was opened: 6/19/2007 10:00AM

**A. PRELIMINARY EXAMINATION PHASE:**

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES  
if YES, record carrier name and airbill number: 8620 5652 4677
2. Were custody seals unbroken and intact at the date and time of arrival? ..... INTACT  
Date On Custody Seal: Custody Seals Description: ONE IN FRONT AND BACK
3. Were custody papers sealed in a plastic bag and taped inside to the lid? ..... YES
4. Did you screen samples for radioactivity using the Geiger Counter? ..... NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... YES
6. Did you sign custody papers in the appropriate place? ..... YES
7. If required, was enough cooling material present? ..... YES
8. Have designated person initial here to acknowledge receipt of cooler: 

**B. LOG-IN PHASE:**

Date samples were logged-in: 6/19/2007 10:10AM

Logged-in by Zoriah Weith (sign) 

9. Describe type of packing in cooler:

10. Were all bottles sealed in separate plastic bags? ..... NO
11. Were labels in good condition? ..... YES
12. Were all bottle labels complete (ID,date,time signature,preservative,etc.)? ..... YES
13. Did all bottle labels agree with custody papers? ..... YES
14. Were correct containers used for the tests indicated? ..... YES
15. Were the correct pHs observed? ..... YES
16. Was a sufficient amount of sample sent for tests indicated? ..... YES
17. Were bubbles absent in VOA samples? ..... NO
18. Temperatures: 9.8

DISCREPANCIES:

SAMPLES RECIEVED ABOVE TEMPERATURE CONTROL. ONE OF ONE <sup>vide</sup> VIALS FOR SAMPLE 4 RECIEVED WITH AIR BUBBLES < 1/4".

**Supplemental Sample Receipt Log**  
**Laucks Testing Laboratories**

SDG: CAB32

Cooler: AAD571

Temperatures: 9.8

COC #: 43107

Sample	Bottle #	Bottle Description	pH	Bubbles
CAB32-001	0001	1000 mL boston round, amber glass	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	40 ml OTWS, clear glass, HCl	N/C	None
	0006	40 ml OTWS, clear glass, HCl	N/C	None
	0007	40 ml OTWS, clear glass, HCl	N/C	None
	0008	500 ml cylinder, poly	7	N/A
CAB32-002	0001	1000 mL boston round, amber glass	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	40 ml OTWS, clear glass, HCl	N/C	None
	0006	40 ml OTWS, clear glass, HCl	N/C	None
	0007	40 ml OTWS, clear glass, HCl	N/C	None
	0008	500 ml cylinder, poly	7	N/A
CAB32-003	0001	40 ml OTWS, clear glass, HCl	N/C	None
	0002	40 ml OTWS, clear glass, HCl	N/C	None
	0003	40 ml OTWS, clear glass, HCl	N/C	None
CAB32-004	0001	40 ml OTWS, clear glass, HCl	N/C	< 1/4

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH

**Cooler Receipt Form**  
**Laucks Testing Laboratories, Inc.**

SDG: CAB32 Taken By: CLIENT  
Cooler: AAD455 Transferred: FED EX  
COC #: 43125  
Project: Camp Bonneville (PBS Engineering and Environmental)

Date samples were received at the laboratory: 6/19/2007  
Date cooler was opened: 6/19/2007 10:00AM

**A. PRELIMINARY EXAMINATION PHASE:**

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES  
if YES, record carrier name and airbill number: **8620 5652 4677**
2. Were custody seals unbroken and intact at the date and time of arrival? ..... **INTACT**  
Date On Custody Seal: Custody Seals Description: **ONE IN FRONT AND BACK.**
3. Were custody papers sealed in a plastic bag and taped inside to the lid? ..... YES
4. Did you screen samples for radioactivity using the Geiger Counter? ..... NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... YES
6. Did you sign custody papers in the appropriate place? ..... YES
7. If required, was enough cooling material present? ..... YES
8. Have designated person initial here to acknowledge receipt of cooler: *M*

**B. LOG-IN PHASE:**

Date samples were logged-in: 6/19/2007 10:10AM

Logged-in by Zorah Weith (sign) *[Signature]*

9. Describe type of packing in cooler:
10. Were all bottles sealed in separate plastic bags? ..... NO
11. Were labels in good condition? ..... YES
12. Were all bottle labels complete (ID,date,time signature,preservative,etc.)? ..... YES
13. Did all bottle labels agree with custody papers? ..... YES
14. Were correct containers used for the tests indicated? ..... YES
15. Were the correct pHs observed? ..... YES
16. Was a sufficient amount of sample sent for tests indicated? ..... YES
17. Were bubbles absent in VOA samples? ..... YES
18. Temperatures: 3.9

DISCREPANCIES:



**Supplemental Sample Receipt Log**  
**Laucks Testing Laboratories**

SDG: CAB32

Cooler: AAD455

Temperatures: 3.9

COC #: 43125

Sample	Bottle #	Bottle Description	pH	Bubbles
CAB32-005	0001	1000 mL boston round, amber glass	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	500 ml cylinder, poly	7	N/A

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH

**LAUCKS TESTING LABORATORIES**

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Seattle, WA 98108

**ATTACHMENT B**

Index

**LAUCKS TESTING LABORATORIES**

940 S. Harney  
Seattle, WA 98108

**PBS Engineering & Environmental**

**SDG No.: CAB32**

- I. Narrative: 2-7
- II. Chain-of-Custody: 8-15
- III. Index: 16-17
- IV. Forms Summary: SUM- 1-64

Completed and checked by: Judy Ecklund Date: 7/13/07

**FORMS SUMMARY**

SDG CAB32

VOLATILES ANALYSIS

2  
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB32

Run Sequence: R018866

Level: (LOW/MED) NONE

CLIENT SAMPLE NUMBER	SMC1 (DBF) #	SMC2 (DCA) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
(CAB32-001) 15L4MW17W	109	120	102	107	0
(CAB32-004) TRIP BLANK	110	120	99	106	0
(B062007MVOWB1) B062007MVOWB1	108	119	101	106	0
(S062007MVOWB1) S062007MVOWB1	110	117	102	107	0

QC LIMITS

SMC1 (DBF) =	Dibromofluoromethane	85-115
SMC2 (DCA) =	1,2-Dichloroethane-d4	70-120
SMC3 (TOL) =	Toluene-d8	85-120
SMC4 (BFB) =	4-Bromofluorobenzene	75-120

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits

2  
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB32

Run Sequence: R019020

Level: (LOW/MED) NONE

CLIENT SAMPLE NUMBER	SMC1 (DBF) #	SMC2 (DCA) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
(CAB32-003) 15L4MW07BW	102	106	106	108	0
(CAB32-002) 15L4MW18W	102	107	106	105	0
(B062607MVOWB1) B062607MVOWB1	102	105	105	107	0
(S062607MVOWB2) S062607MVOWB2	102	103	106	106	0

QC LIMITS

SMC1 (DBF) =	Dibromofluoromethane	85-115
SMC2 (DCA) =	1,2-Dichloroethane-d4	70-120
SMC3 (TOL) =	Toluene-d8	85-120
SMC4 (BFB) =	4-Bromofluorobenzene	75-120

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits

3B  
WATER VOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

BS Run Sequence: R018866 SDG No.: CAB32

BS Lab Sample ID: S062007MVOWB1

Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Dichlorodifluoromethane	50.0	48.93	98		30-155
Chloromethane	50.0	56.53	113		40-125
Vinyl chloride	50.0	56.57	113		50-145
Bromomethane	50.0	47.88	96		30-145
Chloroethane	50.0	46.25	93		60-135
Trichlorofluoromethane	50.0	52.08	104		60-145
1,1-Dichloroethene	50.0	51.58	103		70-130
Acetone	50.0	60.75	122		40-140
Carbon disulfide	50.0	41.7	83		35-160
Methylene chloride	50.0	48.5	97		55-140
trans-1,2-Dichloroethene	50.0	50.17	100		60-140
1,1-Dichloroethane	50.0	55.04	110		70-135
cis-1,2-Dichloroethene	50.0	49.71	99		70-125
2-Butanone	50.0	59.23	118		30-150
Chloroform	50.0	54.93	110		65-135
1,1,1-Trichloroethane	50.0	55.24	110		65-130
Carbon tetrachloride	50.0	53.86	108		65-140
Benzene	50.0	48.54	97		80-120
1,2-Dichloroethane	50.0	56.72	113		70-130
Trichloroethene	50.0	49.33	99		70-125
1,2-Dichloropropane	50.0	50.21	100		75-125
Bromodichloromethane	50.0	54.42	109		75-120
cis-1,3-Dichloropropene	50.0	56.92	114		70-130
4-Methyl-2-pentanone	50.0	55.61	111		60-135
Toluene	50.0	45.02	90		75-120
trans-1,3-Dichloropropene	50.0	42.42	85		55-140
1,1,2-Trichloroethane	50.0	45.96	92		75-125
Tetrachloroethene	50.0	44.76	90		45-150
2-Hexanone	50.0	55.84	112		55-130
Dibromochloromethane	50.0	49.7	99		60-135
Chlorobenzene	50.0	45.82	92		80-120
Ethylbenzene	50.0	46.31	93		75-125
m,p-Xylene	100	92	92		75-130
o-Xylene	50.0	45.45	91		80-120

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 37 outside limits

COMMENTS:

3B  
WATER VOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
BS Run Sequence: R018866 SDG No.: CAB32  
BS Lab Sample ID: S062007MVOWB1  
Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Styrene	50.0	44.14	88		65-135
Bromoform	50.0	43.03	86		70-130
1,1,2,2-Tetrachloroethane	50.0	48.01	96		65-130

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 37 outside limits

COMMENTS:



3B  
WATER VOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

BS Run Sequence: R019020 SDG No.: CAB32

BS Lab Sample ID: S062607MVOWB2

Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Dichlorodifluoromethane	50.0	34.91	70		30-155
Chloromethane	50.0	38.96	78		40-125
Vinyl chloride	50.0	41.69	83		50-145
Bromomethane	50.0	41.14	82		30-145
Chloroethane	50.0	40.97	82		60-135
Trichlorofluoromethane	50.0	44.6	89		60-145
1,1-Dichloroethene	50.0	54.68	109		70-130
Acetone	50.0	42.19	84		40-140
Carbon disulfide	50.0	52.84	106		35-160
Methylene chloride	50.0	46.9	94		55-140
trans-1,2-Dichloroethene	50.0	51.01	102		60-140
1,1-Dichloroethane	50.0	50.96	102		70-135
cis-1,2-Dichloroethene	50.0	49.01	98		70-125
2-Butanone	50.0	46.98	94		30-150
Chloroform	50.0	49.11	98		65-135
1,1,1-Trichloroethane	50.0	50.86	102		65-130
Carbon tetrachloride	50.0	49.55	99		65-140
Benzene	50.0	48.09	96		80-120
1,2-Dichloroethane	50.0	49.47	99		70-130
Trichloroethene	50.0	49.05	98		70-125
1,2-Dichloropropane	50.0	47.84	96		75-125
Bromodichloromethane	50.0	48.33	97		75-120
cis-1,3-Dichloropropene	50.0	55.52	111		70-130
4-Methyl-2-pentanone	50.0	46.78	94		60-135
Toluene	50.0	49.06	98		75-120
trans-1,3-Dichloropropene	50.0	44.22	88		55-140
1,1,2-Trichloroethane	50.0	47.75	96		75-125
Tetrachloroethene	50.0	49.06	98		45-150
2-Hexanone	50.0	53.54	107		55-130
Dibromochloromethane	50.0	48.93	98		60-135
Chlorobenzene	50.0	48.92	98		80-120
Ethylbenzene	50.0	48.77	98		75-125
m,p-Xylene	100	98.71	99		75-130
o-Xylene	50.0	48.19	96		80-120

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 37 outside limits

COMMENTS:

3B  
WATER VOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
BS Run Sequence: R019020 SDG No.: CAB32  
BS Lab Sample ID: S062607MVOWB2  
Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Styrene	50.0	46.92	94		65-135
Bromoform	50.0	42.29	85		70-130
1,1,2,2-Tetrachloroethane	50.0	48.74	97		65-130

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 37 outside limits

COMMENTS:

4  
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062007MVOWB1

Lab Name Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB32

Lab File ID: B0620007.D

Lab Sample ID: B062007MVOWB1

Date Analyzed: 06/20/2007

Time Analyzed: 12:45

GC Column: ZB-624 20m ID: 0.18 (mm)

Heated Purge: (Y/N) N

Instrument ID: 5973B

Matrix: Water

	CLIENT SAMPLE NO.	LAB SAMPLE ID.	LAB FILE ID.	DATE ANALYZED	TIME ANALYZED	RUN SEQUENCE
01	S062007MVOWB1	S062007MVOWB1	B0620005.D	06/20/2007	11:50	R018866
02	TRIP BLANK	CAB32-004	B0620008.D	06/20/2007	13:11	R018866
03	15L4MW17W	CAB32-001	B0620019.D	06/20/2007	17:49	R018866
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COMMENTS: \_\_\_\_\_

4  
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062607MVOWB1

Lab Name Laucks Testing Labs Contract: \_\_\_\_\_  
 SDG No.: CAB32  
 Lab File ID: B0626022.D Lab Sample ID: B062607MVOWB1  
 Date Analyzed: 06/26/2007 Time Analyzed: 18:22  
 GC Column: ZB-624 20m ID: 0.18 (mm) Heated Purge: (Y/N) N  
 Instrument ID: 5973B Matrix: Water

	CLIENT SAMPLE NO.	LAB SAMPLE ID.	LAB FILE ID.	DATE ANALYZED	TIME ANALYZED	RUN SEQUENCE
01	S062607MVOWB2	S062607MVOWB2	B0626020.D	06/26/2007	17:33	R019020
02	15L4MW18W	CAB32-002	B0626029.D	06/26/2007	21:20	R019020
03	15L4MW07BW	CAB32-003	B0626030.D	06/26/2007	21:45	R019020
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COMMENTS: \_\_\_\_\_

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

BFB25NG

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: CAL948 SDG No.: CAB32  
 Lab File ID: B0604007.D BFB Injection Date: 06/04/2007  
 Instrument ID: 5973B BFB Injection Time: 10:14  
 GC Column ZB-624 20m ID: 0.18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15% to 40% of mass 95	16.6
75	30% to 60% of mass 95	43.3
95	base peak. 100% relative abundance	100
96	5% to 9% of mass 95	7.6
173	less than 2% of mass 174	0 ()1
174	greater than 50% of mass 95	97.7
175	5% to 9% of mass 17	7.4 ()1
176	greater than 95%, but less than 101% of mass 174	98.7 ()1
177	5% to 9% of mass 176	7 ()2

1 - Value is %mass 174

2 - Value is %mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD001	VSTD001	B0604009.D	06/04/2007	11:23
02	VSTD005	VSTD005	B0604011.D	06/04/2007	12:30
03	VSTD010	VSTD010	B0604012.D	06/04/2007	12:55
04	VSTD050	VSTD050	B0604013.D	06/04/2007	13:20
05	VSTD075	VSTD075	B0604014.D	06/04/2007	13:45
06	VSTD100	VSTD100	B0604015.D	06/04/2007	14:10
07	VSTD200	VSTD200	B0604016.D	06/04/2007	14:35
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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

BFBB1

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R018866 SDG No.: CAB32  
 Lab File ID: B0620003.D BFB Injection Date: 06/20/2007  
 Instrument ID: 5973B BFB Injection Time: 10:57  
 GC Column ZB-624 20m ID: 0.18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15% to 40% of mass 95	18.1
75	30% to 60% of mass 95	46.6
95	base peak, 100% relative abundance	100
96	5% to 9% of mass 95	6.8
173	less than 2% of mass 174	0 ()1
174	greater than 50% of mass 95	98.9
175	5% to 9% of mass 17	7.2 ()1
176	greater than 95% but less than 101% of mass 174	98.7 ()1
177	5% to 9% of mass 176	6.2 ()2

1 - Value is %mass 174

2 - Value is %mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050B1	VSTD050B1	B0620004.D	06/20/2007	11:24
02	S062007MVOWB1	S062007MVOWB1	B0620005.D	06/20/2007	11:50
03	B062007MVOWB1	B062007MVOWB1	B0620007.D	06/20/2007	12:45
04	TRIP BLANK	CAB32-004	B0620008.D	06/20/2007	13:11
05	15L4MW17W	CAB32-001	B0620019.D	06/20/2007	17:49
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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

BFBB2

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019020 SDG No.: CAB32  
 Lab File ID: B0626017.D BFB Injection Date: 06/26/2007  
 Instrument ID: 5973B BFB Injection Time: 16:12  
 GC Column ZB-624 20m ID: 0.18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15% to 40% of mass 95	17.2
75	30% to 60% of mass 95	45
95	base peak, 100% relative abundance	100
96	5% to 9% of mass 95	6.8
173	less than 2% of mass 174	0()1
174	greater than 50% of mass 95	104
175	5% to 9% of mass 17	7.2()1
176	greater than 95% but less than 101% of mass 174	96.8()1
177	5% to 9% of mass 176	6.3()2

1 - Value is %mass 174

2 - Value is %mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050B6	VSTD050B6	B0626018.D	06/26/2007	16:37
02	S062607MVOWB2	S062607MVOWB2	B0626020.D	06/26/2007	17:33
03	B062607MVOWB1	B062607MVOWB1	B0626022.D	06/26/2007	18:22
04	15L4MW18W	CAB32-002	B0626029.D	06/26/2007	21:20
05	15L4MW07BW	CAB32-003	B0626030.D	06/26/2007	21:45
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## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R018866 SDG No.: CAB32  
 Client Sample No. (VSTD050##): VSTD050B1 Date Analyzed: 06/20/2007  
 Lab File ID (Standard): B0620004.D Time Analyzed: 11:24  
 Instrument ID: 5973B Heated Purge: (Y/N) N  
 GC Column: ZB-624 20m ID: 0.18 (mm)

	IS1 (FBZ) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	492820	6.24	404180	9.42	221431	11.73
UPPER LIMIT	985640	6.74	808360	9.92	442862	12.23
LOWER LIMIT	246410	5.74	202090	8.92	110715.5	11.23
CLIENT SAMPLE NO.						
01 S062007MVOWB1	481681	6.24	395611	9.42	219668	11.73
02 B062007MVOWB1	481424	6.24	396520	9.42	219405	11.73
03 TRIP BLANK	469318	6.24	390256	9.42	214410	11.73
04 15L4MW17W	488726	6.24	400789	9.42	216465	11.73
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IS1 (FBZ) = Fluorobenzene  
 IS2 (CBZ) = Chlorobenzene-d5  
 IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area  
 AREA LOWER LIMIT = - 50% of internal standard area  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits



## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019020 SDG No.: CAB32  
 Client Sample No. (VSTD050##): VSTD050B6 Date Analyzed: 06/26/2007  
 Lab File ID (Standard): B0626018.D Time Analyzed: 16:37  
 Instrument ID: 5973B Heated Purge: (Y/N) N  
 GC Column: ZB-624 20m ID: 0.18 (mm)

	IS1 (FBZ) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	604328	6.24	451357	9.42	236928	11.73
UPPER LIMIT	1208656	6.74	902714	9.92	473856	12.23
LOWER LIMIT	302164	5.74	225678.5	8.92	118464	11.23
CLIENT SAMPLE NO.						
01 S062607MVOWB2	576172	6.24	433766	9.42	229054	11.73
02 B062607MVOWB1	600255	6.24	446298	9.42	234498	11.73
03 15L4MW18W	588849	6.24	439874	9.42	233794	11.73
04 15L4MW07BW	587175	6.24	436531	9.42	227440	11.73
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IS1 (FBZ) = Fluorobenzene  
 IS2 (CBZ) = Chlorobenzene-d5  
 IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area  
 AREA LOWER LIMIT = - 50% of internal standard area  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW17W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R018866  
 Lab Sample ID: CAB32-001  
 Lab File ID: B0620019.D  
 Date Collected: 06/18/2007  
 Date/Time Analyzed: 06/20/2007 17:49  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW17W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R018866  
 Lab Sample ID: CAB32-001  
 Lab File ID: B0620019.D  
 Date Collected: 06/18/2007  
 Date/Time Analyzed: 06/20/2007 17:49  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
124-48-1	Dibromochloromethane	1.0		U
108-90-7	Chlorobenzene	1.0		U
100-41-4	Ethylbenzene	1.0		U
179601-23	m,p-Xylene	2.0		U
95-47-6	o-Xylene	1.0		U
100-42-5	Styrene	1.0		U
75-25-2	Bromoform	1.0		U
79-34-5	1,1,2,2-Tetrachloroethane	1.0		U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW18W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: CAB32-002  
 Lab File ID: B0626029.D  
 Date Collected: 06/18/2007  
 Date/Time Analyzed: 06/26/2007 21:20  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW18W

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 SDG No.: CAB32 Run Sequence: R019020  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: CAB32-002  
 Sample wt/vol: 5.00 (g/mL) mL Lab File ID: B0626029.D  
 Level: (LOW/MED) \_\_\_\_\_ Date Collected: 06/18/2007  
 % Moisture: not dec. \_\_\_\_\_ Date/Time Analyzed: 06/26/2007 21:20  
 GC Column: ZB-624 20m ID: 0.18 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_(uL) Soil Aliquot Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW07BW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: CAB32-003  
 Lab File ID: B0626030.D  
 Date Collected: 06/18/2007  
 Date/Time Analyzed: 06/26/2007 21:45  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW07BW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: CAB32-003  
 Lab File ID: B0626030.D  
 Date Collected: 06/18/2007  
 Date/Time Analyzed: 06/26/2007 21:45  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
124-48-1	Dibromochloromethane	1.0		U
108-90-7	Chlorobenzene	1.0		U
100-41-4	Ethylbenzene	1.0		U
179601-23	m,p-Xylene	2.0		U
95-47-6	o-Xylene	1.0		U
100-42-5	Styrene	1.0		U
75-25-2	Bromoform	1.0		U
79-34-5	1,1,2,2-Tetrachloroethane	1.0		U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R018866  
 Lab Sample ID: CAB32-004  
 Lab File ID: B0620008.D  
 Date Collected: 06/18/2007  
 Date/Time Analyzed: 06/20/2007 13:11  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U



1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 SDG No.: CAB32 Run Sequence: R018866  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: CAB32-004  
 Sample wt/vol: 5.00 (g/mL) mL Lab File ID: B0620008.D  
 Level: (LOW/MED) \_\_\_\_\_ Date Collected: 06/18/2007  
 % Moisture: not dec. \_\_\_\_\_ Date/Time Analyzed: 06/20/2007 13:11  
 GC Column: ZB-624 20m ID: 0.18 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_(uL) Soil Aliquot Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
124-48-1	Dibromochloromethane	1.0		U
108-90-7	Chlorobenzene	1.0		U
100-41-4	Ethylbenzene	1.0		U
179601-23	m,p-Xylene	2.0		U
95-47-6	o-Xylene	1.0		U
100-42-5	Styrene	1.0		U
75-25-2	Bromoform	1.0		U
79-34-5	1,1,2,2-Tetrachloroethane	1.0		U

Comments:

6  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019020 SDG No.: CAB32  
 Instrument ID: 5973B Calibration Dates: 06/04/2007 14:35  
 Heated Purge: (Y/N) N Calibration Times: 06/04/2007 14:35  
 GC Column: ZB-624 20m ID: \_\_\_\_\_ Mean % RSD: 6.70

Analyte	Std 1	RF 1	Std 2	RF 2	Std 3	RF 3	Std 4	RF 4	Std 5	RF 5	Std 6	RF 6	Std 7	RF 7	Std 8	RF 8	RF	%RSD	r <sup>2</sup> COD	Eq Ty
Dichlorodifluoromethane	1	1.010E-01	5	1.160E-01	10	1.150E-01	50	1.470E-01	75	1.480E-01	100	1.310E-01	200	1.500E-01			0.130	15.09		A
Chloromethane	1	2.630E-01	5	2.840E-01	10	2.610E-01	50	2.829E-01	75	2.809E-01	100	2.640E-01	200	2.870E-01			0.274	4.19		A
Vinyl chloride	1	2.330E-01	5	2.490E-01	10	2.370E-01	50	2.630E-01	75	2.630E-01	100	2.389E-01	200	2.590E-01			0.249	5.23		A
Bromomethane	1	1.949E-01	5	1.680E-01	10	1.490E-01	50	1.580E-01	75	1.680E-01	100	1.540E-01	200	1.540E-01			0.164	9.54		A
Chloroethane	1	1.750E-01	5	1.680E-01	10	1.630E-01	50	1.610E-01	75	1.640E-01	100	1.420E-01	200	1.540E-01			0.161	6.54		A
Trichlorofluoromethane	1	2.649E-01	5	2.980E-01	10	2.700E-01	50	3.199E-01	75	3.150E-01	100	2.790E-01	200	2.980E-01			0.292	7.28		A
1,1-Dichloroethene	1	1.570E-01	5	1.949E-01	10	1.620E-01	50	1.959E-01	75	1.950E-01	100	1.690E-01	200	1.770E-01			0.178	9.17		A
Acetone	1	1.560E-01	5	1.320E-01	10	1.160E-01	50	1.250E-01	75	1.170E-01	100	1.140E-01	200	1.040E-01			0.123	13.72		A
Carbon disulfide	1	5.680E-01	5	6.579E-01	10	6.129E-01	50	7.969E-01	75	8.090E-01	100	7.160E-01	200	7.300E-01			0.699	12.94	1.000	A
Methylene chloride	1	1.001E+00	5	3.170E-01	10	2.579E-01	50	2.640E-01	75	2.720E-01	100	2.590E-01	200	2.490E-01			0.374			Q
trans-1,2-Dichloroethene	1	2.300E-01	5	2.780E-01	10	2.410E-01	50	2.739E-01	75	2.599E-01	100	2.410E-01	200	2.420E-01			0.252	7.38		A
1,1-Dichloroethane	1	4.560E-01	5	4.900E-01	10	4.400E-01	50	4.990E-01	75	4.740E-01	100	4.480E-01	200	4.460E-01			0.465	5.00		A
cis-1,2-Dichloroethene	1	2.829E-01	5	3.059E-01	10	2.619E-01	50	2.980E-01	75	2.879E-01	100	2.669E-01	200	2.720E-01			0.282	5.75		A
2-Butanone	1	2.480E-01	5	1.879E-01	10	1.940E-01	50	2.169E-01	75	2.110E-01	100	2.080E-01	200	1.930E-01			0.208	9.77		A
Chloroform	1	4.639E-01	5	4.819E-01	10	4.219E-01	50	4.720E-01	75	4.569E-01	100	4.280E-01	200	4.309E-01			0.451	5.26		A
1,1,1-Trichloroethane	1	3.129E-01	5	3.840E-01	10	3.300E-01	50	3.849E-01	75	3.590E-01	100	3.280E-01	200	3.290E-01			0.347	8.36		A
Carbon tetrachloride	1	2.579E-01	5	3.440E-01	10	2.850E-01	50	3.490E-01	75	3.240E-01	100	2.920E-01	200	2.969E-01			0.307	10.82		A
Benzene	1	1.070E+00	5	1.184E+00	10	1.026E+00	50	1.172E+00	75	1.113E+00	100	1.051E+00	200	1.054E+00			1.096	5.66		A
1,2-Dichloroethane	1	3.499E-01	5	3.600E-01	10	3.319E-01	50	3.600E-01	75	3.540E-01	100	3.400E-01	200	3.370E-01			0.347	3.29		A
Trichloroethene	1	2.809E-01	5	3.240E-01	10	2.780E-01	50	3.230E-01	75	3.059E-01	100	2.850E-01	200	2.910E-01			0.298	6.51		A
1,2-Dichloropropane	1	2.750E-01	5	2.890E-01	10	2.590E-01	50	2.899E-01	75	2.800E-01	100	2.680E-01	200	2.649E-01			0.275	4.28		A
Bromodichloromethane	1	3.389E-01	5	3.510E-01	10	3.269E-01	50	3.670E-01	75	3.580E-01	100	3.440E-01	200	3.440E-01			0.347	3.81		A
cis-1,3-Dichloropropene	1	3.750E-01	5	3.880E-01	10	3.610E-01	50	4.199E-01	75	4.070E-01	100	3.919E-01	200	3.910E-01			0.391	4.95		A
2-Methyl-2-pentanone	1	5.720E-01	5	4.149E-01	10	3.930E-01	50	4.269E-01	75	4.219E-01	100	4.100E-01	200	3.939E-01			0.433	14.48		A

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average  
 \* SPCCs #

6  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019020

SDG No.: CAB32

Instrument ID: 5973B

Calibration Dates: 06/04/2007 14:35

Heated Purge: (Y/N) N

Calibration Times: 06/04/2007 14:35

GC Column: ZB-624 20m ID: 0.18 (mm) Mean % RSD: 6.70

Analyte	Std 1	RF 1	Std 2	RF 2	Std 3	RF 3	Std 4	RF 4	Std 5	RF 5	Std 6	RF 6	Std 7	RF 7	Std 8	RF 8	RF	%RSD	I <sup>2</sup> COD	Eq Ty
Toluene	1	8.470E-01	5	9.840E-01	10	8.399E-01	50	9.940E-01	75	9.279E-01	100	8.790E-01	200	8.909E-01			0.909	6.83		A
trans-1,3-Dichloropropene	1	5.899E-01	5	6.160E-01	10	5.630E-01	50	6.510E-01	75	6.309E-01	100	6.169E-01	200	6.250E-01			0.614	4.69		A
1,1,2-Trichloroethane	1	3.650E-01	5	3.709E-01	10	3.350E-01	50	3.700E-01	75	3.600E-01	100	3.510E-01	200	3.520E-01			0.358	3.59		A
Tetrachloroethene	1	3.980E-01	5	4.740E-01	10	3.980E-01	50	4.799E-01	75	4.410E-01	100	4.110E-01	200	4.320E-01			0.433	7.78		A
2-Hexanone	1	3.890E-01	5	3.800E-01	10	3.610E-01	50	4.239E-01	75	4.170E-01	100	4.100E-01	200	4.000E-01			0.397	5.60		A
Dibromochloromethane	1	3.450E-01	5	3.960E-01	10	3.540E-01	50	4.170E-01	75	4.079E-01	100	3.989E-01	200	4.030E-01			0.389	7.13		A
Chlorobenzene	1	1.010E+00	5	1.066E+00	10	9.359E-01	50	1.072E+00	75	1.031E+00	100	9.940E-01	200	1.005E+00			1.016	4.55		A
Ethylbenzene	1	1.562E+00	5	1.779E+00	10	1.561E+00	50	1.823E+00	75	1.723E+00	100	1.644E+00	200	1.670E+00			1.680	6.03		A
m,p-Xylene	2	6.169E-01	10	7.080E-01	20	6.160E-01	100	7.210E-01	150	6.850E-01	200	6.510E-01	400	6.570E-01			0.665	6.24		A
o-Xylene	1	6.280E-01	5	6.740E-01	10	6.119E-01	50	6.970E-01	75	6.679E-01	100	6.430E-01	200	6.470E-01			0.653	4.48		A
Styrene	1	1.115E+00	5	1.186E+00	10	1.082E+00	50	1.240E+00	75	1.206E+00	100	1.164E+00	200	1.172E+00			1.167	4.57		A
Bromoforn	1	3.400E-01	5	3.400E-01	10	3.089E-01	50	3.580E-01	75	3.610E-01	100	3.569E-01	200	3.660E-01			0.347	5.67		A
1,1,2,2-Tetrachloroethane	1	8.930E-01	5	9.409E-01	10	8.909E-01	50	9.620E-01	75	9.639E-01	100	9.540E-01	200	9.380E-01			0.935	3.29		A
Dibromofluoromethane	50	2.540E-01	55	2.460E-01	60	2.480E-01	65	2.389E-01	70	2.460E-01	75	2.399E-01	80	2.380E-01			0.245	2.32		A
1,2-Dichloroethane-d4	50	2.640E-01	55	2.619E-01	60	2.599E-01	65	2.550E-01	70	2.619E-01	75	2.550E-01	80	2.520E-01			0.258	1.79		A
Toluene-d8	50	1.206E+00	55	1.220E+00	60	1.201E+00	65	1.215E+00	70	1.209E+00	75	1.192E+00	80	1.195E+00			1.206	0.84		A
4-Bromofluorobenzene	50	8.450E-01	55	8.290E-01	60	8.309E-01	65	8.100E-01	70	8.290E-01	75	8.259E-01	80	8.150E-01			0.827	1.37		A

Eq Ty = Equation Type  
Q=Quadratic, L=Linear, A=Average

\* SPCCs #

7  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs  
 Run Sequence: R018866  
 Instrument ID: 5973B  
 Lab File ID: B0620004.D  
 Client Sample No.: VSTD050B1  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 SDG No.: CAB32  
 Calibration Date: 06/20/2007 Time: 11:24  
 Init. Calib. Date(s): 06/04/2007  
 Init. Calib. Time(s): 10:14  
 GC Column: ZB-624 20m ID: 0.18 (mm)

Compound	Equation Type	RF 50.0	%D	%Drift
Dichlorodifluoromethane	A	0.105	18.92	
Chloromethane	A	0.274	0.12	
Vinyl chloride	A	0.243	2.48	
Bromomethane	A	0.146	10.96	
Chloroethane	A	0.157	2.52	
Trichlorofluoromethane	A	0.288	1.54	
1,1-Dichloroethene	A	0.205	-15.15	
Acetone	A	0.137	-11.51	
Carbon disulfide	A	0.678	2.98	
Methylene chloride	Q	0.278		3.20
trans-1,2-Dichloroethene	A	0.277	-9.80	
1,1-Dichloroethane	A	0.527	-13.32	
cis-1,2-Dichloroethene	A	0.301	-6.58	
2-Butanone	A	0.248	-19.26	
Chloroform	A	0.522	-15.67	
1,1,1-Trichloroethane	A	0.396	-14.24	
Carbon tetrachloride	A	0.353	-14.95	
Benzene	A	1.196	-9.09	
1,2-Dichloroethane	A	0.435	-25.49*	
Trichloroethene	A	0.322	-8.01	
1,2-Dichloropropane	A	0.308	-12.16	
Bromodichloromethane	A	0.401	-15.55	
cis-1,3-Dichloropropene	A	0.428	-9.36	
4-Methyl-2-pentanone	A	0.488	-12.63	
Toluene	A	0.942	-3.62	
trans-1,3-Dichloropropene	A	0.637	-3.68	
1,1,2-Trichloroethane	A	0.369	-3.00	
Tetrachloroethene	A	0.432	0.23	
2-Hexanone	A	0.445	-12.09	
Dibromochloromethane	A	0.398	-2.37	
Chlorobenzene	A	1.013	0.29	
Ethylbenzene	A	1.733	-3.17	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R018866SDG No.: CAB32Instrument ID: 5973BCalibration Date: 06/20/2007 Time: 11:24Lab File ID: B0620004.DInit. Calib. Date(s): 06/04/2007Client Sample No.: VSTD050B1Init. Calib. Time(s): 10:14Heated Purge: (Y/N) NGC Column: ZB-624 20m ID: 0.18 (mm)

Compound	Equation Type	RF 50.0	%D	%Drift
m,p-Xylene	A	0.671	-0.85	
o-Xylene	A	0.635	2.74	
Styrene	A	1.151	1.33	
Bromoform	A	0.314	9.58	
1,1,2,2-Tetrachloroethane	A	0.942	-0.74	
Dibromofluoromethane	A	0.255	-3.92	
1,2-Dichloroethane-d4	A	0.295	-14.43	
Toluene-d8	A	1.188	1.51	
4-Bromofluorobenzene	A	0.836	-1.09	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

7  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019020

SDG No.: CAB32

Instrument ID: 5973B

Calibration Date: 06/26/2007 Time: 16:37

Lab File ID: B0626018.D

Init. Calib. Date(s): 06/04/2007

Client Sample No.: VSTD050B6

Init. Calib. Time(s): 10:14

Heated Purge: (Y/N) N

GC Column: ZB-624 20m ID: 0.18 (mm)

Compound	Equation Type	RF 50.0	%D	%Drift
Dichlorodifluoromethane	A	0.095	26.65*	
Chloromethane	A	0.220	19.75	
Vinyl chloride	A	0.205	17.55	
Bromomethane	A	0.132	19.77	
Chloroethane	A	0.141	12.73	
Trichlorofluoromethane	A	0.256	12.32	
1,1-Dichloroethene	A	0.165	7.55	
Acetone	A	0.110	10.83	
Carbon disulfide	A	0.567	18.85	
Methylene chloride	Q	0.255		-5.80
trans-1,2-Dichloroethene	A	0.236	6.29	
1,1-Dichloroethane	A	0.445	4.31	
cis-1,2-Dichloroethene	A	0.260	7.84	
2-Butanone	A	0.216	-3.61	
Chloroform	A	0.432	4.28	
1,1,1-Trichloroethane	A	0.328	5.58	
Carbon tetrachloride	A	0.281	8.34	
Benzene	A	1.029	6.09	
1,2-Dichloroethane	A	0.342	1.50	
Trichloroethene	A	0.281	5.56	
1,2-Dichloropropane	A	0.258	6.17	
Bromodichloromethane	A	0.324	6.58	
cis-1,3-Dichloropropene	A	0.367	6.18	
4-Methyl-2-pentanone	A	0.427	1.28	
Toluene	A	0.885	2.59	
trans-1,3-Dichloropropene	A	0.598	2.65	
1,1,2-Trichloroethane	A	0.346	3.45	
Tetrachloroethene	A	0.418	3.36	
2-Hexanone	A	0.441	-11.20	
Dibromochloromethane	A	0.363	6.70	
Chlorobenzene	A	0.961	5.45	
Ethylbenzene	A	1.638	2.47	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019020SDG No.: CAB32Instrument ID: 5973BCalibration Date: 06/26/2007 Time: 16:37Lab File ID: B0626018.DInit. Calib. Date(s): 06/04/2007Client Sample No.: VSTD050B6Init. Calib. Time(s): 10:14Heated Purge: (Y/N) NGC Column: ZB-624 20m ID: 0.18 (mm)

Compound	Equation Type	RF 50.0	%D	%Drift
m,p-Xylene	A	0.642	3.49	
o-Xylene	A	0.611	6.43	
Styrene	A	1.095	6.16	
Bromoform	A	0.296	14.81	
1,1,2,2-Tetrachloroethane	A	0.916	1.99	
Dibromofluoromethane	A	0.225	8.11	
1,2-Dichloroethane-d4	A	0.243	5.75	
Toluene-d8	A	1.148	4.77	
4-Bromofluorobenzene	A	0.792	4.28	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062007MVOWB1

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R018866  
 Lab Sample ID: B062007MVOWB1  
 Lab File ID: B0620007.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/20/2007 12:45  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U



1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062007MVOWB1

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R018866  
 Lab Sample ID: B062007MVOWB1  
 Lab File ID: B0620007.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/20/2007 12:45  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	<u>ug/L</u>	
124-48-1	Dibromochloromethane	1.0		U
108-90-7	Chlorobenzene	1.0		U
100-41-4	Ethylbenzene	1.0		U
179601-23	m,p-Xylene	2.0		U
95-47-6	o-Xylene	1.0		U
100-42-5	Styrene	1.0		U
75-25-2	Bromoform	1.0		U
79-34-5	1,1,2,2-Tetrachloroethane	1.0		U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607MVOWB1

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: B062607MVOWB1  
 Lab File ID: B0626022.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/26/2007 18:22  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607MVOWB1

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: B062607MVOWB1  
 Lab File ID: B0626022.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/26/2007 18:22  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
124-48-1	Dibromochloromethane	1.0		U
108-90-7	Chlorobenzene	1.0		U
100-41-4	Ethylbenzene	1.0		U
179601-23	m,p-Xylene	2.0		U
95-47-6	o-Xylene	1.0		U
100-42-5	Styrene	1.0		U
75-25-2	Bromoform	1.0		U
79-34-5	1,1,2,2-Tetrachloroethane	1.0		U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062007MVOWB1

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB32

Run Sequence: R018866

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: S062007MVOWB1

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0620005.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/20/2007 11:50

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_(uL)

Soil Aliquot Volume: \_\_\_\_\_(uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	49	
74-87-3	Chloromethane	57	
75-01-4	Vinyl chloride	57	
74-83-9	Bromomethane	48	
75-00-3	Chloroethane	46	
75-69-4	Trichlorofluoromethane	52	
75-35-4	1,1-Dichloroethene	52	
67-64-1	Acetone	61	
75-15-0	Carbon disulfide	42	
75-09-2	Methylene chloride	49	
156-60-5	trans-1,2-Dichloroethene	50	
75-34-3	1,1-Dichloroethane	55	
156-59-2	cis-1,2-Dichloroethene	50	
78-93-3	2-Butanone	59	
67-66-3	Chloroform	55	
71-55-6	1,1,1-Trichloroethane	55	
56-23-5	Carbon tetrachloride	54	
71-43-2	Benzene	49	
107-06-2	1,2-Dichloroethane	57	
79-01-6	Trichloroethene	49	
78-87-5	1,2-Dichloropropane	50	
75-27-4	Bromodichloromethane	54	
10061-01-	cis-1,3-Dichloropropene	57	
108-10-1	4-Methyl-2-pentanone	56	
108-88-3	Toluene	45	
10061-02-	trans-1,3-Dichloropropene	42	
79-00-5	1,1,2-Trichloroethane	46	
127-18-4	Tetrachloroethene	45	
591-78-6	2-Hexanone	56	

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062007MVOWB1

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R018866  
 Lab Sample ID: S062007MVOWB1  
 Lab File ID: B0620005.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/20/2007 11:50  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	<u>ug/L</u>	
124-48-1	Dibromochloromethane	50		
108-90-7	Chlorobenzene	46		
100-41-4	Ethylbenzene	46		
179601-23	m,p-Xylene	92		
95-47-6	o-Xylene	45		
100-42-5	Styrene	44		
75-25-2	Bromoform	43		
79-34-5	1,1,2,2-Tetrachloroethane	48		

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607MVOWB2

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: S062607MVOWB2  
 Lab File ID: B0626020.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/26/2007 17:33  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	35	
74-87-3	Chloromethane	39	
75-01-4	Vinyl chloride	42	
74-83-9	Bromomethane	41	
75-00-3	Chloroethane	41	
75-69-4	Trichlorofluoromethane	45	
75-35-4	1,1-Dichloroethene	55	
67-64-1	Acetone	42	
75-15-0	Carbon disulfide	53	
75-09-2	Methylene chloride	47	
156-60-5	trans-1,2-Dichloroethene	51	
75-34-3	1,1-Dichloroethane	51	
156-59-2	cis-1,2-Dichloroethene	49	
78-93-3	2-Butanone	47	
67-66-3	Chloroform	49	
71-55-6	1,1,1-Trichloroethane	51	
56-23-5	Carbon tetrachloride	50	
71-43-2	Benzene	48	
107-06-2	1,2-Dichloroethane	49	
79-01-6	Trichloroethene	49	
78-87-5	1,2-Dichloropropane	48	
75-27-4	Bromodichloromethane	48	
10061-01-	cis-1,3-Dichloropropene	56	
108-10-1	4-Methyl-2-pentanone	47	
108-88-3	Toluene	49	
10061-02-	trans-1,3-Dichloropropene	44	
79-00-5	1,1,2-Trichloroethane	48	
127-18-4	Tetrachloroethene	49	
591-78-6	2-Hexanone	54	

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607MVOWB2

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019020  
 Lab Sample ID: S062607MVOWB2  
 Lab File ID: B0626020.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/26/2007 17:33  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	49	
108-90-7	Chlorobenzene	49	
100-41-4	Ethylbenzene	49	
179601-23	m,p-Xylene	99	
95-47-6	o-Xylene	48	
100-42-5	Styrene	47	
75-25-2	Bromoform	42	
79-34-5	1,1,2,2-Tetrachloroethane	49	

Comments:

# Forms Summary

CAB32

Ordinance by Method 8330



2  
WATER ORDINANCE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB32

Run Sequence: R019044

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (DNT) #	S2 ( ) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB32-005) 15L4MW07BW	83				0
(CAB32-002) 15L4MW18W	103				0
(CAB32-001) 15L4MW17W	98				0
(S061907HORWLG) S061907HORWLG	110				0
(B061907HORWLG) B061907HORWLG	94				0

QC LIMITS  
60-140

S1 (DNT) = 3,4-Dinitrotoluene  
S2 ( ) =  
S3 ( ) =  
S4 ( ) =

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits

3B  
WATER ORDNANCE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 BS Run Sequence: R019012 SDG No.: CAB32  
 BS Lab Sample ID: S061907HORWLG  
 Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
HMX	20.0	16.9641	85		80-115
RDX	20.0	18.4559	92		50-160
1,3,5-Trinitrobenzene	20.0	15.6782	78		65-140
1,3-Dinitrobenzene	20.0	15.5454	78		45-160
Nitrobenzene	20.0	15.234	76		50-140
Tetryl	20.0	14.6166	73		20-175
2,4,6-Trinitrotoluene	20.0	15.6177	78		50-145
4-Amino-2,6-dinitrotoluene	20.0	16.3461	82		55-155
2-Amino-4,6-dinitrotoluene	20.0	15.9436	80		50-155
2,6-Dinitrotoluene	20.0	14.0388	70		60-135
2,4-Dinitrotoluene	20.0	14.3216	72		60-135
2-Nitrotoluene	20.0	12.7935	64		45-135
4-Nitrotoluene	20.0	13.2407	66		50-130
3-Nitrotoluene	20.0	12.5782	63		50-130

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS:

ORDNANCE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B061907HORWLG

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B061907HORWLG SDG No.: CAB32  
 Matrix: (SOIL/WATER) Water Date Prepared: 06/19/2007  
 Lab File ID (1): 062107.b-06210704.D Lab File ID (2): \_\_\_\_\_  
 Date Analyzed (1): 06/21/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 14:31 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HPLC5 (Oscar) Instrument ID (2): \_\_\_\_\_  
 Column(1): Allure C18 ID: 4.60 (mm) Column(2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
S061907HORWLG	S061907HORWLG	1	O6210705.D	06/21/2007 15:11	R019012
15L4MW17W	CAB32-001	1	O6210716.D	06/21/2007 22:31	R019044
		2			
15L4MW18W	CAB32-002	1	O6210717.D	06/21/2007 23:11	R019044
		2			
15L4MW07BW	CAB32-005	1	O6210718.D	06/21/2007 23:51	R019044
		2			

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B061907HORWLG

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB32

Run Sequence: R019012

Matrix: (SOIL/WATER) Water

Lab Sample ID: B061907HORWLG

Sample wt/vol: 1000.0 (g/mL) mL

Lab File ID: O6210704.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: \_\_\_\_\_

Extraction: (Type) SPE

Date Extracted: 06/19/2007

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 06/21/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.50	U
121-82-4	RDX	0.50	U
99-35-4	1,3,5-Trinitrobenzene	0.50	U
99-65-0	1,3-Dinitrobenzene	0.50	U
98-95-3	Nitrobenzene	0.50	U
479-45-8	Tetryl	0.50	U
118-96-7	2,4,6-Trinitrotoluene	0.50	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.50	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.50	U
606-20-2	2,6-Dinitrotoluene	0.50	U
121-14-2	2,4-Dinitrotoluene	0.50	U
88-72-2	2-Nitrotoluene	0.50	U
99-99-0	4-Nitrotoluene	0.50	U
99-08-1	3-Nitrotoluene	0.50	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S061907HORWLG

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019012  
 Lab Sample ID: S061907HORWLG  
 Lab File ID: O6210705.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/19/2007  
 Date Analyzed: 06/21/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	17.0	
121-82-4	RDX	18.5	
99-35-4	1,3,5-Trinitrobenzene	15.7	
99-65-0	1,3-Dinitrobenzene	15.5	
98-95-3	Nitrobenzene	15.2	
479-45-8	Tetryl	14.6	
118-96-7	2,4,6-Trinitrotoluene	15.6	
19406-51-0	4-Amino-2,6-dinitrotoluene	16.3	
35572-78-2	2-Amino-4,6-dinitrotoluene	15.9	
606-20-2	2,6-Dinitrotoluene	14.0	
121-14-2	2,4-Dinitrotoluene	14.3	
88-72-2	2-Nitrotoluene	12.8	
99-99-0	4-Nitrotoluene	13.2	
99-08-1	3-Nitrotoluene	12.6	

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW17W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019044  
 Lab Sample ID: CAB32-001  
 Lab File ID: O6210716.D  
 Date Collected: 06/18/2007  
 Date Extracted: 06/19/2007  
 Date Analyzed: 06/21/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.48	U
121-82-4	RDX	0.48	U
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW18W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1040.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019044  
 Lab Sample ID: CAB32-002  
 Lab File ID: 06210717.D  
 Date Collected: 06/18/2007  
 Date Extracted: 06/19/2007  
 Date Analyzed: 06/21/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.48	U
121-82-4	RDX	0.48	U
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW07BW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019044  
 Lab Sample ID: CAB32-005  
 Lab File ID: 06210718.D  
 Date Collected: 06/18/2007  
 Date Extracted: 06/19/2007  
 Date Analyzed: 06/21/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.48	U
121-82-4	RDX	0.48	U
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:



# **Forms Summary**

CAB32

Ordinance by Method 8332

2  
WATER ORDINANCE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB32

Run Sequence: R019024

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (DNT) #	S2 ( ) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB32-005) 15L4MW07BW	84				0
(CAB32-002) 15L4MW18W	104				0
(CAB32-001) 15L4MW17W	100				0
(S061907HORWLG2) S061907HORWLG2	81				0
(B061907HORWLG) B061907HORWLG	94				0

QC LIMITS  
60-140

S1 (DNT) = 3,4-Dinitrotoluene  
S2 ( ) =  
S3 ( ) =  
S4 ( ) =

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits

3B  
WATER ORDNANCE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
BS Run Sequence: R019024 SDG No.: CAB32  
BS Lab Sample ID: S061907HORWLG2  
Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Nitroglycerin	10.0	8.0913	81		60-140
PETN	5.00	3.2395	65		60-140

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

ORDNANCE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B061907HORWLG

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B061907HORWLG SDG No.: CAB32  
 Matrix: (SOIL/WATER) Water Date Prepared: 06/19/2007  
 Lab File ID (1): O62207.b-O6220706.D Lab File ID (2): \_\_\_\_\_  
 Date Analyzed (1): 06/22/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 13:18 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HPLC5 (Oscar) Instrument ID (2): \_\_\_\_\_  
 Column(1): Varian C18 ID: 4.60 (mm) Column(2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
15L4MW17W	CAB32-001	1	O6220721.D	06/22/2007 19:48	R019024
15L4MW18W	CAB32-002	1	O6220722.D	06/22/2007 20:14	R019024
15L4MW07BW	CAB32-005	1	O6220723.D	06/22/2007 20:40	R019024
S061907HORWLG2	S061907HORWLG2	1	O6220707.D	06/22/2007 13:44	R019024

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B061907HORWLG

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019024  
 Lab Sample ID: B061907HORWLG  
 Lab File ID: O6220706.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/19/2007  
 Date Analyzed: 06/22/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S061907HORWLG2

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019024  
 Lab Sample ID: S061907HORWLG2  
 Lab File ID: O6220707.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/19/2007  
 Date Analyzed: 06/22/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	8.09	
78-11-5	PETN	3.24	

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW17W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019024  
 Lab Sample ID: CAB32-001  
 Lab File ID: 06220721.D  
 Date Collected: 06/18/2007  
 Date Extracted: 06/19/2007  
 Date Analyzed: 06/22/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.4	U
78-11-5	PETN	1.1	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW18W

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB32

Run Sequence: R019024

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB32-002

Sample wt/vol: 1040.0 (g/mL) mL

Lab File ID: O6220722.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: 06/18/2007

Extraction: (Type) SPE

Date Extracted: 06/19/2007

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 06/22/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.4	U
78-11-5	PETN	1.2	U

Comments:



1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15L4MW07BW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB32  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019024  
 Lab Sample ID: CAB32-005  
 Lab File ID: O6220723.D  
 Date Collected: 06/18/2007  
 Date Extracted: 06/19/2007  
 Date Analyzed: 06/22/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.4	U
78-11-5	PETN	1.1	U

Comments:

**FORMS SUMMARY**

**CAB32**

**Miscellaneous Inorganics**

Laucks Testing Laboratories, Inc.

Final Results

Client: PBS Engineering and Environmental Project: Camp Bonneville  
SDG Number: CAB32  
Sample Number: 15L4MW17W Date/Time Collected: 06/18/2007 13:55  
Lab Sample ID: CAB32-001 Date/Time Received: 06/19/2007 10:00  
Method: E314.0 Unit: ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	1	1.7		1.0	0.14	07/03/2007	07/04/2007	R019226

Laucks Testing Laboratories, Inc.

Final Results

**Client:** PBS Engineering and Environmental      **Project:** Camp Bonneville  
**SDG Number:** CAB32  
**Sample Number:** 15L4MW18W      **Date/Time Collected:** 06/18/2007 14:50  
**Lab Sample ID:** CAB32-002      **Date/Time Received:** 06/19/2007 10:00  
**Method:** E314.0      **Unit:** ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	1	1.0	U	1.0	0.14	07/03/2007	07/04/2007	R019226

Laucks Testing Laboratories, Inc.

Final Results

**Client:** PBS Engineering and Environmental      **Project:** Camp Bonneville  
**SDG Number:** CAB32  
**Sample Number:** 15L4MW07BW      **Date/Time Collected:** 06/18/2007 16:00  
**Lab Sample ID:** CAB32-005      **Date/Time Received:** 06/19/2007 10:00  
**Method:** E314.0      **Unit:** ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	1	3.0		1.0	0.14	07/03/2007	07/04/2007	R019226

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB32 Contract:  
 Run Sequence No. R019226 Concentration Units: ug/L  
 Determination Name: 314.0 Perchlorate  
 Initial Calibration Source: IC-7-24-15  
 Continuing Calibration Source: IC-7-24-17

Analyte	ICV 07/04/2007 18:32				CCV1 07/04/07 18:32			CCV2 07/04/07 18:32			CCV Limits
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	
Perchlorate	40.151	41.793	104.1	75-125	9.988	11.222	112.4	9.988	10.958	109.7	85-115

\* = Percent recovery not within control limits

FORM LTL-RSR-23.0

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**Laucks Testing Laboratories, Inc.**  
**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB32 Contract:  
 Run Sequence No. R019226 Concentration Units: ug/L  
 Determination Name: 314.0 Perchlorate  
 Initial Calibration Source: IC-7-24-15  
 Continuing Calibration Source: IC-7-24-17

Analyte					CCV3 07/04/07 18:32						CCV
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	Limits
Perchlorate					9.988	11.142	111.6				85-115

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION BLANKS**

SDG No: CAB32

Contract:

Run Sequence No.: R019226

Concentration Units: ug/L

Determination Name: 314.0 Perchlorate

Analyte	ICB 07/04/2007 18:32			CCB1 07/04/2007 18:32		CCB2 07/04/2007 18:32		CCB3 07/04/2007 18:32		CCB Limit
	Found	C	Limit	Found	C	Found	C	Found	C	
	Perchlorate	1.0	U	0.5	1.0	U	1.0	U	1.0	U

\* = Control limit exceeded



# Laucks Testing Labs

## Blank Report

Test: 314.0 Perchlorate

SDG ID: CAB32

Lab Sample ID: B070307PERW02

Preparation Date: 7/3/2007

Run Sequence ID: R019226

Analysis Date: 07/04/2007 18:32

Units: ug/L

Matrix: Water

Analyte	Reported	Flag	Limit
Perchlorate	1.0	U	0.5

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB32-001	15L4MW17W
CAB32-002	15L4MW18W
CAB32-005	15L4MW07BW

\* Measured blank concentration exceeded the established control limit

*FORM LTL-RSR-9.0*

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**Laucks Testing Laboratories**  
**Matrix Spike/Matrix Spike Duplicate Report**

Test: 314.0 Perchlorate

SDG ID: CAB32

MS Lab Sample ID: CAB32-005MS 2X

Preparation Date: 07/03/2007

MSD Lab Sample ID: CAB32-005MSD 2X

Run Sequence ID: R019226

Client Sample ID: 15L4MW07BW

Analysis Date: 07/04/2007

Units: ug/L

Matrix: Water

Analyte	Sample Found	MS Spike	MS Found	MS Recovery	MSD Spike	MSD Found	MSD Recovery	RPD	Limits	
									Recovery	RPD
Perchlorate	3.011	40.0	50.96	120%#	40.0	50.54	119%	1%	80-120	15

Associated Samples	
Lab Sample ID	Client Sample ID
CAB32-001	15L4MW17W
CAB32-002	15L4MW18W
CAB32-005	15L4MW07BW

\* = RPD or percent recovery is outside established control limits

# = This RPD or percent recovery is not flagged as an exceedence because the Sample Found amount is five times or more than the Spike Added amount.

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

FORM LTL-RSR-11.0

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# Laucks Testing Laboratories

## BS/BSD Report

Test: 314.0 Perchlorate

SDG ID: CAB32

BS Sample ID: S070307

Preparation Date: 07/03/2007

BSD Sample ID: SD070307

Run Sequence ID: R019226

Analysis Date: 07/04/2007 18:32

Units: ug/L

Matrix: Water

Analyte	Blank Spike			Blank Spike Duplicate			RPD	Limits	
	Added	Found	Recovery	Added	Found	Recovery		Recovery	RPD
Perchlorate	20.0	18.301	92%	20.0	17.713	89%	3%	85-115	

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB32-001	15L4MW17W
CAB32-002	15L4MW18W
CAB32-005	15L4MW07BW

\* = RPD or recovery is outside the established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-7.0*

This report is submitted for the exclusive use of the person, partnership or corporation to whom it is addressed. Subsequent use of the name of this company or any of its staff in connection with the advertising or sale of any product or process will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of trade and science.

**LAUCKS TESTING LABORATORIES**

**SAMPLE DATA PACKAGE**

**PBS ENGINEERING & ENVIRONMENTAL**

**SDG NO.: CAB33**

**JULY 24, 2007**

**LAUCKS TESTING LABORATORIES**

940 S. Harney  
Seattle, WA 98108

To: PBS Engineering & Environmental  
Project Name: Camp Bonneville  
SDG No.: CAB33  
Date of Report: July 24, 2007

**SAMPLE RECEIPT, IDENTIFICATION, AND GENERAL COMMENTS:**

**Sample Receipt and Identification:**

The samples submitted under the laboratory number(s) indicated above were identified and analyzed as tabulated below. The samples were collected and received on the dates noted on the enclosed chain-of-custody copies, Attachment A.

<b><u>Client Sample Identification</u></b>	<b><u>Laucks Sample Identification</u></b>	<b><u>Testing Analytical Request</u></b>
15LCMW01SW	CAB33-001	VOA/ABN/ORD/TPHG/TPHD/MET/ ALK/ANIONS/TOC/TSS/PERC
15LCMW01DW	CAB33-002	VOA/ABN/ORD/TPHG/TPHD/MET/ ALK/ANIONS/TOC/TSS/PERC
MS/MSD	CAB33-003	ANIONS
15LCMW02SW	CAB33-004	VOA/ABN/ORD/TPHG/TPHD/MET/ ALK/ANIONS/TOC/TSS/PERC
15LCMW02DW	CAB33-005	VOA/ABN/ORD/TPHG/TPHD/MET/ ALK/ANIONS/TOC/TSS/PERC
15LCMW01SW (Filt.)	CAB33-006	MET/DOC
15LCMW01DW (Filt.)	CAB33-007	MET/DOC
15LCMW02SW (Filt.)	CAB33-008	MET/DOC
15LCMW02D (Filt.)	CAB33-009	MET/DOC
TRIP BLANK	CAB33-010	VOA

**Analytical Request Key:**

VOA =	Volatile Organics by Method 8260B
ABN =	Semi-Volatiles by Method 8270D
ORD =	Ordnance by Method 8330 PETN/Nitroglycerin by Method 8332 Picric Acid by Modified 8330
TPHD =	Total Petroleum Hydrocarbons-Diesel by NWTPH
TPHG =	Total Petroleum Hydrocarbons-Gasoline by NWTPH
MET =	Priority Pollutant Metals by Methods 6020/7470A
ALK =	Alkalinity, Carbonate and Bicarbonate by Method 310.1M
ANIONS =	Chloride, Nitrate, Nitrite, Sulfate by Method 300.0
TOC =	Total Organic Carbon by Method 415.1M*
DOC =	Dissolved Organic Carbon by Method 415.1M*

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940 S. Harney  
Seattle, WA 98108

TSS = Total Suspended Solids by Method 160.2  
PERC = Ammonium Perchlorate by Method 314.0

### \*TOC/DOC:

Singleton analysis was performed for this project as approved by the client. This modification is less expensive and meets project DQOs but does not meet NELAC guidelines.

### Sample Receipt Comments:

The temperature blanks for the samples on COCs 43121 and 43123 measured above the control limit of 6 deg C.

### GENERAL REMARKS ON ORGANIC ANALYSES:

The following comments describe general analysis conditions. For remarks specific to the samples reported in this case, see "SPECIFIC REMARKS ON ORGANIC ANALYSIS."

#### Manual Integrations:

One or more analytes may have been manually integrated on the data system quantitation reports. All manual integrations have been flagged, initialed, and dated by the analyst. A list of the manual integration flags is detailed below.

M	Manual integration due to irregular peak shape
MS	Manual integration due to split peak
MR	Manual integration due to retention time shift
MI	Manual integration of correct isomer
MT	Manual integration due to peak tailing
MB	Manual integration due to irregular baseline

#### Holding Time Compliance:

##### *Volatile Organic Compounds:*

The holding time is 14 days calculated from date of collection in both soil and water samples. All samples were analyzed within holding time.

##### *Semi-Volatile Organic Compounds:*

The holding time to extraction is 7 days in water and 14 days in soil calculated from the date of collection. In either case, the holding time from extraction to analysis is 40 days. All samples were extracted and analyzed within holding time.

##### *Ordnance, PETN/Nitroglycerin, Picric Acid*

The holding time to extraction is 7 days in water and 14 days in soil calculated from date of collection. The holding time from extraction to analysis is 40 days. All samples were extracted and analyzed within holding time.

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### *TPH Gasoline Fraction:*

The holding time for analysis is 14 days in water and soil calculated from the date of collection. All samples were analyzed within holding times.

### *TPH Diesel Fraction:*

The holding time to extraction, which is calculated from the date of collection, is 7 days for water samples and 14 days for soil samples. In either case, the holding time from extraction to analysis is 40 days. All samples were extracted and analyzed within holding times.

### **Volatile Fraction (8260):**

All quality control parameters were met.

### **Semivolatiles Fraction:**

#### Second Source Calibration Verification Analysis:

Analysis of the second source standard ICV071207-2 resulted in %D values for 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol and benzidine that exceeded 25% due to decreased response. Because sample results are reported well below the reporting limit (RL) the chance of reporting any false negatives for these compounds at the RL is negligible.

#### Continuing Calibration Verification (CCV):

Analysis of the CCV performed on 07/18/07 yielded a % difference value for benzoic acid that exceeded 20% due to a decrease in response. Because sample results are reported well below the reporting limit (RL) the chance of reporting any false negatives for this compound at the RL is negligible.

#### Surrogate Recoveries:

Analysis of MSD performed on sample extract 15LCMW01DW yielded a low surrogate recovery for 2-fluorobiphenyl. Because analyses of MS and the original sample yielded all surrogate recoveries within the control limits, no further action was taken.

#### Blank Spike Analysis:

Analysis of the blank spike S062507MSVWLT resulted in slightly low recoveries for 2,4,6-trichlorophenol and 4,6-dinitro-2-methylphenol. Because these recoveries were within the marginal exceedance limits, no further action was necessary.

#### MS/MSD Analyses:

MS/MSD analyses performed on sample 15LCMW01DW yielded zero recoveries for 2,4-dinitrophenol, 4-nitrophenol and 4,6-dinitro-2-methylphenol and low recoveries for a number of target analytes. In addition, RPD values exceeded the control limits for several compounds. Because most of these analytes recovered within the control limits in the associated blank spike, no further action was taken.

### **Ordnance Fraction:**

#### MS/MSD Analyses:

MSD analysis performed on sample 15LCMW01DW yielded a slightly low recovery for HMX. All other recoveries and RPD values were within the control limits. All blank spike recoveries were within the control limits. No further action was taken.

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Seattle, WA 98108

### PETN/Nitroglycerin Fraction:

#### Quality Control Analyses:

MS/MSD analyses were performed on sample 15LCMW01DW. The RPD for Nitroglycerin and recovery value of PETN fell outside of the established control limits. Because all recoveries in the associated blank spike were within the control limits, no corrective action was taken.

#### Surrogate Recovery:

Analysis of the sample extract 15LCMW01DWMSD yielded a low surrogate recovery. All other surrogates were within the control limits. No further action was taken.

### Picric Acid Fraction:

All quality control parameters were met.

### NWTPH Gasoline Fraction:

NWTPHG was used to quantitate the samples for gasoline. Gasoline range responses were determined by summing the responses of all components, resolved and unresolved, between toluene and naphthalene. Quantitation was based on the average calibration factor.

#### Quality Control Analyses:

MS/Duplicate analyses were performed on sample 15LCMW01DW. All recoveries and relative percent differences were within the established limits.

All quality control parameters were met.

### NWTPH Diesel Fraction:

NWTPD-D was used to quantitate the samples for diesel and oil. Diesel range responses were determined by summing the responses of all components, resolved and unresolved, between C<sub>12</sub> and C<sub>24</sub> integrated to a horizontal baseline. Oil range responses were determined by summing the responses of all components, resolved and unresolved, between C<sub>24</sub> and C<sub>40</sub> integrated to a horizontal baseline. Quantitation was based on a linear regression.

All quality control parameters were met.

## GENERAL REMARKS ON INORGANIC ANALYSES:

The following comments describe general analysis conditions. For remarks specific to the samples reported in this case, see "SPECIFIC REMARKS ON INORGANIC ANALYSES."

### ICP-MS Metals:

On the first timed and dated page of each ICP-MS run, the data to be reported or rejected will be tabulated for that run.



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Seattle, WA 98108

## Mercury:

Laucks purchases a 1000 mg/L Hg stock solution from Inorganic Ventures. The 0.5 mg/L working standard is made by diluting 100 uL to 200 mL with 0.15% HNO<sub>3</sub>. The calibration curve is made by placing 0, 20, 50, 100, 200, 500 and 1000 uL of the working standard digestion vessels and diluting up to 50 mL. The standard curve is equivalent to 0, 0.2, 0.5, 1.0, 2.0, 5.0 and 10.0 ug/L.

## **SPECIFIC REMARKS ON INORGANIC ANALYSES:**

### Holding Time Compliance:

Laucks calculates holding time compliance for inorganic determinations using the date on which reportable data were acquired.

### Metals:

The holding time for metals is six months from the date of collection, excepting mercury, which is 28 days. All analyses were performed within holding time.

### Miscellaneous:

The following analytes do not have a Contract Laboratory Program holding time. The holding times tabulated below derive from the relevant EPA methods and are applicable when the sample was appropriately preserved and/or cooled. All samples submitted followed the preservation guidelines unless explicitly noted otherwise.

<u>Analyte</u>	<u>Holding Time</u>	<u>Violations</u>
Alkalinity	14 days	None
Chloride	28 days	None
Nitrate	48 hours	None
Nitrite	48 hours	None
Sulfate	28 days	None
Total Organic Carbon	28 days	None
Dissolved Organic Carbon	28 days	None
Total Suspended Solids	7 days	None
Perchlorate	28 days	None

### ICP Metals:

The serial dilutions for the element zinc did not agree within 10% of the original determination after correction for dilution for samples 15LCMW01DW and 15LCMW01DW (Filt.). No further corrective action was required. All relevant data have been flagged with an "E" on the applicable Forms I and IX.

For the run sequence R019216, several CCVs exceeded the upper control limit for beryllium. Those samples that were reported contained concentrations of beryllium that were less than the CRDL. Quality control data for beryllium were reported and were within control limits. No corrective action was required. Data have not been flagged for these events.

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For the run sequence R019325, the third and fourth CCVs exceeded the upper control limit for beryllium. Those samples that were reported contained concentrations of beryllium that were less than the CRDL. Data have not been flagged for these events.

For the run sequence R019325, the third CCV exceeded the upper control limit for chromium. Those samples that were reported contained concentrations of chromium that were less than the CRDL. Data have not been flagged for this event.

For the run sequence R019216, antimony was present in the ICB at a level greater than 1/2 the CRDL. All samples contained concentrations of antimony that were less than the CRDL, therefore no further corrective action was required. Quality control data were reported and were within control limits. Data have not been flagged for this event.

For the run sequence R019216, the scandium internal standard percent recovery for samples 15LCMW01SW, 15LCMW01DW, 15LCMW02SW, 15LCMW02DW, and 15LCMW01DW (Filt.) fell outside of the suggested control limits of 30-120% of the intensity of scandium in the initial calibration verification sample. Beryllium and chromium are associated with this internal standard. Therefore, results for beryllium and chromium for samples were reanalyzed (see R019325) and reported from a five-fold dilution where the scandium internal standard is within the control limits.

The post spike sample percent recoveries for all elements in run sequence R019325 were approximately 200% for sample 15LCMW01DW due to the internal standard recoveries failing at approximately 50%. Since the recoveries of the matrix spike sample were within the control limits of 75-125%, no corrective action was taken. Data have not been flagged for this event.

### Mercury:

No comments.

### Miscellaneous Inorganics:

For run sequence R018984, the matrix spike and matrix spike duplicate recoveries were outside the established control limits for the sulfate analysis. All other quality control elements are within control limits for the sulfate analysis. Therefore, no further action was taken.

For run sequence R018984, the matrix spike duplicate recovery was outside the established control limits for the chloride and nitrate analyses. All other quality control elements are within control limits. Therefore, no further action was taken.

## LAUCKS TESTING LABORATORIES

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Seattle, WA 98108

### ABBREVIATIONS

Several abbreviations can appear in our reports. The most commonly employed abbreviations are as follows:

- U The analyte of interest was not detected to the limit of detection indicated.
- SDL Sample Detection Limit. The SDL can vary from sample to sample, depending on sample size, matrix interferences, moisture content and other sample-specific conditions.
- PQL Practical Quantitation Limit. The limit is drawn from the test method and usually represents the SDL multiplied by a matrix-specific factor.
- DB Dry Basis. The value reported has been back-calculated to normalize for the moisture content of the sample.
- AR As-Received. The value has not been normalized for moisture.

### ORGANIC ANALYSES:

- B When used in relation to organics fractions, the "B" flag indicates that the analyte of interest was detected in the method blank associated with the sample, as well as in the sample itself. The "B" flag is applied without regard to the relative concentrations detected in the blank and sample.
  - J The analyte of interest was detected below the routine reporting limit. This value should be regarded as an estimate.
  - T The flagged values represent the SUM of two co-eluting compounds. The SUM of these two values is shown as though it were a result for each of them. The two figures should not be added together.
  - E The flagged value was reported from an analysis that exceeded the linear range of the instrument. See additional comments for further discussion of the circumstances. Values so flagged should be considered estimates.
  - P When a dual column GC technique is employed, this flag indicates that test results from the two columns differ by more than 25%. Generally, we report the higher value.
  - C The flagged analyte has been confirmed by GC/MS analysis. The value reported may be derived from either the initial or confirmatory (GC/MS) analysis. See specific report comments for details.
  - Z When two or more sets of results are submitted, the Z-flagged data indicates that this is the secondary result.
- CRQL Client requested Quantitation Limit, usually the limit of detection specified at your request. Might also be referred to as Contract Required Quantitation Limit.

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### INORGANIC ANALYSES:

- J The reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL). If the analyte was analyzed for but not detected, a "U" shall be entered.
  - E The reported value is estimated because of the presence of interference. The serial dilution was not within control limits.
  - N Spiked sample recovery not within control limits.
  - \* Duplicate analysis not within control limits.
- CRDL Client Requested Detection Limit, usually the limit of detection specified at your request. Might also be referred to as Contract Required Detection Limit.

**LAUCKS TESTING LABORATORIES**

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Seattle, WA 98108

RELEASE OF DATA

Laucks certifies that these results meet all requirements of the NELAC standards, except where otherwise noted.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."

Respectfully submitted,



Mike Baxter  
Project Manager

21 July 2007  
(DATE)



Harry Romberg  
Quality Assurance Officer

7/24/07  
(DATE)

*HOW TO CONTACT US:*

All Laucks Testing Laboratories staff members can be reached at the same telephone and facsimile numbers: (206) 767-5060 by phone, (206) 767-5063 by FAX.

*REQUESTS FOR DUPLICATE COPIES:*

This packet has been checked for accuracy. All pages are present and in sequential order. Please see Attachment B for a detailed record.

In the event that duplicate data copies are needed, Laucks will accommodate your request at a fee of twenty-five cents (\$0.25) per copy, plus shipping. If the data are in storage, there will also be a fee for retrieval.

**LAUCKS TESTING LABORATORIES**

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Seattle, WA 98108

**ATTACHMENT A**

Chain-of-Custody Copies

LAUCKS TESTING LABORATORIES, INC. - SAMPLE CONFIRMATION LOG																	
Sample ID (SDG-#)	VTSR	Collected On	Client ID	160.2 Total Suspended Solids	300.0 NO3, NO2, Cl, SO4	310.1M Carb./Bicarb. Alkalinity	314.0 perchlorate	415.1 Dissolved Organic Carbon	415.1 Total Organic Carbon	6020 Diss. Pollutant Metals	6020 Total Pollutant Metals	7470 Diss. Mercury	7470 Total Mercury	8260B VOCs (LTL Routine)	8270C SVOCs (LTL Routine, 2-pH)	8330 Explosive Residue	
CAB33-001	06/22/2007	06/21/2007 10:10 AM	15LCMW01SW	A-	A+	IN	IN		A-		P+		A-	A-	P+		P+
*CAB33-002	06/22/2007	06/21/2007 10:10 AM	15LCMW01DW	A-	A+	IN	IN		A-		P+		A-	A-	P+		P+
*CAB33-003	06/22/2007	06/21/2007 10:10 AM	MS/MSD		A+												
CAB33-004	06/22/2007	06/21/2007 10:10 AM	15LCMW02SW	A-	A+	IN	IN		A-		P+		A-	A-	P+		P+
CAB33-005	06/22/2007	06/21/2007 10:10 AM	15LCMW02DW	A-	A+	IN	IN		A-		P+		A-	A-	P+		P+
CAB33-006	06/22/2007	06/21/2007 10:10 AM	15LCMW01SW (FILC)														
*CAB33-007	06/22/2007	06/21/2007 10:10 AM	15LCMW01DW (FILC)														
CAB33-008	06/22/2007	06/21/2007 10:10 AM	15LCMW02SW (FILC)														
CAB33-009	06/22/2007	06/21/2007 10:10 AM	15LCMW02D (FILC)														
CAB33-010	06/22/2007	06/21/2007 10:10 AM	TRIP BLANK														

Approved By: *[Signature]*

On: *6/22/07*

LEGEND: - : Started , + : Completed , IN : Logged In , P : Preparation , A : Analysis , X : Cancelled , PL : Pre-logged  
 FORM LTL-PM-8.0

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING (SEE BELOW)

2658

COMPANY: PBS  
 ADDRESS: 4912 SW Corbett  
Portland, OR 97239  
 ATTENTION: Drew Harvey  
Garop Bonneville  
 PROJECT NAME: Drew Harvey  
 PROJECT CONTACT: Drew Harvey  
 TELEPHONE: 503-417-7413 FAX: 503-248-0223  
 JOB/P.O. NO.: 20489.000 - T62016

CHAIN OF CUSTODY RECORD

43121

SDG #

PAGE 1 OF 1

WORK ORDER ID#

SUBMITTED AT:

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063  
 1106 Ledwith Ave., Yakima, WA 98902 (509) 248-4695 FAX 452-1265

**Lauck's**  
 Testing Laboratories, Inc. **13**

TESTS TO PERFORM

MATRIX: WATER, SOIL OR SPECIFY	NO. OF CONTAINERS
VOCS	X
EXPLOSIVES	X
PETN/NG	X
PERCHLORATE	X
SVOCS	X
PICRIC ACID	X
TSS/ALKALINS	X
TOTAL METALS	X
DISSOLVED METALS	X
NWTPH - DA	X
NWTPH - 6X	X
DOC *	X
TDC	X

OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS

LAB #	SAMPLE ID / LOCATION	DATE	TIME	NO. CONTAINERS	TESTS TO PERFORM	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
1	15 LCMWD ORS W	6/11/07	11:00	3	X	* FIELD FILTER
2	15 LCMWD O1DN	6/11/07	12:45	3	X	
3	MS/MSD	6/21/07	12:45	3	X	
4	15 LCMWD ORS W	6/21/07	15:00	3	X	
5	15 LCMWD 62DU	6/21/07	16:50	3	X	MS/MSD taken from 15 LCMWD O1DN
6	10 TRIPBLANK	6/21/07		2	X	

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

- INSTRUCTIONS:
1. USE ONE LINE PER SAMPLE
  2. BE SPECIFIC IN TEST REQUESTS.
  3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

NAME: \_\_\_\_\_ ADDRESS: \_\_\_\_\_  
 ATTN: \_\_\_\_\_ CITY, STATE, ZIP: \_\_\_\_\_

\* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL

30 TOTAL NO. OF CONTAINERS

TURNAROUND REQUEST

STD. 10-14 WORKING DAYS

\*  24-48 HRS. (100% SUR)

\*  72 HRS. (75% SUR)

\*  5 DAYS (50% SUR)

OTHER: \_\_\_\_\_

TEMP: \_\_\_\_\_

CUSTODY SEAL:  Y  N  N/A

RELINQUISHED BY (SIGN AND PRINT)

RECEIVED BY (SIGN AND PRINT)

DATE TIME

6/21/07  
 6/21/07  
 10:10

MIKE SOWDEN  
 Serial Dist

Finance Charges and/or Collection Fees may be applied to delinquent accounts.

FINAL REPORT COPY





**Supplemental Sample Receipt Log**  
**Laucks Testing Laboratories**

SDG: CAB33  
Cooler: AAK403  
Temperatures: 10.0  
COC #: 43121

Sample	Bottle #	Bottle Description	pH	Bubbles
CAB33-001	0001	1000 mL cylinder, poly	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	1000 mL boston round, amber glass	7	N/A
	0006	1000 mL boston round, amber glass	7	N/A
	0007	1000 mL boston round, amber glass	7	N/A
	0008	1000 mL boston round, amber glass	7	N/A
	0009	1000 mL boston round, amber glass	7	N/A
	0010	1000 mL cylinder, poly, HNO3	<2	N/A
	0011	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0012	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0013	40 ml OTWS, clear glass, HCl	N/C	None
	0014	40 ml OTWS, clear glass, HCl	N/C	None
	0015	40 ml OTWS, clear glass, HCl	N/C	None
	0016	40 ml OTWS, clear glass, HCl	N/C	None
	0017	40 ml OTWS, clear glass, HCl	N/C	None
	0018	40 ml OTWS, clear glass, HCl	N/C	None
	0019	500 ml boston round, clear glass, HCl	<2	N/A
	0020	500 ml boston round, clear glass, HCl	<2	N/A
	0021	500 ml cylinder, poly	7	N/A
CAB33-002	0002	40 ml OTWS, clear glass, HCl	N/C	None
	0003	40 ml OTWS, clear glass, HCl	N/C	None
	0004	40 ml OTWS, clear glass, HCl	N/C	None
CAB33-003	0019	40 ml OTWS, clear glass, HCl	N/C	None
	0020	40 ml OTWS, clear glass, HCl	N/C	None
	0021	40 ml OTWS, clear glass, HCl	N/C	None
CAB33-004	0021	40 ml OTWS, clear glass, HCl	N/C	None
	0022	40 ml OTWS, clear glass, HCl	N/C	None
	0023	40 ml OTWS, clear glass, HCl	N/C	None
CAB33-005	0019	40 ml OTWS, clear glass, HCl	N/C	None

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH

**Supplemental Sample Receipt Log**  
**Laucks Testing Laboratories**

SDG: CAB33

Cooler: AAK403

Temperatures: 10.0

COC #: 43121

Sample	Bottle #	Bottle Description	pH	Bubbles
	0020	40 ml OTWS, clear glass, HCl	N/C	None
	0021	40 ml OTWS, clear glass, HCl	N/C	None
CAB33-006	0001	1000 mL cylinder, poly, HNO3 Filtered	<2	N/A
	0002	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0003	40 ml OTWS, clear glass, H3PO4	N/C	N/A
CAB33-010	0001	40 ml OTWS, clear glass, HCl	N/C	None
	0002	40 ml OTWS, clear glass, HCl	N/C	None

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING (SEE BELOW)

2058

CHAIN OF CUSTODY RECORD

43111

PAGE 1 OF 1

SDG #

**Laucks**  
Testing Laboratories, Inc.

WORK ORDER ID#

SUBMITTED AT:

940 South Harbor St, Seattle WA 98108 (206) 767-5060 FAX 767-5063  
1106 Lockwich Ave., Yakima, WA 98902 (509) 248-4695 FAX 452-1265

COMPANY: PBS  
 ADDRESS: 4412 SW Corbett  
Portland, OR 97239  
 ATTENTION: Drew Harvey  
 PROJECT NAME: Camp Bonneville  
 PROJECT CONTACT: Drew Harvey  
 TELEPHONE: 503-417-7693 FAX: 503-248-0203  
 JOB/P.O. NO.: 70489000-76206

LAB SA# SAMPLE ID / LOCATION DATE TIME

LAB SA#	SAMPLE ID / LOCATION	DATE	TIME	MATRIX: WATER, SOIL OR SPECIFY	NO. OF CONTAINERS	EXPLOSIVES	PETN ING	PERCHLORATE	SYNCS	PICROGARD	TSS/SALK/LIONS	TOTAL METALS	DISSOLVED METALS	MUTPH-DX	MUTPH-GX	ADOC	TDC	REMARKS	
	<del>15 LUMWOOD</del>																		
	<u>15 LUMWOOD</u>	<u>6/21/07</u>																	<u>FIELD FILTERED</u>

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

**INSTRUCTIONS**

1. USE ONE LINE PER SAMPLE.
2. BE SPECIFIC IN TEST REQUESTS.
3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

**BILLING INFORMATION IF DIFFERENT THAN ABOVE**

NAME: \_\_\_\_\_ ADDRESS: \_\_\_\_\_  
 CITY, STATE, ZIP: \_\_\_\_\_

RECEIVED BY (SIGN AND PRINT)

DATE

RELINQUISHED BY (SIGN AND PRINT)  
Mike Hill  
Mike Goveal

DATE TIME  
6/21/07  
1815

DATE TIME  
6/13/07  
10:10

**\* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL**

2 TOTAL NO. OF CONTAINERS

STD. 10-14 WORKING DAYS

\* 24-48 HRS. (100% SUR)

\* 72 HRS. (75% SUR)

\* 5 DAYS (50% SUR)

OTHER:

TEMP:

CUSTODY SEAL:  Y  N  N/A

REMARKS  
 COMMENTS, SPECIAL INSTRUCTIONS



**Supplemental Sample Receipt Log  
Laucks Testing Laboratories**

SDG: CAB33  
Cooler: AAT171  
Temperatures: 5.9  
COC #: 43111

Sample	Bottle #	Bottle Description	pH	Bubbles	
CAB33-002	0001	1000 mL cylinder, poly	7	N/A	
	0005	1000 mL boston round, amber glass	7	N/A	
	0006	1000 mL boston round, amber glass	7	N/A	
	0007	1000 mL boston round, amber glass	7	N/A	
	0008	1000 mL boston round, amber glass	7	N/A	
	0009	1000 mL boston round, amber glass	7	N/A	
	0010	1000 mL boston round, amber glass	7	N/A	
	0011	1000 mL boston round, amber glass	7	N/A	
	0012	1000 mL boston round, amber glass	7	N/A	
	0013	1000 mL cylinder, poly, HNO3	<2	N/A	
	0014	40 ml OTWS, clear glass, H3PO4	N/C	N/A	
	0015	40 ml OTWS, clear glass, H3PO4	N/C	N/A	
	0016	40 ml OTWS, clear glass, HCl	N/C	None	
	0017	40 ml OTWS, clear glass, HCl	N/C	None	
	0018	40 ml OTWS, clear glass, HCl	N/C	None	
	0019	500 ml boston round, clear glass, HCl	<2	N/A	
	0020	500 ml boston round, clear glass, HCl	<2	N/A	
	0021	500 ml cylinder, poly	7	N/A	
	CAB33-007	0001	1000 mL cylinder, poly, HNO3 Filtered	<2	N/A
		0002	40 ml OTWS, clear glass, H3PO4	N/C	N/A
		0003	40 ml OTWS, clear glass, H3PO4	N/C	N/A

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING (SEE BELOW)

26558

COMPANY: DBS

ADDRESS: 4412 SW CORBETT

PORTLAND, OR 97239

ATTENTION: DREW HARVEY

PROJECT NAME: CAMP BONNEVILLE

PROJECT CONTACT: Drew Harvey

TELEPHONE: 503-417-7813 FAX: 503-278-0023

JOB/PO. NO.: 70489 000 T6206

CHAIN OF CUSTODY RECORD SDG # \_\_\_\_\_

43122 CAB333 Page 1 of 1

WORK ORDER ID# \_\_\_\_\_ SUBMITTED AT: \_\_\_\_\_

TESTS TO PERFORM

Testing Laboratories, Inc. 20  
240 South Harvey St, Seattle, WA 98108 (206) 767-5060 FAX 767-5063  
1106 Ledwith Ave., Yakima, WA 98902 (509) 248-4695 FAX 452-1265



MATRIX: WATER, SOIL OR SPECIFY	NO. OF CONTAINERS
EXPLOSIVES	
DET/NING	
PERCHLORATE	
SUDG.	
DIPROACID	
TSS/ALKALIONS	
TOTAL METALS	
DISSOLVED METALS	
NWTPH - D	
NWTPH - G	
* DOC	
TOC	

OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS

LABS#4 SAMPLE ID / LOCATION DATE TIME

M/S/WSP 6/21/07 10:10 AM

\* FIELD FILTERED

M/S/WSP taken from 15cm down

1

3

A. A standard turnaround time is assumed unless otherwise marked.

B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

INSTRUCTIONS

1. USE ONE LINE PER SAMPLE.
2. BE SPECIFIC IN TEST REQUESTS.
3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

NAME

BILLING INFORMATION, IF DIFFERENT THAN ABOVE

ADDRESS

\* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL

TOTAL NO. OF CONTAINERS

ATTN:

CITY, STATE, ZIP

TURNAROUND REQUEST

Upto 10-14 WORKING DAYS

PRELIMINARIES BY (SIGN AND PRINT)

DATE TIME

RECEIVED BY (SIGN AND PRINT)

DATE TIME

Mike Smith

6/21/07

10:10

5 DAYS (50% SUR)

OTHER: \_\_\_\_\_

MIKE GOOTU

6/21/07

10:10

TEMP: \_\_\_\_\_

CUSTOMER SEAL:  Y  N  N/A

Finance Charges and/or Collection Fees may be applied to delinquent accounts.

**Cooler Receipt Form**  
**Laucks Testing Laboratories, Inc.**

SDG: CAB33 Taken By: CLIENT

Cooler: AAD583 Transferred: FED EX

COC #: 43122

Project: Camp Bonneville (PBS Engineering and Environmental)

Date samples were received at the laboratory: 6/22/2007

Date cooler was opened: 6/22/2007 10:10AM

**A. PRELIMINARY EXAMINATION PHASE:**

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES  
if YES, record carrier name and airbill number: 8620 5447 0225
2. Were custody seals unbroken and intact at the date and time of arrival? ..... INTACT  
Date On Custody Seal: Custody Seals Description: ONE IN FRONT AND BACK.
3. Were custody papers sealed in a plastic bag and taped inside to the lid? ..... YES
4. Did you screen samples for radioactivity using the Geiger Counter? ..... NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... YES
6. Did you sign custody papers in the appropriate place? ..... YES
7. If required, was enough cooling material present? ..... YES
8. Have designated person initial here to acknowledge receipt of cooler: FW

**B. LOG-IN PHASE:**

Date samples were logged in: 6/22/2007 10:20AM

Logged-in by Zoriah Weith (sign) [Signature]

9. Describe type of packing in cooler:

10. Were all bottles sealed in separate plastic bags? ..... YES
11. Were labels in good condition? ..... YES
12. Were all bottle labels complete (ID,date,time signature,preservative,etc.)? ..... YES
13. Did all bottle labels agree with custody papers? ..... YES
14. Were correct containers used for the tests indicated? ..... YES
15. Were the correct pHs observed? ..... YES
16. Was a sufficient amount of sample sent for tests indicated? ..... YES
17. Were bubbles absent in VOA samples? ..... YES
18. Temperatures: 5.8

DISCREPANCIES:



**Supplemental Sample Receipt Log**  
**Laucks Testing Laboratories**

SDG: CAB33  
Cooler: AAD583  
Temperatures: 5.8  
COC #: 43122

Sample	Bottle #	Bottle Description	pH	Bubbles
CAB33-003	0001	1000 mL cylinder, poly	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	1000 mL boston round, amber glass	7	N/A
	0006	1000 mL boston round, amber glass	7	N/A
	0007	1000 mL boston round, amber glass	7	N/A
	0008	1000 mL boston round, amber glass	7	N/A
	0009	1000 mL boston round, amber glass	7	N/A
	0010	1000 mL cylinder, poly, HNO3	<2	N/A
	0011	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0012	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0013	40 ml OTWS, clear glass, HCl	N/C	None
	0014	40 ml OTWS, clear glass, HCl	N/C	None
	0015	40 ml OTWS, clear glass, HCl	N/C	None
	0016	500 ml boston round, clear glass, HCl	<2	N/A
	0017	500 ml boston round, clear glass, HCl	<2	N/A
	0018	500 ml cylinder, poly	7	N/A
CAB33-011	0001	1000 mL cylinder, poly, HNO3 Filtered	<2	N/A
	0002	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0003	40 ml OTWS, clear glass, H3PO4	N/C	N/A

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH



**Cooler Receipt Form**  
**Laucks Testing Laboratories, Inc.**

SDG: CAB33 Taken By: CLIENT

Cooler: AAD419 Transferred: FED EX

COC #: 43123

Project: Camp Bonneville (PBS Engineering and Environmental)

Date samples were received at the laboratory: 6/22/2007

Date cooler was opened: 6/22/2007 10:10AM

**A. PRELIMINARY EXAMINATION PHASE:**

1. Did cooler come with a shipping slip (airbill, etc.)? YES  
if YES, record carrier name and airbill number: 8620 5447 0225
2. Were custody seals unbroken and intact at the date and time of arrival? INTACT  
Date On Custody Seal: Custody Seals Description: ONE IN FRONT AN BACK.
3. Were custody papers sealed in a plastic bag and taped inside to the lid? YES
4. Did you screen samples for radioactivity using the Geiger Counter? NO
5. Were custody papers filled out properly (ink, signed, etc.)? YES
6. Did you sign custody papers in the appropriate place? YES
7. If required, was enough cooling material present? YES
8. Have designated person initial here to acknowledge receipt of cooler: *M*

**B. LOG-IN PHASE:**

Date samples were logged-in: 6/22/2007 10:20AM

Logged-in by Zorrah Weith (sign) *[Signature]*

9. Describe type of packing in cooler:
  
10. Were all bottles sealed in separate plastic bags? YES
11. Were labels in good condition? YES
12. Were all bottle labels complete (ID,date,time signature,preservative,etc.)? YES
13. Did all bottle labels agree with custody papers? YES
14. Were correct containers used for the tests indicated? YES
15. Were the correct pHs observed? YES
16. Was a sufficient amount of sample sent for tests indicated? YES
17. Were bubbles absent in VOA samples? YES
18. Temperatures: 8.2

DISCREPANCIES:

SAMPLES RECIEVED ABOVE TEMPERATURE CONTROL.

**Supplemental Sample Receipt Log**  
**Laucks Testing Laboratories**

SDG: CAB33  
Cooler: AAD419  
Temperatures: 8.2  
COC #: 43123

Sample	Bottle #	Bottle Description	pH	Bubbles	
CAB33-004	0001	1000 mL cylinder, poly	7	N/A	
	0002	1000 mL boston round, amber glass	7	N/A	
	0003	1000 mL boston round, amber glass	7	N/A	
	0004	1000 mL boston round, amber glass	7	N/A	
	0005	1000 mL boston round, amber glass	7	N/A	
	0006	1000 mL boston round, amber glass	7	N/A	
	0007	1000 mL boston round, amber glass	7	N/A	
	0008	1000 mL boston round, amber glass	7	N/A	
	0009	1000 mL boston round, amber glass	7	N/A	
	0010	1000 mL cylinder, poly, HNO3	<2	N/A	
	0011	40 ml OTWS, clear glass, H3PO4	N/C	N/A	
	0012	40 ml OTWS, clear glass, H3PO4	N/C	N/A	
	0015	40 ml OTWS, clear glass, HCl	N/C	None	
	0016	40 ml OTWS, clear glass, HCl	N/C	None	
	0017	40 ml OTWS, clear glass, HCl	N/C	None	
	0018	500 ml boston round, clear glass, HCl	<2	N/A	
	0019	500 ml boston round, clear glass, HCl	<2	N/A	
	0020	500 ml cylinder, poly	7	N/A	
	CAB33-008	0001	1000 mL cylinder, poly, HNO3 Filtered	<2	N/A
		0002	40 ml OTWS, clear glass, H3PO4	N/C	N/A
0003		40 ml OTWS, clear glass, H3PO4	N/C	N/A	

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH



**Cooler Receipt Form**  
**Laucks Testing Laboratories, Inc.**

SDG: CAB33 Taken By: CLIENT

Cooler: AAD510 Transferred: FED EX

COC #: 43124

Project: Camp Bonneville (PBS Engineering and Environmental)

Date samples were received at the laboratory: 6/22/2007

Date cooler was opened: 6/22/2007 10:10AM

**A. PRELIMINARY EXAMINATION PHASE:**

1. Did cooler come with a shipping slip (airbill, etc.)? YES  
if YES, record carrier name and airbill number: 8620 5447 0225
2. Were custody seals unbroken and intact at the date and time of arrival? INTACT  
Date On Custody Seal: Custody Seals Description: ONE IN FRONT AND BACK.
3. Were custody papers sealed in a plastic bag and taped inside to the lid? YES
4. Did you screen samples for radioactivity using the Geiger Counter? NO
5. Were custody papers filled out properly (ink, signed, etc.)? YES
6. Did you sign custody papers in the appropriate place? YES
7. If required, was enough cooling material present? YES
8. Have designated person initial here to acknowledge receipt of cooler: M

**B. LOG-IN PHASE:**

Date samples were logged-in: 6/22/2007 10:20AM

Logged-in by Zorah Weith (sign) [Signature]

9. Describe type of packing in cooler:

10. Were all bottles sealed in separate plastic bags? YES
11. Were labels in good condition? YES
12. Were all bottle labels complete (ID,date,time signature,preservative,etc.)? YES
13. Did all bottle labels agree with custody papers? YES
14. Were correct containers used for the tests indicated? YES
15. Were the correct pHs observed? YES
16. Was a sufficient amount of sample sent for tests indicated? YES
17. Were bubbles absent in VOA samples? YES
18. Temperatures: 4.3

DISCREPANCIES:

**Supplemental Sample Receipt Log  
Laucks Testing Laboratories**

SDG: CAB33

Cooler: AAD510

Temperatures: 4.3

COC #: 43124

Sample	Bottle #	Bottle Description	pH	Bubbles
CAB33-005	0001	1000 mL cylinder, poly	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	1000 mL boston round, amber glass	7	N/A
	0006	1000 mL boston round, amber glass	7	N/A
	0007	1000 mL boston round, amber glass	7	N/A
	0008	1000 mL boston round, amber glass	7	N/A
	0009	1000 mL boston round, amber glass	7	N/A
	0010	1000 mL cylinder, poly, HNO3	<2	N/A
	0011	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0012	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0013	40 ml OTWS, clear glass, HCl	N/C	None
	0014	40 ml OTWS, clear glass, HCl	N/C	None
	0015	40 ml OTWS, clear glass, HCl	N/C	None
	0016	500 ml boston round, clear glass, HCl	<2	N/A
	0017	500 ml boston round, clear glass, HCl	<2	N/A
	0018	500 ml cylinder, poly	7	N/A
CAB33-008	0004	1000 mL cylinder, poly, HNO3 Filtered	<2	N/A
	0005	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0006	40 ml OTWS, clear glass, H3PO4	N/C	N/A

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH

**LAUCKS TESTING LABORATORIES**  
940 S. Harney  
Seattle, WA 98108

**ATTACHMENT B**

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**LAUCKS TESTING LABORATORIES**

940 S. Harney  
Seattle, WA 98108

**PBS Engineering & Environmental**

**SDG No.: CAB33**

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Completed and checked by: Andy Esklund Date: 7/24/07

**FORMS SUMMARY**

SDG CAB33

VOLATILES ANALYSIS

2  
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB33

Run Sequence: R019108

Level: (LOW/MED) NONE

CLIENT SAMPLE NUMBER	SMC1 (DBF) #	SMC2 (DCA) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
(CAB33-002MSD) 15LCMW01DWMSD	103	106	109	108	0
(CAB33-002MS) 15LCMW01DWMS	104	107	107	107	0
(CAB33-005) 15LCMW02DW	103	108	103	107	0
(CAB33-004) 15LCMW02SW	102	107	105	104	0
(CAB33-002) 15LCMW01DW	101	105	104	106	0
(CAB33-001) 15LCMW01SW	102	106	106	106	0
(CAB33-010) TRIP BLANK	100	106	105	107	0
(B062807MVOWB1) B062807MVOWB1	100	106	107	108	0
(S062807MVOWB1) S062807MVOWB1	102	106	107	106	0

	QC LIMITS
SMC1 (DBF) = Dibromofluoromethane	85-115
SMC2 (DCA) = 1,2-Dichloroethane-d4	70-120
SMC3 (TOL) = Toluene-d8	85-120
SMC4 (BFB) = 4-Bromofluorobenzene	75-120

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits

3B  
WATER VOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 BS Run Sequence: R019108 SDG No.: CAB33  
 BS Lab Sample ID: S062807MVOWB1  
 Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Dichlorodifluoromethane	50.0	26.82	54		30-155
Chloromethane	50.0	34.46	69		40-125
Vinyl chloride	50.0	36	72		50-145
Bromomethane	50.0	35.79	72		30-145
Chloroethane	50.0	34.79	70		60-135
Trichlorofluoromethane	50.0	40.01	80		60-145
1,1-Dichloroethene	50.0	56.45	113		70-130
Acetone	50.0	43.56	87		40-140
Carbon disulfide	50.0	49.03	98		35-160
Methylene chloride	50.0	50.81	102		55-140
trans-1,2-Dichloroethene	50.0	53.26	107		60-140
1,1-Dichloroethane	50.0	54.17	108		70-135
cis-1,2-Dichloroethene	50.0	51.49	103		70-125
2-Butanone	50.0	47.84	96		30-150
Chloroform	50.0	51.8	104		65-135
1,1,1-Trichloroethane	50.0	52.88	106		65-130
Carbon tetrachloride	50.0	51.37	103		65-140
Benzene	50.0	50.67	101		80-120
1,2-Dichloroethane	50.0	52.85	106		70-130
Trichloroethene	50.0	50.55	101		70-125
1,2-Dichloropropane	50.0	50.54	101		75-125
Bromodichloromethane	50.0	50.7	101		75-120
cis-1,3-Dichloropropene	50.0	58.1	116		70-130
4-Methyl-2-pentanone	50.0	48.23	96		60-135
Toluene	50.0	51.48	103		75-120
trans-1,3-Dichloropropene	50.0	45.97	92		55-140
1,1,2-Trichloroethane	50.0	48.61	97		75-125
Tetrachloroethene	50.0	50.11	100		45-150
2-Hexanone	50.0	53.02	106		55-130
Dibromochloromethane	50.0	49.35	99		60-135
Chlorobenzene	50.0	51.12	102		80-120
Ethylbenzene	50.0	51.12	102		75-125
m,p-Xylene	100	102.53	103		75-130
o-Xylene	50.0	50.19	100		80-120

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

Spike Recovery: 0 out of 37 outside limits

COMMENTS:

3B  
WATER VOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

BS Run Sequence: R019108 SDG No.: CAB33

BS Lab Sample ID: S062807MVOWB1

Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Styrene	50.0	48.75	98		65-135
Bromoform	50.0	42.36	85		70-130
1,1,2,2-Tetrachloroethane	50.0	50.65	101		65-130

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 37 outside limits

COMMENTS:

3  
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 MS Run Sequence: R019108 MSD Run Sequence: R019108 SDG No.: CAB33  
 MS Client Sample No.: 15LCMW01DWMS MSD Client Sample No.: 15LCMW01DWMSD  
 MS Lab Sample ID: CAB33-002MS MSD Lab Sample ID: CAB33-002MSD  
 Level: N/A Units: ug/L

COMPOUND	SAMPLE CONC	MS SPIKE ADDED	MS CONC	MS % REC #	MSD SPIKE ADDED	MSD CONC	MSD % REC #	%RPD #	QC LIMITS	
									RPD	REC.
Dichlorodifluoromethane	0	50.0	36.19	72	50.0	33.09	66	9	30	30-155
Chloromethane	0	50.0	44.89	90	50.0	41.6	83	8	30	40-125
Vinyl chloride	0	50.0	46.13	92	50.0	42.41	85	8	30	50-145
Bromomethane	0	50.0	42.35	85	50.0	39.66	79	7	30	30-145
Chloroethane	0	50.0	42.98	86	50.0	42.02	84	2	30	60-135
Trichlorofluoromethane	0	50.0	40.62	81	50.0	37.59	75	8	30	60-145
1,1-Dichloroethene	0	50.0	53	106	50.0	49.81	100	6	30	70-130
Acetone	0	50.0	55.56	111	50.0	63.77	128	14	30	40-140
Carbon disulfide	0	50.0	46.39	93	50.0	44.62	89	4	30	35-160
Methylene chloride	0	50.0	47.24	94	50.0	44.67	89	6	30	55-140
trans-1,2-Dichloroethene	0	50.0	51.33	103	50.0	47.98	96	7	30	60-140
1,1-Dichloroethane	0	50.0	52.86	106	50.0	50.06	100	5	30	70-135
cis-1,2-Dichloroethene	0	50.0	50.17	100	50.0	48.07	96	4	30	70-125
2-Butanone	0	50.0	56.34	113	50.0	59.05	118	5	30	30-150
Chloroform	0	50.0	50.26	101	50.0	47.88	96	5	30	65-135
1,1,1-Trichloroethane	0	50.0	50.71	101	50.0	48.95	98	4	30	65-130
Carbon tetrachloride	0	50.0	48.16	96	50.0	46.91	94	3	30	65-140
Benzene	0	50.0	48.41	97	50.0	46.57	93	4	30	80-120

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits  
 @ This RPD or percent recovery is not flagged as an exceedence because the Sample Found amount is five times or more than the Spike Added amount.

RPD: 0 out of 37 outside limits  
 Spike Recovery: 0 out of 74 outside limits

COMMENTS:

## WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 MS Run Sequence: R019108 MSD Run Sequence: R019108 SDG No.: CAB33  
 MS Client Sample No.: 15LCMW01DWMS MSD Client Sample No.: 15LCMW01DWMSD  
 MS Lab Sample ID: CAB33-002MS MSD Lab Sample ID: CAB33-002MSD  
 Level: N/A Units: ug/L

COMPOUND	SAMPLE CONC	MS SPIKE ADDED	MS CONC	MS % REC #	MSD SPIKE ADDED	MSD CONC	MSD % REC #	%RPD #	QC LIMITS	
									RPD	REC.
1,2-Dichloroethane	0	50.0	51.94	104	50.0	50.43	101	3	30	70-130
Trichloroethene	0	50.0	48.39	97	50.0	46.29	93	4	30	70-125
1,2-Dichloropropane	0	50.0	48.95	98	50.0	48.1	96	2	30	75-125
Bromodichloromethane	0	50.0	48.8	98	50.0	47.97	96	2	30	75-120
cis-1,3-Dichloropropene	0	50.0	54.02	108	50.0	52.97	106	2	30	70-130
4-Methyl-2-pentane	0	50.0	53.91	108	50.0	54.45	109	1	30	60-135
Toluene	0	50.0	49.59	99	50.0	48.6	97	2	30	75-120
trans-1,3-Dichloropropene	0	50.0	43.14	86	50.0	42.73	85	1	30	55-140
1,1,2-Trichloroethane	0	50.0	47.79	96	50.0	47.89	96	0	30	75-125
Tetrachloroethene	0	50.0	48.16	96	50.0	46.69	93	3	30	45-150
2-Hexanone	0	50.0	59.87	120	50.0	60.8	122	2	30	55-130
Dibromochloromethane	0	50.0	48.35	97	50.0	48.37	97	0	30	60-135
Chlorobenzene	0	50.0	48.99	98	50.0	47.7	95	3	30	80-120
Ethylbenzene	0	50.0	48.46	97	50.0	47.22	94	3	30	75-125
m,p-Xylene	0	100	97.23	97	100	94.43	94	3	30	75-130
o-Xylene	0	50.0	47.48	95	50.0	46.31	93	2	30	80-120
Styrene	0	50.0	46.04	92	50.0	44.73	89	3	30	65-135
Bromoform	0	50.0	38.48	77	50.0	39.97	80	4	30	70-130
1,1,2,2-Tetrachloroethane	0	50.0	49.51	99	50.0	50.15	100	1	30	65-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

@ This RPD or percent recovery is not flagged as an exceedence because the Sample Found amount is five times or more than the Spike Added amount.

RPD: 0 out of 37 outside limits

Spike Recovery: 0 out of 74 outside limits

COMMENTS:

4  
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062807MVOWB1

Lab Name Laucks Testing Labs Contract: \_\_\_\_\_  
 SDG No.: CAB33  
 Lab File ID: B0628011.D Lab Sample ID: B062807MVOWB1  
 Date Analyzed: 06/28/2007 Time Analyzed: 13:41  
 GC Column: ZB-624 20m ID: 0.18 (mm) Heated Purge: (Y/N) N  
 Instrument ID: 5973B Matrix: Water

	CLIENT SAMPLE NO.	LAB SAMPLE ID.	LAB FILE ID.	DATE ANALYZED	TIME ANALYZED	RUN SEQUENCE
01	S062807MVOWB1	S062807MVOWB1	B0628008.D	06/28/2007	12:25	R019108
02	TRIP BLANK	CAB33-010	B0628013.D	06/28/2007	14:32	R019108
03	15LCMW01SW	CAB33-001	B0628025.D	06/28/2007	19:42	R019108
04	15LCMW01DW	CAB33-002	B0628026.D	06/28/2007	20:06	R019108
05	15LCMW02SW	CAB33-004	B0628027.D	06/28/2007	20:42	R019108
06	15LCMW02DW	CAB33-005	B0628028.D	06/28/2007	21:07	R019108
07	15LCMW01DWMS	CAB33-002MS	B0628032.D	06/28/2007	22:49	R019108
08	15LCMW01DWMSD	CAB33-002MSD	B0628033.D	06/28/2007	23:30	R019108
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COMMENTS: \_\_\_\_\_  
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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

BFB25NG

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: CAL948 SDG No.: CAB33  
 Lab File ID: B0604007.D BFB Injection Date: 06/04/2007  
 Instrument ID: 5973B BFB Injection Time: 10:14  
 GC Column ZB-624 20m ID: 0.18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15% to 40% of mass 95	16.6
75	30% to 60% of mass 95	43.3
95	base peak, 100% relative abundance	100
96	5% to 9% of mass 95	7.6
173	less than 2% of mass 174	0()1
174	greater than 50% of mass 95	97.7
175	5% to 9% of mass 17	7.4()1
176	greater than 95%, but less than 101% of mass 174	98.7()1
177	5% to 9% of mass 176	7()2

1 - Value is %mass 174

2 - Value is %mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD001	VSTD001	B0604009.D	06/04/2007	11:23
02	VSTD005	VSTD005	B0604011.D	06/04/2007	12:30
03	VSTD010	VSTD010	B0604012.D	06/04/2007	12:55
04	VSTD050	VSTD050	B0604013.D	06/04/2007	13:20
05	VSTD075	VSTD075	B0604014.D	06/04/2007	13:45
06	VSTD100	VSTD100	B0604015.D	06/04/2007	14:10
07	VSTD200	VSTD200	B0604016.D	06/04/2007	14:35
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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

BFBB1

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019108 SDG No.: CAB33  
 Lab File ID: B0628006.D BFB Injection Date: 06/28/2007  
 Instrument ID: 5973B BFB Injection Time: 11:34  
 GC Column ZB-624 20m ID: 0.18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15% to 40% of mass 95	16.3
75	30% to 60% of mass 95	43.9
95	base peak, 100% relative abundance	100
96	5% to 9% of mass 95	6.7
173	less than 2% of mass 174	0()1
174	greater than 50% of mass 95	100
175	5% to 9% of mass 17	7.5()1
176	greater than 95%, but less than 101% of mass 174	98.4()1
177	5% to 9% of mass 176	6.6()2

1 - Value is %mass 174

2 - Value is %mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050B1	VSTD050B1	B0628007.D	06/28/2007	11:58
02	S062807MVOWB1	S062807MVOWB1	B0628008.D	06/28/2007	12:25
03	B062807MVOWB1	B062807MVOWB1	B0628011.D	06/28/2007	13:41
04	TRIP BLANK	CAB33-010	B0628013.D	06/28/2007	14:32
05	15LCMW01SW	CAB33-001	B0628025.D	06/28/2007	19:42
06	15LCMW01DW	CAB33-002	B0628026.D	06/28/2007	20:06
07	15LCMW02SW	CAB33-004	B0628027.D	06/28/2007	20:42
08	15LCMW02DW	CAB33-005	B0628028.D	06/28/2007	21:07
09	15LCMW01DWMS	CAB33-002MS	B0628032.D	06/28/2007	22:49
10	15LCMW01DWMSD	CAB33-002MSD	B0628033.D	06/28/2007	23:30
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## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019108 SDG No.: CAB33  
 Client Sample No. (VSTD050##): VSTD050B1 Date Analyzed: 06/28/2007  
 Lab File ID (Standard): B0628007.D Time Analyzed: 11:58  
 Instrument ID: 5973B Heated Purge: (Y/N) N  
 GC Column: ZB-624 20m ID: 0.18 (mm)

	IS1 (FBZ) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	602968	6.24	446383	9.42	241161	11.74
UPPER LIMIT	1205936	6.74	892766	9.92	482322	12.24
LOWER LIMIT	301484	5.74	223191.5	8.92	120580.5	11.24
CLIENT SAMPLE NO.						
01 S062807MVOWB1	588603	6.24	441939	9.42	237818	11.73
02 B062807MVOWB1	592244	6.24	435738	9.42	224470	11.73
03 TRIP BLANK	571893	6.24	429642	9.42	225331	11.73
04 I5LCMW01SW	570976	6.24	427723	9.42	227268	11.73
05 I5LCMW01DW	544322	6.24	410938	9.42	223350	11.74
06 I5LCMW02SW	558810	6.24	424523	9.42	231316	11.73
07 I5LCMW02DW	545492	6.24	418858	9.42	228459	11.74
08 I5LCMW01DWMS	572249	6.24	421973	9.42	220519	11.73
09 I5LCMW01DWMSD	591631	6.24	429935	9.42	220854	11.73
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22						

IS1 (FBZ) = Fluorobenzene  
 IS2 (CBZ) = Chlorobenzene-d5  
 IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area  
 AREA LOWER LIMIT = - 50% of internal standard area  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01SW

Lab Name: \_\_\_\_\_  
 SDG No.: CAB33  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: CAB33-001  
 Lab File ID: B0628025.D  
 Date Collected: 06/21/2007  
 Date/Time Analyzed: 06/28/2007 19:42  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01SW

Lab Name: \_\_\_\_\_ Contract: \_\_\_\_\_  
 SDG No.: CAB33 Run Sequence: R019108  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: CAB33-001  
 Sample wt/vol: 5.00 (g/mL) mL Lab File ID: B0628025.D  
 Level: (LOW/MED) \_\_\_\_\_ Date Collected: 06/21/2007  
 % Moisture: not dec. \_\_\_\_\_ Date/Time Analyzed: 06/28/2007 19:42  
 GC Column: ZB-624 20m ID: 0.18 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DW

Lab Name: \_\_\_\_\_ Contract: \_\_\_\_\_  
 SDG No.: CAB33 Run Sequence: R019108  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: CAB33-002  
 Sample wt/vol: 5.00 (g/mL) mL Lab File ID: B0628026.D  
 Level: (LOW/MED) \_\_\_\_\_ Date Collected: 06/21/2007  
 % Moisture: not dec. \_\_\_\_\_ Date/Time Analyzed: 06/28/2007 20:06  
 GC Column: ZB-624 20m ID: 0.18 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DW

Lab Name: \_\_\_\_\_  
 SDG No.: CAB33  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: CAB33-002  
 Lab File ID: B0628026.D  
 Date Collected: 06/21/2007  
 Date/Time Analyzed: 06/28/2007 20:06  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02SW

Lab Name: \_\_\_\_\_  
 SDG No.: CAB33  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: CAB33-004  
 Lab File ID: B0628027.D  
 Date Collected: 06/21/2007  
 Date/Time Analyzed: 06/28/2007 20:42  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U



1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02SW

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB33

Run Sequence: R019108

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: CAB33-004

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0628027.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/21/2007

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/28/2007 20:42

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02DW

Lab Name: \_\_\_\_\_  
 SDG No.: CAB33  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: CAB33-005  
 Lab File ID: B0628028.D  
 Date Collected: 06/21/2007  
 Date/Time Analyzed: 06/28/2007 21:07  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02DW

Lab Name: \_\_\_\_\_  
 SDG No.: CAB33  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: CAB33-005  
 Lab File ID: B0628028.D  
 Date Collected: 06/21/2007  
 Date/Time Analyzed: 06/28/2007 21:07  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: \_\_\_\_\_ Contract: \_\_\_\_\_  
 SDG No.: CAB33 Run Sequence: R019108  
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: CAB33-010  
 Sample wt/vol: 5.00 (g/mL) mL Lab File ID: B0628013.D  
 Level: (LOW/MED) \_\_\_\_\_ Date Collected: 06/21/2007  
 % Moisture: not dec. \_\_\_\_\_ Date/Time Analyzed: 06/28/2007 14:32  
 GC Column: ZB-624 20m ID: 0.18 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	1.1	J
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB33

Run Sequence: R019108

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: CAB33-010

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0628013.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/21/2007

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/28/2007 14:32

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

6  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Iaucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019108 SDG No.: CAB33  
 Instrument ID: 5973B Calibration Dates: 06/04/2007 14:35  
 Heated Purge: (V/N) N Calibration Times: 06/04/2007 14:35  
 GC Column: ZB-624 20m ID: \_\_\_\_\_ Mean % RSD: 6.70  
 O.L.E. (mm) \_\_\_\_\_

Analyte	Std 1	RF 1	Std 2	RF 2	Std 3	RF 3	Std 4	RF 4	Std 5	RF 5	Std 6	RF 6	Std 7	RF 7	Std 8	RF 8	RF	%RSD	$\chi^2$ COD	Eq Ty
Dichlorodifluoromethane	1	1.010E-01	5	1.160E-01	10	1.150E-01	50	1.470E-01	75	1.480E-01	100	1.310E-01	200	1.500E-01			0.130	15.09		A
Chloromethane	1	2.630E-01	5	2.840E-01	10	2.610E-01	50	2.829E-01	75	2.809E-01	100	2.640E-01	200	2.870E-01			0.274	4.19		A
Vinyl chloride	1	2.330E-01	5	2.490E-01	10	2.370E-01	50	2.630E-01	75	2.630E-01	100	2.389E-01	200	2.590E-01			0.249	5.23		A
Bromomethane	1	1.949E-01	5	1.680E-01	10	1.490E-01	50	1.580E-01	75	1.680E-01	100	1.540E-01	200	1.540E-01			0.164	9.54		A
Chloroethane	1	1.750E-01	5	1.680E-01	10	1.630E-01	50	1.610E-01	75	1.640E-01	100	1.420E-01	200	1.540E-01			0.161	6.54		A
Trichlorofluoromethane	1	2.649E-01	5	2.980E-01	10	2.700E-01	50	3.199E-01	75	3.150E-01	100	2.790E-01	200	2.980E-01			0.292	7.28		A
1,1-Dichloroethene	1	1.570E-01	5	1.949E-01	10	1.620E-01	50	1.959E-01	75	1.930E-01	100	1.690E-01	200	1.770E-01			0.178	9.17		A
Acetone	1	1.560E-01	5	1.320E-01	10	1.160E-01	50	1.250E-01	75	1.170E-01	100	1.140E-01	200	1.040E-01			0.123	13.72		A
Carbon disulfide	1	5.680E-01	5	6.579E-01	10	6.129E-01	50	7.969E-01	75	8.090E-01	100	7.160E-01	200	7.300E-01			0.699	12.94		A
Methylene chloride	1	1.001E+00	5	3.170E-01	10	2.579E-01	50	2.640E-01	75	2.720E-01	100	2.590E-01	200	2.490E-01			0.374		1.000	Q
trans-1,2-Dichloroethene	1	2.300E-01	5	2.780E-01	10	2.410E-01	50	2.739E-01	75	2.599E-01	100	2.410E-01	200	2.420E-01			0.252	7.38		A
1,1-Dichloroethane	1	4.560E-01	5	4.900E-01	10	4.400E-01	50	4.990E-01	75	4.740E-01	100	4.480E-01	200	4.460E-01			0.465	5.00		A
cis-1,2-Dichloroethene	1	2.829E-01	5	3.059E-01	10	2.619E-01	50	2.980E-01	75	2.879E-01	100	2.669E-01	200	2.720E-01			0.282	5.75		A
2-Butanone	1	2.480E-01	5	1.879E-01	10	1.940E-01	50	2.169E-01	75	2.110E-01	100	2.080E-01	200	1.930E-01			0.208	9.77		A
Chloroform	1	4.639E-01	5	4.819E-01	10	4.219E-01	50	4.720E-01	75	4.569E-01	100	4.280E-01	200	4.309E-01			0.451	5.26		A
1,1,1-Trichloroethane	1	3.129E-01	5	3.840E-01	10	3.300E-01	50	3.849E-01	75	3.590E-01	100	3.280E-01	200	3.290E-01			0.347	8.36		A
Carbon tetrachloride	1	2.579E-01	5	3.440E-01	10	2.850E-01	50	3.490E-01	75	3.240E-01	100	2.920E-01	200	2.969E-01			0.307	10.82		A
Benzene	1	1.070E+00	5	1.184E+00	10	1.026E+00	50	1.172E+00	75	1.113E+00	100	1.051E+00	200	1.054E+00			1.096	5.66		A
1,2-Dichloroethane	1	3.499E-01	5	3.600E-01	10	3.319E-01	50	3.600E-01	75	3.540E-01	100	3.400E-01	200	3.370E-01			0.347	3.29		A
Trichloroethene	1	2.809E-01	5	3.240E-01	10	2.780E-01	50	3.230E-01	75	3.059E-01	100	2.850E-01	200	2.910E-01			0.298	6.51		A
1,2-Dichloropropane	1	2.750E-01	5	2.890E-01	10	2.590E-01	50	2.899E-01	75	2.800E-01	100	2.680E-01	200	2.649E-01			0.275	4.28		A
Bromodichloromethane	1	3.389E-01	5	3.510E-01	10	3.269E-01	50	3.670E-01	75	3.580E-01	100	3.440E-01	200	3.440E-01			0.347	3.81		A
cis-1,3-Dichloropropene	1	3.750E-01	5	3.880E-01	10	3.610E-01	50	4.199E-01	75	4.070E-01	100	3.919E-01	200	3.910E-01			0.391	4.95		A
4-Methyl-2-pentanone	1	5.720E-01	5	4.149E-01	10	3.930E-01	50	4.269E-01	75	4.219E-01	100	4.100E-01	200	3.939E-01			0.433	14.48		A

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average  
 \* SPCCS #

SUM - 21

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019108 SDG No.: CAB33  
 Instrument ID: 5973B Calibration Dates: 06/04/2007 14:35  
 Heated Purge: (Y/N) N Calibration Times: 06/04/2007 14:35  
 GC Column: ZB-624 20m ID: 0.18 (mm) Mean % RSD: 6.70

Analyte	Std	RF 1	Std	RF 2	Std	RF 3	Std	RF 4	Std	RF 5	Std	RF 6	Std	RF 7	Std	RF 8	RF	%RSD	I <sup>2</sup> COD	Eq Ty
Toluene	1	8.470E-01	5	9.840E-01	10	8.399E-01	50	9.940E-01	75	9.279E-01	100	8.790E-01	200	8.909E-01			0.909	6.83		A
trans-1,3-Dichloropropene	1	5.899E-01	5	6.160E-01	10	5.630E-01	50	6.510E-01	75	6.309E-01	100	6.169E-01	200	6.250E-01			0.614	4.69		A
1,1,2-Trichloroethane	1	3.650E-01	5	3.709E-01	10	3.350E-01	50	3.700E-01	75	3.600E-01	100	3.510E-01	200	3.520E-01			0.358	3.59		A
Tetrachloroethene	1	3.980E-01	5	4.740E-01	10	3.980E-01	50	4.799E-01	75	4.410E-01	100	4.110E-01	200	4.320E-01			0.433	7.78		A
2-Hexanone	1	3.890E-01	5	3.800E-01	10	3.610E-01	50	4.239E-01	75	4.170E-01	100	4.100E-01	200	4.000E-01			0.397	5.60		A
Dibromochloromethane	1	3.450E-01	5	3.960E-01	10	3.540E-01	50	4.170E-01	75	4.079E-01	100	3.989E-01	200	4.030E-01			0.389	7.13		A
Chlorobenzene	1	1.010E+00	5	1.066E+00	10	9.359E-01	50	1.072E+00	75	1.031E+00	100	9.940E-01	200	1.005E+00			1.016	4.55		A
Ethylbenzene	1	1.562E+00	5	1.779E+00	10	1.561E+00	50	1.823E+00	75	1.723E+00	100	1.644E+00	200	1.670E+00			1.680	6.03		A
m,p-Xylene	2	6.169E-01	10	7.080E-01	20	6.160E-01	100	7.210E-01	150	6.850E-01	200	6.510E-01	400	6.570E-01			0.665	6.24		A
o-Xylene	1	6.280E-01	5	6.740E-01	10	6.119E-01	50	6.970E-01	75	6.679E-01	100	6.430E-01	200	6.470E-01			0.653	4.48		A
Styrene	1	1.115E+00	5	1.186E+00	10	1.082E+00	50	1.240E+00	75	1.206E+00	100	1.164E+00	200	1.172E+00			1.167	4.57		A
Bromoforn	1	3.400E-01	5	3.400E-01	10	3.089E-01	50	3.580E-01	75	3.610E-01	100	3.569E-01	200	3.660E-01			0.347	5.67		A
1,1,2,2-Tetrachloroethane	1	8.930E-01	5	9.409E-01	10	8.909E-01	50	9.620E-01	75	9.639E-01	100	9.540E-01	200	9.380E-01			0.935	3.29		A
Dibromofluoromethane	50	2.540E-01	55	2.460E-01	60	2.480E-01	65	2.389E-01	70	2.460E-01	75	2.399E-01	80	2.380E-01			0.245	2.32		A
1,2-Dichloroethane-d4	50	2.640E-01	55	2.619E-01	60	2.599E-01	65	2.550E-01	70	2.619E-01	75	2.550E-01	80	2.520E-01			0.258	1.79		A
Toluene-d8	50	1.206E+00	55	1.220E+00	60	1.201E+00	65	1.215E+00	70	1.209E+00	75	1.192E+00	80	1.195E+00			1.206	0.84		A
4-Bromofluorobenzene	50	8.450E-01	55	8.290E-01	60	8.309E-01	65	8.100E-01	70	8.290E-01	75	8.259E-01	80	8.150E-01			0.827	1.37		A

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average  
 \* SPCCS #

**INITIAL  
SECOND SOURCE CALIBRATION VERIFICATION**

Lab Name: Laucks Testing Laboratories, Inc.

Initial Calibration ID: B8260W-060407

Instrument ID: 5973B

Concentration Units: ug/L

2nd Source ID: ICV060607MVOB1

Analyte	Equation Type	Expected	Found	%D
1,1,1,2-Tetrachloroethane	A	50.00	49.24	1.52
1,1,1-Trichloroethane	A	50.00	53.79	7.58
1,1,2,2-Tetrachloroethane	A	50.00	50.09	0.18
1,1,2-Trichloroethane	A	50.00	49.57	0.86
1,1-Dichloroethane	A	50.00	54.42	8.84
1,1-Dichloroethene	A	50.00	61.74	23.48
1,1-Dichloropropene	A	50.00	56.82	13.64
1,2,3-Trichlorobenzene	A	50.00	55.01	10.02
1,2,3-Trichloropropane	A	50.00	47.73	4.54
1,2,4-Trichlorobenzene	A	50.00	54.31	8.62
1,2,4-Trimethylbenzene	A	50.00	50.47	0.94
1,2-Dibromo-3-chloropropane	A	50.00	49.81	0.38
1,2-Dibromoethane	A	50.00	50.86	1.72
1,2-Dichlorobenzene	A	50.00	51.04	2.08
1,2-Dichloroethane	A	50.00	51.85	3.70
1,2-Dichloroethane-d4	A	50.00	50.27	0.54
1,2-Dichloropropane	A	50.00	50.72	1.44
1,3,5-Trimethylbenzene	A	50.00	49.94	0.12
1,3-Dichlorobenzene	A	50.00	50.64	1.28
1,3-Dichloropropane	A	50.00	49.61	0.78
1,4-Dichlorobenzene	A	50.00	51.11	2.22
1-Chlorohexane	A	50.00	54.76	9.52
2,2-Dichloropropane	A	50.00	51.18	2.36
2-Butanone	A	50.00	51.05	2.10
2-Chlorotoluene	A	50.00	49.94	0.12
2-Hexanone	A	50.00	51.14	2.28
4-Bromofluorobenzene	A	50.00	49.38	1.24
4-Chlorotoluene	A	50.00	50.00	0.00
4-Isopropyltoluene	A	50.00	52.39	4.78
4-Methyl-2-pentanone	A	50.00	49.24	1.52
Acetone	A	50.00	50.13	0.26
Benzene	A	50.00	51.60	3.20
Bromobenzene	A	50.00	48.39	3.22
Bromochloromethane	A	50.00	51.68	3.36
Bromodichloromethane	A	50.00	51.67	3.34
Bromoform	A	50.00	48.24	3.52
Bromomethane	A	50.00	40.01	19.98
Carbon disulfide	A	50.00	52.03	4.06
Carbon tetrachloride	A	50.00	53.74	7.48
Chlorobenzene	A	50.00	51.66	3.32
Chloroethane	A	50.00	41.80	16.40
Chloroform	A	50.00	52.51	5.02
Chloromethane	A	50.00	42.42	15.16



**INITIAL  
SECOND SOURCE CALIBRATION VERIFICATION**

Lab Name: Laucks Testing Laboratories, Inc.

Initial Calibration ID: B8260W-060407

Instrument ID: 5973B

Concentration Units: ug/L

2nd Source ID: ICV060607MVOB1

Analyte	Equation Type	Expected	Found	%D
cis-1,2-Dichloroethene	A	50.00	53.73	7.46
cis-1,3-Dichloropropene	A	50.00	59.33	18.66
Dibromochloromethane	A	50.00	52.66	5.32
Dibromofluoromethane	A	50.00	51.50	3.00
Dibromomethane	A	50.00	51.58	3.16
Dichlorodifluoromethane	A	50.00	40.14	19.72
Ethyl-t-Butyl Ether(ETBE)	A	50.00	53.27	6.54
Ethylbenzene	A	50.00	50.70	1.40
Hexachlorobutadiene	A	50.00	54.04	8.08
Isopropyl ether	A	50.00	51.97	3.94
Isopropylbenzene	A	50.00	51.78	3.56
m,p-Xylene	A	100.00	103.37	3.37
Methyl tert-butyl ether	A	50.00	56.55	13.10
Methylene chloride	Q	50.00	52.82	5.64
n-Butylbenzene	A	50.00	51.86	3.72
n-Propylbenzene	A	50.00	51.48	2.96
Naphthalene	A	50.00	54.73	9.46
o-Xylene	A	50.00	51.09	2.18
sec-Butylbenzene	A	50.00	53.45	6.90
Styrene	A	50.00	50.33	0.66
t-Amyl Methyl Ether(TAME)	A	50.00	52.66	5.32
t-Butyl Alcohol	A	500.00	565.69	13.14
tert-Butylbenzene	A	50.00	51.42	2.84
Tetrachloroethene	A	50.00	51.86	3.72
Toluene	A	50.00	50.75	1.50
Toluene-d8	A	50.00	51.28	2.56
trans-1,2-Dichloroethene	A	50.00	55.58	11.16
trans-1,3-Dichloropropene	A	50.00	45.29	9.42
Trichloroethene	A	50.00	53.18	6.36
Trichlorofluoromethane	A	50.00	42.86	14.28
Vinyl chloride	A	50.00	45.14	9.72

Q=Quadratic, L=Linear, A=Average

7  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019108 SDG No.: CAB33  
 Instrument ID: 5973B Calibration Date: 06/28/2007 Time: 11:58  
 Lab File ID: B0628007.D Init. Calib. Date(s): 06/04/2007  
 Client Sample No.: VSTD050B1 Init. Calib. Time(s): 10:14  
 Heated Purge: (Y/N) N GC Column: ZB-624 20m ID: 0.18 (mm)

Compound	Equation Type	RF 50.0	%D	%Drift
Dichlorodifluoromethane	A	0.120	7.72	
Chloromethane	A	0.244	10.98	
Vinyl chloride	A	0.218	12.47	
Bromomethane	A	0.131	19.97	
Chloroethane	A	0.145	9.70	
Trichlorofluoromethane	A	0.273	6.40	
1,1-Dichloroethene	A	0.159	10.93	
Acetone	A	0.137	-11.70	
Carbon disulfide	A	0.573	18.02	
Methylene chloride	Q	0.239		-12.04
trans-1,2-Dichloroethene	A	0.229	9.19	
1,1-Dichloroethane	A	0.443	4.79	
cis-1,2-Dichloroethene	A	0.254	10.03	
2-Butanone	A	0.230	-10.59	
Chloroform	A	0.422	6.34	
1,1,1-Trichloroethane	A	0.320	7.69	
Carbon tetrachloride	A	0.273	10.97	
Benzene	A	1.013	7.61	
1,2-Dichloroethane	A	0.337	3.01	
Trichloroethene	A	0.274	7.89	
1,2-Dichloropropane	A	0.258	6.12	
Bromodichloromethane	A	0.315	9.15	
cis-1,3-Dichloropropene	A	0.358	8.42	
4-Methyl-2-pentanone	A	0.437	-1.04	
Toluene	A	0.879	3.35	
trans-1,3-Dichloropropene	A	0.584	4.90	
1,1,2-Trichloroethane	A	0.337	5.91	
Tetrachloroethene	A	0.408	5.85	
2-Hexanone	A	0.447	-12.67	
Dibromochloromethane	A	0.345	11.20	
Chlorobenzene	A	0.947	6.82	
Ethylbenzene	A	1.623	3.42	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019108 SDG No.: CAB33  
 Instrument ID: 5973B Calibration Date: 06/28/2007 Time: 11:58  
 Lab File ID: B0628007.D Init. Calib. Date(s): 06/04/2007  
 Client Sample No.: VSTD050B1 Init. Calib. Time(s): 10:14  
 Heated Purge: (Y/N) N GC Column: ZB-624 20m ID: 0.18 (mm)

Compound	Equation Type	RF 50.0	%D	%Drift
m,p-Xylene	A	0.630	5.22	
o-Xylene	A	0.606	7.13	
Styrene	A	1.082	7.28	
Bromoform	A	0.280	19.33	
1,1,2,2-Tetrachloroethane	A	0.900	3.73	
Dibromofluoromethane	A	0.253	-3.37	
1,2-Dichloroethane-d4	A	0.281	-8.98	
Toluene-d8	A	1.302	-7.96	
4-Bromofluorobenzene	A	0.893	-7.93	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062807MVOWB1

Lab Name: \_\_\_\_\_  
 SDG No.: CAB33  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: 1000 (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: B062807MVOWB1  
 Lab File ID: B0628011.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/28/2007 13:41  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: 5000 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062807MVOWB1

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB33

Run Sequence: R019108

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: B062807MVOWB1

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0628011.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/28/2007 13:41

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 1000 (uL)

Soil Aliquot Volume: 5000 (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062807MVOWB1

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB33

Run Sequence: R019108

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: S062807MVOWB1

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0628008.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/28/2007 12:25

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 1000 (uL)

Soil Aliquot Volume: 5000 (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	27	
74-87-3	Chloromethane	34	
75-01-4	Vinyl chloride	36	
74-83-9	Bromomethane	36	
75-00-3	Chloroethane	35	
75-69-4	Trichlorofluoromethane	40	
75-35-4	1,1-Dichloroethene	56	
67-64-1	Acetone	44	
75-15-0	Carbon disulfide	49	
75-09-2	Methylene chloride	51	
156-60-5	trans-1,2-Dichloroethene	53	
75-34-3	1,1-Dichloroethane	54	
156-59-2	cis-1,2-Dichloroethene	51	
78-93-3	2-Butanone	48	
67-66-3	Chloroform	52	
71-55-6	1,1,1-Trichloroethane	53	
56-23-5	Carbon tetrachloride	51	
71-43-2	Benzene	51	
107-06-2	1,2-Dichloroethane	53	
79-01-6	Trichloroethene	51	
78-87-5	1,2-Dichloropropane	51	
75-27-4	Bromodichloromethane	51	
10061-01-	cis-1,3-Dichloropropene	58	
108-10-1	4-Methyl-2-pentanone	48	
108-88-3	Toluene	51	
10061-02-	trans-1,3-Dichloropropene	46	
79-00-5	1,1,2-Trichloroethane	49	
127-18-4	Tetrachloroethene	50	
591-78-6	2-Hexanone	53	

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062807MVOWB1

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB33

Run Sequence: R019108

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: S062807MVOWB1

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0628008.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/28/2007 12:25

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 1000 (uL)

Soil Aliquot Volume: 5000 (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	49	
108-90-7	Chlorobenzene	51	
100-41-4	Ethylbenzene	51	
179601-23	m,p-Xylene	100	
95-47-6	o-Xylene	50	
100-42-5	Styrene	49	
75-25-2	Bromoform	42	
79-34-5	1,1,2,2-Tetrachloroethane	51	

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMS

Lab Name: \_\_\_\_\_  
 SDG No.: CAB33  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: CAB33-002MS  
 Lab File ID: B0628032.D  
 Date Collected: 06/21/2007  
 Date/Time Analyzed: 06/28/2007 22:49  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	36	
74-87-3	Chloromethane	45	
75-01-4	Vinyl chloride	46	
74-83-9	Bromomethane	42	
75-00-3	Chloroethane	43	
75-69-4	Trichlorofluoromethane	41	
75-35-4	1,1-Dichloroethene	53	
67-64-1	Acetone	56	
75-15-0	Carbon disulfide	46	
75-09-2	Methylene chloride	47	
156-60-5	trans-1,2-Dichloroethene	51	
75-34-3	1,1-Dichloroethane	53	
156-59-2	cis-1,2-Dichloroethene	50	
78-93-3	2-Butanone	56	
67-66-3	Chloroform	50	
71-55-6	1,1,1-Trichloroethane	51	
56-23-5	Carbon tetrachloride	48	
71-43-2	Benzene	48	
107-06-2	1,2-Dichloroethane	52	
79-01-6	Trichloroethene	48	
78-87-5	1,2-Dichloropropane	49	
75-27-4	Bromodichloromethane	49	
10061-01-	cis-1,3-Dichloropropene	54	
108-10-1	4-Methyl-2-pentanone	54	
108-88-3	Toluene	50	
10061-02-	trans-1,3-Dichloropropene	43	
79-00-5	1,1,2-Trichloroethane	48	
127-18-4	Tetrachloroethene	48	
591-78-6	2-Hexanone	60	



1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMS

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB33

Run Sequence: R019108

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: CAB33-002MS

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0628032.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/21/2007

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/28/2007 22:49

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	48	
108-90-7	Chlorobenzene	49	
100-41-4	Ethylbenzene	48	
179601-23	m, p-Xylene	97	
95-47-6	o-Xylene	47	
100-42-5	Styrene	46	
75-25-2	Bromoform	38	
79-34-5	1,1,2,2-Tetrachloroethane	50	

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMSD

Lab Name: \_\_\_\_\_  
 SDG No.: CAB33  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: CAB33-002MSD  
 Lab File ID: B0628033.D  
 Date Collected: 06/21/2007  
 Date/Time Analyzed: 06/28/2007 23:30  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	33	
74-87-3	Chloromethane	42	
75-01-4	Vinyl chloride	42	
74-83-9	Bromomethane	40	
75-00-3	Chloroethane	42	
75-69-4	Trichlorofluoromethane	38	
75-35-4	1,1-Dichloroethene	50	
67-64-1	Acetone	64	
75-15-0	Carbon disulfide	45	
75-09-2	Methylene chloride	45	
156-60-5	trans-1,2-Dichloroethene	48	
75-34-3	1,1-Dichloroethane	50	
156-59-2	cis-1,2-Dichloroethene	48	
78-93-3	2-Butanone	59	
67-66-3	Chloroform	48	
71-55-6	1,1,1-Trichloroethane	49	
56-23-5	Carbon tetrachloride	47	
71-43-2	Benzene	47	
107-06-2	1,2-Dichloroethane	50	
79-01-6	Trichloroethene	46	
78-87-5	1,2-Dichloropropane	48	
75-27-4	Bromodichloromethane	48	
10061-01-	cis-1,3-Dichloropropene	53	
108-10-1	4-Methyl-2-pentanone	54	
108-88-3	Toluene	49	
10061-02-	trans-1,3-Dichloropropene	43	
79-00-5	1,1,2-Trichloroethane	48	
127-18-4	Tetrachloroethene	47	
591-78-6	2-Hexanone	61	

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMSD

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB33

Run Sequence: R019108

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: CAB33-002MSD

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0628033.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/21/2007

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/28/2007 23:30

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	48	
108-90-7	Chlorobenzene	48	
100-41-4	Ethylbenzene	47	
179601-23	m,p-Xylene	94	
95-47-6	o-Xylene	46	
100-42-5	Styrene	45	
75-25-2	Bromoform	40	
79-34-5	1,1,2,2-Tetrachloroethane	50	

Comments:

# **FORMS SUMMARY**

**SDG# CAB33**

**Semivolatiles**

2  
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB33

Run Sequence: R019691

Level: (LOW/MED) NONE

CLIENT SAMPLE NUMBER	S1	S2	S3	S4	TOT OUT
	(2FP) #	(PHL) #	(NBZ) #	(2FB) #	
(CAB33-005) 15LCMW02DW	31	56	78	61	
(CAB33-004) 15LCMW02SW	38	62	79	60	
(CAB33-002MSD) 15LCMW01DWMSD	27	49	64	44 *	
(CAB33-002MS) 15LCMW01DWMS	20	47	74	55	
(CAB33-002) 15LCMW01DW	42	59	76	59	
(CAB33-001) 15LCMW01SW	40	61	76	59	
(S062507MSVWLT) S062507MSVWLT	39	62	88	75	
(B062507MSVWLT) B062507MSVWLT	37	62	83	73	

QC LIMITS

S1 (2FP) =	2-Fluorophenol	20-110
S2 (PHL) =	Phenol-d5	10-115
S3 (NBZ) =	Nitrobenzene-d5	40-110
S4 (2FB) =	2-Fluorobiphenyl	50-100

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits  
D Surrogate diluted out

2  
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB33

Run Sequence: R019691

Level: (LOW/MED) NONE

CLIENT SAMPLE NUMBER	S5 (TBP) #	S6 (DTR) #	S7 ( ) #	S8 ( ) #	TOT OUT
(CAB33-005) 15LCMW02DW	42	78			0
(CAB33-004) 15LCMW02SW	44	74			0
(CAB33-002MSD) 15LCMW01DWMSD	40	64			1
(CAB33-002MS) 15LCMW01DWMS	46	75			0
(CAB33-002) 15LCMW01DW	44	79			0
(CAB33-001) 15LCMW01SW	51	81			0
(S062507MSVWLT) S062507MSVWLT	61	75			0
(B062507MSVWLT) B062507MSVWLT	47	72			0

QC LIMITS

S5 (TBP) = 2,4,6-Tribromophenol

40-125

S6 (DTR) = Terphenyl-d14

50-135

S7 ( ) =

S8 ( ) =

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits  
D Surrogate diluted out

3B  
WATER SEMIVOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

BS Run Sequence: R019691 SDG No.: CAB33

BS Lab Sample ID: S062507MSVWLT

Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
3 & 4-Methylphenol	20.0	17.16	86		30-110
Bis(2-chloroisopropyl)ether	20.0	15.58	78		35-110
Phenol	20.0	12.66	63		23-98
Bis(2-Chloroethyl)ether	20.0	17.07	85		35-110
2-Chlorophenol	20.0	12.77	64		35-105
1,3-Dichlorobenzene	20.0	9.98	50		30-100
1,4-Dichlorobenzene	20.0	10.17	51		30-100
Benzyl alcohol	20.0	17.06	85		30-110
1,2-Dichlorobenzene	20.0	10.57	53		35-100
2-Methylphenol	20.0	15.55	78		40-110
N-Nitroso-di-n-propylamine	20.0	19.15	96		35-130
Hexachloroethane	20.0	9.12	46		30-95
Nitrobenzene	20.0	18.58	93		45-110
Isophorone	20.0	15.86	79		50-110
2-Nitrophenol	20.0	9.54	48		40-115
2,4-Dimethylphenol	20.0	11.08	55		30-110
Benzoic acid	20.0	6.86	34		0-125
Bis(2-chloroethoxy)methane	20.0	15.83	79		45-105
2,4-Dichlorophenol	20.0	13.15	66		50-105
1,2,4-Trichlorobenzene	20.0	11.15	56		35-105
Naphthalene	20.0	13	65		40-100
4-Chloroaniline	20.0	12.49	62		15-110
Hexachlorobutadiene	20.0	8.81	44		25-105
4-Chloro-3-methylphenol	20.0	16.14	81		45-110
2-Methylnaphthalene	20.0	14.42	72		45-105
Hexachlorocyclopentadiene	20.0	3.48	17		10-49
2,4,6-Trichlorophenol	20.0	9.86	49	*	50-115
2,4,5-Trichlorophenol	20.0	12.46	62		50-110
2-Chloronaphthalene	20.0	15.76	79		50-105
2-Nitroaniline	20.0	16.02	80		50-115
Dimethylphthalate	20.0	16.71	84		25-125
2,6-Dinitrotoluene	20.0	12.22	61		50-115
Acenaphthylene	20.0	15.58	78		50-105
3-Nitroaniline	20.0	13.92	70		20-125

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

Spike Recovery: 2 out of 68 outside limits

COMMENTS:

3B  
WATER SEMIVOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 BS Run Sequence: R019691 SDG No.: CAB33  
 BS Lab Sample ID: S062507MSVWLT  
 Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Acenaphthene	20.0	15.69	78		45-110
2,4-Dinitrophenol	20.0	10.05	50		15-140
4-Nitrophenol	20.0	11.43	57		0-125
Dibenzofuran	20.0	16.33	82		55-105
2,4-Dinitrotoluene	20.0	13.29	66		50-120
Diethylphthalate	20.0	16.44	82		40-120
Fluorene	20.0	16.86	84		50-110
4-Chlorophenyl-phenylether	20.0	16.68	83		50-110
4-Nitroaniline	20.0	14.35	72		35-120
4,6-Dinitro-2-methylphenol	20.0	7.79	39	*	40-130
N-Nitrosodiphenylamine	20.0	13.21	66		50-110
Azobenzene	20.0	17.2	86		55-115
4-Bromophenyl-phenyl ether	20.0	15.48	77		50-115
Hexachlorobenzene	20.0	15.68	78		50-110
Pentachlorophenol	20.0	11.36	57		40-115
Phenanthrene	20.0	15.56	78		50-115
Anthracene	20.0	15.15	76		55-110
Carbazole	20.0	16.18	81		50-115
Di-n-butylphthalate	20.0	15.13	76		55-115
Fluoranthene	20.0	16.76	84		55-115
Benzidine	20.0	0	0		0-125
Pyrene	20.0	14.62	73		50-130
Butylbenzylphthalate	20.0	11.08	55		45-115
3,3'-Dichlorobenzidine	20.0	10.85	54		20-110
Benzo(a)anthracene	20.0	14.23	71		55-110
Bis(2-ethylhexyl)phthalate	20.0	11.96	60		40-125
Chrysene	20.0	15.54	78		55-110
Di-n-octylphthalate	20.0	10.02	50		35-135
Benzo(b)fluoranthene	20.0	14.46	72		45-120
Benzo(k)fluoranthene	20.0	16.42	82		45-125
Benzo(a)pyrene	20.0	14.56	73		55-110
Indeno(1,2,3-cd)pyrene	20.0	17.11	86		45-125
Dibenzo(a,h)anthracene	20.0	17.07	85		40-125
Benzo(g,h,i)perylene	20.0	17.28	86		40-125

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

Spike Recovery: 2 out of 68 outside limits

COMMENTS:



## WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 MS Run Sequence: R019691 MSD Run Sequence: R019691 SDG No.: CAB33  
 MS Client Sample No.: 15LCMW01DWMS MSD Client Sample No.: 15LCMW01DWMSD  
 MS Lab Sample ID: CAB33-002MS MSD Lab Sample ID: CAB33-002MSD  
 Level: N/A Units: ug/L

COMPOUND	SAMPLE CONC	MS SPIKE ADDED	MS CONC	MS % REC #	MSD SPIKE ADDED	MSD CONC	MSD % REC #	%RPD #	QC LIMITS	
									RPD	REC.
3 & 4-Methylphenol	0	18.9	15.1132	80	18.9	13.3208	71	13	30	30-110
Bis(2-chloroisopropyl)ether	0	18.9	12.5	66	18.9	10.9057	58	14	30	35-110
Phenol	0	18.9	9.0094	48	18.9	9.0566	48	1	30	0-115
Bis(2-Chloroethyl)ether	0	18.9	13.6509	72	18.9	12.2453	65	11	30	35-110
2-Chlorophenol	0	18.9	8.1132	43	18.9	9.3302	49	14	30	35-105
1,3-Dichlorobenzene	0	18.9	8.9434	47	18.9	7.0189	37	24	30	30-100
1,4-Dichlorobenzene	0	18.9	9.0472	48	18.9	6.8774	36	27	30	30-100
Benzyl alcohol	0	18.9	14.6887	78	18.9	12.9151	68	13	30	30-110
1,2-Dichlorobenzene	0	18.9	9.3396	50	18.9	7.2453	38	25	30	35-100
2-Methylphenol	0	18.9	13.5094	72	18.9	12.2642	65	10	30	40-110
N-Nitroso-di-n-propylamine	0	18.9	16.283	86	18.9	14.1509	75	14	30	35-130
Hexachloroethane	0	18.9	8.9151	47	18.9	6.783	36	27	30	30-95
Nitrobenzene	0	18.9	15.5943	83	18.9	13.6792	72	13	30	45-110
Isophorone	0	18.9	13.4434	71	18.9	11.8113	63	13	30	50-110
2-Nitrophenol	0	18.9	3.2453	17 *	18.9	3.2075	17 *	1	30	40-115
2,4-Dimethylphenol	0	18.9	11.7453	62	18.9	11.8585	63	1	30	30-110
Benzoic acid	0	18.9	3.3113	18	18.9	3.1132	17	6	30	0-125
Bis(2-chloroethoxy)methane	0	18.9	13.6415	72	18.9	11.5755	61	16	30	45-105

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

@ This RPD or percent recovery is not flagged as an exceedance because the Sample Found amount is five times or more than the Spike Added amount.

RPD: 3 out of 68 outside limits

Spike Recovery: 27 out of 136 outside limits

COMMENTS:

3  
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 MS Run Sequence: R019691 MSD Run Sequence: R019691 SDG No.: CAB33  
 MS Client Sample No.: 15LCMW01DWMS MSD Client Sample No.: 15LCMW01DWMSD  
 MS Lab Sample ID: CAB33-002MS MSD Lab Sample ID: CAB33-002MSD  
 Level: N/A Units: ug/L

COMPOUND	SAMPLE CONC	MS SPIKE ADDED	MS CONC	MS % REC #	MSD SPIKE ADDED	MSD CONC	MSD % REC #	%RPD #	QC LIMITS	
									RPD	REC.
2,4-Dichlorophenol	0	18.9	8.4434	45 *	18.9	8.6132	46 *	2	30	50-105
1,2,4-Trichlorobenzene	0	18.9	8.9434	47	18.9	6.6604	35	29	30	35-105
Naphthalene	0	18.9	10.0094	53	18.9	8.0755	43	21	30	40-100
4-Chloroaniline	0	18.9	11.1981	59	18.9	10.2075	54	9	30	15-110
Hexachlorobutadiene	0	18.9	7.9151	42	18.9	6.1321	33	25	30	25-105
4-Chloro-3-methylphenol	0	18.9	13.5	72	18.9	11.2358	60	18	30	45-110
2-Methylnaphthalene	0	18.9	10.066	53	18.9	7.8679	42 *	25	30	45-105
Hexachlorocyclopentadiene	0	18.9	1.4717	8 *	18.9	0	0 *	200 *	30	10-49
2,4,6-Trichlorophenol	0	18.9	6.9623	37 *	18.9	6.0472	32 *	14	30	50-115
2,4,5-Trichlorophenol	0	18.9	7.4717	40 *	18.9	5.9528	32 *	23	30	50-110
2-Chloronaphthalene	0	18.9	10.7075	57	18.9	8.1038	43 *	28	30	50-105
2-Nitroaniline	0	18.9	12.7642	68	18.9	10.5283	56	19	30	50-115
Dimethylphthalate	0	18.9	14.0094	74	18.9	11.8679	63	17	30	25-125
2,6-Dinitrotoluene	0	18.9	10.3491	55	18.9	8.3113	44 *	22	30	50-115
Acenaphthylene	0	18.9	12.0472	64	18.9	9.4245	50 *	24	30	50-105
3-Nitroaniline	0	18.9	12.5849	67	18.9	10.2358	54	21	30	20-125
Acenaphthene	0	18.9	12.0566	64	18.9	9.3962	50	25	30	45-110
2,4-Dinitrophenol	0	18.9	0	0 *	18.9	0	0 *	0	30	15-140

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits  
 @ This RPD or percent recovery is not flagged as an exceedence because the Sample Found amount is five times or more than the Spike Added amount.

RPD: 3 out of 68 outside limits  
 Spike Recovery: 27 out of 136 outside limits

COMMENTS:

## WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 MS Run Sequence: R019691 MSD Run Sequence: R019691 SDG No.: CAB33  
 MS Client Sample No.: 15LCMW01DWMS MSD Client Sample No.: 15LCMW01DWMSD  
 MS Lab Sample ID: CAB33-002MS MSD Lab Sample ID: CAB33-002MSD  
 Level: N/A Units: ug/L

COMPOUND	SAMPLE CONC	MS SPIKE ADDED	MS CONC	MS % REC #	MSD SPIKE ADDED	MSD CONC	MSD % REC #	%RPD #	QC LIMITS	
									RPD	REC.
4-Nitrophenol	0	18.9	0	0	18.9	0	0	0	30	0-125
Dibenzofuran	0	18.9	13.0943	69	18.9	10.283	54 *	24	30	55-105
2,4-Dinitrotoluene	0	18.9	9.9057	53	18.9	7.8491	42 *	23	30	50-120
Diethylphthalate	0	18.9	14.1981	75	18.9	11.6792	62	19	30	40-120
Fluorene	0	18.9	13.9623	74	18.9	11.4245	61	20	30	50-110
4-Chlorophenyl-phenylether	0	18.9	13.9245	74	18.9	11.0755	59	23	30	50-110
4-Nitroaniline	0	18.9	12.5943	67	18.9	10.2453	54	21	30	35-120
4,6-Dinitro-2-methylphenol	0	18.9	0	0 *	18.9	0	0 *	0	30	40-130
N-Nitrosodiphenylamine	0	18.9	11.1887	59	18.9	7.9906	42 *	33 *	30	50-110
Azobenzene	0	18.9	15.7264	83	18.9	11.6981	62	29	30	55-115
4-Bromophenyl-phenylether	0	18.9	13.8868	74	18.9	11.1604	59	22	30	50-115
Hexachlorobenzene	0	18.9	14.3396	76	18.9	11.6132	62	21	30	50-110
Pentachlorophenol	0	18.9	6.1698	33 *	18.9	5.3113	28 *	15	30	40-115
Phenanthrene	0	18.9	14.7642	78	18.9	12.0566	64	20	30	50-115
Anthracene	0	18.9	14.2358	75	18.9	11.3019	60	23 *	20	55-110
Carbazole	0	18.9	15.5283	82	18.9	11.9245	63	26	30	50-115
Di-n-butylphthalate	0	18.9	13.3208	71	18.9	10.8396	57	21	30	55-115
Fluoranthene	0	18.9	15.7642	84	18.9	12.783	68	21	30	55-115
Benzidine	0	18.9	0	0	18.9	0	0	0		0-125
Pyrene	0	18.9	13.717	73	18.9	11.4245	61	18	30	50-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

@ This RPD or percent recovery is not flagged as an exceedence because the Sample Found amount is five times or more than the Spike Added amount.

RPD: 3 out of 68 outside limits

Spike Recovery: 27 out of 136 outside limits

COMMENTS:

3  
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 MS Run Sequence: R019691 MSD Run Sequence: R019691 SDG No.: CAB33  
 MS Client Sample No.: 15LCMW01DWMS MSD Client Sample No.: 15LCMW01DWMSD  
 MS Lab Sample ID: CAB33-002MS MSD Lab Sample ID: CAB33-002MSD  
 Level: N/A Units: ug/L

COMPOUND	SAMPLE CONC	MS SPIKE ADDED	MS CONC	MS % REC #	MSD SPIKE ADDED	MSD CONC	MSD % REC #	%RPD #	QC LIMITS	
									RPD	REC.
Butylbenzylphthalate	0	18.9	8.3019	44 *	18.9	6.8962	37 *	18	30	45-115
3,3'-Dichlorobenzidine	0	18.9	9.1792	49	18.9	8.4151	45	9	30	20-110
Benzo(a)anthracene	0	18.9	13.7075	73	18.9	11.4528	61	18	30	55-110
Bis(2-ethylhexyl)phthalate	0	18.9	10.2453	54	18.9	7.7453	41	28	30	40-125
Chrysene	0	18.9	15.0189	80	18.9	12.0566	64	22	30	55-110
Di-n-octylphthalate	0	18.9	7.5283	40	18.9	5.9623	32 *	23	30	35-135
Benzo(b)fluoranthene	0	18.9	13.3396	71	18.9	11.3208	60	16	30	45-120
Benzo(k)fluoranthene	0	18.9	13.8113	73	18.9	11.0943	59	22	30	45-125
Benzo(a)pyrene	0	18.9	13.0849	69	18.9	10.2264	54 *	25	30	55-110
Indeno(1,2,3-cd)pyrene	0	18.9	15.6415	83	18.9	12.5755	67	22	30	45-125
Dibenzo(a,h)anthracene	0	18.9	15.6226	83	18.9	12.3868	66	23	30	40-125
Benzo(g,h,i)perylene	0	18.9	16.3679	87	18.9	12.7642	68	25	30	40-125

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits  
 @ This RPD or percent recovery is not flagged as an exceedance because the Sample Found amount is five times or more than the Spike Added amount.

RPD: 3 out of 68 outside limits  
 Spike Recovery: 27 out of 136 outside limits

COMMENTS:

4  
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062507MSVWLT

Lab Name Laucks Testing Labs Contract: \_\_\_\_\_  
 SDG No.: CAB33  
 Lab File ID: L0718005.D Lab Sample ID: B062507MSVWLT  
 Date Analyzed: 07/18/2007 Time Analyzed: 14:43  
 GC Column: RTX-5Sil MS ID: 0.25 (mm) Heated Purge: (Y/N) N  
 Instrument ID: 5970L Matrix: Water

	CLIENT SAMPLE NO.	LAB SAMPLE ID.	LAB FILE ID.	DATE ANALYZED	TIME ANALYZED	RUN SEQUENCE
01	S062507MSVWLT	S062507MSVWLT	L0718006.D	07/18/2007	15:21	R019691
02	15LCMW01SW	CAB33-001	L0718007.D	07/18/2007	15:58	R019691
03	15LCMW01DW	CAB33-002	L0718008.D	07/18/2007	16:35	R019691
04	15LCMW01DWMS	CAB33-002MS	L0718009.D	07/18/2007	17:13	R019691
05	15LCMW01DWMSD	CAB33-002MSD	L0718010.D	07/18/2007	17:50	R019691
06	15LCMW02SW	CAB33-004	L0718011.D	07/18/2007	18:27	R019691
07	15LCMW02DW	CAB33-005	L0718012.D	07/18/2007	19:04	R019691
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COMMENTS: \_\_\_\_\_  
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SEMIVOLATILE ORGANIC INSTRUMENT  
PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

DFTPP071207-1
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Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: CAL997 SDG No.: CAB33  
 Lab File ID: L0712001.D DFTPP Injection Date: 07/12/2007  
 Instrument ID: 5970L DFTPP Injection Time: 12:31

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30% to 60% of mass 198	48.5
68	less than 2% of mass 69	1.5 ( )1
69	base peak, 100% relative abundance	100
70	less than 2% of mass 69	0.9 ( )1
127	40% to 60% of mass 198	48.3
197	less than 1% of mass 198	0
198	base peak, 100% relative abundance	100
199	5% to 9% of mass 198	7.4
275	10% to 30% of mass 198	20.9
365	greater than 1% of mass 198	2
441	present but less than mass 443	76.2
442	greater than 40% of mass 198	64.5
443	17% to 23% of mass 442	19.5 ( )2

1 - Value is %mass 69

2 - Value is% mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD001	SSTD001	L0712003.D	07/12/2007	13:43
02	SSTD040	SSTD040	L0712007.D	07/12/2007	16:13
03	SSTD060	SSTD060	L0712008.D	07/12/2007	16:51
04	SSTD080	SSTD080	L0712009.D	07/12/2007	17:28
05	SSTD005	SSTD005	L0712011.D	07/12/2007	18:43
06	SSTD010	SSTD010	L0712012.D	07/12/2007	19:21
07	SSTD025	SSTD025	L0712013.D	07/12/2007	19:58
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SEMIVOLATILE ORGANIC INSTRUMENT  
PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

DFTPP071807-1

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019691 SDG No.: CAB33  
 Lab File ID: L0718001.D DFTPP Injection Date: 07/18/2007  
 Instrument ID: 5970L DFTPP Injection Time: 12:03

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30% to 60% of mass 198	57.3
68	less than 2% of mass 69	0.9 (1)
69	base peak, 100% relative abundance	100
70	less than 2% of mass 69	0 (1)
127	40% to 60% of mass 198	49.6
197	less than 1% of mass 198	0
198	base peak, 100% relative abundance	100
199	5% to 9% of mass 198	7.2
275	10% to 30% of mass 198	18.3
365	greater than 1% of mass 198	2.1
441	present but less than mass 443	80.5
442	greater than 40% of mass 198	64.7
443	17% to 23% of mass 442	19.2 (2)

1 - Value is %mass 69

2 - Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV071807-2	CCV071807-2	L0718003.D	07/18/2007	13:18
02	B062507MSVWLT	B062507MSVWLT	L0718005.D	07/18/2007	14:43
03	S062507MSVWLT	S062507MSVWLT	L0718006.D	07/18/2007	15:21
04	15LCMW01SW	CAB33-001	L0718007.D	07/18/2007	15:58
05	15LCMW01DW	CAB33-002	L0718008.D	07/18/2007	16:35
06	15LCMW01DWMS	CAB33-002MS	L0718009.D	07/18/2007	17:13
07	15LCMW01DWMSD	CAB33-002MSD	L0718010.D	07/18/2007	17:50
08	15LCMW02SW	CAB33-004	L0718011.D	07/18/2007	18:27
09	15LCMW02DW	CAB33-005	L0718012.D	07/18/2007	19:04
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## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019691 SDG No.: CAB33  
 Client Sample No.: CCV071807-2 Date Analyzed: 07/18/2007  
 Lab File ID (Standard): L0718003.D Time Analyzed: 13:18  
 Instrument ID: 5970L GC Column: RTX-5S11 MS ID: 0.25 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	34070	7.04	114913	8.69	59783	11.04
UPPER LIMIT	68140	7.54	229826	9.19	119566	11.54
LOWER LIMIT	17035	6.54	57456.5	8.19	29891.5	10.54
CLIENT SAMPLE NO.						
01 B062507MSVWLT	23552	7.04	79688	8.69	39084	11.04
02 S062507MSVWLT	29159	7.04	98234	8.69	51429	11.04
03 15LCMW01SW	30375	7.03	107897	8.69	58254	11.04
04 15LCMW01DW	29746	7.03	104675	8.69	54807	11.04
05 15LCMW01DWMS	29121	7.03	98993	8.69	50203	11.04
06 15LCMW01DWMSD	29753	7.03	102927	8.69	54586	11.04
07 15LCMW02SW	30809	7.03	104843	8.67	54580	11.03
08 15LCMW02DW	30716	7.03	106678	8.67	54946	11.03
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IS1 (DCB) = 1,4-Dichlorobenzene-d4  
 IS2 (NPT) = Naphthalene-d8  
 IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area  
 AREA LOWER LIMIT = - 50% of internal standard area  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits



## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019691SDG No.: CAB33Client Sample No.: CCV071807-2Date Analyzed: 07/18/2007Lab File ID (Standard): L0718003.DTime Analyzed: 13:18Instrument ID: 5970LGC Column: RTX-5Sil MSID: 0.25 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	89170	13.05	52742	17.58	28043	21.22
UPPER LIMIT	178340	13.55	105484	18.08	56086	21.72
LOWER LIMIT	44585	12.55	26371	17.08	14021.5	20.72
CLIENT SAMPLE NO.						
01 B062507MSVWLT	56415	13.03	37022	17.56	25700	21.21
02 S062507MSVWLT	78452	13.04	46132	17.57	25242	21.22
03 15LCMW01SW	90962	13.03	52231	17.56	27615	21.21
04 15LCMW01DW	83872	13.03	48176	17.56	26457	21.20
05 15LCMW01DWMS	75654	13.04	44485	17.56	26459	21.20
06 15LCMW01DWMSD	83984	13.04	48676	17.56	27611	21.20
07 15LCMW02SW	82780	13.03	47247	17.55	26795	21.20
08 15LCMW02DW	83765	13.04	48124	17.55	27598	21.20
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IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk,

\* Values outside of QC limits

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-001  
 Lab File ID: L0718007.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	4.8	U
108-60-1	Bis(2-chloroisopropyl)ether	4.8	U
108-95-2	Phenol	4.8	U
111-44-4	Bis(2-Chloroethyl)ether	4.8	U
95-57-8	2-Chlorophenol	4.8	U
541-73-1	1,3-Dichlorobenzene	4.8	U
106-46-7	1,4-Dichlorobenzene	4.8	U
100-51-6	Benzyl alcohol	4.8	U
95-50-1	1,2-Dichlorobenzene	4.8	U
95-48-7	2-Methylphenol	4.8	U
621-64-7	N-Nitroso-di-n-propylamine	4.8	U
67-72-1	Hexachloroethane	4.8	U
98-95-3	Nitrobenzene	4.8	U
78-59-1	Isophorone	4.8	U
88-75-5	2-Nitrophenol	4.8	U
105-67-9	2,4-Dimethylphenol	4.8	U
65-85-0	Benzoic acid	9.5	U
111-91-1	Bis(2-chloroethoxy)methane	4.8	U
120-83-2	2,4-Dichlorophenol	4.8	U
120-82-1	1,2,4-Trichlorobenzene	4.8	U
91-20-3	Naphthalene	4.8	U
106-47-8	4-Chloroaniline	4.8	U
87-68-3	Hexachlorobutadiene	4.8	U
59-50-7	4-Chloro-3-methylphenol	4.8	U
91-57-6	2-Methylnaphthalene	4.8	U
77-47-4	Hexachlorocyclopentadiene	4.8	U

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

151CMW01SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-001  
 Lab File ID: L0718007.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-06-2	2,4,6-Trichlorophenol	4.8	U
95-95-4	2,4,5-Trichlorophenol	4.8	U
91-58-7	2-Chloronaphthalene	4.8	U
88-74-4	2-Nitroaniline	4.8	U
131-11-3	Dimethylphthalate	4.8	U
606-20-2	2,6-Dinitrotoluene	4.8	U
208-96-8	Acenaphthylene	4.8	U
99-09-2	3-Nitroaniline	4.8	U
83-32-9	Acenaphthene	4.8	U
51-28-5	2,4-Dinitrophenol	9.5	U
100-02-7	4-Nitrophenol	4.8	U
132-64-9	Dibenzofuran	4.8	U
121-14-2	2,4-Dinitrotoluene	4.8	U
84-66-2	Diethylphthalate	4.8	U
86-73-7	Fluorene	4.8	U
7005-72-3	4-Chlorophenyl-phenylether	4.8	U
100-01-6	4-Nitroaniline	4.8	U
534-52-1	4,6-Dinitro-2-methylphenol	4.8	U
86-30-6	N-Nitrosodiphenylamine	4.8	U
122-66-7	Azobenzene	4.8	U
101-55-3	4-Bromophenyl-phenyl ether	4.8	U
118-74-1	Hexachlorobenzene	4.8	U
87-86-5	Pentachlorophenol	4.8	U
85-01-8	Phenanthrene	4.8	U
120-12-7	Anthracene	4.8	U
86-74-8	Carbazole	4.8	U
84-74-2	Di-n-butylphthalate	4.8	U
206-44-0	Fluoranthene	4.8	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-001  
 Lab File ID: L0718007.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
92-87-5	Benzidine	4.8	U
129-00-0	Pyrene	4.8	U
85-68-7	Butylbenzylphthalate	4.8	U
91-94-1	3,3'-Dichlorobenzidine	4.8	U
56-55-3	Benzo(a)anthracene	4.8	U
117-81-7	Bis(2-ethylhexyl)phthalate	4.8	U
218-01-9	Chrysene	4.8	U
117-84-0	Di-n-octylphthalate	4.8	U
205-99-2	Benzo(b)fluoranthene	4.8	U
207-08-9	Benzo(k)fluoranthene	4.8	U
50-32-8	Benzo(a)pyrene	4.8	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.8	U
53-70-3	Dibenzo(a,h)anthracene	4.8	U
191-24-2	Benzo(g,h,i)perylene	4.8	U

Comments:

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-002  
 Lab File ID: L0718008.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	4.7	U
108-60-1	Bis(2-chloroisopropyl)ether	4.7	U
108-95-2	Phenol	4.7	U
111-44-4	Bis(2-Chloroethyl)ether	4.7	U
95-57-8	2-Chlorophenol	4.7	U
541-73-1	1,3-Dichlorobenzene	4.7	U
106-46-7	1,4-Dichlorobenzene	4.7	U
100-51-6	Benzyl alcohol	4.7	U
95-50-1	1,2-Dichlorobenzene	4.7	U
95-48-7	2-Methylphenol	4.7	U
621-64-7	N-Nitroso-di-n-propylamine	4.7	U
67-72-1	Hexachloroethane	4.7	U
98-95-3	Nitrobenzene	4.7	U
78-59-1	Isophorone	4.7	U
88-75-5	2-Nitrophenol	4.7	U
105-67-9	2,4-Dimethylphenol	4.7	U
65-85-0	Benzoic acid	9.4	U
111-91-1	Bis(2-chloroethoxy)methane	4.7	U
120-83-2	2,4-Dichlorophenol	4.7	U
120-82-1	1,2,4-Trichlorobenzene	4.7	U
91-20-3	Naphthalene	4.7	U
106-47-8	4-Chloroaniline	4.7	U
87-68-3	Hexachlorobutadiene	4.7	U
59-50-7	4-Chloro-3-methylphenol	4.7	U
91-57-6	2-Methylnaphthalene	4.7	U
77-47-4	Hexachlorocyclopentadiene	4.7	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-002  
 Lab File ID: L0718008.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-06-2	2,4,6-Trichlorophenol	4.7	U
95-95-4	2,4,5-Trichlorophenol	4.7	U
91-58-7	2-Chloronaphthalene	4.7	U
88-74-4	2-Nitroaniline	4.7	U
131-11-3	Dimethylphthalate	4.7	U
606-20-2	2,6-Dinitrotoluene	4.7	U
208-96-8	Acenaphthylene	4.7	U
99-09-2	3-Nitroaniline	4.7	U
83-32-9	Acenaphthene	4.7	U
51-28-5	2,4-Dinitrophenol	9.4	U
100-02-7	4-Nitrophenol	4.7	U
132-64-9	Dibenzofuran	4.7	U
121-14-2	2,4-Dinitrotoluene	4.7	U
84-66-2	Diethylphthalate	4.7	U
86-73-7	Fluorene	4.7	U
7005-72-3	4-Chlorophenyl-phenylether	4.7	U
100-01-6	4-Nitroaniline	4.7	U
534-52-1	4,6-Dinitro-2-methylphenol	4.7	U
86-30-6	N-Nitrosodiphenylamine	4.7	U
122-66-7	Azobenzene	4.7	U
101-55-3	4-Bromophenyl-phenyl ether	4.7	U
118-74-1	Hexachlorobenzene	4.7	U
87-86-5	Pentachlorophenol	4.7	U
85-01-8	Phenanthrene	4.7	U
120-12-7	Anthracene	4.7	U
86-74-8	Carbazole	4.7	U
84-74-2	Di-n-butylphthalate	4.7	U
206-44-0	Fluoranthene	4.7	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-002  
 Lab File ID: L0718008.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
92-87-5	Benzidine	4.7		U
129-00-0	Pyrene	4.7		U
85-68-7	Butylbenzylphthalate	4.7		U
91-94-1	3,3'-Dichlorobenzidine	4.7		U
56-55-3	Benzo(a)anthracene	4.7		U
117-81-7	Bis(2-ethylhexyl)phthalate	4.7		U
218-01-9	Chrysene	4.7		U
117-84-0	Di-n-octylphthalate	4.7		U
205-99-2	Benzo(b)fluoranthene	4.7		U
207-08-9	Benzo(k)fluoranthene	4.7		U
50-32-8	Benzo(a)pyrene	4.7		U
193-39-5	Indeno(1,2,3-cd)pyrene	4.7		U
53-70-3	Dibenzo(a,h)anthracene	4.7		U
191-24-2	Benzo(g,h,i)perylene	4.7		U

Comments:

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-004  
 Lab File ID: L0718011.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	4.7	U
108-60-1	Bis(2-chloroisopropyl)ether	4.7	U
108-95-2	Phenol	4.7	U
111-44-4	Bis(2-Chloroethyl)ether	4.7	U
95-57-8	2-Chlorophenol	4.7	U
541-73-1	1,3-Dichlorobenzene	4.7	U
106-46-7	1,4-Dichlorobenzene	4.7	U
100-51-6	Benzyl alcohol	4.7	U
95-50-1	1,2-Dichlorobenzene	4.7	U
95-48-7	2-Methylphenol	4.7	U
621-64-7	N-Nitroso-di-n-propylamine	4.7	U
67-72-1	Hexachloroethane	4.7	U
98-95-3	Nitrobenzene	4.7	U
78-59-1	Isophorone	4.7	U
88-75-5	2-Nitrophenol	4.7	U
105-67-9	2,4-Dimethylphenol	4.7	U
65-85-0	Benzoic acid	9.4	U
111-91-1	Bis(2-chloroethoxy)methane	4.7	U
120-83-2	2,4-Dichlorophenol	4.7	U
120-82-1	1,2,4-Trichlorobenzene	4.7	U
91-20-3	Naphthalene	4.7	U
106-47-8	4-Chloroaniline	4.7	U
87-68-3	Hexachlorobutadiene	4.7	U
59-50-7	4-Chloro-3-methylphenol	4.7	U
91-57-6	2-Methylnaphthalene	4.7	U
77-47-4	Hexachlorocyclopentadiene	4.7	U



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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-004  
 Lab File ID: L0718011.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
88-06-2	2,4,6-Trichlorophenol	4.7	U
95-95-4	2,4,5-Trichlorophenol	4.7	U
91-58-7	2-Chloronaphthalene	4.7	U
88-74-4	2-Nitroaniline	4.7	U
131-11-3	Dimethylphthalate	4.7	U
606-20-2	2,6-Dinitrotoluene	4.7	U
208-96-8	Acenaphthylene	4.7	U
99-09-2	3-Nitroaniline	4.7	U
83-32-9	Acenaphthene	4.7	U
51-28-5	2,4-Dinitrophenol	9.4	U
100-02-7	4-Nitrophenol	4.7	U
132-64-9	Dibenzofuran	4.7	U
121-14-2	2,4-Dinitrotoluene	4.7	U
84-66-2	Diethylphthalate	4.7	U
86-73-7	Fluorene	4.7	U
7005-72-3	4-Chlorophenyl-phenylether	4.7	U
100-01-6	4-Nitroaniline	4.7	U
534-52-1	4,6-Dinitro-2-methylphenol	4.7	U
86-30-6	N-Nitrosodiphenylamine	4.7	U
122-66-7	Azobenzene	4.7	U
101-55-3	4-Bromophenyl-phenyl ether	4.7	U
118-74-1	Hexachlorobenzene	4.7	U
87-86-5	Pentachlorophenol	4.7	U
85-01-8	Phenanthrene	4.7	U
120-12-7	Anthracene	4.7	U
86-74-8	Carbazole	4.7	U
84-74-2	Di-n-butylphthalate	4.7	U
206-44-0	Fluoranthene	4.7	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-004  
 Lab File ID: L0718011.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
92-87-5	Benzidine	4.7	U
129-00-0	Pyrene	4.7	U
85-68-7	Butylbenzylphthalate	4.7	U
91-94-1	3,3'-Dichlorobenzidine	4.7	U
56-55-3	Benzo(a)anthracene	4.7	U
117-81-7	Bis(2-ethylhexyl)phthalate	4.7	U
218-01-9	Chrysene	4.7	U
117-84-0	Di-n-octylphthalate	4.7	U
205-99-2	Benzo(b)fluoranthene	4.7	U
207-08-9	Benzo(k)fluoranthene	4.7	U
50-32-8	Benzo(a)pyrene	4.7	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.7	U
53-70-3	Dibenzo(a,h)anthracene	4.7	U
191-24-2	Benzo(g,h,i)perylene	4.7	U

Comments:

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-005  
 Lab File ID: L0718012.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	4.7	U
108-60-1	Bis(2-chloroisopropyl) ether	4.7	U
108-95-2	Phenol	4.7	U
111-44-4	Bis(2-Chloroethyl) ether	4.7	U
95-57-8	2-Chlorophenol	4.7	U
541-73-1	1,3-Dichlorobenzene	4.7	U
106-46-7	1,4-Dichlorobenzene	4.7	U
100-51-6	Benzyl alcohol	4.7	U
95-50-1	1,2-Dichlorobenzene	4.7	U
95-48-7	2-Methylphenol	4.7	U
621-64-7	N-Nitroso-di-n-propylamine	4.7	U
67-72-1	Hexachloroethane	4.7	U
98-95-3	Nitrobenzene	4.7	U
78-59-1	Isophorone	4.7	U
88-75-5	2-Nitrophenol	4.7	U
105-67-9	2,4-Dimethylphenol	4.7	U
65-85-0	Benzoic acid	9.4	U
111-91-1	Bis(2-chloroethoxy) methane	4.7	U
120-83-2	2,4-Dichlorophenol	4.7	U
120-82-1	1,2,4-Trichlorobenzene	4.7	U
91-20-3	Naphthalene	4.7	U
106-47-8	4-Chloroaniline	4.7	U
87-68-3	Hexachlorobutadiene	4.7	U
59-50-7	4-Chloro-3-methylphenol	4.7	U
91-57-6	2-Methylnaphthalene	4.7	U
77-47-4	Hexachlorocyclopentadiene	4.7	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-005  
 Lab File ID: L0718012.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-06-2	2,4,6-Trichlorophenol	4.7	U
95-95-4	2,4,5-Trichlorophenol	4.7	U
91-58-7	2-Chloronaphthalene	4.7	U
88-74-4	2-Nitroaniline	4.7	U
131-11-3	Dimethylphthalate	4.7	U
606-20-2	2,6-Dinitrotoluene	4.7	U
208-96-8	Acenaphthylene	4.7	U
99-09-2	3-Nitroaniline	4.7	U
83-32-9	Acenaphthene	4.7	U
51-28-5	2,4-Dinitrophenol	9.4	U
100-02-7	4-Nitrophenol	4.7	U
132-64-9	Dibenzofuran	4.7	U
121-14-2	2,4-Dinitrotoluene	4.7	U
84-66-2	Diethylphthalate	4.7	U
86-73-7	Fluorene	4.7	U
7005-72-3	4-Chlorophenyl-phenylether	4.7	U
100-01-6	4-Nitroaniline	4.7	U
534-52-1	4,6-Dinitro-2-methylphenol	4.7	U
86-30-6	N-Nitrosodiphenylamine	4.7	U
122-66-7	Azobenzene	4.7	U
101-55-3	4-Bromophenyl-phenyl ether	4.7	U
118-74-1	Hexachlorobenzene	4.7	U
87-86-5	Pentachlorophenol	4.7	U
85-01-8	Phenanthrene	4.7	U
120-12-7	Anthracene	4.7	U
86-74-8	Carbazole	4.7	U
84-74-2	Di-n-butylphthalate	4.7	U
206-44-0	Fluoranthene	4.7	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-005  
 Lab File ID: L0718012.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
92-87-5	Benzidine	4.7	U
129-00-0	Pyrene	4.7	U
85-68-7	Butylbenzylphthalate	4.7	U
91-94-1	3,3'-Dichlorobenzidine	4.7	U
56-55-3	Benzo(a)anthracene	4.7	U
117-81-7	Bis(2-ethylhexyl)phthalate	4.7	U
218-01-9	Chrysene	4.7	U
117-84-0	Di-n-octylphthalate	4.7	U
205-99-2	Benzo(b)fluoranthene	4.7	U
207-08-9	Benzo(k)fluoranthene	4.7	U
50-32-8	Benzo(a)pyrene	4.7	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.7	U
53-70-3	Dibenzo(a,h)anthracene	4.7	U
191-24-2	Benzo(g,h,i)perylene	4.7	U

Comments:

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks\_Testing\_Labs Contract: \_\_\_\_\_  
 Run Sequence: R019691 SDG No.: CAB33  
 Instrument ID: 5970L Calibration Dates: 07/12/2007 21:13  
 Heated Purge: (Y/N) N Calibration Times: 07/12/2007 21:13  
 GC Column: RTX-5Sil\_MS ID: \_\_\_\_\_ Mean % RSD: 11.87

Analyte	Std 1	RP 1	Std 2	RP 2	Std 3	RP 3	Std 4	RP 4	Std 5	RP 5	Std 6	RP 6	Std 7	RP 7	Std 8	RP 8	RP	%RSD	r <sup>2</sup> COD	Eq Ty
3 & 4-Methylphenol	1	1.188E+00	10	1.598E+00	25	1.416E+00	40	1.317E+00	60	1.165E+00	80	1.105E+00					1.298	14.24		A
Bis(2-chloroisopropyl)ether	1	2.503E+00	5	3.170E+00	10	2.984E+00	25	2.842E+00	40	2.678E+00	60	2.494E+00	80	2.477E+00			2.736	9.95		A
Phenol	1	1.619E+00	5	2.415E+00	10	2.263E+00	25	2.062E+00	40	1.966E+00	60	1.790E+00	80	1.872E+00			1.998	13.76		A
Bis(2-Chloroethyl)ether	1	1.376E+00	5	2.066E+00	10	1.957E+00	25	1.797E+00	40	1.675E+00	60	1.572E+00	80	1.542E+00			1.712	14.22		A
2-Chlorophenol	1	1.189E+00	5	1.719E+00	10	1.612E+00	25	1.536E+00	40	1.480E+00	60	1.396E+00	80	1.375E+00			1.473	11.77		A
1,3-Dichlorobenzene	1	1.369E+00	5	2.072E+00	10	1.890E+00	25	1.790E+00	40	1.733E+00	60	1.625E+00	80	1.631E+00			1.730	12.87		A
1,4-Dichlorobenzene	1	1.388E+00	5	2.161E+00	10	1.952E+00	25	1.794E+00	40	1.763E+00	60	1.674E+00	80	1.653E+00			1.769	13.78		A
Benzyl alcohol	1	7.940E-01	5	1.198E+00	10	1.116E+00	25	1.054E+00	40	1.022E+00	60	9.089E-01	80	9.020E-01			0.999	13.92		A
1,2-Dichlorobenzene	1	1.296E+00	5	2.009E+00	10	1.865E+00	25	1.683E+00	40	1.613E+00	60	1.500E+00	80	1.465E+00			1.633	14.96		A
2-Methylphenol	1	1.017E+00	5	1.593E+00	10	1.528E+00	25	1.445E+00	40	1.340E+00	60	1.263E+00	80	1.251E+00			1.348	14.46		A
N-Nitroso-di-n-propylamine	1	9.660E-01	10	1.392E+00	25	1.250E+00	40	1.103E+00	60	1.001E+00	80	1.005E+00					1.120	15.07		A
Hexachloroethane	1	6.079E-01	5	8.859E-01	10	8.309E-01	25	7.699E-01	40	7.500E-01	60	7.070E-01	80	7.120E-01			0.752	11.99		A
Nitrobenzene	1	3.939E-01	5	5.899E-01	10	5.609E-01	25	5.320E-01	40	5.019E-01	60	5.000E-01	80	5.099E-01			0.513	12.07		A
Isophorone	1	7.649E-01	5	1.057E+00	10	1.054E+00	25	9.509E-01	40	8.730E-01	60	8.510E-01	80	8.380E-01			0.913	12.24		A
2-Nitrophenol	1	1.270E-01	5	1.360E-01	10	1.350E-01	25	1.450E-01	40	1.739E-01	60	1.690E-01	80	1.790E-01			0.152	14.02		A
2,4-Dimethylphenol	1	3.429E-01	5	5.669E-01	10	5.260E-01	25	4.990E-01	40	4.670E-01	60	4.580E-01	80	4.540E-01			0.473	14.88		A
Benzoic acid	5	1.110E-01	10	1.600E-01	25	1.790E-01	40	2.200E-01	60	2.290E-01	80	2.509E-01					0.192		0.999	Q
Bis(2-chloroethoxy)methane	1	5.220E-01	5	7.390E-01	10	7.210E-01	25	6.530E-01	40	6.010E-01	60	5.770E-01	80	5.730E-01			0.627	12.90		A
2,4-Dichlorophenol	1	2.960E-01	5	4.460E-01	10	4.449E-01	25	4.100E-01	40	3.910E-01	60	3.800E-01	80	3.770E-01			0.392	13.02		A
1,2,4-Trichlorobenzene	1	3.790E-01	5	5.479E-01	10	5.040E-01	25	4.670E-01	40	4.490E-01	60	4.350E-01	80	4.379E-01			0.460	11.75		A
Naphthalene	1	1.133E+00	5	1.557E+00	10	1.445E+00	25	1.318E+00	40	1.239E+00	60	1.198E+00	80	1.179E+00			1.296	11.96		A
4-Chloroaniline	1	4.610E-01	5	6.389E-01	10	6.390E-01	25	5.839E-01	40	5.559E-01	60	5.500E-01	80	5.320E-01			0.569	11.72		A
Hexachlorobutadiene	1	2.370E-01	5	3.129E-01	10	2.890E-01	25	2.730E-01	40	2.599E-01	60	2.509E-01	80	2.550E-01			0.268	9.56		A
4-Chloro-3-methylphenol	1	3.150E-01	5	4.729E-01	10	4.790E-01	25	4.449E-01	40	4.160E-01	60	4.000E-01	80	3.899E-01			0.417	13.57		A

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average  
 \* SPCCS #

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019691 SDG No.: CAB33  
 Instrument ID: 5970L Calibration Dates: 07/12/2007 21:13  
 Heated Purge: (Y/N) N Calibration Times: 07/12/2007 21:13

GC Column: RTX-5Sil MS ID: \_\_\_\_\_ Mean % RSD: 11.87

Analyte	Std	RP 1	Std	RP 2	Std	RP 3	Std	RP 4	Std	RP 5	Std	RP 6	Std	RP 7	Std	RP 8	RP	%RSD	r <sup>2</sup> COD	Eq TY
2-Methylnaphthalene	1	6.840E-01	5	9.269E-01	10	8.809E-01	25	8.040E-01	40	7.400E-01	60	7.160E-01	80	7.049E-01			0.780	12.06		A
Hexachlorocyclopentadiene	5	3.970E-01	10	3.709E-01	25	3.989E-01	40	4.659E-01	60	4.589E-01	80	4.749E-01					0.428	10.27		A
2,4,6-Trichlorophenol	5	4.449E-01	10	4.540E-01	25	5.440E-01	40	5.260E-01	60	4.910E-01	80	4.970E-01					0.493	7.85		A
2,4,5-Trichlorophenol	1	3.899E-01	5	6.470E-01	10	6.179E-01	25	5.080E-01	40	5.370E-01	60	5.360E-01	80	5.510E-01			0.541	15.34		A
2-Chloronaphthalene	1	1.313E+00	5	1.876E+00	10	1.684E+00	25	1.489E+00	40	1.480E+00	60	1.408E+00	80	1.415E+00			1.524	12.64		A
2-Nitroaniline	5	4.700E-01	10	4.889E-01	25	5.070E-01	40	4.980E-01	60	4.790E-01	80	4.910E-01					0.489	2.70		A
Dimethylphthalate	1	1.420E+00	5	2.056E+00	10	2.082E+00	25	1.851E+00	40	1.707E+00	60	1.582E+00	80	1.579E+00			1.754	14.39		A
2,6-Dinitrotoluene	5	3.989E-01	10	4.460E-01	25	4.379E-01	40	4.210E-01	60	4.020E-01	80	4.040E-01					0.418	4.72		A
Acenaphthylene	1	1.997E+00	5	2.934E+00	10	2.655E+00	25	2.417E+00	40	2.365E+00	60	2.174E+00	80	2.229E+00			2.396	13.14		A
3-Nitroaniline	5	4.030E-01	10	4.370E-01	25	4.260E-01	40	4.040E-01	60	3.910E-01	80	3.970E-01					0.410	4.38		A
Acenaphthene	1	1.205E+00	5	1.819E+00	10	1.675E+00	25	1.483E+00	40	1.451E+00	60	1.326E+00	80	1.351E+00			1.473	14.38		A
2,4-Dinitrophenol	1		5	4.100E-02	10	5.500E-02	25	7.000E-02	40	8.200E-02	60	7.900E-02	80	8.200E-02			0.068		0.999	L
4-Nitrophenol	5	1.360E-01	10	1.580E-01	25	1.729E-01	40	1.850E-01	60	1.729E-01	80	1.760E-01					0.167	10.34		A
Dibenzofuran	1	1.704E+00	5	2.539E+00	10	2.335E+00	25	2.122E+00	40	2.030E+00	60	1.868E+00	80	1.868E+00			2.067	14.11		A
2,4-Dinitrotoluene	5	3.939E-01	10	4.799E-01	25	5.099E-01	40	4.889E-01	60	4.630E-01	80	4.600E-01					0.466	8.54		A
Diethylphthalate	5	2.040E+00	10	2.066E+00	25	1.844E+00	40	1.694E+00	60	1.534E+00	80	1.493E+00					1.779	13.87		A
Fluorene	1	1.415E+00	5	1.983E+00	10	1.881E+00	25	1.620E+00	40	1.554E+00	60	1.415E+00	80	1.405E+00			1.611	14.64		A
4-Chlorophenyl-phenylether	1	6.790E-01	5	9.969E-01	10	9.369E-01	25	7.969E-01	40	7.780E-01	60	7.080E-01	80	7.009E-01			0.800	15.40		A
4-Nitroaniline	5	3.820E-01	10	4.260E-01	25	4.140E-01	40	3.860E-01	60	3.590E-01	80	3.680E-01					0.389	6.72		A
4,6-Dinitro-2-methylphenol	10	5.799E-02	25	7.100E-02	40	8.200E-02	60	8.100E-02	80	8.600E-02							0.076	14.86		A
N-Nitrosodiphenylamine	1	7.229E-01	5	1.082E+00	10	9.679E-01	25	9.229E-01	40	8.880E-01	60	8.840E-01	80	9.110E-01			0.911	11.78		A
Azobenzene	1	1.215E+00	5	1.792E+00	10	1.635E+00	25	1.534E+00	40	1.460E+00	60	1.426E+00	80	1.468E+00			1.504	11.95		A
4-Bromophenyl-phenyl ether	1	2.540E-01	5	3.800E-01	10	3.520E-01	25	3.290E-01	40	3.160E-01	60	3.010E-01	80	3.140E-01			0.321	12.35		A
Hexachlorobenzene	1	2.910E-01	5	4.480E-01	10	4.190E-01	25	3.869E-01	40	3.590E-01	60	3.319E-01	80	3.680E-01			0.372	14.10		A

Eq TY = Equation Type  
 Q=Quadratic, L=Linear, A=Average

\* SPCCs #

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks\_Testing\_Labs Contract: \_\_\_\_\_  
 Run Sequence: R019691 SDG No.: CAB33  
 Instrument ID: 5970L Calibration Dates: 07/12/2007 21:13  
 Heated Purge: (Y/N) N Calibration Times: 07/12/2007 21:13  
 GC Column: RTX-5Sil MS ID: \_\_\_\_\_ Mean % RSD: 11.87

Analyte	Std	RP 1	Std	RP 2	Std	RP 3	Std	RP 4	Std	RP 5	Std	RP 6	Std	RP 7	Std	RP 8	RP	%RSD	Z <sup>2</sup> COD	Eq TY
Pentachlorophenol	5	9.399E-02	10	1.060E-01	25	1.380E-01	40	1.540E-01	60	1.570E-01	80	1.650E-01	80	1.462E+0	80	1.429E+0	0.136	11.89	1.000	Q
Phenanthrene	1	1.268E+00	5	1.837E+00	10	1.670E+00	25	1.535E+00	40	1.495E+00	60	1.429E+00	60	1.416E+0	80	1.399E+00	1.528	13.34		A
Anthracene	1	1.233E+00	5	1.835E+00	10	1.695E+00	25	1.561E+00	40	1.450E+00	60	1.399E+00	60	1.222E+0	80	1.212E+00	1.513	13.37		A
Carbazole	1	1.011E+00	5	1.533E+00	10	1.452E+00	25	1.386E+00	40	1.292E+00	60	1.212E+00	60	1.535E+0	80	1.544E+00	1.302	11.69		A
Di-n-butylphthalate	1	1.568E+00	5	1.966E+00	10	1.991E+00	25	1.842E+00	40	1.635E+00	60	1.544E+00	60	1.181E+0	80	1.175E+00	1.726	14.13		A
Fluoranthene	1	1.071E+00	5	1.582E+00	10	1.477E+00	25	1.380E+00	40	1.242E+00	60	1.175E+00	60	0.847	80	0.847	13.67		A	
Benzidine	5	6.489E-01	10	8.439E-01	25	9.639E-01	40	9.490E-01	60	8.790E-01	80	7.960E-01	80	2.210E+0	80	2.342E+00	2.477	11.83		A
Pyrene	1	2.053E+00	5	2.884E+00	10	2.734E+00	25	2.586E+00	40	2.527E+00	60	2.342E+00	60	0.857	80	8.809E-01	0.857	13.29		A
Butylbenzylphthalate	1	6.079E-01	5	8.420E-01	10	9.139E-01	25	9.210E-01	40	9.030E-01	60	8.809E-01	60	0.458	80	4.880E-01	0.458	3.91		A
3,3'-Dichlorobenzidine	5	4.480E-01	10	4.359E-01	25	4.490E-01	40	4.620E-01	60	4.639E-01	80	4.880E-01	80	1.561	80	1.493E+00	1.561	8.70		A
Benzo(a)anthracene	1	1.332E+00	5	1.717E+00	10	1.720E+00	25	1.605E+00	40	1.522E+00	60	1.493E+00	60	1.018	80	1.194E+00	1.018	10.87		A
Bis(2-ethylhexyl)phthalate	5	9.010E-01	10	9.309E-01	25	9.580E-01	40	1.031E+00	60	1.089E+00	80	1.194E+00	80	1.396	80	1.369E+00	1.396	12.14		A
Chrysene	1	1.069E+00	5	1.633E+00	10	1.482E+00	25	1.419E+00	40	1.388E+00	60	1.369E+00	60	2.565	80	2.895E+00	2.565	10.29		A
Di-n-octylphthalate	5	2.217E+00	10	2.285E+00	25	2.582E+00	40	2.714E+00	60	2.691E+00	80	2.895E+00	80	2.007	80	1.815E+00	2.007	8.77		A
Benzo(b)fluoranthene	5	2.214E+00	10	2.186E+00	25	2.003E+00	40	2.019E+00	60	1.801E+00	80	1.815E+00	80	1.811	80	1.668E+00	1.811	12.45		A
Benzo(k)fluoranthene	5	2.122E+00	10	1.975E+00	25	1.918E+00	40	1.609E+00	60	1.572E+00	80	1.668E+00	80	1.669	80	1.598E+00	1.669	5.49		A
Benzo(a)pyrene	5	1.809E+00	10	1.735E+00	25	1.673E+00	40	1.642E+00	60	1.558E+00	80	1.598E+00	80	1.331	80	1.574E+00	1.331	14.86		A
Indeno(1,2,3-cd)pyrene	5	1.089E+00	10	1.091E+00	25	1.380E+00	40	1.418E+00	60	1.434E+00	80	1.574E+00	80	1.123	80	1.329E+00	1.123	14.45		A
Dibenzo(a,h)anthracene	5	9.060E-01	10	9.490E-01	25	1.172E+00	40	1.187E+00	60	1.198E+00	80	1.329E+00	80	1.083	80	1.253E+00	1.083	11.10		A
Benzo(g,h,i)perylene	5	9.530E-01	10	9.459E-01	25	1.067E+00	40	1.117E+00	60	1.163E+00	80	1.253E+00	80	1.298	80	1.271E+00	1.298	11.08		A
2-Fluorophenol	1	1.010E+00	5	1.468E+00	10	1.389E+00	25	1.315E+00	40	1.350E+00	60	1.271E+00	60	1.824	80	1.684E+00	1.824	14.28		A
Phenol-d5	1	1.404E+00	5	2.206E+00	10	2.046E+00	25	1.893E+00	40	1.822E+00	60	1.684E+00	60	0.483	80	4.630E-01	0.483	12.80		A
Nitrobenzene-d5	1	3.829E-01	5	5.709E-01	10	5.479E-01	25	4.819E-01	40	4.620E-01	60	4.630E-01	60	1.659	80	1.534E+00	1.659	11.00		A
2-Fluorobiphenyl	1	1.449E+00	5	1.985E+00	10	1.814E+00	25	1.641E+00	40	1.623E+00	60	1.534E+00	60		80	1.570E+0				A

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average

\* SPCCS #



SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019691 SDG No.: CAB33  
 Instrument ID: 5970L Calibration Dates: 07/12/2007 21:13  
 Heated Purge: (Y/N) N Calibration Times: 07/12/2007 21:13  
 GC Column: RTX-5Sil MS ID: \_\_\_\_\_ Mean % RSD: 11.87

Analyte	Std	RP 1	Std	RP 2	Std	RP 3	Std	RP 4	Std	RP 5	Std	RP 6	Std	RP 7	Std	RP 8	RP	%RSD	r <sup>2</sup> COD	Eq Ty
2,4,6-Tribromophenol	5	1.100E-01	10	1.140E-01	25	1.410E-01	40	1.380E-01	60	1.500E-01	80	1.580E-01	80				0.135	14.22		A
Terphenyl-d14	1	1.217E+00	5	1.666E+00	10	1.667E+00	25	1.594E+00	40	1.503E+00	60	1.398E+00	80	1.336E+00			1.483	11.67		A

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average  
 \* SPCCs #

Calibration Standard Verification for Initial Calibration L8270M (07/12/07)

*** PROJECTED ***		*** ANALYSES ***			
Analyte(s)	Target Conc. ng/uL	Reference Solution	Amount Quanted ng/uL	Percent of Target	%D (<25%)
1,4-Dioxane	5	MS9-73-19	4.45	89	11
N-nitrosodimethylamine	32	MS9-73-19	27.64	86	14
Pyridine	32	MS9-73-19	26.4	83	18
2-Fluorophenol	64	MS9-73-19	59.08	92	8
Benzaldehyde	5	MS9-73-19	3.56	71	29
Phenol-d5	64	MS9-73-19	58.92	92	8
Phenol	32	MS9-73-19	29.88	93	7
Aniline	32	MS9-73-19	29.17	91	9
Bis(2-Chloroethyl)ether	32	MS9-73-19	27.9	87	13
2-Chlorophenol-d4	0	MS9-73-19	0	NA	NA
2-Chlorophenol	32	MS9-73-19	31.56	99	1
1,3-Dichlorobenzene	32	MS9-73-19	31.61	99	1
1,4-Dichlorobenzene	32	MS9-73-19	29.9	93	7
1,2-Dichlorobenzene-d4	0	MS9-73-19	0	NA	NA
Benzyl alcohol	32	MS9-73-19	27.26	85	15
1,2-Dichlorobenzene	32	MS9-73-19	31.68	99	1
2-Methylphenol	32	MS9-73-19	29.94	94	6
Bis(2-chloroisopropyl)ether	32	MS9-73-19	27.82	87	13
3 & 4-Methylphenol <sup>1</sup>	64	MS9-73-19	57.96	91	9
Acetophenone	32	MS9-73-19	33.13	104	4
n-Nitroso-di-n-propylamine	32	MS9-73-19	26.69	83	17
Hexachloroethane	32	MS9-73-19	28.57	89	11
Nitrobenzene-d5	32	MS9-73-19	28.23	88	12
Nitrobenzene	32	MS9-73-19	29.89	93	7
Isophorone	32	MS9-73-19	30.49	95	5
2-Nitrophenol	32	MS9-73-19	25.72	80	20
2,4-Dimethylphenol	32	MS9-73-19	30.09	94	6
bis(2-Chloroethoxy)methane	32	MS9-73-19	26.77	84	16
Benzoic acid	37	MS9-73-19	28.64	77	23
2,4-Dichlorophenol	32	MS9-73-19	30.11	94	6
1,2,4-Trichlorobenzene	32	MS9-73-19	30.46	95	5
Naphthalene	32	MS9-73-19	28.71	90	10
4-Chloroaniline	32	MS9-73-19	25.44	80	21
Hexachlorobutadiene	32	MS9-73-19	29.68	93	7
Caprolactam	5	MS9-73-19	4.18	84	16
4-Chloro-3-methylphenol	32	MS9-73-19	27.85	87	13
2-Methylnaphthalene	32	MS9-73-19	29.44	92	8
1-Methylnaphthalene	0	MS9-73-19	0	NA	NA
Hexachlorocyclopentadiene	32	MS9-73-19	29.98	94	6
1,2,4,5-Tetrachlorobenzene	37	MS9-73-19	38.31	104	4
2,4,6-Trichlorophenol	32	MS9-73-19	29.05	91	9
2,4,5-Trichlorophenol	32	MS9-73-19	31.41	98	2
2-Fluorobiphenyl	32	MS9-73-19	30.75	96	4
1,1'-Biphenyl	5	MS9-73-19	4.44	89	11
2-Chloronaphthalene	32	MS9-73-19	34.26	107	7
2-Nitroaniline	32	MS9-73-19	31.41	98	2
Dimethylphthalate	32	MS9-73-19	28.21	88	12
1,4-Dinitrobenzene	0	MS9-73-19	0	NA	NA
1,3-Dinitrobenzene	32	MS9-73-19	24.6	77	23
2,6-Dinitrotoluene	32	MS9-73-19	28.68	90	10
Acenaphthylene	32	MS9-73-19	30.37	95	5

-not a target analyte  
7/19/07 AP

*** PROJECTED ***		*** ANALYSES ***			
Analyte(s)	Target Conc. ng/uL	Reference Solution	Amount Quanted ng/uL	Percent of Target	%D (<25%)
1,2-Dinitrobenzene	0	MS9-73-19	0	NA	NA
3-Nitroaniline	32	MS9-73-19	29.29	92	8
Acenaphthene	32	MS9-73-19	29.14	91	9
2,4-Dinitrophenol	32	MS9-73-19	23.82	74	26
4-Nitrophenol	32	MS9-73-19	24.1	75	25
Dibenzofuran	32	MS9-73-19	28.21	88	12
2,4-Dinitrotoluene	32	MS9-73-19	28.8	90	10
2,3,5,6-tetrachlorophenol	0	MS9-73-19	0	NA	NA
2,3,4,6-tetrachlorophenol	32	MS9-73-19	25.63	80	20
Diethylphthalate	32	MS9-73-19	26.94	84	16
Fluorene	32	MS9-73-19	27.48	86	14
4-Chlorophenyl-phenylether	32	MS9-73-19	27.64	86	14
4-Nitroaniline	32	MS9-73-19	29.79	93	7
4,6-Dinitro-2-methylphenol	32	MS9-73-19	23.17	72	28
N-nitrosodiphenylamine <sup>2</sup>	32	MS9-73-19	29.92	94	6
1,2-Diphenylhydrazine <sup>3</sup>	32	MS9-73-19	29.74	93	7
2,4,6-Tribromophenol	64	MS9-73-19	65.24	102	2
4-Bromophenyl-phenylether	32	MS9-73-19	30.28	95	5
Hexachlorobenzene	32	MS9-73-19	32.58	102	2
Atrazine	5	MS9-73-19	3.83	77	23
Pentachlorophenol	32	MS9-73-19	26.45	83	17
Phenanthrene	32	MS9-73-19	28.73	90	10
Anthracene	32	MS9-73-19	29.94	94	6
Carbazole	32	MS9-73-19	28.87	90	10
Di-n-butylphthalate	32	MS9-73-19	27.28	85	15
Fluoranthene	32	MS9-73-19	28.7	90	10
Benzidine	32	MS9-73-19	19.74	62	38
Pyrene	32	MS9-73-19	27.17	85	15
Terphenyl-d14	32	MS9-73-19	27	84	16
Butylbenzylphthalate	32	MS9-73-19	26.97	84	16
Bis(2-ethylhexyl)adipate	0	MS9-73-19	0	NA	NA
3,3'-Dichlorobenzidine	32	MS9-73-19	28.58	89	11
Benzo[a]anthracene	32	MS9-73-19	27.7	87	13
bis(2-Ethylhexyl)phthalate	32	MS9-73-19	29.8	93	7
Chrysene	32	MS9-73-19	28.82	90	10
Di-n-octylphthalate	32	MS9-73-19	26.64	83	17
Benzo[b]fluoranthene	32	MS9-73-19	27.28	85	15
Benzo[k]fluoranthene	32	MS9-73-19	28.38	89	11
Benzo[a]pyrene	32	MS9-73-19	28.95	90	10
Indeno[1,2,3-cd]pyrene	32	MS9-73-19	37.36	117	17
Dibenz[a,h]anthracene	32	MS9-73-19	38.43	120	20
Benzo[g,h,i]perylene	32	MS9-73-19	37.51	117	17

- See narr.

- See narr.

7/19/07  
AP

- See narr.

Analyst: AP  
Date analyzed: 07/12/07

<sup>1</sup> 3-methylphenol and 4-methylphenol do not have sufficient chromatographic resolution on the analytical column to allow them to be quantitated separately. Results for 3-methylphenol and 4-methylphenol are calculated using a single response factor.

<sup>2</sup> N-nitrosodiphenylamine (B270-listed analyte) decomposes to diphenylamine.

<sup>3</sup> 1,2-diphenylhydrazine (B270-listed analyte) decomposes to azobenzene.

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019691SDG No.: CAB33Instrument ID: 5970LCalibration Date: 07/18/2007 Time: 13:18Lab File ID: L0718003.DInit. Calib. Date(s): 07/12/2007Client Sample No.: CCV071807-2Init. Calib. Time(s): 12:31Heated Purge: (Y/N) NGC Column: RTX-5Sil MS ID: 0.25 (mm)

Compound	Equation Type	RF 718.0	%D	%Drift
3 & 4-Methylphenol	A	1.402	-7.99	
Bis(2-chloroisopropyl)ether	A	2.663	2.67	
Phenol	A	2.065	-3.34	
Bis(2-Chloroethyl)ether	A	1.787	-4.38	
2-Chlorophenol	A	1.504	-2.11	
1,3-Dichlorobenzene	A	1.745	-0.88	
1,4-Dichlorobenzene	A	1.800	-1.75	
Benzyl alcohol	A	1.005	-0.60	
1,2-Dichlorobenzene	A	1.618	0.90	
2-Methylphenol	A	1.386	-2.84	
N-Nitroso-di-n-propylamine	A	1.211	-8.14	
Hexachloroethane	A	0.747	0.73	
Nitrobenzene	A	0.578	-12.67	
Isophorone	A	0.939	-2.80	
2-Nitrophenol	A	0.144	5.40	
2,4-Dimethylphenol	A	0.477	-0.79	
Benzoic acid	Q	0.146		-20.43*
Bis(2-chloroethoxy)methane	A	0.623	0.71	
2,4-Dichlorophenol	A	0.380	3.18	
1,2,4-Trichlorobenzene	A	0.440	4.27	
Naphthalene	A	1.260	2.79	
4-Chloroaniline	A	0.569	0.05	
Hexachlorobutadiene	A	0.250	6.62	
4-Chloro-3-methylphenol	A	0.418	-0.24	
2-Methylnaphthalene	A	0.803	-2.95	
Hexachlorocyclopentadiene	A	0.418	2.26	
2,4,6-Trichlorophenol	A	0.484	1.87	
2,4,5-Trichlorophenol	A	0.513	5.18	
2-Chloronaphthalene	A	1.516	0.51	
2-Nitroaniline	A	0.535	-9.32	
Dimethylphthalate	A	1.690	3.65	
2,6-Dinitrotoluene	A	0.408	2.47	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019691SDG No.: CAB33Instrument ID: 5970LCalibration Date: 07/18/2007 Time: 13:18Lab File ID: L0718003.DInit. Calib. Date(s): 07/12/2007Client Sample No.: CCV071807-2Init. Calib. Time(s): 12:31Heated Purge: (Y/N) NGC Column: RTX-5Sil MS ID: 0.25 (mm)

Compound	Equation Type	RF 718.0	%D	%Drift
Acenaphthylene	A	2.349	1.94	
3-Nitroaniline	A	0.413	-0.67	
Acenaphthene	A	1.444	1.98	
2,4-Dinitrophenol	L	0.069		-6.38
4-Nitrophenol	A	0.184	-10.04	
Dibenzofuran	A	2.029	1.83	
2,4-Dinitrotoluene	A	0.476	-2.20	
Diethylphthalate	A	1.680	5.59	
Fluorene	A	1.575	2.22	
4-Chlorophenyl-phenylether	A	0.774	3.26	
4-Nitroaniline	A	0.395	-1.63	
4,6-Dinitro-2-methylphenol	A	0.073	4.51	
N-Nitrosodiphenylamine	A	0.883	3.06	
Azobenzene	A	1.571	-4.44	
4-Bromophenyl-phenyl ether	A	0.301	6.25	
Hexachlorobenzene	A	0.348	6.41	
Pentachlorophenol	Q	0.138		-2.03
Phenanthrene	A	1.431	6.36	
Anthracene	A	1.425	5.79	
Carbazole	A	1.275	2.04	
Di-n-butylphthalate	A	1.588	8.00	
Fluoranthene	A	1.288	0.97	
Benzidine	A	0.685	19.13	
Pyrene	A	2.216	10.54	
Butylbenzylphthalate	A	0.725	15.37	
3,3'-Dichlorobenzidine	A	0.425	7.27	
Benzo(a)anthracene	A	1.476	5.43	
Bis(2-ethylhexyl)phthalate	A	0.897	11.91	
Chrysene	A	1.343	3.77	
Di-n-octylphthalate	A	2.287	10.83	
Benzo(b)fluoranthene	A	1.940	3.34	
Benzo(k)fluoranthene	A	1.800	0.60	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019691SDG No.: CAB33Instrument ID: 5970LCalibration Date: 07/18/2007 Time: 13:18Lab File ID: L0718003.DInit. Calib. Date(s): 07/12/2007Client Sample No.: CCV071807-2Init. Calib. Time(s): 12:31Heated Purge: (Y/N) NGC Column: RTX-5Sil MS ID: 0.25 (mm)

Compound	Equation Type	RF 718.0	%D	%Drift
Benzo(a)pyrene	A	1.619	2.98	
Indeno(1,2,3-cd)pyrene	A	1.389	-4.36	
Dibenzo(a,h)anthracene	A	1.168	-4.05	
Benzo(g,h,i)perylene	A	1.189	-9.78	
2-Fluorophenol	A	1.367	-5.35	
Phenol-d5	A	1.858	-1.88	
Nitrobenzene-d5	A	0.570	-17.93	
2-Fluorobiphenyl	A	1.646	0.81	
2,4,6-Tribromophenol	A	0.136	-0.50	
Terphenyl-d14	A	1.364	8.04	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062507MSVWLT

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: B062507MSVWLT  
 Lab File ID: L0718005.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	5.0	U
108-60-1	Bis(2-chloroisopropyl)ether	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	Bis(2-Chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
100-51-6	Benzyl alcohol	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
95-48-7	2-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
65-85-0	Benzoic acid	10	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062507MSVWLT

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: B062507MSVWLT  
 Lab File ID: L0718005.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	5.0	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	5.0	U
83-32-9	Acenaphthene	5.0	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	5.0	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	5.0	U
534-52-1	4,6-Dinitro-2-methylphenol	5.0	U
86-30-6	N-Nitrosodiphenylamine	5.0	U
122-66-7	Azobenzene	5.0	U
101-55-3	4-Bromophenyl-phenyl ether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
87-86-5	Pentachlorophenol	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
86-74-8	Carbazole	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U



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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062507MSVWLT

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: B062507MSVWLT  
 Lab File ID: L0718005.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
92-87-5	Benzidine	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
117-81-7	Bis(2-ethylhexyl)phthalate	5.0	U
218-01-9	Chrysene	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U

Comments:

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062507MSVWLT

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: S062507MSVWLT  
 Lab File ID: L0718006.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	17	
108-60-1	Bis(2-chloroisopropyl)ether	16	
108-95-2	Phenol	13	
111-44-4	Bis(2-Chloroethyl)ether	17	
95-57-8	2-Chlorophenol	13	
541-73-1	1,3-Dichlorobenzene	10	
106-46-7	1,4-Dichlorobenzene	10	
100-51-6	Benzyl alcohol	17	
95-50-1	1,2-Dichlorobenzene	11	
95-48-7	2-Methylphenol	16	
621-64-7	N-Nitroso-di-n-propylamine	19	
67-72-1	Hexachloroethane	9.1	
98-95-3	Nitrobenzene	19	
78-59-1	Isophorone	16	
88-75-5	2-Nitrophenol	9.5	
105-67-9	2,4-Dimethylphenol	11	
65-85-0	Benzoic acid	6.9	J
111-91-1	Bis(2-chloroethoxy)methane	16	
120-83-2	2,4-Dichlorophenol	13	
120-82-1	1,2,4-Trichlorobenzene	11	
91-20-3	Naphthalene	13	
106-47-8	4-Chloroaniline	12	
87-68-3	Hexachlorobutadiene	8.8	
59-50-7	4-Chloro-3-methylphenol	16	
91-57-6	2-Methylnaphthalene	14	
77-47-4	Hexachlorocyclopentadiene	3.5	J

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062507MSVWLT

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: S062507MSVWLT  
 Lab File ID: L0718006.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-06-2	2,4,6-Trichlorophenol	9.9	
95-95-4	2,4,5-Trichlorophenol	12	
91-58-7	2-Chloronaphthalene	16	
88-74-4	2-Nitroaniline	16	
131-11-3	Dimethylphthalate	17	
606-20-2	2,6-Dinitrotoluene	12	
208-96-8	Acenaphthylene	16	
99-09-2	3-Nitroaniline	14	
83-32-9	Acenaphthene	16	
51-28-5	2,4-Dinitrophenol	10	
100-02-7	4-Nitrophenol	11	
132-64-9	Dibenzofuran	16	
121-14-2	2,4-Dinitrotoluene	13	
84-66-2	Diethylphthalate	16	
86-73-7	Fluorene	17	
7005-72-3	4-Chlorophenyl-phenylether	17	
100-01-6	4-Nitroaniline	14	
534-52-1	4,6-Dinitro-2-methylphenol	7.8	
86-30-6	N-Nitrosodiphenylamine	13	
122-66-7	Azobenzene	17	
101-55-3	4-Bromophenyl-phenyl ether	15	
118-74-1	Hexachlorobenzene	16	
87-86-5	Pentachlorophenol	11	
85-01-8	Phenanthrene	16	
120-12-7	Anthracene	15	
86-74-8	Carbazole	16	
84-74-2	Di-n-butylphthalate	15	
206-44-0	Fluoranthene	17	

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062507MSVWLT

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: S062507MSVWLT  
 Lab File ID: L0718006.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
92-87-5	Benzidine	5.0	U
129-00-0	Pyrene	15	
85-68-7	Butylbenzylphthalate	11	
91-94-1	3,3'-Dichlorobenzidine	11	
56-55-3	Benzo(a)anthracene	14	
117-81-7	Bis(2-ethylhexyl)phthalate	12	
218-01-9	Chrysene	16	
117-84-0	Di-n-octylphthalate	10	
205-99-2	Benzo(b)fluoranthene	14	
207-08-9	Benzo(k)fluoranthene	16	
50-32-8	Benzo(a)pyrene	15	
193-39-5	Indeno(1,2,3-cd)pyrene	17	
53-70-3	Dibenzo(a,h)anthracene	17	
191-24-2	Benzo(g,h,i)perylene	17	

Comments:

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMS

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-002MS  
 Lab File ID: L0718009.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	15	
108-60-1	Bis(2-chloroisopropyl) ether	13	
108-95-2	Phenol	9.0	
111-44-4	Bis(2-Chloroethyl) ether	14	
95-57-8	2-Chlorophenol	8.1	
541-73-1	1,3-Dichlorobenzene	8.9	
106-46-7	1,4-Dichlorobenzene	9.0	
100-51-6	Benzyl alcohol	15	
95-50-1	1,2-Dichlorobenzene	9.3	
95-48-7	2-Methylphenol	14	
621-64-7	N-Nitroso-di-n-propylamine	16	
67-72-1	Hexachloroethane	8.9	
98-95-3	Nitrobenzene	16	
78-59-1	Isophorone	13	
88-75-5	2-Nitrophenol	3.2	J
105-67-9	2,4-Dimethylphenol	12	
65-85-0	Benzoic acid	3.3	J
111-91-1	Bis(2-chloroethoxy) methane	14	
120-83-2	2,4-Dichlorophenol	8.4	
120-82-1	1,2,4-Trichlorobenzene	8.9	
91-20-3	Naphthalene	10	
106-47-8	4-Chloroaniline	11	
87-68-3	Hexachlorobutadiene	7.9	
59-50-7	4-Chloro-3-methylphenol	14	
91-57-6	2-Methylnaphthalene	10	
77-47-4	Hexachlorocyclopentadiene	1.5	J

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMS

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-002MS  
 Lab File ID: L0718009.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	<u>Q</u>
88-06-2	2,4,6-Trichlorophenol	7.0	
95-95-4	2,4,5-Trichlorophenol	7.5	
91-58-7	2-Chloronaphthalene	11	
88-74-4	2-Nitroaniline	13	
131-11-3	Dimethylphthalate	14	
606-20-2	2,6-Dinitrotoluene	10	
208-96-8	Acenaphthylene	12	
99-09-2	3-Nitroaniline	13	
83-32-9	Acenaphthene	12	
51-28-5	2,4-Dinitrophenol	9.4	U
100-02-7	4-Nitrophenol	4.7	U
132-64-9	Dibenzofuran	13	
121-14-2	2,4-Dinitrotoluene	9.9	
84-66-2	Diethylphthalate	14	
86-73-7	Fluorene	14	
7005-72-3	4-Chlorophenyl-phenylether	14	
100-01-6	4-Nitroaniline	13	
534-52-1	4,6-Dinitro-2-methylphenol	4.7	U
86-30-6	N-Nitrosodiphenylamine	11	
122-66-7	Azobenzene	16	
101-55-3	4-Bromophenyl-phenyl ether	14	
118-74-1	Hexachlorobenzene	14	
87-86-5	Pentachlorophenol	6.2	
85-01-8	Phenanthrene	15	
120-12-7	Anthracene	14	
86-74-8	Carbazole	16	
84-74-2	Di-n-butylphthalate	13	
206-44-0	Fluoranthene	16	

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMS

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-002MS  
 Lab File ID: L0718009.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
92-87-5	Benzidine	4.7	U
129-00-0	Pyrene	14	
85-68-7	Butylbenzylphthalate	8.3	
91-94-1	3,3'-Dichlorobenzidine	9.2	
56-55-3	Benzo(a)anthracene	14	
117-81-7	Bis(2-ethylhexyl)phthalate	10	
218-01-9	Chrysene	15	
117-84-0	Di-n-octylphthalate	7.5	
205-99-2	Benzo(b)fluoranthene	13	
207-06-9	Benzo(k)fluoranthene	14	
50-32-8	Benzo(a)pyrene	13	
193-39-5	Indeno(1,2,3-cd)pyrene	16	
53-70-3	Dibenzo(a,h)anthracene	16	
191-24-2	Benzo(g,h,i)perylene	16	

Comments:

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMSD

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-002MSD  
 Lab File ID: L0718010.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	13	
108-60-1	Bis(2-chloroisopropyl) ether	11	
108-95-2	Phenol	9.1	
111-44-4	Bis(2-Chloroethyl) ether	12	
95-57-8	2-Chlorophenol	9.3	
541-73-1	1,3-Dichlorobenzene	7.0	
106-46-7	1,4-Dichlorobenzene	6.9	
100-51-6	Benzyl alcohol	13	
95-50-1	1,2-Dichlorobenzene	7.2	
95-48-7	2-Methylphenol	12	
621-64-7	N-Nitroso-di-n-propylamine	14	
67-72-1	Hexachloroethane	6.8	
98-95-3	Nitrobenzene	14	
78-59-1	Isophorone	12	
88-75-5	2-Nitrophenol	3.2	J
105-67-9	2,4-Dimethylphenol	12	
65-85-0	Benzoic acid	3.1	J
111-91-1	Bis(2-chloroethoxy) methane	12	
120-83-2	2,4-Dichlorophenol	8.6	
120-82-1	1,2,4-Trichlorobenzene	6.7	
91-20-3	Naphthalene	8.1	
106-47-8	4-Chloroaniline	10	
87-68-3	Hexachlorobutadiene	6.1	
59-50-7	4-Chloro-3-methylphenol	11	
91-57-6	2-Methylnaphthalene	7.9	
77-47-4	Hexachlorocyclopentadiene	4.7	U



1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMSD

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-002MSD  
 Lab File ID: L0718010.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-06-2	2,4,6-Trichlorophenol	6.0	
95-95-4	2,4,5-Trichlorophenol	6.0	
91-58-7	2-Chloronaphthalene	8.1	
88-74-4	2-Nitroaniline	11	
131-11-3	Dimethylphthalate	12	
606-20-2	2,6-Dinitrotoluene	8.3	
208-96-8	Acenaphthylene	9.4	
99-09-2	3-Nitroaniline	10	
83-32-9	Acenaphthene	9.4	
51-28-5	2,4-Dinitrophenol	9.4	U
100-02-7	4-Nitrophenol	4.7	U
132-64-9	Dibenzofuran	10	
121-14-2	2,4-Dinitrotoluene	7.8	
84-66-2	Diethylphthalate	12	
86-73-7	Fluorene	11	
7005-72-3	4-Chlorophenyl-phenylether	11	
100-01-6	4-Nitroaniline	10	
534-52-1	4,6-Dinitro-2-methylphenol	4.7	U
86-30-6	N-Nitrosodiphenylamine	8.0	
122-66-7	Azobenzene	12	
101-55-3	4-Bromophenyl-phenyl ether	11	
118-74-1	Hexachlorobenzene	12	
87-86-5	Pentachlorophenol	5.3	
85-01-8	Phenanthrene	12	
120-12-7	Anthracene	11	
86-74-8	Carbazole	12	
84-74-2	Di-n-butylphthalate	11	
206-44-0	Fluoranthene	13	

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMMSD

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019691  
 Lab Sample ID: CAB33-002MSD  
 Lab File ID: L0718010.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/25/2007  
 Date Analyzed: 07/18/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
92-87-5	Benzidine	4.7	U
129-00-0	Pyrene	11	
85-68-7	Butylbenzylphthalate	6.9	
91-94-1	3,3'-Dichlorobenzidine	8.4	
56-55-3	Benzo(a)anthracene	11	
117-81-7	Bis(2-ethylhexyl)phthalate	7.7	
218-01-9	Chrysene	12	
117-84-0	Di-n-octylphthalate	6.0	
205-99-2	Benzo(b)fluoranthene	11	
207-08-9	Benzo(k)fluoranthene	11	
50-32-8	Benzo(a)pyrene	10	
193-39-5	Indeno(1,2,3-cd)pyrene	13	
53-70-3	Dibenzo(a,h)anthracene	12	
191-24-2	Benzo(g,h,i)perylene	13	

Comments:

# Forms Summary

CAB33

Ordinance by Method 8330

2  
WATER ORDNANCE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB33

Run Sequence: R019636

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (DNT) #	S2 ( ) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB33-005) 15LCMW02DW	79				0
(CAB33-004) 15LCMW02SW	94				0
(CAB33-002MSD) 15LCMW01DWMSD	103				0
(CAB33-002MS) 15LCMW01DWMS	100				0
(CAB33-002) 15LCMW01DW	102				0
(CAB33-001) 15LCMW01SW	78				0
(S062607HORWLG) S062607HORWLG	119				0
(B062607HORWLG) B062607HORWLG	80				0

QC LIMITS  
60-140

S1 (DNT) = 3,4-Dinitrotoluene  
S2 ( ) =  
S3 ( ) =  
S4 ( ) =

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits

3B  
WATER ORDNANCE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 BS Run Sequence: R019636 SDG No.: CAB33  
 BS Lab Sample ID: S062607HORWLG  
 Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
HMX	20.0	21.0228	105		80-115
RDX	20.0	21.5036	108		50-160
1,3,5-Trinitrobenzene	20.0	17.5962	88		65-140
1,3-Dinitrobenzene	20.0	17.771	89		45-160
Nitrobenzene	20.0	17.8355	89		50-140
Tetryl	20.0	16.0464	80		20-175
2,4,6-Trinitrotoluene	20.0	18.691	93		50-145
4-Amino-2,6-dinitrotoluene	20.0	17.92	90		55-155
2-Amino-4,6-dinitrotoluene	20.0	17.8793	89		50-155
2,6-Dinitrotoluene	20.0	16.1231	81		60-135
2,4-Dinitrotoluene	20.0	16.4553	82		60-135
2-Nitrotoluene	20.0	14.9209	75		45-135
4-Nitrotoluene	20.0	15.4368	77		50-130
3-Nitrotoluene	20.0	14.7105	74		50-130

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS:

## WATER ORDNANCE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 MS Run Sequence: R019636 MSD Run Sequence: R019636 SDG No.: CAB33  
 MS Client Sample No.: 15LCMW01DWMS MSD Client Sample No.: 15LCMW01DWMSD  
 MS Lab Sample ID: CAB33-002MS MSD Lab Sample ID: CAB33-002MSD  
 Level: N/A Units: ug/L

COMPOUND	SAMPLE CONC	MS SPIKE ADDED	MS CONC	MS % REC #	MSD SPIKE ADDED	MSD CONC	MSD % REC #	%RPD #	QC LIMITS	
									RPD	REC.
HMX	0	19.0	15.5043	81	19.0	14.8934	78 *	4	30	80-115
RDX	0	19.0	16.7654	88	19.0	15.9934	84	5	30	50-160
1,3,5-Trinitrobenzene	0	19.0	14.3878	76	19.0	13.4953	71	6	30	65-140
1,3-Dinitrobenzene	0	19.0	14.5276	76	19.0	13.5394	71	7	30	45-160
Nitrobenzene	0	19.0	14.2693	75	19.0	13.1979	69	8	30	50-140
Tetryl	0	19.0	12.8332	67	19.0	12.0228	63	7	30	20-175
2,4,6-Trinitrotoluene	0	19.0	14.354	75	19.0	13.4878	71	6	30	50-145
4-Amino-2,6-dinitrotoluene	0	19.0	14.5157	76	19.0	13.711	72	6	30	55-155
2-Amino-4,6-dinitrotoluene	0	19.0	14.54	76	19.0	13.7193	72	6	30	50-155
2,6-Dinitrotoluene	0	19.0	13.0407	68	19.0	12.2477	64	6	30	60-135
2,4-Dinitrotoluene	0	19.0	13.285	70	19.0	12.4452	65	7	30	60-135
2-Nitrotoluene	0	19.0	12.024	63	19.0	11.1032	58	8	30	45-135
4-Nitrotoluene	0	19.0	12.4413	65	19.0	11.4674	60	8	30	50-130
3-Nitrotoluene	0	19.0	11.8511	62	19.0	10.8953	57	8	30	50-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

@ This RPD or percent recovery is not flagged as an exceedance because the Sample Found amount is five times or more than the Spike Added amount.

RPD: 0 out of 14 outside limits

Spike Recovery: 1 out of 28 outside limits

COMMENTS:

ORDNANCE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062607HORWLG

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B062607HORWLG SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water Date Prepared: 06/26/2007  
 Lab File ID (1): O62807.b-O6280704.D Lab File ID (2): F71207A.b-F7120751.D  
 Date Analyzed (1): 06/28/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 13:19 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HPLC5 (Oscar) Instrument ID (2): HPLC5 (Oscar)  
 Column(1): Allure C18 ID: 4.60 (mm) Column(2): Synergi - EtPH ID: 4.60 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
15LCMW01SW	CAB33-001	1	O6280718.D	06/28/2007 22:39	R019636
		2			
15LCMW01DW	CAB33-002	1	O6280719.D	06/28/2007 23:19	R019636
		2			
15LCMW02SW	CAB33-004	1	O6280723.D	06/29/2007 01:59	R019636
		2			
15LCMW02DW	CAB33-005	1	O6280724.D	06/29/2007 02:39	R019636
		2			
15LCMW01DWMS	CAB33-002MS	1	O6280720.D	06/28/2007 23:59	R019636
		2			
15LCMW01DWMSD	CAB33-002MSD	1	O6280721.D	06/29/2007 00:39	R019636
		2			
S062607HORWLG	S062607HORWLG	1	O6280705.D	06/28/2007 13:59	R019636
		2	F7120752.D	07/13/2007 18:40	R019636

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB33-001  
 Lab File ID: O6280718.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.48	U
121-82-4	RDX	0.48	U
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:



1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB33-002  
 Lab File ID: O6280719.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
2691-41-0	HMX	0.48		U
121-82-4	RDX	0.48		U
99-35-4	1,3,5-Trinitrobenzene	0.48		U
99-65-0	1,3-Dinitrobenzene	0.48		U
98-95-3	Nitrobenzene	0.48		U
479-45-8	Tetryl	0.48		U
118-96-7	2,4,6-Trinitrotoluene	0.48		U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48		U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48		U
606-20-2	2,6-Dinitrotoluene	0.48		U
121-14-2	2,4-Dinitrotoluene	0.48		U
88-72-2	2-Nitrotoluene	0.48		U
99-99-0	4-Nitrotoluene	0.48		U
99-08-1	3-Nitrotoluene	0.48		U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB33-004  
 Lab File ID: O6280723.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.48	U
121-82-4	RDX	0.48	U
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1030.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB33-005  
 Lab File ID: O6280724.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.49	U
121-82-4	RDX	0.49	U
99-35-4	1,3,5-Trinitrobenzene	0.49	U
99-65-0	1,3-Dinitrobenzene	0.49	U
98-95-3	Nitrobenzene	0.49	U
479-45-8	Tetryl	0.49	U
118-96-7	2,4,6-Trinitrotoluene	0.49	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.49	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.49	U
606-20-2	2,6-Dinitrotoluene	0.49	U
121-14-2	2,4-Dinitrotoluene	0.49	U
88-72-2	2-Nitrotoluene	0.49	U
99-99-0	4-Nitrotoluene	0.49	U
99-08-1	3-Nitrotoluene	0.49	U

Comments:

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\oscar.i\022707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270705.D  
 Level 2: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270706.D  
 Level 3: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270707.D  
 Level 4: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270708.D  
 Level 5: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270709.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
1 BMX	11.20000	10.69000	10.67000	10.45800	10.29740	10.66308	3.2
4 MNX	10.36000	9.730000	9.828000	9.526000	9.491400	9.787080	3.6
5 RDX	8.000000	7.680000	7.730000	7.591000	7.488000	7.697800	2.5
6 1,3,5-Trinitrobenzene	13.96000	13.18000	13.63800	13.28300	13.27440	13.46708	2.4
7 1,3-Dinitrobenzene	15.24000	14.54000	15.10800	14.68900	14.87580	14.89056	1.9
8 Tetra1	7.140000	6.840000	7.116000	6.929000	6.877000	6.980400	2.0
9 Nitrobenzene	8.660000	8.280000	8.712000	8.494000	8.653000	8.559800	2.1
11 2,4,6-Trinitroloene	8.300000	7.880000	8.206000	7.946000	7.962000	8.058800	2.3
12 4-Amino-2,6-Dinitroloene	5.940000	5.630000	5.896000	5.726000	5.688400	5.775680	2.3
13 2-Amino-4,6-Dinitroloene	7.840000	7.670000	7.942000	7.738000	7.684600	7.774920	1.5
14 2,6-Dinitroloene	5.220000	5.120000	5.310000	5.165000	5.188000	5.200600	1.4

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration )  
 RSD - Relative Standard Deviation.

Laucks Testing Labs  
Initial Calibration Linearity Summary

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
15 2,4-Dinitrotoluene	8.960000	8.830000	9.198000	8.947000	9.015400	8.994080	1.5
16 2-Nitrotoluene	3.540000	3.480000	3.546000	3.463000	3.503400	3.506480	1.0
17 4-Nitrotoluene	2.700000	2.590000	2.682000	2.619000	2.659800	2.650160	1.7
18 3-Nitrotoluene	3.300000	3.090000	3.248000	3.159000	3.195000	3.198400	2.5
10 3,4-Dinitrotoluene	5.880000	5.570000	5.726000	5.555000	5.578200	5.661840	2.5
Average RSD :							2.1

Amount = Response divided by CF

CF - Calibration Factor ( Response divided by concentration ).

RSD - Relative Standard Deviation.

02/28/2007 09:10

ICAL Linearity Summary v2.0

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\oscar.i\022707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270705.D  
 Level 2: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270706.D  
 Level 3: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270707.D  
 Level 4: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270708.D  
 Level 5: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270709.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
1 HMX	4.69	4.69	4.69	4.69	4.69	4.690
4 MNX	7.09	7.09	7.08	7.08	7.09	7.089
5 RDX	8.36	8.36	8.35	8.35	8.36	8.358
6 1,3,5-Trinitrobenzene	12.11	12.13	12.12	12.12	12.13	12.125
7 1,3-Dinitrobenzene	15.02	15.08	15.05	15.07	15.07	15.057
8 Tetryl	17.11	17.22	17.17	17.20	17.20	17.180
9 Nitrobenzene	17.67	17.75	17.71	17.73	17.72	17.715
11 2,4,6-Trinitrotoluene	20.61	20.72	20.65	20.69	20.68	20.670
12 4-Amino-2,6-Dinitrotoluene	21.54	21.72	21.61	21.67	21.66	21.640
13 2-Amino-4,6-Dinitrotoluene	22.67	22.84	22.72	22.80	22.78	22.760
14 2,6-Dinitrotoluene	24.04	24.16	24.07	24.13	24.11	24.104

Retention times are expressed as minutes.

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\Oscar.i\022707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
15 2,4-Dinitrotoluene	24.97	25.08	24.98	25.04	25.02	25.019
16 2-Nitrotoluene	30.36	30.41	30.32	30.37	30.38	30.367
17 4-Nitrotoluene	33.08	33.09	33.02	33.08	33.07	33.068
18 3-Nitrotoluene	35.60	35.59	35.53	35.60	35.62	35.589
10 3,4-Dinitrotoluene	18.40	18.51	18.45	18.48	18.48	18.464

Retention times are expressed as minutes.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\oscar.i\022707.b\8330FRR2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270705.D  
 Level 2: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270706.D  
 Level 3: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270707.D  
 Level 4: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270708.D  
 Level 5: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270709.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1. HMX	50.00	100.00	500.00	1000.00	5000.00
4 MNX	50.00	100.00	500.00	1000.00	5000.00
5 RDX	50.00	100.00	500.00	1000.00	5000.00
6 1,3,5-Trinitrobenzene	50.00	100.00	500.00	1000.00	5000.00
7 1,3-Dinitrobenzene	50.00	100.00	500.00	1000.00	5000.00
8 Telryl	50.00	100.00	500.00	1000.00	5000.00
9 Nitrobenzene	50.00	100.00	500.00	1000.00	5000.00
11 2,4,6-Trinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
12 4-Amino-2,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
13 2-Amino-4,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
14 2,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00

Standard concentrations are expressed as ng/mL.



Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\oscar.f\O22707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
15 2,4-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
16 2-Nitrotoluene	50.00	100.00	500.00	1000.00	5000.00
17 4-Nitrotoluene	50.00	100.00	500.00	1000.00	5000.00
18 3-Nitrotoluene	50.00	100.00	500.00	1000.00	5000.00
10 3,4-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00

Standard concentrations are expressed as ng/ml.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\Oscar.i\O22707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/oscar/i/O22707.b/O2270705.D  
 Level 2: //ceres/labdata/hplc/oscar/i/O22707.b/O2270706.D  
 Level 3: //ceres/labdata/hplc/oscar/i/O22707.b/O2270707.D  
 Level 4: //ceres/labdata/hplc/oscar/i/O22707.b/O2270708.D  
 Level 5: //ceres/labdata/hplc/oscar/i/O22707.b/O2270709.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 HMX	560.00000	1069.0000	5335.0000	10458.000	51487.000
4 MNX	518.00000	973.00000	4914.0000	9526.0000	47457.000
5 RDX	400.00000	768.00000	3865.0000	7591.0000	37440.000
6 1,3,5-Trinitrobenzene	698.00000	1318.0000	6819.0000	13283.000	66372.000
7 1,3-Dinitrobenzene	762.00000	1454.0000	7554.0000	14689.000	74379.000
8 Teteryl	357.00000	684.00000	3558.0000	6929.0000	34385.000
9 Nitrobenzene	433.00000	828.00000	4356.0000	8494.0000	43265.000
11 2,4,6-Trinitrotoluene	415.00000	788.00000	4103.0000	7946.0000	39810.000
12 4-Amino-2,6-Dinitrotoluene	297.00000	563.00000	2948.0000	5726.0000	28432.000
13 2-Amino-4,6-Dinitrotoluene	392.00000	767.00000	3971.0000	7738.0000	38423.000
14 2,6-Dinitrotoluene	261.00000	512.00000	2655.0000	5165.0000	25940.000

Response is in Height units.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\Oscar.1\022707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
15 2,4-Dinitrotoluene	449.00000	883.00000	4599.0000	8947.0000	45077.000
16 2-Nitrotoluene	177.00000	348.00000	1773.0000	3463.0000	17517.000
17 4-Nitrotoluene	135.00000	259.00000	1341.0000	2619.0000	13299.000
18 3-Nitrotoluene	165.00000	309.00000	1624.0000	3159.0000	15975.000
10 3,4-Dinitrotoluene	294.00000	557.00000	2863.0000	5555.0000	27891.000

Response is in Height units.

## Calibration Standard Verification for Initial Calibration 8330 02/27/07)

*** PROJECTED ***		*** ANALYSES ***			
Analyte(s)	Target Conc. ng/mL	Reference Solution	Amount Quanted ng/mL	Percent of Target	%D
HMX	2000	HPLC11512/11510	2002.8	100	0
MNX	2000	EX10-82-6	2008.8	100	0
RDX	2000	HPLC11512/11510	2016.2	101	1
1,3,5-Trinitrobenzene	2000	HPLC11512/11510	2075.0	104	4
1,3-Dinitrobenzene	2000	HPLC11512/11510	1993.1	100	0
Tetryl	2000	HPLC11512/11510	2159.2	108	8
Nitrobenzene	2000	HPLC11512/11510	1956.9	98	2
2,4,6-Trinitrotoluene	2000	HPLC11512/11510	2131.2	107	7
4-Amino-2,6-dinitrotoluene	2000	HPLC11512/11510	2018.8	101	1
2-Amino-4,6-dinitrotoluene	2000	HPLC11512/11510	1966.3	98	2
2,6-Dinitrotoluene	2000	HPLC11512/11510	2041.9	102	2
2,4-Dinitrotoluene	2000	HPLC11512/11510	2001.6	100	0
2-Nitrotoluene	2000	HPLC11512/11510	1991.7	100	0
4-Nitrotoluene	2000	HPLC11512/11510	2023.3	101	1
3-Nitrotoluene	2000	HPLC11512/11510	2002.6	100	0

Initial: MY  
Date analyzed: 2/27/07

Laucks Testing Labs  
Initial Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/062807.b/06280703.D
Injection Date  : 28-JUN-2007 12:31
Sample Info     : STD04 1000PPB METHOD 8330
Misc. Info      : ICV
Laboratory ID   : STD04 1000PPB           Client ID   : HPLC1-16-8 20X
Instrument ID    : Oscar.i                 Operator    : MY
Method          : 8330FEB2707.m           Sublist     : 8330
Quantitation    : ESTD                     Integrator  : HP Genie
Dilution Factor : 1.00                    Sample Type : CCALIB_4
Column          : C18                       Column Size : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
HMX	4.58 #	4.33 - 4.83	10.66308	9.849000	7.6	
RDX	8.04 #	7.79 - 8.29	7.697800	7.344000	4.6	
1,3,5-Trinitrobenzene	11.63 #	11.38 - 11.88	13.46708	13.42300	0.3	
1,3-Dinitrobenzene	14.40 #	14.15 - 14.65	14.89056	14.73200	1.1	
Tetryl	16.20 #	15.95 - 16.45	6.980400	6.995000	-0.2	
Nitrobenzene	16.94 #	16.69 - 17.19	8.559800	8.535000	0.3	
3,4-Dinitrotoluene	17.40 #	17.15 - 17.65	5.661840	6.370000	-12.5	
2,4,6-Trinitrotoluene	19.66 #	19.41 - 19.91	8.058800	7.572000	6.0	
4-Amino-2,6-Dinitrotoluene	20.47 #	20.17 - 20.77	5.775680	5.955000	-3.1	
2-Amino-4,6-Dinitrotoluene	21.58 #	21.28 - 21.88	7.774920	7.875000	-1.3	
2,6-Dinitrotoluene	22.88 #	22.59 - 23.17	5.200600	5.292000	-1.8	
2,4-Dinitrotoluene	23.79 #	23.50 - 24.08	8.994080	9.090000	-1.1	
2-Nitrotoluene	28.81 #	28.45 - 29.17	3.506480	3.598000	-2.6	
4-Nitrotoluene	31.35 #	30.95 - 31.75	2.650160	2.743000	-3.5	
3-Nitrotoluene	33.73 #	33.29 - 34.17	3.198400	3.308000	-3.4	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/062807.b/06280713.D
Injection Date  : 28-JUN-2007 19:19
Sample Info     : STD04 1000PPB
Misc. Info     : Method 8330
Laboratory ID   : STD04 1000PPB
Instrument ID   : Oscar.i
Method         : 8330FEB2707.m
Quantitation    : ESTD
Dilution Factor : 1.00
Column         : C18

Client ID      : HPLC1-16-8 20X
Operator      : MY
Sublist       : 8330
Integrator    : HP Genie
Sample Type   : CCALIB_4
Column Size   : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
HMX	4.58	4.33 - 4.83	10.66308	9.887000	7.3	
RDX	8.02	7.79 - 8.29	7.697800	7.414000	3.7	
1,3,5-Trinitrobenzene	11.60	11.38 - 11.88	13.46708	13.65800	-1.4	
1,3-Dinitrobenzene	14.35	14.15 - 14.65	14.89056	14.91600	-0.2	
Tetryl	16.12	15.95 - 16.45	6.980400	7.088000	-1.5	
Nitrobenzene	16.87	16.69 - 17.19	8.559800	8.607000	-0.6	
3,4-Dinitrotoluene	17.31	17.15 - 17.65	5.661840	6.578000	-16.2	
2,4,6-Trinitrotoluene	19.57	19.41 - 19.91	8.058800	7.593000	5.8	
4-Amino-2,6-Dinitrotoluene	20.31	20.17 - 20.77	5.775680	6.017000	-4.2	
2-Amino-4,6-Dinitrotoluene	21.41	21.28 - 21.88	7.774920	7.878000	-1.3	
2,6-Dinitrotoluene	22.77	22.59 - 23.17	5.200600	5.250000	-0.9	
2,4-Dinitrotoluene	23.67	23.50 - 24.08	8.994080	9.110000	-1.3	
2-Nitrotoluene	28.69	28.45 - 29.17	3.506480	3.620000	-3.2	
4-Nitrotoluene	31.20	30.95 - 31.75	2.650160	2.778000	-4.8	
3-Nitrotoluene	33.56	33.29 - 34.17	3.198400	3.348000	-4.7	

Calibration Factor ( CF ) = Response divided by Concentration

Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100

\* = Percent Difference is outside the acceptance limits of +/-15%

# = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O62807.b/O6280722.D
Injection Date  : 29-JUN-2007 01:19
Sample Info     : STD04 1000PPB
Misc. Info     : Method 8330
Laboratory ID  : STD04 1000PPB
Instrument ID   : Oscar.i
Method         : 8330FEB2707.m
Quantitation   : ESTD
Dilution Factor : 1.00
Column        : C18

Client ID      : HPLC1-16-8 20X
Operator       : MY
Sublist        : 8330
Integrator     : HP Genie
Sample Type    : CCALIB_4
Column Size    : 0.25m L- 4.60mm ID
    
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
HMX	4.58	4.33 - 4.83	10.66308	9.959000	6.6	
RDX	8.02	7.79 - 8.29	7.697800	7.397000	3.9	
1,3,5-Trinitrobenzene	11.61	11.38 - 11.88	13.46708	13.69000	-1.7	
1,3-Dinitrobenzene	14.36	14.15 - 14.65	14.89056	15.06300	-1.2	
Tetryl	16.13	15.95 - 16.45	6.980400	7.171000	-2.7	
Nitrobenzene	16.88	16.69 - 17.19	8.559800	8.615000	-0.6	
3,4-Dinitrotoluene	17.31	17.15 - 17.65	5.661840	6.628000	-17.1	
2,4,6-Trinitrotoluene	19.57	19.41 - 19.91	8.058800	7.690000	4.6	
4-Amino-2,6-Dinitrotoluene	20.32	20.17 - 20.77	5.775680	6.102000	-5.6	
2-Amino-4,6-Dinitrotoluene	21.43	21.28 - 21.88	7.774920	7.973000	-2.5	
2,6-Dinitrotoluene	22.78	22.59 - 23.17	5.200600	5.328000	-2.4	
2,4-Dinitrotoluene	23.68	23.50 - 24.08	8.994080	9.179000	-2.1	
2-Nitrotoluene	28.69	28.45 - 29.17	3.506480	3.611000	-3.0	
4-Nitrotoluene	31.20	30.95 - 31.75	2.650160	2.763000	-4.3	
3-Nitrotoluene	33.57	33.29 - 34.17	3.198400	3.318000	-3.7	

Calibration Factor ( CF ) = Response divided by Concentration

Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100

\* = Percent Difference is outside the acceptance limits of +/-15%

# = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/062807.b/06280730.D
Injection Date  : 29-JUN-2007 06:39
Sample Info     : STD04 1000PPB
Misc. Info      : Method 8330
Laboratory ID   : STD04 1000PPB
Instrument ID    : Oscar.i
Method          : 8330FEB2707.m
Quantitation    : ESTD
Dilution Factor : 1.00
Column          : C18
Client ID      : HPLC1-16-8 20X
Operator       : MY
Sublist        : 8330
Integrator     : HP Genie
Sample Type    : CCALIB_4
Column Size    : 0.25m L- 4.60mm ID
    
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
=====						
HMX	4.58	4.33 - 4.83	10.66308	10.00600	6.2	
RDX	8.02	7.79 - 8.29	7.697800	7.580000	1.5	
1,3,5-Trinitrobenzene	11.60	11.38 - 11.88	13.46708	13.92700	-3.4	
1,3-Dinitrobenzene	14.36	14.15 - 14.65	14.89056	15.23900	-2.3	
Tetryl	16.13	15.95 - 16.45	6.980400	7.204000	-3.2	
Nitrobenzene	16.88	16.69 - 17.19	8.559800	8.597000	-0.4	
3,4-Dinitrotoluene	17.32	17.15 - 17.65	5.661840	6.675000	-17.9	
2,4,6-Trinitrotoluene	19.58	19.41 - 19.91	8.058800	7.785000	3.4	
4-Amino-2,6-Dinitrotoluene	20.34	20.17 - 20.77	5.775680	6.186000	-7.1	
2-Amino-4,6-Dinitrotoluene	21.45	21.28 - 21.88	7.774920	8.082000	-3.9	
2,6-Dinitrotoluene	22.79	22.59 - 23.17	5.200600	5.406000	-3.9	
2,4-Dinitrotoluene	23.69	23.50 - 24.08	8.994080	9.316000	-3.6	
2-Nitrotoluene	28.70	28.45 - 29.17	3.506480	3.624000	-3.4	
4-Nitrotoluene	31.20	30.95 - 31.75	2.650160	2.802000	-5.7	
3-Nitrotoluene	33.56	33.29 - 34.17	3.198400	3.356000	-4.9	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.



1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607HORWLG

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: B062607HORWLG  
 Lab File ID: O6280704.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.50	U
121-82-4	RDX	0.50	U
99-35-4	1,3,5-Trinitrobenzene	0.50	U
99-65-0	1,3-Dinitrobenzene	0.50	U
98-95-3	Nitrobenzene	0.50	U
479-45-8	Tetryl	0.50	U
118-96-7	2,4,6-Trinitrotoluene	0.50	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.50	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.50	U
606-20-2	2,6-Dinitrotoluene	0.50	U
121-14-2	2,4-Dinitrotoluene	0.50	U
88-72-2	2-Nitrotoluene	0.50	U
99-99-0	4-Nitrotoluene	0.50	U
99-08-1	3-Nitrotoluene	0.50	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607HORWLG

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: S062607HORWLG  
 Lab File ID: F7120752.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	21.0	
121-82-4	RDX	21.5	
99-35-4	1,3,5-Trinitrobenzene	17.6	
99-65-0	1,3-Dinitrobenzene	17.8	
98-95-3	Nitrobenzene	17.8	
479-45-8	Tetryl	16.0	
118-96-7	2,4,6-Trinitrotoluene	18.7	
19406-51-0	4-Amino-2,6-dinitrotoluene	17.9	
35572-78-2	2-Amino-4,6-dinitrotoluene	17.9	
606-20-2	2,6-Dinitrotoluene	16.1	
121-14-2	2,4-Dinitrotoluene	16.5	
88-72-2	2-Nitrotoluene	14.9	
99-99-0	4-Nitrotoluene	15.4	
99-08-1	3-Nitrotoluene	14.7	

Comments:

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**S062607HORWLG**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: S062607HORWLG

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - EtPH

File (1): O62807.b-O6280705.D

File (2): F71207A.b-F7120752.D

Date Analyzed (1): 6/28/2007 1:59:00 PM

Date Analyzed (2): 7/13/2007 6:40:00 PM

ANALYTE	COL	CONCENTRATION Final Units: ug/L	RPD	RT	RT Window
HMX	1	18.8613	10.8 %	4.58	4.33 - 4.83
	2	21.0228 X		8.23	7.94 - 8.44
RDX	1	20.4357	5.1 %	8.03	7.79 - 8.29
	2	21.5036 X		8.77	8.48 - 8.98
1,3,5-Trinitrobenzene	1	17.5962 X	5.2 %	11.62	11.38 - 11.88
	2	16.698		25.38	24.97 - 25.47
1,3-Dinitrobenzene	1	17.771 X	62.5 %	14.37	14.16 - 14.66
	2	33.9163		16.53	16.19 - 16.69
Nitrobenzene	1	17.5658	1.5 %	16.89	16.69 - 17.19
	2	17.8355 X		11.49	11.18 - 11.68
Tetryl	1	16.0464 X	9.7 %	16.14	15.96 - 16.46
	2	14.562		29.36	28.91 - 29.41
2,4,6-Trinitrotoluene	1	17.7905	4.9 %	19.59	19.41 - 19.91
	2	18.691 X		32.99	32.52 - 33.02
4-Amino-2,6-dinitrotoluen	1	17.92 X	1.0 %	20.35	20.17 - 20.77
	2	17.7427		14.44	14.07 - 14.67
2-Amino-4,6-dinitrotoluen	1	17.8793 X	0.8 %	21.44	21.28 - 21.88
	2	17.7296		15.95	15.57 - 16.17
2,6-Dinitrotoluene	1	16.1231 X	1.5 %	22.79	22.59 - 23.17
	2	15.8879		19.21	18.82 - 19.40
2,4-Dinitrotoluene	1	16.4553 X	2.9 %	23.69	23.50 - 24.08
	2	15.977		22.23	21.80 - 22.38
2-Nitrotoluene	1	14.9209 X	0.6 %	28.71	28.45 - 29.17
	2	14.8259		14.89	14.46 - 15.18

X = Concentration Reported

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**S062607HORWLG**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: S062607HORWLG

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - EPH

File (1): O62807.b-O6280705.D

File (2): F71207A.b-F7120752.D

Date Analyzed (1): 6/28/2007 1:59:00 PM

Date Analyzed (2): 7/13/2007 6:40:00 PM

ANALYTE	COL	CONCENTRATION Final Units: ug/L		RPD	RT	RT Window
4-Nitrotoluene	1	15.4368	X	6.6 %	31.22	30.95 - 31.75
	2	14.4544			15.59	15.12 - 15.92
3-Nitrotoluene	1	14.7105	X	79.0 %	33.59	33.29 - 34.17
	2	33.9163			16.53	16.00 - 16.88

X = Concentration Reported

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMS

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB33-002MS  
 Lab File ID: O6280720.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	15.5	
121-82-4	RDX	16.8	
99-35-4	1,3,5-Trinitrobenzene	14.4	
99-65-0	1,3-Dinitrobenzene	14.5	
98-95-3	Nitrobenzene	14.3	
479-45-8	Tetryl	12.8	
118-96-7	2,4,6-Trinitrotoluene	14.4	
19406-51-0	4-Amino-2,6-dinitrotoluene	14.5	
35572-78-2	2-Amino-4,6-dinitrotoluene	14.5	
606-20-2	2,6-Dinitrotoluene	13.0	
121-14-2	2,4-Dinitrotoluene	13.3	
88-72-2	2-Nitrotoluene	12.0	
99-99-0	4-Nitrotoluene	12.4	
99-08-1	3-Nitrotoluene	11.9	

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMSD

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB33-002MSD  
 Lab File ID: O6280721.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	14.9	
121-82-4	RDX	16.0	
99-35-4	1,3,5-Trinitrobenzene	13.5	
99-65-0	1,3-Dinitrobenzene	13.5	
98-95-3	Nitrobenzene	13.2	
479-45-8	Tetryl	12.0	
118-96-7	2,4,6-Trinitrotoluene	13.5	
19406-51-0	4-Amino-2,6-dinitrotoluene	13.7	
35572-78-2	2-Amino-4,6-dinitrotoluene	13.7	
606-20-2	2,6-Dinitrotoluene	12.2	
121-14-2	2,4-Dinitrotoluene	12.4	
88-72-2	2-Nitrotoluene	11.1	
99-99-0	4-Nitrotoluene	11.5	
99-08-1	3-Nitrotoluene	10.9	

Comments:

# **Forms Summary**

**CAB33**

Ordinance by Method 8332

2  
WATER ORDINANCE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB33

Run Sequence: R019488

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (DNT) #	S2 ( ) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB33-005) 15LCMW02DW	81				0
(CAB33-004) 15LCMW02SW	98				0
(CAB33-002MSD) 15LCMW01DWMSD	53 *				1
(CAB33-002MS) 15LCMW01DWMS	88				0
(CAB33-002) 15LCMW01DW	104				0
(CAB33-001) 15LCMW01SW	81				0
(S062607HORWLG2) S062607HORWLG2	84				0
(B062607HORWLG) B062607HORWLG	81				0

QC LIMITS  
60-140

S1 (DNT) = 3,4-Dinitrotoluene  
S2 ( ) =  
S3 ( ) =  
S4 ( ) =

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits



3B  
WATER ORDNANCE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
BS Run Sequence: R019488 SDG No.: CAB33  
BS Lab Sample ID: S062607HORWLG2  
Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Nitroglycerin	10.0	8.7516	88		60-140
PETN	5.00	3.3839	68		60-140

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

## WATER ORDNANCE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 MS Run Sequence: R019488 MSD Run Sequence: R019488 SDG No.: CAB33  
 MS Client Sample No.: 15LCMW01DWMS MSD Client Sample No.: 15LCMW01DWMSD  
 MS Lab Sample ID: CAB33-002MS MSD Lab Sample ID: CAB33-002MSD  
 Level: N/A Units: ug/L

COMPOUND	SAMPLE CONC	MS SPIKE ADDED	MS CONC	MS % REC #	MSD SPIKE ADDED	MSD CONC	MSD % REC #	%RPD #	QC LIMITS	
									RPD	REC.
Nitroglycerin	0	10.0	8.852	89	10.0	6.1214	61	36 *	30	60-140
PETN	0	5.00	3.4542	69	5.00	2.9145	58 *	17	30	60-140

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

@ This RPD or percent recovery is not flagged as an exceedance because the Sample Found amount is five times or more than the Spike Added amount.

RPD: 1 out of 2 outside limits

Spike Recovery: 1 out of 4 outside limits

COMMENTS:

ORDNANCE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062607HORWLG

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B062607HORWLG SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water Date Prepared: 06/26/2007  
 Lab File ID (1): O62907.b-O6290704.D Lab File ID (2): \_\_\_\_\_  
 Date Analyzed (1): 06/29/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 11:04 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HPLC5 (Oscar) Instrument ID (2): \_\_\_\_\_  
 Column(1): Varian C18 ID: 4.60 (mm) Column(2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
15LCMW01SW	CAB33-001	1	O6290718.D	06/29/2007 17:08	R019488
15LCMW01DW	CAB33-002	1	O6290719.D	06/29/2007 17:34	R019488
15LCMW02SW	CAB33-004	1	O6290723.D	06/29/2007 19:18	R019488
15LCMW02DW	CAB33-005	1	O6290724.D	06/29/2007 19:44	R019488
15LCMW01DWMS	CAB33-002MS	1	O6290720.D	06/29/2007 18:00	R019488
15LCMW01DWMSD	CAB33-002MSD	1	O6290721.D	06/29/2007 18:26	R019488
S062607HORWLG2	S062607HORWLG2	1	O6290705.D	06/29/2007 11:30	R019488

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01SW

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB33

Run Sequence: R019488

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB33-001

Sample wt/vol: 1000.0 (g/mL) mL

Lab File ID: O6290718.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: 06/21/2007

Extraction: (Type) SPE

Date Extracted: 06/26/2007

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 06/29/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: CAB33-002  
 Lab File ID: O6290719.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02SW

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB33

Run Sequence: R019488

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB33-004

Sample wt/vol: 1000.0 (g/mL) mL

Lab File ID: O6290723.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: 06/21/2007

Extraction: (Type) SPE

Date Extracted: 06/26/2007

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 06/29/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: CAB33-005  
 Lab File ID: O6290724.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 10-JUL-2006 11:17  
 End Cal Date : 10-JUL-2006 13:05  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\SNAP568564B\tek4\Oscar.i\071006ng.b\071006NG.m  
 Sublist : all.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:

Level 1: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100601.D  
 Level 2: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100602.D  
 Level 3: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100603.D  
 Level 4: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100604.D  
 Level 5: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100605.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
1 Nitroglycerin	348.3440	362.3640	357.0210	378.5100	373.9440	364.0366	3.4
3 PBTN	384.2240	428.2400	383.0820	416.1968	409.5208	404.2527	4.9
2 3,4-Dinitrotoluene	833.5840	891.7440	836.9660	887.3984	879.7140	865.9817	3.3
Average RSD :							3.9

Amount = Response divided by CF

CF = Calibration Factor ( response divided by concentration )  
 RSD = Relative Standard Deviation.



Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 10-JUL-2006 11:17  
 End Cal Date : 10-JUL-2006 13:05  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\SNAP568564B\tek4\Oscar.i\071006ng.b\071006NG.m  
 Sublist : all.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100601.D  
 Level 2: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100602.D  
 Level 3: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100603.D  
 Level 4: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100604.D  
 Level 5: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100605.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
1 Nitroglycerin	9.46	9.44	9.45	9.45	9.44	9.449
3 PENTN	17.39	17.36	17.36	17.36	17.36	17.369
2 3,4-Dinitrotoluene	10.33	10.31	10.32	10.32	10.31	10.316

Retention times are expressed as minutes.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 10-JUL-2006 11:17  
 End Cal Date : 10-JUL-2006 13:05  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\SNAP568564B\tek4\Oscar.i\071006ng.b\071006NG.m  
 Sublist : all.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:

Level 1: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100601.D  
 Level 2: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100602.D  
 Level 3: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100603.D  
 Level 4: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100604.D  
 Level 5: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100605.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 Nitroglycerin	250.00	500.00	1000.00	2500.00	5000.00
3 PETN	125.00	250.00	500.00	1250.00	2500.00
2 3,4-Dinitrotoluene	125.00	250.00	500.00	1250.00	2500.00

Standard concentrations are expressed as ng/mL.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 10-JUL-2006 11:17  
End Cal Date : 10-JUL-2006 13:05  
Quant Method : ESTD  
Cal Curve Type: Average CF  
Integrator : HP Genie  
Method File : \\SNAP568564B\tek4\Oscar.i\071006ng.b\071006NG.m  
Sublist : all.sub  
Column : C18  
Column Size : 0m L - 4.60mm ID

Calibration Files:

Level 1: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100601.D  
Level 2: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100602.D  
Level 3: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100603.D  
Level 4: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100604.D  
Level 5: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100605.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 Nitroglycerin	87086.000	181182.00	357021.00	946275.00	1869720.0
3 PETN	48028.000	107060.00	191541.00	520246.00	1023802.0
2 3,4-Dinitrotoluene	104198.00	222936.00	418483.00	1109248.0	2192385.0

Response is in Area units.

07/24/2006 13:08

ICAL Responses Summary v2.0

Page 1

Laucks Testing Labs  
Initial Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O62907.b/O6290703.D
Injection Date  : 29-JUN-2007 10:31
Sample Info     : STD04 1000PPB METHOD 8332
Misc. Info      : ICV
Laboratory ID   : STD04 1000PPB           Client ID   : HPLC1-15-15 20X
Instrument ID   : Oscar.i                 Operator    : MY
Method          : 071006NG.m             Sublist     : all
Quantitation    : ESTD                    Integrator  : HP Genie
Dilution Factor : 1.00                   Sample Type : CCALIB_3
Column          : C18                     Column Size : 0.15m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
Nitroglycerin	10.30 #	10.05 - 10.55	364.0366	359.7260	1.2	
3,4-Dinitrotoluene	11.35 #	11.10 - 11.60	865.8817	874.0680	-0.9	
PETN	19.64 #	19.39 - 19.89	404.2527	385.0800	4.7	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/062907.b/06290713.D
Injection Date  : 29-JUN-2007 14:58
Sample Info     : STD04 1000PPB METHOD 8332
Misc. Info     : Method 8332
Laboratory ID  : STD04 1000PPB           Client ID   : HPLC1-15-15 20X
Instrument ID   : Oscar.i                 Operator    : MY
Method         : 071006NG.m              Sublist     : all
Quantitation   : ESTD                    Integrator  : HP Genie
Dilution Factor : 1.00                   Sample Type : CCALIB_3
Column        : C18                       Column Size : 0.15m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
Nitroglycerin	10.30	10.05 - 10.55	364.0366	358.3320	1.6	
3,4-Dinitrotoluene	11.35	11.10 - 11.60	865.8817	870.0720	-0.5	
PETN	19.65	19.39 - 19.89	404.2527	387.5460	4.1	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O62907.b/O6290722.D
Injection Date  : 29-JUN-2007 18:52
Sample Info     : STD04 1000PPB METHOD 8332
Misc. Info     : Method 8332
Laboratory ID  : STD04 1000PPB           Client ID   : HPLC1-15-15 20X
Instrument ID   : Oscar.i                 Operator    : MY
Method         : 071006NG.m              Sublist     : all
Quantitation   : ESTD                    Integrator  : HP Genie
Dilution Factor : 1.00                  Sample Type : CCALIB_3
Column        : C18                      Column Size : 0.15m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
Nitroglycerin	10.30	10.05 - 10.55	364.0366	361.2050	0.8	
3,4-Dinitrotoluene	11.35	11.10 - 11.60	865.8817	868.9060	-0.3	
PETN	19.70	19.39 - 19.89	404.2527	386.9900	4.3	

Calibration Factor ( CF ) = Response divided by Concentration

Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100

\* = Percent Difference is outside the acceptance limits of +/-15%

# = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/062907.b/06290730.D
Injection Date  : 29-JUN-2007 22:20
Sample Info     : STD04 1000PPB METHOD 8332
Misc. Info      : Method 8332
Laboratory ID   : STD04 1000PPB           Client ID    : HPLC1-15-15 20X
Instrument ID    : Oscar.i                 Operator     : MY
Method          : 071006NG.m              Sublist      : all
Quantitation    : ESTD                    Integrator    : HP Genie
Dilution Factor : 1.00                   Sample Type  : CCALIB_3
Column          : C18                     Column Size  : 0.15m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
Nitroglycerin	10.30	10.05 - 10.55	364.0366	359.9460	1.1	
3,4-Dinitrotoluene	11.36	11.10 - 11.60	865.8817	869.4440	-0.4	
PETN	19.72	19.39 - 19.89	404.2527	385.2300	4.7	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607HORWLG

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB33

Run Sequence: R019488

Matrix: (SOIL/WATER) Water

Lab Sample ID: B062607HORWLG

Sample wt/vol: 1000.0 (g/mL) mL

Lab File ID: O6290704.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: \_\_\_\_\_

Extraction: (Type) SPE

Date Extracted: 06/26/2007

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 06/29/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:



1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607HORWLG2

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB33

Run Sequence: R019488

Matrix: (SOIL/WATER) Water

Lab Sample ID: S062607HORWLG2

Sample wt/vol: 1000.0 (g/mL) mL

Lab File ID: O6290705.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: \_\_\_\_\_

Extraction: (Type) SPE

Date Extracted: 06/26/2007

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 06/29/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	8.75	
78-11-5	PETN	3.38	

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMS
--------------

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: CAB33-002MS  
 Lab File ID: O6290720.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	8.85	
78-11-5	PETN	3.45	

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMSD

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: CAB33-002MSD  
 Lab File ID: O6290721.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
55-63-0	Nitroglycerin	6.12	
78-11-5	PETN	2.91	

Comments:

# **Forms Summary**

CAB33

Ordinance by Method 8303

2  
WATER ORDNANCE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB33

Run Sequence: R019702

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (D2M) #	S2 ( ) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB33-005) 15LCMW02DW	104				0
(CAB33-004) 15LCMW02SW	100				0
(CAB33-002MSD) 15LCMW01DWMSD	103				0
(CAB33-002MS) 15LCMW01DWMS	107				0
(CAB33-002) 15LCMW01DW	103				0
(CAB33-001) 15LCMW01SW	105				0
(S062607HSVWLS) S062607HSVWLS	102				0
(B062607HSVWLS) B062607HSVWLS	102				0

QC LIMITS  
70-115

S1 (D2M) = 4,6-Dinitro-2-methylpheno  
S2 ( ) =  
S3 ( ) =  
S4 ( ) =

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits

3B  
WATER ORDNANCE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
BS Run Sequence: R019702 SDG No.: CAB33  
BS Lab Sample ID: S062607HSVWLS  
Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Picric Acid	4.00	3.3821	85		61-128
Picramic Acid	4.00	3.9577	99		47-110

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

## WATER ORDNANCE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 MS Run Sequence: R019702 MSD Run Sequence: R019702 SDG No.: CAB33  
 MS Client Sample No.: 15LCMW01DWMS MSD Client Sample No.: 15LCMW01DWMSD  
 MS Lab Sample ID: CAB33-002MS MSD Lab Sample ID: CAB33-002MSD  
 Level: N/A Units: ug/L

COMPOUND	SAMPLE CONC	MS SPIKE ADDED	MS CONC	MS % REC #	MSD SPIKE ADDED	MSD CONC	MSD % REC #	%RPD #	QC LIMITS	
									RPD	REC.
Picric Acid	0	3.77	2.5369	67	3.77	2.8379	75	11	50	55-113
Picramic Acid	0	3.77	4.0878	108	3.77	3.7976	101	7	50	59-112

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

@ This RPD or percent recovery is not flagged as an exceedance because the Sample Found amount is five times or more than the Spike Added amount.

RPD: 0 out of 2 outside limits

Spike Recovery: 0 out of 4 outside limits

COMMENTS:

ORDNANCE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062607HSVWLS

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B062607HSVWLS SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water Date Prepared: 06/26/2007  
 Lab File ID (1): F71707A.b-F7170719.D Lab File ID (2): \_\_\_\_\_  
 Date Analyzed (1): 07/17/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 16:38 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HPLC3 (Felix) Instrument ID (2): \_\_\_\_\_  
 Column(1): Supelcosil LC-CN ID: 4.60 (mm) Column(2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
15LCMW01SW	CAB33-001	1	F7170722.D	07/17/2007 17:14	R019702
15LCMW01DW	CAB33-002	1	F7170723.D	07/17/2007 17:26	R019702
15LCMW01DWMS	CAB33-002MS	1	F7170724.D	07/17/2007 17:38	R019702
15LCMW01DWMSD	CAB33-002MSD	1	F7170725.D	07/17/2007 17:50	R019702
15LCMW02SW	CAB33-004	1	F7170726.D	07/17/2007 18:02	R019702
15LCMW02DW	CAB33-005	1	F7170727.D	07/17/2007 18:14	R019702
S062607HSVWLS	S062607HSVWLS	1	F7170720.D	07/17/2007 16:50	R019702

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_



1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: 8.5-9

Contract: N/A  
 Run Sequence: R019702  
 Lab Sample ID: CAB33-001  
 Lab File ID: F7170722.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-89-1	Picric Acid	1.0	U
96-91-3	Picramic Acid	1.0	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: 8.5-9

Contract: N/A  
 Run Sequence: R019702  
 Lab Sample ID: CAB33-002  
 Lab File ID: F7170723.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
88-89-1	Picric Acid	1.0	U
96-91-3	Picramic Acid	1.0	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02SW

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB33

Run Sequence: R019702

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB33-004

Sample wt/vol: 1060.0 (g/mL) mL

Lab File ID: F7170726.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: 06/21/2007

Extraction: (Type) SEPF

Date Extracted: 06/26/2007

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/17/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: 8.5-9

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
88-89-1	Picric Acid	1.0	U
96-91-3	Picramic Acid	1.0	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1040.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: 8.5-9

Contract: N/A  
 Run Sequence: R019702  
 Lab Sample ID: CAB33-005  
 Lab File ID: F7170727.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
88-89-1	Picric Acid	1.1	U
96-91-3	Picramic Acid	1.1	U

Comments:

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 17-JUL-2007 14:55  
 End Cal Date : 17-JUL-2007 15:44  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix.1\F71707.b\F71707PICN.m  
 Sublist : all.sub  
 Column : CN  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/Felix/Felix.1/F71707B.b/F7170711.D  
 Level 2: //ceres/labdata/hplc/Felix/Felix.1/F71707B.b/F7170712.D  
 Level 3: //ceres/labdata/hplc/Felix/Felix.1/F71707B.b/F7170713.D  
 Level 4: //ceres/labdata/hplc/Felix/Felix.1/F71707B.b/F7170714.D  
 Level 5: //ceres/labdata/hplc/Felix/Felix.1/F71707B.b/F7170715.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
1 Picramic Acid	353.4140	344.7840	346.9592	344.6130	338.7560	345.7052	1.5
2 Picric Acid	70.44000	68.37800	72.53480	75.06050	77.69160	72.82098	5.1
3 4,6-Dinitro-O-Cresol	303.8020	297.0350	301.0240	303.2348	300.6800	301.1552	0.9
Average RSD :							2.5

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration )  
 RSD - Relative Standard Deviation.

07/18/2007 09:17

ICAL Linearity Summary v2.0

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 17-JUL-2007 14:55  
 End Cal Date : 17-JUL-2007 15:44  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix.i\F71707.b\F71707PICCN.m  
 Sublist : all.sub  
 Column : CN  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170711.D  
 Level 2: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170712.D  
 Level 3: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170713.D  
 Level 4: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170714.D  
 Level 5: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170715.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
1 Picramic Acid	3.65	3.65	3.64	3.64	3.63	3.642
2 Picric Acid	3.22	3.21	3.18	3.17	3.16	3.190
3 4,6-Dinitro-o-Cresol	5.96	5.90	5.78	5.72	5.70	5.814

Retention times are expressed as minutes.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 17-JUL-2007 14:55  
 End Cal Date : 17-JUL-2007 15:44  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix.i\F71707.b\F71707PICCN.m  
 Sublist : all.sub  
 Column : CN  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170711.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170712.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170713.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170714.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170715.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 Picramic Acid	500.00	1000.00	2500.00	4000.00	5000.00
2 Picric Acid	500.00	1000.00	2500.00	4000.00	5000.00
3 4,6-Dinitro-o-Cresol	500.00	1000.00	2500.00	4000.00	5000.00

Standard concentrations are expressed as ng/ml.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 17-JUL-2007 14:55  
 End Cal Date : 17-JUL-2007 15:44  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix.i\F71707.b\F71707PICCN.m  
 Sublist : all.sub  
 Column : CN  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170711.D  
 Level 2: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170712.D  
 Level 3: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170713.D  
 Level 4: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170714.D  
 Level 5: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170715.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 Picramic Acid	176707.00	344784.00	867398.00	1378452.0	1693780.0
2 Picric Acid	35220.000	68378.000	181337.00	300242.00	388458.00
3 4,6-Dinitro-o-Cresol	151901.00	297035.00	752560.00	1212939.0	1503400.0

Response is in Area units.



Laucks Testing Labs  
Initial Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/felix/Felix.i/F71707A.b/F7170718.D
Injection Date  : 17-JUL-2007 16:26
Sample Info     : STD03 2500PPB LTL 8303
Misc. Info      : ICV
Laboratory ID   : STD03 2500PPB           Client ID   : HPLC1-16-17 4X
Instrument ID   : Felix.i                 Operator    : MY
Method         : F71707PICCN.m           Sublist     : all
Quantitation    : ESTD                   Integrator  : HP Genie
Dilution Factor : 1.00                  Sample Type : CCALIB_3
Column         : CN                      Column Size : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
Picric Acid	3.18	2.28 - 4.08	72.82098	72.75360	0.1	
Picramic Acid	3.64	3.39 - 3.89	345.7052	348.2684	-0.7	
4,6-Dinitro-o-Cresol	5.80	4.84 - 6.76	301.1552	301.4824	-0.1	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/felix/Felix.i/F71707A.b/F7170728.D
Injection Date  : 17-JUL-2007 18:26
Sample Info     : STD03 2500PPB LTL 8303
Misc. Info      : SOP#:LTL-8303
Laboratory ID   : STD03 2500PPB
Instrument ID    : Felix.i
Method          : F71707PICCN.m
Quantitation    : ESTD
Dilution Factor : 1.00
Column          : CN
Client ID       : HPLC1-16-17
Operator        : MY
Sublist         : all
Integrator      : HP Genie
Sample Type     : CCALIB_3
Column Size     : 0.25m L- 4.60mm ID
    
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
Picric Acid	3.20	2.28 - 4.08	72.82098	82.54360	-13.4	
Picramic Acid	3.63	3.39 - 3.89	345.7052	331.9600	4.0	
4,6-Dinitro-o-Cresol	5.74	4.84 - 6.76	301.1552	301.2832	-0.0	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607HSVWLS

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB33

Run Sequence: R019702

Matrix: (SOIL/WATER) Water

Lab Sample ID: B062607HSVWLS

Sample wt/vol: 1000.0 (g/mL) mL

Lab File ID: F7170719.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: \_\_\_\_\_

Extraction: (Type) SEPF

Date Extracted: 06/26/2007

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/17/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: 8.5-9

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-89-1	Picric Acid	1.1	U
96-91-3	Picramic Acid	1.1	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607HSVWLS

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB33

Run Sequence: R019702

Matrix: (SOIL/WATER) Water

Lab Sample ID: S062607HSVWLS

Sample wt/vol: 1000.0 (g/mL) mL

Lab File ID: F7170720.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: \_\_\_\_\_

Extraction: (Type) SEPF

Date Extracted: 06/26/2007

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/17/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: 8.5-9

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
88-89-1	Picric Acid	3.4	
96-91-3	Picramic Acid	4.0	

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMS

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: 8.5-9

Contract: N/A  
 Run Sequence: R019702  
 Lab Sample ID: CAB33-002MS  
 Lab File ID: F7170724.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
88-89-1	Picric Acid	2.5	
96-91-3	Picramic Acid	4.1	

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMSD

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: 8.5-9

Contract: N/A  
 Run Sequence: R019702  
 Lab Sample ID: CAB33-002MSD  
 Lab File ID: F7170725.D  
 Date Collected: 06/21/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
88-89-1	Picric Acid	2.8		
96-91-3	Picramic Acid	3.8		

Comments:

# **Forms Summary**

NWTPH-Gasoline

CAB33

2  
WATER GASOLINE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB33

Run Sequence: R019234

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (BFB) #	S2 (TFT) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB33-005) 15LCMW02DW	90	97			0
(CAB33-004) 15LCMW02SW	90	97			0
(CAB33-002MS) 15LCMW01DWMS	91	95			0
(CAB33-002DUP) 15LCMW01DWD	91	98			0
(CAB33-002) 15LCMW01DW	91	98			0
(CAB33-001) 15LCMW01SW	92	100			0
(S070407GVOWI1) S070407GVOWI1	95	99			0
(B070407GVOWI1) B070407GVOWI1	94	101			0

S1 (BFB) = 4-Bromofluorobenzene  
 S2 (TFT) = Trifluorotoluene  
 S3 ( ) =  
 S4 ( ) =

QC LIMITS  
 50-150  
 50-150

# Column to be used to flag recovery values  
 \* Values outside of contract required QC limits



3B  
WATER GASOLINE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
BS Run Sequence: R019234 SDG No.: CAB33  
BS Lab Sample ID: S070407GVOWI1  
Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Gasoline Range Organics	100	80.8854	81		71-122

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

COMMENTS:

## Laucks Testing Laboratories

### Duplicate Report

Test:	NWTPH Gas	SDG ID:	CAB33
		Preparation Date:	7/4/2007
Lab Sample ID:	CAB33-002DUP	Run Sequence ID:	R019234
Client Sample ID:	15LCMW01DW	Analysis Date:	07/04/2007 14:18
		Units:	ug/L
		Matrix	Water

Analyte	Parent Found	Duplicate Found	RPD	Limit
Gasoline Range Organics	0	0	0%	30

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW

# = RPD Value is not flagged as an outlier because either the parent found amount or duplicate found amount or both are less than five times the reporting limit

\* = Value exceeded established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-20.0*

This report is submitted for the exclusive use of the person, partnership or corporation to whom it is addressed. Subsequent use of the name of this company or any of its staff in connection with the advertising or sale of any product or process will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of trade and science.

**Laucks Testing Laboratories**  
**Matrix Spike Report**

Test:	NWTPH Gas	SDG ID:	CAB33
		Preparation Date:	07/04/2007
Lab Sample ID:	CAB33-002MS	Run Sequence ID:	R019234
Client Sample ID:	15LCMW01DWMS	Analysis Date:	7/4/2007 2:56:00PM
		Units:	ug/L
		Matrix:	Water

Analyte	Sample Found	Spike Added	MS Found	Recovery	Limit
Gasoline Range Organics	0	100	77.8649	78%	67-125

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW

# = This Recovery is not flagged as an exceedance because the Sample Found amount is five times or more than the Spike added amount

\* = RPD or percent recovery is outside the established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-21.0*

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GASOLINE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B070407GVOWI1

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B070407GVOWI1 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water Date Prepared: 07/04/2007  
 Lab File ID (1): I7047-2.b-I704704.d Lab File ID (2): \_\_\_\_\_  
 Date Analyzed (1): 07/04/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 11:06 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HP 5890I Instrument ID (2): \_\_\_\_\_  
 Column(1): DB-VRX 30m/0.45u ID: 0.45 (mm) Column(2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
S070407GVOWI1	S070407GVOWI1	1	I704705.d	07/04/2007 11:44	R019234
15LCMW01SW	CAB33-001	1	I704707.d	07/04/2007 13:01	R019234
15LCMW01DW	CAB33-002	1	I704708.d	07/04/2007 13:39	R019234
15LCMW02SW	CAB33-004	1	I704711.d	07/04/2007 15:35	R019234
15LCMW02DW	CAB33-005	1	I704712.d	07/04/2007 16:13	R019234
15LCMW01DWD	CAB33-002DUP	1	I704709.d	07/04/2007 14:18	R019234
15LCMW01DWMS	CAB33-002MS	1	I704710.d	07/04/2007 14:56	R019234

COMMENTS:

\_\_\_\_\_

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01SW

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB33 Run Sequence: R019234  
 Matrix: (SOIL/WATER) Water Lab Sample ID: CAB33-001  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I704707.d  
 pH: <2 Decanted: (Y/N) N Date Collected: 06/21/2007  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/04/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/04/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	<u>Q</u>
TPH-Gasoline	Gasoline Range Organics	25	<u>U</u>

Comments:

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DW

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB33 Run Sequence: R019234  
 Matrix: (SOIL/WATER) Water Lab Sample ID: CAB33-002  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I704708.d  
 pH: <2 Decanted: (Y/N) N Date Collected: 06/21/2007  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/04/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/04/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
TPH-Gasoline	Gasoline Range Organics	25		U

Comments:

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02SW

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB33 Run Sequence: R019234  
 Matrix: (SOIL/WATER) Water Lab Sample ID: CAB33-004  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I704711.d  
 pH: <2 Decanted: (Y/N) N Date Collected: 06/21/2007  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/04/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/04/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	<u>Q</u>
TPH-Gasoline	Gasoline Range Organics	25	<u>U</u>

Comments:

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02DW

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB33 Run Sequence: R019234  
 Matrix: (SOIL/WATER) Water Lab Sample ID: CAB33-005  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I704712.d  
 pH: <2 Decanted: (Y/N) N Date Collected: 06/21/2007  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/04/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/04/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	<u>Q</u>
TPH-Gasoline	Gasoline Range Organics	25	U

Comments:



Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 02-AUG-2006 17:57  
 End Cal Date : 02-AUG-2006 21:09  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : FALCON  
 Method File : \\Ares\Target\Chem\58901.i\I8026N2.b\GN80201.m  
 Sublist : all-j.sub  
 Column : DB-VRX  
 Column Size : 30m L - 0.53mm ID

Calibration Files:

Level 1: //Ares/Target/Chem/58901.i/I8026N2.b/I802607.d  
 Level 2: //Ares/Target/Chem/58901.i/I8026N2.b/I802608.d  
 Level 3: //Ares/Target/Chem/58901.i/I8026N2.b/I802609.d  
 Level 4: //Ares/Target/Chem/58901.i/I8026N2.b/I802610.d  
 Level 5: //Ares/Target/Chem/58901.i/I8026N2.b/I802611.d  
 Level 6: //Ares/Target/Chem/58901.i/I8026N2.b/I802612.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Ave CF	%RSD
3 Gasoline	428.2400	438.0220	416.4760	410.3944	410.6138	420.7492	2.9	
1 Trifluorobenzene	534.9500	548.1500	545.8200	543.9700	545.8275	543.7455	0.9	
2 Bromofluorobenzene	406.0900	411.5000	406.9400	415.8767	424.2000	412.9193	1.8	
Average RSD :								1.9

Amount = Response divided by CF

+++ - Standard Level not used in linearity determination.

CF - Calibration Factor ( response divided by concentration )

RSD - Relative Standard Deviation.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 02-AUG-2006 17:57  
 End Cal Date : 02-AUG-2006 21:09  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : Falcon  
 Method File : \\Ares\Target\Chem\58901.i\I8026N2.b\GN80201.m  
 Sublist : all-f.sub  
 Column : DB-VRX  
 Column Size : 30m L - 0.53mm ID

Calibration Files:

Level 1: //Ares/Target/Chem/58901.i/I8026N2.b/I802607.d  
 Level 2: //Ares/Target/Chem/58901.i/I8026N2.b/I802608.d  
 Level 3: //Ares/Target/Chem/58901.i/I8026N2.b/I802609.d  
 Level 4: //Ares/Target/Chem/58901.i/I8026N2.b/I802610.d  
 Level 5: //Ares/Target/Chem/58901.i/I8026N2.b/I802611.d  
 Level 6: //Ares/Target/Chem/58901.i/I8026N2.b/I802612.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
3 Gasoline	+++++++	107060.00	219011.00	416476.00	1025986.0	2053069.0
1 Trifluorotoluene	+++++++	26748.000	54815.000	109164.00	163191.00	218331.00
2 Bromofluorobenzene	+++++++	20304.000	41150.000	81388.000	124763.00	169680.00

+++ - Standard Level not used in linearity determination.  
 Response is in Area units.

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 02-AUG-2006 17:57  
 End Cal Date : 02-AUG-2006 21:09  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : Falcon  
 Method File : \\Ares\Target\Chem\58901.i\I8026N2.b\GN80201.m  
 Sublist : all-j.sub  
 Column : DB-VRX  
 Column Size : 30m L - 0.53mm ID

Calibration Files:

Level 1: //Ares/Target/Chem/58901.i/I8026N2.b/I802607.d  
 Level 2: //Ares/Target/Chem/58901.i/I8026N2.b/I802608.d  
 Level 3: //Ares/Target/Chem/58901.i/I8026N2.b/I802609.d  
 Level 4: //Ares/Target/Chem/58901.i/I8026N2.b/I802610.d  
 Level 5: //Ares/Target/Chem/58901.i/I8026N2.b/I802611.d  
 Level 6: //Ares/Target/Chem/58901.i/I8026N2.b/I802612.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Ave RT
1 Trifluorotoluene	+++++++	6.44	6.44	6.44	6.45	6.45	6.445
2 Bromofluorobenzene	+++++++	11.96	11.96	11.96	11.96	11.96	11.958

+++ - Standard level not used in linearity determination.  
 Retention times are expressed as minutes.

08/25/2006 06:31

ICAL RT Summary v2.0

Page 1

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 02-AUG-2006 17:57  
 End Cal Date : 02-AUG-2006 21:09  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : Falcon  
 Method File : \\Ares\Target\Chem\58901.i\I8026N2.b\GN80201.m  
 Sublist : all-j.sub  
 Column : DB-VRX  
 Column Size : 30m L - 0.53mm ID

Calibration Files:

Level 1: //Ares/Target/Chem/58901.i/I8026N2.b/I802607.d  
 Level 2: //Ares/Target/Chem/58901.i/I8026N2.b/I802608.d  
 Level 3: //Ares/Target/Chem/58901.i/I8026N2.b/I802609.d  
 Level 4: //Ares/Target/Chem/58901.i/I8026N2.b/I802610.d  
 Level 5: //Ares/Target/Chem/58901.i/I8026N2.b/I802611.d  
 Level 6: //Ares/Target/Chem/58901.i/I8026N2.b/I802612.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
3 Gasoline	+++++++	250.00	500.00	1000.00	2500.00	5000.00
1 Trifluorotoluene	+++++++	50.00	100.00	200.00	300.00	400.00
2 Bromofluorobenzene	+++++++	50.00	100.00	200.00	300.00	400.00

+++ - Standard Level not used in linearity determination.  
 Standard concentrations are expressed as ng.

Laboratory Name  
Initial Calibration Verification Summary

```

Data File       : \\Diana\Target\5890i.i\I7047-2.b\I704702.d
Injection Date  : 04-JUL-2007 09:49
Sample Info     : CCV_GAS_0704A
Misc. Info      : ICV_NWTPHGx
Laboratory ID   : CCV_GAS_0704A           Client ID    : 10ul VOA5-42-7
Instrument ID   : 5890i.i
Method          : GN80216.m               Sublist      : all-j
Quantitation    : ESTD                    Integrator    : Falcon
Dilution Factor : 1.00                   Sample Type  : CCALIB_3
Column          : DB-VRX                  Column Size  : 30.00m L- 0.53mm ID
    
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
Trifluorotoluene	6.57 #	6.52 - 6.62	543.7455	545.2300	0.3	
Bromofluorobenzene	12.06 #	12.01 - 12.11	412.9193	398.6550	-3.5	
Gasoline		8.04 - 18.53	420.7492	433.7120	3.1	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laboratory Name  
Continuing Calibration Verification Summary

```

Data File       : \\Diana\Target\5890i.i\I7047-2.b\I704713.d
Injection Date  : 04-JUL-2007 16:52
Sample Info     : CCV_GAS_0704B
Misc. Info      : NWTPHGx
Laboratory ID   : CCV_GAS_0704B           Client ID   : 10ul VOA5-42-7
Instrument ID    : 5890i.i
Method          : GN80216.m               Sublist      : all-j
Quantitation    : ESTD                    Integrator    : Falcon
Dilution Factor : 1.00                   Sample Type  : CCALIB_3
Column          : DB-VRX                  Column Size  : 30.00m L- 0.53mm ID
  
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
Trifluorotoluene	6.57	6.52 - 6.62	543.7455	517.4000	-4.8	
Bromofluorobenzene	12.05	12.01 - 12.11	412.9193	375.8000	-9.0	
Gasoline		8.04 - 18.53	420.7492	404.4290	-3.9	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B070407GVOW11

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB33 Run Sequence: R019234  
 Matrix: (SOIL/WATER) Water Lab Sample ID: B070407GVOW11  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I704704.d  
 pH: \_\_\_\_\_ Decanted: (Y/N) N Date Collected: \_\_\_\_\_  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/04/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/04/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
TPH-Gasoline	Gasoline Range Organics	25	U

Comments:

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S070407GVOWI1

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB33 Run Sequence: R019234  
 Matrix: (SOIL/WATER) Water Lab Sample ID: S070407GVOWI1  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I704705.d  
 pH: \_\_\_\_\_ Decanted: (Y/N) N Date Collected: \_\_\_\_\_  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/04/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/04/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
TPH-Gasoline	Gasoline Range Organics	81	

Comments:



1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWD

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB33 Run Sequence: R019234  
 Matrix: (SOIL/WATER) Water Lab Sample ID: CAB33-002DUP  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I704709.d  
 pH: <2 Decanted: (Y/N) N Date Collected: 06/21/2007  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/04/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/04/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	<u>Q</u>
TPH-Gasoline	Gasoline Range Organics	25	U

Comments:

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMS

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB33 Run Sequence: R019234  
 Matrix: (SOIL/WATER) Water Lab Sample ID: CAB33-002MS  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I704710.d  
 pH: <2 Decanted: (Y/N) N Date Collected: 06/21/2007  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/04/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/04/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	<u>Q</u>
TPH-Gasoline	Gasoline Range Organics	78	

Comments:

# **Forms Summary**

NWTHP-Diesel

CAB33

2  
WATER DIESEL SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No. : CAB33

Run Sequence: R019594

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (2FB) #	S2 (TER) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB33-005) 15LCMW02DW	55	62			0
(CAB33-004) 15LCMW02SW	87	99			0
(CAB33-002MS) 15LCMW01DWMS	96	100			0
(CAB33-002D) 15LCMW01DWD	93	102			0
(CAB33-002) 15LCMW01DW	96	106			0
(CAB33-001) 15LCMW01SW	97	101			0
(S062707GSVWLS) S062707GSVWLS	95	104			0
(B062707GSVWLS) B062707GSVWLS	94	102			0

	QC LIMITS
S1 (2FB) = 2-Fluorobiphenyl	50-150
S2 (TER) = o-Terphenyl	50-150
S3 ( ) =	
S4 ( ) =	

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits

3B  
WATER DIESEL BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

BS Run Sequence: R019594 SDG No.: CAB33

BS Lab Sample ID: S062707GSVWLS

Level: N/A Units: mg/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Diesel Range Organics	1.25	1.2211	98		51-147

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

COMMENTS:

## Laucks Testing Laboratories

### Duplicate Report

Test:	NWTPH Diesel	SDG ID:	CAB33
		Preparation Date:	6/27/2007
Lab Sample ID:	CAB33-002D	Run Sequence ID:	R019594
Client Sample ID:	15LCMW01DW	Analysis Date:	07/16/2007 13:35
		Units:	mg/L
		Matrix	Water

Analyte	Parent Found	Duplicate Found	RPD	Limit
Diesel Range Organics	0	0	0%	50
Oil Range Organics	0	0	0%	50

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW

# = RPD Value is not flagged as an outlier because either the parent found amount or duplicate found amount or both are less than five times the reporting limit

\* = Value exceeded established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-20.0*

This report is submitted for the exclusive use of the person, partnership or corporation to whom it is addressed. Subsequent use of the name of this company or any of its staff in connection with the advertising or sale of any product or process will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of trade and science.

**Laucks Testing Laboratories**  
**Matrix Spike Report**

Test:	NWTPH Diesel	SDG ID:	CAB33
		Preparation Date:	06/27/2007
Lab Sample ID:	CAB33-002MS	Run Sequence ID:	R019594
Client Sample ID:	15LCMW01DWMS	Analysis Date:	7/16/2007 2:23:00PM
		Units:	mg/L
		Matrix:	Water

Analyte	Sample Found	Spike Added	MS Found	Recovery	Limit
Diesel Range Organics	0	1.00	0.9403	94%	50-150

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW

# = This Recovery is not flagged as an exceedance because the Sample Found amount is five times or more than the Spike added amount

\* = RPD or percent recovery is outside the established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-21.0*

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## DIESEL METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062707GSVWLS

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B062707GSVWLS SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water Date Prepared: 06/27/2007  
 Lab File ID (1): C7167WA.b-C716706.d Lab File ID (2): \_\_\_\_\_  
 Date Analyzed (1): 07/16/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 09:36 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HP 5890C Instrument ID (2): \_\_\_\_\_  
 Column(1): RTX-5 ID: 0.25 (mm) Column(2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
15LCMW01SW	CAB33-001	1	C716709.d	07/16/2007 11:59	R019594
15LCMW01DW	CAB33-002	1	C716710.d	07/16/2007 12:47	R019594
15LCMW01DWD	CAB33-002D	1	C716711.d	07/16/2007 13:35	R019594
15LCMW01DWMS	CAB33-002MS	1	C716712.d	07/16/2007 14:23	R019594
15LCMW02SW	CAB33-004	1	C716713.d	07/16/2007 15:11	R019594
15LCMW02DW	CAB33-005	1	C716718.d	07/16/2007 19:11	R019594
S062707GSVWLS	S062707GSVWLS	1	C716707.d	07/16/2007 10:24	R019594

COMMENTS:



1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01SW

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB33

Run Sequence: R019594

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB33-001

Sample wt/vol: 500.0 (g/mL) mL

Lab File ID: C716709.d

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: 06/21/2007

Extraction: (Type) SEPF

Date Extracted: 06/27/2007

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/16/2007

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: <2

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	0.10	U
TPH-Oil	Oil Range Organics	0.40	U

Comments:

1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DW

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB33

Run Sequence: R019594

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB33-002

Sample wt/vol: 490.0 (g/mL) mL

Lab File ID: C716710.d

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: 06/21/2007

Extraction: (Type) SEPF

Date Extracted: 06/27/2007

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/16/2007

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: <2

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	0.10	U
TPH-Oil	Oil Range Organics	0.41	U

Comments:

1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02SW

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB33

Run Sequence: R019594

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB33-004

Sample wt/vol: 500.0 (g/mL) mL

Lab File ID: C716713.d

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: 06/21/2007

Extraction: (Type) SEPF

Date Extracted: 06/27/2007

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/16/2007

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: <2

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	0.10	U
TPH-Oil	Oil Range Organics	0.40	U

Comments:

1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW02DW

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB33

Run Sequence: R019594

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB33-005

Sample wt/vol: 500.0 (g/mL) mL

Lab File ID: C716718.d

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: 06/21/2007

Extraction: (Type) SEPF

Date Extracted: 06/27/2007

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/16/2007

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: <2

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	0.10	U
TPH-Oil	Oil Range Organics	0.40	U

Comments:

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 12-JUL-2007 18:07  
 End Cal Date : 12-JUL-2007 22:56  
 Quant Method : ESTD  
 Cal Curve Type: Linear  
 Integrator : Falcon  
 Method File : \\diana\Target\5890c.i\C7127WA.b\CDX71201.m  
 Sublist : all.d.sub  
 Column : RTX-5  
 Column Size : 30m L - 0.25mm ID

Calibration Files:

Level 1: //diana/Target/5890c.i/C7127WA.b/C712710.d  
 Level 2: //diana/Target/5890c.i/C7127WA.b/C712711.d  
 Level 3: //diana/Target/5890c.i/C7127WA.b/C712712.d  
 Level 4: //diana/Target/5890c.i/C7127WA.b/C712713.d  
 Level 5: //diana/Target/5890c.i/C7127WA.b/C712714.d  
 Level 6: //diana/Target/5890c.i/C7127WA.b/C712715.d  
 Level 7: //diana/Target/5890c.i/C7127WA.b/C712716.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Slope	Y-int	R <sup>2</sup>
1 Diesel	349446.00	579092.00	953341.00	1703381.0	4136141.0	7917017.0	15319226	7582.10000	-30.423	0.99981
3 2-Fluorobiphenyl	13027.00	36149.00	74573.00	148117.00	386143.00	764970.00	++++++	7689.80000	0.326	0.99993
4 o-Terphenyl	19778.00	50085.00	99162.00	191866.00	495136.00	974727.00	++++++	9762.20000	-0.089	0.99991
Average RSD :	1.0									

Amount = ( Response divided by Slope ) plus Y-int

+++ - Standard level not used in linearity determination.

Responses expressed are Area units.  
 R<sup>2</sup> = The correlation co-efficient.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 12-JUL-2007 18:07  
 End Cal Date : 12-JUL-2007 22:56  
 Quant Method : ESTD  
 Cal Curve Type: Linear  
 Integrator : Falcon  
 Method File : \\diana\Target\5890c.i\C7127WA.b\CDX71201.m  
 Sublist : all.d.sub  
 Column : RTX-5  
 Column Size : 30m L - 0.25mm ID

Calibration Files:

Level 1: //diana/Target/5890c.i/C7127WA.b/C712710.d  
 Level 2: //diana/Target/5890c.i/C7127WA.b/C712711.d  
 Level 3: //diana/Target/5890c.i/C7127WA.b/C712712.d  
 Level 4: //diana/Target/5890c.i/C7127WA.b/C712713.d  
 Level 5: //diana/Target/5890c.i/C7127WA.b/C712714.d  
 Level 6: //diana/Target/5890c.i/C7127WA.b/C712715.d  
 Level 7: //diana/Target/5890c.i/C7127WA.b/C712716.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
1 Diesel	20.00	50.00	100.00	200.00	500.00	1000.00	2000.00
3 2-Fluorobiphenyl	2.00	5.00	10.00	20.00	50.00	100.00	++++++
4 o-Terphenyl	2.00	5.00	10.00	20.00	50.00	100.00	++++++

+++ - Standard Level not used in linearity determination.  
 Standard concentrations are expressed as ug/ml.

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 15-JUL-2007 08:22  
 End Cal Date : 15-JUL-2007 13:08  
 Quant Method : ESTD  
 Cal Curve Type: Linear  
 Integrator : Falcon  
 Method File : \\diana\Target\5890c.i\C7127WC.b\CDX71203.m  
 Sublist : mo.sub  
 Column : RTX-5  
 Column Size : 30m L - 0.25mm ID

Calibration Files:

Level 1: //diana/Target/5890c.i/C7127WC.b/C712787.d  
 Level 2: //diana/Target/5890c.i/C7127WC.b/C712788.d  
 Level 3: //diana/Target/5890c.i/C7127WC.b/C712789.d  
 Level 4: //diana/Target/5890c.i/C7127WC.b/C712790.d  
 Level 5: //diana/Target/5890c.i/C7127WC.b/C712791.d  
 Level 6: //diana/Target/5890c.i/C7127WC.b/C712792.d  
 Level 7: //diana/Target/5890c.i/C7127WC.b/C712793.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Slope	Y-int	R <sup>2</sup>
2 Motor Oil	1706304.0	2297239.0	4205304.0	7202610.0	12920670	15524061	++++++	5786.40000	-213.205	0.99937
Average RSD :	1.0									

Amount = ( Response divided by slope ) plus Y-int

+++ Standard Level not used in linearity determination.

Responses expressed are Area units.  
 R<sup>2</sup> = The correlation co-efficient.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 15-JUL-2007 08:22  
 End Cal Date : 15-JUL-2007 13:08  
 Quant Method : ESTD  
 Cal Curve Type: Linear  
 Integrator : FALCON  
 Method File : \\diana\Target\5890c.i\C7127WC.b\CDX71203.m  
 Sublist : mo.sub  
 Column : RTX-5  
 Column Size : 30m L - 0.25mm ID

Calibration Files:

Level 1: //diana/Target/5890c.i/C7127WC.b/C712787.d  
 Level 2: //diana/Target/5890c.i/C7127WC.b/C712788.d  
 Level 3: //diana/Target/5890c.i/C7127WC.b/C712789.d  
 Level 4: //diana/Target/5890c.i/C7127WC.b/C712790.d  
 Level 5: //diana/Target/5890c.i/C7127WC.b/C712791.d  
 Level 6: //diana/Target/5890c.i/C7127WC.b/C712792.d  
 Level 7: //diana/Target/5890c.i/C7127WC.b/C712793.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
2 Motor Oil	100.00	200.00	500.00	1000.00	2000.00	2500.00	++++++

+++ - Standard Level not used in linearity determination.  
 Standard concentrations are expressed as ug/ml.



Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : \\diana\Target\5890c.i\C7167WA.b\C716703.d
Injection Date  : 16-JUL-2007 07:13
Sample Info     : D250PPM
Misc. Info      : NWTPHDx / 8015mod - Diesel
Laboratory ID   : D250PPM           Client ID   : MA8-31-20
Instrument ID    : 5890c.i           Operator    : CMP
Method          : CDX71204.m        Sublist     : alld
Quantitation    : ESTD              Integrator  : Falcon
Dilution Factor : 1.00             Sample Type: CCALIB_3
Column          : RTX-5             Column Size: 30.00m L- 0.25mm ID
  
```

Compound	RT	RT Window	Expected Continuing		%D	Flag
			Amount	Amount		
2-Fluorobiphenyl	12.66	12.61 - 12.71	20.000	20.137	0.7	
Diesel		9.93 - 23.98	250.00	237.32	-5.1	
o-Terphenyl	19.32	19.28 - 19.38	20.000	19.178	-4.1	

%Drift ( %D ) = Continuing Amount - Expected Amount divided by Expected Amount times 100

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : \\diana\Target\5890c.i\C7167WA.b\C716704.d
Injection Date  : 16-JUL-2007 08:00
Sample Info     : O2000PPM
Misc. Info      : NWTPHDx / 8015mod - Diesel
Laboratory ID   : O2000PPM           Client ID   : MA8-31-19
Instrument ID   : 5890c.i            Operator    : CMP
Method          : CDX71204.m         Sublist     : mo
Quantitation    : ESTD                Integrator  : Falcon
Dilution Factor : 1.00              Sample Type : CCALIB_3
Column          : RTX-5               Column Size : 30.00m L- 0.25mm ID
  
```

Compound	RT	RT Window	Expected Continuing		%D	Flag
			Amount	Amount		
Motor Oil		23.98 - 37.48	2000.0	1949.4	-2.5	

%Drift ( %D ) = Continuing Amount - Expected Amount divided by Expected Amount times 100

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : \\diana\Target\5890c.i\C7167WA.b\C716715.d
Injection Date  : 16-JUL-2007 16:47
Sample Info     : D250PPM
Misc. Info      : NWTPHDx / 8015mod - Diesel
Laboratory ID   : D250PPM           Client ID    : MA8-31-20
Instrument ID   : 5890c.i           Operator     : CMP
Method          : CDX71204.m        Sublist      : alld
Quantitation    : ESTD              Integrator    : Falcon
Dilution Factor : 1.00             Sample Type  : CCALIB_3
Column          : RTX-5             Column Size  : 30.00m L- 0.25mm ID
  
```

Compound	RT	RT Window	Expected Continuing		%D	Flag
			Amount	Amount		
2-Fluorobiphenyl	12.66	12.61 - 12.71	20.000	19.660	-1.7	
Diesel		9.93 - 23.98	250.00	229.67	-8.1	
o-Terphenyl	19.32	19.28 - 19.38	20.000	18.558	-7.2	

%Drift ( %D ) = Continuing Amount - Expected Amount divided by Expected Amount times 100

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : \\diana\Target\5890c.i\C7167WA.b\C716716.d
Injection Date  : 16-JUL-2007 17:35
Sample Info     : O2000PPM
Misc. Info     : NWTPHDx / 8015mod - Diesel
Laboratory ID  : O2000PPM          Client ID   : MA8-31-19
Instrument ID   : 5890c.i          Operator    : CMP
Method         : CDX71204.m       Sublist     : mo
Quantitation   : ESTD              Integrator  : Falcon
Dilution Factor : 1.00            Sample Type: CCALIB_3
Column        : RTX-5              Column Size: 30.00m L- 0.25mm ID
  
```

Compound	RT	RT Window	Expected Continuing		%D	Flag
			Amount	Amount		
Motor Oil		23.98 - 37.48	2000.0	1908.7	-4.6	

%Drift ( %D ) = Continuing Amount - Expected Amount divided by Expected Amount times 100

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : \\diana\Target\5890c.i\C7167WA.b\C716725.d
Injection Date  : 17-JUL-2007 00:47
Sample Info     : D250PPM
Misc. Info      : NWTPHDx / 8015mod - Diesel
Laboratory ID   : D250PPM           Client ID   : MA8-31-20
Instrument ID   : 5890c.i           Operator    : CMP
Method          : CDX71204.m        Sublist     : all
Quantitation    : ESTD              Integrator   : Falcon
Dilution Factor : 1.00             Sample Type : CCALIB_3
Column          : RTX-5             Column Size : 30.00m L- 0.25mm ID
  
```

Compound	RT	RT Window	Expected Continuing		%D	Flag
			Amount	Amount		
2-Fluorobiphenyl	12.66	12.61 - 12.71	20.000	19.762	-1.2	
Diesel		9.93 - 23.98	250.00	233.59	-6.6	
o-Terphenyl	19.32	19.28 - 19.38	20.000	18.716	-6.4	

%Drift ( %D ) = Continuing Amount - Expected Amount divided by Expected Amount times 100

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : \\diana\Target\5890c.i\C7167WA.b\C716726.d
Injection Date  : 17-JUL-2007 01:35
Sample Info     : O2000PPM
Misc. Info      : NWTPHDx / 8015mod - Diesel
Laboratory ID   : O2000PPM           Client ID   : MA8-31-19
Instrument ID   : 5890c.i             Operator    : CMP
Method          : CDX71204.m          Sublist     : mo
Quantitation    : ESTD                 Integrator  : Falcon
Dilution Factor : 1.00                 Sample Type: CCALIB_3
Column          : RTX-5                 Column Size: 30.00m L- 0.25mm ID
    
```

Compound	RT	RT Window	Expected Continuing		%D	Flag
			Amount	Amount		
Motor Oil		23.98 - 37.48	2000.0	1961.5	-1.9	

%Drift ( %D ) = Continuing Amount - Expected Amount divided by Expected Amount times 100

1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062707GSVWLS

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB33 Run Sequence: R019594  
 Matrix: (SOIL/WATER) Water Lab Sample ID: B062707GSVWLS  
 Sample wt/vol: 400.0 (g/mL) mL Lab File ID: C716706.d  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N Date Collected: \_\_\_\_\_  
 Extraction: (Type) SEPF Date Extracted: 06/27/2007  
 Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 07/16/2007  
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0  
 GPC Cleanup: (Y/N) N pH: <2 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	0.13	U
TPH-Oil	Oil Range Organics	0.50	U

Comments:

1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062707GSVWLS

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB33

Run Sequence: R019594

Matrix: (SOIL/WATER) Water

Lab Sample ID: S062707GSVWLS

Sample wt/vol: 400.0 (g/mL) mL

Lab File ID: C716707.d

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: \_\_\_\_\_

Extraction: (Type) SEPF

Date Extracted: 06/27/2007

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/16/2007

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: <2

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
TPH-Diesel	Diesel Range Organics	1.2	

Comments:



1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWD

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 490.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: <2

Contract: N/A  
 Run Sequence: R019594  
 Lab Sample ID: CAB33-002D  
 Lab File ID: C716711.d  
 Date Collected: 06/21/2007  
 Date Extracted: 06/27/2007  
 Date Analyzed: 07/16/2007  
 Dilution Factor: 1.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	0.10	U
TPH-Oil	Oil Range Organics	0.41	U

Comments:

1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW01DWMS

Lab Name: Laucks Testing Labs  
 SDG No.: CAB33  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 500.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: <2

Contract: N/A  
 Run Sequence: R019594  
 Lab Sample ID: CAB33-002MS  
 Lab File ID: C716712.d  
 Date Collected: 06/21/2007  
 Date Extracted: 06/27/2007  
 Date Analyzed: 07/16/2007  
 Dilution Factor: 1.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	0.94	

Comments:

**FORMS SUMMARY**

**CAB33**

**Metals Data**

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW01SW

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB33Matrix (soil/water): WaterLab Sample ID: CAB33-001Level (low/med): LOWDate Received: 06/22/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.188	J		M	R019216
7440-38-2	Arsenic	0.231	J		M	R019216
7440-41-7	Beryllium	0.215	U		M	R019325
7440-43-9	Cadmium	0.0940	U		M	R019216
7440-47-3	Chromium	3.87	J		M	R019325
7440-50-8	Copper	0.520	U		M	R019216
7439-92-1	Lead	0.0750	U		M	R019216
7439-97-6	Mercury	0.0180	U		CV	R019069
7440-02-0	Nickel	2.40			M	R019216
7782-49-2	Selenium	0.264	J		M	R019216
7440-22-4	Silver	0.0850	U		M	R019216
7440-28-0	Thallium	0.0440	U		M	R019216
7440-66-6	Zinc	2.83	J	E	M	R019216

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW01DW

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB33Matrix (soil/water): WaterLab Sample ID: CAB33-002Level (low/med): LOWDate Received: 06/22/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.0964	J		M	R019216
7440-38-2	Arsenic	0.386	J		M	R019216
7440-41-7	Beryllium	0.215	U		M	R019325
7440-43-9	Cadmium	0.131	J		M	R019216
7440-47-3	Chromium	1.01	J		M	R019325
7440-50-8	Copper	0.520	U		M	R019216
7439-92-1	Lead	0.0750	U		M	R019216
7439-97-6	Mercury	0.0180	U		CV	R019069
7440-02-0	Nickel	1.16			M	R019216
7782-49-2	Selenium	0.110	U		M	R019216
7440-22-4	Silver	0.0850	U		M	R019216
7440-28-0	Thallium	0.0440	U		M	R019216
7440-66-6	Zinc	3.19	J	E	M	R019216

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: NoComment \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW02SW

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB33Matrix (soil/water): WaterLab Sample ID: CAB33-004Level (low/med): LOWDate Received: 06/22/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.247	J		M	R019216
7440-38-2	Arsenic	0.431	J		M	R019216
7440-41-7	Beryllium	0.215	U		M	R019325
7440-43-9	Cadmium	0.0940	U		M	R019216
7440-47-3	Chromium	0.600	U		M	R019325
7440-50-8	Copper	0.520	U		M	R019216
7439-92-1	Lead	0.0750	U		M	R019216
7439-97-6	Mercury	0.0180	U		CV	R019069
7440-02-0	Nickel	0.616	J		M	R019216
7782-49-2	Selenium	0.184	J		M	R019216
7440-22-4	Silver	0.0850	U		M	R019216
7440-28-0	Thallium	0.0440	U		M	R019216
7440-66-6	Zinc	1.80	U	E	M	R019216

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW02DW

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB33  
 Matrix (soil/water): Water Lab Sample ID: CAB33-005  
 Level (low/med): LOW Date Received: 06/22/2007  
 % Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.0769	J		M	R019216
7440-38-2	Arsenic	0.570	J		M	R019216
7440-41-7	Beryllium	0.215	U		M	R019325
7440-43-9	Cadmium	0.104	J		M	R019216
7440-47-3	Chromium	0.769	J		M	R019325
7440-50-8	Copper	0.520	U		M	R019216
7439-92-1	Lead	0.0750	U		M	R019216
7439-97-6	Mercury	0.0180	U		CV	R019069
7440-02-0	Nickel	0.961	J		M	R019216
7782-49-2	Selenium	0.122	J		M	R019216
7440-22-4	Silver	0.0850	U		M	R019216
7440-28-0	Thallium	0.0440	U		M	R019216
7440-66-6	Zinc	2.50	J	E	M	R019216

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_  
 Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW01SW (Filt.)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB33Matrix (soil/water): WaterLab Sample ID: CAB33-006Level (low/med): LOWDate Received: 06/22/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.0560	U		M	R019216
7440-38-2	Arsenic	0.160	J		M	R019216
7440-41-7	Beryllium	0.0430	U		M	R019216
7440-43-9	Cadmium	0.0956	J		M	R019216
7440-47-3	Chromium	1.18			M	R019216
7440-50-8	Copper	0.520	U		M	R019216
7439-92-1	Lead	0.0750	U		M	R019216
7439-97-6	Mercury	0.0180	U		CV	R019069
7440-02-0	Nickel	1.31			M	R019216
7782-49-2	Selenium	0.110	U		M	R019216
7440-22-4	Silver	0.0850	U		M	R019216
7440-28-0	Thallium	0.0440	U		M	R019216
7440-66-6	Zinc	2.27	J	E	M	R019216

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_



## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW01DW (Filt.)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB33Matrix (soil/water): WaterLab Sample ID: CAB33-007Level (low/med): LOWDate Received: 06/22/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.0560	U		M	R019216
7440-38-2	Arsenic	0.382	J		M	R019216
7440-41-7	Beryllium	0.215	U		M	R019325
7440-43-9	Cadmium	0.0940	U		M	R019216
7440-47-3	Chromium	0.756	J		M	R019325
7440-50-8	Copper	0.520	U		M	R019216
7439-92-1	Lead	0.0750	U		M	R019216
7439-97-6	Mercury	0.0180	U		CV	R019069
7440-02-0	Nickel	1.33			M	R019216
7782-49-2	Selenium	0.110	U		M	R019216
7440-22-4	Silver	0.0850	U		M	R019216
7440-28-0	Thallium	0.0440	U		M	R019216
7440-66-6	Zinc	1.99	J	E	M	R019216

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_

INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW02SW (Filt.)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS

SDG No.: CAB33

Matrix (soil/water): Water

Lab Sample ID: CAB33-008

Level (low/med): LOW

Date Received: 06/22/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.303	J		M	R019216
7440-38-2	Arsenic	0.443	J		M	R019216
7440-41-7	Beryllium	0.0430	U		M	R019216
7440-43-9	Cadmium	0.0994	J		M	R019216
7440-47-3	Chromium	0.632	J		M	R019216
7440-50-8	Copper	0.520	U		M	R019216
7439-92-1	Lead	0.0750	U		M	R019216
7439-97-6	Mercury	0.0180	U		CV	R019069
7440-02-0	Nickel	1.09			M	R019216
7782-49-2	Selenium	0.110	U		M	R019216
7440-22-4	Silver	0.0850	U		M	R019216
7440-28-0	Thallium	0.0440	U		M	R019216
7440-66-6	Zinc	1.80	U	E	M	R019216

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_

Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW02D (Filt.)

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB33  
 Matrix (soil/water): Water Lab Sample ID: CAB33-009  
 Level (low/med): LOW Date Received: 06/22/2007  
 % Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.0873	J		M	R019216
7440-38-2	Arsenic	0.487	J		M	R019216
7440-41-7	Beryllium	0.0430	U		M	R019216
7440-43-9	Cadmium	0.0940	U		M	R019216
7440-47-3	Chromium	0.273	J		M	R019216
7440-50-8	Copper	0.520	U		M	R019216
7439-92-1	Lead	0.0750	U		M	R019216
7439-97-6	Mercury	0.0180	U		CV	R019069
7440-02-0	Nickel	0.601	J		M	R019216
7782-49-2	Selenium	0.110	U		M	R019216
7440-22-4	Silver	0.0850	U		M	R019216
7440-28-0	Thallium	0.0440	U		M	R019216
7440-66-6	Zinc	2.37	J	E	M	R019216

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_  
 Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SW-846

2A

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019216Initial Calibration Source: ME-15-151-16Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration ICV				Continuing Calibrations						M
	Limits	True	Found	%R(1)	Limits	True	Found	%R(1)	Found	%R(1)	
Antimony	90-110	60	61.975	103.3	90 - 110	50.000	49.150	98.3	48.647	97.3	M
Arsenic	90-110	60	61.281	102.1	90 - 110	50.000	49.712	99.4	51.720	103.4	M
Beryllium	90-110	60	59.781	99.6	90 - 110	50.000	48.448	96.9	58.971	117.9	M
Cadmium	90-110	60	61.917	103.2	90 - 110	50.000	51.478	103.0	49.292	98.6	M
Chromium	90-110	60	62.902	104.8	90 - 110	50.000	51.880	103.8	54.278	108.6	M
Copper	90-110	60	62.625	104.4	90 - 110	50.000	51.067	102.1	50.897	101.8	M
Lead	90-110	60	58.964	98.3	90 - 110	50.000	50.935	101.9	49.478	99.0	M
Nickel	90-110	60	62.793	104.7	90 - 110	50.000	52.463	104.9	51.659	103.3	M
Selenium	90-110	60	63.430	105.7	90 - 110	50.000	51.477	103.0	49.580	99.2	M
Silver	90-110	60	60.240	100.4	90 - 110	50.000	52.871	105.7	49.683	99.4	M
Thallium	90-110	60	60.486	100.8	90 - 110	50.000	50.464	100.9	49.958	99.9	M
Zinc	90-110	60	61.904	103.2	90 - 110	50.000	51.053	102.1	51.116	102.2	M

SW-846

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019216

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV3			CCV4			
					Limits	True	Found	%R(1)	Found	%R(1)	
Antimony					90 - 110	50.000	48.003	96.0	49.027	98.1	M
Arsenic					90 - 110	50.000	49.989	100.0	50.077	100.2	M
Beryllium					90 - 110	50.000	55.705	111.4	51.374	102.7	M
Cadmium					90 - 110	50.000	49.250	98.5	50.503	101.0	M
Chromium					90 - 110	50.000	54.461	108.9	52.875	105.7	M
Copper					90 - 110	50.000	52.416	104.8	52.969	105.9	M
Lead					90 - 110	50.000	49.615	99.2	49.322	98.6	M
Nickel					90 - 110	50.000	51.874	103.7	51.785	103.6	M
Selenium					90 - 110	50.000	49.464	98.9	49.758	99.5	M
Silver					90 - 110	50.000	50.721	101.4	51.717	103.4	M
Thallium					90 - 110	50.000	51.004	102.0	50.654	101.3	M
Zinc					90 - 110	50.000	50.625	101.2	50.595	101.2	M

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2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019216

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV5		CCV6				
					Limits	True	Found	%R(1)	Found	%R(1)	
Antimony					90 - 110	50.000	49.528	99.1	47.348	94.7	M
Arsenic					90 - 110	50.000	51.014	102.0	50.085	100.2	M
Beryllium					90 - 110	50.000	49.222	98.4	48.408	96.8	M
Cadmium					90 - 110	50.000	50.728	101.5	49.935	99.9	M
Chromium					90 - 110	50.000	52.473	104.9	53.752	107.5	M
Copper					90 - 110	50.000	52.530	105.1	52.194	104.4	M
Lead					90 - 110	50.000	48.632	97.3	49.025	98.0	M
Nickel					90 - 110	50.000	52.158	104.3	51.165	102.3	M
Selenium					90 - 110	50.000	50.746	101.5	51.863	103.7	M
Silver					90 - 110	50.000	51.790	103.6	51.248	102.5	M
Thallium					90 - 110	50.000	49.507	99.0	49.368	98.7	M
Zinc					90 - 110	50.000	51.225	102.4	50.364	100.7	M

SW-846

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019216

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV7			CCV8			
Antimony					90 - 110	50.000	47.617	95.2	48.892	97.8	M
Arsenic					90 - 110	50.000	51.482	103.0	50.309	100.6	M
Beryllium					90 - 110	50.000	53.986	108.0	60.452	120.9	M
Cadmium					90 - 110	50.000	49.379	98.8	49.352	98.7	M
Chromium					90 - 110	50.000	54.144	108.3	54.539	109.1	M
Copper					90 - 110	50.000	52.172	104.3	52.932	105.9	M
Lead					90 - 110	50.000	47.956	95.9	50.623	101.2	M
Nickel					90 - 110	50.000	53.342	106.7	50.545	101.1	M
Selenium					90 - 110	50.000	52.457	104.9	50.637	101.3	M
Silver					90 - 110	50.000	50.426	100.9	51.095	102.2	M
Thallium					90 - 110	50.000	49.806	99.6	51.065	102.1	M
Zinc					90 - 110	50.000	52.227	104.5	51.517	103.0	M

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2A

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019216

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations CCV9						M
	Limits	True	Found	%R(1)	Limits	True	Found	%R(1)	Found	%R(1)	
Antimony					90 - 110	50.000	48.006	96.0			M
Arsenic					90 - 110	50.000	49.387	98.8			M
Beryllium					90 - 110	50.000	55.353	110.7			M
Cadmium					90 - 110	50.000	48.220	96.4			M
Chromium					90 - 110	50.000	55.166	110.3			M
Copper					90 - 110	50.000	49.835	99.7			M
Lead					90 - 110	50.000	50.837	101.7			M
Nickel					90 - 110	50.000	50.867	101.7			M
Selenium					90 - 110	50.000	49.053	98.1			M
Silver					90 - 110	50.000	50.249	100.5			M
Thallium					90 - 110	50.000	51.518	103.0			M
Zinc					90 - 110	50.000	49.608	99.2			M



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2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019325

Initial Calibration Source: ME-15-151-16

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration ICV				Continuing Calibrations						M
	Limits	True	Found	%R(1)	Limits	True	Found	%R(1)	Found	%R(1)	
Beryllium	90-110	60	61.020	101.7	90-110	50.000	50.557	101.1	55.019	110.0	M
Chromium	90-110	60	64.578	107.6	90-110	50.000	53.168	106.3	54.008	108.0	M

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2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019325

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV3			CCV4			
					Limits	True	Found	%R(1)	Found	%R(1)	
Beryllium					90 - 110	50.000	57.568	115.1	58.312	116.6	M
Chromium					90 - 110	50.000	55.444	110.9	54.308	108.6	M

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2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS      SDG No.: CAB33

Run Sequence ID: R019069

Initial Calibration Source: ME-15-159-3

Continuing Calibration Source: ME-15-162-1

Concentration Units: ug/L

Analyte	Initial Calibration ICV				Continuing Calibrations						M
	Limits	True	Found	%R(1)	Limits	True	Found	%R(1)	Found	%R(1)	
Mercury	90-110	4.04	4.088	101.2	80 - 120	5.000	5.030	100.6	5.022	100.4	CV

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2B-IN

CRDL STANDARD FOR METALS

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019216

ICP CRDL Standard Source: ME-15-154-3

Concentration Units: ug/L

Analyte	CRDL Standard for ICP					
	Initial CRI			Final		
	True	Found	%R	Found	%R	Limits
Antimony	1	1.04	103.5			
Arsenic	1	0.96	96.2			
Beryllium	1	1.1	110.3			
Cadmium	1	0.98	97.9			
Chromium	1	1.17	116.7			
Copper	2	2.18	108.8			
Lead	1	1.03	103			
Nickel	1	1.06	106.5			
Selenium	1	1.24	123.9			
Silver	1	0.91	90.7			
Thallium	1	1.08	108.4			
Zinc	10	10.76	107.6			

Control Limits: no limits have been established by EPA at this time

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2B-IN

CRDL STANDARD FOR METALS

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019325

ICP CRDL Standard Source: ME-15-154-3

Concentration Units: ug/L

Analyte	CRDL Standard for ICP					
	Initial CRI			Final		
	True	Found	%R	Found	%R	Limits
Beryllium	1	1.06	106.3			
Chromium	1	1.14	113.8			

Control Limits: no limits have been established by EPA at this time

SW-846

2B-IN

CRDL STANDARD FOR METALS

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019069

ICP CRDL Standard Source: ME-15-162-1

Concentration Units: ug/L

Analyte	CRDL Standard for ICP					
	Initial CRA			Final		
	True	Found	%R	Found	%R	Limits
Mercury	0.2	0.19	93.8			

Control Limits: no limits have been established by EPA at this time

SW-846

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019216

Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
	ICB		CCB1		CCB2		CCB3	
		C	1	C	2	C	3	C
Antimony	0.613	J	0.390	J	0.256	J	0.137	J
Arsenic	0.100	U	0.100	U	0.100	U	0.100	U
Beryllium	0.0430	U	0.0430	U	0.0430	U	0.0430	U
Cadmium	0.0940	U	0.0940	U	0.0940	U	0.0940	U
Chromium	0.120	U	0.120	U	0.120	U	0.120	U
Copper	0.520	U	0.520	U	0.520	U	0.520	U
Lead	0.0750	U	0.0750	U	0.0750	U	0.0750	U
Nickel	0.110	U	0.110	U	0.110	U	0.110	U
Selenium	0.110	U	0.110	U	0.110	U	-0.134	J
Silver	0.0850	U	0.0850	U	0.0850	U	0.0850	U
Thallium	0.0454	J	0.0440	U	0.0440	U	0.0440	U
Zinc	1.80	U	1.80	U	1.80	U	1.80	U

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3A

## INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33Run Sequence ID: R019216Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
			CCB4		CCB5		CCB6	
		C	1	C	2	C	3	C
Antimony			0.148	J	0.199	J	0.183	J
Arsenic			0.100	U	0.100	U	0.100	U
Beryllium			0.0430	U	0.0430	U	0.0430	U
Cadmium			0.0940	U	0.0940	U	0.0940	U
Chromium			0.120	U	0.120	U	0.183	J
Copper			0.520	U	0.520	U	0.520	U
Lead			0.0750	U	0.0750	U	0.0750	U
Nickel			0.110	U	0.110	U	0.110	U
Selenium			0.110	U	0.112	J	-0.123	J
Silver			0.0850	U	0.0850	U	0.0850	U
Thallium			0.0440	U	0.0440	U	0.0440	U
Zinc			1.80	U	1.80	U	1.80	U



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3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019216

Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
			CCB7		CCB8		CCB9	
		C	1	C	2	C	3	C
Antimony			0.240	J	0.239	J	0.309	J
Arsenic			0.100	U	0.100	U	0.100	U
Beryllium			0.0430	U	0.0430	U	0.0430	U
Cadmium			0.0940	U	0.0940	U	0.0940	U
Chromium			0.129	J	0.120	U	0.120	U
Copper			0.520	U	0.520	U	0.520	U
Lead			0.0750	U	0.0750	U	0.0750	U
Nickel			0.110	U	0.110	U	0.110	U
Selenium			0.110	U	0.110	U	0.184	J
Silver			0.0850	U	0.0850	U	0.0850	U
Thallium			0.0440	U	0.0440	U	0.0440	U
Zinc			1.80	U	1.80	U	1.80	U

SW-846

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019325

Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
	ICB		CCB1		CCB2		CCB3	
		C	1	C	2	C	3	C
Beryllium	0.0430	U	0.0430	U	0.0430	U	0.0430	U
Chromium	0.120	U	0.120	U	0.120	U	0.120	U

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3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019325

Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
			CCB4					
		C	1	C	2	C	3	C
Beryllium			0.0430	U				
Chromium			0.120	U				

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3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019069

Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
	ICB		CCB1		CCB2			
		C	1	C	2	C	3	C
Mercury	0.0180	U	0.0180	U	0.0180	U		

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3B  
BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019216

Lab Sample ID: B062607ICPMSW06

Prep Batch ID: P019723

Matrix (soil/water): Water

Date Prepared: 06/26/2007

Concentration Units: ug/L

Analyte	Preparation Blank		C	M
	Limits			
Antimony	0.5	0.0560	U	M
Arsenic	0.5	0.100	U	M
Beryllium	0.5	0.0430	U	M
Cadmium	0.5	0.0940	U	M
Chromium	0.5	0.199	J	M
Copper	1	0.520	U	M
Lead	0.5	0.0750	U	M
Nickel	0.5	0.110	U	M
Selenium	0.5	0.110	U	M
Silver	0.5	0.0850	U	M
Thallium	0.5	0.0440	U	M
Zinc	5	2.21	J	M

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3B  
BLANKS

Lab Name: Laucks Laboratories  
 Lab Code: LAUCKS SDG No.: CAB33  
 Lab Sample ID: B062707HGW01  
 Matrix (soil/water): Water  
 Concentration Units: ug/L

Contract: \_\_\_\_\_  
 Run Sequence ID: R019069  
 Prep Batch ID: P019757  
 Date Prepared: 06/27/2007

Analyte	Preparation Blank			
	Limits		C	M
Mercury	0.1	0.0180	U	CV

## ICP INTERFERENCE CHECK SAMPLE

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019216ICS Source: ME-15-153-19, ME-15-161-8, ME-15-161-9ICP ID Number: ICPMS (PE ELAN 6100) Concentration Units: ug/L

Analyte	True		Initial Found			Final Found			Limits
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R	
Antimony	0	20.0	0.0876	19.2	96.2				
Arsenic	0	20.0	0.0138	20.2	101.2				
Beryllium	0	20.0	0.00361	19.5	97.6				
Cadmium	0	20.0	0.00472	19.5	97.4				
Chromium	0	20.0	0.312	21.0	105.1				
Copper	0	20.0	0.307	21.6	108.1				
Lead	0	20.0	0.0175	20.3	101.5				
Nickel	0	20.0	0.539	21.5	107.6				
Selenium	0	20.0	0.0996	20.6	102.8				
Silver	0	20.0	0.00624	20.3	101.7				
Thallium	0	20.0	0.00523	20.5	102.3				
Zinc	0	20.0	0.856	21.2	105.9				

Interference Check Sample Recover Limits: 80 - 120

Form IV - IN

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**SUM - 222**

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ICP INTERFERENCE CHECK SAMPLE

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019325

ICS Source: ME-15-153-19, ME-15-161-8, ME-15-161-9

ICP ID Number: ICPMS (PE ELAN 6100) Concentration Units: ug/L

Analyte	True		Initial Found			Final Found			Limits
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R	
Beryllium	0	20.0	0.0175	19.1	95.6				
Chromium	0	20.0	0.320	20.8	104				

Interference Check Sample Recover Limits : 80 - 120

Form IV - IN

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**SUM - 223**



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5A

SAMPLE NO.

SPIKE SAMPLE RECOVERY

15LCMW01DWMS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019216

Lab Sample ID: CAB33-002MS

Prep Batch ID: P019723

Matrix (soil/water): Water

Level (low/med): LOW

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)		Sample Result (SR)		Spike Added (SA)	% R	Q	M
			C		C				
Antimony	75 - 125	48.1882		0.0964	J	50.00	96.2		M
Arsenic	75 - 125	47.9273		0.3857	J	50.00	95.1		M
Cadmium	75 - 125	48.9882		0.1312	J	50.00	97.7		M
Copper	75 - 125	51.9870		0.5200	U	50.00	103.4		M
Lead	75 - 125	52.4444		0.0750	U	50.00	104.8		M
Nickel	75 - 125	54.7082		1.1610		50.00	107.1		M
Selenium	75 - 125	47.9393		0.1100	U	50.00	95.7		M
Silver	75 - 125	51.2867		0.0850	U	50.00	102.6		M
Thallium	75 - 125	51.9348		0.0440	U	50.00	103.9		M
Zinc	75 - 125	49.5013		3.1870	J	50.00	92.6		M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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5A

SAMPLE NO.

SPIKE SAMPLE RECOVERY

15LCMW01DWMS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019325

Lab Sample ID: CAB33-002MS

Prep Batch ID: P019723

Matrix (soil/water): Water

Level (low/med): LOW

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	% R	Q	M
Beryllium	75 - 125	45.7038		0.2150	U	50.00	91.4		M
Chromium	75 - 125	45.1462		1.0146	J	50.00	88.3		M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SW-846

5A

SAMPLE NO.

SPIKE SAMPLE RECOVERY

15LCMW01DWMS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS      SDG No.: CAB33

Run Sequence ID: R019069

Lab Sample ID: CAB33-002MS

Prep Batch ID: P019757

Matrix (soil/water): Water

Level (low/med): LOW

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	% R	Q	M
Mercury	85 - 115	4.8176		0.0180	U	5.00	96.4		CV

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SW-846

5A

SAMPLE NO.

SPIKE SAMPLE RECOVERY

15LCMW01DW (Filt.)MS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019216

Lab Sample ID: CAB33-007MS

Prep Batch ID: P019723

Matrix (soil/water): Water

Level (low/med): LOW

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	% R	Q	M
Antimony	75 - 125	50.9842		0.0560	U	50.00	101.9		M
Arsenic	75 - 125	50.4674		0.3817	J	50.00	100.2		M
Cadmium	75 - 125	52.2440		0.0940	U	50.00	104.3		M
Copper	75 - 125	53.8272		0.5200	U	50.00	107.2		M
Lead	75 - 125	56.0821		0.0750	U	50.00	112.2		M
Nickel	75 - 125	54.2671		1.3251		50.00	105.9		M
Selenium	75 - 125	48.5807		0.1100	U	50.00	97.2		M
Silver	75 - 125	52.9158		0.0850	U	50.00	105.8		M
Thallium	75 - 125	54.3642		0.0440	U	50.00	108.7		M
Zinc	75 - 125	53.1147		1.9916	J	50.00	102.2		M

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SW-846

5A

SAMPLE NO.

SPIKE SAMPLE RECOVERY

15LCMW01DW (Filt.)MS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019325

Lab Sample ID: CAB33-007MS

Prep Batch ID: P019723

Matrix (soil/water): Water

Level (low/med): LOW

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	% R	Q	M
Beryllium	75 - 125	62.5480		0.2150	U	50.00	125.0		M
Chromium	75 - 125	58.4050		0.7560	J	50.00	115.3		M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SW-846

5A

SAMPLE NO.

SPIKE SAMPLE RECOVERY

15LCMW01DW (Filt.)MS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019069

Lab Sample ID: CAB33-007MS

Prep Batch ID: P019757

Matrix (soil/water): Water

Level (low/med): LOW

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	% R	Q	M
Mercury	85 - 115	4.8450		0.0180	U	5.00	96.9		CV

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SW-846

5B

SAMPLE NO.

POST DIGEST SPIKE RECOVERY

15LCMW01DWP

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019216

Lab Sample ID: CAB33-002P

Matrix (soil/water): Water

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample		Sample		Spike Added (SA)	% R	Q	M
		Result (SSR)	C	Result (SR)	C				
Antimony		41.2884		0.0964	J	50.00	82.4		M
Arsenic		39.0236		0.3857	J	50.00	77.3		M
Cadmium		39.7507		0.1312	J	50.00	79.2		M
Copper		42.9630		0.5200	U	50.00	85.3		M
Lead		42.8916		0.0750	U	50.00	85.7		M
Nickel		42.6273		1.1610		50.00	82.9		M
Selenium		38.8865		0.1100	U	50.00	77.6		M
Silver		40.7200		0.0850	U	50.00	81.4		M
Thallium		43.3677		0.0440	U	50.00	86.7		M
Zinc		41.2657		3.1870	J	50.00	76.2		M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SW-846

5B

SAMPLE NO.

POST DIGEST SPIKE RECOVERY

15LCMW01DWP

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019325

Lab Sample ID: CAB33-002P 5X JRA 7/13/07

Matrix (soil/water): Water

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample		Sample		Spike Added (SA)	% R	Q	M
		Result (SSR)	C	Result (SR)	C				
Beryllium		110.1690		0.0430	U	50.00	220.3		M
Chromium		112.4170		0.2029	J	50.00	224.4		M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



SW-846

5B

SAMPLE NO.

POST DIGEST SPIKE RECOVERY

15LCMW01DW (Filt.)P

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019216

Lab Sample ID: CAB33-007P

Matrix (soil/water): Water

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample		Sample		Spike Added (SA)	% R	Q	M
		Result (SSR)	C	Result (SR)	C				
Antimony		40.7074		0.0560	U	50.00	81.4		M
Arsenic		39.0483		0.3817	J	50.00	77.3		M
Cadmium		39.7846		0.0940	U	50.00	79.4		M
Copper		41.0865		0.5200	U	50.00	81.7		M
Lead		40.3787		0.0750	U	50.00	80.8		M
Nickel		43.2110		1.3251		50.00	83.8		M
Selenium		39.1267		0.1100	U	50.00	78.3		M
Silver		39.4472		0.0850	U	50.00	78.9		M
Thallium		41.5041		0.0440	U	50.00	83.0		M
Zinc		42.8267		1.9916	J	50.00	81.7		M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SW-846

5B

SAMPLE NO.

POST DIGEST SPIKE RECOVERY

15LCMW01DW (Filt.)P

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019325

Lab Sample ID: CAB33-007P ~~5\*~~ JRA 7/13/07

Matrix (soil/water): Water

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)		Sample Result (SR)		Spike Added (SA)	% R	Q	M
			C		C				
Beryllium		48.9342		0.0430	U	50.00	97.8		M
Chromium		48.7417		0.1512	J	50.00	97.2		M

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SW-846  
6  
DUPLICATES

SAMPLE NO.

15LCMW01DWD

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019216

Lab Sample ID: CAB33-002D

Prep Batch ID: P019723

Level (low/med): LOW

Matrix (soil/water): Water

\* Solids for Duplicate \_\_\_\_\_

\* Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit	Sample		Duplicate (D)		RPD	Q	M
			C		C			
Antimony	1	0.0964	J	0.0560	U			M
Arsenic	1	0.3857	J	0.4158	J	7.5		M
Cadmium	1	0.1312	J	0.1140	J	14.0		M
Copper	2	0.5200	U	0.5200	U			M
Lead	1	0.0750	U	0.0750	U			M
Nickel	1	1.1610		1.1523		0.7		M
Selenium	1	0.1100	U	0.1100	U			M
Silver	1	0.0850	U	0.0850	U			M
Thallium	1	0.0440	U	0.0440	U			M
Zinc	10	3.1870	J	2.7154	J	16.0		M

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6  
DUPLICATES

SAMPLE NO.

15LCMW01DWD

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019325

Lab Sample ID: CAB33-002D

Prep Batch ID: P019723

Level (low/med): LOW

Matrix (soil/water): Water

% Solids for Duplicate \_\_\_\_\_

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit	Sample		Duplicate (D)		RPD	Q	M
			C		C			
Beryllium	5	0.2150	U	0.2150	U			M
Chromium	5	1.0146	J	1.2698	J	22.3		M

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6  
DUPLICATES

SAMPLE NO.

15LCMW01DWD

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019069

Lab Sample ID: CAB33-002D

Prep Batch ID: P019757

Level (low/med): LOW

Matrix (soil/water): Water

% Solids for Duplicate \_\_\_\_\_

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit	Sample		Duplicate (D)		RPD	Q	M
			C		C			
Mercury	0.2	0.0180	U	0.0180	U			CV

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6  
DUPLICATES

SAMPLE NO.

15LCMW01DW (Filt.)D

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019216

Lab Sample ID: CAB33-007D

Prep Batch ID: P019723

Level (low/med): LOW

Matrix (soil/water): Water

% Solids for Duplicate \_\_\_\_\_

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit	Sample		Duplicate (D)		RPD	Q	M
			C		C			
Antimony	1	0.0560	U	0.0970	J	139.1		M
Arsenic	1	0.3817	J	0.3596	J	6.0		M
Cadmium	1	0.0940	U	0.1119	J	17.8		M
Copper	2	0.5200	U	0.5200	U			M
Lead	1	0.0750	U	0.0750	U			M
Nickel	1	1.3251		1.3282		0.2		M
Selenium	1	0.1100	U	0.1100	U			M
Silver	1	0.0850	U	0.0850	U			M
Thallium	1	0.0440	U	0.0440	U			M
Zinc	10	1.9916	J	2.2295	J	11.3		M

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6  
DUPLICATES

SAMPLE NO.

15LCMW01DW (Filt.)D

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019325

Lab Sample ID: CAB33-007D

Prep Batch ID: P019723

Level (low/med): LOW

Matrix (soil/water): Water

% Solids for Duplicate \_\_\_\_\_

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit	Sample		Duplicate (D)		RPD	Q	M
			C		C			
Beryllium	5	0.2150	U	0.2150	U			M
Chromium	5	0.7560	J	0.6230	J	19.3		M

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6  
DUPLICATES

SAMPLE NO.

15LCMW01DW (Filt.)D

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019069

Lab Sample ID: CAB33-007D

Prep Batch ID: P019757

Level (low/med): LOW

Matrix (soil/water): Water

% Solids for Duplicate \_\_\_\_\_

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit	Sample		Duplicate (D)		RPD	Q	M
			C		C			
Mercury	0.2	0.0180	U	0.0180	U			CV



SW-846

7C

SAMPLE NO.

DUPLICATE LABORATORY CONTROL SAMPLE

S062607ICPMSW06D

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: \_\_\_\_\_  
 LCS Lab Sample ID: S062607ICPMSW06 Prep Batch ID: P019723  
 Duplicate LCS ID: S062607ICPMSW06D Level (low/med): LOW  
 % Solids for LCS: 100 % Solids for Duplicate LCS: 100  
 Matrix (soil/water): Water Concentration Units: ug/L

Analyte	Control Limits		LCS						Duplicate LCS						
	%R	RPD	Results	C	Added	%R	Q	M	Results	C	Added	%R	Q	M	RPD
Antimony	80 - 120	20	50.9361		50.0	102		M	49.8515		50.0	100		M	2%
Arsenic	80 - 120	20	49.7903		50.0	100		M	49.5737		50.0	99		M	0%
Beryllium	80 - 120	20	49.9924		50.0	100		M	49.6119		50.0	99		M	1%
Cadmium	80 - 120	20	49.385		50.0	99		M	48.6889		50.0	97		M	1%
Chromium	80 - 120	20	52.7479		50.0	105		M	53.6497		50.0	107		M	2%
Copper	80 - 120	20	53.4855		50.0	107		M	54.456		50.0	109		M	2%
Lead	80 - 120	20	49.7132		50.0	99		M	49.0729		50.0	98		M	1%
Nickel	80 - 120	20	55.4905		50.0	111		M	54.5173		50.0	109		M	2%
Selenium	80 - 120	20	48.7129		50.0	97		M	47.8462		50.0	96		M	2%
Silver	80 - 120	20	53.0971		50.0	106		M	52.0766		50.0	104		M	2%
Thallium	80 - 120	20	49.4733		50.0	99		M	49.9532		50.0	100		M	1%
Zinc	80 - 120	20	52.8656		50.0	106		M	51.972		50.0	104		M	2%

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SW-846

7A

LABORATORY CONTROL SAMPLE

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019069  
Lab Sample ID: S062707HGW01 Prep Batch ID: P019757  
ACS Source: ME-15-159-3

Analyte	Concentration Units: ug/L					
	True	Found	C	%R Limits		%R
Mercury	4.04	3.9521		85	115	97.8

SW-846

9

SAMPLE NO.

ICP SERIAL DILUTIONS

15LCMW01DWL

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019216Matrix (soil/water): Water Level (low/med): LOWLab Sample ID: CAB33-002L

Analyte	Actual Results (ug/L)			Final Results (ug/L)				%D	Q	M
	Initial Sample(i)	Dilution Sample(S)	IDL	Initial Sample(i)	C	Dilution Sample(S)	C			
Antimony	0.0964	-0.1990	0.0800	0.0964	J	0.280	U	100.0		M
Arsenic	0.3857	0.3079	0.0330	0.386	J	0.500	U	20.2		M
Cadmium	0.1312	0.1970	0.0150	0.131	J	0.470	U	50.2		M
Copper	0.2915	0.2020	0.0070	0.520	U	2.60	U	30.7		M
Lead	0.0308	-0.0605	0.0020	0.0750	U	0.375	U	100.0		M
Nickel	1.1610	1.0808	0.0320	1.16		1.08	J	6.9		M
Selenium	0.1000	-0.4778	0.1050	0.110	U	0.550	U			M
Silver	-0.0175	-0.1315	0.0250	0.0850	U	0.425	U			M
Thallium	-0.0010	-0.0103	0.0080	0.0440	U	0.220	U			M
Zinc	3.1870	4.0440	0.0220	3.19	J	9.00	U	26.9	E	M

SW-846

9

SAMPLE NO.

ICP SERIAL DILUTIONS

15LCMW01DWL

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019325

Matrix (soil/water): Water Level (low/med): LOW

Lab Sample ID: CAB33-002L

Analyte	Actual Results (ug/L)			Final Results (ug/L)				%D	Q	M
	Initial Sample(i)	Dilution Sample(S)	IDL	Initial Sample(i) C	Dilution Sample(S) C					
Beryllium	-0.0037	0.0410	0.0200	0.215 U	1.08 U		100.0		M	
Chromium	0.2029	0.7860	0.0700	1.01 J	3.93 J		287.3		M	

SW-846

9

SAMPLE NO.

ICP SERIAL DILUTIONS

15LCMW01DW (Filt.)L

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019216  
 Matrix (soil/water): Water Level (low/med): LOW  
 Lab Sample ID: CAB33-007L

Analyte	Actual Results (ug/L)			Final Results (ug/L)				%D	Q	M
	Initial Sample (i)	Dilution Sample (S)	IDL	Initial Sample (i)	C	Dilution Sample (S)	C			
Antimony	0.0174	0.2122	0.0800	0.0560	U	0.280	U	100.0		M
Arsenic	0.3817	0.1340	0.0330	0.382	J	0.500	U	64.9		M
Cadmium	0.0935	0.2382	0.0150	0.0940	U	0.470	U	154.7		M
Copper	0.2348	0.2555	0.0070	0.520	U	2.60	U	8.8		M
Lead	-0.0085	-0.1138	0.0020	0.0750	U	0.375	U			M
Nickel	1.3251	1.4462	0.0320	1.33		1.45	J	9.1		M
Selenium	-0.0541	-0.3927	0.1050	0.110	U	0.550	U			M
Silver	-0.0257	-0.1395	0.0250	0.0850	U	0.425	U			M
Thallium	0.0030	-0.0169	0.0080	0.0440	U	0.220	U			M
Zinc	1.9916	8.1029	0.0220	1.99	J	9.00	U	306.9	E	M

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9

SAMPLE NO.

ICP SERIAL DILUTIONS

15LCMW01DW (Filt.)L

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019325

Matrix (soil/water): Water Level (low/med): LOW

Lab Sample ID: CAB33-007L

Analyte	Actual Results (ug/L)			Final Results (ug/L)				%D	Q	M
	Initial Sample(i)	Dilution Sample(S)	IDL	Initial Sample(i) C	Dilution Sample(S) C					
Beryllium	0.0103	0.0780	0.0200	0.215 U	1.08 U		100.0		M	
Chromium	0.1512	0.7099	0.0700	0.756 J	3.55 J		369.5		M	

## INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB33Instrument ID: ICPMS (PE ELAN 6100)Date: 08/18/2004

Analyte	Isotope	A	B	C	D	M
		LTL PQL (ug/L)	LTL PQL (ug/L)	MDL (ug/L)	MDL (ug/L)	
Antimony	121	1	1	0.056	0.056	M
Arsenic	75	1	1	0.1	0.1	M
Beryllium	9	1	1	0.043	0.043	M
Cadmium	111	1	1	0.094	0.094	M
Chromium	52	1	1	0.12	0.12	M
Copper	63	2	2	0.52	0.52	M
Lead	208	1	1	0.075	0.075	M
Nickel	60	1	1	0.11	0.11	M
Selenium	82	1	1	0.11	0.11	M
Silver	107	1	1	0.085	0.085	M
Thallium	205	1	1	0.044	0.044	M
Zinc	66	10	10	1.8	1.8	M

A = Upper Estimated (J Flag) Range in Determination Units

B = Upper Estimated (J Flag) Range in Actual Units

C = Lower Estimated (J Flag) Range in Determination Units

D = Lower Estimated (J Flag) Range in Actual Units

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS

SDG No.: CAB33

Instrument ID: FIMS (FIMS400)

Date: 04/11/2006

Analyte	Isotope	A		B		C	D	M
		LTl	PQL	LTl	PQL	MDL	MDL	
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	
Mercury		0.2		0.2		0.018	0.018	CV

A = Upper Estimated (J Flag) Range in Determination Units

B = Upper Estimated (J Flag) Range in Actual Units

C = Lower Estimated (J Flag) Range in Determination Units

D = Lower Estimated (J Flag) Range in Actual Units



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ICP LINEAR RANGES (QUARTERLY)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS

SDG No.: CAB33

ICP ID Number: ICPMS (PE ELAN 6100)

Date: 03/08/2007

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Antimony	0.002	1000.0	M
Arsenic	0.001	1000.0	M
Beryllium	0.002	1000.0	M
Cadmium	0.001	1000.0	M
Chromium	0.001	1000.0	M
Copper	0.001	1000.0	M
Lead	0.001	1000.0	M
Nickel	0.001	1000.0	M
Selenium	0.002	1000.0	M
Silver	0.002	1000.0	M
Thallium	0.001	1000.0	M
Zinc	0.002	1000.0	M

SW-846

12

ICP LINEAR RANGES (QUARTERLY)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS

SDG No.: CAB33

ICP ID Number: FIMS (FIMS400)

Date: 09/08/2005

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Mercury		20.0	CV

## PREPARATION LOG

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB33 Prep Batch ID: P019723  
 Method: 6020

Client Sample No.	Lab Sample ID	Preparation Date	Initial Volume	Volume (mL)
B062607ICPMSW06	B062607ICPMSW06	06/26/2007	100.0 mL	100
S062607ICPMSW06	S062607ICPMSW06	06/26/2007	100.0 mL	100
S062607ICPMSW06D	S062607ICPMSW06D	06/26/2007	100.0 mL	100
15LCMW01SW	CAB33-001	06/26/2007	100.0 mL	100
15LCMW01DW	CAB33-002	06/26/2007	100.0 mL	100
15LCMW01DWD	CAB33-002D	06/26/2007	100.0 mL	100
15LCMW01DWMS	CAB33-002MS	06/26/2007	100.0 mL	100
15LCMW02SW	CAB33-004	06/26/2007	100.0 mL	100
15LCMW02DW	CAB33-005	06/26/2007	100.0 mL	100
15LCMW01SW (Filt.)	CAB33-006	06/26/2007	100.0 mL	100
15LCMW01DW (Filt.)	CAB33-007	06/26/2007	100.0 mL	100
15LCMW01DW (Filt.)D	CAB33-007D	06/26/2007	100.0 mL	100
15LCMW01DW (Filt.)MS	CAB33-007MS	06/26/2007	100.0 mL	100
15LCMW02SW (Filt.)	CAB33-008	06/26/2007	100.0 mL	100
15LCMW02D (Filt.)	CAB33-009	06/26/2007	100.0 mL	100

## PREPARATION LOG

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33Prep Batch ID: P019757Method: 7470A

Client Sample No.	Lab Sample ID	Preparation Date	Initial Volume	Volume (mL)
B062707HGW01	B062707HGW01	06/27/2007	50.0 mL	50
S062707HGW01	S062707HGW01	06/27/2007	50.0 mL	50
15LCMW01SW	CAB33-001	06/27/2007	50.0 mL	50
15LCMW01DW	CAB33-002	06/27/2007	50.0 mL	50
15LCMW01DWD	CAB33-002D	06/27/2007	50.0 mL	50
15LCMW01DWMS	CAB33-002MS	06/27/2007	50.0 mL	50
15LCMW02SW	CAB33-004	06/27/2007	50.0 mL	50
15LCMW02DW	CAB33-005	06/27/2007	50.0 mL	50
15LCMW01SW (Filt.)	CAB33-006	06/27/2007	50.0 mL	50
15LCMW01DW (Filt.)	CAB33-007	06/27/2007	50.0 mL	50
15LCMW01DW (Filt.)D	CAB33-007D	06/27/2007	50.0 mL	50
15LCMW01DW (Filt.)MS	CAB33-007MS	06/27/2007	50.0 mL	50
15LCMW02SW (Filt.)	CAB33-008	06/27/2007	50.0 mL	50
15LCMW02D (Filt.)	CAB33-009	06/27/2007	50.0 mL	50

ANALYSIS RUN LOG

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019216  
 Instrument ID Number: ICPMS (PE ELAN 6100) Method: 6020  
 Start Date: 07/02/2007 End Date: 07/02/2007

Client Sample No.	D/F	Time	Analytes																																		
			A	A	A	B	B	C	C	C	C	C	F	H	K	L	M	M	M	N	N	P	S	S	S	S	T	T	T	U	V	Z	C	B	S		
Blank	1	08:28	X		X	X	X	X	X	X	X	X	X							X	X	X	X	X										X			
Standard 1	1	08:33	X		X	X	X	X	X	X	X	X	X							X	X	X	X	X										X			
Standard 2	1	08:38	X		X	X	X	X	X	X	X	X	X							X	X	X	X	X										X			
Standard 3	1	08:43	X		X	X	X	X	X	X	X	X	X							X	X	X	X	X										X			
Standard 4	1	08:48	X		X	X	X	X	X	X	X	X	X							X	X	X	X	X										X			
Standard 5	1	08:54	X		X	X	X	X	X	X	X	X	X							X	X	X	X	X										X			
ICV	1	08:59	X		X	X	X	X	X	X	X	X	X							X	X	X	X	X										X			
ICB	1	09:02	X		X	X	X	X	X	X	X	X	X							X	X	X	X	X											X		
ICR	1	09:07	X		X	X	X	X	X	X	X	X	X							X	X	X	X	X											X		
ICSA	1	09:10	X		X	X	X	X	X	X	X	X	X							X	X	X	X	X											X		
ICSAB	1	09:14	X		X	X	X	X	X	X	X	X	X							X	X	X	X	X											X		
zzzzzz1	1	09:17																																			
CCV1	1	09:21	X		X	X	X	X	X	X	X	X	X							X	X	X	X	X											X		
CCB1	1	09:26	X		X	X	X	X	X	X	X	X	X							X	X	X	X	X											X		
zzzzzz	10	09:30																																			
zzzzzz2	1	09:34																																			
zzzzzz	10	09:39																																			
zzzzzz	10	09:43																																			
zzzzzz	10	09:47																																			
zzzzzz	10	09:52																																			
zzzzzz	10	09:56																																			
CCV2	1	10:00	X		X	X	X	X	X	X	X	X	X							X	X	X	X	X											X		
CCB2	1	10:05	X		X	X	X	X	X	X	X	X	X							X	X	X	X	X												X	
zzzzzz	25	10:09																																			
zzzzzz	50	10:13																																			
zzzzzz	25	10:18																																			
zzzzzz	125	10:22																																			



ANALYSIS RUN LOG

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019216  
 Instrument ID Number: ICPMS (PE ELAN 6100) Method: 6020  
 Start Date: 07/02/2007 End Date: 07/02/2007

Client Sample No.	D/F	Time	Analytes																																	
			A	A	A	B	B	C	C	C	C	F	H	K	L	M	M	M	N	N	N	P	S	S	S	S	T	T	T	U	V	Z	C	B	S	
zzzzzz	1	12:27																																		
CCV5	1	12:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB5	1	12:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
zzzzzz	1	12:40																																		
zzzzzz8	1	12:45																																		
zzzzzz	100	12:50																																		
zzzzzz	50	12:54																																		
zzzzzz	50	12:58																																		
zzzzzz	1	13:03																																		
zzzzzz	1	13:07																																		
CCV6	1	13:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB6	1	13:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
zzzzzz	1	13:20																																		
zzzzzz	1	13:24																																		
zzzzzz	1	13:28																																		
zzzzzz	1	13:33																																		
zzzzzz	5	13:37																																		
zzzzzz	1	13:41																																		
zzzzzz	1	13:46																																		
zzzzzz	1	13:50																																		
CCV7	1	13:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB7	1	13:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15LCM/W01SW	1	14:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15LCM/W01DW	1	14:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15LCM/W01DWL	5	14:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15LCM/W01DWD	1	14:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15LCM/W01DWMS	1	14:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

ANALYSIS RUN LOG

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB33

Run Sequence ID: R019216

Instrument ID Number: ICPMS (PE ELAN 6100)

Method: 6020

Start Date: 07/02/2007

End Date: 07/02/2007

Client Sample No.	D/F	Time	Analytes																																	
			A	A	A	B	B	C	C	C	C	C	F	H	K	L	M	M	M	N	N	P	S	S	S	S	T	T	T	U	V	Z	C	B	S	
15LCMW01DW/P	1	14:25	X																																	
15LCMW02SW	1	14:29	X																																	
15LCMW02DW	1	14:34	X																																	
15LCMW01SW (Filt.)	1	14:38	X																																	
15LCMW01DW (Filt.)	1	14:42	X																																	
CCV8	1	14:46	X																																	
CCB8	1	14:51	X																																	
15LCMW01DW (Filt.)L	5	14:55	X																																	
15LCMW01DW (Filt.)D	1	14:59	X																																	
15LCMW01DW (Filt.)MS	1	15:04	X																																	
15LCMW01DW (Filt.)P	1	15:08	X																																	
15LCMW02SW (Filt.)	1	15:12	X																																	
15LCMW02D (Filt.)	1	15:17	X																																	
CCV9	1	15:21	X																																	
CCB9	1	15:25	X																																	



ANALYSIS RUN LOG

Lab Name: Taucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB33 Run Sequence ID: R019325  
 Instrument ID Number: \_\_\_\_\_ Method: 6020  
 Start Date: 07/03/2007 End Date: 07/03/2007

Client Sample No.	D/F	Time	Analytes																																		
			A	A	A	B	B	C	C	C	C	C	F	H	K	L	M	M	M	N	N	P	S	S	S	S	T	T	T	U	V	Z	C	B	S		
ZZZZZ	100	11:04																																			
ZZZZZ	100	11:09																																			
ZZZZZ	100	11:13																																			
ZZZZZ	1	11:17																																			
15LCMW01SW	5	11:22							X																												
15LCMW01DW	5	11:26							X																												
15LCMW01DWL	25	11:30							X																												
15LCMW01DWID	5	11:35							X																												
CCV3	1	11:39							X																												
CCB3	1	11:43							X																												
15LCMW01DWMS	5	11:47							X																												
15LCMW01DWP	5	11:52							X																												
15LCMW02SW	5	11:58							X																												
15LCMW02DW	5	12:05							X																												
15LCMW01DW (Filt.)L	5	12:09							X																												
15LCMW01DW (Filt.)L	25	12:13							X																												
15LCMW01DW (Filt.)D	5	12:18							X																												
15LCMW01DW (Filt.)MS	5	12:22							X																												
15LCMW01DW (Filt.)P	5	12:26							X																												
CCV4	1	12:31							X																												
CCB4	1	12:35							X																												







**FORMS SUMMARY**

**CAB33**

**Miscellaneous Inorganics**

**Laucks Testing Laboratories, Inc.**

**Final Results**

**Client:** PBS Engineering and Environmental

**Project:** Camp Bonneville

**SDG Number:** CAB33

**Sample Number:** 15LCMW01SW

**Date/Time Collected:** 06/21/2007 11:00

**Lab Sample ID:** CAB33-001

**Date/Time Received:** 06/22/2007 10:10

**Method:** E160.2

**Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Suspended Solids, Total	TSS	1	2	U	2	2	06/25/2007	06/27/2007	R018986

**Method:** E300.0 **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Nitrate - N	14797-55-8	1	0.20	U	0.20	0.055	06/22/2007	06/23/2007	R018984
Nitrite - N	14797-65-0	1	0.10	U	0.10	0.017	06/22/2007	06/23/2007	R018984
Sulfate as SO4	14808-79-8	1	1.0	U	1.0	0.17	06/22/2007	06/23/2007	R018984
Chloride	16887-00-6	1	1.3		1.0	0.076	06/22/2007	06/23/2007	R018984

**Method:** E310.1 **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Alkalinity, Carbonate (As CaCO3)	3812-32-6	2	4	U	4	4	07/03/2007	07/03/2007	R019262
Alkalinity, Bicarbonate (As CaCO3)	71-52-3	2	42		4	4	07/03/2007	07/03/2007	R019262

**Method:** E314.0 **Unit:** ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	1	1.0	U	1.0	0.14	07/10/2007	07/11/2007	R019390

**Method:** E415.1 **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Organic Carbon, Total	TOC	1	1.0	U	1.0	0.070	06/28/2007	06/28/2007	R019123

**Laucks Testing Laboratories, Inc.**

**Final Results**

**Client:** PBS Engineering and Environmental

**Project:** Camp Bonneville

**SDG Number:** CAB33

**Sample Number:** 15LCMW01DW

**Date/Time Collected:** 06/21/2007 12:45

**Lab Sample ID:** CAB33-002

**Date/Time Received:** 06/22/2007 10:10

**Method:** E160.2

**Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Suspended Solids, Total	TSS	1	2	U	2	2	06/25/2007	06/27/2007	R018986

**Method:** E300.0

**Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Nitrate - N	14797-55-8	1	0.20	U	0.20	0.055	06/22/2007	06/23/2007	R018984
Nitrite - N	14797-65-0	1	0.10	U	0.10	0.017	06/22/2007	06/23/2007	R018984
Sulfate as SO4	14808-79-8	1	1.0	U	1.0	0.17	06/22/2007	06/23/2007	R018984
Chloride	16887-00-6	1	1.5		1.0	0.076	06/22/2007	06/23/2007	R018984

**Method:** E310.1

**Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Alkalinity, Carbonate (As CaCO3)	3812-32-6	2	4	U	4	4	07/03/2007	07/03/2007	R019262
Alkalinity, Bicarbonate (As CaCO3)	71-52-3	2	44		4	4	07/03/2007	07/03/2007	R019262

**Method:** E314.0

**Unit:** ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	1	1.0	U	1.0	0.14	07/10/2007	07/11/2007	R019390

**Method:** E415.1

**Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Organic Carbon, Total	TOC	1	1.0	U	1.0	0.070	06/28/2007	06/28/2007	R019123

Laucks Testing Laboratories, Inc.

Final Results

**Client:** PBS Engineering and Environmental

**Project:** Camp Bonneville

**SDG Number:** CAB33

**Sample Number:** MS/MSD

**Date/Time Collected:** 06/21/2007 12:45

**Lab Sample ID:** CAB33-003

**Date/Time Received:** 06/22/2007 10:10

**Method:** E300.0

**Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Nitrate - N	14797-55-8	1	0.20	U	0.20	0.055	06/22/2007	06/23/2007	R018984
Nitrite - N	14797-65-0	1	0.10	U	0.10	0.017	06/22/2007	06/23/2007	R018984
Sulfate as SO4	14808-79-8	1	1.0	U	1.0	0.17	06/22/2007	06/23/2007	R018984
Chloride	16887-00-6	1	1.5		1.0	0.076	06/22/2007	06/23/2007	R018984



**Laucks Testing Laboratories, Inc.**

**Final Results**

**Client:** PBS Engineering and Environmental

**Project:** Camp Bonneville

**SDG Number:** CAB33

**Sample Number:** 15LCMW02SW

**Date/Time Collected:** 06/21/2007 15:00

**Lab Sample ID:** CAB33-004

**Date/Time Received:** 06/22/2007 10:10

**Method:** E160.2

**Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Suspended Solids, Total	TSS	1	2	U	2	2	06/25/2007	06/27/2007	R018986

**Method:** E300.0 **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Nitrate - N	14797-55-8	1	0.20	U	0.20	0.055	06/22/2007	06/23/2007	R018984
Nitrite - N	14797-65-0	1	0.10	U	0.10	0.017	06/22/2007	06/23/2007	R018984
Sulfate as SO4	14808-79-8	1	1.0	U	1.0	0.17	06/22/2007	06/23/2007	R018984
Chloride	16887-00-6	1	1.6		1.0	0.076	06/22/2007	06/23/2007	R018984

**Method:** E310.1 **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Alkalinity, Carbonate (As CaCO3)	3812-32-6	2	4	U	4	4	07/03/2007	07/03/2007	R019262
Alkalinity, Bicarbonate (As CaCO3)	71-52-3	2	42		4	4	07/03/2007	07/03/2007	R019262

**Method:** E314.0 **Unit:** ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	1	1.0	U	1.0	0.14	07/10/2007	07/11/2007	R019390

**Method:** E415.1 **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Organic Carbon, Total	TOC	1	1.0	U	1.0	0.070	06/28/2007	06/28/2007	R019123

**Laucks Testing Laboratories, Inc.**

**Final Results**

**Client:** PBS Engineering and Environmental

**Project:** Camp Bonneville

**SDG Number:** CAB33

**Sample Number:** 15LCMW02DW

**Date/Time Collected:** 06/21/2007 16:50

**Lab Sample ID:** CAB33-005

**Date/Time Received:** 06/22/2007 10:10

**Method:** E160.2

**Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Suspended Solids, Total	TSS	1	2	U	2	2	06/25/2007	06/27/2007	R018986

**Method:** E300.0 **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Nitrate - N	14797-55-8	1	0.23		0.20	0.055	06/22/2007	06/23/2007	R018984
Nitrite - N	14797-65-0	1	0.10	U	0.10	0.017	06/22/2007	06/23/2007	R018984
Sulfate as SO4	14808-79-8	1	1.0		1.0	0.17	06/22/2007	06/23/2007	R018984
Chloride	16887-00-6	1	2.1		1.0	0.076	06/22/2007	06/23/2007	R018984

**Method:** E310.1 **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Alkalinity, Carbonate (As CaCO3)	3812-32-6	2	4	U	4	4	07/03/2007	07/03/2007	R019262
Alkalinity, Bicarbonate (As CaCO3)	71-52-3	2	44		4	4	07/03/2007	07/03/2007	R019262

**Method:** E314.0 **Unit:** ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	1	1.0	U	1.0	0.14	07/10/2007	07/11/2007	R019390

**Method:** E415.1 **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Organic Carbon, Total	TOC	1	1.0	U	1.0	0.070	06/28/2007	06/28/2007	R019123

Laucks Testing Laboratories, Inc.

Final Results

Client: PBS Engineering and Environmental Project: Camp Bonneville  
SDG Number: CAB33  
Sample Number: 15LCMW01SW (Filt.) Date/Time Collected: 06/21/2007 11:00  
Lab Sample ID: CAB33-006 Date/Time Received: 06/22/2007 10:10  
Method: E415.1 Unit: mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Dissolved Organic Carbon	DOC	1	1.0	U	1.0	1.0	06/28/2007	06/28/2007	R019123

Laucks Testing Laboratories, Inc.

Final Results

**Client:** PBS Engineering and Environmental      **Project:** Camp Bonneville  
**SDG Number:** CAB33  
**Sample Number:** 15LCMW01DW (Filt.)      **Date/Time Collected:** 06/21/2007 12:45  
**Lab Sample ID:** CAB33-007      **Date/Time Received:** 06/22/2007 10:10  
**Method:** E415.1      **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Dissolved Organic Carbon	DOC	1	1.0	U	1.0	1.0	06/28/2007	06/28/2007	R019123

Laucks Testing Laboratories, Inc.

Final Results

Client: PBS Engineering and Environmental  
Project: Camp Bonneville  
SDG Number: CAB33  
Sample Number: 15LCMW02SW (Filt.) Date/Time Collected: 06/21/2007 15:00  
Lab Sample ID: CAB33-008 Date/Time Received: 06/22/2007 10:10  
Method: E415.1 Unit: mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Dissolved Organic Carbon	DOC	1	1.0	U	1.0	1.0	06/28/2007	06/28/2007	R019123

Laucks Testing Laboratories, Inc.

Final Results

Client: PBS Engineering and Environmental Project: Camp Bonneville  
SDG Number: CAB33  
Sample Number: 15LCMW02D (Filt.) Date/Time Collected: 06/21/2007 16:50  
Lab Sample ID: CAB33-009 Date/Time Received: 06/22/2007 10:10  
Method: E415.1 Unit: mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Dissolved Organic Carbon	DOC	1	1.0	U	1.0	1.0	06/28/2007	06/28/2007	R019123

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB33 Contract:  
 Run Sequence No. R018984 Concentration Units: mg/L  
 Determination Name: 300.0 NO3, NO2, Cl, SO4  
 Initial Calibration Source: IC-7-22-18  
 Continuing Calibration Source: IC-7-24-12

Analyte	ICV 06/22/2007 12:56				CCVI 06/22/07 15:31			CCV2 06/22/07 17:06			CCV Limits
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	
Chloride	1.500	1.415	94.4	90-110	5.023	5.391	107.3	5.023	5.397	107.5	90-110
Nitrate - N	1.125	1.106	98.3	90-110	2.004	2.182	108.9	2.004	2.148	107.2	90-110
Nitrite - N	1.522	1.667	109.5	90-110	1.000	1.062	106.1	1.000	1.069	106.8	90-110
Sulfate as SO4	7.450	7.47	100.3	90-110	10.018	10.711	106.9	10.018	10.852	108.3	90-110

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**  
**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB33 Contract:  
 Run Sequence No. R018984 Concentration Units: mg/L  
 Determination Name: 300.0 NO3, NO2, Cl, SO4  
 Initial Calibration Source: IC-7-22-18  
 Continuing Calibration Source: IC-7-24-12

Analyte					CCV3 06/22/07 20:16			CCV4 06/22/07 23:25			CCV Limits
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	
Chloride					5.023	5.455	108.6	5.023	5.119	101.9	90-110
Nitrate - N					2.004	2.198	109.7	2.004	2.036	101.6	90-110
Nitrite - N					1.000	1.076	107.6	1.000	1.031	103	90-110
Sulfate as SO4					10.018	10.902	108.8	10.018	10.34	103.2	90-110

\* = Percent recovery not within control limits



**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB33 Contract:  
 Run Sequence No. R018984 Concentration Units: mg/L  
 Determination Name: 300.0 NO3, NO2, Cl, SO4  
 Initial Calibration Source: IC-7-22-18  
 Continuing Calibration Source: IC-7-24-12

Analyte					CCV5 06/23/07 02:34			CCV6 06/23/07 05:44			CCV Limits
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	
Chloride					5.023	5.421	107.9	5.023	5.448	108.5	90-110
Nitrate - N					2.004	2.182	108.9	2.004	2.19	109.3	90-110
Nitrite - N					1.000	1.083	108.3	1.000	1.091	109.1	90-110
Sulfate as SO4					10.018	10.909	108.9	10.018	10.987	109.7	90-110

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB33 Contract:  
 Run Sequence No. R018984 Concentration Units: mg/L  
 Determination Name: 300.0 NO3, NO2, Cl, SO4  
 Initial Calibration Source: IC-7-22-18  
 Continuing Calibration Source: IC-7-24-12

Analyte					CCV7 06/23/07 08:53			CCV8 06/23/07 11:31			CCV Limits
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	
Chloride					5.023	5.487	109.2	1.500	1.403	93.5	90-110
Nitrate - N					2.004	2.198	109.7	1.125	1.107	98.4	90-110
Nitrite - N					1.000	1.099	109.9	1.522	1.648	108.2	90-110
Sulfate as SO4					10.018	10.964	109.4	7.450	7.517	100.9	90-110

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB33 Contract:  
 Run Sequence No. R019390 Concentration Units: ug/L  
 Determination Name: 314.0 Perchlorate  
 Initial Calibration Source: IC-7-24-15  
 Continuing Calibration Source: IC-7-24-17

Analyte	ICV				CCV1			CCV2			CCV Limits
	07/11/2007 12:24				07/11/07 12:24			07/11/07 12:24			
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	
Perchlorate	40.151	38.82	96.7	75-125	9.988	9.626	96.4	9.988	10.09	101	85-115

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB33 Contract: \_\_\_\_\_  
 Run Sequence No. R019390 Concentration Units: ug/L  
 Determination Name: 314.0 Perchlorate  
 Initial Calibration Source: IC-7-24-15  
 Continuing Calibration Source: IC-7-24-17

Analyte					CCV3 07/11/07 12:24						CCV
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	Limits
Perchlorate					9.988	9.868	98.8				85-115

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB33 Contract:  
 Run Sequence No. R019123 Concentration Units: mg/L  
 Determination Name: 415.1 Total Organic Carbon  
 Initial Calibration Source: TOC-4-28-2  
 Continuing Calibration Source: TOC-4-29-20

Analyte	ICV 06/28/2007 11:34				CCV01 06/28/07 13:16			CCV02 06/28/07 14:42			CCV Limits
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	
Organic Carbon, Total	10.000	9.929	99.3	90-110	5.001	4.796	95.9	5.001	4.638	92.7	90-110

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB33 Contract:  
 Run Sequence No. R019123 Concentration Units: mg/L  
 Determination Name: 415.1 Total Organic Carbon  
 Initial Calibration Source: TOC-4-28-2  
 Continuing Calibration Source: TOC-4-29-20

Analyte					CCV03 06/28/07 15:51						CCV
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	Limits
Organic Carbon, Total					5.001	5.065	101.3				90-110

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION BLANKS**

SDG No: CAB33

Contract:

Run Sequence No.: R018984

Concentration Units: mg/L

Determination Name: 300.0 NO3, NO2, Cl, SO4

Analyte	ICB 06/22/2007 13:12			CCB1 06/22/2007 15:47		CCB2 06/22/2007 17:22		CCB3 06/22/2007 20:31		CCB Limit
	Found	C	Limit	Found	C	Found	C	Found	C	
Chloride	1.0	U	0.5	1.0	U	1.0	U	1.0	U	0.5
Nitrate - N	0.20	U	0.1	0.20	U	0.20	U	0.20	U	0.1
Nitrite - N	0.10	U	0.05	0.10	U	0.10	U	0.10	U	0.05
Sulfate as SO4	1.0	U	0.5	1.0	U	1.0	U	1.0	U	0.5

\* = Control limit exceeded

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION BLANKS**

SDG No: CAB33

Contract:

Run Sequence No.: R018984

Concentration Units: mg/L

Determination Name: 300.0 NO3, NO2, Cl, SO4

Analyte				CCB4 06/22/2007 23:41		CCB5 06/23/2007 02:50		CCB6 06/23/2007 06:00		CCB Limit
	Found	C	Limit	Found	C	Found	C	Found	C	
Chloride				1.0	U	1.0	U	1.0	U	0.5
Nitrate - N				0.20	U	0.20	U	0.20	U	0.1
Nitrite - N				0.10	U	0.10	U	0.10	U	0.05
Sulfate as SO4				1.0	U	1.0	U	1.0	U	0.5

\* = Control limit exceeded



**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION BLANKS**

SDG No: CAB33

Contract:

Run Sequence No.: R018984

Concentration Units: mg/L

Determination Name: 300.0 NO3, NO2, Cl, SO4

Analyte				CCB7 06/23/2007 09:09		CCB8 06/23/2007 11:47				CCB Limit
	Found	C	Limit	Found	C	Found	C	Found	C	
Chloride				1.0	U	1.0	U			0.5
Nitrate - N				0.20	U	0.20	U			0.1
Nitrite - N				0.10	U	0.10	U			0.05
Sulfate as SO4				1.0	U	1.0	U			0.5

\* = Control limit exceeded

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION BLANKS**

SDG No: CAB33

Contract:

Run Sequence No.: R019390

Concentration Units: ug/L

Determination Name: 314.0 Perchlorate

Analyte	ICB 07/11/2007 12:24			CCB1 07/11/2007 12:24		CCB2 07/11/2007 12:24		CCB3 07/11/2007 12:24		CCB Limit
	Found	C	Limit	Found	C	Found	C	Found	C	
	Perchlorate	1.0	U	0.5	1.0	U	1.0	U	1.0	U

\* = Control limit exceeded

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION BLANKS**

SDG No: CAB33 Contract:  
 Run Sequence No.: R019123 Concentration Units: mg/L  
 Determination Name: 415.1 Total Organic Carbon

Analyte	ICB 06/28/2007 11:40			CCB01 06/28/2007 13:22		CCB02 06/28/2007 14:49		CCB03 06/28/2007 15:57		CCB Limit
	Found	C	Limit	Found	C	Found	C	Found	C	
Organic Carbon, Total	1.0	U	0.5	1.0	U	1.0	U	1.0	U	0.5

\* = Control limit exceeded

# Laucks Testing Labs

## Blank Report

Test:	310.1M Carb./Bicarb. Alkalinity	SDG ID:	CAB33
		Preparation Date:	7/3/2007
Lab Sample ID:	B070307ALKW01	Run Sequence ID:	R019262
		Analysis Date:	07/03/2007 17:00
		Units:	mg/L
		Matrix:	Water

Analyte	Reported	Flag	Limit
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	2	U	2
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	2	U	2

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW

\* Measured blank concentration exceeded the established control limit

*FORM LTL-RSR-9.0*

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# Laucks Testing Labs

## Blank Report

Test: 300.0 NO3, NO2, Cl, SO4

SDG ID: CAB33

Lab Sample ID: B062207IAIW02

Preparation Date: 6/22/2007

Run Sequence ID: R018984

Analysis Date: 06/23/2007 11:47

Units: mg/L

Matrix: Water

Analyte	Reported	Flag	Limit
Chloride	1.0	U	0.5
Nitrate - N	0.20	U	0.1
Nitrite - N	0.10	U	0.05
Sulfate as SO4	1.0	U	0.5

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-003	MS/MSD
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW

\* Measured blank concentration exceeded the established control limit

*FORM LTL-RSR-9 0*

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**Laucks Testing Labs**  
**Blank Report**

Test: 314.0 Perchlorate  
Lab Sample ID: B071007PERW01

SDG ID: CAB33  
Preparation Date: 7/10/2007  
Run Sequence ID: R019390  
Analysis Date: 07/11/2007 12:24  
Units: ug/L  
Matrix: Water

Analyte	Reported	Flag	Limit
Perchlorate	1.0	U	0.5

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW

\* Measured blank concentration exceeded the established control limit

FORM LTL-RSR-9.0

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# Laucks Testing Labs

## Blank Report

Test: 415.1 Total Organic Carbon

SDG ID: CAB33

Preparation Date: 6/28/2007

Lab Sample ID: B062807TOCW02

Run Sequence ID: R019123

Analysis Date: 06/28/2007 13:55

Units: mg/L

Matrix: Water

Analyte	Reported	Flag	Limit
Organic Carbon, Total	1.0	U	0.5

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW
CAB33-006	15LCMW01SW (Filt.)
CAB33-007	15LCMW01DW (Filt.)
CAB33-008	15LCMW02SW (Filt.)
CAB33-009	15LCMW02D (Filt.)

\* Measured blank concentration exceeded the established control limit

*FORM LTL-RSR-9.0*

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# Laucks Testing Labs

## Blank Report

Test: 160.2 Total Suspended Solids

SDG ID: CAB33

Lab Sample ID: B062507TSSW01

Preparation Date: 6/25/2007

Run Sequence ID: R018986

Analysis Date: 06/27/2007 16:30

Units: mg/L

Matrix: Water

Analyte	Reported	Flag	Limit
Suspended Solids, Total	2	U	2

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW

\* Measured blank concentration exceeded the established control limit

FORM LTL-RSR-9.0

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**Laucks Testing Laboratories**  
**Matrix Spike/Matrix Spike Duplicate Report**

Test: 300.0 NO3, NO2, Cl, SO4

SDG ID: CAB33

Preparation Date: 06/22/2007

MS Lab Sample ID: CAB33-003MS 20X

Run Sequence ID: R018984

MSD Lab Sample ID: CAB33-003MSD 20X

Analysis Date: 06/23/2007

Client Sample ID: MS/MSD

Units: mg/L

Matrix: Water

Analyte	Sample Found	MS Spike	MS Found	MS Recovery	MSD Spike	MSD Found	MSD Recovery	RPD	Limits	
									Recovery	RPD
Chloride	1.548	40.2	45.4156	109%	40.2	46.1958	111%*	2%	90-110	11
Nitrate - N	0.1144	16.0	17.2651	107%	16.0	18.2663	113%*	6%	90-110	10
Nitrite - N	0	8.00	8.4072	105%	8.00	8.7935	110%	4%	90-110	10
Sulfate as SO4	0.9194	80.1	91.8858	114%*	80.1	93.525	116%*	2%	90-110	10

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-003	MS/MSD
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW

\* = RPD or percent recovery is outside established control limits

# = This RPD or percent recovery is not flagged as an exceedance because the Sample Found amount is five times or more than the Spike Added amount.

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

FORM LTL-RSR-11.0

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**Laucks Testing Laboratories**  
**Matrix Spike/Matrix Spike Duplicate Report**

Test:	314.0 Perchlorate	SDG ID:	CAB33
		Preparation Date:	07/10/2007
MS Lab Sample ID:	CAB33-002MS 5X	Run Sequence ID:	R019390
MSD Lab Sample ID:	CAB33-002MSD 5X	Analysis Date:	07/11/2007
Client Sample ID:	15LCMW01DW	Units:	ug/L
		Matrix:	Water

Analyte	Sample Found	MS Spike	MS Found	MS Recovery	MSD Spike	MSD Found	MSD Recovery	RPD	Limits	
									Recovery	RPD
Perchlorate	0	99.9	116.1	116%	99.9	108.165	108%	7%	80-120	15

Associated Samples	
Lab Sample ID	Client Sample ID
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW

\* = RPD or percent recovery is outside established control limits  
 # = This RPD or percent recovery is not flagged as an exceedence because the Sample Found amount is five times or more than the Spike Added amount.

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

**Laucks Testing Laboratories**  
**Matrix Spike/Matrix Spike Duplicate Report**

Test:	415.1 Total Organic Carbon	SDG ID:	CAB33
		Preparation Date:	06/28/2007
MS Lab Sample ID:	CAB33-002MS	Run Sequence ID:	R019123
MSD Lab Sample ID:	CAB33-002MSD	Analysis Date:	06/28/2007
Client Sample ID:	15LCMW01DW	Units:	mg/L
		Matrix:	Water

Analyte	Sample Found	MS Spike	MS Found	MS Recovery	MSD Spike	MSD Found	MSD Recovery	RPD	Limits	
									Recovery	RPD
Organic Carbon, Total	0.1872	10.0	10.0596	99%	10.0	10.206	100%	1%	70-119	11

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW
CAB33-006	15LCMW01SW (Filt.)
CAB33-007	15LCMW01DW (Filt.)
CAB33-008	15LCMW02SW (Filt.)
CAB33-009	15LCMW02D (Filt.)

\* = RPD or percent recovery is outside established control limits

# = This RPD or percent recovery is not flagged as an exceedance because the Sample Found amount is five times or more than the Spike Added amount.

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-11.0*

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## Laucks Testing Laboratories

### Duplicate Report

Test:	310.1M Carb./Bicarb. Alkalinity	SDG ID:	CAB33
		Preparation Date:	7/3/2007
Lab Sample ID:	CAB33-002Dup	Run Sequence ID:	R019262
Client Sample ID:	15LCMW01DW	Analysis Date:	07/03/2007 17:00
		Units:	mg/L
		Matrix	Water

Analyte	Parent Found	Duplicate Found	RPD	Limit
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	44	44	0%	10
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	0	0	0%	10

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW

# = RPD Value is not flagged as an outlier because either the parent found amount or duplicate found amount or both are less than five times the reporting limit

\* = Value exceeded established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-20.0*

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# Laucks Testing Laboratories

## Duplicate Report

Test:	160.2 Total Suspended Solids	SDG ID:	CAB33
		Preparation Date:	6/25/2007
Lab Sample ID:	CAB33-002D	Run Sequence ID:	R018986
Client Sample ID:	15LCMW01DW	Analysis Date:	06/27/2007 16:30
		Units:	mg/L
		Matrix	Water

Analyte	Parent Found	Duplicate Found	RPD	Limit
Suspended Solids, Total	1	1	0%	20

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW

# = RPD Value is not flagged as an outlier because either the parent found amount or duplicate found amount or both are less than five times the reporting limit

\* = Value exceeded established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-20.0*

This report is submitted for the exclusive use of the person, partnership or corporation to whom it is addressed. Subsequent use of the name of this company or any of its staff in connection with the advertising or sale of any product or process will be granted only on contract. This company accepts no responsibility except for the performance of inspection and/or analysis in good faith and according to the rules of trade and science.

**SUM - 292**

# Laucks Testing Laboratories

## BS/BSD Report

Test:	415.1 Total Organic Carbon	SDG ID:	CAB33
		Preparation Date:	06/28/2007
BS Sample ID:	S062807TOCW02	Run Sequence ID:	R019123
BSD Sample ID:	S062807TOCW02D	Analysis Date:	06/28/2007 13:41
		Units:	mg/L
		Matrix:	Water

Analyte	Blank Spike			Blank Spike Duplicate			RPD	Limits	
	Added	Found	Recovery	Added	Found	Recovery		Recovery	RPD
Organic Carbon, Total	10.0	10.4498	104%	10.0	9.7755	98%	7%	90-110	

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW
CAB33-006	15LCMW01SW (Filt.)
CAB33-007	15LCMW01DW (Filt.)
CAB33-008	15LCMW02SW (Filt.)
CAB33-009	15LCMW02D (Filt.)

\* = RPD or recovery is outside the established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-7.0*

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**Laucks Testing Laboratories**  
**Blank Spike Report**

Test: 314.0 Perchlorate

SDG ID: CAB33

Lab Sample ID: S071007

Preparation Date: 07/10/2007

Run Sequence ID: R019390

Analysis Date: 07/11/2007 12:24

Matrix: Water

Units: ug/L

Analyte	Spike Added	Found	% Recovery	Limit
Perchlorate	20.0	18.18	91%	85-115

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW

\* = Recovery exceeded the established control limit

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-6.0*

This report is submitted for the exclusive use of the person, partnership or corporation to whom it is addressed. Subsequent use of the name of this company or any of its staff in connection with the advertising or sale of any product or process will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of trade and science.

## Laucks Testing Laboratories

### SRM Report

Test Name: 310.1M Carb./Bicarb. Alkalinity	SDG ID: CAB33	Preparation Date: 07/03/2007
Lab Sample ID: SRM-MIN QC102712-438/439-202	Run Sequence ID: R019262	Analysis Date: 07/03/2007 17:00
	Units: mg/L CaCO <sub>3</sub>	
	Matrix: Water	

Analyte	Result	True Value	Control Limits	
			LCL	UCL
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	36.0	35.6	30.3	42.2

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW

\* = Value exceeded established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-19.0*

This report is submitted for the exclusive use of the person, partnership or corporation to whom it is addressed. Subsequent use of the name of this company or any of its staff in connection with the advertising or sale of any product or process will be granted only on contract. This company accepts no responsibility except for the performance of inspection and/or analysis in good faith and according to the rules of trade and science.



## Laucks Testing Laboratories

### SRM Report

Test Name: 300.0 NO3, NO2, Cl, SO4	SDG ID: CAB33	Preparation Date: 06/22/2007
Lab Sample ID: SRM-IC 34-72AS-159	Run Sequence ID: R018984	Analysis Date: 06/23/2007 11:31
	Units: mg/L	
	Matrix: Water	

Analyte	Result	True Value	Control Limits	
			LCL	UCL
Chloride	28.1	30	27	33
Nitrate - N	22.1	22.5	20.2	24.8
Nitrite - N	33.0	30.4	27.4	33.5
Sulfate as SO4	150	149	134	164

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB33-001	15LCMW01SW
CAB33-002	15LCMW01DW
CAB33-003	MS/MSD
CAB33-004	15LCMW02SW
CAB33-005	15LCMW02DW

\* = Value exceeded established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-19.0*

This report is submitted for the exclusive use of the person, partnership or corporation to whom it is addressed. Subsequent use of the name of this company or any of its staff in connection with the advertising or sale of any product or process will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of trade and science.

**LAUCKS TESTING LABORATORIES**

**SAMPLE DATA PACKAGE**

**PBS ENGINEERING & ENVIRONMENTAL**

**SDG NO.: CAB34**

**JULY 24, 2007**

**LAUCKS TESTING LABORATORIES**

940 S. Harney  
Seattle, WA 98108

To: PBS Engineering & Environmental  
Project Name: Camp Bonneville  
SDG No.: CAB34  
Date of Report: July 24, 2007

**SAMPLE RECEIPT, IDENTIFICATION, AND GENERAL COMMENTS:**

**Sample Receipt and Identification:**

The samples submitted under the laboratory number(s) indicated above were identified and analyzed as tabulated below. The samples were collected and received on the dates noted on the enclosed chain-of-custody copies, Attachment A.

<b><u>Client Sample Identification</u></b>	<b><u>Laucks Sample Identification</u></b>	<b><u>Testing Analytical Request</u></b>
15LCMW03SW	CAB34-001	VOA/ABN/ORD/TPHG/TPHD/MET/ALK/ ANIONS/TOC/TSS/PERC
15LCMW03SW (Filt.)	CAB34-002	MET/DOC
15LCW415W	CAB34-003	VOA/ABN/ORD/TPHG/TPHD/MET/ALK/ ANIONS/TOC/TSS/PERC
15LCW415W (Filt.)	CAB34-004	MET/DOC
15LCMW03DW	CAB34-005	VOA/ABN/ORD/TPHG/TPHD/MET/ALK/ ANIONS/TOC/TSS/PERC
15LCMW03DW (Filt.)	CAB34-006	MET/DOC
15LCMW04DW	CAB34-007	VOA/ABN/ORD/TPHG/TPHD/MET/ALK/ ANIONS/TOC/TSS/PERC
15LCMW04DW (Filt.)	CAB34-008	MET/DOC
15LCMW04SW	CAB34-009	VOA/ABN/ORD/TPHG/TPHD/MET/ALK/ ANIONS/TOC/TSS/PERC
15LCMW04SW (Filt.)	CAB34-010	MET/DOC
TRIP BLANK	CAB34-011	VOA

**Analytical Request Key:**

VOA =	Volatile Organics by Method 8260B
ABN =	Semi-Volatiles by Method 8270D
ORD =	Ordnance by Method 8330
	PETN/Nitroglycerin by Method 8332
	Picric Acid by Modified 8330
TPHD =	Total Petroleum Hydrocarbons-Diesel by NWTPH
TPHG =	Total Petroleum Hydrocarbons-Gasoline by NWTPH
MET =	Priority Pollutant Metals by Methods 6020/7470A
ALK =	Alkalinity, Carbonate and Bicarbonate by Method 310.1M
ANIONS =	Chloride, Nitrate, Nitrite, Sulfate by Method 300.0

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Seattle, WA 98108

TOC = Total Organic Carbon by Method 415.1M\*  
DOC = Dissolved Organic Carbon by Method 415.1M\*  
TSS = Total Suspended Solids by Method 160.2  
PERC = Ammonium Perchlorate by Method 314.0

### \*TOC/DOC:

Singleton analysis was performed for this project as approved by the client. This modification is less expensive and meets project DQOs but does not meet NELAC guidelines.

### Sample Receipt Comments:

There were no discrepancies noted upon receipt of the samples.

### GENERAL REMARKS ON ORGANIC ANALYSES:

The following comments describe general analysis conditions. For remarks specific to the samples reported in this case, see "SPECIFIC REMARKS ON ORGANIC ANALYSIS."

#### Manual Integrations:

One or more analytes may have been manually integrated on the data system quantitation reports. All manual integrations have been flagged, initialed, and dated by the analyst. A list of the manual integration flags is detailed below.

M	Manual integration due to irregular peak shape
MS	Manual integration due to split peak
MR	Manual integration due to retention time shift
MI	Manual integration of correct isomer
MT	Manual integration due to peak tailing
MB	Manual integration due to irregular baseline

#### Holding Time Compliance:

##### *Volatile Organic Compounds:*

The holding time is 14 days calculated from date of collection in both soil and water samples. All samples were analyzed within holding time.

##### *Semi-Volatile Organic Compounds:*

The holding time to extraction is 7 days in water and 14 days in soil calculated from the date of collection. In either case, the holding time from extraction to analysis is 40 days. All samples were extracted and analyzed within holding time.

##### *Ordnance, PETN/Nitroglycerin, Picric Acid*

The holding time to extraction is 7 days in water and 14 days in soil calculated from date of collection. The holding time from extraction to analysis is 40 days. All samples were extracted and analyzed within holding time.

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Seattle, WA 98108

### *TPH Gasoline Fraction:*

The holding time for analysis is 14 days in water and soil calculated from the date of collection. All samples were analyzed within holding times.

### *TPH Diesel Fraction:*

The holding time to extraction, which is calculated from the date of collection, is 7 days for water samples and 14 days for soil samples. In either case, the holding time from extraction to analysis is 40 days. All samples were extracted and analyzed within holding time.

### **Volatile Fraction (8260):**

All quality control parameters were met.

### **Semivolatiles Fraction:**

#### Second Source Calibration Verification Analysis:

Analysis of the second source standard ICV071207-2 yielded %D values for 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol and benzidine that exceeded 25% due to decreased response. These analytes are slightly unstable. Because all other analyte recoveries were in control, no further action was taken.

#### Continuing Calibration Verification (CCV):

Analysis of the CCV performed on 07/17/07 yielded %D values for benzoic acid, 2,4-dinitrophenol and benzidine that exceeded 20% due to decreased response. However, because sample results are reported well below the reporting limit (RL) the chance of reporting any false negative for these compounds at the RL is negligible. In addition, this CCV also yielded a %D value for benzo(g,h,i)perylene that exceeded 20% due to increased response. Because this analyte was not detected in any of the associated samples, no further action was taken.

### **Ordnance Fraction:**

All control parameters were met.

### **PETN/Nitroglycerin Fraction:**

All quality control parameters were met.

### **Picric Acid Fraction:**

All quality control parameters were met.

### **NWTPH Gasoline Fraction:**

NWTPHG was used to quantitate the samples for gasoline. Gasoline range responses were determined by summing the responses of all components, resolved and unresolved, between toluene and naphthalene. Quantitation was based on the average calibration factor.

#### Quality Control Analyses:

MS/Duplicate analyses were performed on sample 15LCMW03SW. All spike recoveries and relative percent differences were within the established limits.

## LAUCKS TESTING LABORATORIES

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All quality control parameters were met.

### **NWTPH Diesel Fraction:**

NWTPD-D was used to quantitate the samples for diesel and oil. Diesel range responses were determined by summing the responses of all components, resolved and unresolved, between C<sub>12</sub> and C<sub>24</sub> integrated to a horizontal baseline. Oil range responses were determined by summing the responses of all components, resolved and unresolved, between C<sub>24</sub> and C<sub>40</sub> integrated to a horizontal baseline. Quantitation was based on a linear regression.

### **Quality Control Analyses:**

As a result of extraction batching, QC analyses were performed on a sample not in this SDG and no data are included here. All results can be found in the data package for CAB33. All recoveries were within the control limits in the blank spike analysis.

### **GENERAL REMARKS ON INORGANIC ANALYSES:**

The following comments describe general analysis conditions. For remarks specific to the samples reported in this case, see "SPECIFIC REMARKS ON INORGANIC ANALYSES."

### **ICP-MS Metals:**

On the first timed and dated page of each ICP-MS run, the data to be reported or rejected will be tabulated for that run.

### **Mercury:**

Laucks purchases a 1000 mg/L Hg stock solution from Inorganic Ventures. The 0.5 mg/L working standard is made by diluting 100 uL to 200 mL with 0.15% HNO<sub>3</sub>. The calibration curve is made by placing 0, 20, 50, 100, 200, 500 and 1000 uL of the working standard digestion vessels and diluting up to 50 mL. The standard curve is equivalent to 0, 0.2, 0.5, 1.0, 2.0, 5.0 and 10.0 ug/L.

### **SPECIFIC REMARKS ON INORGANIC ANALYSES:**

#### **Holding Time Compliance:**

Laucks calculates holding time compliance for inorganic determinations using the date on which reportable data were acquired.

#### **Metals:**

The holding time for metals is six months from the date of collection, excepting mercury, which is 28 days. All analyses were performed within holding time.

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Seattle, WA 98108

### Miscellaneous:

The following analytes do not have a Contract Laboratory Program holding time. The holding times tabulated below derive from the relevant EPA methods and are applicable when the sample was appropriately preserved and/or cooled. All samples submitted followed the preservation guidelines unless explicitly noted otherwise.

<u>Analyte</u>	<u>Holding Time</u>	<u>Violations</u>
Alkalinity	14 days	None
Chloride	28 days	None
Nitrate	48 hours	None
Nitrite	48 hours	None
Sulfate	28 days	None
Total Organic Carbon	28 days	None
Dissolved Organic Carbon	28 days	None
Total Suspended Solids	7 days	None
Perchlorate	28 days	None

### ICP-MS Metals:

For the run sequence R019494, several CCVs exceeded the upper control limit for beryllium. All the samples contained concentrations of beryllium that were less than the CRDL. Quality control data for beryllium were reported and were within control limits. No corrective action was required. Data have not been flagged for these events.

For the run sequence R019494, CCV14 and CCV16 exceeded the upper control limit for lead. All the samples contained concentrations of lead that were less than the CRDL. Quality control data for lead were reported and were within control limits. No corrective action was required. Data have not been flagged for these events.

For the run sequence R019494, CCV16 exceeded the upper control limit for thallium. All the samples contained concentrations of thallium that were less than the CRDL. Quality control data for thallium were reported and were within control limits. No corrective action was required. Data have not been flagged for this event.

For the run sequence R019494, CCV5 exceeded the upper control limit for copper. No sample results for copper were associated with this CCV; therefore no corrective action was required. Data have not been flagged for this event.

### Mercury:

For the run sequence R019215, CCV2 and CCV3 exceeded the upper control limit for mercury. All the samples contained concentrations of mercury that were less than the CRDL. Quality control data for mercury were reported and were within control limits. No corrective action was required. Data have not been flagged for these events.

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**Miscellaneous Inorganics:**

No comments.



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Seattle, WA 98108

### ABBREVIATIONS

Several abbreviations can appear in our reports. The most commonly employed abbreviations are as follows:

- U The analyte of interest was not detected to the limit of detection indicated.
- SDL Sample Detection Limit. The SDL can vary from sample to sample, depending on sample size, matrix interferences, moisture content and other sample-specific conditions.
- PQL Practical Quantitation Limit. The limit is drawn from the test method and usually represents the SDL multiplied by a matrix-specific factor.
- DB Dry Basis. The value reported has been back-calculated to normalize for the moisture content of the sample.
- AR As-Received. The value has not been normalized for moisture.

### ORGANIC ANALYSES:

- B When used in relation to organics fractions, the "B" flag indicates that the analyte of interest was detected in the method blank associated with the sample, as well as in the sample itself. The "B" flag is applied without regard to the relative concentrations detected in the blank and sample.
  - J The analyte of interest was detected below the routine reporting limit. This value should be regarded as an estimate.
  - T The flagged values represent the SUM of two co-eluting compounds. The SUM of these two values is shown as though it were a result for each of them. The two figures should not be added together.
  - E The flagged value was reported from an analysis that exceeded the linear range of the instrument. See additional comments for further discussion of the circumstances. Values so flagged should be considered estimates.
  - P When a dual column GC technique is employed, this flag indicates that test results from the two columns differ by more than 25%. Generally, we report the higher value.
  - C The flagged analyte has been confirmed by GC/MS analysis. The value reported may be derived from either the initial or confirmatory (GC/MS) analysis. See specific report comments for details.
  - Z When two or more sets of results are submitted, the Z-flagged data indicates that this is the secondary result.
- CRQL Client requested Quantitation Limit, usually the limit of detection specified at your request. Might also be referred to as Contract Required Quantitation Limit.

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### INORGANIC ANALYSES:

- J The reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL). If the analyte was analyzed for but not detected, a "U" shall be entered.
- E The reported value is estimated because of the presence of interference. The serial dilution was not within control limits.
- N Spiked sample recovery not within control limits.
- \* Duplicate analysis not within control limits.

CRDL Client Requested Detection Limit, usually the limit of detection specified at your request. Might also be referred to as Contract Required Detection Limit.

**LAUCKS TESTING LABORATORIES**


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Seattle, WA 98108

RELEASE OF DATA

Laucks certifies that these results meet all requirements of the NELAC standards, except where otherwise noted.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."

Respectfully submitted,



Mike Baxter  
Project Manager

24 July 2007  
(DATE)



Harry Romberg  
Quality Assurance Officer

7/24/07  
(DATE)

*HOW TO CONTACT US:*

All Laucks Testing Laboratories staff members can be reached at the same telephone and facsimile numbers: (206) 767-5060 by phone, (206) 767-5063 by FAX.

*REQUESTS FOR DUPLICATE COPIES:*

This packet has been checked for accuracy. All pages are present and in sequential order. Please see Attachment B for a detailed record.

In the event that duplicate data copies are needed, Laucks will accommodate your request at a fee of twenty-five cents (\$0.25) per copy, plus shipping. If the data are in storage, there will also be a fee for retrieval.

**LAUCKS TESTING LABORATORIES**  
940 S. Harney  
Seattle, WA 98108

**ATTACHMENT A**

Chain-of-Custody Copies

SAMPLE CONFIRMATION LOG - CAB34																					
SAMPLE ID	VTSR	COLLECTED	CLIENT ID	A-	A+	IN	IN	IN	IN	IN	IN	IN									
CAB34-001	6/23/2007 9:15	6/22/2007 12:55	15LCMW03SW	160.2 TOTAL SUSPENDED SOLIDS	300.0 NO3, NO2, CL, SO4	310.1M CARB./BICARB ALKALINITY	314.0 PERCHLORATE	415.1 DISSOLVED ORGANIC CARBON	415.1 TOTAL ORGANIC CARBON	6020 DISS. PRIORITY POLLUTANT METALS	6020 TOTAL PRIORITY POLLUTANT METALS	7470 DISS. MERCURY	7470 TOTAL MERCURY	8260B VOCS (LTL ROUTINE 2-PH)	8270C SVOCS (LTL ROUTINE)	8330 EXPLOSIVES RESIDUES	8332 NITROGLYCERIN & PETN	LTL8303 PICRIC ACID	NWTPH DIESEL	NWTPH GAS	
CAB34-002	6/23/2007 9:15	6/22/2007 12:55	15LCMW03SW (Filt.)																		
CAB34-003	6/23/2007 9:15	6/22/2007 9:00	15LCW415W																		
CAB34-004	6/23/2007 9:15	6/22/2007 9:00	15LCW415W (Filt.)																		
CAB34-005	6/23/2007 9:15	6/22/2007 10:45	15LCMW03DW																		
CAB34-006	6/23/2007 9:15	6/22/2007 10:45	15LCMW03DW (Filt.)																		
CAB34-007	6/23/2007 9:15	6/22/2007 15:00	15LCMW04DW																		
CAB34-008	6/23/2007 9:15	6/22/2007 15:00	15LCMW04DW (Filt.)																		
CAB34-009	6/23/2007 9:15	6/22/2007 16:15	15LCMW04SW																		
CAB34-010	6/23/2007 9:15	6/22/2007 16:15	15LCMW04SW (Filt.)																		
CAB34-011	6/23/2007 9:15	6/22/2007 0:00	TRIP BLANK																		

LEGEND: -:Started, +:Completed, IN:Logged In, P:Preparation, A:Analysis, X:Cancelled, PL:Pre-logged

Samples identified with a "\*" client has requested QC for

COMPANY: ORS Env.  
 ADDRESS: 412 SW Corbett  
Portland, OR 97239  
 ATTENTION: Drew Harvey  
 PROJECT NAME: Camp Connerville  
 PROJECT CONTACT: Drew Harvey  
 TELEPHONE: 503-417-7693 FAX: 503-248-0223  
 JOB/PO. NO.: 70489, 090 T6206

43119  
 CAB34

SUBMITTED AT:

**Lauacks**  
 Testing Laboratories, Inc. **3**  
 100 South Henry St, Seattle, WA 98108 (206) 767-5060 FAX 767-5063  
 1106 Lehigh Ave, Yakima, WA 98902 (509) 245-4495 FAX 452-1265

MATRIX: WATER, SOIL OR SPECIFY	NO. OF CONTAINERS	TESTS TO PERFORM	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
EXPLOSIVES			
PESTICIDES			
PERCHLORATE			
SVOC			
PICRIC ACID			
TSX/ALKYLIDS			
TOTAL METALS			
*DISSOLVED METALS			
AMPH-DX			
AMPH-GX			
TDC			
VOCS			
			NO FIELD FILTERED

LAB #/A	SAMPLE ID / LOCATION	DATE	TIME	MATRIX	NO. CONTAINERS	TESTS	OBSERVATIONS
16	15LCMWD3 DUW	6/20/07	10:43	W	2	2	
14	15LCMWD4 SW	6/20/07	9:00	W	3	3	
13	15LCMWD3 OSSW	6/20/07	12:55	W	3	3	
12	15LCMWD4 DUW	6/20/07	15:00	W	3	3	
10	15LCMWD3 OSSW	6/20/07	16:15	W	3	3	
	TRIP BLANK	6/20/07	-	W	2	2	

A. A standard turnaround time is assumed unless otherwise marked.  
 B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

**INSTRUCTIONS**  
 1. USE ONE LINE PER SAMPLE  
 2. BE SPECIFIC IN TEST REQUESTS.  
 3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

**BILLING INFORMATION** (DIFFERENT THAN ABOVE)  
 NAME: \_\_\_\_\_ ADDRESS: \_\_\_\_\_  
 ATTN: \_\_\_\_\_ CITY, STATE, ZIP: \_\_\_\_\_

RELINQUISHED BY (SIGN AND PRINT): Mike Gaudy DATE: 6/20/07 TIME: 1845

RECEIVED BY (SIGN AND PRINT): \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

\* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL

\* TOTAL NO. OF CONTAINERS: 30

TURNAROUND REQUEST:  
 STD. 10-14 WORKING DAYS  
 24-48 HRS. (100% SUR)  
 72 HRS. (75% SUR)  
 5 DAYS (50% SUR)  
 OTHER: \_\_\_\_\_  
 TEMP. \_\_\_\_\_  
 CUSTODY SEAL:  Y  N  N/A

**Cooler Receipt Form**  
**Laucks Testing Laboratories, Inc.**

SDG: CAB34 Taken By: CLIENT

Cooler: AAD392 Transferred: FED EX

COC #: 43119

Project: Camp Bonneville (PBS Engineering and Environmental)

Date samples were received at the laboratory: 6/23/2007

Date cooler was opened: 6/23/2007 9:15AM

**A. PRELIMINARY EXAMINATION PHASE:**

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES  
if YES, record carrier name and airbill number: **8620 5652 1781**
2. Were custody seals unbroken and intact at the date and time of arrival? ..... INTACT  
Date On Custody Seal: Custody Seals Description: **ONE IN FRONT.**
3. Were custody papers sealed in a plastic bag and taped inside to the lid? ..... YES
4. Did you screen samples for radioactivity using the Geiger Counter? ..... NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... YES
6. Did you sign custody papers in the appropriate place? ..... YES
7. If required, was enough cooling material present? ..... YES
8. Have designated person initial here to acknowledge receipt of cooler:     *WV*

**B. LOG-IN PHASE:**

Date samples were logged-in: 6/23/2007 9:25AM

Logged-in by Zorah Weith (sign) *[Signature]*

9. Describe type of packing in cooler:

10. Were all bottles sealed in separate plastic bags? ..... YES
11. Were labels in good condition? ..... YES
12. Were all bottle labels complete (ID,date,time signature,preservative,etc.)? ..... YES
13. Did all bottle labels agree with custody papers? ..... YES
14. Were correct containers used for the tests indicated? ..... YES
15. Were the correct pHs observed? ..... YES
16. Was a sufficient amount of sample sent for tests indicated? ..... YES
17. Were bubbles absent in VOA samples? ..... YES
18. Temperatures: **2.1**

DISCREPANCIES:

**Supplemental Sample Receipt Log  
Laucks Testing Laboratories**

SDG: CAB34

Cooler: AAD392

Temperatures: 2.1

COC #: 43119

Sample	Bottle #	Bottle Description	pH	Bubbles
CAB34-001	0019	40 ml OTWS, clear glass, HCl	N/C	None
	0020	40 ml OTWS, clear glass, HCl	N/C	None
	0021	40 ml OTWS, clear glass, HCl	N/C	None
CAB34-003	0019	40 ml OTWS, clear glass, HCl	N/C	None
	0020	40 ml OTWS, clear glass, HCl	N/C	None
	0021	40 ml OTWS, clear glass, HCl	N/C	None
CAB34-005	0001	1000 mL boston round, amber glass	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	1000 mL boston round, amber glass	7	N/A
	0006	1000 mL boston round, amber glass	7	N/A
	0007	1000 mL boston round, amber glass	7	N/A
	0008	1000 mL boston round, amber glass	7	N/A
	0009	1000 mL cylinder, poly	7	N/A
	0010	1000 mL cylinder, poly, HNO3	<2	N/A
	0011	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0012	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0013	40 ml OTWS, clear glass, HCl	N/C	None
	0014	40 ml OTWS, clear glass, HCl	N/C	None
	0015	40 ml OTWS, clear glass, HCl	N/C	None
	0016	500 ml boston round, clear glass, HCl	<2	N/A
	0017	500 ml boston round, clear glass, HCl	<2	N/A
	0018	500 ml cylinder, poly	7	N/A
	0019	40 ml OTWS, clear glass, HCl	N/C	None
0020	40 ml OTWS, clear glass, HCl	N/C	None	
0021	40 ml OTWS, clear glass, HCl	N/C	None	
CAB34-006	0001	1000 mL cylinder, poly, HNO3 Filtered	<2	N/A
	0002	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0003	40 ml OTWS, clear glass, H3PO4	N/C	N/A
CAB34-007	0001	40 ml OTWS, clear glass, HCl	N/C	None

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH







**Supplemental Sample Receipt Log  
Laucks Testing Laboratories**

SDG: CAB34  
Cooler: AAK677  
Temperatures: 3.0  
COC #: 43118

Sample	Bottle #	Bottle Description	pH	Bubbles
CAB34-001	0001	1000 mL boston round, amber glass	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	1000 mL boston round, amber glass	7	N/A
	0006	1000 mL boston round, amber glass	7	N/A
	0007	1000 mL boston round, amber glass	7	N/A
	0008	1000 mL boston round, amber glass	7	N/A
	0009	1000 mL cylinder, poly	7	N/A
	0010	1000 mL cylinder, poly, HNO3	<2	N/A
	0011	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0012	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0013	40 ml OTWS, clear glass, HCl	N/C	None
	0014	40 ml OTWS, clear glass, HCl	N/C	None
	0015	40 ml OTWS, clear glass, HCl	N/C	None
	0016	500 ml boston round, clear glass, HCl	<2	N/A
	0017	500 ml boston round, clear glass, HCl	<2	N/A
	0018	500 ml cylinder, poly	7	N/A
CAB34-002	0001	1000 mL cylinder, poly, HNO3 Filtered	<2	N/A
	0002	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0003	40 ml OTWS, clear glass, H3PO4	N/C	N/A

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH



**Cooler Receipt Form**  
**Laucks Testing Laboratories, Inc.**

SDG: CAB34 Taken By: CLIENT  
Cooler: AAD418 Transferred: FED EX  
COC #: 43120  
Project: Camp Bonneville (PBS Engineering and Environmental)

Date samples were received at the laboratory: 6/23/2007  
Date cooler was opened: 6/23/2007 9:15AM

**A. PRELIMINARY EXAMINATION PHASE:**

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES  
if YES, record carrier name and airbill number: 8620 5652 1781
2. Were custody seals unbroken and intact at the date and time of arrival? ..... INTACT  
Date On Custody Seal: Custody Seals Description: ONE IN FRONT.
3. Were custody papers sealed in a plastic bag and taped inside to the lid? ..... YES
4. Did you screen samples for radioactivity using the Geiger Counter? ..... NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... YES
6. Did you sign custody papers in the appropriate place? ..... YES
7. If required, was enough cooling material present? ..... YES
8. Have designated person initial here to acknowledge receipt of cooler:     *AW*

**B. LOG-IN PHASE:**

Date samples were logged-in: 6/23/2007 9:25AM  
Logged-in by Zoriah Weith (sign) *[Signature]*

9. Describe type of packing in cooler:
10. Were all bottles sealed in separate plastic bags? ..... YES
11. Were labels in good condition? ..... YES
12. Were all bottle labels complete (ID,date,time signature,preservative,etc.)? ..... YES
13. Did all bottle labels agree with custody papers? ..... YES
14. Were correct containers used for the tests indicated? ..... YES
15. Were the correct pHs observed? ..... YES
16. Was a sufficient amount of sample sent for tests indicated? ..... YES
17. Were bubbles absent in VOA samples? ..... YES
18. Temperatures: 2.3

DISCREPANCIES:

**Supplemental Sample Receipt Log**  
**Laucks Testing Laboratories**

SDG: CAB34

Cooler: AAD418

Temperatures: 2.3

COC #: 43120

Sample	Bottle #	Bottle Description	pH	Bubbles
CAB34-003	0001	1000 mL boston round, amber glass	7	N/A
	0002	1000 mL boston round, amber glass	7	N/A
	0003	1000 mL boston round, amber glass	7	N/A
	0004	1000 mL boston round, amber glass	7	N/A
	0005	1000 mL boston round, amber glass	7	N/A
	0006	1000 mL boston round, amber glass	7	N/A
	0007	1000 mL boston round, amber glass	7	N/A
	0008	1000 mL boston round, amber glass	7	N/A
	0009	1000 mL cylinder, poly	7	N/A
	0010	1000 mL cylinder, poly, HNO3	<2	N/A
	0011	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0012	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0013	40 ml OTWS, clear glass, HCl	N/C	None
	0014	40 ml OTWS, clear glass, HCl	N/C	None
	0015	40 ml OTWS, clear glass, HCl	N/C	None
	0016	500 ml boston round, clear glass, HCl	<2	N/A
	0017	500 ml boston round, clear glass, HCl	<2	N/A
	0018	500 ml cylinder, poly	7	N/A
CAB34-004	0001	1000 mL cylinder, poly, HNO3 Filtered	<2	N/A
	0002	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0003	40 ml OTWS, clear glass, H3PO4	N/C	N/A

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH

THIS INFORMATION WILL BE USED FOR REPORTING/BILLING (SEE BELOW)

CHAIN OF CUSTODY RECORD

SDG #

43116

PAGE 1 OF 1

**Laucks**  
Testing Laboratories, Inc.

COMPANY: PRS  
ADDRESS: 4917 SW Corbett  
Portland, OR 97239

WORK ORDER ID#

SUBMITTED AT:

910 South Henry St. Seattle, WA 98108 (206) 757-5060 FAX 167-5063  
1100 Lindbergh Ave. Yakima, WA 98902 (509) 248-4095 FAX 452-1265

ATTENTION: Drew Harvey

TESTS TO PERFORM

PROJECT NAME: Lump Sewerline

PROJECT CONTACT: Drew Harvey

TELEPHONE: 503-917-7673 FAX: 503-248-0223

JOB/PO. NO.: 70489.000 T6206

MATRIX: WATER, SOIL OR SPECIFY	NO. OF CONTAINERS	TESTS TO PERFORM
		<input type="checkbox"/> EXPLOSIVES
		<input type="checkbox"/> PETN/ING
		<input type="checkbox"/> PERCHLORATE
		<input type="checkbox"/> SVOC
		<input type="checkbox"/> PRIORITY ACID
		<input type="checkbox"/> TSS/SALKIONS
		<input type="checkbox"/> TOTAL METALS
		<input type="checkbox"/> * Dissolved Metals
		<input type="checkbox"/> NNTPH-DA
		<input type="checkbox"/> NNTPH-GX
		<input type="checkbox"/> * DOL
		<input type="checkbox"/> TOL

LAB/SA#	SAMPLE ID / LOCATION	DATE	TIME
7.6	15 Linnwood	6/21/07	15:00

OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS  
\* Field  
Filtered

LAB/SA#	SAMPLE ID / LOCATION	DATE	TIME	NO. OF CONTAINERS	TESTS TO PERFORM	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
7.6	15 Linnwood	6/21/07	15:00	21	* Field Filtered	

A. A standard turnaround time is assumed unless otherwise marked. B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

**INSTRUCTIONS**

1. USE ONE LINE PER SAMPLE.
2. BE SPECIFIC IN TEST REQUESTS.
3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

**BILLING INFORMATION IF DIFFERENT THAN ABOVE**

RELINQUISHED BY (SIGN AND PRINT)

RECEIVED BY (SIGN AND PRINT)

NAME: \_\_\_\_\_ ADDRESS: \_\_\_\_\_  
ATTN: \_\_\_\_\_ CITY, STATE, ZIP: \_\_\_\_\_

\* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL

DATE TIME

DATE TIME

6/22/07 1545  
6/23/07 09:15

21 TOTAL NO. OF CONTAINERS  
TURNAROUND REQUEST  
 STD. 10-14 WORKING DAYS  
 24-48 HRS. (100% SUR)  
 72 HRS. (75% SUR)  
 5 DAYS (60% SUR)  
 OTHER \_\_\_\_\_  
 TEMP. \_\_\_\_\_  
CUSTODY SEAL  Y  N  N/A

Finance Charges and/or Collection Fees may be applied to delinquent accounts.

FINAL REPORT COPY

**Cooler Receipt Form**  
**Laucks Testing Laboratories, Inc.**

SDG: CAB34 Taken By: CLIENT

Cooler: AAD587 Transferred: FED EX

COC #: 43116

Project: Camp Bonneville (PBS Engineering and Environmental)

Date samples were received at the laboratory: 6/23/2007

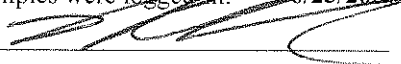
Date cooler was opened: 6/23/2007 9:15AM

**A. PRELIMINARY EXAMINATION PHASE:**

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES  
if YES, record carrier name and airbill number: **8620 5652 1781**
2. Were custody seals unbroken and intact at the date and time of arrival? ..... INTACT  
Date On Custody Seal: Custody Seals Description: **ONE IN FRONT.**
3. Were custody papers sealed in a plastic bag and taped inside to the lid? ..... YES
4. Did you screen samples for radioactivity using the Geiger Counter? ..... NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... YES
6. Did you sign custody papers in the appropriate place? ..... YES
7. If required, was enough cooling material present? ..... YES
8. Have designated person initial here to acknowledge receipt of cooler: ZW

**B. LOG-IN PHASE:**

Date samples were logged in: 6/23/2007 9:25AM

Logged-in by Zoriah Weith (sign) 

9. Describe type of packing in cooler:

10. Were all bottles sealed in separate plastic bags? ..... YES
11. Were labels in good condition? ..... YES
12. Were all bottle labels complete (ID,date,time signature,preservative,etc.)? ..... YES
13. Did all bottle labels agree with custody papers? ..... YES
14. Were correct containers used for the tests indicated? ..... YES
15. Were the correct pHs observed? ..... YES
16. Was a sufficient amount of sample sent for tests indicated? ..... YES
17. Were bubbles absent in VOA samples? ..... YES
18. Temperatures: 2.7

DISCREPANCIES:



**Supplemental Sample Receipt Log  
Laucks Testing Laboratories**

SDG: CAB34  
Cooler: AAD587  
Temperatures: 2.7  
COC #: 43116

Sample	Bottle #	Bottle Description	pH	Bubbles
CAB34-007	0004	1000 mL boston round, amber glass	7	N/A
	0005	1000 mL boston round, amber glass	7	N/A
	0006	1000 mL boston round, amber glass	7	N/A
	0007	1000 mL boston round, amber glass	7	N/A
	0008	1000 mL boston round, amber glass	7	N/A
	0009	1000 mL boston round, amber glass	7	N/A
	0010	1000 mL boston round, amber glass	7	N/A
	0011	1000 mL boston round, amber glass	7	N/A
	0012	1000 mL cylinder, poly	7	N/A
	0013	1000 mL cylinder, poly, HNO3	<2	N/A
	0014	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0015	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0016	40 ml OTWS, clear glass, HCl	N/C	None
	0017	40 ml OTWS, clear glass, HCl	N/C	None
	0018	40 ml OTWS, clear glass, HCl	N/C	None
	0019	500 ml boston round, clear glass, HCl	<2	N/A
	0020	500 ml boston round, clear glass, HCl	<2	N/A
	0021	500 ml cylinder, poly	7	N/A
CAB34-008	0001	1000 mL cylinder, poly, HNO3 Filtered	<2	N/A
	0002	40 ml OTWS, clear glass, H3PO4	N/C	N/A
	0003	40 ml OTWS, clear glass, H3PO4	N/C	N/A

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH





**Supplemental Sample Receipt Log  
Laucks Testing Laboratories**

SDG: CAB34  
Cooler: AAD588  
Temperatures: 2.8  
COC #: 43117

Sample	Bottle #	Bottle Description	pH	Bubbles	
CAB34-009	0004	1000 mL boston round, amber glass	7	N/A	
	0005	1000 mL boston round, amber glass	7	N/A	
	0006	1000 mL boston round, amber glass	7	N/A	
	0007	1000 mL boston round, amber glass	7	N/A	
	0008	1000 mL boston round, amber glass	7	N/A	
	0009	1000 mL boston round, amber glass	7	N/A	
	0010	1000 mL boston round, amber glass	7	N/A	
	0011	1000 mL boston round, amber glass	7	N/A	
	0012	1000 mL cylinder, poly	7	N/A	
	0013	1000 mL cylinder, poly, HNO3	<2	N/A	
	0014	40 ml OTWS, clear glass, H3PO4	N/C	N/A	
	0015	40 ml OTWS, clear glass, H3PO4	N/C	N/A	
	0016	40 ml OTWS, clear glass, HCl	N/C	None	
	0017	40 ml OTWS, clear glass, HCl	N/C	None	
	0018	40 ml OTWS, clear glass, HCl	N/C	None	
	0019	500 ml boston round, clear glass, HCl	<2	N/A	
	0020	500 ml boston round, clear glass, HCl	<2	N/A	
	0021	500 ml cylinder, poly	7	N/A	
	CAB34-010	0001	1000 mL cylinder, poly, HNO3 Filtered	<2	N/A
		0002	40 ml OTWS, clear glass, H3PO4	N/C	N/A
		0003	40 ml OTWS, clear glass, H3PO4	N/C	N/A

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2  
Base Preserved pH pH must be greater than 12  
NC Not Checked for pH

**LAUCKS TESTING LABORATORIES**  
940 S. Harney  
Seattle, WA 98108

**ATTACHMENT B**

Index

**LAUCKS TESTING LABORATORIES**

940 S. Harney  
Seattle, WA 98108

**PBS Engineering & Environmental**

**SDG No.: CAB34**

- I. Narrative: 2-10
- II. Chain-of-Custody: 11-27
- III. Index: 28-29
- IV. Forms Summary: SUM- 1-280

Completed and checked by: Judy Ecklund Date: 7/25/07

**FORMS SUMMARY**

SDG CAB34

VOLATILES ANALYSIS

2  
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB34

Run Sequence: R019108

Level: (LOW/MED) NONE

CLIENT SAMPLE NUMBER	SMC1 (DBF) #	SMC2 (DCA) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
(CAB34-005) I5LCMW03DW	101	107	106	108	0
(CAB34-003) I5LCW415W	102	108	106	108	0
(CAB34-001) I5LCMW03SW	103	108	104	107	0
(CAB34-011) TRIP BLANK	102	108	104	106	0
(B062807MVOWB1) B062807MVOWB1	100	106	107	108	0
(S062807MVOWB1) S062807MVOWB1	102	106	107	106	0

	<b>QC LIMITS</b>
SMC1 (DBF) = Dibromofluoromethane	85-115
SMC2 (DCA) = 1,2-Dichloroethane-d4	70-120
SMC3 (TOL) = Toluene-d8	85-120
SMC4 (BFB) = 4-Bromofluorobenzene	75-120

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits



2  
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB34

Run Sequence: R019141

Level: (LOW/MED) NONE

CLIENT SAMPLE NUMBER	SMC1 (DBF) #	SMC2 (DCA) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
(CAB34-009) 15LCMW04SW	102	109	107	108	0
(CAB34-007) 15LCMW04DW	104	109	106	108	0
(B062907MVOWB1) B062907MVOWB1	103	109	105	106	0
(S062907MVOWB1) S062907MVOWB1	104	107	106	107	0

QC LIMITS

SMC1 (DBF) =	Dibromofluoromethane	85-115
SMC2 (DCA) =	1,2-Dichloroethane-d4	70-120
SMC3 (TOL) =	Toluene-d8	85-120
SMC4 (BFB) =	4-Bromofluorobenzene	75-120

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits

3B  
WATER VOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

BS Run Sequence: R019108 SDG No.: CAB34

BS Lab Sample ID: S062807MVOWB1

Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Dichlorodifluoromethane	50.0	26.82	54		30-155
Chloromethane	50.0	34.46	69		40-125
Vinyl chloride	50.0	36	72		50-145
Bromomethane	50.0	35.79	72		30-145
Chloroethane	50.0	34.79	70		60-135
Trichlorofluoromethane	50.0	40.01	80		60-145
1,1-Dichloroethene	50.0	56.45	113		70-130
Acetone	50.0	43.56	87		40-140
Carbon disulfide	50.0	49.03	98		35-160
Methylene chloride	50.0	50.81	102		55-140
trans-1,2-Dichloroethene	50.0	53.26	107		60-140
1,1-Dichloroethane	50.0	54.17	108		70-135
cis-1,2-Dichloroethene	50.0	51.49	103		70-125
2-Butanone	50.0	47.84	96		30-150
Chloroform	50.0	51.8	104		65-135
1,1,1-Trichloroethane	50.0	52.88	106		65-130
Carbon tetrachloride	50.0	51.37	103		65-140
Benzene	50.0	50.67	101		80-120
1,2-Dichloroethane	50.0	52.85	106		70-130
Trichloroethene	50.0	50.55	101		70-125
1,2-Dichloropropane	50.0	50.54	101		75-125
Bromodichloromethane	50.0	50.7	101		75-120
cis-1,3-Dichloropropene	50.0	58.1	116		70-130
4-Methyl-2-pentanone	50.0	48.23	96		60-135
Toluene	50.0	51.48	103		75-120
trans-1,3-Dichloropropene	50.0	45.97	92		55-140
1,1,2-Trichloroethane	50.0	48.61	97		75-125
Tetrachloroethene	50.0	50.11	100		45-150
2-Hexanone	50.0	53.02	106		55-130
Dibromochloromethane	50.0	49.35	99		60-135
Chlorobenzene	50.0	51.12	102		80-120
Ethylbenzene	50.0	51.12	102		75-125
m,p-Xylene	100	102.53	103		75-130
o-Xylene	50.0	50.19	100		80-120

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

Spike Recovery: 0 out of 37 outside limits

COMMENTS:

3B  
WATER VOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
BS Run Sequence: R019108 SDG No.: CAB34  
BS Lab Sample ID: S062807MVOWB1  
Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Styrene	50.0	48.75	98		65-135
Bromoform	50.0	42.36	85		70-130
1,1,2,2-Tetrachloroethane	50.0	50.65	101		65-130

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 37 outside limits

COMMENTS:

3B  
WATER VOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 BS Run Sequence: R019141 SDG No.: CAB34  
 BS Lab Sample ID: S062907MVOWB1  
 Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Dichlorodifluoromethane	50.0	30.06	60		30-155
Chloromethane	50.0	42.02	84		40-125
Vinyl chloride	50.0	43.76	88		50-145
Bromomethane	50.0	40.51	81		30-145
Chloroethane	50.0	46.41	93		60-135
Trichlorofluoromethane	50.0	45.16	90		60-145
1,1-Dichloroethene	50.0	50.95	102		70-130
Acetone	50.0	53.29	107		40-140
Carbon disulfide	50.0	32.32	65		35-160
Methylene chloride	50.0	47.33	95		55-140
trans-1,2-Dichloroethene	50.0	48.64	97		60-140
1,1-Dichloroethane	50.0	51.08	102		70-135
cis-1,2-Dichloroethene	50.0	48	96		70-125
2-Butanone	50.0	56.52	113		30-150
Chloroform	50.0	48.76	98		65-135
1,1,1-Trichloroethane	50.0	49.37	99		65-130
Carbon tetrachloride	50.0	47.59	95		65-140
Benzene	50.0	46.61	93		80-120
1,2-Dichloroethane	50.0	51.07	102		70-130
Trichloroethene	50.0	47.09	94		70-125
1,2-Dichloropropane	50.0	47.45	95		75-125
Bromodichloromethane	50.0	48.49	97		75-120
cis-1,3-Dichloropropene	50.0	54.79	110		70-130
4-Methyl-2-pentanone	50.0	52.42	105		60-135
Toluene	50.0	47.62	95		75-120
trans-1,3-Dichloropropene	50.0	43.69	87		55-140
1,1,2-Trichloroethane	50.0	46.44	93		75-125
Tetrachloroethene	50.0	46.31	93		45-150
2-Hexanone	50.0	57.3	115		55-130
Dibromochloromethane	50.0	49.39	99		60-135
Chlorobenzene	50.0	47.51	95		80-120
Ethylbenzene	50.0	47.16	94		75-125
m,p-Xylene	100	94.43	94		75-130
o-Xylene	50.0	45.95	92		80-120

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

Spike Recovery: 0 out of 37 outside limits

COMMENTS:

3B  
WATER VOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

BS Run Sequence: R019141 SDG No.: CAB34

BS Lab Sample ID: S062907MVOWB1

Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Styrene	50.0	45.25	91		65-135
Bromoform	50.0	42.82	86		70-130
1,1,2,2-Tetrachloroethane	50.0	48.36	97		65-130

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 37 outside limits

COMMENTS:

4  
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062807MVOWB1

Lab Name Laucks Testing Labs Contract: \_\_\_\_\_  
 SDG No.: CAB34  
 Lab File ID: B0628011.D Lab Sample ID: B062807MVOWB1  
 Date Analyzed: 06/28/2007 Time Analyzed: 13:41  
 GC Column: ZB-624 20m ID: 0.18 (mm) Heated Purge: (Y/N) N  
 Instrument ID: 5973B Matrix: Water

	CLIENT SAMPLE NO.	LAB SAMPLE ID.	LAB FILE ID.	DATE ANALYZED	TIME ANALYZED	RUN SEQUENCE
01	S062807MVOWB1	S062807MVOWB1	B0628008.D	06/28/2007	12:25	R019108
02	TRIP BLANK	CAB34-011	B0628014.D	06/28/2007	14:58	R019108
03	15LCMW03SW	CAB34-001	B0628029.D	06/28/2007	21:32	R019108
04	15LCW415W	CAB34-003	B0628030.D	06/28/2007	21:58	R019108
05	15LCMW03DW	CAB34-005	B0628031.D	06/28/2007	22:24	R019108
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COMMENTS: \_\_\_\_\_  
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4  
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062907MVOWB1

Lab Name Laucks Testing Labs Contract: \_\_\_\_\_  
 SDG No.: CAB34  
 Lab File ID: B0629008.D Lab Sample ID: B062907MVOWB1  
 Date Analyzed: 06/29/2007 Time Analyzed: 12:49  
 GC Column: ZB-624 20m ID: 0.18 (mm) Heated Purge: (Y/N) N  
 Instrument ID: 5973B Matrix: Water

	CLIENT SAMPLE NO.	LAB SAMPLE ID.	LAB FILE ID.	DATE ANALYZED	TIME ANALYZED	RUN SEQUENCE
01	S062907MVOWB1	S062907MVOWB1	B0629006.D	06/29/2007	12:00	R019141
02	15LCMW04DW	CAB34-007	B0629013.D	06/29/2007	15:07	R019141
03	15LCMW04SW	CAB34-009	B0629014.D	06/29/2007	15:33	R019141
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COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

BFB25NG

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: CAL948 SDG No.: CAB34  
 Lab File ID: B0604007.D BFB Injection Date: 06/04/2007  
 Instrument ID: 5973B BFB Injection Time: 10:14  
 GC Column ZB-624 20m ID: 0.18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15% to 40% of mass 95	16.6
75	30% to 60% of mass 95	43.3
95	base peak, 100% relative abundance	100
96	5% to 9% of mass 95	7.6
173	less than 2% of mass 174	0()1
174	greater than 50% of mass 95	97.7
175	5% to 9% of mass 17	7.4()1
176	greater than 95%, but less than 101% of mass 174	98.7()1
177	5% to 9% of mass 176	7()2

1 - Value is %mass 174

2 - Value is %mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD001	VSTD001	B0604009.D	06/04/2007	11:23
02	VSTD005	VSTD005	B0604011.D	06/04/2007	12:30
03	VSTD010	VSTD010	B0604012.D	06/04/2007	12:55
04	VSTD050	VSTD050	B0604013.D	06/04/2007	13:20
05	VSTD075	VSTD075	B0604014.D	06/04/2007	13:45
06	VSTD100	VSTD100	B0604015.D	06/04/2007	14:10
07	VSTD200	VSTD200	B0604016.D	06/04/2007	14:35
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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

BFBB1

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019108 SDG No.: CAB34  
 Lab File ID: B0628006.D BFB Injection Date: 06/28/2007  
 Instrument ID: 5973B BFB Injection Time: 11:34  
 GC Column ZB-624 20m ID: 0.18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15% to 40% of mass 95	16.3
75	30% to 60% of mass 95	43.9
95	base peak, 100% relative abundance	100
96	5% to 9% of mass 95	6.7
173	less than 2% of mass 174	0()1
174	greater than 50% of mass 95	100
175	5% to 9% of mass 17	7.5()1
176	greater than 95%, but less than 101% of mass 174	98.4()1
177	5% to 9% of mass 176	6.6()2

1 - Value is %mass 174

2 - Value is %mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050B1	VSTD050B1	B0628007.D	06/28/2007	11:58
02	S062807MVOWB1	S062807MVOWB1	B0628008.D	06/28/2007	12:25
03	B062807MVOWB1	B062807MVOWB1	B0628011.D	06/28/2007	13:41
04	TRIP BLANK	CAB34-011	B0628014.D	06/28/2007	14:58
05	15LCMW03SW	CAB34-001	B0628029.D	06/28/2007	21:32
06	15LCW415W	CAB34-003	B0628030.D	06/28/2007	21:58
07	15LCMW03DW	CAB34-005	B0628031.D	06/28/2007	22:24
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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

BFBB1

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019141 SDG No.: CAB34  
 Lab File ID: B0629003.D BFB Injection Date: 06/29/2007  
 Instrument ID: 5973B BFB Injection Time: 10:38  
 GC Column ZB-624 20m ID: 0.18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15% to 40% of mass 95	17.9
75	30% to 60% of mass 95	45.8
95	base peak, 100% relative abundance	100
96	5% to 9% of mass 95	6.9
173	less than 2% of mass 174	0()1
174	greater than 50% of mass 95	101.3
175	5% to 9% of mass 17	6.8()1
176	greater than 95%, but less than 101% of mass 174	97.8()1
177	5% to 9% of mass 176	6.3()2

1 - Value is %mass 174

2 - Value is %mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050B2	VSTD050B2	B0629005.D	06/29/2007	11:34
02	S062907MVOWB1	S062907MVOWB1	B0629006.D	06/29/2007	12:00
03	B062907MVOWB1	B062907MVOWB1	B0629008.D	06/29/2007	12:49
04	15LCMW04DW	CAB34-007	B0629013.D	06/29/2007	15:07
05	15LCMW04SW	CAB34-009	B0629014.D	06/29/2007	15:33
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## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019108 SDG No.: CAB34  
 Client Sample No. (VSTD050##): VSTD050B1 Date Analyzed: 06/28/2007  
 Lab File ID (Standard): B0628007.D Time Analyzed: 11:58  
 Instrument ID: 5973B Heated Purge: (Y/N) N  
 GC Column: ZB-624 20m ID: 0.18 (mm)

	IS1 (FBZ) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	602968	6.24	446383	9.42	241161	11.74
UPPER LIMIT	1205936	6.74	892766	9.92	482322	12.24
LOWER LIMIT	301484	5.74	223191.5	8.92	120580.5	11.24
CLIENT SAMPLE NO.						
01 S062807MVOWB1	588603	6.24	441939	9.42	237818	11.73
02 B062807MVOWB1	592244	6.24	435738	9.42	224470	11.73
03 TRIP BLANK	555627	6.24	417312	9.42	223794	11.73
04 15LCMW03SW	544777	6.24	416640	9.42	223944	11.73
05 15LCW415W	569740	6.24	425808	9.42	222201	11.73
06 15LCMW03DW	561173	6.24	416491	9.42	217638	11.73
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IS1 (FBZ) = Fluorobenzene  
 IS2 (CBZ) = Chlorobenzene-d5  
 IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area  
 AREA LOWER LIMIT = - 50% of internal standard area  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019141 SDG No.: CAB34  
 Client Sample No. (VSTD050##): VSTD050B2 Date Analyzed: 06/29/2007  
 Lab File ID (Standard): B0629005.D Time Analyzed: 11:34  
 Instrument ID: 5973B Heated Purge: (Y/N) N  
 GC Column: ZB-624 20m ID: 0.18 (mm)

	IS1 (FBZ) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	560080	6.24	414836	9.42	216573	11.74
UPPER LIMIT	1120160	6.74	829672	9.92	433146	12.24
LOWER LIMIT	280040	5.74	207418	8.92	108286.5	11.24
CLIENT SAMPLE NO.						
01 S062907MVOWB1	561031	6.24	421394	9.42	221650	11.73
02 B062907MVOWB1	541003	6.24	405400	9.42	217355	11.73
03 15LCMW04DW	543792	6.24	403629	9.42	212288	11.73
04 15LCMW04SW	562516	6.24	415220	9.42	215428	11.73
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IS1 (FBZ) = Fluorobenzene  
 IS2 (CBZ) = Chlorobenzene-d5  
 IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area  
 AREA LOWER LIMIT = - 50% of internal standard area  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03SW

Lab Name: \_\_\_\_\_  
 SDG No.: CAB34  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: CAB34-001  
 Lab File ID: B0628029.D  
 Date Collected: 06/22/2007  
 Date/Time Analyzed: 06/28/2007 21:32  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	<u>ug/L</u>	
75-71-8	Dichlorodifluoromethane	1.0		U
74-87-3	Chloromethane	1.0		U
75-01-4	Vinyl chloride	1.0		U
74-83-9	Bromomethane	1.0		U
75-00-3	Chloroethane	1.0		U
75-69-4	Trichlorofluoromethane	1.0		U
75-35-4	1,1-Dichloroethene	1.0		U
67-64-1	Acetone	5.0		U
75-15-0	Carbon disulfide	1.0		U
75-09-2	Methylene chloride	1.0		U
156-60-5	trans-1,2-Dichloroethene	1.0		U
75-34-3	1,1-Dichloroethane	1.0		U
156-59-2	cis-1,2-Dichloroethene	1.0		U
78-93-3	2-Butanone	5.0		U
67-66-3	Chloroform	1.0		U
71-55-6	1,1,1-Trichloroethane	1.0		U
56-23-5	Carbon tetrachloride	1.0		U
71-43-2	Benzene	1.0		U
107-06-2	1,2-Dichloroethane	1.0		U
79-01-6	Trichloroethene	1.0		U
78-87-5	1,2-Dichloropropane	1.0		U
75-27-4	Bromodichloromethane	1.0		U
10061-01-	cis-1,3-Dichloropropene	1.0		U
108-10-1	4-Methyl-2-pentanone	5.0		U
108-88-3	Toluene	1.0		U
10061-02-	trans-1,3-Dichloropropene	1.0		U
79-00-5	1,1,2-Trichloroethane	1.0		U
127-18-4	Tetrachloroethene	1.0		U
591-78-6	2-Hexanone	5.0		U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03SW

Lab Name: \_\_\_\_\_  
 SDG No.: CAB34  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: CAB34-001  
 Lab File ID: B0628029.D  
 Date Collected: 06/22/2007  
 Date/Time Analyzed: 06/28/2007 21:32  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCW415W

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB34

Run Sequence: R019108

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: CAB34-003

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0628030.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/22/2007

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/28/2007 21:58

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCW415W

Lab Name: \_\_\_\_\_  
 SDG No.: CAB34  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: CAB34-003  
 Lab File ID: B0628030.D  
 Date Collected: 06/22/2007  
 Date/Time Analyzed: 06/28/2007 21:58  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	ug/L
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:



1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03DW

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB34

Run Sequence: R019108

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: CAB34-005

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0628031.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/22/2007

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/28/2007 22:24

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03DW

Lab Name: \_\_\_\_\_  
 SDG No.: CAB34  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: CAB34-005  
 Lab File ID: B0628031.D  
 Date Collected: 06/22/2007  
 Date/Time Analyzed: 06/28/2007 22:24  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	ug/L
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04DW

Lab Name: \_\_\_\_\_  
 SDG No.: CAB34  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019141  
 Lab Sample ID: CAB34-007  
 Lab File ID: B0629013.D  
 Date Collected: 06/22/2007  
 Date/Time Analyzed: 06/29/2007 15:07  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04DW

Lab Name: \_\_\_\_\_  
 SDG No.: CAB34  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019141  
 Lab Sample ID: CAB34-007  
 Lab File ID: B0629013.D  
 Date Collected: 06/22/2007  
 Date/Time Analyzed: 06/29/2007 15:07  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04SW

Lab Name: \_\_\_\_\_  
 SDG No.: CAB34  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019141  
 Lab Sample ID: CAB34-009  
 Lab File ID: B0629014.D  
 Date Collected: 06/22/2007  
 Date/Time Analyzed: 06/29/2007 15:33  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04SW

Lab Name: \_\_\_\_\_  
 SDG No.: CAB34  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019141  
 Lab Sample ID: CAB34-009  
 Lab File ID: B0629014.D  
 Date Collected: 06/22/2007  
 Date/Time Analyzed: 06/29/2007 15:33  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB34

Run Sequence: R019108

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: CAB34-011

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0628014.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/22/2007

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/28/2007 14:58

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: \_\_\_\_\_  
 SDG No.: CAB34  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: CAB34-011  
 Lab File ID: B0628014.D  
 Date Collected: 06/22/2007  
 Date/Time Analyzed: 06/28/2007 14:58  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	ug/L
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:



6  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019108 SDG No.: CAB34  
 Instrument ID: 5973B Calibration Dates: 06/04/2007 14:35  
 Heated Purge: (Y/N) N Calibration Times: 06/04/2007 14:35  
 GC Column: ZB-624 20m ID: 0.15 (mm) Mean % RSD: 6.70

Analyte	Std	RF 1	Std	RF 2	Std	RF 3	Std	RF 4	Std	RF 5	Std	RF 6	Std	RF 7	Std	RF 8	RF	%RSD	$\chi^2$	Eq
	1		2		3		4		5		6		7		8				COD	Ty
Dichlorodifluoromethane	1	1.010E-01	5	1.160E-01	10	1.150E-01	50	1.470E-01	75	1.480E-01	100	1.310E-01	200	1.500E-01			0.130	15.09		A
Chloromethane	1	2.630E-01	5	2.840E-01	10	2.610E-01	50	2.829E-01	75	2.809E-01	100	2.640E-01	200	2.870E-01			0.274	4.19		A
Vinyl chloride	1	2.330E-01	5	2.490E-01	10	2.370E-01	50	2.630E-01	75	2.630E-01	100	2.389E-01	200	2.590E-01			0.249	5.23		A
Bromomethane	1	1.949E-01	5	1.680E-01	10	1.490E-01	50	1.580E-01	75	1.680E-01	100	1.540E-01	200	1.540E-01			0.164	9.54		A
Chloroethane	1	1.750E-01	5	1.680E-01	10	1.630E-01	50	1.610E-01	75	1.640E-01	100	1.420E-01	200	1.540E-01			0.161	6.54		A
Trichlorofluoromethane	1	2.649E-01	5	2.980E-01	10	2.700E-01	50	3.199E-01	75	3.150E-01	100	2.790E-01	200	2.980E-01			0.292	7.28		A
1,1-Dichloroethene	1	1.570E-01	5	1.949E-01	10	1.620E-01	50	1.959E-01	75	1.930E-01	100	1.690E-01	200	1.770E-01			0.178	9.17		A
Acetone	1	1.560E-01	5	1.320E-01	10	1.160E-01	50	1.250E-01	75	1.170E-01	100	1.140E-01	200	1.040E-01			0.123	13.72		A
Carbon disulfide	1	5.680E-01	5	6.579E-01	10	6.129E-01	50	7.969E-01	75	8.090E-01	100	7.160E-01	200	7.300E-01			0.699	12.94	1.000	A
Methylene chloride	1	1.001E+00	5	3.170E-01	10	2.579E-01	50	2.640E-01	75	2.720E-01	100	2.590E-01	200	2.490E-01			0.374			Q
trans-1,2-Dichloroethene	1	2.300E-01	5	2.780E-01	10	2.410E-01	50	2.739E-01	75	2.599E-01	100	2.410E-01	200	2.420E-01			0.252	7.38		A
1,1-Dichloroethane	1	4.560E-01	5	4.900E-01	10	4.400E-01	50	4.990E-01	75	4.740E-01	100	4.480E-01	200	4.460E-01			0.465	5.00		A
cis-1,2-Dichloroethene	1	2.829E-01	5	3.059E-01	10	2.619E-01	50	2.980E-01	75	2.879E-01	100	2.669E-01	200	2.720E-01			0.282	5.75		A
2-Butanone	1	2.480E-01	5	1.879E-01	10	1.940E-01	50	2.169E-01	75	2.110E-01	100	2.080E-01	200	1.930E-01			0.208	9.77		A
Chloroform	1	4.639E-01	5	4.819E-01	10	4.219E-01	50	4.720E-01	75	4.569E-01	100	4.280E-01	200	4.309E-01			0.451	5.26		A
1,1,1-Trichloroethane	1	3.129E-01	5	3.840E-01	10	3.300E-01	50	3.849E-01	75	3.590E-01	100	3.280E-01	200	3.290E-01			0.347	8.36		A
Carbon tetrachloride	1	2.579E-01	5	3.440E-01	10	2.850E-01	50	3.490E-01	75	3.240E-01	100	2.920E-01	200	2.969E-01			0.307	10.82		A
Benzene	1	1.070E+00	5	1.184E+00	10	1.026E+00	50	1.172E+00	75	1.113E+00	100	1.051E+00	200	1.054E+00			1.096	5.66		A
1,2-Dichloroethane	1	3.499E-01	5	3.600E-01	10	3.319E-01	50	3.600E-01	75	3.540E-01	100	3.400E-01	200	3.370E-01			0.347	3.29		A
Trichloroethene	1	2.809E-01	5	3.240E-01	10	2.780E-01	50	3.230E-01	75	3.059E-01	100	2.850E-01	200	2.910E-01			0.298	6.51		A
1,2-Dichloropropane	1	2.750E-01	5	2.890E-01	10	2.590E-01	50	2.899E-01	75	2.800E-01	100	2.680E-01	200	2.649E-01			0.275	4.28		A
Bromodichloromethane	1	3.389E-01	5	3.510E-01	10	3.269E-01	50	3.670E-01	75	3.580E-01	100	3.440E-01	200	3.440E-01			0.347	3.81		A
cis-1,3-Dichloropropene	1	3.750E-01	5	3.880E-01	10	3.610E-01	50	4.199E-01	75	4.070E-01	100	3.919E-01	200	3.910E-01			0.391	4.95		A
4-Methyl-2-pentanone	1	5.720E-01	5	4.149E-01	10	3.930E-01	50	4.269E-01	75	4.219E-01	100	4.100E-01	200	3.939E-01			0.433	14.48		A

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average  
 \* SPCCS #

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Jaucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019108 SDG No.: CAB34  
 Instrument ID: 5973B Calibration Dates: 06/04/2007 14:35  
 Heated Purge: (Y/N) N Calibration Times: 06/04/2007 14:35  
 GC Column: ZB-624 20m ID: \_\_\_\_\_ Mean % RSD: 6.70  
 O.I.E. (mm) \_\_\_\_\_

Analyte	Std	RF 1	Std	RF 2	Std	RF 3	Std	RF 4	Std	RF 5	Std	RF 6	Std	RF 7	Std	RF 8	RF	%RSD	I <sup>2</sup> COD	Eq Ty
Toluene	1	8.470E-01	5	9.840E-01	10	8.399E-01	50	9.940E-01	75	9.279E-01	100	8.790E-01	200	8.909E-01			0.909	6.83		A
trans-1,3-Dichloropropene	1	5.899E-01	5	6.160E-01	10	5.630E-01	50	6.510E-01	75	6.309E-01	100	6.169E-01	200	6.250E-01			0.614	4.69		A
1,1,2-Trichloroethane	1	3.650E-01	5	3.709E-01	10	3.350E-01	50	3.700E-01	75	3.600E-01	100	3.510E-01	200	3.520E-01			0.358	3.59		A
Tetrachloroethene	1	3.980E-01	5	4.740E-01	10	3.980E-01	50	4.799E-01	75	4.410E-01	100	4.110E-01	200	4.320E-01			0.433	7.78		A
2-Hexanone	1	3.890E-01	5	3.800E-01	10	3.610E-01	50	4.239E-01	75	4.170E-01	100	4.100E-01	200	4.000E-01			0.397	5.60		A
Dibromochloromethane	1	3.450E-01	5	3.960E-01	10	3.540E-01	50	4.170E-01	75	4.079E-01	100	3.989E-01	200	4.030E-01			0.389	7.13		A
Chlorobenzene	1	1.010E+00	5	1.066E+00	10	9.359E-01	50	1.072E+00	75	1.031E+00	100	9.940E-01	200	1.005E+00			1.016	4.55		A
Ethylbenzene	1	1.562E+00	5	1.779E+00	10	1.561E+00	50	1.823E+00	75	1.723E+00	100	1.644E+00	200	1.670E+00			1.680	6.03		A
m,p-Xylene	2	6.169E-01	10	7.080E-01	20	6.160E-01	100	7.210E-01	150	6.850E-01	200	6.510E-01	400	6.570E-01			0.665	6.24		A
o-Xylene	1	6.280E-01	5	6.740E-01	10	6.119E-01	50	6.970E-01	75	6.679E-01	100	6.430E-01	200	6.470E-01			0.653	4.48		A
Styrene	1	1.115E+00	5	1.186E+00	10	1.082E+00	50	1.240E+00	75	1.206E+00	100	1.164E+00	200	1.172E+00			1.167	4.57		A
Bromoform	1	3.400E-01	5	3.400E-01	10	3.089E-01	50	3.580E-01	75	3.610E-01	100	3.569E-01	200	3.660E-01			0.347	5.67		A
1,1,2,2-Tetrachloroethane	1	8.930E-01	5	9.409E-01	10	8.909E-01	50	9.620E-01	75	9.639E-01	100	9.540E-01	200	9.380E-01			0.935	3.29		A
Dibromofluoromethane	50	2.540E-01	55	2.460E-01	60	2.480E-01	65	2.389E-01	70	2.460E-01	75	2.399E-01	80	2.380E-01			0.245	2.32		A
1,2-Dichloroethane-d4	50	2.640E-01	55	2.619E-01	60	2.599E-01	65	2.550E-01	70	2.619E-01	75	2.550E-01	80	2.520E-01			0.258	1.79		A
Toluene-d8	50	1.206E+00	55	1.220E+00	60	1.201E+00	65	1.215E+00	70	1.209E+00	75	1.192E+00	80	1.195E+00			1.206	0.84		A
4-Bromofluorobenzene	50	8.450E-01	55	8.290E-01	60	8.309E-01	65	8.100E-01	70	8.290E-01	75	8.259E-01	80	8.150E-01			0.827	1.37		A

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average  
 \* SPCCS #

**INITIAL  
SECOND SOURCE CALIBRATION VERIFICATION**

Lab Name: Laucks Testing Laboratories, Inc.

Initial Calibration ID: B8260W-060407

Instrument ID: 5973B

Concentration Units: ug/L

2nd Source ID: ICV060607MVOB1

Analyte	Equation Type	Expected	Found	%D
1,1,1,2-Tetrachloroethane	A	50.00	49.24	1.52
1,1,1-Trichloroethane	A	50.00	53.79	7.58
1,1,2,2-Tetrachloroethane	A	50.00	50.09	0.18
1,1,2-Trichloroethane	A	50.00	49.57	0.86
1,1-Dichloroethane	A	50.00	54.42	8.84
1,1-Dichloroethene	A	50.00	61.74	23.48
1,1-Dichloropropene	A	50.00	56.82	13.64
1,2,3-Trichlorobenzene	A	50.00	55.01	10.02
1,2,3-Trichloropropane	A	50.00	47.73	4.54
1,2,4-Trichlorobenzene	A	50.00	54.31	8.62
1,2,4-Trimethylbenzene	A	50.00	50.47	0.94
1,2-Dibromo-3-chloropropane	A	50.00	49.81	0.38
1,2-Dibromoethane	A	50.00	50.86	1.72
1,2-Dichlorobenzene	A	50.00	51.04	2.08
1,2-Dichloroethane	A	50.00	51.85	3.70
1,2-Dichloroethane-d4	A	50.00	50.27	0.54
1,2-Dichloropropane	A	50.00	50.72	1.44
1,3,5-Trimethylbenzene	A	50.00	49.94	0.12
1,3-Dichlorobenzene	A	50.00	50.64	1.28
1,3-Dichloropropane	A	50.00	49.61	0.78
1,4-Dichlorobenzene	A	50.00	51.11	2.22
1-Chlorohexane	A	50.00	54.76	9.52
2,2-Dichloropropane	A	50.00	51.18	2.36
2-Butanone	A	50.00	51.05	2.10
2-Chlorotoluene	A	50.00	49.94	0.12
2-Hexanone	A	50.00	51.14	2.28
4-Bromofluorobenzene	A	50.00	49.38	1.24
4-Chlorotoluene	A	50.00	50.00	0.00
4-Isopropyltoluene	A	50.00	52.39	4.78
4-Methyl-2-pentanone	A	50.00	49.24	1.52
Acetone	A	50.00	50.13	0.26
Benzene	A	50.00	51.60	3.20
Bromobenzene	A	50.00	48.39	3.22
Bromochloromethane	A	50.00	51.68	3.36
Bromodichloromethane	A	50.00	51.67	3.34
Bromoform	A	50.00	48.24	3.52
Bromomethane	A	50.00	40.01	19.98
Carbon disulfide	A	50.00	52.03	4.06
Carbon tetrachloride	A	50.00	53.74	7.48
Chlorobenzene	A	50.00	51.66	3.32
Chloroethane	A	50.00	41.80	16.40
Chloroform	A	50.00	52.51	5.02
Chloromethane	A	50.00	42.42	15.16

**INITIAL  
SECOND SOURCE CALIBRATION VERIFICATION**

Lab Name: Laucks Testing Laboratories, Inc.

Initial Calibration ID: B8260W-060407

Instrument ID: 5973B

Concentration Units: ug/L

2nd Source ID: ICV060607MVOB1

Analyte	Equation Type	Expected	Found	%D
cis-1,2-Dichloroethene	A	50.00	53.73	7.46
cis-1,3-Dichloropropene	A	50.00	59.33	18.66
Dibromochloromethane	A	50.00	52.66	5.32
Dibromofluoromethane	A	50.00	51.50	3.00
Dibromomethane	A	50.00	51.58	3.16
Dichlorodifluoromethane	A	50.00	40.14	19.72
Ethyl-t-Butyl Ether(ETBE)	A	50.00	53.27	6.54
Ethylbenzene	A	50.00	50.70	1.40
Hexachlorobutadiene	A	50.00	54.04	8.08
Isopropyl ether	A	50.00	51.97	3.94
Isopropylbenzene	A	50.00	51.78	3.56
m,p-Xylene	A	100.00	103.37	3.37
Methyl tert-butyl ether	A	50.00	56.55	13.10
Methylene chloride	Q	50.00	52.82	5.64
n-Butylbenzene	A	50.00	51.86	3.72
n-Propylbenzene	A	50.00	51.48	2.96
Naphthalene	A	50.00	54.73	9.46
o-Xylene	A	50.00	51.09	2.18
sec-Butylbenzene	A	50.00	53.45	6.90
Styrene	A	50.00	50.33	0.66
t-Amyl Methyl Ether(TAME)	A	50.00	52.66	5.32
t-Butyl Alcohol	A	500.00	565.69	13.14
tert-Butylbenzene	A	50.00	51.42	2.84
Tetrachloroethene	A	50.00	51.86	3.72
Toluene	A	50.00	50.75	1.50
Toluene-d8	A	50.00	51.28	2.56
trans-1,2-Dichloroethene	A	50.00	55.58	11.16
trans-1,3-Dichloropropene	A	50.00	45.29	9.42
Trichloroethene	A	50.00	53.18	6.36
Trichlorofluoromethane	A	50.00	42.86	14.28
Vinyl chloride	A	50.00	45.14	9.72

Q=Quadratic, L=Linear, A=Average

7  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019108 SDG No.: CAB34  
 Instrument ID: 5973B Calibration Date: 06/28/2007 Time: 11:58  
 Lab File ID: B0628007.D Init. Calib. Date(s): 06/04/2007  
 Client Sample No.: VSTD050B1 Init. Calib. Time(s): 10:14  
 Heated Purge: (Y/N) N GC Column: ZB-624 20m ID: 0.18 (mm)

Compound	Equation Type	RF 50.0	%D	%Drift
Dichlorodifluoromethane	A	0.120	7.72	
Chloromethane	A	0.244	10.98	
Vinyl chloride	A	0.218	12.47	
Bromomethane	A	0.131	19.97	
Chloroethane	A	0.145	9.70	
Trichlorofluoromethane	A	0.273	6.40	
1,1-Dichloroethene	A	0.159	10.93	
Acetone	A	0.137	-11.70	
Carbon disulfide	A	0.573	18.02	
Methylene chloride	Q	0.239		-12.04
trans-1,2-Dichloroethene	A	0.229	9.19	
1,1-Dichloroethane	A	0.443	4.79	
cis-1,2-Dichloroethene	A	0.254	10.03	
2-Butanone	A	0.230	-10.59	
Chloroform	A	0.422	6.34	
1,1,1-Trichloroethane	A	0.320	7.69	
Carbon tetrachloride	A	0.273	10.97	
Benzene	A	1.013	7.61	
1,2-Dichloroethane	A	0.337	3.01	
Trichloroethene	A	0.274	7.89	
1,2-Dichloropropane	A	0.258	6.12	
Bromodichloromethane	A	0.315	9.15	
cis-1,3-Dichloropropene	A	0.358	8.42	
4-Methyl-2-pentanone	A	0.437	-1.04	
Toluene	A	0.879	3.35	
trans-1,3-Dichloropropene	A	0.584	4.90	
1,1,2-Trichloroethane	A	0.337	5.91	
Tetrachloroethene	A	0.408	5.85	
2-Hexanone	A	0.447	-12.67	
Dibromochloromethane	A	0.345	11.20	
Chlorobenzene	A	0.947	6.82	
Ethylbenzene	A	1.623	3.42	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019108 SDG No.: CAB34  
 Instrument ID: 5973B Calibration Date: 06/28/2007 Time: 11:58  
 Lab File ID: B0628007.D Init. Calib. Date(s): 06/04/2007  
 Client Sample No.: VSTD050B1 Init. Calib. Time(s): 10:14  
 Heated Purge: (Y/N) N GC Column: ZB-624 20m ID: 0.18 (mm)

Compound	Equation Type	RF 50.0	%D	%Drift
m,p-Xylene	A	0.630	5.22	
o-Xylene	A	0.606	7.13	
Styrene	A	1.082	7.28	
Bromoform	A	0.280	19.33	
1,1,2,2-Tetrachloroethane	A	0.900	3.73	
Dibromofluoromethane	A	0.253	-3.37	
1,2-Dichloroethane-d4	A	0.281	-8.98	
Toluene-d8	A	1.302	-7.96	
4-Bromofluorobenzene	A	0.893	-7.93	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

7  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019141 SDG No.: CAB34  
 Instrument ID: 5973B Calibration Date: 06/29/2007 Time: 11:34  
 Lab File ID: B0629005.D Init. Calib. Date(s): 06/04/2007  
 Client Sample No.: VSTD050B2 Init. Calib. Time(s): 10:14  
 Heated Purge: (Y/N) N GC Column: ZB-624 20m ID: 0.18 (mm)

Compound	Equation Type	RF 50.0	%D	%Drift
Dichlorodifluoromethane	A	0.108	16.74	
Chloromethane	A	0.241	11.90	
Vinyl chloride	A	0.229	8.18	
Bromomethane	A	0.146	11.25	
Chloroethane	A	0.143	11.23	
Trichlorofluoromethane	A	0.249	14.56	
1,1-Dichloroethene	A	0.162	9.00	
Acetone	A	0.128	-4.07	
Carbon disulfide	A	0.582	16.69	
Methylene chloride	Q	0.231		-14.86
trans-1,2-Dichloroethene	A	0.236	6.49	
1,1-Dichloroethane	A	0.447	3.88	
cis-1,2-Dichloroethene	A	0.263	6.73	
2-Butanone	A	0.222	-6.67	
Chloroform	A	0.430	4.56	
1,1,1-Trichloroethane	A	0.338	2.57	
Carbon tetrachloride	A	0.296	3.68	
Benzene	A	1.031	5.89	
1,2-Dichloroethane	A	0.341	1.79	
Trichloroethene	A	0.281	5.64	
1,2-Dichloropropane	A	0.261	5.14	
Bromodichloromethane	A	0.330	5.01	
cis-1,3-Dichloropropene	A	0.361	7.69	
4-Methyl-2-pentanone	A	0.430	0.77	
Toluene	A	0.892	1.87	
trans-1,3-Dichloropropene	A	0.588	4.19	
1,1,2-Trichloroethane	A	0.334	6.73	
Tetrachloroethene	A	0.415	4.15	
2-Hexanone	A	0.446	-12.26	
Dibromochloromethane	A	0.365	6.17	
Chlorobenzene	A	0.946	6.92	
Ethylbenzene	A	1.629	3.01	

\* = %D or %Drift above limit  
 # = %D or %Drift limits are not configured

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019141SDG No.: CAB34Instrument ID: 5973BCalibration Date: 06/29/2007 Time: 11:34Lab File ID: B0629005.DInit. Calib. Date(s): 06/04/2007Client Sample No.: VSTD050B2Init. Calib. Time(s): 10:14Heated Purge: (Y/N) NGC Column: ZB-624 20m ID: 0.18 (mm)

Compound	Equation Type	RF 50.0	%D	%Drift
m,p-Xylene	A	0.631	5.05	
o-Xylene	A	0.594	9.11	
Styrene	A	1.067	8.59	
Bromoform	A	0.289	16.71	
1,1,2,2-Tetrachloroethane	A	0.879	5.97	
Dibromofluoromethane	A	0.255	-4.21	
1,2-Dichloroethane-d4	A	0.283	-9.78	
Toluene-d8	A	1.308	-8.45	
4-Bromofluorobenzene	A	0.899	-8.69	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured



1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062807MVOWB1

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB34

Run Sequence: R019108

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: B062807MVOWB1

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0628011.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/28/2007 13:41

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 1000 (uL)

Soil Aliquot Volume: 5000 (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062807MVOWB1

Lab Name: \_\_\_\_\_  
 SDG No.: CAB34  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: 1000 (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: B062807MVOWB1  
 Lab File ID: B0628011.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/28/2007 13:41  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: 5000 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	ug/L
124-48-1	Dibromochloromethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
179601-23	m,p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062907MVOWB1

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB34

Run Sequence: R019141

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: B062907MVOWB1

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0629008.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/29/2007 12:49

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	<u>ug/L</u>
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	1.0	U
10061-02-	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	5.0	U

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062907MVOWB1

Lab Name: \_\_\_\_\_  
 SDG No.: CAB34  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_ (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019141  
 Lab Sample ID: B062907MVOWB1  
 Lab File ID: B0629008.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/29/2007 12:49  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	<u>ug/L</u>	
124-48-1	Dibromochloromethane	1.0		U
108-90-7	Chlorobenzene	1.0		U
100-41-4	Ethylbenzene	1.0		U
179601-23	m,p-Xylene	2.0		U
95-47-6	o-Xylene	1.0		U
100-42-5	Styrene	1.0		U
75-25-2	Bromoform	1.0		U
79-34-5	1,1,2,2-Tetrachloroethane	1.0		U

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062807MVOWB1

Lab Name: \_\_\_\_\_  
 SDG No.: CAB34  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: 1000 (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: S062807MVOWB1  
 Lab File ID: B0628008.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/28/2007 12:25  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: 5000 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	27	
74-87-3	Chloromethane	34	
75-01-4	Vinyl chloride	36	
74-83-9	Bromomethane	36	
75-00-3	Chloroethane	35	
75-69-4	Trichlorofluoromethane	40	
75-35-4	1,1-Dichloroethene	56	
67-64-1	Acetone	44	
75-15-0	Carbon disulfide	49	
75-09-2	Methylene chloride	51	
156-60-5	trans-1,2-Dichloroethene	53	
75-34-3	1,1-Dichloroethane	54	
156-59-2	cis-1,2-Dichloroethene	51	
78-93-3	2-Butanone	48	
67-66-3	Chloroform	52	
71-55-6	1,1,1-Trichloroethane	53	
56-23-5	Carbon tetrachloride	51	
71-43-2	Benzene	51	
107-06-2	1,2-Dichloroethane	53	
79-01-6	Trichloroethene	51	
78-87-5	1,2-Dichloropropane	51	
75-27-4	Bromodichloromethane	51	
10061-01-	cis-1,3-Dichloropropene	58	
108-10-1	4-Methyl-2-pentanone	48	
108-88-3	Toluene	51	
10061-02-	trans-1,3-Dichloropropene	46	
79-00-5	1,1,2-Trichloroethane	49	
127-18-4	Tetrachloroethene	50	
591-78-6	2-Hexanone	53	

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062807MVOWB1

Lab Name: \_\_\_\_\_  
 SDG No.: CAB34  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: 1000 (uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019108  
 Lab Sample ID: S062807MVOWB1  
 Lab File ID: B0628008.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/28/2007 12:25  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: 5000 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
124-48-1	Dibromochloromethane	49		
108-90-7	Chlorobenzene	51		
100-41-4	Ethylbenzene	51		
179601-23	m,p-Xylene	100		
95-47-6	o-Xylene	50		
100-42-5	Styrene	49		
75-25-2	Bromoform	42		
79-34-5	1,1,2,2-Tetrachloroethane	51		

Comments:

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062907MVOWB1

Lab Name: \_\_\_\_\_

Contract: \_\_\_\_\_

SDG No.: CAB34

Run Sequence: R019141

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: S062907MVOWB1

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID: B0629006.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date/Time Analyzed: 06/29/2007 12:00

GC Column: ZB-624 20m ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Heated Purge: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	30	
74-87-3	Chloromethane	42	
75-01-4	Vinyl chloride	44	
74-83-9	Bromomethane	41	
75-00-3	Chloroethane	46	
75-69-4	Trichlorofluoromethane	45	
75-35-4	1,1-Dichloroethene	51	
67-64-1	Acetone	53	
75-15-0	Carbon disulfide	32	
75-09-2	Methylene chloride	47	
156-60-5	trans-1,2-Dichloroethene	49	
75-34-3	1,1-Dichloroethane	51	
156-59-2	cis-1,2-Dichloroethene	48	
78-93-3	2-Butanone	57	
67-66-3	Chloroform	49	
71-55-6	1,1,1-Trichloroethane	49	
56-23-5	Carbon tetrachloride	48	
71-43-2	Benzene	47	
107-06-2	1,2-Dichloroethane	51	
79-01-6	Trichloroethene	47	
78-87-5	1,2-Dichloropropane	47	
75-27-4	Bromodichloromethane	48	
10061-01-	cis-1,3-Dichloropropene	55	
108-10-1	4-Methyl-2-pentanone	52	
108-88-3	Toluene	48	
10061-02-	trans-1,3-Dichloropropene	44	
79-00-5	1,1,2-Trichloroethane	46	
127-18-4	Tetrachloroethene	46	
591-78-6	2-Hexanone	57	

1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062907MVOWB1

Lab Name: \_\_\_\_\_  
 SDG No.: CAB34  
 Matrix: (SOIL/SED/WATER) Water  
 Sample wt/vol: 5.00 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_  
 GC Column: ZB-624 20m ID: 0.18 (mm)  
 Soil Extract Volume: \_\_\_\_\_(uL)  
 Heated Purge: (Y/N) N

Contract: \_\_\_\_\_  
 Run Sequence: R019141  
 Lab Sample ID: S062907MVOWB1  
 Lab File ID: B0629006.D  
 Date Collected: \_\_\_\_\_  
 Date/Time Analyzed: 06/29/2007 12:00  
 Dilution Factor: 1.0  
 Soil Aliquot Volume: \_\_\_\_\_(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	<u>ug/L</u>
124-48-1	Dibromochloromethane	49	Q
108-90-7	Chlorobenzene	48	
100-41-4	Ethylbenzene	47	
179601-23	m,p-Xylene	94	
95-47-6	o-Xylene	46	
100-42-5	Styrene	45	
75-25-2	Bromoform	43	
79-34-5	1,1,2,2-Tetrachloroethane	48	

Comments:



# **FORMS SUMMARY**

**SDG# CAB34**

**Semivolatiles**

## WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB34Run Sequence: R019645Level: (LOW/MED) NONE

CLIENT SAMPLE NUMBER	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (2FB) #	TOT OUT
(CAB34-009) 15LCMW04SW	63	68	81	72	
(CAB34-007) 15LCMW04DW	39	60	77	68	
(CAB34-005) 15LCMW03DW	43	65	75	67	
(CAB34-003) 15LCMW415W	51	67	79	67	
(CAB34-001) 15LCMW03SW	44	66	85	74	
(S062607MSVWLS) S062607MSVWLS	53	67	87	77	
(B062607MSVWLS) B062607MSVWLS	48	69	87	76	

## QC LIMITS

S1 (2FP) = 2-Fluorophenol

20-110

S2 (PHL) = Phenol-d5

10-115

S3 (NBZ) = Nitrobenzene-d5

40-110

S4 (2FB) = 2-Fluorobiphenyl

50-100

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D Surrogate diluted out

2  
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB34

Run Sequence: R019645

Level: (LOW/MED) NONE

CLIENT SAMPLE NUMBER	S5 (TBP) #	S6 (DTR) #	S7 ( ) #	S8 ( ) #	TOT OUT
(CAB34-009) 15LCMW04SW	49	75			0
(CAB34-007) 15LCMW04DW	48	73			0
(CAB34-005) 15LCMW03DW	46	70			0
(CAB34-003) 15LCMW415W	50	78			0
(CAB34-001) 15LCMW03SW	54	78			0
(S062607MSVWLS) S062607MSVWLS	70	77			0
(B062607MSVWLS) B062607MSVWLS	61	81			0

QC LIMITS

S5 (TBP) = 2,4,6-Tribromophenol

40-125

S6 (DTR) = Terphenyl-d14

50-135

S7 ( ) =

S8 ( ) =

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D Surrogate diluted out

3B  
WATER SEMIVOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 BS Run Sequence: R019645 SDG No.: CAB34  
 BS Lab Sample ID: S062607MSVWLS  
 Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
3 & 4-Methylphenol	20.0	16.71	84		30-110
Bis(2-chloroisopropyl)ether	20.0	16.15	81		35-110
Phenol	20.0	13.83	69		23-98
Bis(2-Chloroethyl)ether	20.0	17.87	89		35-110
2-Chlorophenol	20.0	14.29	71		35-105
1,3-Dichlorobenzene	20.0	11.41	57		30-100
1,4-Dichlorobenzene	20.0	11.58	58		30-100
Benzyl alcohol	20.0	16.93	85		30-110
1,2-Dichlorobenzene	20.0	11.99	60		35-100
2-Methylphenol	20.0	15.07	75		40-110
N-Nitroso-di-n-propylamine	20.0	18.92	95		35-130
Hexachloroethane	20.0	10.55	53		30-95
Nitrobenzene	20.0	18.39	92		45-110
Isophorone	20.0	16	80		50-110
2-Nitrophenol	20.0	11.35	57		40-115
2,4-Dimethylphenol	20.0	9.9	50		30-110
Benzoic acid	20.0	3.3	17		0-125
Bis(2-chloroethoxy)methane	20.0	16.27	81		45-105
2,4-Dichlorophenol	20.0	13.93	70		50-105
1,2,4-Trichlorobenzene	20.0	13.39	67		35-105
Naphthalene	20.0	14.49	72		40-100
4-Chloroaniline	20.0	13.07	65		15-110
Hexachlorobutadiene	20.0	11.44	57		25-105
4-Chloro-3-methylphenol	20.0	15.81	79		45-110
2-Methylnaphthalene	20.0	15.75	79		45-105
Hexachlorocyclopentadiene	20.0	3.86	19		10-49
2,4,6-Trichlorophenol	20.0	11.66	58		50-115
2,4,5-Trichlorophenol	20.0	12.51	63		50-110
2-Chloronaphthalene	20.0	16.81	84		50-105
2-Nitroaniline	20.0	15.55	78		50-115
Dimethylphthalate	20.0	16.96	85		25-125
2,6-Dinitrotoluene	20.0	11.72	59		50-115
Acenaphthylene	20.0	16.63	83		50-105
3-Nitroaniline	20.0	13.82	69		20-125

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

Spike Recovery: 0 out of 68 outside limits

COMMENTS:

## WATER SEMIVOLATILE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 BS Run Sequence: R019645 SDG No.: CAB34  
 BS Lab Sample ID: S062607MSVWLS  
 Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Acenaphthene	20.0	16.44	82		45-110
2,4-Dinitrophenol	20.0	6.48	32		15-140
4-Nitrophenol	20.0	12.3	62		0-125
Dibenzofuran	20.0	17.02	85		55-105
2,4-Dinitrotoluene	20.0	12.5	63		50-120
Diethylphthalate	20.0	16.67	83		40-120
Fluorene	20.0	16.95	85		50-110
4-Chlorophenyl-phenylether	20.0	17.16	86		50-110
4-Nitroaniline	20.0	14.19	71		35-120
4,6-Dinitro-2-methylphenol	20.0	8.33	42		40-130
N-Nitrosodiphenylamine	20.0	13.77	69		50-110
Azobenzene	20.0	19.03	95		55-115
4-Bromophenyl-phenyl ether	20.0	16.34	82		50-115
Hexachlorobenzene	20.0	17	85		50-110
Pentachlorophenol	20.0	13.06	65		40-115
Phenanthrene	20.0	16.6	83		50-115
Anthracene	20.0	16.34	82		55-110
Carbazole	20.0	16.86	84		50-115
Di-n-butylphthalate	20.0	15.84	79		55-115
Fluoranthene	20.0	17.82	89		55-115
Benzidine	20.0	0	0		0-125
Pyrene	20.0	15.09	75		50-130
Butylbenzylphthalate	20.0	12.42	62		45-115
3,3'-Dichlorobenzidine	20.0	12.49	62		20-110
Benzo(a)anthracene	20.0	15.74	79		55-110
Bis(2-ethylhexyl)phthalate	20.0	13.55	68		40-125
Chrysene	20.0	16.74	84		55-110
Di-n-octylphthalate	20.0	11.44	57		35-135
Benzo(b)fluoranthene	20.0	15.29	76		45-120
Benzo(k)fluoranthene	20.0	16.92	85		45-125
Benzo(a)pyrene	20.0	15.88	79		55-110
Indeno(1,2,3-cd)pyrene	20.0	18.65	93		45-125
Dibenzo(a,h)anthracene	20.0	19.19	96		40-125
Benzo(g,h,i)perylene	20.0	19.75	99		40-125

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

Spike Recovery: 0 out of 68 outside limits

COMMENTS:

4  
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062607MSVWLS

Lab Name Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB34

Lab File ID: L0717006.D

Lab Sample ID: B062607MSVWLS

Date Analyzed: 07/17/2007

Time Analyzed: 13:29

GC Column: RTX-5Sil MS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Instrument ID: 5970L

Matrix: Water

	CLIENT SAMPLE NO.	LAB SAMPLE ID.	LAB FILE ID.	DATE ANALYZED	TIME ANALYZED	RUN SEQUENCE
01	S062607MSVWLS	S062607MSVWLS	L0717007.D	07/17/2007	14:06	R019645
02	15LCMW03SW	CAB34-001	L0717008.D	07/17/2007	14:44	R019645
03	15LCMW415W	CAB34-003	L0717009.D	07/17/2007	15:21	R019645
04	15LCMW03DW	CAB34-005	L0717010.D	07/17/2007	15:59	R019645
05	15LCMW04DW	CAB34-007	L0717011.D	07/17/2007	16:37	R019645
06	15LCMW04SW	CAB34-009	L0717012.D	07/17/2007	17:14	R019645
07						
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30						

COMMENTS: \_\_\_\_\_

SEMIVOLATILE ORGANIC INSTRUMENT  
PERFORMANCE CHECK

DFTPP071207-1

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: CAL997 SDG No.: CAB34  
 Lab File ID: L0712001.D DFTPP Injection Date: 07/12/2007  
 Instrument ID: 5970L DFTPP Injection Time: 12:31

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30% to 60% of mass 198	48.5
68	less than 2% of mass 69	1.5 ( )1
69	base peak, 100% relative abundance	100
70	less than 2% of mass 69	0.9 ( )1
127	40% to 60% of mass 198	48.3
197	less than 1% of mass 198	0
198	base peak, 100% relative abundance	100
199	5% to 9% of mass 198	7.4
275	10% to 30% of mass 198	20.9
365	greater than 1% of mass 198	2
441	present but less than mass 443	76.2
442	greater than 40% of mass 198	64.5
443	17% to 23% of mass 442	19.5 ( )2

1 - Value is %mass 69

2 - Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD001	SSTD001	L0712003.D	07/12/2007	13:43
02	SSTD040	SSTD040	L0712007.D	07/12/2007	16:13
03	SSTD060	SSTD060	L0712008.D	07/12/2007	16:51
04	SSTD080	SSTD080	L0712009.D	07/12/2007	17:28
05	SSTD005	SSTD005	L0712011.D	07/12/2007	18:43
06	SSTD010	SSTD010	L0712012.D	07/12/2007	19:21
07	SSTD025	SSTD025	L0712013.D	07/12/2007	19:58
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09					
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19					
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22					

SEMIVOLATILE ORGANIC INSTRUMENT  
PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

DFTPP071707-1

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019645 SDG No.: CAB34  
 Lab File ID: L0717003.D DFTPP Injection Date: 07/17/2007  
 Instrument ID: 5970L DFTPP Injection Time: 11:29

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30% to 60% of mass 198	57.8
68	less than 2% of mass 69	1.4 (1)
69	base peak, 100% relative abundance	100
70	less than 2% of mass 69	0.4 (1)
127	40% to 60% of mass 198	49.4
197	less than 1% of mass 198	0
198	base peak, 100% relative abundance	100
199	5% to 9% of mass 198	7
275	10% to 30% of mass 198	20.3
365	greater than 1% of mass 198	2.1
441	present but less than mass 443	83.1
442	greater than 40% of mass 198	64.1
443	17% to 23% of mass 442	18.1 (2)

1 - Value is %mass 69

2 - Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV071707-2	CCV071707-2	L0717004.D	07/17/2007	11:53
02	B062607MSVWLS	B062607MSVWLS	L0717006.D	07/17/2007	13:29
03	S062607MSVWLS	S062607MSVWLS	L0717007.D	07/17/2007	14:06
04	15LCMW03SW	CAB34-001	L0717008.D	07/17/2007	14:44
05	15LCMW415W	CAB34-003	L0717009.D	07/17/2007	15:21
06	15LCMW03DW	CAB34-005	L0717010.D	07/17/2007	15:59
07	15LCMW04DW	CAB34-007	L0717011.D	07/17/2007	16:37
08	15LCMW04SW	CAB34-009	L0717012.D	07/17/2007	17:14
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22					



## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019645SDG No.: CAB34Client Sample No.: CCV071707-2Date Analyzed: 07/17/2007Lab File ID (Standard): L0717004.DTime Analyzed: 11:53Instrument ID: 5970LGC Column: RTX-5Sil MS ID: 0.25 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	15197	7.04	49287	8.69	25407	11.04
UPPER LIMIT	30394	7.54	98574	9.19	50814	11.54
LOWER LIMIT	7598.5	6.54	24643.5	8.19	12703.5	10.54
CLIENT SAMPLE NO						
01 B062607MSVWLS	14238	7.04	49561	8.69	24884	11.04
02 S062607MSVWLS	13789	7.04	45616	8.69	22874	11.04
03 15LCMW03SW	13626	7.04	47509	8.69	23028	11.04
04 15LCMW415W	13607	7.04	47610	8.69	23392	11.04
05 15LCMW03DW	13721	7.03	48113	8.69	23534	11.04
06 15LCMW04DW	13982	7.04	49285	8.69	23393	11.04
07 15LCMW04SW	14256	7.04	49511	8.69	24212	11.04
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IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019645SDG No.: CAB34Client Sample No.: CCV071707-2Date Analyzed: 07/17/2007Lab File ID (Standard): L0717004.DTime Analyzed: 11:53Instrument ID: 5970LGC Column: RTX-5Sil MSID: 0.25 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	36467	13.05	21923	17.58	13705	21.23
UPPER LIMIT	72934	13.55	43846	18.08	27410	21.73
LOWER LIMIT	18233.5	12.55	10961.5	17.08	6852.5	20.73
CLIENT SAMPLE NO.						
01 B062607MSVWLS	36597	13.05	21726	17.57	12255	21.23
02 S062607MSVWLS	33536	13.05	20097	17.58	12086	21.23
03 15LCMW03SW	32828	13.05	19702	17.57	12022	21.21
04 15LCMW415W	33497	13.05	20117	17.56	12131	21.21
05 15LCMW03DW	34483	13.05	20213	17.56	12423	21.21
06 15LCMW04DW	34260	13.05	20767	17.56	12568	21.21
07 15LCMW04SW	34973	13.05	20619	17.56	12702	21.21
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21						
22						

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019645  
 Lab Sample ID: CAB34-001  
 Lab File ID: L0717008.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	4.7	U
108-60-1	Bis(2-chloroisopropyl) ether	4.7	U
108-95-2	Phenol	4.7	U
111-44-4	Bis(2-Chloroethyl) ether	4.7	U
95-57-8	2-Chlorophenol	4.7	U
541-73-1	1,3-Dichlorobenzene	4.7	U
106-46-7	1,4-Dichlorobenzene	4.7	U
100-51-6	Benzyl alcohol	4.7	U
95-50-1	1,2-Dichlorobenzene	4.7	U
95-48-7	2-Methylphenol	4.7	U
621-64-7	N-Nitroso-di-n-propylamine	4.7	U
67-72-1	Hexachloroethane	4.7	U
98-95-3	Nitrobenzene	4.7	U
78-59-1	Isophorone	4.7	U
88-75-5	2-Nitrophenol	4.7	U
105-67-9	2,4-Dimethylphenol	4.7	U
65-85-0	Benzoic acid	9.4	U
111-91-1	Bis(2-chloroethoxy) methane	4.7	U
120-83-2	2,4-Dichlorophenol	4.7	U
120-82-1	1,2,4-Trichlorobenzene	4.7	U
91-20-3	Napthalene	4.7	U
106-47-8	4-Chloroaniline	4.7	U
87-68-3	Hexachlorobutadiene	4.7	U
59-50-7	4-Chloro-3-methylphenol	4.7	U
91-57-6	2-Methylnapthalene	4.7	U
77-47-4	Hexachlorocyclopentadiene	4.7	U

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019645  
 Lab Sample ID: CAB34-001  
 Lab File ID: L0717008.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
88-06-2	2,4,6-Trichlorophenol	4.7	U
95-95-4	2,4,5-Trichlorophenol	4.7	U
91-58-7	2-Chloronaphthalene	4.7	U
88-74-4	2-Nitroaniline	4.7	U
131-11-3	Dimethylphthalate	4.7	U
606-20-2	2,6-Dinitrotoluene	4.7	U
208-96-8	Acenaphthylene	4.7	U
99-09-2	3-Nitroaniline	4.7	U
83-32-9	Acenaphthene	4.7	U
51-28-5	2,4-Dinitrophenol	9.4	U
100-02-7	4-Nitrophenol	4.7	U
132-64-9	Dibenzofuran	4.7	U
121-14-2	2,4-Dinitrotoluene	4.7	U
84-66-2	Diethylphthalate	4.7	U
86-73-7	Fluorene	4.7	U
7005-72-3	4-Chlorophenyl-phenylether	4.7	U
100-01-6	4-Nitroaniline	4.7	U
534-52-1	4,6-Dinitro-2-methylphenol	4.7	U
86-30-6	N-Nitrosodiphenylamine	4.7	U
122-66-7	Azobenzene	4.7	U
101-55-3	4-Bromophenyl-phenyl ether	4.7	U
118-74-1	Hexachlorobenzene	4.7	U
87-86-5	Pentachlorophenol	4.7	U
85-01-8	Phenanthrene	4.7	U
120-12-7	Anthracene	4.7	U
86-74-8	Carbazole	4.7	U
84-74-2	Di-n-butylphthalate	4.7	U
206-44-0	Fluoranthene	4.7	U

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019645  
 Lab Sample ID: CAB34-001  
 Lab File ID: L0717008.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
92-87-5	Benzidine	4.7	U
129-00-0	Pyrene	4.7	U
85-68-7	Butylbenzylphthalate	4.7	U
91-94-1	3,3'-Dichlorobenzidine	4.7	U
56-55-3	Benzo(a)anthracene	4.7	U
117-81-7	Bis(2-ethylhexyl)phthalate	4.7	U
218-01-9	Chrysene	4.7	U
117-84-0	Di-n-octylphthalate	4.7	U
205-99-2	Benzo(b)fluoranthene	4.7	U
207-08-9	Benzo(k)fluoranthene	4.7	U
50-32-8	Benzo(a)pyrene	4.7	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.7	U
53-70-3	Dibenzo(a,h)anthracene	4.7	U
191-24-2	Benzo(g,h,i)perylene	4.7	U

Comments:

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW415W

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB34

Run Sequence: R019645

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB34-003

Sample wt/vol: 1060.0 (g/mL) mL

Lab File ID: L0717009.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/22/2007

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Extracted: 06/26/2007

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 07/17/2007

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	4.7	U
108-60-1	Bis(2-chloroisopropyl)ether	4.7	U
108-95-2	Phenol	4.7	U
111-44-4	Bis(2-Chloroethyl)ether	4.7	U
95-57-8	2-Chlorophenol	4.7	U
541-73-1	1,3-Dichlorobenzene	4.7	U
106-46-7	1,4-Dichlorobenzene	4.7	U
100-51-6	Benzyl alcohol	4.7	U
95-50-1	1,2-Dichlorobenzene	4.7	U
95-48-7	2-Methylphenol	4.7	U
621-64-7	N-Nitroso-di-n-propylamine	4.7	U
67-72-1	Hexachloroethane	4.7	U
98-95-3	Nitrobenzene	4.7	U
78-59-1	Isophorone	4.7	U
88-75-5	2-Nitrophenol	4.7	U
105-67-9	2,4-Dimethylphenol	4.7	U
65-85-0	Benzoic acid	9.4	U
111-91-1	Bis(2-chloroethoxy)methane	4.7	U
120-83-2	2,4-Dichlorophenol	4.7	U
120-82-1	1,2,4-Trichlorobenzene	4.7	U
91-20-3	Naphthalene	4.7	U
106-47-8	4-Chloroaniline	4.7	U
87-68-3	Hexachlorobutadiene	4.7	U
59-50-7	4-Chloro-3-methylphenol	4.7	U
91-57-6	2-Methylnaphthalene	4.7	U
77-47-4	Hexachlorocyclopentadiene	4.7	U

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW415W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019645  
 Lab Sample ID: CAB34-003  
 Lab File ID: L0717009.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-06-2	2,4,6-Trichlorophenol	4.7	U
95-95-4	2,4,5-Trichlorophenol	4.7	U
91-58-7	2-Chloronaphthalene	4.7	U
88-74-4	2-Nitroaniline	4.7	U
131-11-3	Dimethylphthalate	4.7	U
606-20-2	2,6-Dinitrotoluene	4.7	U
208-96-8	Acenaphthylene	4.7	U
99-09-2	3-Nitroaniline	4.7	U
83-32-9	Acenaphthene	4.7	U
51-28-5	2,4-Dinitrophenol	9.4	U
100-02-7	4-Nitrophenol	4.7	U
132-64-9	Dibenzofuran	4.7	U
121-14-2	2,4-Dinitrotoluene	4.7	U
84-66-2	Diethylphthalate	4.7	U
86-73-7	Fluorene	4.7	U
7005-72-3	4-Chlorophenyl-phenylether	4.7	U
100-01-6	4-Nitroaniline	4.7	U
534-52-1	4,6-Dinitro-2-methylphenol	4.7	U
86-30-6	N-Nitrosodiphenylamine	4.7	U
122-66-7	Azobenzene	4.7	U
101-55-3	4-Bromophenyl-phenyl ether	4.7	U
118-74-1	Hexachlorobenzene	4.7	U
87-86-5	Pentachlorophenol	4.7	U
85-01-8	Phenanthrene	4.7	U
120-12-7	Anthracene	4.7	U
86-74-8	Carbazole	4.7	U
84-74-2	Di-n-butylphthalate	4.7	U
206-44-0	Fluoranthene	4.7	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW415W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019645  
 Lab Sample ID: CAB34-003  
 Lab File ID: L0717009.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
92-87-5	Benzidine	4.7	U
129-00-0	Pyrene	4.7	U
85-68-7	Butylbenzylphthalate	4.7	U
91-94-1	3,3'-Dichlorobenzidine	4.7	U
56-55-3	Benzo(a)anthracene	4.7	U
117-81-7	Bis(2-ethylhexyl)phthalate	4.7	U
218-01-9	Chrysene	4.7	U
117-84-0	Di-n-octylphthalate	4.7	U
205-99-2	Benzo(b)fluoranthene	4.7	U
207-08-9	Benzo(k)fluoranthene	4.7	U
50-32-8	Benzo(a)pyrene	4.7	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.7	U
53-70-3	Dibenzo(a,h)anthracene	4.7	U
191-24-2	Benzo(g,h,i)perylene	4.7	U

Comments:



1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019645  
 Lab Sample ID: CAB34-005  
 Lab File ID: L0717010.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	4.7	U
108-60-1	Bis(2-chloroisopropyl)ether	4.7	U
108-95-2	Phenol	4.7	U
111-44-4	Bis(2-Chloroethyl)ether	4.7	U
95-57-8	2-Chlorophenol	4.7	U
541-73-1	1,3-Dichlorobenzene	4.7	U
106-46-7	1,4-Dichlorobenzene	4.7	U
100-51-6	Benzyl alcohol	4.7	U
95-50-1	1,2-Dichlorobenzene	4.7	U
95-48-7	2-Methylphenol	4.7	U
621-64-7	N-Nitroso-di-n-propylamine	4.7	U
67-72-1	Hexachloroethane	4.7	U
98-95-3	Nitrobenzene	4.7	U
78-59-1	Isophorone	4.7	U
88-75-5	2-Nitrophenol	4.7	U
105-67-9	2,4-Dimethylphenol	4.7	U
65-85-0	Benzoic acid	9.4	U
111-91-1	Bis(2-chloroethoxy)methane	4.7	U
120-83-2	2,4-Dichlorophenol	4.7	U
120-82-1	1,2,4-Trichlorobenzene	4.7	U
91-20-3	Naphthalene	4.7	U
106-47-8	4-Chloroaniline	4.7	U
87-68-3	Hexachlorobutadiene	4.7	U
59-50-7	4-Chloro-3-methylphenol	4.7	U
91-57-6	2-Methylnaphthalene	4.7	U
77-47-4	Hexachlorocyclopentadiene	4.7	U

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03DW

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB34

Run Sequence: R019645

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB34-005

Sample wt/vol: 1060.0 (g/mL) mL

Lab File ID: L0717010.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/22/2007

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Extracted: 06/26/2007

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 07/17/2007

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
88-06-2	2,4,6-Trichlorophenol	4.7	U
95-95-4	2,4,5-Trichlorophenol	4.7	U
91-58-7	2-Chloronaphthalene	4.7	U
88-74-4	2-Nitroaniline	4.7	U
131-11-3	Dimethylphthalate	4.7	U
606-20-2	2,6-Dinitrotoluene	4.7	U
208-96-8	Acenaphthylene	4.7	U
99-09-2	3-Nitroaniline	4.7	U
83-32-9	Acenaphthene	4.7	U
51-28-5	2,4-Dinitrophenol	9.4	U
100-02-7	4-Nitrophenol	4.7	U
132-64-9	Dibenzofuran	4.7	U
121-14-2	2,4-Dinitrotoluene	4.7	U
84-66-2	Diethylphthalate	4.7	U
86-73-7	Fluorene	4.7	U
7005-72-3	4-Chlorophenyl-phenylether	4.7	U
100-01-6	4-Nitroaniline	4.7	U
534-52-1	4,6-Dinitro-2-methylphenol	4.7	U
86-30-6	N-Nitrosodiphenylamine	4.7	U
122-66-7	Azobenzene	4.7	U
101-55-3	4-Bromophenyl-phenyl ether	4.7	U
118-74-1	Hexachlorobenzene	4.7	U
87-86-5	Pentachlorophenol	4.7	U
85-01-8	Phenanthrene	4.7	U
120-12-7	Anthracene	4.7	U
86-74-8	Carbazole	4.7	U
84-74-2	Di-n-butylphthalate	4.7	U
206-44-0	Fluoranthene	4.7	U

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019645  
 Lab Sample ID: CAB34-005  
 Lab File ID: L0717010.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
92-87-5	Benzidine	4.7	U
129-00-0	Pyrene	4.7	U
85-68-7	Butylbenzylphthalate	4.7	U
91-94-1	3,3'-Dichlorobenzidine	4.7	U
56-55-3	Benzo(a)anthracene	4.7	U
117-81-7	Bis(2-ethylhexyl)phthalate	4.7	U
218-01-9	Chrysene	4.7	U
117-84-0	Di-n-octylphthalate	4.7	U
205-99-2	Benzo(b)fluoranthene	4.7	U
207-08-9	Benzo(k)fluoranthene	4.7	U
50-32-8	Benzo(a)pyrene	4.7	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.7	U
53-70-3	Dibenzo(a,h)anthracene	4.7	U
191-24-2	Benzo(g,h,i)perylene	4.7	U

Comments:

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04DW

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB34

Run Sequence: R019645

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB34-007

Sample wt/vol: 1060.0 (g/mL) mL

Lab File ID: L0717011.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/22/2007

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Extracted: 06/26/2007

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 07/17/2007

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	4.7	U
108-60-1	Bis(2-chloroisopropyl) ether	4.7	U
108-95-2	Phenol	4.7	U
111-44-4	Bis(2-Chloroethyl) ether	4.7	U
95-57-8	2-Chlorophenol	4.7	U
541-73-1	1,3-Dichlorobenzene	4.7	U
106-46-7	1,4-Dichlorobenzene	4.7	U
100-51-6	Benzyl alcohol	4.7	U
95-50-1	1,2-Dichlorobenzene	4.7	U
95-48-7	2-Methylphenol	4.7	U
621-64-7	N-Nitroso-di-n-propylamine	4.7	U
67-72-1	Hexachloroethane	4.7	U
98-95-3	Nitrobenzene	4.7	U
78-59-1	Isophorone	4.7	U
88-75-5	2-Nitrophenol	4.7	U
105-67-9	2,4-Dimethylphenol	4.7	U
65-85-0	Benzoic acid	9.4	U
111-91-1	Bis(2-chloroethoxy)methane	4.7	U
120-83-2	2,4-Dichlorophenol	4.7	U
120-82-1	1,2,4-Trichlorobenzene	4.7	U
91-20-3	Naphthalene	4.7	U
106-47-8	4-Chloroaniline	4.7	U
87-68-3	Hexachlorobutadiene	4.7	U
59-50-7	4-Chloro-3-methylphenol	4.7	U
91-57-6	2-Methylnaphthalene	4.7	U
77-47-4	Hexachlorocyclopentadiene	4.7	U

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019645  
 Lab Sample ID: CAB34-007  
 Lab File ID: L0717011.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-06-2	2,4,6-Trichlorophenol	4.7	U
95-95-4	2,4,5-Trichlorophenol	4.7	U
91-58-7	2-Chloronaphthalene	4.7	U
88-74-4	2-Nitroaniline	4.7	U
131-11-3	Dimethylphthalate	4.7	U
606-20-2	2,6-Dinitrotoluene	4.7	U
208-96-8	Acenaphthylene	4.7	U
99-09-2	3-Nitroaniline	4.7	U
83-32-9	Acenaphthene	4.7	U
51-28-5	2,4-Dinitrophenol	9.4	U
100-02-7	4-Nitrophenol	4.7	U
132-64-9	Dibenzofuran	4.7	U
121-14-2	2,4-Dinitrotoluene	4.7	U
84-66-2	Diethylphthalate	4.7	U
86-73-7	Fluorene	4.7	U
7005-72-3	4-Chlorophenyl-phenylether	4.7	U
100-01-6	4-Nitroaniline	4.7	U
534-52-1	4,6-Dinitro-2-methylphenol	4.7	U
86-30-6	N-Nitrosodiphenylamine	4.7	U
122-66-7	Azobenzene	4.7	U
101-55-3	4-Bromophenyl-phenyl ether	4.7	U
118-74-1	Hexachlorobenzene	4.7	U
87-86-5	Pentachlorophenol	4.7	U
85-01-8	Phenanthrene	4.7	U
120-12-7	Anthracene	4.7	U
86-74-8	Carbazole	4.7	U
84-74-2	Di-n-butylphthalate	4.7	U
206-44-0	Fluoranthene	4.7	U

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019645  
 Lab Sample ID: CAB34-007  
 Lab File ID: L0717011.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	ug/L
92-87-5	Benzidine	4.7	U
129-00-0	Pyrene	4.7	U
85-68-7	Butylbenzylphthalate	4.7	U
91-94-1	3,3'-Dichlorobenzidine	4.7	U
56-55-3	Benzo(a)anthracene	4.7	U
117-81-7	Bis(2-ethylhexyl)phthalate	4.7	U
218-01-9	Chrysene	4.7	U
117-84-0	Di-n-octylphthalate	4.7	U
205-99-2	Benzo(b)fluoranthene	4.7	U
207-08-9	Benzo(k)fluoranthene	4.7	U
50-32-8	Benzo(a)pyrene	4.7	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.7	U
53-70-3	Dibenzo(a,h)anthracene	4.7	U
191-24-2	Benzo(g,h,i)perylene	4.7	U

Comments:

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04SW

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB34

Run Sequence: R019645

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB34-009

Sample wt/vol: 1060.0 (g/mL) mL

Lab File ID: L0717012.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/22/2007

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Extracted: 06/26/2007

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 07/17/2007

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	4.7	U
108-60-1	Bis(2-chloroisopropyl) ether	4.7	U
108-95-2	Phenol	4.7	U
111-44-4	Bis(2-Chloroethyl) ether	4.7	U
95-57-8	2-Chlorophenol	4.7	U
541-73-1	1,3-Dichlorobenzene	4.7	U
106-46-7	1,4-Dichlorobenzene	4.7	U
100-51-6	Benzyl alcohol	4.7	U
95-50-1	1,2-Dichlorobenzene	4.7	U
95-48-7	2-Methylphenol	4.7	U
621-64-7	N-Nitroso-di-n-propylamine	4.7	U
67-72-1	Hexachloroethane	4.7	U
98-95-3	Nitrobenzene	4.7	U
78-59-1	Isophorone	4.7	U
88-75-5	2-Nitrophenol	4.7	U
105-67-9	2,4-Dimethylphenol	4.7	U
65-85-0	Benzoic acid	9.4	U
111-91-1	Bis(2-chloroethoxy) methane	4.7	U
120-83-2	2,4-Dichlorophenol	4.7	U
120-82-1	1,2,4-Trichlorobenzene	4.7	U
91-20-3	Naphthalene	4.7	U
106-47-8	4-Chloroaniline	4.7	U
87-68-3	Hexachlorobutadiene	4.7	U
59-50-7	4-Chloro-3-methylphenol	4.7	U
91-57-6	2-Methylnaphthalene	4.7	U
77-47-4	Hexachlorocyclopentadiene	4.7	U

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019645  
 Lab Sample ID: CAB34-009  
 Lab File ID: L0717012.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	4.7	U
108-60-1	Bis(2-chloroisopropyl) ether	4.7	U
108-95-2	Phenol	4.7	U
111-44-4	Bis(2-Chloroethyl) ether	4.7	U
95-57-8	2-Chlorophenol	4.7	U
541-73-1	1,3-Dichlorobenzene	4.7	U
106-46-7	1,4-Dichlorobenzene	4.7	U
100-51-6	Benzyl alcohol	4.7	U
95-50-1	1,2-Dichlorobenzene	4.7	U
95-48-7	2-Methylphenol	4.7	U
621-64-7	N-Nitroso-di-n-propylamine	4.7	U
67-72-1	Hexachloroethane	4.7	U
98-95-3	Nitrobenzene	4.7	U
78-59-1	Isophorone	4.7	U
88-75-5	2-Nitrophenol	4.7	U
105-67-9	2,4-Dimethylphenol	4.7	U
65-85-0	Benzoic acid	9.4	U
111-91-1	Bis(2-chloroethoxy)methane	4.7	U
120-83-2	2,4-Dichlorophenol	4.7	U
120-82-1	1,2,4-Trichlorobenzene	4.7	U
91-20-3	Naphthalene	4.7	U
106-47-8	4-Chloroaniline	4.7	U
87-68-3	Hexachlorobutadiene	4.7	U
59-50-7	4-Chloro-3-methylphenol	4.7	U
91-57-6	2-Methylnaphthalene	4.7	U
77-47-4	Hexachlorocyclopentadiene	4.7	U



1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04SW

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB34

Run Sequence: R019645

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB34-009

Sample wt/vol: 1060.0 (g/mL) mL

Lab File ID: L0717012.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: 06/22/2007

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Extracted: 06/26/2007

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 07/17/2007

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-06-2	2,4,6-Trichlorophenol	4.7	U
95-95-4	2,4,5-Trichlorophenol	4.7	U
91-58-7	2-Chloronaphthalene	4.7	U
88-74-4	2-Nitroaniline	4.7	U
131-11-3	Dimethylphthalate	4.7	U
606-20-2	2,6-Dinitrotoluene	4.7	U
208-96-8	Acenaphthylene	4.7	U
99-09-2	3-Nitroaniline	4.7	U
83-32-9	Acenaphthene	4.7	U
51-28-5	2,4-Dinitrophenol	9.4	U
100-02-7	4-Nitrophenol	4.7	U
132-64-9	Dibenzofuran	4.7	U
121-14-2	2,4-Dinitrotoluene	4.7	U
84-66-2	Diethylphthalate	4.7	U
86-73-7	Fluorene	4.7	U
7005-72-3	4-Chlorophenyl-phenylether	4.7	U
100-01-6	4-Nitroaniline	4.7	U
534-52-1	4,6-Dinitro-2-methylphenol	4.7	U
86-30-6	N-Nitrosodiphenylamine	4.7	U
122-66-7	Azobenzene	4.7	U
101-55-3	4-Bromophenyl-phenyl ether	4.7	U
118-74-1	Hexachlorobenzene	4.7	U
87-86-5	Pentachlorophenol	4.7	U
85-01-8	Phenanthrene	4.7	U
120-12-7	Anthracene	4.7	U
86-74-8	Carbazole	4.7	U
84-74-2	Di-n-butylphthalate	4.7	U
206-44-0	Fluoranthene	4.7	U

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL)      mL  
 Level: (LOW/MED)       
 % Moisture:      Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH:     

Contract:       
 Run Sequence: R019645  
 Lab Sample ID: CAB34-009  
 Lab File ID: L0717012.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
92-87-5	Benzidine	4.7	U
129-00-0	Pyrene	4.7	U
85-68-7	Butylbenzylphthalate	4.7	U
91-94-1	3,3'-Dichlorobenzidine	4.7	U
56-55-3	Benzo(a)anthracene	4.7	U
117-81-7	Bis(2-ethylhexyl)phthalate	4.7	U
218-01-9	Chrysene	4.7	U
117-84-0	Di-n-octylphthalate	4.7	U
205-99-2	Benzo(b)fluoranthene	4.7	U
207-08-9	Benzo(k)fluoranthene	4.7	U
50-32-8	Benzo(a)pyrene	4.7	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.7	U
53-70-3	Dibenzo(a,h)anthracene	4.7	U
191-24-2	Benzo(g,h,i)perylene	4.7	U

Comments:

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SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019645 SDG No.: CAB34  
 Instrument ID: 5970L Calibration Dates: 07/12/2007 21:13  
 Heated Purge: (Y/N) N Calibration Times: 07/12/2007 21:13

GC Column: RTX-5Sil MS ID: \_\_\_\_\_ Mean % RSD: 11.87

Analyte	Std	RF 1	Std	RF 2	Std	RF 3	Std	RF 4	Std	RF 5	Std	RF 6	Std	RF 7	Std	RF 8	RF	%RSD	r <sup>2</sup> COD	Eq Ty
3 & 4-Methylphenol	1	1.188E+00	10	1.598E+00	25	1.416E+00	40	1.317E+00	60	1.165E+00	80	1.105E+00	80	2.477E+0	80		1.298	14.24		A
Bis(2-chloroisopropyl)ether	1	2.503E+00	5	3.170E+00	10	2.984E+00	25	2.842E+00	40	2.678E+00	60	2.494E+00	60	1.872E+0	80		2.736	9.95		A
Phenol	1	1.619E+00	5	2.415E+00	10	2.263E+00	25	2.062E+00	40	1.966E+00	60	1.790E+00	60	1.542E+0	80		1.998	13.76		A
Bis(2-Chloroethoxy)ether	1	1.376E+00	5	2.066E+00	10	1.957E+00	25	1.797E+00	40	1.675E+00	60	1.572E+00	60	1.375E+0	80		1.712	14.22		A
2-Chlorophenol	1	1.189E+00	5	1.719E+00	10	1.612E+00	25	1.536E+00	40	1.480E+00	60	1.396E+00	60	1.631E+0	80		1.473	11.77		A
1,3-Dichlorobenzene	1	1.369E+00	5	2.072E+00	10	1.890E+00	25	1.790E+00	40	1.733E+00	60	1.625E+00	60	1.631E+0	80		1.730	12.87		A
1,4-Dichlorobenzene	1	1.388E+00	5	2.161E+00	10	1.952E+00	25	1.794E+00	40	1.763E+00	60	1.674E+00	60	1.653E+0	80		1.769	13.78		A
Benzyl alcohol	1	7.940E-01	5	1.198E+00	10	1.116E+00	25	1.054E+00	40	1.022E+00	60	9.089E-01	80	9.020E-01	80		0.999	13.92		A
1,2-Dichlorobenzene	1	1.296E+00	5	2.009E+00	10	1.865E+00	25	1.683E+00	40	1.613E+00	60	1.500E+00	60	1.465E+0	80		1.633	14.96		A
2-Methylphenol	1	1.017E+00	5	1.593E+00	10	1.528E+00	25	1.445E+00	40	1.340E+00	60	1.263E+00	60	1.251E+0	80		1.348	14.46		A
N-Nitroso-di-n-propylamine	1	9.660E-01	10	1.392E+00	25	1.250E+00	40	1.103E+00	60	1.001E+00	80	1.005E+00	80	7.120E-01	80		1.120	15.07		A
Hexachloroethane	1	6.079E-01	5	8.859E-01	10	8.309E-01	25	7.699E-01	40	7.500E-01	60	7.070E-01	60	5.099E-01	80		0.752	11.99		A
Nitrobenzene	1	3.939E-01	5	5.899E-01	10	5.609E-01	25	5.320E-01	40	5.019E-01	60	5.000E-01	60	8.380E-01	80		0.513	12.07		A
Isophorone	1	7.649E-01	5	1.057E+00	10	1.054E+00	25	9.509E-01	40	8.730E-01	60	8.510E-01	60	8.380E-01	80		0.913	12.24		A
2-Nitrophenol	1	1.270E-01	5	1.360E-01	10	1.350E-01	25	1.450E-01	40	1.739E-01	60	1.690E-01	60	1.790E-01	80		0.152	14.02		A
2,4-Dimethylphenol	1	3.429E-01	5	5.669E-01	10	5.260E-01	25	4.990E-01	40	4.670E-01	60	4.580E-01	60	4.540E-01	80		0.473	14.88		A
Benzoic acid	5	1.110E-01	10	1.600E-01	25	1.790E-01	40	2.200E-01	60	2.290E-01	80	2.509E-01	80				0.192		0.999	Q
Bis(2-chloroethoxy)methane	1	5.220E-01	5	7.390E-01	10	7.210E-01	25	6.530E-01	40	6.010E-01	60	5.770E-01	60	5.730E-01	80		0.627	12.90		A
2,4-Dichlorophenol	1	2.960E-01	5	4.460E-01	10	4.449E-01	25	4.100E-01	40	3.910E-01	60	3.800E-01	60	3.770E-01	80		0.392	13.02		A
1,2,4-Trichlorobenzene	1	3.790E-01	5	5.479E-01	10	5.040E-01	25	4.670E-01	40	4.490E-01	60	4.350E-01	60	4.379E-01	80		0.460	11.75		A
Naphthalene	1	1.133E+00	5	1.557E+00	10	1.445E+00	25	1.318E+00	40	1.239E+00	60	1.198E+00	60	1.179E+0	80		1.296	11.96		A
4-Chloroaniline	1	4.610E-01	5	6.589E-01	10	6.390E-01	25	5.839E-01	40	5.559E-01	60	5.500E-01	60	5.320E-01	80		0.569	11.72		A
Hexachlorobutadiene	1	2.370E-01	5	3.129E-01	10	2.890E-01	25	2.730E-01	40	2.599E-01	60	2.509E-01	60	2.550E-01	80		0.268	9.56		A
4-Chloro-3-methylphenol	1	3.150E-01	5	4.729E-01	10	4.790E-01	25	4.449E-01	40	4.160E-01	60	4.000E-01	60	3.899E-01	80		0.417	13.57		A

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average  
 \* SPCCs #

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019645SDG No.: CAB34Instrument ID: 5970LCalibration Dates: 07/12/2007 21:13Heated Purge: (Y/N) NCalibration Times: 07/12/2007 21:13GC Column: RTX-5Sil MS ID: \_\_\_\_\_Mean % RSD: 11.87

0.25 (mm)

Analyte	Std	RF 1	Std	RF 2	Std	RF 3	Std	RF 4	Std	RF 5	Std	RF 6	Std	RF 7	Std	RF 8	RF	%RSD	r <sup>2</sup> COD	Eq Ty
2-Methylnaphthalene	1	6.840E-01	5	9.269E-01	10	8.809E-01	25	8.040E-01	40	7.400E-01	60	7.160E-01	80	7.049E-01			0.780	12.06		A
Hexachlorocyclopentadiene	5	3.970E-01	10	3.709E-01	25	3.989E-01	40	4.659E-01	60	4.589E-01	80	4.749E-01					0.428	10.27		A
2,4,6-Trichlorophenol	5	4.449E-01	10	4.540E-01	25	5.440E-01	40	5.260E-01	60	4.910E-01	80	4.970E-01					0.493	7.85		A
2,4,5-Trichlorophenol	1	3.899E-01	5	6.470E-01	10	6.179E-01	25	5.980E-01	40	5.370E-01	60	5.360E-01	80	5.510E-01			0.541	15.34		A
2-Chloronaphthalene	1	1.313E+00	5	1.876E+00	10	1.684E+00	25	1.489E+00	40	1.480E+00	60	1.408E+00	80	1.415E+00			1.524	12.64		A
2-Nitroaniline	5	4.700E-01	10	4.889E-01	25	5.070E-01	40	4.980E-01	60	4.790E-01	80	4.910E-01					0.489	2.70		A
Dimethylphthalate	1	1.420E+00	5	2.056E+00	10	2.082E+00	25	1.851E+00	40	1.707E+00	60	1.582E+00	80	1.579E+00			1.754	14.39		A
2,6-Dinitrotoluene	5	3.989E-01	10	4.460E-01	25	4.379E-01	40	4.210E-01	60	4.020E-01	80	4.040E-01					0.418	4.72		A
Acenaphthylene	1	1.997E+00	5	2.934E+00	10	2.655E+00	25	2.417E+00	40	2.365E+00	60	2.174E+00	80	2.229E+00			2.396	13.14		A
3-Nitroaniline	5	4.030E-01	10	4.370E-01	25	4.260E-01	40	4.040E-01	60	3.910E-01	80	3.970E-01					0.410	4.38		A
Acenaphthene	1	1.205E+00	5	1.819E+00	10	1.673E+00	25	1.483E+00	40	1.451E+00	60	1.326E+00	80	1.351E+00			1.473	14.38		A
2,4-Dinitrophenol	1		5	4.100E-02	10	5.500E-02	25	7.000E-02	40	8.200E-02	60	7.900E-02	80	8.200E-02			0.068		0.999	L
4-Nitrophenol	5	1.360E-01	10	1.580E-01	25	1.729E-01	40	1.850E-01	60	1.729E-01	80	1.760E-01					0.167	10.34		A
Dibenzofuran	1	1.704E+00	5	2.539E+00	10	2.335E+00	25	2.122E+00	40	2.030E+00	60	1.868E+00	80	1.868E+00			2.067	14.11		A
2,4-Dinitrotoluene	5	3.939E-01	10	4.799E-01	25	5.099E-01	40	4.889E-01	60	4.630E-01	80	4.600E-01					0.466	8.54		A
Diethylphthalate	5	2.040E+00	10	2.066E+00	25	1.844E+00	40	1.694E+00	60	1.534E+00	80	1.493E+00					1.779	13.87		A
Fluorene	1	1.415E+00	5	1.983E+00	10	1.881E+00	25	1.620E+00	40	1.554E+00	60	1.415E+00	80	1.405E+00			1.611	14.64		A
4-Chlorophenyl-phenylether	1	6.790E-01	5	9.969E-01	10	9.369E-01	25	7.969E-01	40	7.780E-01	60	7.080E-01	80	7.009E-01			0.800	15.40		A
4-Nitroaniline	5	3.820E-01	10	4.260E-01	25	4.140E-01	40	3.860E-01	60	3.590E-01	80	3.680E-01					0.389	6.72		A
4,6-Dinitro-2-methylphenol	10	5.799E-02	25	7.100E-02	40	8.200E-02	60	8.100E-02	80	8.600E-02							0.076	14.86		A
N-Nitrosodiphenylamine	1	7.229E-01	5	1.082E+00	10	9.679E-01	25	9.229E-01	40	8.880E-01	60	8.840E-01	80	9.110E-01			0.911	11.78		A
Azobenzene	1	1.215E+00	5	1.792E+00	10	1.635E+00	25	1.534E+00	40	1.460E+00	60	1.426E+00	80	1.468E+00			1.504	11.95		A
4-Bromophenyl-phenyl ether	1	2.540E-01	5	3.800E-01	10	3.520E-01	25	3.290E-01	40	3.160E-01	60	3.010E-01	80	3.140E-01			0.321	12.35		A
Hexachlorobenzene	1	2.910E-01	5	4.480E-01	10	4.190E-01	25	3.869E-01	40	3.590E-01	60	3.319E-01	80	3.680E-01			0.372	14.10		A

Eq Ty = Equation Type

Q=Quadratic, L=Linear, A=Average

\* SPCs #

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019645 SDG No.: CAB34  
 Instrument ID: 5970L Calibration Dates: 07/12/2007 21:13  
 Heated Purge: (Y/N) N Calibration Times: 07/12/2007 21:13  
 GC Column: RTX-5Sil MS ID: 0.25 (mm) Mean % RSD: 11.87

Analyte	Std	RF 1	Std	RF 2	Std	RF 3	Std	RF 4	Std	RF 5	Std	RF 6	Std	RF 7	Std	RF 8	RF	%RSD	I <sup>2</sup> COD	Eq Ty
Pentachlorophenol	5	9.399E+02	10	1.060E-01	25	1.380E-01	40	1.540E-01	60	1.570E-01	80	1.650E-01	80	1.462E+0			0.136		1.000	Q
Phenanthrene	1	1.268E+00	5	1.837E+00	10	1.670E+00	25	1.335E+00	40	1.495E+00	60	1.429E+00	60	1.416E+0	80		1.528	11.89		A
Anthracene	1	1.233E+00	5	1.835E+00	10	1.695E+00	25	1.561E+00	40	1.450E+00	60	1.399E+00	60	1.416E+0	80		1.513	13.34		A
Carbazole	1	1.011E+00	5	1.533E+00	10	1.452E+00	25	1.386E+00	40	1.292E+00	60	1.212E+00	60	1.226E+0	80		1.302	13.37		A
Di-n-butylphthalate	1	1.568E+00	5	1.966E+00	10	1.991E+00	25	1.842E+00	40	1.635E+00	60	1.544E+00	60	1.535E+0	80		1.726	11.69		A
Fluoranthene	1	1.071E+00	5	1.582E+00	10	1.477E+00	25	1.380E+00	40	1.242E+00	60	1.175E+00	60	1.181E+0	80		1.301	14.13		A
Benzidine	5	6.489E-01	10	8.439E-01	25	9.639E-01	40	9.490E-01	60	8.790E-01	80	7.960E-01	80				0.847	13.67		A
Pyrene	1	2.053E+00	5	2.884E+00	10	2.734E+00	25	2.586E+00	40	2.527E+00	60	2.342E+00	60	2.210E+0	80		2.477	11.83		A
Butylbenzylphthalate	1	6.079E-01	5	8.420E-01	10	9.139E-01	25	9.210E-01	40	9.030E-01	60	8.809E-01	60	9.319E-01	80		0.857	13.29		A
3,3'-Dichlorobenzidine	5	4.480E-01	10	4.359E-01	25	4.490E-01	40	4.620E-01	60	4.639E-01	80	4.880E-01	80				0.458	3.91		A
Benzo(a)anthracene	1	1.332E+00	5	1.717E+00	10	1.720E+00	25	1.605E+00	40	1.522E+00	60	1.493E+00	60	1.535E+0	80		1.561	8.70		A
Bis(2-ethylhexyl)phthalate	5	9.010E-01	10	9.309E-01	25	9.580E-01	40	1.031E+00	60	1.089E+00	80	1.194E+00	80				1.018	10.87		A
Chrysene	1	1.069E+00	5	1.633E+00	10	1.482E+00	25	1.419E+00	40	1.388E+00	60	1.369E+00	60	1.406E+0	80		1.396	12.14		A
Di-n-octylphthalate	5	2.217E+00	10	2.285E+00	25	2.582E+00	40	2.714E+00	60	2.691E+00	80	2.895E+00	80				2.565	10.29		A
Benzo(b)fluoranthene	5	2.214E+00	10	2.186E+00	25	2.003E+00	40	2.019E+00	60	1.801E+00	80	1.815E+00	80				2.007	8.77		A
Benzo(k)fluoranthene	5	2.122E+00	10	1.975E+00	25	1.918E+00	40	1.609E+00	60	1.572E+00	80	1.668E+00	80				1.811	12.45		A
Benzo(a)pyrene	5	1.809E+00	10	1.735E+00	25	1.673E+00	40	1.642E+00	60	1.538E+00	80	1.598E+00	80				1.669	5.49		A
Indeno(1,2,3-cd)pyrene	5	1.089E+00	10	1.091E+00	25	1.380E+00	40	1.418E+00	60	1.434E+00	80	1.574E+00	80				1.331	14.86		A
Dibenzo(a,h)anthracene	5	9.060E-01	10	9.490E-01	25	1.172E+00	40	1.187E+00	60	1.198E+00	80	1.329E+00	80				1.123	14.45		A
Benzo(g,h,i)perylene	5	9.530E-01	10	9.459E-01	25	1.067E+00	40	1.117E+00	60	1.163E+00	80	1.253E+00	80				1.083	11.10		A
2-Fluorophenol	1	1.010E+00	5	1.468E+00	10	1.389E+00	25	1.315E+00	40	1.350E+00	60	1.271E+00	60	1.281E+0	80		1.298	11.08		A
Phenol-d5	1	1.404E+00	5	2.206E+00	10	2.046E+00	25	1.893E+00	40	1.822E+00	60	1.684E+00	60	1.715E+0	80		1.824	14.28		A
Nitrobenzene-d5	1	3.829E-01	5	5.709E-01	10	5.479E-01	25	4.819E-01	40	4.620E-01	60	4.630E-01	60	4.709E-01	80		0.483	12.80		A
2-Fluorobiphenyl	1	1.449E+00	5	1.985E+00	10	1.814E+00	25	1.641E+00	40	1.623E+00	60	1.534E+00	60	1.570E+0	80		1.659	11.00		A

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average

\* SPCCS #

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Laucks Testing Labs Contract: \_\_\_\_\_  
 Run Sequence: R019645 SDG No.: CAB34  
 Instrument ID: 5970L Calibration Dates: 07/12/2007 21:13  
 Heated Purge: (Y/N) N Calibration Times: 07/12/2007 21:13  
 GC Column: RTX-5Sil MS ID: \_\_\_\_\_ Mean % RSD: 11.87

Analyte	Std	RF 1	Std	RF 2	Std	RF 3	Std	RF 4	Std	RF 5	Std	RF 6	Std	RF 7	Std	RF 8	RF	%RSD	R <sup>2</sup>	Eq Ty	
2,4,6-Tribromophenol	1		2		3		4		5		6		7		8						
	5	1.100E-01	10	1.140E-01	25	1.410E-01	40	1.380E-01	60	1.500E-01	80	1.580E-01						0.135	14.22	A	
Terphenyl-d14	1	1.217E+00	5	1.666E+00	10	1.667E+00	25	1.594E+00	40	1.503E+00	60	1.398E+00	80	1.336E+0				1.483	11.67	A	

Eq Ty = Equation Type  
 Q=Quadratic, L=Linear, A=Average  
 \* SPCCs #

Calibration Standard Verification for Initial Calibration L8270M (07/12/07)

*** PROJECTED ***		*** ANALYSES ***			
Analyte(s)	Target Conc. ng/uL	Reference Solution	Amount Quanted ng/uL	Percent of Target	%D (<25%)
1,4-Dioxane	5	MS9-73-19	4.45	89	11
N-nitrosodimethylamine	32	MS9-73-19	27.64	86	14
Pyridine	32	MS9-73-19	26.4	83	18
2-Fluorophenol	64	MS9-73-19	59.08	92	8
Benzaldehyde	5	MS9-73-19	3.56	71	29
Phenol-d5	64	MS9-73-19	58.92	92	8
Phenol	32	MS9-73-19	29.88	93	7
Aniline	32	MS9-73-19	29.17	91	9
Bis(2-Chloroethyl)ether	32	MS9-73-19	27.9	87	13
2-Chlorophenol-d4	0	MS9-73-19	0	NA	NA
2-Chlorophenol	32	MS9-73-19	31.56	99	1
1,3-Dichlorobenzene	32	MS9-73-19	31.61	99	1
1,4-Dichlorobenzene	32	MS9-73-19	29.9	93	7
1,2-Dichlorobenzene-d4	0	MS9-73-19	0	NA	NA
Benzyl alcohol	32	MS9-73-19	27.26	85	15
1,2-Dichlorobenzene	32	MS9-73-19	31.68	99	1
2-Methylphenol	32	MS9-73-19	29.94	94	6
Bis(2-chloroisopropyl)ether	32	MS9-73-19	27.82	87	13
3 & 4-Methylphenol <sup>1</sup>	64	MS9-73-19	57.96	91	9
Acetophenone	32	MS9-73-19	33.13	104	4
n-Nitroso-di-n-propylamine	32	MS9-73-19	26.69	83	17
Hexachloroethone	32	MS9-73-19	28.57	89	11
Nitrobenzene-d5	32	MS9-73-19	28.23	88	12
Nitrobenzene	32	MS9-73-19	29.89	93	7
Isophorone	32	MS9-73-19	30.49	95	5
2-Nitrophenol	32	MS9-73-19	25.72	80	20
2,4-Dimethylphenol	32	MS9-73-19	30.09	94	6
bis(2-Chloroethoxy)methone	32	MS9-73-19	26.77	84	16
Benzoic acid	37	MS9-73-19	28.64	77	23
2,4-Dichlorophenol	32	MS9-73-19	30.11	94	6
1,2,4-Trichlorobenzene	32	MS9-73-19	30.46	95	5
Naphtholene	32	MS9-73-19	28.71	90	10
4-Chloroaniline	32	MS9-73-19	25.44	80	21
Hexachlorobutadiene	32	MS9-73-19	29.68	93	7
Caprolactam	5	MS9-73-19	4.18	84	16
4-Chloro-3-methylphenol	32	MS9-73-19	27.85	87	13
2-Methylnaphthalene	32	MS9-73-19	29.44	92	8
1-Methylnaphthalene	0	MS9-73-19	0	NA	NA
Hexachlorocyclopentadiene	32	MS9-73-19	29.98	94	6
1,2,4,5-Tetrachlorobenzene	37	MS9-73-19	38.31	104	4
2,4,6-Trichlorophenol	32	MS9-73-19	29.05	91	9
2,4,5-Trichlorophenol	32	MS9-73-19	31.41	98	2
2-Fluorobiphenyl	32	MS9-73-19	30.75	96	4
1,1'-Biphenyl	5	MS9-73-19	4.44	89	11
2-Chloronaphthalene	32	MS9-73-19	34.26	107	7
2-Nitroaniline	32	MS9-73-19	31.41	98	2
Dimethylphthalate	32	MS9-73-19	28.21	88	12
1,4-Dinitrobenzene	0	MS9-73-19	0	NA	NA
1,3-Dinitrobenzene	32	MS9-73-19	24.6	77	23
2,6-Dinitrotoluene	32	MS9-73-19	28.68	90	10
Acenaphthylene	32	MS9-73-19	30.37	95	5

not a target analyte  
7/18/07 AP

*** PROJECTED ***		*** ANALYSES ***			
Analyte(s)	Target Conc. ng/uL	Reference Solution	Amount Quanted ng/uL	Percent of Target	%D (<25%)
1,2-Dinitrobenzene	0	MS9-73-19	0	NA	NA
3-Nitroaniline	32	MS9-73-19	29.29	92	8
Acenaphthene	32	MS9-73-19	29.14	91	9
2,4-Dinitrophenol	32	MS9-73-19	23.82	74	26
4-Nitrophenol	32	MS9-73-19	24.1	75	25
Dibenzofuran	32	MS9-73-19	28.21	88	12
2,4-Dinitrotoluene	32	MS9-73-19	28.8	90	10
2,3,5,6-tetrachlorophenol	0	MS9-73-19	0	NA	NA
2,3,4,6-tetrachlorophenol	32	MS9-73-19	25.63	80	20
Diethylphthalate	32	MS9-73-19	26.94	84	16
Fluorene	32	MS9-73-19	27.48	86	14
4-Chlorophenyl-phenylether	32	MS9-73-19	27.64	86	14
4-Nitroaniline	32	MS9-73-19	29.79	93	7
4,6-Dinitro-2-methylphenol	32	MS9-73-19	23.17	72	28
N-nitrosodiphenylamine <sup>2</sup>	32	MS9-73-19	29.92	94	6
1,2-Diphenylhydrazine <sup>3</sup>	32	MS9-73-19	29.74	93	7
2,4,6-Tribromophenol	64	MS9-73-19	65.24	102	2
4-Bromophenyl-phenylether	32	MS9-73-19	30.28	95	5
Hexachlorobenzene	32	MS9-73-19	32.58	102	2
Atrazine	5	MS9-73-19	3.83	77	23
Pentachlorophenol	32	MS9-73-19	26.45	83	17
Phenanthrene	32	MS9-73-19	28.73	90	10
Anthracene	32	MS9-73-19	29.94	94	6
Carbazole	32	MS9-73-19	28.87	90	10
Di-n-butylphthalate	32	MS9-73-19	27.28	85	15
Fluoranthene	32	MS9-73-19	28.7	90	10
Benzidine	32	MS9-73-19	19.74	62	38
Pyrene	32	MS9-73-19	27.17	85	15
Terphenyl-d14	32	MS9-73-19	27	84	16
Butylbenzylphthalate	32	MS9-73-19	26.97	84	16
Bis(2-ethylhexyl)adipate	0	MS9-73-19	0	NA	NA
3,3'-Dichlorobenzidine	32	MS9-73-19	28.58	89	11
Benzo[a]anthracene	32	MS9-73-19	27.7	87	13
bis(2-Ethylhexyl)phthalate	32	MS9-73-19	29.8	93	7
Chrysene	32	MS9-73-19	28.82	90	10
Di-n-octylphthalate	32	MS9-73-19	26.64	83	17
Benzo[b]fluoranthene	32	MS9-73-19	27.28	85	15
Benzo[k]fluoranthene	32	MS9-73-19	28.38	89	11
Benzo[a]pyrene	32	MS9-73-19	28.95	90	10
Indeno[1,2,3-cd]pyrene	32	MS9-73-19	37.36	117	17
Dibenz[a,h]anthracene	32	MS9-73-19	38.43	120	20
Benzo[g,h,i]perylene	32	MS9-73-19	37.51	117	17

- see narr.

- see narr.

7/18/07  
AP

- see narr.

Analyst: AP  
Date analyzed: 07/12/07

<sup>1</sup> 3-methylphenol and 4-methylphenol do not have sufficient chromatographic resolution on the analytical column to allow them to be quantitated separately. Results for 3-methylphenol and 4-methylphenol are calculated using a single response factor.

<sup>2</sup> N-nitrosodiphenylamine (8270-listed analyte) decomposes to diphenylamine.

<sup>3</sup> 1,2-diphenylhydrazine (8270-listed analyte) decomposes to ozobenzene.



## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019645SDG No.: CAB34Instrument ID: 5970LCalibration Date: 07/17/2007 Time: 11:53Lab File ID: L0717004.DInit. Calib. Date(s): 07/12/2007Client Sample No.: CCV071707-2Init. Calib. Time(s): 12:31Heated Purge: (Y/N) NGC Column: RTX-5Sil MS ID: 0.25 (mm)

Compound	Equation Type	RF 717.0	%D	%Drift
3 & 4-Methylphenol	A	1.366	-5.24	
Bis(2-Chloroisopropyl)ether	A	2.701	1.29	
Phenol	A	2.023	-1.27	
Bis(2-Chloroethyl)ether	A	1.750	-2.22	
2-Chlorophenol	A	1.395	5.32	
1,3-Dichlorobenzene	A	1.722	0.46	
1,4-Dichlorobenzene	A	1.720	2.74	
Benzyl alcohol	A	0.967	3.16	
1,2-Dichlorobenzene	A	1.564	4.22	
2-Methylphenol	A	1.385	-2.75	
N-Nitroso-di-n-propylamine	A	1.174	-4.87	
Hexachloroethane	A	0.759	-0.87	
Nitrobenzene	A	0.580	-13.13	
Isophorone	A	0.942	-3.13	
2-Nitrophenol	A	0.144	5.34	
2,4-Dimethylphenol	A	0.479	-1.31	
Benzoic acid	Q	0.112		-36.04*
Bis(2-chloroethoxy)methane	A	0.649	-3.47	
2,4-Dichlorophenol	A	0.375	4.30	
1,2,4-Trichlorobenzene	A	0.445	3.31	
Naphthalene	A	1.281	1.16	
4-Chloroaniline	A	0.563	1.11	
Hexachlorobutadiene	A	0.253	5.61	
4-Chloro-3-methylphenol	A	0.407	2.37	
2-Methylnaphthalene	A	0.739	5.25	
Hexachlorocyclopentadiene	A	0.429	-0.29	
2,4,6-Trichlorophenol	A	0.441	10.48	
2,4,5-Trichlorophenol	A	0.499	7.73	
2-Chloronaphthalene	A	1.508	1.03	
2-Nitroaniline	A	0.489	-0.01	
Dimethylphthalate	A	1.613	8.02	
2,6-Dinitrotoluene	A	0.366	12.41	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019645SDG No.: CAB34Instrument ID: 5970LCalibration Date: 07/17/2007 Time: 11:53Lab File ID: L0717004.DInit. Calib. Date(s): 07/12/2007Client Sample No.: CCV071707-2Init. Calib. Time(s): 12:31Heated Purge: (Y/N) NGC Column: RTX-5Sil MS ID: 0.25 (mm)

Compound	Equation Type	RF 717.0	%D	%Drift
Acenaphthylene	A	2.303	3.90	
3-Nitroaniline	A	0.380	7.24	
Acenaphthene	A	1.442	2.11	
2,4-Dinitrophenol	L	0.052		-25.34*
4-Nitrophenol	A	0.146	12.70	
Dibenzofuran	A	1.950	5.67	
2,4-Dinitrotoluene	A	0.416	10.66	
Diethylphthalate	A	1.570	11.73	
Fluorene	A	1.554	3.54	
4-Chlorophenyl-phenylether	A	0.735	8.13	
4-Nitroaniline	A	0.355	8.69	
4,6-Dinitro-2-methylphenol	A	0.062	18.25	
N-Nitrosodiphenylamine	A	0.846	7.14	
Azobenzene	A	1.597	-6.21	
4-Bromophenyl-phenyl ether	A	0.300	6.43	
Hexachlorobenzene	A	0.347	6.75	
Pentachlorophenol	Q	0.114		-16.60
Phenanthrene	A	1.482	3.04	
Anthracene	A	1.403	7.24	
Carbazole	A	1.216	6.59	
Di-n-butylphthalate	A	1.532	11.25	
Fluoranthene	A	1.235	5.09	
Benzidine	A	0.672	20.65*	
Pyrene	A	2.145	13.41	
Butylbenzylphthalate	A	0.715	16.55	
3,3'-Dichlorobenzidine	A	0.442	3.43	
Benzo(a)anthracene	A	1.426	8.65	
Bis(2-ethylhexyl)phthalate	A	0.923	9.35	
Chrysene	A	1.387	0.66	
Di-n-octylphthalate	A	2.125	17.14	
Benzo(b)fluoranthene	A	1.887	5.99	
Benzo(k)fluoranthene	A	1.680	7.23	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

Run Sequence: R019645SDG No.: CAB34Instrument ID: 5970LCalibration Date: 07/17/2007 Time: 11:53Lab File ID: L0717004.DInit. Calib. Date(s): 07/12/2007Client Sample No.: CCV071707-2Init. Calib. Time(s): 12:31Heated Purge: (Y/N) NGC Column: RTX-5Sil MS ID: 0.25 (mm)

Compound	Equation Type	RF 717.0	%D	%Drift
Benzo(a)pyrene	A	1.593	4.53	
Indeno(1,2,3-cd)pyrene	A	1.419	-6.63	
Dibenzo(a,h)anthracene	A	1.194	-6.29	
Benzo(g,h,i)perylene	A	1.319	-21.75*	
2-Fluorophenol	A	1.325	-2.07	
Phenol-d5	A	1.838	-0.74	
Nitrobenzene-d5	A	0.578	-19.67	
2-Fluorobiphenyl	A	1.608	3.06	
2,4,6-Tribromophenol	A	0.124	7.89	
Terphenyl-d14	A	1.274	14.12	

\* = %D or %Drift above limit

# = %D or %Drift limits are not configured

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607MSVWLS

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019645  
 Lab Sample ID: B062607MSVWLS  
 Lab File ID: L0717006.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	5.0	U
108-60-1	Bis(2-chloroisopropyl) ether	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	Bis(2-Chloroethyl) ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
100-51-6	Benzyl alcohol	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
95-48-7	2-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
65-85-0	Benzoic acid	10	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607MSVWLS

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019645  
 Lab Sample ID: B062607MSVWLS  
 Lab File ID: L0717006.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	5.0	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	5.0	U
83-32-9	Acenaphthene	5.0	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	5.0	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	5.0	U
534-52-1	4,6-Dinitro-2-methylphenol	5.0	U
86-30-6	N-Nitrosodiphenylamine	5.0	U
122-66-7	Azobenzene	5.0	U
101-55-3	4-Bromophenyl-phenyl ether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
87-86-5	Pentachlorophenol	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
86-74-8	Carbazole	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607MSVWLS

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019645  
 Lab Sample ID: B062607MSVWLS  
 Lab File ID: L0717006.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
92-87-5	Benzidine	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
117-81-7	Bis(2-ethylhexyl)phthalate	5.0	U
218-01-9	Chrysene	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U

Comments:

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607MSVWLS

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019645  
 Lab Sample ID: S062607MSVWLS  
 Lab File ID: L0717007.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
108-39-4/	3 & 4-Methylphenol	17	
108-60-1	Bis(2-chloroisopropyl) ether	16	
108-95-2	Phenol	14	
111-44-4	Bis(2-Chloroethyl) ether	18	
95-57-8	2-Chlorophenol	14	
541-73-1	1,3-Dichlorobenzene	11	
106-46-7	1,4-Dichlorobenzene	12	
100-51-6	Benzyl alcohol	17	
95-50-1	1,2-Dichlorobenzene	12	
95-48-7	2-Methylphenol	15	
621-64-7	N-Nitroso-di-n-propylamine	19	
67-72-1	Hexachloroethane	11	
98-95-3	Nitrobenzene	18	
78-59-1	Isophorone	16	
88-75-5	2-Nitrophenol	11	
105-67-9	2,4-Dimethylphenol	9.9	
65-85-0	Benzoic acid	3.3	J
111-91-1	Bis(2-chloroethoxy) methane	16	
120-83-2	2,4-Dichlorophenol	14	
120-82-1	1,2,4-Trichlorobenzene	13	
91-20-3	Naphthalene	14	
106-47-8	4-Chloroaniline	13	
87-68-3	Hexachlorobutadiene	11	
59-50-7	4-Chloro-3-methylphenol	16	
91-57-6	2-Methylnaphthalene	16	
77-47-4	Hexachlorocyclopentadiene	3.9	J

1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607MSVWLS

Lab Name: Laucks Testing Labs

Contract: \_\_\_\_\_

SDG No.: CAB34

Run Sequence: R019645

Matrix: (SOIL/WATER) Water

Lab Sample ID: S062607MSVWLS

Sample wt/vol: 1000.0 (g/mL) mL

Lab File ID: L0717007.D

Level: (LOW/MED) \_\_\_\_\_

Date Collected: \_\_\_\_\_

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Extracted: 06/26/2007

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 07/17/2007

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-06-2	2,4,6-Trichlorophenol	12	
95-95-4	2,4,5-Trichlorophenol	13	
91-58-7	2-Chloronaphthalene	17	
88-74-4	2-Nitroaniline	16	
131-11-3	Dimethylphthalate	17	
606-20-2	2,6-Dinitrotoluene	12	
208-96-8	Acenaphthylene	17	
99-09-2	3-Nitroaniline	14	
83-32-9	Acenaphthene	16	
51-28-5	2,4-Dinitrophenol	6.5	J
100-02-7	4-Nitrophenol	12	
132-64-9	Dibenzofuran	17	
121-14-2	2,4-Dinitrotoluene	13	
84-66-2	Diethylphthalate	17	
86-73-7	Fluorene	17	
7005-72-3	4-Chlorophenyl-phenylether	17	
100-01-6	4-Nitroaniline	14	
534-52-1	4,6-Dinitro-2-methylphenol	8.3	
86-30-6	N-Nitrosodiphenylamine	14	
122-66-7	Azobenzene	19	
101-55-3	4-Bromophenyl-phenyl ether	16	
118-74-1	Hexachlorobenzene	17	
87-86-5	Pentachlorophenol	13	
85-01-8	Phenanthrene	17	
120-12-7	Anthracene	16	
86-74-8	Carbazole	17	
84-74-2	Di-n-butylphthalate	16	
206-44-0	Fluoranthene	18	



1  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607MSVWLS

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 Level: (LOW/MED) \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Concentrated Extract Volume: 1000 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: \_\_\_\_\_  
 Run Sequence: R019645  
 Lab Sample ID: S062607MSVWLS  
 Lab File ID: L0717007.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 1.0  
 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
92-87-5	Benzidine	5.0	U
129-00-0	Pyrene	15	
85-68-7	Butylbenzylphthalate	12	
91-94-1	3,3'-Dichlorobenzidine	12	
56-55-3	Benzo(a)anthracene	16	
117-81-7	Bis(2-ethylhexyl)phthalate	14	
218-01-9	Chrysene	17	
117-84-0	Di-n-octylphthalate	11	
205-99-2	Benzo(b)fluoranthene	15	
207-08-9	Benzo(k)fluoranthene	17	
50-32-8	Benzo(a)pyrene	16	
193-39-5	Indeno(1,2,3-cd)pyrene	19	
53-70-3	Dibenzo(a,h)anthracene	19	
191-24-2	Benzo(g,h,i)perylene	20	

Comments:

# **Forms Summary**

CAB34

Ordinance by Method 8330

2  
WATER ORDINANCE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB34

Run Sequence: R019636

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (DNT) #	S2 ( ) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB34-009) 15LCMW04SW	93				0
(CAB34-007) 15LCMW04DW	103				0
(CAB34-005) 15LCMW03DW	91				0
(CAB34-003) 15LCMW415W	88				0
(CAB34-001) 15LCMW03SW	88				0
(S062607HORWLG) S062607HORWLG	119				0
(B062607HORWLG) B062607HORWLG	80				0

QC LIMITS  
60-140

S1 (DNT) = 3,4-Dinitrotoluene  
S2 ( ) =  
S3 ( ) =  
S4 ( ) =

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits

3B  
WATER ORDNANCE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
 BS Run Sequence: R019636 SDG No.: CAB34  
 BS Lab Sample ID: S062607HORWLG  
 Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
HMX	20.0	21.0228	105		80-115
RDX	20.0	21.5036	108		50-160
1,3,5-Trinitrobenzene	20.0	17.5962	88		65-140
1,3-Dinitrobenzene	20.0	17.771	89		45-160
Nitrobenzene	20.0	17.8355	89		50-140
Tetryl	20.0	16.0464	80		20-175
2,4,6-Trinitrotoluene	20.0	18.691	93		50-145
4-Amino-2,6-dinitrotoluene	20.0	17.92	90		55-155
2-Amino-4,6-dinitrotoluene	20.0	17.8793	89		50-155
2,6-Dinitrotoluene	20.0	16.1231	81		60-135
2,4-Dinitrotoluene	20.0	16.4553	82		60-135
2-Nitrotoluene	20.0	14.9209	75		45-135
4-Nitrotoluene	20.0	15.4368	77		50-130
3-Nitrotoluene	20.0	14.7105	74		50-130

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS:

ORDNANCE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062607HORWLG

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B062607HORWLG SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water Date Prepared: 06/26/2007  
 Lab File ID (1): O62807.b-O6280704.D Lab File ID (2): F71207A.b-F7120751.D  
 Date Analyzed (1): 06/28/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 13:19 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HPLC5 (Oscar) Instrument ID (2): HPLC5 (Oscar)  
 Column(1): Aliure C18 ID: 4.60 (mm) Column(2): Synergi - EtPH ID: 4.60 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
15LCMW03SW	CAB34-001	1	O6280725.D	06/29/2007 03:19	R019636
		2			
15LCMW415W	CAB34-003	1	O6280726.D	06/29/2007 03:59	R019636
		2			
15LCMW03DW	CAB34-005	1	O6280727.D	06/29/2007 04:39	R019636
		2			
15LCMW04DW	CAB34-007	1	O6280728.D	06/29/2007 05:19	R019636
		2			
15LCMW04SW	CAB34-009	1	O6280729.D	06/29/2007 05:59	R019636
		2			
S062607HORWLG	S062607HORWLG	1	O6280705.D	06/28/2007 13:59	R019636
		2	F7120752.D	07/13/2007 18:40	R019636

COMMENTS: \_\_\_\_\_

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB34-001  
 Lab File ID: O6280725.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.48	U
121-82-4	RDX	0.48	U
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW415W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB34-003  
 Lab File ID: O6280726.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
2691-41-0	HMX	0.48	U
121-82-4	RDX	0.48	U
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB34-005  
 Lab File ID: O6280727.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.48	U
121-82-4	RDX	0.48	U
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:



1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1050.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB34-007  
 Lab File ID: 06280728.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
2691-41-0	HMX	0.48	U
121-82-4	RDX	0.48	U
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1040.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: CAB34-009  
 Lab File ID: O6280729.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
2691-41-0	HMX	0.48	U
121-82-4	RDX	0.48	U
99-35-4	1,3,5-Trinitrobenzene	0.48	U
99-65-0	1,3-Dinitrobenzene	0.48	U
98-95-3	Nitrobenzene	0.48	U
479-45-8	Tetryl	0.48	U
118-96-7	2,4,6-Trinitrotoluene	0.48	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.48	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.48	U
606-20-2	2,6-Dinitrotoluene	0.48	U
121-14-2	2,4-Dinitrotoluene	0.48	U
88-72-2	2-Nitrotoluene	0.48	U
99-99-0	4-Nitrotoluene	0.48	U
99-08-1	3-Nitrotoluene	0.48	U

Comments:

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\Oscar.i\022707.b\02270705.D  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270705.D  
 Level 2: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270706.D  
 Level 3: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270707.D  
 Level 4: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270708.D  
 Level 5: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270709.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
1 BMX	11.20000	10.69000	10.67000	10.45800	10.29740	10.66308	3.2
4 MNX	10.36000	9.730000	9.828000	9.526000	9.491400	9.787080	3.6
5 RDX	8.000000	7.680000	7.730000	7.591000	7.591000	7.697800	2.5
6 1,3,5-Trinitrobenzene	13.96000	13.18000	13.63800	13.28300	13.27440	13.46708	2.4
7 1,3-Dinitrobenzene	15.24000	14.54000	15.10800	14.68900	14.87580	14.89056	1.9
8 Tetra	7.140000	6.840000	7.116000	6.929000	6.877000	6.980400	2.0
9 Nitrobenzene	8.660000	8.280000	8.712000	8.494000	8.653000	8.559800	2.1
11 2,4,6-Trinitrotoluene	8.300000	7.880000	8.206000	7.946000	7.962000	8.058800	2.3
12 4-Amino-2,6-Dinitrotoluene	5.940000	5.630000	5.896000	5.726000	5.686400	5.775680	2.3
13 2-Amino-4,6-Dinitrotoluene	7.840000	7.670000	7.942000	7.738000	7.684600	7.774920	1.5
14 2,6-Dinitrotoluene	5.220000	5.120000	5.310000	5.165000	5.188000	5.200600	1.4

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration )  
 RSD - Relative Standard Deviation

Laucks Testing Labs  
Initial Calibration Linearity Summary

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
15 2,4-Dinitrochloruene	8.9800000	8.8300000	9.1980000	8.947000	9.015400	8.994080	1.5
16 2-Nitrochloruene	3.5400000	3.4800000	3.546000	3.463000	3.503400	3.506480	1.0
17 4-Nitrochloruene	2.7000000	2.5900000	2.682000	2.619000	2.653800	2.650160	1.7
18 3-Nitrochloruene	3.3000000	3.0900000	3.248000	3.159000	3.195000	3.198400	2.5
10 3,4-Dinitrochloruene	5.8800000	5.5700000	5.726000	5.555000	5.578200	5.661840	2.5
Average RSD :							2.1

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration )  
RSD - Relative Standard Deviation.

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ICAL Linearity Summary v2.0

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\oscar.i\022707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270705.D  
 Level 2: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270706.D  
 Level 3: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270707.D  
 Level 4: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270708.D  
 Level 5: //ceres/labdata/hplc/oscar/oscar.i/022707.b/02270709.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
1 HMX	4.69	4.69	4.69	4.69	4.69	4.690
4 MNX	7.09	7.09	7.08	7.08	7.09	7.089
5 RDX	8.36	8.36	8.35	8.35	8.36	8.358
6 1,3,5-Trinitrobenzene	12.11	12.13	12.12	12.12	12.13	12.125
7 1,3-Dinitrobenzene	15.02	15.08	15.05	15.07	15.07	15.057
8 Tetryl	17.11	17.22	17.17	17.20	17.20	17.180
9 Nitrobenzene	17.67	17.75	17.71	17.73	17.72	17.715
11 2,4,6-Trinitrofluorene	20.61	20.72	20.65	20.69	20.68	20.670
12 4-Amino-2,6-Dinitrofluorene	21.54	21.72	21.61	21.67	21.66	21.640
13 2-Amino-4,6-Dinitrofluorene	22.67	22.84	22.72	22.80	22.78	22.760
14 2,6-Dinitrofluorene	24.04	24.16	24.07	24.13	24.11	24.104

Retention times are expressed as minutes.

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\oscar.i\O22707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
15 2,4-Dinitrotoluene	24.97	25.08	24.98	25.04	25.02	25.019
16 2-Nitrotoluene	30.36	30.41	30.32	30.37	30.38	30.367
17 4-Nitrotoluene	33.08	33.09	33.02	33.08	33.07	33.068
18 3-Nitrotoluene	35.60	35.59	35.53	35.60	35.62	35.589
10 3,4-Dinitrotoluene	18.40	18.51	18.45	18.48	18.48	18.464

Retention times are expressed as minutes.

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ICAL RT Summary v2.0

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Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\Oscar.i\O22707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/oscar/Oscar.i/O22707.b/O2270705.D  
 Level 2: //ceres/labdata/hplc/oscar/Oscar.i/O22707.b/O2270706.D  
 Level 3: //ceres/labdata/hplc/oscar/Oscar.i/O22707.b/O2270707.D  
 Level 4: //ceres/labdata/hplc/oscar/Oscar.i/O22707.b/O2270708.D  
 Level 5: //ceres/labdata/hplc/oscar/Oscar.i/O22707.b/O2270709.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 HMX	50.00	100.00	500.00	1000.00	5000.00
4 MNX	50.00	100.00	500.00	1000.00	5000.00
5 RDX	50.00	100.00	500.00	1000.00	5000.00
6 1,3,5-Trinitrobenzene	50.00	100.00	500.00	1000.00	5000.00
7 1,3-Dinitrobenzene	50.00	100.00	500.00	1000.00	5000.00
8 Tetryl	50.00	100.00	500.00	1000.00	5000.00
9 Nitrobenzene	50.00	100.00	500.00	1000.00	5000.00
11 2,4,6-Trinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
12 4-Amino-2,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
13 2-Amino-4,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
14 2,6-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00

Standard concentrations are expressed as ng/mL.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CP  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\oscar.i\O22707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
15 2,4-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00
16 2-Nitrotoluene	50.00	100.00	500.00	1000.00	5000.00
17 4-Nitrotoluene	50.00	100.00	500.00	1000.00	5000.00
18 3-Nitrotoluene	50.00	100.00	500.00	1000.00	5000.00
10 3,4-Dinitrotoluene	50.00	100.00	500.00	1000.00	5000.00

Standard concentrations are expressed as ng/mL.



Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\Oscar.i\022707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270705.D  
 Level 2: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270706.D  
 Level 3: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270707.D  
 Level 4: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270708.D  
 Level 5: //ceres/labdata/hplc/oscar/Oscar.i/022707.b/02270709.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 HMX	560.00000	1069.0000	5335.0000	10458.000	51487.000
4 MNX	518.00000	973.00000	4914.0000	9526.0000	47457.000
5 RDX	400.00000	768.00000	3865.0000	7591.0000	37440.000
6 1,3,5-Trinitrobenzene	698.00000	1318.0000	6819.0000	13283.000	66372.000
7 1,3-Dinitrobenzene	762.00000	1454.0000	7554.0000	14689.000	74379.000
8 Tetryl	357.00000	684.00000	3558.0000	6929.0000	34385.000
9 Nitrobenzene	433.00000	828.00000	4356.0000	8494.0000	43265.000
11 2,4,6-Trinitrooluene	415.00000	788.00000	4103.0000	7946.0000	39810.000
12 4-Amino-2,6-Dinitrooluene	297.00000	563.00000	2948.0000	5726.0000	28432.000
13 2-Amino-4,6-Dinitrooluene	392.00000	767.00000	3971.0000	7738.0000	38423.000
14 2,6-Dinitrooluene	261.00000	512.00000	2655.0000	5165.0000	25940.000

Response is in Height units.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 27-FEB-2007 12:35  
 End Cal Date : 27-FEB-2007 15:15  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\oscar\Oscar.1\022707.b\8330FEB2707.m  
 Sublist : 8330MNX.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
15 2,4-Dinitrofluorene	449.00000	883.00000	4599.00000	8947.00000	45077.00000
16 2-Nitrofluorene	177.00000	348.00000	1773.00000	3463.00000	17517.00000
17 4-Nitrofluorene	135.00000	259.00000	1341.00000	2619.00000	13299.00000
18 3-Nitrofluorene	165.00000	309.00000	1624.00000	3159.00000	15975.00000
10 3,4-Dinitrofluorene	294.00000	557.00000	2863.00000	5555.00000	27891.00000

Response is in Height units.

## Calibration Standard Verification for Initial Calibration 8330 02/27/07)

*** PROJECTED ***		*** ANALYSES ***			
Analyte(s)	Target Conc. ng/mL	Reference Solution	Amount Quanted ng/mL	Percent of Target	%D
HMX	2000	HPLC11512/11510	2002.8	100	0
MNX	2000	EX10-82-6	2008.8	100	0
RDX	2000	HPLC11512/11510	2016.2	101	1
1,3,5-Trinitrobenzene	2000	HPLC11512/11510	2075.0	104	4
1,3-Dinitrobenzene	2000	HPLC11512/11510	1993.1	100	0
Tetryl	2000	HPLC11512/11510	2159.2	108	8
Nitrobenzene	2000	HPLC11512/11510	1956.9	98	2
2,4,6-Trinitrotoluene	2000	HPLC11512/11510	2131.2	107	7
4-Amino-2,6-dinitrotoluene	2000	HPLC11512/11510	2018.8	101	1
2-Amino-4,6-dinitrotoluene	2000	HPLC11512/11510	1966.3	98	2
2,6-Dinitrotoluene	2000	HPLC11512/11510	2041.9	102	2
2,4-Dinitrotoluene	2000	HPLC11512/11510	2001.6	100	0
2-Nitrotoluene	2000	HPLC11512/11510	1991.7	100	0
4-Nitrotoluene	2000	HPLC11512/11510	2023.3	101	1
3-Nitrotoluene	2000	HPLC11512/11510	2002.6	100	0

Initial: MY  
Date analyzed: 2/27/07

Laucks Testing Labs  
Initial Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O62807.b/O6280703.D
Injection Date  : 28-JUN-2007 12:31
Sample Info     : STD04 1000PPB METHOD 8330
Misc. Info      : ICV
Laboratory ID   : STD04 1000PPB           Client ID   : HPLC1-16-8 20X
Instrument ID   : Oscar.i                 Operator    : MY
Method         : 8330FEB2707.m           Sublist     : 8330
Quantitation    : ESTD                   Integrator   : HP Genie
Dilution Factor : 1.00                  Sample Type : CCALIB 4
Column         : C18                     Column Size : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
HMX	4.58 #	4.33 - 4.83	10.66308	9.849000	7.6	
RDX	8.04 #	7.79 - 8.29	7.697800	7.344000	4.6	
1,3,5-Trinitrobenzene	11.63 #	11.38 - 11.88	13.46708	13.42300	0.3	
1,3-Dinitrobenzene	14.40 #	14.15 - 14.65	14.89056	14.73200	1.1	
Tetryl	16.20 #	15.95 - 16.45	6.980400	6.995000	-0.2	
Nitrobenzene	16.94 #	16.69 - 17.19	8.559800	8.535000	0.3	
3,4-Dinitrotoluene	17.40 #	17.15 - 17.65	5.661840	6.370000	-12.5	
2,4,6-Trinitrotoluene	19.66 #	19.41 - 19.91	8.058800	7.572000	6.0	
4-Amino-2,6-Dinitrotoluene	20.47 #	20.17 - 20.77	5.775680	5.955000	-3.1	
2-Amino-4,6-Dinitrotoluene	21.58 #	21.28 - 21.88	7.774920	7.875000	-1.3	
2,6-Dinitrotoluene	22.88 #	22.59 - 23.17	5.200600	5.292000	-1.8	
2,4-Dinitrotoluene	23.79 #	23.50 - 24.08	8.994080	9.090000	-1.1	
2-Nitrotoluene	28.81 #	28.45 - 29.17	3.506480	3.598000	-2.6	
4-Nitrotoluene	31.35 #	30.95 - 31.75	2.650160	2.743000	-3.5	
3-Nitrotoluene	33.73 #	33.29 - 34.17	3.198400	3.308000	-3.4	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O62807.b/O6280713.D
Injection Date  : 28-JUN-2007 19:19
Sample Info     : STD04 1000PPB
Misc. Info      : Method 8330
Laboratory ID   : STD04 1000PPB
Instrument ID    : Oscar.i
Method          : 8330FEB2707.m
Quantitation    : ESTD
Dilution Factor : 1.00
Column          : C18
Client ID       : HPLC1-16-8 20X
Operator        : MY
Sublist         : 8330
Integrator      : HP Genie
Sample Type     : CCALIB_4
Column Size     : 0.25m L- 4.60mm ID
    
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
HMX	4.58	4.33 - 4.83	10.66308	9.887000	7.3	
RDX	8.02	7.79 - 8.29	7.697800	7.414000	3.7	
1,3,5-Trinitrobenzene	11.60	11.38 - 11.88	13.46708	13.65800	-1.4	
1,3-Dinitrobenzene	14.35	14.15 - 14.65	14.89056	14.91600	-0.2	
Tetryl	16.12	15.95 - 16.45	6.980400	7.088000	-1.5	
Nitrobenzene	16.87	16.69 - 17.19	8.559800	8.607000	-0.6	
3,4-Dinitrotoluene	17.31	17.15 - 17.65	5.661840	6.578000	-16.2	
2,4,6-Trinitrotoluene	19.57	19.41 - 19.91	8.058800	7.593000	5.8	
4-Amino-2,6-Dinitrotoluene	20.31	20.17 - 20.77	5.775680	6.017000	-4.2	
2-Amino-4,6-Dinitrotoluene	21.41	21.28 - 21.88	7.774920	7.878000	-1.3	
2,6-Dinitrotoluene	22.77	22.59 - 23.17	5.200600	5.250000	-0.9	
2,4-Dinitrotoluene	23.67	23.50 - 24.08	8.994080	9.110000	-1.3	
2-Nitrotoluene	28.69	28.45 - 29.17	3.506480	3.620000	-3.2	
4-Nitrotoluene	31.20	30.95 - 31.75	2.650160	2.778000	-4.8	
3-Nitrotoluene	33.56	33.29 - 34.17	3.198400	3.348000	-4.7	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O62807.b/O6280722.D
Injection Date  : 29-JUN-2007 01:19
Sample Info     : STD04 1000PPB
Misc. Info      : Method 8330
Laboratory ID   : STD04 1000PPB
Instrument ID    : Oscar.i
Method          : 8330FEB2707.m
Quantitation    : ESTD
Dilution Factor : 1.00
Column          : C18

Client ID      : HPLC1-16-8 20X
Operator       : MY
Sublist        : 8330
Integrator     : HP Genie
Sample Type    : CCALIB 4
Column Size    : 0.25m L- 4.60mm ID
    
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
HMX	4.58	4.33 - 4.83	10.66308	9.959000	6.6	
RDX	8.02	7.79 - 8.29	7.697800	7.397000	3.9	
1,3,5-Trinitrobenzene	11.61	11.38 - 11.88	13.46708	13.69000	-1.7	
1,3-Dinitrobenzene	14.36	14.15 - 14.65	14.89056	15.06300	-1.2	
Tetryl	16.13	15.95 - 16.45	6.980400	7.171000	-2.7	
Nitrobenzene	16.88	16.69 - 17.19	8.559800	8.615000	-0.6	
3,4-Dinitrotoluene	17.31	17.15 - 17.65	5.661840	6.628000	-17.1	
2,4,6-Trinitrotoluene	19.57	19.41 - 19.91	8.058800	7.690000	4.6	
4-Amino-2,6-Dinitrotoluene	20.32	20.17 - 20.77	5.775680	6.102000	-5.6	
2-Amino-4,6-Dinitrotoluene	21.43	21.28 - 21.88	7.774920	7.973000	-2.5	
2,6-Dinitrotoluene	22.78	22.59 - 23.17	5.200600	5.328000	-2.4	
2,4-Dinitrotoluene	23.68	23.50 - 24.08	8.994080	9.179000	-2.1	
2-Nitrotoluene	28.69	28.45 - 29.17	3.506480	3.611000	-3.0	
4-Nitrotoluene	31.20	30.95 - 31.75	2.650160	2.763000	-4.3	
3-Nitrotoluene	33.57	33.29 - 34.17	3.198400	3.318000	-3.7	

Calibration Factor ( CF ) = Response divided by Concentration

Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100

\* = Percent Difference is outside the acceptance limits of +/-15%

# = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O62807.b/O6280730.D
Injection Date  : 29-JUN-2007 06:39
Sample Info     : STD04 1000PPB
Misc. Info      : Method 8330
Laboratory ID   : STD04 1000PPB
Instrument ID    : Oscar.i
Method          : 8330FEB2707.m
Quantitation    : ESTD
Dilution Factor : 1.00
Column          : C18
Client ID       : HPLC1-16-8 20X
Operator        : MY
Sublist         : 8330
Integrator      : HP Genie
Sample Type     : CCALIB_4
Column Size     : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
HMX	4.58	4.33 - 4.83	10.66308	10.00600	6.2	
RDX	8.02	7.79 - 8.29	7.697800	7.580000	1.5	
1,3,5-Trinitrobenzene	11.60	11.38 - 11.88	13.46708	13.92700	-3.4	
1,3-Dinitrobenzene	14.36	14.15 - 14.65	14.89056	15.23900	-2.3	
Tetryl	16.13	15.95 - 16.45	6.980400	7.204000	-3.2	
Nitrobenzene	16.88	16.69 - 17.19	8.559800	8.597000	-0.4	
3,4-Dinitrotoluene	17.32	17.15 - 17.65	5.661840	6.675000	-17.9	
2,4,6-Trinitrotoluene	19.58	19.41 - 19.91	8.058800	7.785000	3.4	
4-Amino-2,6-Dinitrotoluene	20.34	20.17 - 20.77	5.775680	6.186000	-7.1	
2-Amino-4,6-Dinitrotoluene	21.45	21.28 - 21.88	7.774920	8.082000	-3.9	
2,6-Dinitrotoluene	22.79	22.59 - 23.17	5.200600	5.406000	-3.9	
2,4-Dinitrotoluene	23.69	23.50 - 24.08	8.994080	9.316000	-3.6	
2-Nitrotoluene	28.70	28.45 - 29.17	3.506480	3.624000	-3.4	
4-Nitrotoluene	31.20	30.95 - 31.75	2.650160	2.802000	-5.7	
3-Nitrotoluene	33.56	33.29 - 34.17	3.198400	3.356000	-4.9	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607HORWLG

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: B062607HORWLG  
 Lab File ID: O6280704.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	0.50	U
121-82-4	RDX	0.50	U
99-35-4	1,3,5-Trinitrobenzene	0.50	U
99-65-0	1,3-Dinitrobenzene	0.50	U
98-95-3	Nitrobenzene	0.50	U
479-45-8	Tetryl	0.50	U
118-96-7	2,4,6-Trinitrotoluene	0.50	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.50	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.50	U
606-20-2	2,6-Dinitrotoluene	0.50	U
121-14-2	2,4-Dinitrotoluene	0.50	U
88-72-2	2-Nitrotoluene	0.50	U
99-99-0	4-Nitrotoluene	0.50	U
99-08-1	3-Nitrotoluene	0.50	U

Comments:



1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607HORWLG

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019636  
 Lab Sample ID: S062607HORWLG  
 Lab File ID: F7120752.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/28/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
2691-41-0	HMX	21.0	
121-82-4	RDX	21.5	
99-35-4	1,3,5-Trinitrobenzene	17.6	
99-65-0	1,3-Dinitrobenzene	17.8	
98-95-3	Nitrobenzene	17.8	
479-45-8	Tetryl	16.0	
118-96-7	2,4,6-Trinitrotoluene	18.7	
19406-51-0	4-Amino-2,6-dinitrotoluene	17.9	
35572-78-2	2-Amino-4,6-dinitrotoluene	17.9	
606-20-2	2,6-Dinitrotoluene	16.1	
121-14-2	2,4-Dinitrotoluene	16.5	
88-72-2	2-Nitrotoluene	14.9	
99-99-0	4-Nitrotoluene	15.4	
99-08-1	3-Nitrotoluene	14.7	

Comments:

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**S062607HORWLG**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: S062607HORWLG

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - EtPH

File (1): O62807.b-O6280705.D

File (2): F71207A.b-F7120752.D

Date Analyzed (1): 6/28/2007 1:59:00 PM

Date Analyzed (2): 7/13/2007 6:40:00 PM

ANALYTE	COL	CONCENTRATION Final Units: ug/L	RPD	RT	RT Window
HMX	1	18.8613	10.8 %	4.58	4.33 - 4.83
	2	21.0228 X		8.23	7.94 - 8.44
RDX	1	20.4357	5.1 %	8.03	7.79 - 8.29
	2	21.5036 X		8.77	8.48 - 8.98
1,3,5-Trinitrobenzene	1	17.5962 X	5.2 %	11.62	11.38 - 11.88
	2	16.698		25.38	24.97 - 25.47
1,3-Dinitrobenzene	1	17.771 X	62.5 %	14.37	14.16 - 14.66
	2	33.9163		16.53	16.19 - 16.69
Nitrobenzene	1	17.5658	1.5 %	16.89	16.69 - 17.19
	2	17.8355 X		11.49	11.18 - 11.68
Tetryl	1	16.0464 X	9.7 %	16.14	15.96 - 16.46
	2	14.562		29.36	28.91 - 29.41
2,4,6-Trinitrotoluene	1	17.7905	4.9 %	19.59	19.41 - 19.91
	2	18.691 X		32.99	32.52 - 33.02
4-Amino-2,6-dinitrotoluen	1	17.92 X	1.0 %	20.35	20.17 - 20.77
	2	17.7427		14.44	14.07 - 14.67
2-Amino-4,6-dinitrotoluen	1	17.8793 X	0.8 %	21.44	21.28 - 21.88
	2	17.7296		15.95	15.57 - 16.17
2,6-Dinitrotoluene	1	16.1231 X	1.5 %	22.79	22.59 - 23.17
	2	15.8879		19.21	18.82 - 19.40
2,4-Dinitrotoluene	1	16.4553 X	2.9 %	23.69	23.50 - 24.08
	2	15.977		22.23	21.80 - 22.38
2-Nitrotoluene	1	14.9209 X	0.6 %	28.71	28.45 - 29.17
	2	14.8259		14.89	14.46 - 15.18

X = Concentration Reported

**CONFIRMATION SUMMARY WORKSHEET  
FOR SINGLE COMPONENT ANALYTES**

Client Sample ID

**S062607HORWLG**

Lab Name: Laucks Testing Labs, Inc.

Lab Sample ID: S062607HORWLG

Instrument ID: HPLC5 (Oscar)

Run Sequence ID: R019636

Column (1): Allure C18

Column (2): Synergi - EtPH

File (1): O62807.b-O6280705.D

File (2): F71207A.b-F7120752.D

Date Analyzed (1): 6/28/2007 1:59:00 PM

Date Analyzed (2): 7/13/2007 6:40:00 PM

ANALYTE	COL	CONCENTRATION		RPD	RT	RT Window
		Final Units: ug/L				
4-Nitrotoluene	1	15.4368	X	6.6 %	31.22	30.95 - 31.75
	2	14.4544			15.59	15.12 - 15.92
3-Nitrotoluene	1	14.7105	X	79.0 %	33.59	33.29 - 34.17
	2	33.9163			16.53	16.00 - 16.88

X = Concentration Reported

# **Forms Summary**

**CAB34**

**Ordinance by Method 8332**

2  
WATER ORDNANCE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB34

Run Sequence: R019488

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (DNT) #	S2 ( ) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB34-009) 15LCMW04SW	96				0
(CAB34-007) 15LCMW04DW	106				0
(CAB34-005) 15LCMW03DW	95				0
(CAB34-003) 15LCMW415W	91				0
(CAB34-001) 15LCMW03SW	91				0
(S062607HORWLG2) S062607HORWLG2	84				0
(B062607HORWLG) B062607HORWLG	81				0

QC LIMITS

60-140

S1 (DNT) = 3,4-Dinitrotoluene

S2 ( ) =

S3 ( ) =

S4 ( ) =

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

3B  
WATER ORDNANCE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
BS Run Sequence: R019488 SDG No.: CAB34  
BS Lab Sample ID: S062607HORWLG2  
Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Nitroglycerin	10.0	8.7516	88		60-140
PETN	5.00	3.3839	68		60-140

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

ORDNANCE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062607HORWLG

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B062607HORWLG SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water Date Prepared: 06/26/2007  
 Lab File ID (1): O62907.b-O6290704.D Lab File ID (2): \_\_\_\_\_  
 Date Analyzed (1): 06/29/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 11:04 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HPLC5 (Oscar) Instrument ID (2): \_\_\_\_\_  
 Column(1): Varian C18 ID: 4.60 (mm) Column(2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
15LCMW03SW	CAB34-001	1	O6290725.D	06/29/2007 20:10	R019488
15LCMW415W	CAB34-003	1	O6290726.D	06/29/2007 20:36	R019488
15LCMW03DW	CAB34-005	1	O6290727.D	06/29/2007 21:02	R019488
15LCMW04DW	CAB34-007	1	O6290728.D	06/29/2007 21:28	R019488
15LCMW04SW	CAB34-009	1	O6290729.D	06/29/2007 21:54	R019488
S062607HORWLG2	S062607HORWLG2	1	O6290705.D	06/29/2007 11:30	R019488

COMMENTS: \_\_\_\_\_

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: CAB34-001  
 Lab File ID: O6290725.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:



1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW415W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: CAB34-003  
 Lab File ID: O6290726.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: CAB34-005  
 Lab File ID: 06290727.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04DW

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB34

Run Sequence: R019488

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB34-007

Sample wt/vol: 1000.0 (g/mL) mL

Lab File ID: O6290728.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: 06/22/2007

Extraction: (Type) SPE

Date Extracted: 06/26/2007

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 06/29/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04SW

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB34

Run Sequence: R019488

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB34-009

Sample wt/vol: 1000.0 (g/mL) mL

Lab File ID: 06290729.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: 06/22/2007

Extraction: (Type) SPE

Date Extracted: 06/26/2007

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 06/29/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
55-63-0	Nitroglycerin	2.5		U
78-11-5	PETN	1.2		U

Comments:

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 10-JUL-2006 11:17  
 End Cal Date : 10-JUL-2006 13:05  
 Quant Method : BSTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\SNAP568564B\tek4\Oscar.i\071006ng.b\071006NG.m  
 Sublist : all.sub  
 Column : C18  
 Column Size : 0m L ~ 4.60mm ID

Calibration Files:

Level 1: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100601.D  
 Level 2: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100602.D  
 Level 3: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100603.D  
 Level 4: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100604.D  
 Level 5: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100605.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CP	%RSD
1 Nitroglycerin	348.3440	362.3640	357.0210	378.5100	373.9440	364.0366	3.4
3 PEHN	384.2240	428.2400	383.0820	416.1968	409.5208	404.2527	4.9
2 3,4-Dinitrotoluene	833.5940	891.7440	836.9660	887.3984	879.7140	865.8817	3.3
Average RSD :							3.9

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration ).  
 RSD - Relative Standard Deviation.

07/24/2006 13:09

ICAL Linearity Summary v2.0

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 10-JUL-2006 11:17  
 End Cal Date : 10-JUL-2006 13:05  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\SNAP568564B\tek4\Oscar.i\071006ng.b\071006NG.m  
 Sublist : all.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100601.D  
 Level 2: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100602.D  
 Level 3: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100603.D  
 Level 4: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100604.D  
 Level 5: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100605.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
1 Nitroglycerin	9.46	9.44	9.45	9.45	9.44	9.449
3 PBTN	17.39	17.36	17.36	17.36	17.36	17.369
2 3,4-Dinitrotoluene	10.33	10.31	10.32	10.32	10.31	10.316

Retention times are expressed as minutes.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 10-JUL-2006 11:17  
 End Cal Date : 10-JUL-2006 13:05  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\SNAP568564B\tek4\Oscar.i\071006ng.b\071006NG.m  
 Sublist : all.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1 : //SNAP568564B/tek4/Oscar.i/071006ng.b/07100601.D  
 Level 2 : //SNAP568564B/tek4/Oscar.i/071006ng.b/07100602.D  
 Level 3 : //SNAP568564B/tek4/Oscar.i/071006ng.b/07100603.D  
 Level 4 : //SNAP568564B/tek4/Oscar.i/071006ng.b/07100604.D  
 Level 5 : //SNAP568564B/tek4/Oscar.i/071006ng.b/07100605.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 Nitroglycerin	250.00	500.00	1000.00	2500.00	5000.00
3 PETN	125.00	250.00	500.00	1250.00	2500.00
2 3,4-Dinitrotoluene	125.00	250.00	500.00	1250.00	2500.00

Standard concentrations are expressed as ng/mL.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 10-JUL-2006 11:17  
 End Cal Date : 10-JUL-2006 13:05  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\SNAP568564B\tek4\Oscar.i\071006ng.b\071006NG.m  
 Sublist : all.sub  
 Column : C18  
 Column Size : 0m L - 4.60mm ID

Calibration Files:

Level 1: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100601.D  
 Level 2: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100602.D  
 Level 3: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100603.D  
 Level 4: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100604.D  
 Level 5: //SNAP568564B/tek4/Oscar.i/071006ng.b/07100605.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 Nitroglycerin	87086.000	181182.00	357021.00	946275.00	1869720.0
3 PBTN	48028.000	107060.00	191541.00	520246.00	1023802.0
2 3,4-Dinitrotoluene	104198.00	222936.00	418483.00	1109248.0	2199285.0

Response is in Area units.



Laucks Testing Labs  
Initial Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O62907.b/O6290703.D
Injection Date  : 29-JUN-2007 10:31
Sample Info     : STD04 1000PPB METHOD 8332
Misc. Info      : ICV
Laboratory ID   : STD04 1000PPB           Client ID    : HPLC1-15-15 20X
Instrument ID    : Oscar.i                 Operator     : MY
Method          : 071006NG.m              Sublist      : all
Quantitation    : ESTD                    Integrator    : HP Genie
Dilution Factor : 1.00                   Sample Type  : CCALIB_3
Column          : C18                     Column Size  : 0.15m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
Nitroglycerin	10.30 #	10.05 - 10.55	364.0366	359.7260	1.2	
3,4-Dinitrotoluene	11.35 #	11.10 - 11.60	865.8817	874.0680	-0.9	
PETN	19.64 #	19.39 - 19.89	404.2527	385.0800	4.7	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/062907.b/06290713.D
Injection Date  : 29-JUN-2007 14:58
Sample Info     : STD04 1000PPB METHOD 8332
Misc. Info     : Method 8332
Laboratory ID  : STD04 1000PPB           Client ID   : HPLC1-15-15 20X
Instrument ID   : Oscar.i                 Operator    : MY
Method         : 071006NG.m              Sublist     : all
Quantitation   : ESTD                     Integrator  : HP Genie
Dilution Factor : 1.00                   Sample Type : CCALIB_3
Column         : C18                       Column Size : 0.15m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
Nitroglycerin	10.30	10.05 - 10.55	364.0366	358.3320	1.6	
3,4-Dinitrotoluene	11.35	11.10 - 11.60	865.8817	870.0720	-0.5	
PETN	19.65	19.39 - 19.89	404.2527	387.5460	4.1	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/O62907.b/O6290722.D
Injection Date  : 29-JUN-2007 18:52
Sample Info     : STD04 1000PPB METHOD 8332
Misc. Info     : Method 8332
Laboratory ID  : STD04 1000PPB           Client ID   : HPLC1-15-15 20X
Instrument ID   : Oscar.i                 Operator    : MY
Method         : 071006NG.m              Sublist     : all
Quantitation   : ESTD                    Integrator   : HP Genie
Dilution Factor : 1.00                  Sample Type : CCALIB_3
Column        : C18                      Column Size : 0.15m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
Nitroglycerin	10.30	10.05 - 10.55	364.0366	361.2050	0.8	
3,4-Dinitrotoluene	11.35	11.10 - 11.60	865.8817	868.9060	-0.3	
PETN	19.70	19.39 - 19.89	404.2527	386.9900	4.3	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/oscar/Oscar.i/062907.b/06290730.D
Injection Date  : 29-JUN-2007 22:20
Sample Info     : STD04 1000PPB METHOD 8332
Misc. Info     : Method 8332
Laboratory ID  : STD04 1000PPB           Client ID   : HPLC1-15-15 20X
Instrument ID   : Oscar.i                 Operator    : MY
Method         : 071006NG.m              Sublist     : all
Quantitation   : ESTD                     Integrator  : HP Genie
Dilution Factor : 1.00                   Sample Type : CCALIB_3
Column        : C18                       Column Size : 0.15m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
Nitroglycerin	10.30	10.05 - 10.55	364.0366	359.9460	1.1	
3,4-Dinitrotoluene	11.36	11.10 - 11.60	865.8817	869.4440	-0.4	
PETN	19.72	19.39 - 19.89	404.2527	385.2300	4.7	

Calibration Factor ( CF ) = Response divided by Concentration

Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100

\* = Percent Difference is outside the acceptance limits of +/-15%

# = The compound retention time is the expected retention time in the method.

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607HORWLG

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: B062607HORWLG  
 Lab File ID: O6290704.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
55-63-0	Nitroglycerin	2.5	U
78-11-5	PETN	1.2	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607HORWLG2

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SPE  
 Concentrated Extract Volume: 5000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Contract: N/A  
 Run Sequence: R019488  
 Lab Sample ID: S062607HORWLG2  
 Lab File ID: O6290705.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 06/29/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
55-63-0	Nitroglycerin	8.75	
78-11-5	PETN	3.38	

Comments:

# Forms Summary

CAB34

Ordinance by Method 8303

2  
WATER ORDINANCE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB34

Run Sequence: R019702

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (D2M) #	S2 ( ) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB34-009) 15LCMW04SW	108				0
(CAB34-007) 15LCMW04DW	104				0
(CAB34-005) 15LCMW03DW	107				0
(CAB34-003) 15LCMW415W	101				0
(CAB34-001) 15LCMW03SW	109				0
(S062607HSVWLS) S062607HSVWLS	102				0
(B062607HSVWLS) B062607HSVWLS	102				0

QC LIMITS  
70-115

S1 (D2M) = 4,6-Dinitro-2-methylpheno  
S2 ( ) =  
S3 ( ) =  
S4 ( ) =

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits



3B  
WATER ORDNANCE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
BS Run Sequence: R019702 SDG No.: CAB34  
BS Lab Sample ID: S062607HSVWLS  
Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Picric Acid	4.00	3.3821	85		61-128
Picramic Acid	4.00	3.9577	99		47-110

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

ORDNANCE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062607HSVWLS

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B062607HSVWLS SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water Date Prepared: 06/26/2007  
 Lab File ID (1): F71707A.b-F7170719.D Lab File ID (2): \_\_\_\_\_  
 Date Analyzed (1): 07/17/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 16:38 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HPLC3 (Felix) Instrument ID (2): \_\_\_\_\_  
 Column(1): Supelcosil LC-CN ID: 4.60 (mm) Column(2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
15LCMW03SW	CAB34-001	1	F7170729.D	07/17/2007 18:38	R019702
15LCMW415W	CAB34-003	1	F7170730.D	07/17/2007 18:51	R019702
15LCMW03DW	CAB34-005	1	F7170731.D	07/17/2007 19:03	R019702
15LCMW04DW	CAB34-007	1	F7170732.D	07/17/2007 19:15	R019702
15LCMW04SW	CAB34-009	1	F7170733.D	07/17/2007 19:27	R019702
S062607HSVWLS	S062607HSVWLS	1	F7170720.D	07/17/2007 16:50	R019702

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1020.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: 8.5-9

Contract: N/A  
 Run Sequence: R019702  
 Lab Sample ID: CAB34-001  
 Lab File ID: F7170729.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
88-89-1	Picric Acid	1.1	U
96-91-3	Picramic Acid	1.1	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW415W

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: 8.5-9

Contract: N/A  
 Run Sequence: R019702  
 Lab Sample ID: CAB34-003  
 Lab File ID: F7170730.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
88-89-1	Picric Acid	1.0		U
96-91-3	Picramic Acid	1.0		U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: 8.5-9

Contract: N/A  
 Run Sequence: R019702  
 Lab Sample ID: CAB34-005  
 Lab File ID: F7170731.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
88-89-1	Picric Acid	1.0	U
96-91-3	Picramic Acid	1.0	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04DW

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB34

Run Sequence: R019702

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB34-007

Sample wt/vol: 1060.0 (g/mL) mL

Lab File ID: F7170732.D

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: 06/22/2007

Extraction: (Type) SEPF

Date Extracted: 06/26/2007

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/17/2007

Injection Volume: 50.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: 8.5-9

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
88-89-1	Picric Acid	1.0	U
96-91-3	Picramic Acid	1.0	U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1060.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: 8.5-9

Contract: N/A  
 Run Sequence: R019702  
 Lab Sample ID: CAB34-009  
 Lab File ID: F7170733.D  
 Date Collected: 06/22/2007  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-89-1	Picric Acid	1.0	U
96-91-3	Picramic Acid	1.0	U

Comments:

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 17-JUL-2007 14:55  
 End Cal Date : 17-JUL-2007 15:44  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix\Felix.1\F71707.b\F71707PICN.m  
 Sublist : all.sub  
 Column : CN  
 Column Size : 0m L - 4.60mm ID

Calibration Files:

Level 1: //ceres/labdata/hplc/felix/Felix.1/F71707B.b/F7170711.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.1/F71707B.b/F7170712.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.1/F71707B.b/F7170713.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.1/F71707B.b/F7170714.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.1/F71707B.b/F7170715.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave CF	%RSD
1 Picramic Acid	353.4140	344.7840	346.9592	344.6130	338.7560	345.7052	1.5
2 Picric Acid	70.44000	68.37800	72.53480	75.06050	77.69160	72.82098	5.1
3 4,6-Dinitro-o-Cresol	303.8020	297.0350	301.0240	303.2348	300.6800	301.1552	0.9
Average RSD :							2.5

Amount = Response divided by CF

CF - Calibration Factor ( response divided by concentration ).  
 RSD - Relative Standard Deviation.

07/18/2007 09:17

ICAL Linearity Summary v2.0



Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 17-JUL-2007 14:55  
 End Cal Date : 17-JUL-2007 15:44  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\felix\Felix.i\F71707.b\F71707PICCN.m  
 Sublist : all.sub  
 Column : CN  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170711.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170712.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170713.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170714.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170715.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Ave RT
1 Picramic Acid	3.65	3.65	3.64	3.64	3.63	3.642
2 Picric Acid	3.22	3.21	3.18	3.17	3.16	3.190
3 4,6-Dinitro-o-Cresol	5.96	5.90	5.78	5.72	5.70	5.814

Retention times are expressed as minutes.

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ICAL RT Summary v2.0

Page 1

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 17-JUL-2007 14:55  
 End Cal Date : 17-JUL-2007 15:44  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix.i\F71707.b\F71707PICCN.m  
 Sublist : all.sub  
 Column : CN  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170711.D  
 Level 2: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170712.D  
 Level 3: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170713.D  
 Level 4: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170714.D  
 Level 5: //ceres/labdata/hplc/Felix.i/F71707B.b/F7170715.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 Picramic Acid	500.00	1000.00	2500.00	4000.00	5000.00
2 Picric Acid	500.00	1000.00	2500.00	4000.00	5000.00
3 4,6-Dinitro-o-Cresol	500.00	1000.00	2500.00	4000.00	5000.00

Standard concentrations are expressed as ng/mL.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 17-JUL-2007 14:55  
 End Cal Date : 17-JUL-2007 15:44  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : HP Genie  
 Method File : \\ceres\labdata\hplc\Felix\Felix.i\F71707.b\F71707PICN.m  
 Sublist : all.sub  
 Column : CN  
 Column Size : 0m L - 4.60mm ID

Calibration Files:  
 Level 1: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170711.D  
 Level 2: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170712.D  
 Level 3: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170713.D  
 Level 4: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170714.D  
 Level 5: //ceres/labdata/hplc/felix/Felix.i/F71707B.b/F7170715.D

Compound	Level 1	Level 2	Level 3	Level 4	Level 5
1 Picramic Acid	176707.00	344784.00	867398.00	1378452.0	1693780.0
2 Picric Acid	35220.000	68378.000	181337.00	300242.00	388458.00
3 4,6-Dinitro-o-Cresol	151901.00	297035.00	752560.00	1212939.0	1503400.0

Response is in Area units.

Laucks Testing Labs  
Initial Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/felix/Felix.i/F71707A.b/F7170718.D
Injection Date  : 17-JUL-2007 16:26
Sample Info     : STD03 2500PPB LTL 8303
Misc. Info      : ICV
Laboratory ID   : STD03 2500PPB           Client ID   : HPLC1-16-17 4X
Instrument ID   : Felix.i                 Operator    : MY
Method          : F71707PICCN.m          Sublist     : all
Quantitation    : ESTD                    Integrator   : HP Genie
Dilution Factor : 1.00                   Sample Type : CCALIB_3
Column          : CN                      Column Size : 0.25m L- 4.60mm ID
  
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
Picric Acid	3.18	2.28 - 4.08	72.82098	72.75360	0.1	
Picramic Acid	3.64	3.39 - 3.89	345.7052	348.2684	-0.7	
4,6-Dinitro-o-Cresol	5.80	4.84 - 6.76	301.1552	301.4824	-0.1	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/felix/Felix.i/F71707A.b/F7170728.D
Injection Date  : 17-JUL-2007 18:26
Sample Info     : STD03 2500PPB LTL 8303
Misc. Info      : SOP#:LTL-8303
Laboratory ID   : STD03 2500PPB
Instrument ID    : Felix.i
Method          : F71707PICCN.m
Quantitation    : ESTD
Dilution Factor : 1.00
Column          : CN
Client ID       : HPLC1-16-17
Operator        : MY
Sublist         : all
Integrator      : HP Genie
Sample Type     : CCALIB_3
Column Size     : 0.25m L- 4.60mm ID
    
```

Compound	RT	RT Window	Average CF	Continuing CF	%D	Flag
Picric Acid	3.20	2.28 - 4.08	72.82098	82.54360	-13.4	
Picramic Acid	3.63	3.39 - 3.89	345.7052	331.9600	4.0	
4,6-Dinitro-o-Cresol	5.74	4.84 - 6.76	301.1552	301.2832	-0.0	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : //ceres/labdata/hplc/felix/Felix.i/F71707A.b/F7170735.D
Injection Date  : 17-JUL-2007 19:51
Sample Info     : STD03 2500PPB LTL 8303
Misc. Info      : SOP#:LTL-8303
Laboratory ID   : STD03 2500PPB
Instrument ID    : Felix.i
Method          : F71707PICCN.m
Quantitation    : ESTD
Dilution Factor : 1.00
Column          : CN
Client ID       : HPLC1-16-17
Operator        : MY
Sublist         : all
Integrator      : HP Genie
Sample Type     : CCALIB 3
Column Size     : 0.25m L- 4.60mm ID
    
```

Compound	RT	RT Window	Average		%D	Flag
			CF	CF		
Picric Acid	3.21	2.28 - 4.08	72.82098	82.06800	-12.7	
Picramic Acid	3.63	3.39 - 3.89	345.7052	346.3196	-0.2	
4,6-Dinitro-o-Cresol	5.71	4.84 - 6.76	301.1552	312.3448	-3.7	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062607HSVWLS

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: 8.5-9

Contract: N/A  
 Run Sequence: R019702  
 Lab Sample ID: B062607HSVWLS  
 Lab File ID: F7170719.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
88-89-1	Picric Acid	1.1		U
96-91-3	Picramic Acid	1.1		U

Comments:

1  
ORDNANCE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062607HSVWLS

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 1000.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 50.0 (uL)  
 GPC Cleanup: (Y/N) N pH: 8.5-9

Contract: N/A  
 Run Sequence: R019702  
 Lab Sample ID: S062607HSVWLS  
 Lab File ID: F7170720.D  
 Date Collected: \_\_\_\_\_  
 Date Extracted: 06/26/2007  
 Date Analyzed: 07/17/2007  
 Dilution Factor: 2.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
88-89-1	Picric Acid	3.4	
96-91-3	Picramic Acid	4.0	

Comments:



# **Forms Summary**

NWTPH-Gasoline

CAB34

2  
WATER GASOLINE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB34

Run Sequence: R019583

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (BFB) #	S2 (TFT) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB34-009) 15LCMW04SW	84	89			0
(CAB34-007) 15LCMW04DW	86	92			0
(CAB34-005) 15LCMW03DW	85	92			0
(CAB34-003) 15LCMW415W	86	92			0
(CAB34-001MS) 15LCMW03SWMS	86	89			0
(CAB34-001Dup) 15LCMW03SWD	87	93			0
(CAB34-001) 15LCMW03SW	86	93			0
(S070507GVOWI1) S070507GVOWI1	88	91			0
(B070507GVOWI1) B070507GVOWI1	86	92			0

S1 (BFB) = 4-Bromofluorobenzene  
 S2 (TFT) = Trifluorotoluene  
 S3 ( ) =  
 S4 ( ) =

QC LIMITS  
 50-150  
 50-150

# Column to be used to flag recovery values  
 \* Values outside of contract required QC limits

3B  
WATER GASOLINE BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A  
BS Run Sequence: R019583 SDG No.: CAB34  
BS Lab Sample ID: S070507GVOWI1  
Level: N/A Units: ug/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Gasoline Range Organics	100	77.3867	77		71-122

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

COMMENTS:

## Laucks Testing Laboratories

### Duplicate Report

Test:	NWTPH Gas	SDG ID:	CAB34
		Preparation Date:	7/5/2007
Lab Sample ID:	CAB34-001Dup	Run Sequence ID:	R019583
Client Sample ID:	15LCMW03SW	Analysis Date:	07/05/2007 22:30
		Units:	ug/L
		Matrix	Water

Analyte	Parent Found	Duplicate Found	RPD	Limit
Gasoline Range Organics	5.3112	4.6868	12%	30

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB34-001	15LCMW03SW
CAB34-003	15LCMW415W
CAB34-005	15LCMW03DW
CAB34-007	15LCMW04DW
CAB34-009	15LCMW04SW

# = RPD Value is not flagged as an outlier because either the parent found amount or duplicate found amount or both are less than five times the reporting limit

\* = Value exceeded established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-20.0*

This report is submitted for the exclusive use of the person, partnership or corporation to whom it is addressed. Subsequent use of the name of this company or any of its staff in connection with the advertising or sale of any product or process will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of trade and science.

**SUM - 150**

**Laucks Testing Laboratories**  
**Matrix Spike Report**

Test:	NWTPH Gas	SDG ID:	CAB34
		Preparation Date:	07/05/2007
Lab Sample ID:	CAB34-001MS	Run Sequence ID:	R019583
Client Sample ID:	15LCMW03SWMS	Analysis Date:	7/5/2007 11:08:00PM
		Units:	ug/L
		Matrix:	Water

Analyte	Sample Found	Spike Added	MS Found	Recovery	Limit
Gasoline Range Organics	5.3112	100	77.1006	72%	67-125

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB34-001	15LCMW03SW
CAB34-003	15LCMW415W
CAB34-005	15LCMW03DW
CAB34-007	15LCMW04DW
CAB34-009	15LCMW04SW

# = This Recovery is not flagged as an exceedance because the Sample Found amount is five times or more than the Spike added amount

\* = RPD or percent recovery is outside the established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-21.0*

This report is submitted for the exclusive use of the person, partnership or corporation to whom it is addressed. Subsequent use of the name of this company or any of its staff in connection with the advertising or sale of any product or process will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of trade and science.

GASOLINE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B070507GVOWI1

Lab Name: Laucks Testing Labs Contract: N/A

Lab Sample ID: B070507GVOWI1 SDG No.: CAB34

Matrix: (SOIL/WATER) Water Date Prepared: 07/05/2007

Lab File ID (1): I7057-2.b-I705704.d Lab File ID (2): \_\_\_\_\_

Date Analyzed (1): 07/05/2007 Date Analyzed (2): \_\_\_\_\_

Time Analyzed (1): 20:35 Time Analyzed (2): \_\_\_\_\_

Instrument ID (1): HP 5890I Instrument ID (2): \_\_\_\_\_

Column(1): DB-VRX 30m/0.45u ID: 0.45 (mm) Column(2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
I5LCMW03SW	CAB34-001	1	I705706.d	07/05/2007 21:52	R019583
I5LCMW415W	CAB34-003	1	I705709.d	07/05/2007 23:47	R019583
I5LCMW03DW	CAB34-005	1	I705710.d	07/06/2007 00:25	R019583
I5LCMW04DW	CAB34-007	1	I705711.d	07/06/2007 01:03	R019583
I5LCMW04SW	CAB34-009	1	I705712.d	07/06/2007 01:42	R019583
S070507GVOWI1	S070507GVOWI1	1	I705705.d	07/05/2007 21:13	R019583
I5LCMW03SWMS	CAB34-001MS	1	I705708.d	07/05/2007 23:08	R019583
I5LCMW03SWD	CAB34-001Dup	1	I705707.d	07/05/2007 22:30	R019583

COMMENTS: \_\_\_\_\_

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03SW

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB34 Run Sequence: R019583  
 Matrix: (SOIL/WATER) Water Lab Sample ID: CAB34-001  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I705706.d  
 pH: <2 Decanted: (Y/N) N Date Collected: 06/22/2007  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/05/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/05/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	<u>Q</u>
TPH-Gasoline	Gasoline Range Organics	25	<u>U</u>

Comments:

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW415W
------------

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB34 Run Sequence: R019583  
 Matrix: (SOIL/WATER) Water Lab Sample ID: CAB34-003  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I705709.d  
 pH: <2 Decanted: (Y/N) N Date Collected: 06/22/2007  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/05/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/05/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
TPH-Gasoline	Gasoline Range Organics	25	U

Comments:



1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03DW

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB34 Run Sequence: R019583  
 Matrix: (SOIL/WATER) Water Lab Sample ID: CAB34-005  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I705710.d  
 pH: <2 Decanted: (Y/N) N Date Collected: 06/22/2007  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/05/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/06/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	<u>Q</u>
TPH-Gasoline	Gasoline Range Organics	25	U

Comments:

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04DW

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB34 Run Sequence: R019583  
 Matrix: (SOIL/WATER) Water Lab Sample ID: CAB34-007  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I705711.d  
 pH: <2 Decanted: (Y/N) N Date Collected: 06/22/2007  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/05/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/06/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	<u>Q</u>
TPH-Gasoline	Gasoline Range Organics	25	<u>U</u>

Comments:

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04SW

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB34 Run Sequence: R019583  
 Matrix: (SOIL/WATER) Water Lab Sample ID: CAB34-009  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I705712.d  
 pH: <2 Decanted: (Y/N) N Date Collected: 06/22/2007  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/05/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/06/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
TPH-Gasoline	Gasoline Range Organics	25	U

Comments:

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 02-AUG-2006 17:57  
 End Cal Date : 02-AUG-2006 21:09  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : Falcon  
 Method File : \\Ares\Target\Chem\58901.i\I8026N2.b\GN80201.m  
 Sublist : all-j.sub  
 Column : DB-VRX  
 Column Size : 30m L - 0.53mm ID

Calibration Files:

Level 1: //Ares/Target/Chem/58901.i/I8026N2.b/I802607.d  
 Level 2: //Ares/Target/Chem/58901.i/I8026N2.b/I802608.d  
 Level 3: //Ares/Target/Chem/58901.i/I8026N2.b/I802609.d  
 Level 4: //Ares/Target/Chem/58901.i/I8026N2.b/I802610.d  
 Level 5: //Ares/Target/Chem/58901.i/I8026N2.b/I802611.d  
 Level 6: //Ares/Target/Chem/58901.i/I8026N2.b/I802612.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Ave CF	%RSD
3 Gasoline	++++++	428.2400	438.0220	416.4760	410.3944	410.6138	420.7492	2.9
1 Trifluorokoluen	++++++	534.9600	548.1500	545.8200	543.9700	545.8275	543.7455	0.9
2 Bromofluorobenzene	++++++	406.0800	411.5000	406.9400	415.8767	424.2000	412.9193	1.8
Average RSD :								1.9

Amount = Response divided by CF

+++ - Standard level not used in linearity determination.

CF - Calibration Factor ( response divided by concentration ) :

RSD - Relative Standard Deviation.

Laucks Testing Labs  
Initial Calibration Response Summary

Start Cal Date: 02-AUG-2006 17:57  
 End Cal Date : 02-AUG-2006 21:09  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : Falcon  
 Method File : \\Ares\Target\Chem\58901.i\I8026N2.b\GN80201.m  
 Sublist : a1-j.sub  
 Column : DB-VRX  
 Column Size : 30m L - 0.53mm ID

Calibration Files:  
 Level 1: //Ares/Target/Chem/58901.i/I8026N2.b/I802607.d  
 Level 2: //Ares/Target/Chem/58901.i/I8026N2.b/I802608.d  
 Level 3: //Ares/Target/Chem/58901.i/I8026N2.b/I802609.d  
 Level 4: //Ares/Target/Chem/58901.i/I8026N2.b/I802610.d  
 Level 5: //Ares/Target/Chem/58901.i/I8026N2.b/I802611.d  
 Level 6: //Ares/Target/Chem/58901.i/I8026N2.b/I802612.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
3 Gasoline	+++++++	107060.00	219011.00	416476.00	1025986.0	2053069.0
1 Trifluorotoluene	+++++++	26748.000	54815.000	109164.00	163191.00	218331.00
2 Bromofluorobenzene	+++++++	20304.000	41150.000	81388.000	124763.00	169680.00

+++ - Standard Level not used in linearity determination.  
 Response is in Area units.

Laucks Testing Labs  
Initial Calibration Retention Time Summary

Start Cal Date: 02-AUG-2006 17:57  
 End Cal Date : 02-AUG-2006 21:09  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : Falcon  
 Method File : \\Ares\Target\Chem\58901.i\I8026N2.b\GN80201.m  
 Sublist : all-j.sub  
 Column : DB-VRX  
 Column Size : 30m L - 0.53mm ID

Calibration Files:

Level 1: //Ares/Target/Chem/58901.i/I8026N2.b/I802607.d  
 Level 2: //Ares/Target/Chem/58901.i/I8026N2.b/I802608.d  
 Level 3: //Ares/Target/Chem/58901.i/I8026N2.b/I802609.d  
 Level 4: //Ares/Target/Chem/58901.i/I8026N2.b/I802610.d  
 Level 5: //Ares/Target/Chem/58901.i/I8026N2.b/I802611.d  
 Level 6: //Ares/Target/Chem/58901.i/I8026N2.b/I802612.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Ave RT
1 Trifluorotoluene	++++++	6.44	6.44	6.44	6.45	6.45	6.445
2 Bromofluorobenzene	++++++	11.96	11.96	11.96	11.96	11.96	11.958

+++ - Standard level not used in linearity determination.  
 Retention times are expressed as minutes.

08/25/2006 06:31

ICAL RT Summary V2.0

Page 1

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 02-AUG-2006 17:57  
 End Cal Date : 02-AUG-2006 21:09  
 Quant Method : ESTD  
 Cal Curve Type: Average CF  
 Integrator : Falcon  
 Method File : \\Ares\Target\Chem\58901.i\I8026N2.b\GN80201.m  
 Sublist : all-j.sub  
 Column : DB-VRX  
 Column Size : 30m L - 0.53mm ID

Calibration Files:

Level 1: //Ares/Target/Chem/58901.i/I8026N2.b/I802607.d  
 Level 2: //Ares/Target/Chem/58901.i/I8026N2.b/I802608.d  
 Level 3: //Ares/Target/Chem/58901.i/I8026N2.b/I802609.d  
 Level 4: //Ares/Target/Chem/58901.i/I8026N2.b/I802610.d  
 Level 5: //Ares/Target/Chem/58901.i/I8026N2.b/I802611.d  
 Level 6: //Ares/Target/Chem/58901.i/I8026N2.b/I802612.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
3 Gasoline	+++++++	250.00	500.00	1000.00	2500.00	5000.00
1 Trifluorotoluene	+++++++	50.00	100.00	200.00	300.00	400.00
2 Bromofluorobenzene	+++++++	50.00	100.00	200.00	300.00	400.00

+++ - Standard Level not used in linearity determination.  
 Standard concentrations are expressed as ng.

Laboratory Name  
Initial Calibration Verification Summary

```

Data File       : //diana/target/5890i.i/I7057-2.b/I705702.d
Injection Date  : 05-JUL-2007 19:18
Sample Info     : CCV_A_GAS
Misc. Info     : ICV_NWTPHGx
Laboratory ID   : CCV_A_GAS
Instrument ID   : 5890i.i
Method         : GN80217.m
Quantitation    : ESTD
Dilution Factor : 1.00
Column         : DB-VRX
Client ID      : 10ul VOA5-42-6
Sublist       : all-j
Integrator    : Falcon
Sample Type   : CCALIB_3
Column Size   : 30.00m L- 0.53mm ID
  
```

Compound	RT	RT Window	Average CF	ICV CF	%D	Flag
Trifluorotoluene	6.57 #	6.52 - 6.62	543.7455	503.9000	-7.3	
Bromofluorobenzene	12.06 #	12.01 - 12.11	412.9193	367.9100	-10.9	
Gasoline		8.04 - 18.53	420.7492	420.9390	0.0	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = ( Ave CF - ICV CF ) divided by Ave CF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.



Laboratory Name  
Continuing Calibration Verification Summary

```

Data File       : //diana/target/5890i.i/I7057-2.b/I705713.d
Injection Date  : 06-JUL-2007 02:20
Sample Info     : CCV_B_GAS
Misc. Info      : NWTPHGx
Laboratory ID   : CCV_B_GAS
Instrument ID    : 5890I.i
Method          : GN80217.m
Quantitation    : ESTD
Dilution Factor : 1.00
Column          : DB-VRX
Client ID       : 10ul VOA5-42-6
Sublist        : all-j
Integrator     : Falcon
Sample Type    : CCALIB_3
Column Size    : 30.00m L- 0.53mm ID
  
```

Compound	RT	RT Window	Average Continuing		%D	Flag
			CF	CF		
Trifluorotoluene	6.57	6.52 - 6.62	543.7455	497.3150	-8.5	
Bromofluorobenzene	12.05	12.01 - 12.11	412.9193	366.3450	-11.3	
Gasoline		8.04 - 18.53	420.7492	393.1740	-6.6	

Calibration Factor ( CF ) = Response divided by Concentration  
 Percent Difference ( %D ) = (Ave CF - Cont CF) divided by AveCF times 100  
 \* = Percent Difference is outside the acceptance limits of +/-15%  
 # = The compound retention time is the expected retention time in the method.

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B070507GVOWI1

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB34 Run Sequence: R019583  
 Matrix: (SOIL/WATER) Water Lab Sample ID: B070507GVOWI1  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I705704.d  
 pH: \_\_\_\_\_ Decanted: (Y/N) N Date Collected: \_\_\_\_\_  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/05/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/05/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	<u>Q</u>
TPH-Gasoline	Gasoline Range Organics	25	U

Comments:

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S070507GVOWI1

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB34 Run Sequence: R019583  
 Matrix: (SOIL/WATER) Water Lab Sample ID: S070507GVOWI1  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I705705.d  
 pH: \_\_\_\_\_ Decanted: (Y/N) N Date Collected: \_\_\_\_\_  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/05/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/05/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
TPH-Gasoline	Gasoline Range Organics	77	

Comments:

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03SWD

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB34 Run Sequence: R019583  
 Matrix: (SOIL/WATER) Water Lab Sample ID: CAB34-001Dup  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I705707.d  
 pH: <2 Decanted: (Y/N) N Date Collected: 06/22/2007  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/05/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/05/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
TPH-Gasoline	Gasoline Range Organics	25		U

Comments:

1  
GASOLINE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03SWMS

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB34 Run Sequence: R019583  
 Matrix: (SOIL/WATER) Water Lab Sample ID: CAB34-001MS  
 Sample wt/vol: 10 (g/mL) mL Lab File ID: I705708.d  
 pH: <2 Decanted: (Y/N) N Date Collected: 06/22/2007  
 Percent Moisture: \_\_\_\_\_ Date Prepared: 07/05/2007  
 Extraction: (Type) PURGETRAP Date Analyzed: 07/05/2007  
 Soil Extract Volume: \_\_\_\_\_ (ul) Dilution Factor: 1.00  
 Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>ug/L</u>	Q
TPH-Gasoline	Gasoline Range Organics	77	

Comments:

# **Forms Summary**

NWTHP-Diesel

CAB34

2  
WATER DIESEL SURROGATE RECOVERY

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB34

Run Sequence: R019594

(LAB SAMPLE ID) CLIENT SAMPLE NUMBER	S1 (2FB) #	S2 (TER) #	S3 ( ) #	S4 ( ) #	TOT OUT
(CAB34-009) 15LCMW04SW	84	96			0
(CAB34-007) 15LCMW04DW	85	94			0
(CAB34-005) 15LCMW03DW	95	103			0
(CAB34-003) 15LCMW415W	75	91			0
(CAB34-001) 15LCMW03SW	80	95			0
(S062707GSVWLS) S062707GSVWLS	95	104			0
(B062707GSVWLS) B062707GSVWLS	94	102			0

QC LIMITS

S1 (2FB) = 2-Fluorobiphenyl

50-150

S2 (TER) = o-Terphenyl

50-150

S3 ( ) =

S4 ( ) =

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

3B  
WATER DIESEL BLANK SPIKE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

BS Run Sequence: R019594 SDG No.: CAB34

BS Lab Sample ID: S062707GSVWLS

Level: N/A Units: mg/L

Analyte	Spike Added	Found	% Rec	#	Rec Limit
Diesel Range Organics	1.25	1.2211	98		51-147

# Column to be used to flag recovery and RPD values with an asterisk  
\* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

COMMENTS:



DIESEL METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

B062707GSVWLS

Lab Name: Laucks Testing Labs Contract: N/A  
 Lab Sample ID: B062707GSVWLS SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water Date Prepared: 06/27/2007  
 Lab File ID (1): C7167WA.b-C716706.d Lab File ID (2): \_\_\_\_\_  
 Date Analyzed (1): 07/16/2007 Date Analyzed (2): \_\_\_\_\_  
 Time Analyzed (1): 09:36 Time Analyzed (2): \_\_\_\_\_  
 Instrument ID (1): HP 5890C Instrument ID (2): \_\_\_\_\_  
 Column(1): RTX-5 ID: 0.25 (mm) Column(2): \_\_\_\_\_ ID: \_\_\_\_\_ (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC SAMPLES:

CLIENT SAMPLE NO.	LAB SAMPLE ID	COL	LAB FILE ID	DATE/TIME ANALYZED	RUN SEQUENCE
15LCMW03SW	CAB34-001	1	C716719.d	07/16/2007 19:59	R019594
15LCMW415W	CAB34-003	1	C716720.d	07/16/2007 20:47	R019594
15LCMW03DW	CAB34-005	1	C716721.d	07/16/2007 21:35	R019594
15LCMW04DW	CAB34-007	1	C716722.d	07/16/2007 22:23	R019594
15LCMW04SW	CAB34-009	1	C716723.d	07/16/2007 23:11	R019594
S062707GSVWLS	S062707GSVWLS	1	C716707.d	07/16/2007 10:24	R019594

COMMENTS:

\_\_\_\_\_

1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 490.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: <2

Contract: N/A  
 Run Sequence: R019594  
 Lab Sample ID: CAB34-001  
 Lab File ID: C716719.d  
 Date Collected: 06/22/2007  
 Date Extracted: 06/27/2007  
 Date Analyzed: 07/16/2007  
 Dilution Factor: 1.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	0.10	U
TPH-Oil	Oil Range Organics	0.41	U

Comments:

1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW415W

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB34

Run Sequence: R019594

Matrix: (SOIL/WATER) Water

Lab Sample ID: CAB34-003

Sample wt/vol: 500.0 (g/mL) mL

Lab File ID: C716720.d

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: 06/22/2007

Extraction: (Type) SEPF

Date Extracted: 06/27/2007

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/16/2007

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: <2

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	0.10	U
TPH-Oil	Oil Range Organics	0.40	U

Comments:

1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW03DW

Lab Name: Laucks Testing Labs Contract: N/A  
 SDG No.: CAB34 Run Sequence: R019594  
 Matrix: (SOIL/WATER) Water Lab Sample ID: CAB34-005  
 Sample wt/vol: 490.0 (g/mL) mL Lab File ID: C716721.d  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N Date Collected: 06/22/2007  
 Extraction: (Type) SEPF Date Extracted: 06/27/2007  
 Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 07/16/2007  
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0  
 GPC Cleanup: (Y/N) N pH: <2 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	0.10	U
TPH-Oil	Oil Range Organics	0.41	U

Comments:

1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04DW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 470.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: <2

Contract: N/A  
 Run Sequence: R019594  
 Lab Sample ID: CAB34-007  
 Lab File ID: C716722.d  
 Date Collected: 06/22/2007  
 Date Extracted: 06/27/2007  
 Date Analyzed: 07/16/2007  
 Dilution Factor: 1.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	0.11	U
TPH-Oil	Oil Range Organics	0.43	U

Comments:

1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

15LCMW04SW

Lab Name: Laucks Testing Labs  
 SDG No.: CAB34  
 Matrix: (SOIL/WATER) Water  
 Sample wt/vol: 490.0 (g/mL) mL  
 % Moisture: \_\_\_\_\_ Decanted: (Y/N) N  
 Extraction: (Type) SEPF  
 Concentrated Extract Volume: 1000.0 (uL)  
 Injection Volume: 2.0 (uL)  
 GPC Cleanup: (Y/N) N pH: <2

Contract: N/A  
 Run Sequence: R019594  
 Lab Sample ID: CAB34-009  
 Lab File ID: C716723.d  
 Date Collected: 06/22/2007  
 Date Extracted: 06/27/2007  
 Date Analyzed: 07/16/2007  
 Dilution Factor: 1.0  
 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	0.10	U
TPH-Oil	Oil Range Organics	0.41	U

Comments:

Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 12-JUL-2007 18:07  
 End Cal Date : 12-JUL-2007 22:56  
 Quant Method : ESTD  
 Cal Curve Type: Linear  
 Integrator : FALCON  
 Method File : \\diana\Target\5890c.i\C7127WA.b\CDX71201.m  
 Sublist : all.d.sub  
 Column : RTX-5  
 Column Size : 30m L - 0.25mm ID

Calibration Files:

Level 1: //diana/Target/5890c.i/C7127WA.b/C712710.d  
 Level 2: //diana/Target/5890c.i/C7127WA.b/C712711.d  
 Level 3: //diana/Target/5890c.i/C7127WA.b/C712712.d  
 Level 4: //diana/Target/5890c.i/C7127WA.b/C712713.d  
 Level 5: //diana/Target/5890c.i/C7127WA.b/C712714.d  
 Level 6: //diana/Target/5890c.i/C7127WA.b/C712715.d  
 Level 7: //diana/Target/5890c.i/C7127WA.b/C712716.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Slope	Y-int	R <sup>2</sup>
1 Diesel	349446.00	579092.00	953341.00	1703381.0	4136141.0	7917017.0	15319226	7582.10000	-30.423	0.99981
3 2-Fluorobiphenyl	13027.00	36149.00	74573.00	148117.00	386143.00	764970.00	++++++	7689.80000	0.326	0.99993
4 o-Terphenyl	19778.00	50085.00	99162.00	191866.00	495136.00	974727.00	++++++	9762.20000	-0.089	0.99991
Average RSD :	1.0									

Amount = ( Response divided by Slope ) plus Y-int

+++ - Standard Level not used in linearity determination.

Responses expressed are Area units.  
 R<sup>2</sup> = The correlation co-efficient.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 12-JUL-2007 18:07  
 End Cal Date : 12-JUL-2007 22:56  
 Quant Method : ESTD  
 Cal Curve Type: Linear  
 Integrator : Falcon  
 Method File : \\diana\Target\5890c.i\C7127WA.b\CDX71201.m  
 Sublist : all.d.sub  
 Column : RTX-5  
 Column Size : 30m L - 0.25mm ID

Calibration Files:  
 Level 1: //diana/Target/5890c.i/C7127WA.b/C712710.d  
 Level 2: //diana/Target/5890c.i/C7127WA.b/C712711.d  
 Level 3: //diana/Target/5890c.i/C7127WA.b/C712712.d  
 Level 4: //diana/Target/5890c.i/C7127WA.b/C712713.d  
 Level 5: //diana/Target/5890c.i/C7127WA.b/C712714.d  
 Level 6: //diana/Target/5890c.i/C7127WA.b/C712715.d  
 Level 7: //diana/Target/5890c.i/C7127WA.b/C712716.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
1 Diesel	20.00	50.00	100.00	200.00	500.00	1000.00	2000.00
3 2-Fluorobiphenyl	2.00	5.00	10.00	20.00	50.00	100.00	++++++
4 o-Terphenyl	2.00	5.00	10.00	20.00	50.00	100.00	++++++

+++ - Standard Level not used in linearity determination.  
 Standard concentrations are expressed as ug/ml.



Laucks Testing Labs  
Initial Calibration Linearity Summary

Start Cal Date: 15-JUL-2007 08:22  
 End Cal Date : 15-JUL-2007 13:08  
 Quant Method : ESTD  
 Cal Curve Type: Linear  
 Integrator : Falcon  
 Method File : \\diana\Target\5890c.i\C7127WC.b\CDX71203.m  
 Sublist : mc.sub  
 Column : RTX-5  
 Column Size : 30m L - 0.25mm ID

Calibration Files:

Level 1: //diana/Target/5890c.i/C7127WC.b/C712787.d  
 Level 2: //diana/Target/5890c.i/C7127WC.b/C712788.d  
 Level 3: //diana/Target/5890c.i/C7127WC.b/C712789.d  
 Level 4: //diana/Target/5890c.i/C7127WC.b/C712790.d  
 Level 5: //diana/Target/5890c.i/C7127WC.b/C712791.d  
 Level 6: //diana/Target/5890c.i/C7127WC.b/C712792.d  
 Level 7: //diana/Target/5890c.i/C7127WC.b/C712793.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Slope	Y-int	R <sup>2</sup>
2 Motor Oil	1706304.0	2297239.0	4205304.0	7202610.0	12920670	15524061	+++++	5786.40000	-213.205	0.99937
Average RSD :	1.0									

Amount = ( Response divided by Slope ) plus Y-int

+++ - Standard Level not used in linearity determination.

Responses expressed are Area units.  
 R<sup>2</sup> = The correlation co-efficient.

Laucks Testing Labs  
Initial Calibration Amounts Summary

Start Cal Date: 15-JUL-2007 08:22  
 End Cal Date : 15-JUL-2007 13:08  
 Quant Method : ESTD  
 Cal Curve Type: Linear  
 Integrator : Falcon  
 Method File : \\diana\Target\5890c.i\C7127WC.b\CDX71203.m  
 Sublist : mo.sub  
 Column : RTX-5  
 Column Size : 30m L - 0.25mm ID

Calibration Files:

Level 1: //diana/Target/5890c.i/C7127WC.b/C712787.d  
 Level 2: //diana/Target/5890c.i/C7127WC.b/C712788.d  
 Level 3: //diana/Target/5890c.i/C7127WC.b/C712789.d  
 Level 4: //diana/Target/5890c.i/C7127WC.b/C712790.d  
 Level 5: //diana/Target/5890c.i/C7127WC.b/C712791.d  
 Level 6: //diana/Target/5890c.i/C7127WC.b/C712792.d  
 Level 7: //diana/Target/5890c.i/C7127WC.b/C712793.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
2 Motor Oil	100.00	200.00	500.00	1000.00	2000.00	2500.00	++++++

+++ - Standard Level not used in linearity determination.  
 Standard concentrations are expressed as ug/ml.

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : \\diana\Target\5890c.i\C7167WA.b\C716703.d
Injection Date  : 16-JUL-2007 07:13
Sample Info     : D250PPM
Misc. Info      : NWTPHDx / 8015mod - Diesel
Laboratory ID   : D250PPM           Client ID    : MA8-31-20
Instrument ID    : 5890c.i           Operator     : CMP
Method          : CDX71204.m        Sublist      : all
Quantitation    : ESTD              Integrator    : Falcon
Dilution Factor : 1.00             Sample Type  : CCALIB_3
Column          : RTX-5             Column Size  : 30.00m L- 0.25mm ID
  
```

Compound	RT	RT Window	Expected Continuing		%D	Flag
			Amount	Amount		
2-Fluorobiphenyl	12.66	12.61 - 12.71	20.000	20.137	0.7	
Diesel		9.93 - 23.98	250.00	237.32	-5.1	
o-Terphenyl	19.32	19.28 - 19.38	20.000	19.178	-4.1	

%Drift ( %D ) = Continuing Amount - Expected Amount divided by Expected Amount times 100

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : \\diana\Target\5890c.i\C7167WA.b\C716704.d
Injection Date  : 16-JUL-2007 08:00
Sample Info     : O2000PPM
Misc. Info      : NWTPHDx / 8015mod - Diesel
Laboratory ID   : O2000PPM          Client ID   : MA8-31-19
Instrument ID    : 5890c.i          Operator    : CMP
Method          : CDX71204.m       Sublist     : mo
Quantitation    : ESTD              Integrator  : Falcon
Dilution Factor : 1.00             Sample Type : CCALIB_3
Column          : RTX-5             Column Size : 30.00m L- 0.25mm ID
    
```

Compound	RT	RT Window	Expected Continuing		%D	Flag
			Amount	Amount		
Motor Oil		23.98 - 37.48	2000.0	1949.4	-2.5	

%Drift ( %D ) = Continuing Amount - Expected Amount divided by Expected Amount times 100

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : \\diana\Target\5890c.i\C7167WA.b\C716715.d
Injection Date  : 16-JUL-2007 16:47
Sample Info     : D250PPM
Misc. Info      : NWTPHDx / 8015mod - Diesel
Laboratory ID   : D250PPM
Instrument ID    : 5890c.i
Method          : CDX71204.m
Quantitation    : ESTD
Dilution Factor : 1.00
Column          : RTX-5
Client ID       : MA8-31-20
Operator        : CMP
Sublist         : all
Integrator      : Falcon
Sample Type     : CCALIB_3
Column Size     : 30.00m L- 0.25mm ID
    
```

Compound	RT	RT Window	Expected Continuing		%D	Flag
			Amount	Amount		
2-Fluorobiphenyl	12.66	12.61 - 12.71	20.000	19.660	-1.7	
Diesel		9.93 - 23.98	250.00	229.67	-8.1	
o-Terphenyl	19.32	19.28 - 19.38	20.000	18.558	-7.2	

%Drift ( %D ) = Continuing Amount - Expected Amount divided by Expected Amount times 100

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : \\diana\Target\5890c.i\C7167WA.b\C716716.d
Injection Date  : 16-JUL-2007 17:35
Sample Info     : O2000PPM
Misc. Info      : NWTPHDx / 8015mod - Diesel
Laboratory ID   : O2000PPM           Client ID   : MA8-31-19
Instrument ID    : 5890c.i           Operator    : CMP
Method          : CDX71204.m        Sublist     : mo
Quantitation    : ESTD              Integrator   : Falcon
Dilution Factor : 1.00             Sample Type : CCALIB_3
Column          : RTX-5             Column Size : 30.00m L- 0.25mm ID
  
```

Compound	RT	RT Window	Expected Continuing		%D	Flag
			Amount	Amount		
Motor Oil		23.98 - 37.48	2000.0	1908.7	-4.6	

%Drift ( %D ) = Continuing Amount - Expected Amount divided by Expected Amount times 100

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : \\diana\Target\5890c.i\C7167WA.b\C716725.d
Injection Date  : 17-JUL-2007 00:47
Sample Info     : D250PPM
Misc. Info      : NWTPHDx / 8015mod - Diesel
Laboratory ID   : D250PPM           Client ID    : MA8-31-20
Instrument ID    : 5890c.i           Operator     : CMP
Method          : CDX71204.m         Sublist      : alld
Quantitation    : ESTD               Integrator    : Falcon
Dilution Factor : 1.00              Sample Type  : CCALIB_3
Column          : RTX-5              Column Size  : 30.00m L- 0.25mm ID
  
```

Compound	RT	RT Window	Expected Continuing		%D	Flag
			Amount	Amount		
2-Fluorobiphenyl	12.66	12.61 - 12.71	20.000	19.762	-1.2	
Diesel		9.93 - 23.98	250.00	233.59	-6.6	
o-Terphenyl	19.32	19.28 - 19.38	20.000	18.716	-6.4	

%Drift ( %D ) = Continuing Amount - Expected Amount divided by Expected Amount times 100

Laucks Testing Labs  
Continuing Calibration Verification Summary

```

Data File       : \\diana\Target\5890c.i\C7167WA.b\C716726.d
Injection Date  : 17-JUL-2007 01:35
Sample Info     : O2000PPM
Misc. Info      : NWTPHDx / 8015mod - Diesel
Laboratory ID   : O2000PPM           Client ID    : MA8-31-19
Instrument ID   : 5890c.i           Operator     : CMP
Method          : CDX71204.m        Sublist      : mo
Quantitation    : ESTD              Integrator    : Falcon
Dilution Factor : 1.00             Sample Type  : CCALIB_3
Column          : RTX-5             Column Size  : 30.00m L- 0.25mm ID
    
```

Compound	RT	RT Window	Expected Continuing		%D	Flag
			Amount	Amount		
Motor Oil		23.98 - 37.48	2000.0	1961.5	-1.9	

%Drift ( %D ) = Continuing Amount - Expected Amount divided by Expected Amount times 100



1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B062707GSVWLS

Lab Name: Laucks Testing Labs

Contract: N/A

SDG No.: CAB34

Run Sequence: R019594

Matrix: (SOIL/WATER) Water

Lab Sample ID: B062707GSVWLS

Sample wt/vol: 400.0 (g/mL) mL

Lab File ID: C716706.d

% Moisture: \_\_\_\_\_ Decanted: (Y/N) N

Date Collected: \_\_\_\_\_

Extraction: (Type) SEPF

Date Extracted: 06/27/2007

Concentrated Extract Volume: 1000.0 (uL)

Date Analyzed: 07/16/2007

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: <2

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	0.13	U
TPH-Oil	Oil Range Organics	0.50	U

Comments:

1  
DIESEL ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

S062707GSVWLS

Lab Name: <u>Laucks Testing Labs</u>	Contract: <u>N/A</u>
SDG No.: <u>CAB34</u>	Run Sequence: <u>R019594</u>
Matrix: (SOIL/WATER) <u>Water</u>	Lab Sample ID: <u>S062707GSVWLS</u>
Sample wt/vol: <u>400.0</u> (g/mL) <u>mL</u>	Lab File ID: <u>C716707.d</u>
% Moisture: _____ Decanted: (Y/N) <u>N</u>	Date Collected: _____
Extraction: (Type) <u>SEPF</u>	Date Extracted: <u>06/27/2007</u>
Concentrated Extract Volume: <u>1000.0</u> (uL)	Date Analyzed: <u>07/16/2007</u>
Injection Volume: <u>2.0</u> (uL)	Dilution Factor: <u>1.0</u>
GPC Cleanup: (Y/N) <u>N</u> pH: <u>&lt;2</u>	Sulfur Cleanup: (Y/N) <u>N</u>

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) <u>mg/L</u>	Q
TPH-Diesel	Diesel Range Organics	1.2	

Comments:

**FORMS SUMMARY**

**CAB34**

**Metals Data**

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW03SW

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB34Matrix (soil/water): WaterLab Sample ID: CAB34-001Level (low/med): LOWDate Received: 06/23/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.0560	U		M	R019494
7440-38-2	Arsenic	0.544	J		M	R019494
7440-41-7	Beryllium	0.0430	U		M	R019494
7440-43-9	Cadmium	0.0940	U		M	R019494
7440-47-3	Chromium	0.206	J		M	R019494
7440-50-8	Copper	0.520	U		M	R019494
7439-92-1	Lead	0.0750	U		M	R019494
7439-97-6	Mercury	0.0180	U		CV	R019215
7440-02-0	Nickel	0.531	J		M	R019494
7782-49-2	Selenium	0.145	J		M	R019494
7440-22-4	Silver	0.0850	U		M	R019494
7440-28-0	Thallium	0.0440	U		M	R019494
7440-66-6	Zinc	1.80	U		M	R019494

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW03SW (Filt.)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB34Matrix (soil/water): WaterLab Sample ID: CAB34-002Level (low/med): LOWDate Received: 06/23/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.205	J		M	R019494
7440-38-2	Arsenic	0.499	J		M	R019494
7440-41-7	Beryllium	0.0430	U		M	R019494
7440-43-9	Cadmium	0.0940	U		M	R019494
7440-47-3	Chromium	0.356	J		M	R019494
7440-50-8	Copper	0.520	U		M	R019494
7439-92-1	Lead	0.0750	U		M	R019494
7439-97-6	Mercury	0.0180	U		CV	R019215
7440-02-0	Nickel	0.781	J		M	R019494
7782-49-2	Selenium	0.110	U		M	R019494
7440-22-4	Silver	0.0850	U		M	R019494
7440-28-0	Thallium	0.0440	U		M	R019494
7440-66-6	Zinc	1.80	U		M	R019494

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW415W

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB34Matrix (soil/water): WaterLab Sample ID: CAB34-003Level (low/med): LOWDate Received: 06/23/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.181	J		M	R019494
7440-38-2	Arsenic	0.778	J		M	R019494
7440-41-7	Beryllium	0.0430	U		M	R019494
7440-43-9	Cadmium	0.0940	U		M	R019494
7440-47-3	Chromium	0.304	J		M	R019494
7440-50-8	Copper	0.520	U		M	R019494
7439-92-1	Lead	0.0750	U		M	R019494
7439-97-6	Mercury	0.0180	U		CV	R019215
7440-02-0	Nickel	0.607	J		M	R019494
7782-49-2	Selenium	0.188	J		M	R019494
7440-22-4	Silver	0.0850	U		M	R019494
7440-28-0	Thallium	0.0440	U		M	R019494
7440-66-6	Zinc	1.80	U		M	R019494

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCW415W (Filt.)

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB34  
 Matrix (soil/water): Water Lab Sample ID: CAB34-004  
 Level (low/med): LOW Date Received: 06/23/2007  
 % Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.0560	U		M	R019494
7440-38-2	Arsenic	0.787	J		M	R019494
7440-41-7	Beryllium	0.0430	U		M	R019494
7440-43-9	Cadmium	0.0940	U		M	R019494
7440-47-3	Chromium	0.349	J		M	R019494
7440-50-8	Copper	0.520	U		M	R019494
7439-92-1	Lead	0.0750	U		M	R019494
7439-97-6	Mercury	0.0180	U		CV	R019215
7440-02-0	Nickel	1.41			M	R019494
7782-49-2	Selenium	0.110	U		M	R019494
7440-22-4	Silver	0.0850	U		M	R019494
7440-28-0	Thallium	0.0440	U		M	R019494
7440-66-6	Zinc	1.80	U		M	R019494

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_  
 Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW03DW

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB34Matrix (soil/water): WaterLab Sample ID: CAB34-005Level (low/med): LOWDate Received: 06/23/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.0560	U		M	R019494
7440-38-2	Arsenic	0.797	J		M	R019494
7440-41-7	Beryllium	0.0430	U		M	R019494
7440-43-9	Cadmium	0.0940	U		M	R019494
7440-47-3	Chromium	0.312	J		M	R019494
7440-50-8	Copper	0.520	U		M	R019494
7439-92-1	Lead	0.0750	U		M	R019494
7439-97-6	Mercury	0.0180	U		CV	R019215
7440-02-0	Nickel	0.624	J		M	R019494
7782-49-2	Selenium	0.110	U		M	R019494
7440-22-4	Silver	0.0850	U		M	R019494
7440-28-0	Thallium	0.0440	U		M	R019494
7440-66-6	Zinc	2.17	J		M	R019494

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_



## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW03DW (Filt.)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB34Matrix (soil/water): WaterLab Sample ID: CAB34-006Level (low/med): LOWDate Received: 06/23/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.0560	U		M	R019494
7440-38-2	Arsenic	0.745	J		M	R019494
7440-41-7	Beryllium	0.0430	U		M	R019494
7440-43-9	Cadmium	0.0940	U		M	R019494
7440-47-3	Chromium	0.596	J		M	R019494
7440-50-8	Copper	0.520	U		M	R019494
7439-92-1	Lead	0.0750	U		M	R019494
7439-97-6	Mercury	0.0180	U		CV	R019215
7440-02-0	Nickel	1.60			M	R019494
7782-49-2	Selenium	0.110	U		M	R019494
7440-22-4	Silver	0.0850	U		M	R019494
7440-28-0	Thallium	0.0440	U		M	R019494
7440-66-6	Zinc	1.80	U		M	R019494

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW04DW

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB34Matrix (soil/water): WaterLab Sample ID: CAB34-007Level (low/med): LOWDate Received: 06/23/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.0560	U		M	R019494
7440-38-2	Arsenic	1.10			M	R019494
7440-41-7	Beryllium	0.0430	U		M	R019494
7440-43-9	Cadmium	0.0940	U		M	R019494
7440-47-3	Chromium	0.589	J		M	R019494
7440-50-8	Copper	0.520	U		M	R019494
7439-92-1	Lead	0.0750	U		M	R019494
7439-97-6	Mercury	0.0180	U		CV	R019215
7440-02-0	Nickel	0.761	J		M	R019494
7782-49-2	Selenium	0.110	U		M	R019494
7440-22-4	Silver	0.0850	U		M	R019494
7440-28-0	Thallium	0.0440	U		M	R019494
7440-66-6	Zinc	2.82	J		M	R019494

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW04DW (Filt.)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB34Matrix (soil/water): WaterLab Sample ID: CAB34-008Level (low/med): LOWDate Received: 06/23/2007

% Solids: \_\_\_\_\_

Concentration Units : uc/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.0560	U		M	R019494
7440-38-2	Arsenic	1.16			M	R019494
7440-41-7	Beryllium	0.0430	U		M	R019494
7440-43-9	Cadmium	0.0940	U		M	R019494
7440-47-3	Chromium	0.481	J		M	R019494
7440-50-8	Copper	0.520	U		M	R019494
7439-92-1	Lead	0.0750	U		M	R019494
7439-97-6	Mercury	0.0180	U		CV	R019215
7440-02-0	Nickel	1.07			M	R019494
7782-49-2	Selenium	0.381	J		M	R019494
7440-22-4	Silver	0.0850	U		M	R019494
7440-28-0	Thallium	0.0440	U		M	R019494
7440-66-6	Zinc	2.89	J		M	R019494

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW04SW

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB34Matrix (soil/water): WaterLab Sample ID: CAB34-009Level (low/med): LOWDate Received: 06/23/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.0560	U		M	R019494
7440-38-2	Arsenic	0.145	J		M	R019494
7440-41-7	Beryllium	0.0430	U		M	R019494
7440-43-9	Cadmium	0.0940	U		M	R019494
7440-47-3	Chromium	0.621	J		M	R019494
7440-50-8	Copper	0.520	U		M	R019494
7439-92-1	Lead	0.0750	U		M	R019494
7439-97-6	Mercury	0.0180	U		CV	R019215
7440-02-0	Nickel	0.767	J		M	R019494
7782-49-2	Selenium	0.110	U		M	R019494
7440-22-4	Silver	0.0850	U		M	R019494
7440-28-0	Thallium	0.0440	U		M	R019494
7440-66-6	Zinc	1.80	U		M	R019494

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_

## INORGANIC ANALYSES DATA SHEET

SAMPLE NO.

15LCMW04SW (Filt.)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB34Matrix (soil/water): WaterLab Sample ID: CAB34-010Level (low/med): LOWDate Received: 06/23/2007

% Solids: \_\_\_\_\_

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	Run Seq.
7440-36-0	Antimony	0.0560	U		M	R019494
7440-38-2	Arsenic	0.110	J		M	R019494
7440-41-7	Beryllium	0.0430	U		M	R019494
7440-43-9	Cadmium	0.0940	U		M	R019494
7440-47-3	Chromium	0.585	J		M	R019494
7440-50-8	Copper	0.520	U		M	R019494
7439-92-1	Lead	0.0750	U		M	R019494
7439-97-6	Mercury	0.0180	U		CV	R019215
7440-02-0	Nickel	0.846	J		M	R019494
7782-49-2	Selenium	0.110	U		M	R019494
7440-22-4	Silver	0.0850	U		M	R019494
7440-28-0	Thallium	0.0440	U		M	R019494
7440-66-6	Zinc	2.11	J		M	R019494

Color Before: Colorless Clarity Before: Clear Texture: \_\_\_\_\_Color After: Colorless Clarity After: Clear Artifacts: No

Comment \_\_\_\_\_

SW-846

2A

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_Lab Code: LAUCKS SDG No.: CAB34 Run Sequence ID: R019494Initial Calibration Source: ME-15-161-12Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration ICV				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV1		CCV2				
	Limits	True	Found	%R(1)	Limits	True	Found	%R(1)	Found	%R(1)	
Antimony	90-110	60	60.523	100.9	90 - 110	50.000	49.160	98.3	48.102	96.2	M
Arsenic	90-110	60	60.339	100.6	90 - 110	50.000	49.602	99.2	50.196	100.4	M
Beryllium	90-110	60	60.025	100.0	90 - 110	50.000	49.999	100.0	52.527	105.1	M
Cadmium	90-110	60	60.026	100.0	90 - 110	50.000	49.498	99.0	49.979	100.0	M
Chromium	90-110	60	64.243	107.1	90 - 110	50.000	52.860	105.7	52.949	105.9	M
Copper	90-110	60	62.057	103.4	90 - 110	50.000	51.388	102.8	52.394	104.8	M
Lead	90-110	60	62.003	103.3	90 - 110	50.000	52.821	105.6	52.312	104.6	M
Nickel	90-110	60	62.686	104.5	90 - 110	50.000	49.119	98.2	49.387	98.8	M
Selenium	90-110	60	63.125	105.2	90 - 110	50.000	49.639	99.3	50.593	101.2	M
Silver	90-110	60	59.508	99.2	90 - 110	50.000	52.281	104.6	52.335	104.7	M
Thallium	90-110	60	62.579	104.3	90 - 110	50.000	53.019	106.0	52.397	104.8	M
Zinc	90-110	60	62.712	104.5	90 - 110	50.000	50.118	100.2	50.747	101.5	M

SW-846

2A

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34Run Sequence ID: R019494

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV3			CCV4			
					Limits	True	Found	%R(1)	Found	%R(1)	
Antimony					90 - 110	50.000	48.392	96.8	46.179	92.4	M
Arsenic					90 - 110	50.000	49.984	100.0	47.923	95.8	M
Beryllium					90 - 110	50.000	54.390	108.8	52.239	104.5	M
Cadmium					90 - 110	50.000	50.287	100.6	49.795	99.6	M
Chromium					90 - 110	50.000	51.241	102.5	51.547	103.1	M
Copper					90 - 110	50.000	52.453	104.9	53.304	106.6	M
Lead					90 - 110	50.000	53.358	106.7	53.645	107.3	M
Nickel					90 - 110	50.000	52.003	104.0	52.534	105.1	M
Selenium					90 - 110	50.000	51.470	102.9	50.024	100.0	M
Silver					90 - 110	50.000	52.971	105.9	52.494	105.0	M
Thallium					90 - 110	50.000	53.166	106.3	53.945	107.9	M
Zinc					90 - 110	50.000	52.100	104.2	51.171	102.3	M

SW-846

2A

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34Run Sequence ID: R019494

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV5			CCV6			
					Limits	True	Found	%R(1)	Found	%R(1)	
Antimony					90 - 110	50.000	47.940	95.9	46.549	93.1	M
Arsenic					90 - 110	50.000	52.167	104.3	49.285	98.6	M
Beryllium					90 - 110	50.000	57.300	114.6	60.494	121.0	M
Cadmium					90 - 110	50.000	48.955	97.9	48.493	97.0	M
Chromium					90 - 110	50.000	51.230	102.5	53.150	106.3	M
Copper					90 - 110	50.000	56.009	112.0	53.398	106.8	M
Lead					90 - 110	50.000	53.307	106.6	54.490	109.0	M
Nickel					90 - 110	50.000	52.118	104.2	51.528	103.1	M
Selenium					90 - 110	50.000	52.334	104.7	50.482	101.0	M
Silver					90 - 110	50.000	52.146	104.3	51.882	103.8	M
Thallium					90 - 110	50.000	52.652	105.3	54.416	108.8	M
Zinc					90 - 110	50.000	53.007	106.0	53.133	106.3	M



SW-846

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34 Run Sequence ID: R019494

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV7			CCV8			
					Limits	True	Found	%R(1)	Found	%R(1)	
Antimony					90 - 110	50.000	47.178	94.4	47.587	95.2	M
Arsenic					90 - 110	50.000	50.691	101.4	50.301	100.6	M
Beryllium					90 - 110	50.000	58.261	116.5	57.454	114.9	M
Cadmium					90 - 110	50.000	48.844	97.7	49.182	98.4	M
Chromium					90 - 110	50.000	52.967	105.9	52.927	105.9	M
Copper					90 - 110	50.000	52.888	105.8	53.877	107.8	M
Lead					90 - 110	50.000	54.492	109.0	53.305	106.6	M
Nickel					90 - 110	50.000	50.057	100.1	51.918	103.8	M
Selenium					90 - 110	50.000	52.768	105.5	51.151	102.3	M
Silver					90 - 110	50.000	51.039	102.1	52.029	104.1	M
Thallium					90 - 110	50.000	53.238	106.5	52.763	105.5	M
Zinc					90 - 110	50.000	52.828	105.7	51.730	103.5	M

SW-846

2A

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_Lab Code: LAUCKS SDG No.: CAB34 Run Sequence ID: R019494

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV9			CCV10			
					Limits	True	Found	%R(1)	Found	%R(1)	
Antimony					90 - 110	50.000	47.132	94.3	47.498	95.0	M
Arsenic					90 - 110	50.000	50.045	100.1	50.664	101.3	M
Beryllium					90 - 110	50.000	56.465	112.9	58.660	117.3	M
Cadmium					90 - 110	50.000	48.238	96.5	48.089	96.2	M
Chromium					90 - 110	50.000	53.705	107.4	52.075	104.2	M
Copper					90 - 110	50.000	52.303	104.6	52.028	104.1	M
Lead					90 - 110	50.000	53.062	106.1	52.651	105.3	M
Nickel					90 - 110	50.000	48.825	97.7	50.272	100.5	M
Selenium					90 - 110	50.000	48.723	97.4	50.227	100.5	M
Silver					90 - 110	50.000	50.147	100.3	50.652	101.3	M
Thallium					90 - 110	50.000	52.359	104.7	53.000	106.0	M
Zinc					90 - 110	50.000	52.488	105.0	52.819	105.6	M

SW-846

2A

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34Run Sequence ID: R019494

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV11			CCV12			
					Limits	True	Found	%R(1)	Found	%R(1)	
Antimony					90 - 110	50.000	48.544	97.1	48.497	97.0	M
Arsenic					90 - 110	50.000	50.789	101.6	49.683	99.4	M
Beryllium					90 - 110	50.000	55.861	111.7	62.188	124.4	M
Cadmium					90 - 110	50.000	49.945	99.9	48.761	97.5	M
Chromium					90 - 110	50.000	50.175	100.3	52.498	105.0	M
Copper					90 - 110	50.000	54.591	109.2	50.493	101.0	M
Lead					90 - 110	50.000	55.073	110.1	51.404	102.8	M
Nickel					90 - 110	50.000	52.208	104.4	49.617	99.2	M
Selenium					90 - 110	50.000	51.516	103.0	49.977	100.0	M
Silver					90 - 110	50.000	52.079	104.2	50.507	101.0	M
Thallium					90 - 110	50.000	54.404	108.8	52.705	105.4	M
Zinc					90 - 110	50.000	53.081	106.2	51.722	103.4	M

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2A

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_Lab Code: LAUCKS SDG No.: CAB34 Run Sequence ID: R019494

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV13			CCV14			
					Limits	True	Found	%R(1)	Found	%R(1)	
Antimony					90 - 110	50.000	49.907	99.8	48.406	96.8	M
Arsenic					90 - 110	50.000	50.284	100.6	50.842	101.7	M
Beryllium					90 - 110	50.000	61.705	123.4	72.299	144.6	M
Cadmium					90 - 110	50.000	48.351	96.7	49.397	98.8	M
Chromium					90 - 110	50.000	52.383	104.8	51.273	102.5	M
Copper					90 - 110	50.000	52.591	105.2	52.490	105.0	M
Lead					90 - 110	50.000	52.379	104.8	55.376	110.8	M
Nickel					90 - 110	50.000	50.118	100.2	50.089	100.2	M
Selenium					90 - 110	50.000	48.351	96.7	49.455	98.9	M
Silver					90 - 110	50.000	51.583	103.2	50.124	100.2	M
Thallium					90 - 110	50.000	52.178	104.4	54.949	109.9	M
Zinc					90 - 110	50.000	52.998	106.0	55.039	110.1	M

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2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34 Run Sequence ID: R019494

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-161-8, ME-15-161-9

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV15			CCV16			
					Limits	True	Found	%R(1)	Found	%R(1)	
Antimony					90 - 110	50.000	49.522	99.0	48.382	96.8	M
Arsenic					90 - 110	50.000	50.727	101.5	49.775	99.6	M
Beryllium					90 - 110	50.000	73.049	146.1	64.021	128.0	M
Cadmium					90 - 110	50.000	49.256	98.5	50.295	100.6	M
Chromium					90 - 110	50.000	52.501	105.0	51.635	103.3	M
Copper					90 - 110	50.000	52.723	105.4	51.935	103.9	M
Lead					90 - 110	50.000	54.317	108.6	55.948	111.9	M
Nickel					90 - 110	50.000	49.658	99.3	50.443	100.9	M
Selenium					90 - 110	50.000	49.698	99.4	50.013	100.0	M
Silver					90 - 110	50.000	51.793	103.6	51.428	102.9	M
Thallium					90 - 110	50.000	55.011	110.0	56.613	113.2	M
Zinc					90 - 110	50.000	55.004	110.0	54.359	108.7	M

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2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34 Run Sequence ID: R019215

Initial Calibration Source: ME-15-159-3

Continuing Calibration Source: ME-15-162-1

Concentration Units: ug/L

Analyte	Initial Calibration ICV				Continuing Calibrations						M
	Limits	True	Found	%R(1)	CCV1		CCV2				
Mercury	90-110	4.04	3.875	95.9	80 - 120	5.000	4.858	97.2	6.024	120.5	CV

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2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34 Run Sequence ID: R019215

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: ME-15-162-1

Concentration Units: ug/L

Analyte	Initial Calibration				Continuing Calibrations CCV3						M
	Limits	True	Pound	%R(1)	Limits	True	Found	%R(1)	Found	%R(1)	
Mercury					80 - 120	5.000	6.075	121.5			CV

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2B-IN

CRDL STANDARD FOR METALS

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34 Run Sequence ID: R019494

ICP CRDL Standard Source: ME-15-154-3

Concentration Units: ug/L

Analyte	CRDL Standard for ICP					
	Initial CRI			Final		
	True	Found	%R	Found	%R	Limits
Antimony	1	0.9	89.7			
Arsenic	1	1.05	105.2			
Beryllium	1	1	100.4			
Cadmium	1	1.01	100.8			
Chromium	1	1.09	109.2			
Copper	2	2.23	111.5			
Lead	1	1.12	111.7			
Nickel	1	1.07	106.5			
Selenium	1	0.92	92.5			
Silver	1	1.04	103.9			
Thallium	1	1.14	113.6			
Zinc	10	10.82	108.2			

Control Limits: no limits have been established by EPA at this time



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2B-IN

CRDL STANDARD FOR METALS

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34 Run Sequence ID: R019215

ICP CRDL Standard Source: ME-15-162-1

Concentration Units:  $\mu\text{g/L}$

Analyte	CRDL Standard for ICP					
	Initial CRA			Final		
	True	Found	%R	Found	%R	Limits
Mercury	0.2	0.21	104.5			

Control Limits: no limits have been established by EPA at this time

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3A

## INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34Run Sequence ID: R019494Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
	ICB		CCB1		CCB2		CCB3	
		C	1	C	2	C	3	C
Antimony	0.376	J	0.170	J	0.0560	U	0.0560	U
Arsenic	0.112	J	0.130	J	0.100	U	0.100	U
Beryllium	0.0430	U	0.0430	U	0.0430	U	0.0430	U
Cadmium	0.0940	U	0.0940	U	0.0940	U	0.0940	U
Chromium	0.120	U	0.120	U	0.120	U	0.120	U
Copper	0.520	U	0.520	U	0.520	U	0.520	U
Lead	0.0750	U	0.0750	U	0.0750	U	0.0750	U
Nickel	0.110	U	0.110	U	0.110	U	0.110	U
Selenium	0.110	U	0.110	U	0.110	U	0.110	U
Silver	0.0850	U	0.0850	U	0.0850	U	0.0850	U
Thallium	0.0440	U	0.0440	U	0.0440	U	0.0440	U
Zinc	1.80	U	1.80	U	1.80	U	1.80	U

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3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34

Run Sequence ID: R019494

Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
			CCB4		CCB5		CCB6	
		C	1	C	2	C	3	C
Antimony			0.0560	U	-0.162	J	-0.164	J
Arsenic			0.100	U	0.100	U	0.105	J
Beryllium			0.0430	U	0.0430	U	0.0430	U
Cadmium			0.0940	U	0.0940	U	0.0940	U
Chromium			0.120	U	0.120	U	0.120	U
Copper			0.520	U	0.520	U	0.520	U
Lead			0.0750	U	0.0750	U	0.0750	U
Nickel			0.110	U	0.110	U	0.110	U
Selenium			0.110	U	0.110	U	0.110	U
Silver			0.0850	U	0.0850	U	0.0850	U
Thallium			0.0440	U	0.0440	U	0.0440	U
Zinc			1.80	U	1.80	U	1.80	U

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3A

## INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34Run Sequence ID: R019494Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
			CCB7		CCB8		CCB9	
		C	1	C	2	C	3	C
Antimony			-0.0780	J	-0.113	J	-0.0838	J
Arsenic			0.100	U	0.141	J	0.100	U
Beryllium			0.0430	U	0.0430	U	0.0430	U
Cadmium			0.0940	U	0.0940	U	0.0940	U
Chromium			0.120	U	0.120	U	0.120	U
Copper			0.520	U	0.520	U	0.520	U
Lead			0.0750	U	0.0750	U	0.0750	U
Nickel			0.110	U	0.110	U	0.110	U
Selenium			0.193	J	0.176	J	-0.122	J
Silver			0.0850	U	0.0850	U	0.0850	U
Thallium			0.0440	U	0.0440	U	0.0440	U
Zinc			1.80	U	1.80	U	1.80	U

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3A

## INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34Run Sequence ID: R019494Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
	C	C	CCB10		CCB11		CCB12	
			1	C	2	C	3	C
Antimony			0.0560	U	0.0560	U	0.0560	U
Arsenic			0.142	J	0.109	J	0.185	J
Beryllium			0.0430	U	0.0430	U	0.0430	U
Cadmium			0.0940	U	0.0940	U	0.0940	U
Chromium			0.120	U	0.120	U	0.120	U
Copper			0.520	U	0.520	U	0.520	U
Lead			0.0750	U	0.0750	U	0.0750	U
Nickel			0.110	U	0.110	U	0.110	U
Selenium			0.152	J	0.155	J	0.140	J
Silver			0.0850	U	0.0850	U	0.0850	U
Thallium			0.0440	U	0.0440	U	0.0440	U
Zinc			1.80	U	1.80	U	1.80	U

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3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34

Run Sequence ID: R019494

Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
			CCB13		CCB14		CCB15	
		C	1	C	2	C	3	C
Antimony			0.0657	J	0.0712	J	0.127	J
Arsenic			0.100	U	0.181	J	0.100	U
Beryllium			0.0430	U	0.0430	U	0.0430	U
Cadmium			0.0940	U	0.0940	U	0.0940	U
Chromium			0.120	U	-0.127	J	0.120	U
Copper			0.520	U	0.520	U	0.520	U
Lead			0.0750	U	0.0750	U	0.0750	U
Nickel			0.110	U	-0.110	U	0.110	U
Selenium			-0.141	J	0.110	U	-0.121	J
Silver			0.0850	U	0.0850	U	0.0850	U
Thallium			0.0440	U	0.0440	U	0.0440	U
Zinc			1.80	U	1.80	U	1.80	U

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3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34

Run Sequence ID: R019494

Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
			CCB16		2		3	
		C	1	C		C		C
Antimony			0.209	J				
Arsenic			0.145	J				
Beryllium			0.0430	U				
Cadmium			0.0940	U				
Chromium			0.120	U				
Copper			0.520	U				
Lead			0.0750	U				
Nickel			0.110	U				
Selenium			0.152	J				
Silver			0.0850	U				
Thallium			0.0440	U				
Zinc			1.80	U				

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3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34

Run Sequence ID: R019215

Concentration Units: ug/L

Analyte	Initial Calib. Blank		Continuing Calibration Blank					
	ICB	C	CCB1	C	CCB2	C	CCB3	C
			1		2		3	
Mercury	0.0180	U	0.0331	J	0.0322	J	0.0270	J



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3B

BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34

Run Sequence ID: R019494

Lab Sample ID: B070207ICPMSW01

Prep Batch ID: P019882

Matrix (soil/water): Water

Date Prepared: 07/02/2007

Concentration Units: ug/L

Analyte	Preparation Blank			
	Limits		C	M
Antimony	0.5	-0.333	J	M
Arsenic	0.5	0.100	U	M
Beryllium	0.5	0.0430	U	M
Cadmium	0.5	0.0940	U	M
Chromium	0.5	0.132	J	M
Copper	1	0.520	U	M
Lead	0.5	0.0750	U	M
Nickel	0.5	0.110	U	M
Selenium	0.5	0.110	U	M
Silver	0.5	0.0850	U	M
Thallium	0.5	0.0440	U	M
Zinc	5	1.80	U	M

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3B

BLANKS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS    SDG No.: CAB34

Run Sequence ID: R019215

Lab Sample ID: E070307HGW01

Prep Batch ID: P019912

Matrix (soil/water): Water

Date Prepared: 07/03/2007

Concentration Units: ug/L

Analyte	Preparation			
	Limits		C	M
Mercury	0.1	0.0180	U	CV

## ICP INTERFERENCE CHECK SAMPLE

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB34 Run Sequence ID: R019494  
 ICS Source: ME-15-153-19, ME-15-161-8, ME-15-161-9  
 ICP ID Number: ICPMS (PE ELAN 6100) Concentration Units: ug/L

Analyte	True		Initial Found			Final Found			Limits
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R	
Antimony	0	20.0	-0.129	19.6	97.8				
Arsenic	0	20.0	0.113	20.6	102.8				
Beryllium	0	20.0	-0.0117	20.3	101.5				
Cadmium	0	20.0	0.0460	19.4	97				
Chromium	0	20.0	0.274	21.5	107.3				
Copper	0	20.0	0.702	21.3	106.5				
Lead	0	20.0	0.0315	20.8	104				
Nickel	0	20.0	0.622	21.4	107.1				
Selenium	0	20.0	-0.122	20.6	102.8				
Silver	0	20.0	-0.00310	20.0	99.9				
Thallium	0	20.0	0.0135	21.2	105.9				
Zinc	0	20.0	1.31	21.9	109.3				

Interference Check Sample Recover Limits : 80 - 120

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5A

SAMPLE NO.

## SPIKE SAMPLE RECOVERY

15LCMW03SWMS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34Run Sequence ID: R019494Lab Sample ID: CAB34-001MSPrep Batch ID: P019882Matrix (soil/water): WaterLevel (low/med): LOW

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	% R	Q	M
Antimony	75 - 125	50.2697		0.0560	U	50.00	100.5		M
Arsenic	75 - 125	49.5049		0.5438	J	50.00	97.9		M
Beryllium	75 - 125	58.1681		0.0430	U	50.00	116.3		M
Cadmium	75 - 125	49.7301		0.0940	U	50.00	99.4		M
Chromium	75 - 125	44.9283		0.2061	J	50.00	89.4		M
Copper	75 - 125	52.2065		0.5200	U	50.00	104.2		M
Lead	75 - 125	57.5811		0.0750	U	50.00	115.1		M
Nickel	75 - 125	49.9748		0.5314	J	50.00	98.9		M
Selenium	75 - 125	47.9177		0.1449	J	50.00	95.5		M
Silver	75 - 125	51.1964		0.0850	U	50.00	102.4		M
Thallium	75 - 125	56.4392		0.0440	U	50.00	112.9		M
Zinc	75 - 125	53.4238		1.8000	U	50.00	103.3		M

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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5A

SAMPLE NO.

SPIKE SAMPLE RECOVERY

ISLCMW03SWMS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34

Run Sequence ID: R019215

Lab Sample ID: CAB34-001MS

Prep Batch ID: P019912

Matrix (soil/water): Water

Level (low/med): LOW

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)		Sample Result (SR)		Spike Added (SA)	% R	Q	M
			C		C				
Mercury	85 - 115	4.8705		0.0180	U	5.00	97.4		CV

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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5A

SAMPLE NO.

## SPIKE SAMPLE RECOVERY

15LCMW03SW (Filt.)MS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34Run Sequence ID: R019494Lab Sample ID: CAB34-002MSPrep Batch ID: P019882Matrix (soil/water): WaterLevel (low/med): LOW

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)		Sample Result (SR)		Spike Added (SA)	% R	Q	M
			C		C				
Antimony	75 - 125	51.4975		0.2046	J	50.00	102.6		M
Arsenic	75 - 125	51.5479		0.4990	J	50.00	102.1		M
Beryllium	75 - 125	60.1829		0.0430	U	50.00	120.4		M
Cadmium	75 - 125	50.2203		0.0940	U	50.00	100.4		M
Chromium	75 - 125	46.9600		0.3559	J	50.00	93.2		M
Copper	75 - 125	54.0519		0.5200	U	50.00	107.6		M
Lead	75 - 125	56.3522		0.0750	U	50.00	112.7		M
Nickel	75 - 125	52.2269		0.7815	J	50.00	102.9		M
Selenium	75 - 125	48.4603		0.1100	U	50.00	96.9		M
Silver	75 - 125	51.7628		0.0850	U	50.00	103.5		M
Thallium	75 - 125	54.6377		0.0440	U	50.00	109.3		M
Zinc	75 - 125	57.3192		1.8000	U	50.00	111.6		M

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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5A

SAMPLE NO.

SPIKE SAMPLE RECOVERY

1SLCMW03SW (Filt.)MS

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34

Run Sequence ID: R019215

Lab Sample ID: CAB34-002MS

Prep Batch ID: P019912

Matrix (soil/water): Water

Level (low/med): LOW

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	% R	Q	M
Mercury	85 - 115	4.7548	0.0180 U	5.00	95.0		CV

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SW-846

5B

SAMPLE NO.

## POST DIGEST SPIKE RECOVERY

15LCMW03SWP

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34Run Sequence ID: R019494Lab Sample ID: CAB34-001PMatrix (soil/water): WaterLevel (low/med): LOWConcentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)		Sample Result (SR)		Spike Added (SA)	% R	Q	M
			C		C				
Antimony		51.6537		0.0560	U	50.00	103.3		M
Arsenic		46.8914		0.5438	J	50.00	92.7		M
Beryllium		58.9433		0.0430	U	50.00	117.9		M
Cadmium		48.1487		0.0940	U	50.00	96.2		M
Chromium		43.8071		0.2061	J	50.00	87.2		M
Copper		52.1877		0.5200	U	50.00	104.1		M
Lead		53.9393		0.0750	U	50.00	107.8		M
Nickel		49.9287		0.5314	J	50.00	98.8		M
Selenium		46.8933		0.1449	J	50.00	93.5		M
Silver		49.4190		0.0850	U	50.00	98.8		M
Thallium		53.9765		0.0440	U	50.00	108.0		M
Zinc		51.9110		1.8000	U	50.00	100.2		M

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



SW-846

5B

SAMPLE NO.

POST DIGEST SPIKE RECOVERY

15LCMW03SW (Filt.)P

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34

Run Sequence ID: R019494

Lab Sample ID: CAB34-002P

Matrix (soil/water): Water

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)		Sample Result (SR)		Spike Added (SA)	% R	Q	M
			C		C				
Antimony		52.0110		0.2046	J	50.00	103.6		M
Arsenic		48.5048		0.4990	J	50.00	96.0		M
Beryllium		58.5422		0.0430	U	50.00	117.1		M
Cadmium		48.2915		0.0940	U	50.00	96.6		M
Chromium		45.2420		0.3559	J	50.00	89.8		M
Copper		53.0571		0.5200	U	50.00	105.6		M
Lead		55.5674		0.0750	U	50.00	111.1		M
Nickel		50.1287		0.7815	J	50.00	98.7		M
Selenium		45.8858		0.1100	U	50.00	91.8		M
Silver		49.3878		0.0850	U	50.00	98.8		M
Thallium		55.5245		0.0440	U	50.00	111.0		M
Zinc		52.5356		1.8000	U	50.00	102.0		M

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SW-846

6

SAMPLE NO.

DUPLICATES

15LCMW03SWD

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34Run Sequence ID: R019494Lab Sample ID: CAB34-001DPrep Batch ID: P019882Level (low/med): LOWMatrix (soil/water): Water

% Solids for Duplicate \_\_\_\_\_

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit	Sample		Duplicate (D)		RPD	Q	M
			C		C			
Antimony	1	0.0560	U	0.0560	U			M
Arsenic	1	0.5438	J	0.4740	J	13.7		M
Beryllium	1	0.0430	U	0.0430	U			M
Cadmium	1	0.0940	U	0.0940	U			M
Chromium	1	0.2061	J	0.1637	J	22.9		M
Copper	2	0.5200	U	0.5200	U			M
Lead	1	0.0750	U	0.0750	U			M
Nickel	1	0.5314	J	0.5026	J	5.6		M
Selenium	1	0.1449	J	0.1100	U			M
Silver	1	0.0850	U	0.0850	U			M
Thallium	1	0.0440	U	0.0440	U			M
Zinc	10	1.8000	U	3.0135	J	50.7		M

SW-846  
6  
DUPLICATES

SAMPLE NO.

15LCMW03SWD

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34

Run Sequence ID: R019215

Lab Sample ID: CAB34-001D

Prep Batch ID: P019912

Level (low/med): LOW

Matrix (soil/water): Water

% Solids for Duplicate \_\_\_\_\_

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit	Sample		Duplicate (D)		RPD	Q	M
			C		C			
Mercury	0.2	0.0180	U	0.0180	U			CV

SW-846  
6  
DUPLICATES

SAMPLE NO.

15LCMW03SW (Filt.)D

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34

Run Sequence ID: R019494

Lab Sample ID: CAB34-002D

Prep Batch ID: P019882

Level (low/med): LOW

Matrix (soil/water): Water

% Solids for Duplicate \_\_\_\_\_

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit	Sample		Duplicate (D)		RPD	Q	M
			C		C			
Antimony	1	0.2046	J	0.0560	U			M
Arsenic	1	0.4990	J	0.5264	J	5.3		M
Beryllium	1	0.0430	U	0.0430	U			M
Cadmium	1	0.0940	U	0.0940	U			M
Chromium	1	0.3559	J	0.3853	J	7.9		M
Copper	2	0.5200	U	0.5200	U			M
Lead	1	0.0750	U	0.0750	U			M
Nickel	1	0.7815	J	0.7664	J	1.9		M
Selenium	1	0.1100	U	0.2040	J	200.0		M
Silver	1	0.0850	U	0.0850	U			M
Thallium	1	0.0440	U	0.0440	U			M
Zinc	10	1.8000	U	1.8358	J	17.4		M

SW-846  
6  
DUPLICATES

SAMPLE NO.

15LCMW03SW (Filt.)D

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34

Run Sequence ID: R019215

Lab Sample ID: CAB34-002D

Prep Batch ID: P019912

Level (low/med): LOW

Matrix (soil/water): Water

% Solids for Duplicate \_\_\_\_\_

% Solids for Sample: \_\_\_\_\_

Concentration Units: ug/L

Analyte	Control Limit	Sample		Duplicate (D)		RPD	Q	M
			C		C			
Mercury	0.2	0.0180	U	0.0180	U			CV

SW-846

7A

LABORATORY CONTROL SAMPLE

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
Lab Code: LAUCKS SDG No.: CAB34 Run Sequence ID: R019215  
Lab Sample ID: S070307HWG01 Prep Batch ID: P019912  
MS Source: ME-15-159-3

Analyte	Concentration Units: ug/L					
	True	Found	C	%R	Limits	%R
Mercury	4.04	4.043	.	85	115	100.1

SW-846

7C

SAMPLE NO.

DUPLICATE LABORATORY CONTROL SAMPLE

S070207ICPMSW01D

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB34 Run Sequence ID: \_\_\_\_\_  
 LCS Lab Sample ID: S070207ICPMSW01 Prep Batch ID: P019882  
 Duplicate LCS ID: S070207ICPMSW01D Level (low/med): LOW  
 % Solids for LCS: 100 % Solids for Duplicate LCS: 100  
 Matrix (soil/water): Water Concentration Units: ug/L

Analyte	Control Limits		LCS						Duplicate LCS						RPD
	%R	RPD	Results	C	Added	%R	Q	M	Results	C	Added	%R	Q	M	
Antimony	80 - 120	20	49.6977		50.0	99		M	52.1799		50.0	104		M	5%
Arsenic	80 - 120	20	49.4074		50.0	99		M	49.9517		50.0	100		M	1%
Beryllium	80 - 120	20	57.8308		50.0	116		M	57.7028		50.0	115		M	0%
Cadmium	80 - 120	20	49.4484		50.0	99		M	50.4053		50.0	101		M	2%
Chromium	80 - 120	20	53.6887		50.0	107		M	52.8728		50.0	106		M	2%
Copper	80 - 120	20	55.8803		50.0	112		M	55.3439		50.0	111		M	1%
Lead	80 - 120	20	57.5365		50.0	115		M	55.1289		50.0	110		M	4%
Nickel	80 - 120	20	53.9114		50.0	108		M	53.6851		50.0	107		M	0%
Selenium	80 - 120	20	50.4292		50.0	101		M	50.1868		50.0	100		M	0%
Silver	80 - 120	20	53.4952		50.0	107		M	53.7736		50.0	108		M	1%
Thallium	80 - 120	20	55.9689		50.0	112		M	54.2713		50.0	109		M	3%
Zinc	80 - 120	20	53.2364		50.0	106		M	55.5077		50.0	111		M	4%

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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9

SAMPLE NO.

ICP SERIAL DILUTIONS

15LCMW03SWL

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB34 Run Sequence ID: R019494  
 Matrix (soil/water): Water Level (low/med): LOW  
 Lab Sample ID: CAB34-001L

Analyte	Actual Results (ug/L)			Final Results (ug/L)				%D	Q	M
	Initial Sample (i)	Dilution Sample (S)	IDL	Initial Sample (i)	C	Dilution Sample (S)	C			
Antimony	-0.3208	-1.8481	0.0800	0.0560	U	0.280	U			M
Arsenic	0.5438	1.3129	0.0330	0.544	J	1.31	J	141.4		M
Beryllium	-0.0061	-0.0236	0.0200	0.0430	U	0.215	U			M
Cadmium	0.0256	0.0293	0.0150	0.0940	U	0.470	U	14.4		M
Chromium	0.2061	-0.2057	0.0700	0.206	J	0.600	U	100.0		M
Copper	0.1237	-0.2504	0.0070	0.520	U	2.60	U	100.0		M
Lead	0.0172	-0.0997	0.0020	0.0750	U	0.375	U	100.0		M
Nickel	0.5314	0.4522	0.0320	0.531	J	0.550	U	14.9		M
Selenium	0.1449	-0.4998	0.1050	0.145	J	0.550	U	100.0		M
Silver	-0.0313	-0.1984	0.0250	0.0850	U	0.425	U			M
Thallium	-0.0044	-0.0281	0.0080	0.0440	U	0.220	U			M
Zinc	1.7952	7.7938	0.0220	1.80	U	9.00	U	334.1		M



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9

SAMPLE NO.

ICP SERIAL DILUTIONS

15LCMW03SW (Filt.)L

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB34Run Sequence ID: R019494Matrix (soil/water): WaterLevel (low/med): LOWLab Sample ID: CAB34-002L

Analyte	Actual Results (ug/L)			Final Results (ug/L)				%D	Q	M
	Initial Sample (i)	Dilution Sample (S)	IDL	Initial Sample (i) C	Dilution Sample (S) C					
Antimony	0.2046	-1.2799	0.0800	0.205 J	0.280 U		100.0		M	
Arsenic	0.4990	1.5677	0.0330	0.499 J	1.57 J		214.2		M	
Beryllium	0.0037	-0.1234	0.0200	0.0430 U	0.215 U				M	
Cadmium	0.0048	0.0148	0.0150	0.0940 U	0.470 U				M	
Chromium	0.3559	0.0124	0.0700	0.356 J	0.600 U		100.0		M	
Copper	0.2673	-0.0365	0.0070	0.520 U	2.60 U		100.0		M	
Lead	0.0090	-0.0802	0.0020	0.0750 U	0.375 U		100.0		M	
Nickel	0.7815	0.8463	0.0320	0.781 J	0.846 J		8.3		M	
Selenium	-0.0277	0.5579	0.1050	0.110 U	0.558 J		100.0		M	
Silver	-0.0204	-0.1926	0.0250	0.0850 U	0.425 U				M	
Thallium	-0.0020	-0.0331	0.0080	0.0440 U	0.220 U				M	
Zinc	1.5413	2.0478	0.0220	1.80 U	9.00 U		32.9		M	

## INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKSSDG No.: CAB34Instrument ID: ICPMS (PE ELAN 6100)Date: 08/18/2004

Analyte	Isotope	A	B	C	D	M
		LTL PQL (ug/L)	LTL PQL (ug/L)	MDL (ug/L)	MDL (ug/L)	
Antimony	121	1	1	0.056	0.056	M
Arsenic	75	1	1	0.1	0.1	M
Beryllium	9	1	1	0.043	0.043	M
Cadmium	111	1	1	0.094	0.094	M
Chromium	52	1	1	0.12	0.12	M
Copper	63	2	2	0.52	0.52	M
Lead	208	1	1	0.075	0.075	M
Nickel	60	1	1	0.11	0.11	M
Selenium	82	1	1	0.11	0.11	M
Silver	107	1	1	0.085	0.085	M
Thallium	205	1	1	0.044	0.044	M
Zinc	66	10	10	1.8	1.8	M

A = Upper Estimated (J Flag) Range in Determination Units

B = Upper Estimated (J Flag) Range in Actual Units

C = Lower Estimated (J Flag) Range in Determination Units

D = Lower Estimated (J Flag) Range in Actual Units

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS

SDG No.: CAB34

Instrument ID: FIMS (FIMS400)

Date: 04/11/2006

Analyte	Isotope	A	B	C	D	M
		LTL PQL (ug/L)	LTL PQL (ug/L)	MDL (ug/L)	MDL (ug/L)	
Mercury		0.2	0.2	0.018	0.018	CV

A = Upper Estimated (J Flag) Range in Determination Units

B = Upper Estimated (J Flag) Range in Actual Units

C = Lower Estimated (J Flag) Range in Determination Units

D = Lower Estimated (J Flag) Range in Actual Units

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ICP LINEAR RANGES (QUARTERLY)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS

SDG No.: CAB34

ICP ID Number: ICPMS (PE ELAN 6100)

Date: 03/08/2007

Analyte	Integ. Time (Sec.)	Concentration	
		(ug/L)	M
Antimony	0.002	1000.0	M
Arsenic	0.001	1000.0	M
Beryllium	0.002	1000.0	M
Cadmium	0.001	1000.0	M
Chromium	0.001	1000.0	M
Copper	0.001	1000.0	M
Lead	0.001	1000.0	M
Nickel	0.001	1000.0	M
Selenium	0.002	1000.0	M
Silver	0.002	1000.0	M
Thallium	0.001	1000.0	M
Zinc	0.002	1000.0	M

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12

ICP LINEAR RANGES (QUARTERLY)

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS

SDG No.: CAB34

ICP ID Number: FIMS(FIMS400)

Date: 09/08/2005

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Mercury		20.0	CV

## PREPARATION LOG

Lab Name: Laucks Laboratories

Contract: \_\_\_\_\_

Lab Code: LAUCKS SDG No.: CAB34Prep Batch ID: P019882Method: 6020

Client Sample No.	Lab Sample ID	Preparation Date	Initial Volume	Volume (mL)
B070207ICPMSW01	B070207ICPMSW01	07/02/2007	100.0 mL	100
S070207ICPMSW01	S070207ICPMSW01	07/02/2007	100.0 mL	100
S070207ICPMSW01D	S070207ICPMSW01D	07/02/2007	100.0 mL	100
15LCMW03SW	CAB34-001	07/02/2007	100.0 mL	100
15LCMW03SWD	CAB34-001D	07/02/2007	100.0 mL	100
15LCMW03SWMS	CAB34-001MS	07/02/2007	100.0 mL	100
15LCMW03SW (Filt.)	CAB34-002	07/02/2007	100.0 mL	100
15LCMW03SW (Filt.)D	CAB34-002D	07/02/2007	100.0 mL	100
15LCMW03SW (Filt.)MS	CAB34-002MS	07/02/2007	100.0 mL	100
15LCMW415W	CAB34-003	07/02/2007	100.0 mL	100
15LCW415W (Filt.)	CAB34-004	07/02/2007	100.0 mL	100
15LCMW03DW	CAB34-005	07/02/2007	100.0 mL	100
15LCMW03DW (Filt.)	CAB34-006	07/02/2007	100.0 mL	100
15LCMW04DW	CAB34-007	07/02/2007	100.0 mL	100
15LCMW04DW (Filt.)	CAB34-008	07/02/2007	100.0 mL	100
15LCMW04SW	CAB34-009	07/02/2007	100.0 mL	100
15LCMW04SW (Filt.)	CAB34-010	07/02/2007	100.0 mL	100

## PREPARATION LOG

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB34 Prep Batch ID: P019912  
 Method: 7470A

Client Sample No.	Lab Sample ID	Preparation Date	Initial Volume	Volume (mL)
B070307HGW01	B070307HGW01	07/03/2007	50.0 mL	50
S070307HGW01	S070307HGW01	07/03/2007	50.0 mL	50
15LCMW03SW	CAB34-001	07/03/2007	50.0 mL	50
15LCMW03SWD	CAB34-001D	07/03/2007	50.0 mL	50
15LCMW03SWMS	CAB34-001MS	07/03/2007	50.0 mL	50
15LCMW03SW (Filt.)	CAB34-002	07/03/2007	50.0 mL	50
15LCMW03SW (Filt.)D	CAB34-002D	07/03/2007	50.0 mL	50
15LCMW03SW (Filt.)MS	CAB34-002MS	07/03/2007	50.0 mL	50
15LCW415W	CAB34-003	07/03/2007	50.0 mL	50
15LCW415W (Filt.)	CAB34-004	07/03/2007	50.0 mL	50
15LCMW03DW	CAB34-005	07/03/2007	50.0 mL	50
15LCMW03DW (Filt.)	CAB34-006	07/03/2007	50.0 mL	50
15LCMW04DW	CAB34-007	07/03/2007	50.0 mL	50
15LCMW04DW (Filt.)	CAB34-008	07/03/2007	50.0 mL	50
15LCMW04SW	CAB34-009	07/03/2007	50.0 mL	50
15LCMW04SW (Filt.)	CAB34-010	07/03/2007	50.0 mL	50









ANALYSIS RUN LOG

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB34 Run Sequence ID: R019494  
 Instrument ID Number: \_\_\_\_\_ Method: 6020  
 Start Date: 07/05/2007 End Date: 07/05/2007

Client Sample No.	D/F	Time	Analytes																																					
			A	A	A	B	C	C	C	C	C	F	H	K	L	M	M	M	N	N	N	P	S	S	S	S	S	T	T	T	T	U	V	Z	C	B	S			
zzzzzz	25	14:34																																						
zzzzzz	25	14:39																																						
zzzzzz	25	14:43																																						
zzzzzz	25	14:47																																						
zzzzzz	25	14:52																																						
zzzzzz	25	14:56																																						
CCV8	1	15:00	X				X		X																											X				
CCB8	1	15:05	X				X		X																												X			
zzzzzz	25	15:10																																						
zzzzzz	25	15:14																																						
zzzzzz	125	15:18																																						
zzzzzz	25	15:23																																						
zzzzzz	25	15:27																																						
zzzzzz	25	15:31																																						
zzzzzz	25	15:35																																						
zzzzzz	25	15:40																																						
zzzzzz	25	15:44																																						
zzzzzz	25	15:48																																						
CCV9	1	15:53	X				X		X																												X			
CCB9	1	15:57	X				X		X																													X		
zzzzzz	25	16:01																																						
zzzzzz	25	16:06																																						
zzzzzz	25	16:10																																						
zzzzzz	25	16:14																																						
zzzzzz	25	16:19																																						
zzzzzz	25	16:23																																						
zzzzzz	5	16:27																																						

ANALYSIS RUN LOG

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB34 Run Sequence ID: R019494  
 Instrument ID Number: \_\_\_\_\_ Method: 6020  
 Start Date: 07/05/2007 End Date: 07/05/2007

Client Sample No.	D/F	Time	Analytes																																	
			A	A	A	B	B	C	C	C	C	C	F	H	K	L	M	M	N	N	P	S	S	S	S	T	T	T	U	V	Z	C	B	S		
ZZZZZ	5	16:32																																		
ZZZZZ	5	16:36																																		
ZZZZZ	5	16:40																																		
CCV10	1	16:44	X			X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		
CCB10	1	16:49	X			X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		
ZZZZZ	5	16:53																																		
ZZZZZ	5	16:57																																		
ZZZZZ	5	17:02																																		
ZZZZZ	5	17:06																																		
ZZZZZ	5	17:10																																		
ZZZZZ	5	17:15																																		
ZZZZZ	25	17:19																																		
ZZZZZ	5	17:23																																		
ZZZZZ	5	17:28																																		
ZZZZZ	5	17:32																																		
CCV11	1	17:36	X			X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		
CCB11	1	17:40	X			X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		
ZZZZZ	5	17:45																																		
ZZZZZ	5	17:49																																		
ZZZZZ	5	17:53																																		
ZZZZZ	5	17:58																																		
ZZZZZ	5	18:02																																		
ZZZZZ	5	18:06																																		
ZZZZZ	5	18:11																																		
ZZZZZ	5	18:15																																		
ZZZZZ	5	18:19																																		
ZZZZZ	5	18:24																																		



ANALYSIS RUN LOG

Lab Name: Laucks Laboratories Contract: \_\_\_\_\_  
 Lab Code: LAUCKS SDG No.: CAB34 Run Sequence ID: R019494  
 Instrument ID Number: ICPMS (PE ELAN 6100) Method: 6020  
 Start Date: 07/05/2007 End Date: 07/05/2007

Client Sample No.	D/F	Time	Analytes																																	
			A	A	A	B	B	C	C	C	C	F	H	K	L	M	M	N	N	N	P	S	S	S	S	T	T	T	U	V	Z	C	B	S		
15LCMW03SWMS	1	20:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
15LCMW03SWP	1	20:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
15LCMW03SW (Filt.)L	1	20:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
15LCMW03SW (Filt.)D	5	20:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
15LCMW03SW (Filt.)MS	1	20:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
15LCMW03SW (Filt.)MS	1	20:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
15LCMW03SW (Filt.)P	1	20:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
15LCMW415W	1	20:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
15LCW415W (Filt.)	1	20:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
15LCMW03DW	1	21:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV15	1	21:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB15	1	21:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15LCMW03DW (Filt.)	1	21:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15LCMW04DW	1	21:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15LCMW04DW (Filt.)	1	21:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15LCMW04SW	1	21:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15LCMW04SW (Filt.)	1	21:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
zzzzzz	1	21:38																																		
zzzzzz	1	21:43																																		
CCV16	1	21:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB16	1	21:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X







**FORMS SUMMARY**

**CAB34**

**Miscellaneous Inorganics**

**Laucks Testing Laboratories, Inc.**

**Final Results**

**Client:** PBS Engineering and Environmental

**Project:** Camp Bonneville

**SDG Number:** CAB34

**Sample Number:** 15LCMW03SW

**Date/Time Collected:** 06/22/2007 12:55

**Lab Sample ID:** CAB34-001

**Date/Time Received:** 06/23/2007 09:15

**Method:** E160.2

**Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Suspended Solids, Total	TSS	1	2	U	2	2	06/25/2007	06/27/2007	R018986

**Method:** E300.0 **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Nitrate - N	14797-55-8	1	0.25		0.20	0.055	06/23/2007	06/23/2007	R018997
Nitrite - N	14797-65-0	1	0.10	U	0.10	0.017	06/23/2007	06/23/2007	R018997
Sulfate as SO4	14808-79-8	1	1.0	U	1.0	0.17	06/23/2007	06/23/2007	R018997
Chloride	16887-00-6	1	1.5		1.0	0.076	06/23/2007	06/23/2007	R018997

**Method:** E310.1 **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Alkalinity, Carbonate (As CaCO3)	3812-32-6	2	4	U	4	4	07/03/2007	07/03/2007	R019262
Alkalinity, Bicarbonate (As CaCO3)	71-52-3	2	42		4	4	07/03/2007	07/03/2007	R019262

**Method:** E314.0 **Unit:** ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	1	1.0	U	1.0	0.14	07/11/2007	07/12/2007	R019436

**Method:** E415.1 **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Organic Carbon, Total	TOC	1	1.0	U	1.0	0.070	06/29/2007	06/29/2007	R019150

Laucks Testing Laboratories, Inc.

Final Results

**Client:** PBS Engineering and Environmental      **Project:** Camp Bonneville  
**SDG Number:** CAB34  
**Sample Number:** 15LCMW03SW (Filt.)      **Date/Time Collected:** 06/22/2007 12:55  
**Lab Sample ID:** CAB34-002      **Date/Time Received:** 06/23/2007 09:15  
**Method:** E415.1      **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Dissolved Organic Carbon	DOC	1	1.0	U	1.0	1.0	06/29/2007	06/29/2007	R019150



Laucks Testing Laboratories, Inc.

Final Results

**Client:** PBS Engineering and Environmental      **Project:** Camp Bonneville  
**SDG Number:** CAB34  
**Sample Number:** 15LCW415W (Filt.)      **Date/Time Collected:** 06/22/2007 09:00  
**Lab Sample ID:** CAB34-004      **Date/Time Received:** 06/23/2007 09:15  
**Method:** E415.1      **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Dissolved Organic Carbon	DOC	1	1.0	U	1.0	1.0	06/29/2007	06/29/2007	R019150

**Laucks Testing Laboratories, Inc.**

**Final Results**

**Client:** PBS Engineering and Environmental

**Project:** Camp Bonneville

**SDG Number:** CAB34

**Sample Number:** 15LCMW03DW

**Date/Time Collected:** 06/22/2007 10:45

**Lab Sample ID:** CAB34-005

**Date/Time Received:** 06/23/2007 09:15

**Method:** E160.2

**Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Suspended Solids, Total	TSS	1	2	U	2	2	06/25/2007	06/27/2007	R018986

**Method:** E300.0 **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Nitrate - N	14797-55-8	1	0.33		0.20	0.055	06/23/2007	06/23/2007	R018997
Nitrite - N	14797-65-0	1	0.10	U	0.10	0.017	06/23/2007	06/23/2007	R018997
Sulfate as SO4	14808-79-8	1	1.0	U	1.0	0.17	06/23/2007	06/23/2007	R018997
Chloride	16887-00-6	1	1.7		1.0	0.076	06/23/2007	06/23/2007	R018997

**Method:** E310.1 **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Alkalinity, Carbonate (As CaCO3)	3812-32-6	2	4	U	4	4	07/03/2007	07/03/2007	R019262
Alkalinity, Bicarbonate (As CaCO3)	71-52-3	2	44		4	4	07/03/2007	07/03/2007	R019262

**Method:** E314.0 **Unit:** ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	1	1.0	U	1.0	0.14	07/11/2007	07/12/2007	R019436

**Method:** E415.1 **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Organic Carbon, Total	TOC	1	1.0	U	1.0	0.070	06/29/2007	06/29/2007	R019150

Laucks Testing Laboratories, Inc.

Final Results

**Client:** PBS Engineering and Environmental      **Project:** Camp Bonneville  
**SDG Number:** CAB34  
**Sample Number:** 15LCMW03DW (Filt.)      **Date/Time Collected:** 06/22/2007 10:45  
**Lab Sample ID:** CAB34-006      **Date/Time Received:** 06/23/2007 09:15  
**Method:** E415.1      **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Dissolved Organic Carbon	DOC	1	1.0	U	1.0	1.0	06/29/2007	06/29/2007	R019150





Laucks Testing Laboratories, Inc.

Final Results

Client: PBS Engineering and Environmental Project: Camp Bonneville  
SDG Number: CAB34  
Sample Number: 15LCMW04DW (Filt.) Date/Time Collected: 06/22/2007 15:00  
Lab Sample ID: CAB34-008 Date/Time Received: 06/23/2007 09:15  
Method: E415.1 Unit: mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Dissolved Organic Carbon	DOC	1	1.0	U	1.0	1.0	06/29/2007	06/29/2007	R019150

**Laucks Testing Laboratories, Inc.**

**Final Results**

**Client:** PBS Engineering and Environmental      **Project:** Camp Bonneville

**SDG Number:** CAB34

**Sample Number:** 15LCMW04SW      **Date/Time Collected:** 06/22/2007 16:15

**Lab Sample ID:** CAB34-009      **Date/Time Received:** 06/23/2007 09:15

**Method:** E160.2      **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Suspended Solids, Total	TSS	1	3		2	2	06/25/2007	06/27/2007	R018986

**Method:** E300.0      **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Nitrate - N	14797-55-8	1	1.1		0.20	0.055	06/23/2007	06/23/2007	R018997
Nitrite - N	14797-65-0	1	0.10	U	0.10	0.017	06/23/2007	06/23/2007	R018997
Sulfate as SO4	14808-79-8	1	1.0	U	1.0	0.17	06/23/2007	06/23/2007	R018997
Chloride	16887-00-6	1	2.7		1.0	0.076	06/23/2007	06/23/2007	R018997

**Method:** E310.1      **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Alkalinity, Carbonate (As CaCO3)	3812-32-6	2	4	U	4	4	07/03/2007	07/03/2007	R019262
Alkalinity, Bicarbonate (As CaCO3)	71-52-3	2	38		4	4	07/03/2007	07/03/2007	R019262

**Method:** E314.0      **Unit:** ug/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Perchlorate	14797-73-0	1	1.0	U	1.0	0.14	07/11/2007	07/12/2007	R019436

**Method:** E415.1      **Unit:** mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Organic Carbon, Total	TOC	1	1.0	U	1.0	0.070	06/29/2007	06/29/2007	R019150

Laucks Testing Laboratories, Inc.

Final Results

Client: PBS Engineering and Environmental      Project: Camp Bonneville  
SDG Number: CAB34  
Sample Number: 15LCMW04SW (Filt.)      Date/Time Collected: 06/22/2007 16:15  
Lab Sample ID: CAB34-010      Date/Time Received: 06/23/2007 09:15  
Method: E415.1      Unit: mg/L

Analyte	CAS	DF	Result	Q	PQL	MDL	Prepared	Analyzed	Run Seq.
Dissolved Organic Carbon	DOC	1	1.0	U	1.0	1.0	06/29/2007	06/29/2007	R019150

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB34 Contract:  
 Run Sequence No. R018997 Concentration Units: mg/L  
 Determination Name: 300.0 NO3, NO2, Cl, SO4  
 Initial Calibration Source: IC-7-22-18  
 Continuing Calibration Source: IC-7-24-12

Analyte	ICV				CCV1			CCV2			CCV Limits
	06/23/2007 13:32				06/23/07 16:10			06/23/07 19:19			
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	
Chloride	1.500	1.399	93.3	90-110	5.023	4.782	95.2	5.023	4.849	96.5	90-110
Nitrate - N	1.125	1.081	96.1	90-110	2.004	1.932	96.4	2.004	1.944	97	90-110
Nitrite - N	1.522	1.647	108.2	90-110	1.000	0.975	97.4	1.000	0.982	98.1	90-110
Sulfate as SO4	7.450	7.326	98.3	90-110	10.018	9.607	95.9	10.018	9.59	95.7	90-110

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB34 Contract:  
 Run Sequence No. R019436 Concentration Units: ug/L  
 Determination Name: 314.0 Perchlorate  
 Initial Calibration Source: IC-7-24-15  
 Continuing Calibration Source: IC-7-24-17

Analyte	ICV				CCV1			CCV2			CCV Limits
	07/12/2007 14:25				07/12/07 14:25			07/12/07 14:25			
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	
Perchlorate	40.151	40.811	101.6	75-125	9.988	9.358	93.7	9.988	8.904	89.2	85-115

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB34 Contract:  
 Run Sequence No. R019436 Concentration Units: ug/L  
 Determination Name: 314.0 Perchlorate  
 Initial Calibration Source: IC-7-24-15  
 Continuing Calibration Source: IC-7-24-17

Analyte					CCV3 07/12/07 14:25						CCV
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	Limits
Perchlorate					9.988	9.033	90.4				85-115

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

SDG No: CAB34 Contract:  
 Run Sequence No. R019150 Concentration Units: mg/L  
 Determination Name: 415.1 Total Organic Carbon  
 Initial Calibration Source: TOC-4-28-2  
 Continuing Calibration Source: TOC-4-29-20

Analyte	ICV 06/29/2007 12:22				CCV01 06/29/07 13:45			CCV02 06/29/07 14:52			CCV
	True	Found	Recovery	Limits	True	Found	Recovery	True	Found	Recovery	Limits
	Organic Carbon, Total	10.000	9.406	94.1	90-110	5.001	4.782	95.6	5.001	4.712	94.2

\* = Percent recovery not within control limits

**Laucks Testing Laboratories, Inc.**  
**INITIAL AND CONTINUING CALIBRATION BLANKS**

SDG No: **CAB34**

Contract:

Run	Determination	Sample	Analyzed	Analyte	Result	Unit	Limit
R018997	300.0 NO3, NO2, Cl, SO4	ICB	06/23/2007	Chloride	1.0 U	mg/L	0.500000
	300.0 NO3, NO2, Cl, SO4	CCB1	06/23/2007	Chloride	1.0 U	mg/L	0.500000
	300.0 NO3, NO2, Cl, SO4	CCB2	06/23/2007	Chloride	1.0 U	mg/L	0.500000
	300.0 NO3, NO2, Cl, SO4	ICB	06/23/2007	Nitrate - N	0.20 U	mg/L	0.100000
	300.0 NO3, NO2, Cl, SO4	CCB1	06/23/2007	Nitrate - N	0.20 U	mg/L	0.100000
	300.0 NO3, NO2, Cl, SO4	CCB2	06/23/2007	Nitrate - N	0.20 U	mg/L	0.100000
	300.0 NO3, NO2, Cl, SO4	ICB	06/23/2007	Nitrite - N	0.10 U	mg/L	0.050000
	300.0 NO3, NO2, Cl, SO4	CCB1	06/23/2007	Nitrite - N	0.10 U	mg/L	0.050000
	300.0 NO3, NO2, Cl, SO4	CCB2	06/23/2007	Nitrite - N	0.10 U	mg/L	0.050000
	300.0 NO3, NO2, Cl, SO4	ICB	06/23/2007	Sulfate as SO4	1.0 U	mg/L	0.500000
	300.0 NO3, NO2, Cl, SO4	CCB1	06/23/2007	Sulfate as SO4	1.0 U	mg/L	0.500000
	300.0 NO3, NO2, Cl, SO4	CCB2	06/23/2007	Sulfate as SO4	1.0 U	mg/L	0.500000
R019150	415.1 Dissolved Organic Carbon	ICB	06/29/2007	Dissolved Organic Carbon	1.0 U	mg/L	0.500000
	415.1 Dissolved Organic Carbon	CCB01	06/29/2007	Dissolved Organic Carbon	1.0 U	mg/L	0.500000
	415.1 Dissolved Organic Carbon	CCB02	06/29/2007	Dissolved Organic Carbon	1.0 U	mg/L	0.500000
	415.1 Total Organic Carbon	ICB	06/29/2007	Organic Carbon, Total	1.0 U	mg/L	0.500000
	415.1 Total Organic Carbon	CCB01	06/29/2007	Organic Carbon, Total	1.0 U	mg/L	0.500000
	415.1 Total Organic Carbon	CCB02	06/29/2007	Organic Carbon, Total	1.0 U	mg/L	0.500000
R019436	314.0 Perchlorate	ICB	07/12/2007	Perchlorate	1.0 U	ug/L	0.500000
	314.0 Perchlorate	CCB1	07/12/2007	Perchlorate	1.0 U	ug/L	0.500000
	314.0 Perchlorate	CCB2	07/12/2007	Perchlorate	1.0 U	ug/L	0.500000
	314.0 Perchlorate	CCB3	07/12/2007	Perchlorate	1.0 U	ug/L	0.500000

\* = Control limit exceeded



# Laucks Testing Labs

## Blank Report

Test:	310.1M Carb./Bicarb. Alkalinity	SDG ID:	CAB34
		Preparation Date:	7/3/2007
Lab Sample ID:	B070307ALKW01	Run Sequence ID:	R019262
		Analysis Date:	07/03/2007 17:00
		Units:	mg/L
		Matrix:	Water

Analyte	Reported	Flag	Limit
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	2	U	2
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	2	U	2

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB34-001	15LCMW03SW
CAB34-003	15LCMW415W
CAB34-005	15LCMW03DW
CAB34-007	15LCMW04DW
CAB34-009	15LCMW04SW

\* Measured blank concentration exceeded the established control limit

*FORM LTL-RSR-9.0*

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**Laucks Testing Labs**  
**Blank Report**

Test: 300.0 NO3, NO2, Cl, SO4

SDG ID: CAB34

Lab Sample ID: B062307IAIW01

Preparation Date: 6/23/2007

Run Sequence ID: R018997

Analysis Date: 06/23/2007 13:48

Units: mg/L

Matrix: Water

Analyte	Reported	Flag	Limit
Chloride	1.0	U	0.5
Nitrate - N	0.20	U	0.1
Nitrite - N	0.10	U	0.05
Sulfate as SO4	1.0	U	0.5

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB34-001	15LCMW03SW
CAB34-003	15LCMW415W
CAB34-005	15LCMW03DW
CAB34-007	15LCMW04DW
CAB34-009	15LCMW04SW

\* Measured blank concentration exceeded the established control limit

*FORM LTL-RSR-9.0*

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**SUM - 268**

**Laucks Testing Labs**  
**Blank Report**

Test: 314.0 Perchlorate

SDG ID: CAB34

Preparation Date: 7/11/2007

Lab Sample ID: B071107PERW01

Run Sequence ID: R019436

Analysis Date: 07/12/2007 14:25

Units: ug/L

Matrix: Water

Analyte	Reported	Flag	Limit
Perchlorate	1.0	U	0.5

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB34-001	15LCMW03SW
CAB34-003	15LCMW415W
CAB34-005	15LCMW03DW
CAB34-007	15LCMW04DW
CAB34-009	15LCMW04SW

\* Measured blank concentration exceeded the established control limit

*FORM LTL-RSR-9.0*

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**SUM - 269**

**Laucks Testing Labs**  
**Blank Report**

Test:	415.1 Total Organic Carbon	SDG ID:	CAB34
		Preparation Date:	6/29/2007
Lab Sample ID:	B062907TOCW01	Run Sequence ID:	R019150
		Analysis Date:	06/29/2007 12:49
		Units:	mg/L
		Matrix:	Water

Analyte	Reported	Flag	Limit
Organic Carbon, Total	1.0	U	0.5

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB34-001	15LCMW03SW
CAB34-002	15LCMW03SW (Filt.)
CAB34-003	15LCMW415W
CAB34-004	15LCW415W (Filt.)
CAB34-005	15LCMW03DW
CAB34-006	15LCMW03DW (Filt.)
CAB34-007	15LCMW04DW
CAB34-008	15LCMW04DW (Filt.)
CAB34-009	15LCMW04SW
CAB34-010	15LCMW04SW (Filt.)

\* Measured blank concentration exceeded the established control limit

*FORM LTL-RSR-9.0*

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**SUM - 270**

# Laucks Testing Labs

## Blank Report

Test:	160.2 Total Suspended Solids	SDG ID:	CAB34
		Preparation Date:	6/25/2007
Lab Sample ID:	B062507TSSW01	Run Sequence ID:	R018986
		Analysis Date:	06/27/2007 16:30
		Units:	mg/L
		Matrix:	Water

Analyte	Reported	Flag	Limit
Suspended Solids, Total	2	U	2

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB34-001	15LCMW03SW
CAB34-003	15LCMW415W
CAB34-005	15LCMW03DW
CAB34-007	15LCMW04DW
CAB34-009	15LCMW04SW

\* Measured blank concentration exceeded the established control limit

**Laucks Testing Laboratories**  
**Matrix Spike/Matrix Spike Duplicate Report**

Test: 300.0 NO3, NO2, Cl, SO4

SDG ID: CAB34

MS Lab Sample ID: CAB34-001MS 20X

Preparation Date: 06/23/2007

MSD Lab Sample ID: CAB34-001MSD 20X

Run Sequence ID: R018997

Client Sample ID: 15LCMW03SW

Analysis Date: 06/23/2007

Units: mg/L

Matrix: Water

Analyte	Sample Found	MS Spike	MS Found	MS Recovery	MSD Spike	MSD Found	MSD Recovery	RPD	Limits	
									Recovery	RPD
Chloride	1.522	40.2	39.9854	96%	40.2	41.3004	99%	3%	90-110	11
Nitrate - N	0.2468	16.0	15.8667	97%	16.0	15.6588	96%	1%	90-110	10
Nitrite - N	0	8.00	7.73	97%	8.00	7.4153	93%	4%	90-110	10
Sulfate as SO4	0.3683	80.1	78.079	97%	80.1	77.9312	97%	0%	90-110	10

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB34-001	15LCMW03SW
CAB34-003	15LCMW415W
CAB34-005	15LCMW03DW
CAB34-007	15LCMW04DW
CAB34-009	15LCMW04SW

\* = RPD or percent recovery is outside established control limits

# = This RPD or percent recovery is not flagged as an exceedence because the Sample Found amount is five times or more than the Spike Added amount.

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

FORM LTL-RSR-11.0

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**Laucks Testing Laboratories**  
**Matrix Spike/Matrix Spike Duplicate Report**

Test:	314.0 Perchlorate	SDG ID:	CAB34
		Preparation Date:	07/11/2007
MS Lab Sample ID:	CAB34-009MS 5X	Run Sequence ID:	R019436
MSD Lab Sample ID:	CAB34-009MSD 5X	Analysis Date:	07/12/2007
Client Sample ID:	15LCMW04SW	Units:	ug/L
		Matrix:	Water

Analyte	Sample Found	MS Spike	MS Found	MS Recovery	MSD Spike	MSD Found	MSD Recovery	RPD	Limits	
									Recovery	RPD
Perchlorate	0	99.9	96.11	96%	99.9	91.96	92%	4%	80-120	15

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB34-001	15LCMW03SW
CAB34-003	15LCMW415W
CAB34-005	15LCMW03DW
CAB34-007	15LCMW04DW
CAB34-009	15LCMW04SW

\* = RPD or percent recovery is outside established control limits

# = This RPD or percent recovery is not flagged as an exceedence because the Sample Found amount is five times or more than the Spike Added amount.

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

**Laucks Testing Laboratories**  
**Matrix Spike/Matrix Spike Duplicate Report**

Test:	415.1 Total Organic Carbon	SDG ID:	CAB34
		Preparation Date:	06/29/2007
MS Lab Sample ID:	CAB34-001MS	Run Sequence ID:	R019150
MSD Lab Sample ID:	CAB34-001MSD	Analysis Date:	06/29/2007
Client Sample ID:	15LCMW03SW	Units:	mg/L
		Matrix:	Water

Analyte	Sample Found	MS Spike	MS Found	MS Recovery	MSD Spike	MSD Found	MSD Recovery	RPD	Limits	
									Recovery	RPD
Organic Carbon, Total	0.0892	10.0	9.6649	96%	10.0	9.8764	98%	2%	70-119	11

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB34-001	15LCMW03SW
CAB34-002	15LCMW03SW (Filt.)
CAB34-003	15LCMW415W
CAB34-004	15LCW415W (Filt.)
CAB34-005	15LCMW03DW
CAB34-006	15LCMW03DW (Filt.)
CAB34-007	15LCMW04DW
CAB34-008	15LCMW04DW (Filt.)
CAB34-009	15LCMW04SW
CAB34-010	15LCMW04SW (Filt.)

\* = RPD or percent recovery is outside established control limits

# = This RPD or percent recovery is not flagged as an exceedence because the Sample Found amount is five times or more than the Spike Added amount.

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-11.0*

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**SUM - 274**



**Laucks Testing Laboratories**  
**Matrix Spike/Matrix Spike Duplicate Report**

Test:	415.1 Dissolved Organic Carbon	SDG ID:	CAB34
		Preparation Date:	06/29/2007
MS Lab Sample ID:	CAB34-002MS	Run Sequence ID:	R019150
MSD Lab Sample ID:	CAB34-002MSD	Analysis Date:	06/29/2007
Client Sample ID:	15LCMW03SW (Filt.)	Units:	mg/L
		Matrix:	Water

Analyte	Sample Found	MS Spike	MS Found	MS Recovery	MSD Spike	MSD Found	MSD Recovery	RPD	Limits	
									Recovery	RPD
Dissolved Organic Carbon	0.2645	10.0	10.0694	98%	10.0	9.9593	97%	1%	70-119	11

Associated Samples	
Lab Sample ID	Client Sample ID
CAB34-001	15LCMW03SW
CAB34-002	15LCMW03SW (Filt.)
CAB34-003	15LCMW415W
CAB34-004	15LCW415W (Filt.)
CAB34-005	15LCMW03DW
CAB34-006	15LCMW03DW (Filt.)
CAB34-007	15LCMW04DW
CAB34-008	15LCMW04DW (Filt.)
CAB34-009	15LCMW04SW
CAB34-010	15LCMW04SW (Filt.)

\* = RPD or percent recovery is outside established control limits

# = This RPD or percent recovery is not flagged as an exceedance because the Sample Found amount is five times or more than the Spike Added amount.

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

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**SUM - 275**

# Laucks Testing Laboratories

## Duplicate Report

Test:	160.2 Total Suspended Solids	SDG ID:	CAB34
		Preparation Date:	6/25/2007
Lab Sample ID:	CAB34-009D	Run Sequence ID:	R018986
Client Sample ID:	15LCMW04SW	Analysis Date:	06/27/2007 16:30
		Units:	mg/L
		Matrix:	Water

Analyte	Parent Found	Duplicate Found	RPD	Limit
Suspended Solids, Total	3	3	0%	20

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB34-001	15LCMW03SW
CAB34-003	15LCMW415W
CAB34-005	15LCMW03DW
CAB34-007	15LCMW04DW
CAB34-009	15LCMW04SW

# = RPD Value is not flagged as an outlier because either the parent found amount or duplicate found amount or both are less than five times the reporting limit

\* = Value exceeded established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-20.0*

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# Laucks Testing Laboratories

## BS/BSD Report

Test:	300.0 NO3, NO2, Cl, SO4	SDG ID:	CAB34
		Preparation Date:	06/23/2007
BS Sample ID:	S062307	Run Sequence ID:	R018997
BSD Sample ID:	SD062307	Analysis Date:	06/23/2007 18:47
		Units:	mg/L
		Matrix:	Water

Analyte	Blank Spike			Blank Spike Duplicate			RPD	Limits	
	Added	Found	Recovery	Added	Found	Recovery		Recovery	RPD
Chloride	2.01	2.1318	106%	2.01	2.0629	103%	3%	90-110	11
Nitrate - N	0.802	0.743	93%	0.802	0.7555	94%	2%	90-110	10
Nitrite - N	0.400	0.3767	94%	0.400	0.3671	92%	3%	90-110	10
Sulfate as SO4	4.01	3.9152	98%	4.01	3.9664	99%	1%	90-110	10

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB34-001	15LCMW03SW
CAB34-003	15LCMW415W
CAB34-005	15LCMW03DW
CAB34-007	15LCMW04DW
CAB34-009	15LCMW04SW

\* = RPD or recovery is outside the established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-7.0*

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# Laucks Testing Laboratories

## BS/BSD Report

Test: 415.1 Total Organic Carbon

SDG ID: CAB34

Preparation Date: 06/29/2007

BS Sample ID: S062907TOCW01

Run Sequence ID: R019150

BSD Sample ID: S062907TOCW01D

Analysis Date: 06/29/2007 12:36

Units: mg/L

Matrix: Water

Analyte	Blank Spike			Blank Spike Duplicate			RPD	Limits	
	Added	Found	Recovery	Added	Found	Recovery		Recovery	RPD
Organic Carbon, Total	10.0	9.1318	91%	10.0	9.2292	92%	1%	90-110	

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB34-001	15LCMW03SW
CAB34-002	15LCMW03SW (Filt.)
CAB34-003	15LCMW415W
CAB34-004	15LCW415W (Filt.)
CAB34-005	15LCMW03DW
CAB34-006	15LCMW03DW (Filt.)
CAB34-007	15LCMW04DW
CAB34-008	15LCMW04DW (Filt.)
CAB34-009	15LCMW04SW
CAB34-010	15LCMW04SW (Filt.)

\* = RPD or recovery is outside the established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

FORM LTL-RSR-7.0

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# Laucks Testing Laboratories

## SRM Report

Test Name: 310.1M Carb./Bicarb. Alkalinity	SDG ID: CAB34	Preparation Date: 07/03/2007
Lab Sample ID: SRM-MIN QCI02712-438/439-202	Run Sequence ID: R019262	Analysis Date: 07/03/2007 17:00
	Units: mg/L CaCO3	
	Matrix: Water	

Analyte	Result	True Value	Control Limits	
			LCL	UCL
Alkalinity, Bicarbonate (As CaCO3)	36.0	35.6	30.3	42.2

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB34-001	15LCMW03SW
CAB34-003	15LCMW415W
CAB34-005	15LCMW03DW
CAB34-007	15LCMW04DW
CAB34-009	15LCMW04SW

\* = Value exceeded established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-19.0*

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## Laucks Testing Laboratories

### SRM Report

Test Name: 300.0 NO3, NO2, Cl, SO4

SDG ID: CAB34

Preparation Date: 06/23/2007

Lab Sample ID: SRM-IC 34-72AS-160

Run Sequence ID: R018997

Analysis Date: 06/23/2007 13:32

Units: mg/L

Matrix: Water

Analyte	Result	True Value	Control Limits	
			LCL	UCL
Chloride	28.0	30	27	33
Nitrate - N	21.6	22.5	20.2	24.8
Nitrite - N	32.9	30.4	27.4	33.5
Sulfate as SO4	147	149	134	164

Associated Samples	
<u>Lab Sample ID</u>	<u>Client Sample ID</u>
CAB34-001	15LCMW03SW
CAB34-003	15LCMW415W
CAB34-005	15LCMW03DW
CAB34-007	15LCMW04DW
CAB34-009	15LCMW04SW

\* = Value exceeded established control limits

The concentration values on this report may have non-significant digits tabulated. These are the same values used to compute the recovery and/or RPD values listed and are available during data review to verify our calculations.

*FORM LTL-RSR-19.0*

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**DRAFT**  
**GROUNDWATER SAMPLING AND ANALYSIS REPORT**  
**2<sup>nd</sup> QUARTER 2007**  
**CAMP BONNEVILLE**  
**VANCOUVER, WASHINGTON**

*prepared for:*

Washington State Department of Ecology  
P.O. Box 47600  
Olympia, WA 98504-7600

**DRAFT – August 20, 2007**

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**DRAFT  
GROUNDWATER SAMPLING AND ANALYSIS REPORT**

**2<sup>nd</sup> QUARTER 2007**

**CAMP BONNEVILLE  
VANCOUVER, WASHINGTON**

*prepared for:*

Washington State Department of Ecology  
P.O. Box 47600  
Olympia, WA 98504-7600

**DRAFT– August 20, 2007**

*prepared by:*

PBS Engineering and Environmental  
Portland, Oregon

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Mike Baxter, Laucks Laboratory Analytical Chemistry Task Manager	Signature	Date
	Signature	Date
	Signature	Date



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## LIST OF ACRONYMS AND ABBREVIATIONS

Army	U.S. Army
bgs	Below Ground Surface
BRAC	Base Realignment and Closure
CHPPM	U.S. Army Center for Health Promotion and Preventative Medicine
COC	Chain-of-Custody
COPC	Chemical of Potential Concern
CWM	Clear Wide Mouth
DI	Deionized Water
DNR	State of Washington Department of Natural Resources
DOC	Dissolved Organic Carbon
DQO	Data Quality Objectives
EDF	Electronic Data Format
EO	Exploded Ordnance
EOD	Explosive Ordnance Disposal
EPA	U.S. Environmental Protection Agency
FBI	Federal Bureau of Investigation
FSP	Field Sampling Plan
HASP	Health and Safety Plan
HE	High Explosive
HMX	octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
IC	Ion chromatography
ICP	Inductively coupled plasma
IDW	Investigative Derived Waste
LCS	Laboratory Control Sample
LIMS	Laboratory Information Management System
LQMP	Laboratory Quality Management Plan
µg/L	micrograms per liter (approximately equal ppb)
mg/L	milligrams per liter (approximately equal ppm)
MDL	Method Detection Limit
MRL	Method Reporting Limit
MS/MSD	Matrix Spike / Matrix Spike Duplicate
MTCA	Washington Model Toxics Control Act (Chapter 173-340 WAC)
NG	nitroglycerine
OE	ordnance and explosives
PA	picric acid
PCBs	polychlorinated biphenyls
PETN	pentaerythritol tetranitrate
ppb	parts per billion
ppm	parts per million
PQL	practical quantitation limit for laboratory test instrument
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RAU	Remedial Action Unit
RDX	hexahydro-1,3,5-trinitro-1,3,5-triazine (Cyclonite)
RI	Remedial Investigation

---

RPD	Relative Percent Difference
SAP	Sampling and Analysis Plan
SDS	Sample Data Sheets
SI	Site Investigation
SOW	Statement of Work
SVOC	Semivolatile Organic Compound
TBD	To Be Determined
TIC	Tentatively Identified Compound
TNT	2,4,6-trinitrotoluene
TOC	Total Organic Carbon
TPH	Total Petroleum Hydrocarbons
TSD	Treatment, Storage, and Disposal
TSS	Total Suspended Solids
USACE	United States Army Corps of Engineers
US	United States
USEPA	United States Environmental Protection Agency
UXO	Unexploded Ordnance
VOC	Volatile Organic Compound
WDOE	State of Washington Department of Ecology

## 1.0 INTRODUCTION

This report documents the results of groundwater sampling and analysis at two locations of monitoring well installations at Camp Bonneville. The sampling and analysis was conducted for the 2<sup>nd</sup> quarter of 2007. This work was performed by PBS Engineering and Environmental (PBS), Portland, Oregon, under contract to Michael Baker, Jr., Inc. (Baker). The work was performed at the Camp Bonneville Military Reservation (Camp Bonneville) northeast of Vancouver, Washington (Figure 1). Camp Bonneville is a former United States government military facility that was selected for closure under the Base Realignment and Closure (BRAC) authorization.

As part of the early transfer process for Camp Bonneville Military Reservation (CBMR), the U.S. Department of the Army (Army) and Clark County, Washington (Clark County), along with the Bonneville Conservation, Restoration, and Renewal Trust LLC (BCRRT), negotiated an Environmental Services Cooperative Agreement (ESCA). The groundwater monitoring program is a component of the remedial action services performed in support of the Conservation, Restoration and Renewal Program (CRRP) associated with the facility. The CRRP includes those activities necessary to obtain Notice(s) of Completion, Site Closeout(s), and CERCLA Warranty(ies) for reconveyance of the CBMR from the BCRRT to Clark County. These additional remedial actions address requirements contained in agreements between the BCRRT and the Washington State Department of Ecology (WDOE).

The groundwater monitoring work was performed in general accordance with the Sampling and Analysis Plan (SAP) dated October 31, 2006, the Health and Safety Plan (HASP) dated October 2006, and the Quality Assurance Project Plan (QAPP) dated November 3, 2006. Laboratory analytical services were provided by Laucks Testing Laboratories, Seattle, Washington, under contract to PBS.

### 1.1 Project Objectives

The overall objectives of site investigations at Camp Bonneville, which have been previously conducted as part of the U.S. Army BRAC process, have been to identify contaminated areas and determine the next appropriate steps toward restoration of those sites. This quarterly monitoring report describes the results of ongoing environmental monitoring of groundwater parameters at two areas at Camp Bonneville. Monitoring wells have been installed in these areas to monitor shallow and deeper groundwater to maximum depths of approximately 75 feet below the ground surface.

The sites that were monitored include one old landfill/demolition area (Landfill 4/Demo Area 1) and the Camp Bonneville base boundary at Lacamas Creek. Two other demolition areas (Demolition Areas 2 and 3) were previously monitored, but were deleted from the monitoring program per agreement with WDOE in 2006. Investigation activities included groundwater sampling at the old landfill and demolition area, and the area where Lacamas Creek exits the southwest side of the base. These investigations were conducted in general accordance with the SAP, with adjustments made in the field to accommodate site conditions. The analytical results obtained from groundwater samples collected at the various monitoring wells locations were compared with screening levels established for the site to determine if the groundwater potentially poses an unacceptable environmental risk. Cleanup levels established by WDOE under the Model Toxics Control Act (MTCA) have been used as screening criteria to evaluate the levels of contaminants detected at Camp Bonneville.

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## 1.2 Scope of Work

PBS conducted a round of groundwater sampling at 19 existing monitoring wells for the 2<sup>nd</sup> Quarter 2007 sampling event (June 2007). Sampling for this quarter was performed from June 18 to 22, 2007. The wells were purged and sampled utilizing low-flow, minimal drawdown procedures described in this report and based on procedures described in detail in the SAP which referenced the USACE standard operating procedure, "Low-Flow Groundwater Purging and Sampling".

Previous sampling events through the 2<sup>nd</sup> quarter of 2006 sampled a total of 27 wells in the areas listed below, with their associated Remedial Action Unit (RAU) designations. The Lacamas Creek area contains four sets of paired shallow and deep wells (8 total wells) in a north-south alignment along the base boundary (Figure 3). Demolition Area 3 contains four shallow wells and one deep well located around the perimeter of a pond within a former blast pit. Demolition Area 2 has three wells located near the access road, a creek, and a pond. Landfill 4/Demo Area 1 has five shallow and three deep wells around the perimeter of the landfill, one deep well along North Fork Lacamas Creek downstream of the landfill, and two wells along the creek at the base of the drainage ravine (Figure 4).

- Landfill 4 / Open Burning/Demolition Area 1 (RAU 2C)
- Open Burning / Open Demolition Area 2 (RAU 2B)
- Open Burning / Open Demolition Area 3 (RAB 2B)
- Base Boundary at Lacamas Creek (Site-wide Groundwater)

Starting in the 3<sup>rd</sup> Quarter 2006 sampling event (September 2006), the monitoring wells at Demolition Area 2 and Demolition Area 3 were deleted from the sampling program. The WDOE authorized deletion of these monitoring wells on the basis of the previous quarters of sampling results showing no detections exceeding the MTCA cleanup levels for the contaminants of concern. The monitoring wells at Landfill 4/Demo Area 1 and the Base Boundary at Lacamas Creek, a total of 19 wells, were also sampled in the 4<sup>th</sup> Quarter 2006.

## 1.3 Report Organization

This report is organized into eight sections, with four appendices containing supporting information. A brief description of each section follows.

- **Section 1 – Introduction.** An introduction to the project, a description of the work scope, and a review of the report organization is provided.
- **Section 2 – Site Background.** A description of the facility and a summary of its history are provided. The groundwater investigation reports are referenced. The groundwater sampling locations discussed in this report are presented, along with the chemicals of potential concern in groundwater.
- **Section 3 – Groundwater Sampling.** Descriptions of the field investigation, sampling techniques, and sample handling methods are provided.
- **Section 4 – Analytical Methods.** The field and laboratory analytical testing methods are presented.
- **Section 5 – Data Management and Review.** The data quality control procedures and Washington MTCA cleanup program information are presented.
- **Section 6 – Groundwater Monitoring Results.** A description of sample collection activities performed at each site, along with a summary of the results from these activities, is provided. Contaminants detected at each site are identified and compared with screening levels.
- **Section 7 - Recent Trends in Groundwater Quality.** Presents an analysis of the change in certain analytical results.

- **Section 8 – Data Quality Objectives.** Chemical data quality and laboratory narratives of test procedures are discussed.
- **Section 9 – References.** A list of documents used in preparation of this report is provided.
- **Appendix A – Field Parameters and Laboratory Analysis Data Tables.** Summary tables of field and laboratory analysis data, including MTCA Cleanup Levels.
- **Appendix B – Laucks Testing Laboratories, Analytical Reports.** Copies of the laboratory reports are provided on CD disk, organized by laboratory data package.
- **Appendix C – Monitoring Well Boring Logs.** Copies of the boring logs for the groundwater monitoring wells are included.
- **Appendix D – Previous Quarterly Groundwater Monitoring Report Tables.** Previous groundwater monitoring report tables by PBS are included on the enclosed CD disk.

## 2.0 SITE BACKGROUND

### 2.1 Site History

Camp Bonneville comprises approximately 3,820 acres and is located in southwestern Washington, approximately 10 miles northeast of Vancouver, Washington. The Department of the Army used Camp Bonneville for live fire of small arms, assault weapons, artillery, and field and air defense artillery between 1910 and 1995. Since 1947, Camp Bonneville has also provided training for a variety of military and nonmilitary units, including National Guard, Army Reserves, and U.S. Air Force, and federal, state, and local law enforcement agencies. Camp Bonneville includes approximately 820 acres of land leased from the State of Washington Department of Natural Resources (DNR). The Federal Bureau of Investigation (FBI) used one firing range on the site for training until late 2006. The Camp Bonneville site location is shown in Figure 1. The general areas of groundwater investigation are shown in Figure 2.

In July of 1995, Camp Bonneville was selected for closure under the 1995 Base Realignment and Closure (BRAC) process. The Camp Bonneville Draft Reuse Plan (Otak, September 1998; updated 2003) called for the majority of Camp Bonneville to be transferred to Clark County for the public benefit – education, law enforcement, and parks, with no financial gain to Clark County. The 840 acres currently leased from the Washington DNR would either be returned to the State, the lease renewed, or the property purchased and transferred to Clark County. Transfer of the site to The Trust for Public Lands, and subsequently to Clark County, began in 2006. The facility was transferred from the Army to Clark County and from the County to the Bonneville Conservation Restoration and Renewal Team (BCRRT) on October 3, 2006. BCRRT and Clark County entered into a Prospective Purchaser Consent Decree with the Washington Department of Ecology (WDOE) that requires investigating and remediating the site. Clark County intends to use the site as a Regional Park and Wildlife Refuge.

Through the years, several ordnance and explosive (OE) items have been found within Camp Bonneville's boundaries. Recent OE characterization, sampling, and removal efforts performed at Camp Bonneville confirmed the presence of OE at the site. Some of these OE items were determined to be unexploded ordnance (UXO).

### 2.2 Previous Investigations

During previous investigations (Shannon & Wilson, 1999), shallow monitoring wells were installed at Camp Bonneville at four sites: Landfill 2, Landfill 3, the Pesticide Mixing/Storage Building, and the Former Sewage Pond. Additional shallow and deep wells were installed at Landfill 4, Demolition Area 2, Demolition Area 3, and the Base Boundary at Lacamas Creek. The groundwater monitoring wells are located in areas of documented disposal of unexploded ordnance (UXO). However, the areas of the wells

were cleared of UXO prior to well installation. Groundwater sampling activities were conducted only in the immediate area of the wells, and did not occur in areas that have not been previously checked and cleared of UXO.

Groundwater sampling and analysis was previously conducted by consultants other than PBS on a quarterly schedule basis in 2001 and 2002 at the following sites within Camp Bonneville:

- Landfill 4 / Open Burning / Demolition Area 1
- Open Burning / Open Demolition Area 2
- Open Burning / Open Demolition Area 3
- Base Boundary at Lacamas Creek

Quarterly sampling from shallow and deep monitoring wells at Landfill 4 was conducted in July and October 2001, and January and April 2002. Previous chemical analysis of groundwater samples has included explosives, perchlorate, metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and fuel residues (gasoline and diesel range petroleum hydrocarbons).

Groundwater sampling was conducted by PBS, under contract to the U.S. Army BRAC Division, for the 4<sup>th</sup> Quarter 2003, 1<sup>st</sup> Quarter 2004, 2<sup>nd</sup> Quarter 2004, 3<sup>rd</sup> Quarter 2004, 4<sup>th</sup> Quarter 2004, 1<sup>st</sup> Quarter 2005, 2<sup>nd</sup> Quarter 2005, 3<sup>rd</sup> Quarter 2005, 4<sup>th</sup> Quarter 2005, 1<sup>st</sup> Quarter 2006, 2<sup>nd</sup> Quarter 2006, and 3<sup>rd</sup> Quarter 2006. A total of twenty-five monitoring wells were sampled during the 4<sup>th</sup> Quarter 2003 and 1<sup>st</sup> Quarter 2004 events at Landfill 4/Demolition Area 1, Demolition Area 2, Demolition Area 3, and the Base Boundary at Lacamas Creek. Two additional monitoring wells near Landfill 4/Demolition Area 1 were installed in May 2004, and added to the sampling set for subsequent quarterly monitoring events (starting in the 2<sup>nd</sup> Quarter 2004). Laboratory analyses included TPH-Gx (gasoline), TPH-Dx (diesel), VOCs, SVOCs, explosive compounds (including HMX, RDX, NG, and PETN), picric acid, perchlorate, priority pollutant metals (total and dissolved), TOC, DOC, TSS, alkalinity, and inorganic ions.

In May 2004, PBS supervised installation of two additional groundwater monitoring wells along North Fork Lacamas Creek below Landfill 4 (PBS, 2004b). The monitoring well completed in bedrock (well number L4-MW17) was located at the west side of North Fork Lacamas Creek, at a point where the creek exits the ravine below Landfill 4. The monitoring well completed in alluvium (well number L4-MW18) was located at the east side of North Fork Lacamas Creek near the bottom of the ravine and above the junction of an east-trending tributary stream to Lacamas Creek.

PBS's final Groundwater Sampling and Analysis Reports, completed under the Army BRAC contract and listed in the References section of this report, present the results of each of the quarterly sampling events from the 4<sup>th</sup> Quarter 2003 through the 3<sup>rd</sup> Quarter 2006 sampling and analysis events. The last sampling event performed under the Army BRAC contract was for the 3<sup>rd</sup> Quarter 2006. PBS began groundwater sampling and analysis under contract to Michael Baker Jr., Inc. starting with the 4<sup>th</sup> quarter 2006. The results of the 4<sup>th</sup> Quarter 2006 sampling and analyses were presented in PBS's draft report, "Groundwater Sampling and Analysis Report, 4<sup>th</sup> Quarter 2006, Camp Bonneville, Vancouver, Washington", dated March 28, 2007 (PBS, 2007b). The results of the 1<sup>st</sup> Quarter 2007 sampling and analyses were presented in PBS's draft report, "Groundwater Sampling and Analysis Report, 1<sup>st</sup> Quarter 2007, Camp Bonneville, Vancouver, Washington", dated June 1, 2007 (PBS, 2007c).

### 2.3 Monitoring Well Numbering

Different numbers have been assigned over time to monitoring wells at the Base Boundary at Lacamas Creek, Demolition Area 2, and Demolition Area 3. Well numbers used by PBS in monitoring reports for



the 4<sup>th</sup> Quarter 2003, the 1<sup>st</sup> Quarter 2004, and the 2<sup>nd</sup> Quarter 2004 were based on proposed well locations and well identifiers, as presented in the PBS-Army BRAC Contract documents. The actual well numbers were assigned by the U.S. Army Center for Health Promotion and Preventative Medicine (CHPPM) when the wells were installed. The CHPPM well identifiers are the numbers on the well caps. Remedial Investigation (RI) reports previous to PBS' reports have used the well numbers assigned by CHPPM. Washington State Department of Ecology well tag numbers are consistent across both numbering systems.

Table 8 shows the monitoring well numbers used by PBS (per the PBS-Army BRAC Contract document), Washington State Department of Ecology well tag numbers, well locations, total depth, screened interval, and CHPPM well identification numbers used in former RI reports for Camp Bonneville.

The laboratory analysis results (Appendix A) included in this monitoring report for the 2<sup>nd</sup> Quarter 2007 are referenced to the monitoring well numbers assigned by CHPPM. The well numbers used in the PBS quarterly reports are cross-referenced to the CHPPM numbers and the WDOE well tag numbers in Table 8.

## 2.4 Groundwater Monitoring Locations

For the 2<sup>nd</sup> Quarter 2007, PBS conducted groundwater sampling and analysis for monitoring wells at the Landfill 4 area and the Base Boundary at Lacamas Creek. The locations of monitoring wells at these sites are shown on Figure 3 (Base Boundary at Lacamas Creek) and Figure 4 (Landfill 4/Demo Area 1). The monitoring wells at the sites are listed below (S = shallow well; D = deep well) according to the CHPPM numbers :

- Base Boundary at Lacamas Creek
  - Paired wells: LC-MW01S and LC-MW01D
  - Paired wells: LC-MW02S and LC-MW02D
  - Paired wells: LC-MW03S and LC-MW03D
  - Paired wells: LC-MW04S and LC-MW04D
  
- Landfill 4 / Demo Area 1
  - Paired wells: L4-MW01A (shallow) and L4-MW01B (deep)
  - Paired wells: L4-MW02A (shallow) and L4-MW02B (deep)
  - Paired wells: L4-MW03A (shallow) and L4-MW03B (deep)
  - L4-MW04A (shallow)
  - L4-MW05A (shallow)
  - L4-MW07B (deep)
  - L4-MW17 (in bedrock)
  - L4-MW18 (in alluvium)

## 2.5 Chemicals of Potential Concern

Previous site studies have determined that the upgradient areas of Camp Bonneville may contain exploded ordnance (EO) and unexploded ordnance (UXO). The historical uses of the upgradient areas include firing ranges, a landfill, open burning locations, open detonation locations, and general maintenance facilities. Chemicals of potential concern in groundwater include artillery propellants, high explosives residue, missile/rocket propellants, petroleum hydrocarbons, semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), and metals.

A summary of chemicals of potential concern (COPC) is presented in Table 1. Specific analytes and laboratory analysis methods are presented in Table 2. Sample container types, preservation techniques, and holding times for the chemical analyses are presented in Table 3.

**TABLE 1. CHEMICALS OF POTENTIAL CONCERN**

<b>Sampling Areas</b>	<b>Munition Compound Classes</b>	<b>High Explosives and Organic Compounds</b>	<b>Artillery Propellants</b>	<b>Other</b>
Landfill 4 Demolition Areas Base Boundary	<ul style="list-style-type: none"> <li>• Artillery Propellants</li> <li>• HE</li> <li>• Missile/Rocket Propellants</li> </ul>	<ul style="list-style-type: none"> <li>• TNT</li> <li>• RDX</li> <li>• PETN</li> <li>• PA</li> <li>• HMX</li> <li>• NG</li> </ul>	<ul style="list-style-type: none"> <li>• Black Powder (nitrate)</li> <li>• Plasticizers</li> <li>• Stabilizers</li> <li>• AP</li> </ul>	<ul style="list-style-type: none"> <li>• Priority Pollutant Metals</li> <li>• TPH</li> <li>• SVOCs</li> <li>• VOCs</li> </ul>

Notes:

AP = ammonium perchlorate

Black powder is a mixture of potassium or sodium nitrate, charcoal, and sulfur.

Plasticizers = dibutylphthalate; diethylphthalate

Stabilizers = diphenylamine; N-nitrosodiphenylamine

HE = high explosives; 2,4 DNT, 2,6 DNT

HMX = octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine

NG = nitroglycerine

PA = picric acid

PETN = pentaerythritol tetranitrate

RDX = hexahydro-1,3,5-trinitro-1,3,5-triazine (Cyclonite)

TNT = 2,4,6-trinitrotoluene

TPH = total petroleum hydrocarbons

VOCs = volatile organic compounds

SVOCs = semivolatile organic compounds

**TABLE 2. ANALYTES AND ANALYTICAL METHODS**

<b>PARAMETER</b>	<b>METHOD</b>
Total Priority Pollutant Metals	SW-846 6020/7000 series
Total Priority Pollutant Metals (field filtered)	SW-846 6020/7000 series
VOCs plus TICs	SW-846 8260B
SVOCs plus TICs	SW-846 8270C
TPH Gasoline Range (TPH-gasoline)	NWTPH-Gx
TPH Diesel Range (TPH-diesel)	NWTPH-Dx
Total Suspended Solids	EPA Method 160.2
Carbonate and Bicarbonate	SM 2320
Inorganic Ions (Sulfate, Nitrite + Nitrate, Chloride)	EPA Method 300.0
Total Organic Carbon	EPA Method 415.1
Dissolved Organic Carbon (field filtered)	EPA Method 415.1
<b>ORDNANCE COMPOUNDS</b>	
Explosive Residues (HMX, RDX)	8330 modified
PETN/Picric Acid/Nitroglycerine	8330 modified
Ammonium Perchlorate	EPA Method 314

Notes:

NWTPH = Northwest Total Petroleum Hydrocarbon

PETN = Pentaerythritol tetranitrate

SVOC = Semivolatile organic compound

TPH = Total petroleum hydrocarbon

TICs = Tentatively identified compounds

**TABLE 3. SAMPLE ANALYTICAL METHODS, CONTAINERS, PRESERVATION, AND HOLDING TIMES**

MEASUREMENT	EPA METHOD	MINIMUM SAMPLE VOLUME	CONTAINER	PRESERVATIVE cool to 4°C, plus	HOLDING TIME
Mercury (total & dissolved)	7470A cold vapor AA	100 mls	Included with 1 L. HDPE container	HNO <sub>3</sub> to pH <2 Filtered for dissolved	28 days
Metals (total and dissolved)	6020/7000	200 mls	1 L. HDPE	HNO <sub>3</sub> to pH <2 Filtered for dissolved	6 months
Total Suspended Solids	160.2	500 mls	20 ml HDPE	No additional	14 days
VOCs plus TICs	8260B	(2) 40 mls	40 ml VOA vial	HCl pH<2	14 days
SVOCs plus TICs	8270B	1000 mls	1L. AG	No additional	7 days to extraction 40 days to analysis
TPH Gasoline Range	NWTPH- Gx	(2) 40 mls	40 ml VOA vial	HCl pH<2	14 days
TPH Diesel Range	NWTPH- Dx	1000 mls	1 L. AG	HCl pH<2	14 days
Total Organic Carbon	415.1	25 mls	1 L. AG	H <sub>3</sub> PO <sub>4</sub> pH<2	28 days
Dissolved Organic Carbon	415.1	25 mls	1 L. AG	H <sub>3</sub> PO <sub>4</sub> pH<2 -Filtered	28 days
Carbonate & Bicarbonate	SM 2320	100 mls	20 ml HDPE	No additional	14 days
Inorganic Ions	300.0	50 mls	20 ml HDPE	No additional	28 days
Ammonium Perchlorate	314	500 mls	500 ml HPDE	No additional	14 days
Explosives	8330 Modified HPCL	500 mls	1 L. AG	No additional	7 days to extraction, 40 days after extraction

Notes:

HDPE = High Density Polyethylene Bottles with Teflon lined screw cap

AG = Amber glass bottle with Teflon lined screw cap

CWM = Clear Wide Mouth with Teflon lined screw cap

VOA vial = vial with a screw cap with a hole in the center sealed with a TFE-faced silicone septum

ml = milliliters

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### 3.0 GROUNDWATER SAMPLING

PBS conducted groundwater sampling for the 2<sup>nd</sup> Quarter 2007 event at 19 existing monitoring wells at two locations within Camp Bonneville. Monitoring wells were sampled during the period of June 18 to 22, 2007. The monitoring wells were sampled in accordance with the procedures established in the Draft Groundwater Sampling and Analysis Plan (SAP), dated October 31, 2006, prepared by PBS and Michael Baker Jr., and submitted to WDOE. Health and safety procedures followed during site activities were in compliance with the procedures established in the Site Health and Safety Plan (HASP) prepared by Michael Baker Jr. and approved by WDOE.

#### 3.1 Well Depth and Static Water Level Measurement

The static groundwater level was measured in each monitoring well using an electronic water level indicator. Water level measurements for all of the monitoring wells were obtained on June 18, 2007. In addition, the water level in each monitoring well was measured immediately before collection of groundwater samples. Prior to sampling at each of the sampling areas, well caps for all monitoring wells were removed and refitted loosely so that the water level would equilibrate with atmospheric pressure by the time of purging and sampling. During groundwater sample collection, the water level in the well was monitored to determine drawdown conditions. Groundwater level measurements are presented in Table 7.

Water level depths were measured to the reference mark on the rim of the PVC monitoring well casings. The measurement was recorded in the field logbook to a precision of 0.01 foot.

#### 3.2 Low-Flow Purging

A low-flow, minimal drawdown technique was used for groundwater purging and sampling. This technique is described below and in the SAP. Low-flow sampling minimizes disturbance to the aquifer and is designed to ensure that samples collected from the wells are representative of groundwater. The low pumping rate induces laminar flow in the immediate vicinity of the sampling pump intake, thus drawing groundwater directly from the aquifer, horizontally through the well screen, and into the sampling device.

Purging and sampling were performed with a Grundfos Redi-Flo 1.75-inch-diameter, stainless steel, electric submersible impeller pump, suspended in the well with a stainless steel safety cable. A polyethylene discharge hose dedicated to the specific monitoring well was attached to the pump and extended to the ground surface for sample collection. Each monitoring well was purged immediately before sample collection so that the sample represented fresh formation water rather than stagnant water that had accumulated in the well casing. Well purging equipment was positioned so that any potential volatile organic sources, such as vehicles, gasoline-driven generators, and fuel tanks, were downwind of the well. This reduced the potential for contamination caused by entrainment of volatile air contaminants in the sample.

The pump intake was positioned at a level adjacent to or slightly above the midpoint of the saturated screened interval. Care was taken to gently insert the pump to minimize disturbance of any sediment that may have accumulated in the monitoring well. Purging was accomplished by pumping groundwater from the monitoring well at a rate of approximately 0.2 to 0.5 liters per minute. Groundwater was purged into a 5-gallon container and a YSI Model 556 water quality meter installed in a flow-through cell was used to measure specific conductance, temperature, pH, oxidation-reduction potential, and dissolved oxygen during purging. Purged water was stored in a 5-gallon container with sealable lid at each monitoring well

site. Purged water was later transferred to 55-gallon drums with sealable lids located at an onsite central drum storage area.

Water quality measurements made during purging were recorded in a field notebook at intervals ranging from 1 to 5 minutes. Purging was stopped, and groundwater samples collected, when readings stabilized over at least three consecutive measurements and a minimum of 3 gallons were pumped from the well. Stabilization was considered reached when three consecutive readings were within  $\pm 0.2$  for pH,  $\pm 1^\circ$  C for temperature, and  $\pm 10$  percent for specific conductance.

### **3.3 Sample Collection**

Groundwater samples were collected after water quality parameters stabilized during purging. Samples that did not require filtering were collected into the sample container directly from the end of the dedicated discharge hose. Groundwater samples requiring preservatives were collected in sample bottles supplied by the contract laboratory and contained the appropriate amounts of preservative solution. Sample container types, preservation techniques, and holding times for the chemical analyses are presented in Table 3.

Samples collected for dissolved metals analysis were field-filtered. An in-line, nitrocellulose, 0.45-micron cartridge filter was attached to the sample discharge line. Groundwater was rinsed through the filter for approximately 1 minute prior to filling the sample bottle. The sample bottle was then filled directly from the discharge outlet on the filter. Sample containers for VOCs and TPH were filled completely to the top of the container and the container cap screwed on to prevent any air remaining in the headspace of the container.

### **3.4 Decontamination Procedures**

The objective of decontamination is to prevent cross-contamination of samples and wells by sampling equipment. Sampling equipment includes all devices that are used to collect or contain a sample prior to placement into a laboratory-provided sample container. Before initial use, sampling equipment that may contribute to the contamination of a sample must be thoroughly decontaminated, unless specific documentation exists to show that the sampling equipment has already been decontaminated. Pre-cleaned equipment and sample jars in factory-sealed containers do not require decontamination.

#### **3.4.1 Sampling Equipment**

Non-dedicated sampling equipment (water level meter) was decontaminated between sample locations by rinsing with organic-free deionized water. Decontaminated equipment was placed in clean pails to prevent recontamination. Decontamination wash water was placed in 55-gallon drums for later disposal in accordance with the SAP.

Water quality parameter meter sensors were thoroughly rinsed with deionized water. These sensors do not typically contact sample water or enter wells; therefore, decontamination is primarily for protecting the meter and for obtaining accurate measurements.

#### **3.4.2 Pump and Discharge Hose**

The sampling submersible pump was decontaminated as follows: 1) The pump and discharge hose/power cable assembly was placed into a 4-inch PVC tube that is 3 feet long and capped at the bottom. The tube was filled with a solution of potable water and liquinox (phosphate-free detergent). The pump was then

activated for a sufficient time to allow approximately two gallons of soapy water to pass through the entire discharge hose. 2) The pump intake was then placed into a second PVC tube. Approximately two gallons of deionized water was added to the PVC tube and pumped through the discharge hose. 3) The pump was stopped and removed from the PVC tube, and the water in the tube discarded into the 55-gallon drums. The pump body was then placed into a plastic bag and inserted into the holder on the pump reel until used at the next well.

A separate piece of new pump discharge polyethylene tubing was dedicated to each well. After use and decontamination procedures, the dedicated piece of tubing was stored in a clean, labeled plastic bag. The tubing was preserved in this manner throughout all of the groundwater monitoring rounds.

Prior to sampling groundwater during the 2<sup>nd</sup> quarter 2007 event, the sampling pump was cleaned and thoroughly rinsed with deionized water. The internal lubrication water in the Grundfos pump was also drained and replaced prior to obtaining samples. The internal pump water was also drained and replaced after sampling the Landfill 4 wells, prior to sampling the Base Boundary wells.

### **3.5 Investigation-Derived Waste**

Investigation-derived waste (IDW) generated during well purging and sampling includes groundwater and decontamination rinse water which has the potential to be contaminated with low levels of COPC. The purge water and decontamination rinse water IDW was examined for odors and visual evidence of contamination and placed in 55-gallon drums on site pending laboratory results of groundwater samples. Solid IDW (filters, plastic, and paper) was disposed in trash bins on site.

### **3.6 Sample Numbering, Handling, and Documentation**

Each sample collected was assigned a unique sample identification number, referenced to the monitoring well location. As an example, 15LC-MW01SW represents a sample taken during the fifteenth quarterly sampling event (15) performed by PBS (samples collected in June 2007) from monitoring well LC-MW01S at Lacamas Creek, which was a groundwater sample (W). The QC field duplicate sample and field/rinsate blank sample were identified with fictitious location numbers related to the primary sample number, and recorded in the field logbook. No indication that a sample is a duplicate was provided on the sample label or chain-of-custody form. The sample to be used for matrix spike/matrix spike duplicate (MS/MSD) was specified in the comments section of the chain-of-custody. Field notes pertaining to sample collection were recorded in a permanently bound field logbook with waterproof paper.

Groundwater samples were collected in the appropriate sample containers and placed in the shipping cooler immediately upon sample collection. Each bottle was individually wrapped with bubble wrap. Sample jars were packaged with additional bubble wrap to minimize shifting of samples and prevent breakage of samples during shipment. Ice packaged in plastic ziplock storage bags was placed in each cooler to maintain the temperature in the shipping containers at 4° C +/- 2° C. Along with samples and ice, a temperature blank provided by the laboratory was placed in each cooler. A chain-of-custody form was filled out for each cooler shipped, placed in a ziplock bag, and placed on top of the sample bottles inside the cooler. Field sampling personnel affixed two signed and dated custody seals to each cooler. The samples collected each day were shipped by Federal Express (FedEx) from Portland, Oregon, to Laucks Testing Laboratories in Seattle, Washington, by overnight delivery service.

Sample labels on the sample containers included the following information:

- PBS project number
- Sample identification number

- Date and time of sampling
- Initials of sampling personnel
- Analyses to be performed
- Type of preservative added

### 3.7 Quality Assurance/Quality Control Samples

Duplicate samples were collected at a frequency of 1 per 10 monitoring well samples. Matrix spike/matrix spike duplicate (MS/MSD) samples were collected at a frequency of 1 per 20 monitoring well samples. Trip blanks were submitted with shipments containing groundwater samples for VOC analyses. One field blank/rinsate sample was collected during sampling of the groundwater monitoring wells. The field blank/rinsate sample was collected by pumping deionized water through the sampling equipment and collecting the water in prepared containers.

One blank sample of the deionized (DI) water was collected for analysis of total and dissolved metals as QA/QC check on the decontamination rinse water. This sample was collected directly from the 5-gallon DI water container on June 20, 2007.

## 4.0 ANALYTICAL METHODS

Field measurements were obtained for pH, specific conductance, temperature, oxidation-reduction potential, and dissolved oxygen in groundwater samples using a YSI Model 556 water quality meter. Water color and turbidity were noted visually. Analytical data were obtained by Laucks Testing Laboratories using standard, documented procedures to provide defensible data on contaminant characterization and contamination levels relative to appropriate regulatory and risk-based criteria. Specific laboratory analysis methods are presented in Table 2.

The specific analytical methodologies, along with the associated project-specified method detection limits (MDL), are presented in the QAPP. The MDLs are based on minimum detection levels that can be expected to be achieved reliably by the project analytical laboratories using the methodologies specified. As discussed in the QAPP, some of the analytical methodologies cannot achieve risk-based or cleanup goals for all analytes. Therefore, the analytical methodologies were selected to attain detection or quantitation limits that approach or achieve the risk-based goals for chemicals most likely to be present, with a secondary emphasis on approaching or achieving these goals for the maximum number of other possible contaminants. Analytical results falling between the method detection limit and the project-specified reporting limit have been reported and flagged as estimated values (J-flagged) on laboratory analysis data tables (Appendix A) and the laboratory report sheets (Appendix B).

## 5.0 DATA MANAGEMENT AND REVIEW

The laboratory data quality was evaluated before use according to the procedures described in the QAPP. The analytical results for total priority pollutant metals, SVOCs, TPH-Gx (gasoline), TPH-Dx (diesel), explosive compounds (including HMX, RDX, NG, and PETN), picric acid, perchlorate, TOC, DOC, TSS, alkalinity, and inorganic ions are presented in Table 4. Analytical results for dissolved metals from field filtered groundwater samples are presented in Table 5. Specific VOCs and SVOCs detected above the laboratory MDLs are presented in Table 6.

The analytical tables include the State of Washington MTCA levels for comparison with regulatory and risk-based criteria. MTCA Method A cleanup level values for groundwater were obtained from the MTCA Cleanup Regulation, Chapter 173-340 of the Washington Administrative Code (WAC) (WDOE,



2001). These cleanup levels are not site specific and are applicable to sites undergoing routine cleanup actions as defined in MTCA. MTCA Method B risk-based concentrations for groundwater were obtained from the MTCA Method B levels presented in the Volume 1, Multi-Sites Investigation Report for Camp Bonneville (Shannon & Wilson, 1999). The MTCA Method B values are based on a Risk Calculations (CLARC) II database (based on a  $10^{-6}$  cancer risk or a hazard quotient of 1) (WDOE 1996; WDOE 2001) and are derived from formula values obtained from the February 1996 CLARC II Update (WDOE, 1996).

## 6.0 GROUNDWATER MONITORING RESULTS

### 6.1 Base Boundary at Lacamas Creek

Groundwater samples were collected from the 4 monitoring well pairs located at the Base Boundary at Lacamas Creek (Figure 3) on June 21 and 22, 2007. Paired shallow (S) and deep (D) monitoring wells consisted of sample numbers: 15LCMW01SW and 15LCMW01DW; 15LCMW02SW and 15LCMW02DW; 15LCMW03SW and 15LCMW03DW; and 15LCMW04SW and 15LCMW04DW. A field duplicate sample (labeled 15LCMW415W) was collected from monitoring well LC-MW03D on June 22, 2007. A MS/MSD field duplicate sample (labeled 15LCMW01DWM/MSD) was collected from monitoring well LC-MW01D on June 21, 2007.

Water level depths in the wells ranged from 5.21 to 6.82 feet below the top of the PVC well casings. These represent water elevations in the wells ranging from 285.04 to 284.37 feet above mean sea level.

All samples were analyzed for TPH-Gx (gasoline), TPH-Dx (diesel), VOCs, SVOCs, explosive compounds (including HMX, RDX, NG, and PETN), picric acid, perchlorate, priority pollutant metals (total and dissolved), TOC, DOC, TSS, alkalinity, and inorganic ions. The laboratory analytical results are presented in Tables 4, 5, and 6. Groundwater field parameters (pH, temperature, conductivity, visual turbidity, and color) recorded at the time of sampling are presented in Table 7.

Groundwater from the Base Boundary monitoring wells had no detection of VOCs or SVOCs.

No diesel, oil, or gasoline range petroleum hydrocarbons were detected in any of the Base Boundary groundwater samples. Explosive compounds, nitroglycerine (NG), pentaerythritol tetranitrate (PETN), picric acid, and perchlorate were not detected in any of the groundwater samples.

TOC and DOC concentrations were below laboratory detection limit of 1.0 mg/L in all monitoring well groundwater samples. TSS was found above the laboratory detection limit of 2 mg/L in one of the eight monitoring wells; LCMW04S at 3 mg/L. Alkalinity in the groundwater samples ranged from 38 to 49 mg/L. Inorganic ions consisting of chloride (1.3 to 2.7 mg/L), sulfate (1.0 to 1.7 mg/L), and nitrate (0.23 to 1.1 mg/L) were detected slightly above laboratory MDLs in the monitoring wells.

Antimony, arsenic, cadmium, chromium, nickel, selenium, and zinc all were detected in one or more of the unfiltered (total metals) groundwater samples from the Lacamas Creek – Base Boundary monitoring wells (Table 4). Antimony, arsenic, cadmium, chromium, nickel, and zinc all were detected in one or more of the filtered (dissolved metals) groundwater samples from the Lacamas Creek – Base Boundary monitoring wells (Table 5). No total or dissolved metals were detected at concentrations above MTCA Method A regulatory screening levels in samples from the Base Boundary monitoring wells.

Laboratory analysis results for duplicate sample 15LCMW415W were consistent with the concentrations in the original sample 15LCMW03DW. Laboratory analysis results for MS/MSD duplicate sample

MS/MSD were consistent with the concentrations in the original sample 15LCMW01DW. Differences in the sample results are discussed in Section 8.1.2 of this report.

## 6.2 Landfill 4 / Demolition Area 1

Groundwater samples were collected from monitoring wells at Landfill 4 / Demolition Area 1 (Figure 4) on June 18, 19, and 20, 2007. Sample shallow (A) and deep (B) well pair numbers consisted of: 15L4MW01AW and 15L4MW01BW; 15L4MW02AW and 15L4MW02BW; 15L4MW03AW and 15L4MW03BW. Samples from individual monitoring wells consisted of sample numbers: 15L4MW04AW, 15L4MW05AW, 15L4MW07BW, 15L4MW17W, and 15L4MW18W. A field duplicate sample (labeled 15L4MW425W) was collected from monitoring well L4-MW02B on June 19, 2007.

Water level depths in the wells around the perimeter of the landfill ranged from 13.42 to 31.22 feet below the top of the PVC well casings. These represent water elevations in the wells ranging from 516.18 to 487.24 feet above mean sea level. The water level in the monitoring well located downstream of the landfill (L4-MW07B) was 39.91 feet below the top of the PVC well casing; equaling elevation 440.51 feet above mean sea level. Monitoring wells along North Fork Lacamas Creek at the base of the stream ravine, downstream of Landfill 4, had water levels below top of PVC casing of 10.69 feet in L4-MW17 and 11.78 feet in L4-MW18; equaling 350.79 feet and 351.06 feet above mean sea level, respectively.

All samples were analyzed for VOCs, explosive compounds (including HMX, RDX, NG, and PETN), and perchlorate. The laboratory analytical results are presented in Tables 4, 5, and 6. Groundwater field parameters (pH, temperature, conductivity, visual turbidity, and color) recorded at the time of sampling are presented in Table 7.

PETN and NG were not detected in any of the groundwater samples from shallow or deep monitoring wells. No explosive compounds (HMX and RDX) were detected in monitoring wells L4-MW01A, L4-MW01B, L4-MW07B, L4-MW17, and L4-MW18. HMX was detected in paired monitoring wells L4-MW02A (3.2 µg/L) and L4-MW02B (3.9 µg/L); other wells did not have detectable HMX. RDX was detected in monitoring wells L4-MW02A (20 µg/L), L4-MW02B (78 µg/L, estimated), L4-MW03A (9.7 µg/L), L4-MW03B (3.2 µg/L), L4-MW04A (1.8 µg/L), and L4-MW05A (2.5 µg/L); other wells did not have detectable RDX.

Perchlorate was detected in groundwater samples from monitoring wells L4-MW01A (1.9 µg/L), L4-MW02A (170 µg/L), L4-MW02B (290 µg/L), L4-MW03A (94 µg/L), L4-MW03B (44 µg/L), L4-MW04A (40 µg/L), L4-MW05A (39 µg/L), L4-MW07B (3.0 µg/L), and L4-MW17 (1.7 µg/L). No perchlorate was found above the laboratory detection limit of 1 µg/L in groundwater from monitoring wells L4-MW01B and L4-MW18. The highest levels of HMX, RDX, and perchlorate were found in the groundwater sample from the paired monitoring well L4-MW02B.

Groundwater from two of the monitoring wells contained detectable VOCs: L4-MW02B contained acetone (3.2 µ/L), 2-Butanone (2.0 µ/L), 1,1-Dichloroethane (33 µg/L), 1,1-Dichloroethene (17 µg/L), Dichlorodifluoromethane (80 µg/L), Tetrachloroethene (0.65 µg/L, estimated), 1,1,1-Trichloroethane (51 µg/L), and 1,1,2,2,- Tetrachloroethane (0.65 µ/L); L4-MW05A contained Tetrachloroethene (0.48 µg/L, estimated) and 1,1,2,2,- Tetrachloroethane (0.48 µ/L). No detected VOCs exceeded the MTCA Method A regulatory screening levels.

Total and dissolved metals were not analyzed for groundwater samples from the Landfill 4 / Demolition Area 1 monitoring wells during the 2<sup>nd</sup> quarter 2007.

Laboratory analysis results for duplicate sample 15L4MW425W were consistent with the concentrations in the original sample 15L4MW02BW. Differences in the sample results are discussed in Section 8.1.2 of this report.

## 7.0 RECENT TRENDS IN WATER QUALITY DATA

The laboratory results for the groundwater parameters were compared for the four previous quarterly sampling events and the 2<sup>nd</sup> Quarter 2007 event. These sampling quarters covered sampling periods of September 2006, December 2006, March 2007, and June 2007, and encompass the range of seasonal climatic (rainfall and temperature) and groundwater level conditions at the monitoring well sites. Groundwater parameter data which show significant (at least one order of magnitude) difference over these sampling events are listed below.

### Metals; Lacamas Creek/Boundary (metals are not included in the Landfill 4/Demolition Area 1 sampling)

- All of the metal concentrations have been relatively stable during the last five quarters of sampling.
- Fluctuations of chromium, copper, nickel, and zinc concentrations were observed in about half of the total metals samples (LCMW01SW, LCMW01DW, LC-MW-02D, LC-MW-04SW, and LC-MW-04DW).

### Petroleum Hydrocarbons

- Diesel range petroleum hydrocarbons were detected in the Lacamas Creek monitoring well LCMW02DW at 0.15 mg/L in January 2006, but have not been detected during subsequent sampling events.

### Perchlorate

- Perchlorate decreased in Landfill 4/DemoArea 1 wells L4MW01A, L4MW02B and L4MW07B, and slightly decreased in wells L4MW03A, L4MW03B, L4MW04A, and L4MW05A.
- Perchlorate slightly increased in Landfill 4/Demolition Area 1 wells L4MW02A, L4MW04A, and L4MW05A.
- Perchlorate concentrations are relatively consistent with the exception of wells L4MW01A and L4MW02B which display a pattern of significant variation.
- The 1.7 µg/L Perchlorate detection in L4MW017 deviates from historic non-detections and will be resampled prior to the 3<sup>rd</sup> Quarter 2007 Sampling Event to evaluate for potentially non-representative sample collection/cross contamination sources for this deviation.

## 8.0 DATA QUALITY OBJECTIVES

The overall data quality objective is to provide data of known and sufficient quality to evaluate the physical extent and concentration ranges of chemicals of potential concern from analysis of groundwater samples, and to assure compliance with environmental and health-related agencies. Data quality objectives for laboratory analysis are presented in the QAPP. Laboratory analytical data were evaluated with respect to quality assurance objectives for precision, accuracy, representativeness, comparability, and completeness parameters. The project specifications were met for all of these analytes, indicating that the sampling and analysis procedures were reproducible. The laboratory report narratives (Laucks Testing Laboratories data set CAB29) state that all quality control parameters that affect sample analysis were met.

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## 8.1 Field Data Quality Assessment

There are no specific data quality objectives for the measurement of field parameters, such as temperature, pH, conductivity, and turbidity. Specific conductance, temperature, total dissolved solids, and pH were measured during purging. Turbidity and water color were visually observed. Stabilization for groundwater sampling was reached when three successive readings were within  $\pm 0.2$  for pH,  $\pm 1^\circ$  C for temperature, and  $\pm 10$  percent for specific conductance.

The criteria for field parameter measurements described in the SAP were met. Field parameter readings for groundwater samples collected from June 18 - 22, 2007 were measured using a calibrated YSI Model 556 water quality meter installed in a flow-through cell, which also allowed measurement of oxidation-reduction potential and dissolved oxygen.

### 8.1.2 Quality Control Sample Assessment

A field equipment rinsate blank water sample (labeled 15LCMW420W) was collected on June 20, 2007. The rinsate sample consisted of deionized water run through the decontaminated pump and a new section of tubing. The rinsate sample was analyzed for the full suite of analytes described in this report.

The deionized water field equipment rinsate sample collected on June 20, 2007 (sample 15LCMW420W) had a detection of acetone (2.4  $\mu\text{g/L}$ ). The acetone detection is most likely due to a laboratory equipment contaminant. The unfiltered deionized water field rinsate sample contained detectable low levels of antimony (0.26  $\mu\text{g/L}$ ), cadmium (0.143  $\mu\text{g/L}$ , estimated), chromium (0.991  $\mu\text{g/L}$ , estimated), and nickel (0.216  $\mu\text{g/L}$ , estimated). The filtered deionized water field rinsate sample contained detectable low levels of cadmium (0.388  $\mu\text{g/L}$ , estimated), chromium (0.835  $\mu\text{g/L}$ , estimated), and nickel (1.13  $\mu\text{g/L}$ , estimated). Compared to the results for the 1<sup>st</sup> Quarter 2007, the field rinsate sample total metals results for the 2<sup>nd</sup> Quarter 2007 are slightly higher for antimony, cadmium, chromium, and zinc. The dissolved metals results are slightly higher for cadmium, chromium, mercury, and nickel.

A sample of deionized water (15LCMW430W) was collected on June 20, 2007, directly from the supply source without passing it through the pump and hose equipment. This blank water sample was used to evaluate the levels of metals in the deionized water source. The unfiltered deionized water blank sample contained detectable low levels of cadmium (0.372  $\mu\text{g/L}$ , estimated), chromium (0.456  $\mu\text{g/L}$ , estimated), and nickel (0.735  $\mu\text{g/L}$ , estimated). The filtered deionized water blank sample contained detectable low levels of cadmium (0.609  $\mu\text{g/L}$ , estimated), chromium (0.585  $\mu\text{g/L}$ , estimated), nickel (0.138  $\mu\text{g/L}$ , estimated), and zinc (1.85  $\mu\text{g/L}$ , estimated).

Trip Blanks 1 and 2 that were packed with the samples during the 2<sup>nd</sup> Quarter 2007 sampling event had no laboratory detections of VOCs. Trip Blanks 3 and 4 had laboratory detections of acetone. Trip Blank 5 had a laboratory detection of methylene chloride. These trip blanks accompanied the VOC samples consolidated into one cooler and the coolers containing the remaining sample containers shipped to the laboratory.

One duplicate sample was collected from each of the study areas. The duplicate samples were analyzed for the same constituents as the source sample. Relative percent differences (RPD) were calculated for each duplicate and source sample where both results were detected above laboratory detection levels. Laboratory results for the duplicate sample 15LCMW415W (Lacamas Creek Base Boundary area) were mutually detected with the source sample 15LCMW03DW for total and dissolved metals and alkalinity. The resultant RPD values are presented on Tables 4 and 5. The total metals RPD values ranged from 1% to 3% for 3 analytes. None of the RPD values exceeded the generally accepted RPD goal of 50%.The

dissolved metals RPD values ranged from 5% to 52% for 3 analytes. Only one result for dissolved metals (chromium) exceeded the 50% RPD goal. The alkalinity RPD was 0%.

Duplicate sample 15L4MW425W (Landfill 4/Demolition Area 1) and the source sample, 15L4MW02BW, had mutually detected values for RDX, perchlorate and 8 VOCs. The RDX and perchlorate RPDs are 29% and 29%, respectively (Table 4). The RPD values for VOCs ranged from 2% to 15% (Table 6). The RPD values for these samples meet the RPD goal of 50%.

## 8.2 Laboratory Analysis Chemical Data Quality

The analytical data quality evaluations performed by Laucks Testing Laboratories are presented in Appendix B with the analysis summary reports for the specific tests. Case narratives describing sample receipt, identification, and general comments by laboratory personnel are included in Appendix B preceding the copies of the chain-of-custody forms.

No sample analytical laboratory results were rejected. The case narratives and analysis summary reports indicate that most analytical results are acceptable for use without qualification. Some individual sample results were qualified as estimated values that were low-level detections below the laboratory instrument practical quantification limits (PQL), and flagged with “J” on the laboratory summary reports.

MS/MSD duplicate analyses were performed on sample 15LCMW01DW. All recoveries and relative percentage differences were within the acceptance levels.

All samples were received within the holding times for transport from the collection site to the laboratory. Exceptions to the collection and analysis criteria are listed below and noted in the laboratory case narrative documentation in Appendix B.

- Air bubbles of less than ¼-inch were present in several of the vials for VOCs for these samples upon receipt at the laboratory: 15L4MW17W, 15L4MW07B, 15L4MW02AW, 15LWMW01BW, 15LCMW01SW, 15LCMW02SW, Trip Blank 1 (6/18/07), and 15LCMW400W. These conditions did not affect analyses.
- Temperature blanks packed with the samples were measured at the laboratory above the control limit of 6° C in several of the coolers shipped on 6/18/07, 6/19/07, 6/20/07, and 6/21/07.
- Ordnance surrogate recovery values for sample 15L4MW05AW yielded a low recovery for the surrogate. The samples were re-extracted 20 days after the holding time had expired and was reanalyzed. The re-extracted sample yielded an acceptable surrogate recovery result. Both the initial run and the reanalysis results are presented in the laboratory report package.
- Acetone and methylene chloride were detected in analysis of several of the trip blanks, the field equipment rinsate sample, and groundwater sample 15L4MW02BW (see Table 6). Detection of these chemicals in groundwater sample analysis results appears to be a result of its presence in laboratory equipment, not in the groundwater sample.

## 8.3 Deviations to Standard Procedures

During the groundwater sampling event for the 2<sup>nd</sup> Quarter 2007, deviations from the standard procedures of the SAP included the following.

- The total depth of the monitoring well was not measured. The total depths of the casings measured during previous quarterly monitoring events were used to determine water volumes in

the well casing. Total depths of wells will be measured during the future quarterly sampling events.

Corrective Measure: Replacement procedures have been submitted to WDOE for approval as part of the revised SAP.

## 9.0 REFERENCES

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## **FIGURES**

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## **APPENDIX A**

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Field Parameters and Laboratory Analysis Data Tables

## **APPENDIX B**

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Laucks Testing Laboratories, Analytical Reports  
(Separate electronic files on CD disk)

## **APPENDIX C**

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Monitoring Well Boring Logs

## **APPENDIX D**

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Previous Quarterly Groundwater Monitoring  
Report Tables by PBS Engineering and  
Environmental, on enclosed CD disk



# LOG OF BORING LC-MW-01S

(Page 1 of 1)

CAMP BONNEVILLE, WA.  
38-EH-004M-03

Geologist : Mary Grez  
Start Date : 11/12/02  
End Date : 11/12/02  
Start Time : 0830  
Weather : Raining

Drilling Company : Cascade Drilling, Inc  
Drillers : Todd Mecham  
: Rowan Miller

Depth in	Well: LC-MW-01S Elev.: 287.16	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
0 5 10 15 20 25		<p>DARK YELLOWISH BROWN SILTY CLAY WITH GRAVEL</p> <p>SLIGHTLY SILTY GRAVEL-YELLOWISH BROWN SLIGHTLY SANDY SILTY GRAVEL- MIXED GRAVEL, PULVERIZED</p> <p>GRAY SILTY PULVERIZED RED GRAVEL WITH SOME SAND (5%)</p> <p>BOTTOM OF HOLE 21'</p>	<p>WET- LOTS OF RAIN INTO HOLE FOR 2 DAYS</p> <p>WET</p>	<p>BOREHOLE DEPTH : 21' BORE DIAMETER : 7"</p> <p>WELL LOCATION: NORTH BOUNDARY WELL BY LACAMAS CREEK</p> <p>DRILLING METHOD: TRI-CONE ROLLER BIT ADVANCED THRU 7" CASING</p> <p>WELL INNER DIAMETER: 2 INCH WELL SLOT SIZE: 0.010 INCH WELL SCREEN MATERIAL: PVC</p> <p>OPEN TRIANGLE: DEPTH TO WATER BEFORE DEVELOPING. CLOSED TRIANGLE: DEPTH WATER ENCOUNTERED</p> <p>HEIGHT OF CASING ABOVE GROUND 3'</p> <p>MONUMENT NO. AHA-359</p> <p>ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.</p>



## LOG OF BORING LC-MW-01D

**CAMP BONNEVILLE, WA**  
38-EH-004M-03

Geologist : Mary Grez  
 Start Date : 11/9/02  
 End Date : 11/10/02  
 Start Time : 1230  
 Weather : Overcast, Showers, Some Sun

Drilling Company : Cascade Drilling Inc.  
 Drillers : Todd Mecharn  
 : Rowan Miller  
 : David Gose

Depth in	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
Well: LC-MW-01D Elev.: 287.58  	DARK YELLOWISH-BROWN SILTY CLAY WITH 50% GRAVEL-FINE TO MEDIUM SOME PULVERIZED  VERY DARK BROWN CLAYEY GRAVEL- 90% GRAVEL, SOME SILT POSSIBLE GRAVEL UP TO 1" SIZE, PULVERIZED  GRAVEL HAS CHERT, MORE OF THE SOLID GRAY GRAVEL. PULVERIZED WITH OLIVE-BROWN SILT COATING  DARK GRAY SILTY SANDY MEDIUM GRAVEL AND COBBLES-BACK TO OLIVE-BROWN AT 12'  CLEAN PULVERIZED GRAVEL MOSTLY CHERT  FINE SANDY SILTY GRAYISH BROWN GRAVEL  CLEAN GRAY GRAVEL WITH SOME SILT AND VERY FINE SAND  38' LIGHT OLIVE YELLOW SILT, VERY SLIGHT CLAY. POSSIBLE CONFINING ZONE OR TOP OF BEDROCK.  BOTTOM OF HOLE 39.83'	MOIST  MOIST  BECOMING DRIER AT 8' 40 BLOWS/FT 10'-12' VERY LOOSE ZONE 2 BLOWS/2FT MOIST, PROBABLE WATER TABLE AT 12'-14'  CHECK FOR WATER AT 15'. POSSIBLE MOISTURE. 1st MATERIAL IS WET. DRILLING TO 35' AND LET SIT OVERNIGHT  VERY WET 4-6 BLOWS/FT  MOIST TO WET 14 BLOWS/FT  WET STOP AT 35' LET SIT OVER NIGHT 11/10/02 0730 WATER AT 5' BGS. 0800 START BLOW 10 GAL. OF WATER OUT. STOP HERE TO AVOID GETTING EQUIPMENT PLUGGED SO WE DON'T HAVE TO INJECT WATER.	Bore Hole Depth : 39'10" Bore Diameter : 7"  WELL LOCATION: NORTH WELL LOCATION ALONG LACAMAS CREEK BOUNDARY.  DRILLING METHOD: ROLLER CONE BIT ADVANCED THROUGH 7" CASING.  WELL INNER DIAMETER: 2 INCH WELL SLOT SIZE: 0.010 INCH WELL SCREEN MATERIAL: PVC  OPEN TRIANGLE: DEPTH TO WATER BEFORE DEVELOPING. CLOSED TRIANGLE: DEPTH WATER ENCOUNTERED.  HEIGHT OF CASING ABOVE GROUND 2.67'  MONUMENT NO. AHA-358  USED FORMATION WATER TO HYDRATE BENTONITE.  ONE CENTRALIZER PLACED ABOVE WELL SCREEN.  ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.



# LOG OF BORING LC-MW-02S

(Page 1 of 1)

<b>CAMP BONNEVILLE, WA.</b> <b>38-EH-004M-03</b>	GEOLOGIST : Mary Grez	DRILLING COMPANY : Cascade Drilling Inc.
	START DATE : 11/12/02	DRILLERS : Todd Mecham
	END DATE : 11/12/02	: Rowan Miller
	START TIME : 1640	: Andre Bedrik
	WEATHER : Overcast, Some Sun	

Depth in	Well: LC-MW-02S Elev.: 288.49	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
0		REDDISH BROWN SLIGHTLY SANDY CLAYEY SILT WITH SOME GRAVEL		BORE DEPTH : 16' BORE DIAMETER : 7"  WELL LOCATION: 2ND WELL SITE SOUTH OF LACAMAS CREEK ALONG BOUNDARY.  DRILLING METHOD: TRI-CONE ROLLER BIT ADVANCED THRU 7" CASING  WELL INNER DIAMETER: 2 INCH WELL SLOT SIZE: 0.010 INCH WELL SCREEN MATERIAL: PVC  OPEN TRIANGLE: DEPTH TO WATER BEFORE DEVELOPING. CLOSED TRIANGLE: DEPTH WATER ENCOUNTERED.  HEIGHT OF CASING ABOVE GROUND 2.7' MONUMENT NO. AHA- 364  FORMATION WATER USED TO HYDRATE BENTONITE.  ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.
5				
10		LIGHT REDDISH BROWN CLAYEY SILT, LITTLE BIT OF GRAVEL AT 9'		
15		OLIVE BROWN SANDY SILTY GRAVEL	WET AT 12 FEET	
		BOTTOM OF HOLE 16'		













# LOG OF BORING LC-MW-02D

(Page 1 of 1)

CAMP BONNEVILLE, WA.  
38-EH-004M-03

Geologist : Mary Grez  
Start Date : 11/12/02  
End Date : 11/12/02  
Start Time : 1300  
Weather : Overcast, Raining

Drilling Company : Cascade Drilling Inc.  
Drillers : Todd Mecham  
: Rowan Miller  
: David Gose

Depth in  Well: LC-MW-02D Elev.: 288.49	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
0  CONCRETE	REDDISH-BROWN SLIGHTLY SILTY SAND, SOME GRAVEL	PUMPING WATER INTO HOLE AT 3'	Bore Hole Depth : 36' Bore Diameter : 7"
5  GROUT RISER	REDDISH-BROWN SLIGHTLY SILTY SAND, SOME GRAVEL	10 BLOWS/FT DONE PUMPING WATER USED ABOUT 40 GAL.	WELL LOCATION: 2ND WELL LOCATION SOUTH OF LACAMAS CREEK ALONG BOUNDARY.  DRILLING METHOD: TRI-CONE BIT ADVANCED THROUGH 7" CASING  WELL INNER DIAMETER: 2 INCH WELL SLOT SIZE: 0.010 INCH WELL SCREEN MATERIAL: PVC
10  GRVELLY REDDISH-BROWN SANDY SILTY GRAVEL. (PULVERIZED GRAY GRAVEL) GRADUALLY LESS SILT AND SAND, CLEANER GRAVEL	GRVELLY REDDISH-BROWN SANDY SILTY GRAVEL. (PULVERIZED GRAY GRAVEL) GRADUALLY LESS SILT AND SAND, CLEANER GRAVEL	WET	OPEN TRIANGLE: DEPTH TO WATER BEFORE DEVELOPING. CLOSED TRIANGLE: DEPTH WATER ENCOUNTERED.  HEIGHT OF CASING ABOVE GROUND 3.1'  MONUMENT NO. AHA-357
15  OLIVE-BROWN SLIGHTLY SANDY SILTY GRAVEL, (ROUNDED PEBBLES AND PULVERIZED ROCK)	OLIVE-BROWN SLIGHTLY SANDY SILTY GRAVEL, (ROUNDED PEBBLES AND PULVERIZED ROCK)	WATER BLEW OUT OF HOLE. PRODUCTIVE ZONE.	HOLE HAND-AUGERED TO 6', NO WATER IN 6" BOREHOLE.  NO CENTRALIZERS USED.
20  BENTONITE	OLIVE-BROWN SLIGHTLY SILTY GRAVEL. ( PULVERIZED GRAY ROCK). SOME VERY CLEAN GRAVEL LAYERS INTERSPERSED WITH SILT, SAND, AND GRAVEL LAYERS	WATER BLEW OUT OF HOLE. PRODUCTIVE ZONE.	SCREENED 25' TO 35' BECAUSE IT'S A PRODUCTIVE ZONE.
25  SAND 20-40	OLIVE-BROWN SLIGHTLY SILTY GRAVEL. ( PULVERIZED GRAY ROCK). SOME VERY CLEAN GRAVEL LAYERS INTERSPERSED WITH SILT, SAND, AND GRAVEL LAYERS	WATER BLEW OUT OF HOLE. PRODUCTIVE ZONE.	USED FORMATION WATER TO HYDRATE BENTONITE.
30  SAND 10-20	OLIVE-BROWN SLIGHTLY SILTY GRAVEL. ( PULVERIZED GRAY ROCK). SOME VERY CLEAN GRAVEL LAYERS INTERSPERSED WITH SILT, SAND, AND GRAVEL LAYERS	WATER BLEW OUT OF HOLE. PRODUCTIVE ZONE.	ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.
35  SCREEN	OLIVE-BROWN SLIGHTLY SILTY GRAVEL. ( PULVERIZED GRAY ROCK). SOME VERY CLEAN GRAVEL LAYERS INTERSPERSED WITH SILT, SAND, AND GRAVEL LAYERS	WATER BLEW OUT OF HOLE. PRODUCTIVE ZONE.	ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.
40	BOTTOM OF HOLE 36'	WATER BLEW OUT OF HOLE. PRODUCTIVE ZONE.	ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.



# LOG OF BORING LC-MW-03S

(Page 1 of 1)

CAMP BONNEVILLE, WA.  
38-EH-004M-03

Geologist : Mary Grez  
Start Date : 11/13/02  
End Date : 11/13/02  
Start Time : 1400  
Weather : Rainy, Overcast

Drilling Company : Cascade Drilling Inc.  
Drillers : Todd Mecham  
: Rowan Miller  
: Andre Bedrik

Depth in	Well: LC-MW-03S Elev.: 288.56	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
0		REDDISH BROWN SLIGHTLY SANDY SILT WITH GRAVEL. UP TO 80% GRAVEL AND SMALL AMOUNT OF CLAY		Bore Hole Depth : 19' Bore Diameter : 7"  WELL LOCATION: 3RD WELL LOCATION SOUTH OF LACAMAS CREEK ALONG BOUNDARY  DRILLING METHOD: TRI-CONE ROLLER BIT ADVANCED THRU 7" CASING  WELL INNER DIAMETER: 2 INCH WELL SLOT SIZE: 0.010 INCH WELL SCREEN MATERIAL: PVC  OPEN TRIANGLE: DEPTH TO WATER BEFORE DEVELOPING. CLOSED TRIANGLE: DEPTH WATER ENCOUNTERED.  HEIGHT OF CASING ABOVE GROUND 2.35'  MONUMENT NO. AHA -362  ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.
5			VERY MOIST AT 7-8'	
10		REDDISH BROWN SANDY CLAYEY SILT, VERY LITTLE GRAVEL.	WET GRAVEL	
15		REDDISH BROWN, SANDY SILT, GRAY PULVERIZED GRAVEL	WATER IN HOLE	
20		BOTTOM OF HOLE 19'		
25				



# LOG OF BORING LC-MW-03D

(Page 1 of 1)

<b>CAMP BONNEVILLE, WA.</b> <b>38-EH-004M-03</b>	Geologist	: Mary Grez	Drilling Company	: Cascade Drilling Inc.
	Start Date	: 11/13/02	Drillers	: Todd Mecham
	End Date	: 11/14/02		: Rowan Miller
	Start Time	: 1600		: Andre Bednik
	Weather	: Overcast, Rainy		

Depth in	Well: LC-MW-03D Elev.: 288.50	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
0		REDDISH-BROWN SANDY SILT WITH GRAVEL	DRY 9-10 BLOWS/FT	Bore Hole Depth : 37' 2" Bore Diameter : 7"  WELL LOCATION: 3RD WELL LOCATION SOUTH OF LACAMAS CREEK BOUNDARY LOCATION.  DRILLING METHOD: TRI-CONE BIT ADVANCED THROUGH 7" CASING.  WELL INNER DIAMETER: 2 INCH WELL SLOT SIZE: 0.010 INCH WELL SCREEN MATERIAL: PVC  HEIGHT OF CASING ABOVE GROUND 2.48'  MONUMENT NO. AHA-363  BOREHOLE HAND-AUGERED TO 6'.  LEFT CASING IN GROUND OVERNIGHT AT 37'. ENCOUNTERED SILT AND STOPPED 2' SHORT OF GOAL DEPTH TO AVOID INJECTING POTABLE WATER INTO HOLE.  ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.
5		OLIVE-BROWN SLIGHTLY SANDY SILT WITH SOME GRAVEL	MOIST	
10		OLIVE-BROWN SLIGHTLY SANDY SILTY MIXED GRAVEL. SOME ZONES MOSTLY SILT, SOME MORE GRAVEL.	VERY SOFT ZONE, WET	
15		MOSTLY GRAY PULVERIZED GRAVEL WITH SILT, SOME SAND.	WATER COMING UP	
20		GRAYISH-BROWN CLAYEY SILT	EASY CASING PENETRATION	
25		BOTTOM OF HOLE 37.17'		



# LOG OF BORING LC-MW-04S

(Page 1 of 1)

CAMP BONNEVILLE, WA.  
38-EH-004M-03

Geologist : Mary Grez  
Start Date : 11/17/02  
End Date : 11/17/02  
Start Time : 0815  
Weather : Overcast, Passing Rain

Drilling Company : Cascade Drilling Inc.  
Drillers : Matt Ross  
: Jesse Cannon  
: Matt Slobig

Depth in	Well: LC-MW-04S Elev.: 288.83	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
0		DARK BROWN GRAVELLY SILT, SOME CLAY AND SAND.		Bore Hole Depth : 14' Bore Diameter : 6"
5			MOIST AT 5'	WELL LOCATION: SOUTH WELL LOCATION FROM LACAMAS CREEK ALONG BOUNDARY.  DRILLING METHOD: CME 580 WITH 6" AUGER AND WOOD PLUG  HAND AUGER TO 5'  WELL INNER DIAMETER: 2 INCH WELL SLOT SIZE: 0.010 INCH WELL SCREEN MATERIAL: PVC  OPEN TRIANGLE: DEPTH TO WATER BEFORE DEVELOPING. CLOSED TRIANGLE: DEPTH WATER ENCOUNTERED  HEIGHT OF CASING ABOVE GROUND 2.8'
10		GRAYISH BROWN SILTY GRAVEL (UP TO 2" ROUND GRAVEL) WITH SOME SAND AND CLAY.	VERY HARD DRILLING BECAUSE OF GRAVEL AT 10'. WET AT 10' FINISHED HOLE AT 14' BECAUSE OF VERY HARD DRILLING WITH AUGER	MONUMENT NO. AHA-375  ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.
14		BOTTOM OF HOLE 14'		






# LOG OF BORING LC-MW-04D

(Page 1 of 1)

CAMP BONNEVILLE, WA.  
38-EH-004M-03

Geologist : Mary Grez  
Start Date : 11/13/02  
End Date : 11/13/02  
Start Time : 0915  
Weather : Rainy

Drilling Company : Cascade Drilling Inc.  
Drillers : Todd Mecham  
: Rowan Miller  
: Andre Bednik

Depth in	Well: LC-MW-04D Elev.: 289.16	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
0	 <p>CONCRETE</p>	REDDISH-BROWN SLIGHTLY SANDY SILTY, MULTICOLORED GRAVEL.	PUSH CASING TO 6' AND USED POTABLE WATER TO CLEAN HOSES. STOPPED RUNNING WATER AT 7'. HARD DRILLING THROUGH GRAVEL, VERY WET AT 9'. WATER IN HOLE	Bore Hole Depth : 34' 8" Bore Diameter : 7"  WELL LOCATION: SOUTH WELL PAIR FROM LACAMAS CREEK ALONG BOUNDARY.  DRILLING METHOD: TRI-CONE BIT ADVANCED THROUGH 7" CASING.  WELL INNER DIAMETER: 2 INCH WELL SLOT SIZE: 0.010 INCH WELL SCREEN MATERIAL: PVC
5	 <p>GROUT RISER</p>	OLIVE-BROWN SANDY SILTY PULVERIZED GRAY AND MULTICOLOR GRAVEL.	WET TO BOTTOM OF HOLE.	OPEN TRIANGLE: DEPTH TO WATER BEFORE DEVELOPING. CLOSED TRIANGLE: DEPTH WATER ENCOUNTERED.  HEIGHT OF CASING ABOVE GROUND 2.63'  MONUMENT NO. AHA-361
15	 <p>BENTONITE SAND 20-40 SAND 2-12 SCREEN</p>	OLIVE-BROWN SANDY SILTY UNIFORM GRAY GRAVEL. CLEAN GRAVEL ZONE AT 17'-18' ALTERNATE CLEAN GRAVEL ZONES WITH SANDY SILT AND FINE GRAVEL TO B.O.H.		STOPPED DRILLING AT 34' BECAUSE SILT WOULD PLUG HOSES.  ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.
25		OLIVE-BROWN SILT AND SANDY SILT AT 34.67'		
35		BOTTOM OF HOLE 34.67'		



# LOG OF BORING LC-MW-05S

(Page 1 of 1)

CAMP BONNEVILLE, WA.  
38-EH-004M-03

Geologist : Mary Grez  
Start Date : 11/15/02  
End Date : 11/15/02  
Start Time : 1140  
Weather : Sunny, Slightly Cloudy

Drilling Company : Cascade Drilling Inc.  
Drillers : Matt Ross  
: Jesse Cannon  
: Matt Slobig

Depth in	Well: LC-MW-05S Elev.: 306.40	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
0		VERY MOIST SLIGHTLY SANDY SILT. REDDISH BROWN SLIGHTLY SANDY SILT, BIT OF CLAY AND FINE GRAVEL	LC-MW-05S-10 LC-MW-05S-0 1140 10 BLOWS/ 6" MOIST AT 3'	Bore Hole Depth : 37' Bore Diameter : 6"
5		DARK RED BROWN SILT WITH MOTTLES OF GRAY, VEINS OF RED, GRAY, AND PURPLE IN SPLITSPOON	LC-MW-05-2 1200	WELL LOCATION: EAST SIDE OF CRATER AT DA-3 PAIRED WITH LC-MW-05D DRILLING METHOD: CME 580 WITH HOLLOW STEM AUGER AND 140 LBS HAMMER.
10		BRIGHT BLUE-GRAY STIFF SILT	LC-MW-05S-5 1210 16 BLOWS/ 6"	SAMPLES TAKEN WITH SPLIT SPOON SAMPLED AT 0', 2', 5', 15' DEPTHS SAMPLED FOR EXPLOSIVES, PETN, PERCHLORATE, AND TOTAL METALS. HAMMER USED TO COLLECT SAMPLES.
15		YELLOWISH-BROWN SLIGHTLY CLAYEY SILT WITH VARIABLE AMOUNTS OF GRAVEL AND INCREASING CLAY WITH DEPTH	GETTING VERY MOIST AT 13'-14'	DUPLICATE LC-MW-05S-10 COLLECTED FROM LC-MW-05S-0.
20		CLAYEY SILT	LC-MW-05S-15 1230	WELL INNER DIAMETER: 2 INCH WELL SLOT SIZE: 0.010 INCH WELL SCREEN MATERIAL: PVC
25		STILL MOIST, NOT WET	OPEN TRIANGLE: DEPTH TO WATER BEFORE DEVELOPING. CLOSED TRIANGLE: DEPTH WATER ENCOUNTERED.	
30			HEIGHT OF CASING ABOVE GROUND 3.7'	
35			MONUMENT NO. AHA-374	
40			PULLED UP 5' AT 25' AND LET SIT FOR 1 HOUR, NO WATER IN HOLE.	
45			GREG JOHNSON, WA. DEPT. OF ECOLOGY SAID TO COMPLETE HOLE AT 37' TO BE 15' ABOVE LC-MW-05D.	
			TREMIED BENTONITE GROUT FROM TOP OF 20-40 SAND TO 2' BGS.	
			ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.	
			BOTTOM OF HOLE 37'	



# LOG OF BORING LC-MW-05D

(Page 1 of 1)

CAMP BONNEVILLE, WA.  
38-EH-004M-03

Geologist : Mary Grez  
Start Date : 11/7/02  
End Date : 11/8/02  
Start Time : 1030  
Weather : Overcast, Rainy

Drilling Company : Cascade Drilling Inc.  
Drillers : Todd Mecham  
: Rowan Miller  
: David Gose

Depth in	Well: LC-MW-05D Elev.: 306.34	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
		BROWN SLIGHTLY SANDY SILT WITH FINE GRAVEL.	DRY	Bore Hole Depth : 63.5' Bore Diameter : 7"
		DARK BROWN SILT WITH 5% FINE GRAVEL.	SOMEWHAT MOIST	WELL LOCATION: EAST SIDE OF DA-3 CRATER. WELL PAIR WITH LC-MW-055 DRILLING METHOD: AIR HAMMER DRIVEN THROUGH 7" CASING. WELL INNER DIAMETER: 2 INCH WELL SLOT SIZE: 0.010 INCH WELL SCREEN MATERIAL: PVC OPEN TRIANGLE: DEPTH TO WATER BEFORE DEVELOPING. CLOSED TRIANGLE: DEPTH WATER ENCOUNTERED.
		DARK REDDISH-BROWN SILTY CLAY WITH 25% FINE GRAVEL, ANGULAR AND 2% ROUNDED 1/2"-1" GRAVEL.	8 BLOWS/ FT MOIST (10')	HEIGHT OF CASING ABOVE GROUND N/A MONUMENT NO. AHA-380
		DARK REDDISH-BROWN SILTY CLAYEY GRAVEL. FINE TO 1/4" GRAVEL. ANGULAR TO ROUNDED. COARSENING WITH DEPTH.		USE POTABLE WATER AT 20' BECAUSE HOSES ARE PLUGGING WITH SILT.
		DARK YELLOWISH-BROWN SLIGHTLY SILTY CLAY WITH FINE GRAVEL.		USED ABOUT 20 GALLONS WITH GOOD RECOVERY. POTABLE WATER SOURCE: CITY OF PORTLAND.
		GRAYISH-BROWN SILT AND SLIGHTLY CLAYEY SILT, BARELY ANY GRAVEL.	14 BLOWS/ FT AT 20'.	PVC CASING EXTENDED ON 2/11/03 AND NEW TOP OF CASING MARKED FOR SURVEYING.
		FINE GRAVELY GRAYISH BROWN SILT	CHECK FOR GROUND WATER AT 24'. LET SIT FOR 20 MINUTES. NO WATER.	ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.



# LOG OF BORING LC-MW-05D

(Page 1 of 1)

CAMP BONNEVILLE, WA.  
38-EH-004M-03

Geologist : Mary Grez  
Start Date : 11/7/02  
End Date : 11/8/02  
Start Time : 1030  
Weather : Overcast, Rainy

Drilling Company : Cascade Drilling Inc.  
Drillers : Todd Mecham  
: Rowan Miller  
: David Gose

Depth in	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
<p>Well: LC-MW-05D Elev.: 306.34</p>	<p>DARK YELLOWISH-BROWN SILTY CLAY AND CLAYEY SILT. VERY TIGHT.</p> <p>SAME WITH SOME FINE TO MEDIUM GRAVEL ANGULAR TO ROUNDED UP TO 1/2" NO GRAVEL, SAME OTHERWISE.</p> <p>BROWN SLIGHTLY CLAYEY SILT.</p> <p>THIN DARKER BROWN LAYER.</p> <p>FINE TO MEDIUM GRAVELLY BROWN SILT.</p> <p>FINE TO MEDIUM GRAVELLY BROWN SILT, GRADING TO OLIVE BROWN SILTY FINE TO MEDIUM PULVERIZED GRAVEL. POSSIBLE TOP OF TROUTDALE.</p> <p>DARK GRAYISH-BROWN SILTY GRAVEL/GRAVELLY SILT. GRAVEL IS PULVERIZED.</p> <p>DARK GRAYISH-BROWN TO GRAY PULVERIZED GRAVEL.</p> <p>RED CLAY ON BOTTOM OF BIT</p> <p>BOTTOM OF HOLE 63.5'</p>	<p>40 BLOWS/ FT NO LONGER RUNNING WATER. SOIL IS MOIST.</p> <p>33 BLOWS/FT</p> <p>UP TO 60 BLOWS/ FT.</p> <p>FAINTLY MOIST</p> <p>CASING PULLED TO 49' WAIT OVERNIGHT. 11/8/02 0745 START DRILLING. WATER AT 52'.</p>	<p>Bore Hole Depth : 63.5' Bore Diameter : 7"</p>





# LOG OF BORING LC-MW-06S

(Page 1 of 1)

CAMP BONNEVILLE, WA.  
38-EH-004M-03

Geologist : Mary Grez  
Start Date : 11/16/02  
End Date : 11/16/02  
Start Time : 1515  
Weather : Overcast, Passing, Rain

Drilling Company : Cascade Drilling Inc.  
Drillers : Matt Ross  
: Jesse Cannon  
: Matt Slobig

Depth in	Well: LC-MW-06s Elev.: 305.43	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
0		RED BROWN LOAMY SILT, LOTS OF ROOTS, SOME DECOMPOSED GRAVEL	LC-MW-06S-0 1515 MOIST	Bore Hole Depth : 37' Bore Diameter : 6"
5		PALE BROWN SILT WITH DECOMPOSED GRAVEL, RUST COLORED MOTTLES RETURNS ARE FAINTLY MOIST, RED BROWN SILT WITH DECOMPOSED GRAVEL AND ROOTS	LC-MW-06S-2 1525 DRY	WELL LOCATION: NORTH SIDE OF DA-3 CRATER.
10			LC-MW-06S-5 1530	DRILLING METHOD: CME 580 WITH 6" HOLLOW STEM AUGER AND 140 LBS HAMMER BIT.
15			VERY MOIST NOT WET	SAMPLES TAKEN WITH SPLIT SPOON SAMPLED AT 0', 2', 5', DEPTHS SAMPLED FOR EXPLOSIVES, PETN, PERCHLORATE, AND METALS.
20			WET AT 15'	COULD NOT COLLECT 15' SAMPLE BECAUSE OF SATURATED CONDITIONS
25		BOTTOM OF HOLE 15'		WELL INNER DIAMETER: 2 INCH WELL SLOT SIZE: 0.010 INCH WELL SCREEN MATERIAL: PV
				HEIGHT OF CASING ABOVE GROUND 2.84'
				MONUMENT NO. AHA-372
				USED FORMATION WATER TO HYDRATE BENTONITE
				ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.



# LOG OF BORING LC-MW-07S

(Page 1 of 1)

<b>CAMP BONNEVILLE, WA.</b> <b>38-EH-004M-03</b>	<b>Geologist</b> : Mary Grez <b>Start Date</b> : 11/16/02 <b>End Date</b> : 11/16/02 <b>Start Time</b> : 1100 <b>Weather</b> : Overcast, Passing Rains	<b>Drilling Company</b> : Cascade Drilling Inc. <b>Drillers</b> : Matt Ross : Jesse Cannon : Matt Slobig
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Depth in	Well: LC-MW-07S Elev.: 305.12	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
0		PLATY RED-BROWN DRY SILT WITH SOME FINE GRAVEL	LC-MW-07S-0 1110 + DUPLICATE	<b>Bore Hole Depth</b> : 37' <b>Bore Diameter</b> : 6"  <b>WELL LOCATION:</b> WEST SIDE OF DA-3 CRATER.  <b>DRILLING METHOD:</b> CME 580 WITH 6" HOLLOW STEM AUGER AND 140 LBS HAMMER.  <b>SAMPLES TAKEN WITH SPLIT SPOON SAMPLER AT 0', 2', 5', 15' DEPTHS.</b> SAMPLED FOR EXPLOSIVES, PETN, PERCHLORATE, AND METALS.  LC-MW-07S-10 IS A DUPLICATE OF LC-MW-07S-0  <b>WELL INNER DIAMETER:</b> 2 INCH <b>WELL SLOT SIZE:</b> 0.010 INCH <b>WELL SCREEN MATERIAL:</b> PVC  <b>OPEN TRIANGLE:</b> DEPTH TO WATER BEFORE DEVELOPING. <b>CLOSED TRIANGLE:</b> DEPTH WATER ENCOUNTERED.  <b>HEIGHT OF CASING ABOVE GROUND 3.8'</b>  <b>MONUMENT NO. AHA-371</b>  COULDN'T RETRACT THE HAMMER BECAUSE THE CABLE BROKE. DRILLED TO 37' AND PULLED AUGER AND HAMMER THEN INSTALLED WELL SUCCESSFULLY IN OPEN BOREHOLE.  USED FORMATION WATER TO HYDRATE BENTONITE.  ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.
5		DRY PALE YELLOWISH-BROWN SILT, A BIT OF FINE GRAVEL-DECOMPOSED ROCK.	LC-MW-07S-10 1140	
10		RED-BROWN SILT, BARELY ANY GRAVEL	LC-MW-07S-2 1125 LC-MW-07S-5 1145	
15		GRAY STIFF SILT, LIGHT GRAYISH BROWN SILT CUTTINGS	LC-MW-07S-15 1210	
20		OLIVE BROWN SILT, SOME CLAY AND GRAVEL		
25		YELLOWISH-BROWN GRAVELLY SILT		
30				
35				
40				
		BOTTOM OF HOLE 37'		



# LOG OF BORING LC-MW-08S

(Page 1 of 1)

CAMP BONNEVILLE, WA.  
38-EH-004M-03

Geologist : Mary Grez  
Start Date : 11/16/02  
End Date : 11/16/02  
Start Time : 0740  
Weather : Overcast

Drilling Company : Cascade Drilling Inc.  
Drillers : Matt Ross  
: Jesse Cannon  
: Matt Slobig

Depth in	Well: LC-MW-08S Elev.: 306.10	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
0		BROWN SILTY LOAM LOTS OF ROOTS, SOME GRAVEL.	LC-MW-08S-0 0740 MOIST	Bore Hole Depth : 37' Bore Diameter : 6"
5		DRY SILTY GRAVEL, GRAYISH-BROWN DRY SILT WITH RUST COLORED MOTTLES	LC-MW-08S-2 0750 HAD TO MOVE 1' EAST BECAUSE OF ROOT	WELL LOCATION: SOUTH SIDE OF DA-3 CRATER.
10		REDDISH-BROWN CLAYEY SILT WITH DECOMPOSED GRAVEL AND RED MOTTLES	LC-MW-08S-5 0800 FAINTLY MOIST	DRILLING METHOD: CME 580 WITH 6" HOLLOW STEM AUGER AND 140 LBS HAMMER.
15		STIFF GRAY SILT, BARELY MOIST	LC-MW-08S-15 0815 POOR RECOVERY DROVE ANOTHER SAMPLE TO COMPOSITE FROM 15'-18'	SAMPLES TAKEN WITH SPLIT SPOON SAMPLER AT 0', 2', 5', 15' DEPTHS. SAMPLED FOR EXPLOSIVES, PETN, PERCHLORATE AND METALS
20		OLIVE-BROWN STIFF SILT AT 17'		WELL INNER DIAMETER: 2 INCH WELL SLOT SIZE: 0.010 INCH WELL SCREEN MATERIAL: PVC
25		MOIST REDDISH-BROWN SILT WITH VARIABLE CLAY AND FINE GRAVEL		HEIGHT OF CASING ABOVE GROUND 3.66'
30				MONUMENT NO. AHA-373
35				NO WATER LEVELS TAKEN PRIOR TO SAMPLING BECAUSE OF SEDIMENT IN WELL.
40				ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.
			BOTTOM OF HOLE 37'	NEVER ENCOUNTERED WET ZONE WE SAW IN LC-MW-05S



# LOG OF BORING LC-MW-09S

(Page 1 of 1)

CAMP BONNEVILLE, WA.  
38-EH-004M-03

Geologist : Mary Grez  
Start Date : 11/15/02  
End Date : 11/15/02  
Start Time : 0737  
Weather : Foggy

Drilling Company : Cascade Drilling Inc.  
Drillers : Matt Ross  
: Jesse Cannon  
: Matt Slobig

Depth in  Well: LC-MW-09S Elev.: 344.91	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
	<p>DARK REDDISH-BROWN SLIGHTLY GRAVELLY, SLIGHTLY CLAYEY SILT</p> <hr/> <p>CHATTER AT 5' GRAVEL LAYER</p> <hr/> <p>A LITTLE MORE GRAVEL</p> <hr/> <p>COLOR STARTING TO CHANGE TO DARK GRAYISH-BROWN</p> <hr/> <p>BOTTOM OF HOLE 17.5'</p>	<p>MOIST</p> <hr/> <p>WET AT 5'</p>	<p>Bore Hole Depth : 17.6' Bore Diameter : 6"</p> <p>WELL LOCATION: SW WELL LOCATION AT DA-2 NEAR CRATER.</p> <p>DRILLING METHOD: CME 580 WITH 6" HOLLOW STEM AUGER WOODEN PLUG.</p> <p>WELL INNER DIAMETER: 2 INCH WELL SLOT SIZE: 0.010 INCH WELL SCREEN MATERIAL: PVC</p> <p>OPEN TRIANGLE: DEPTH TO WATER BEFORE DEVELOPING. CLOSED TRIANGLE: DEPTH WATER ENCOUNTERED.</p> <p>HEIGHT OF CASING ABOVE GROUND 2.4'</p> <p>MONUMENT NO. AHA-369</p> <p>USED 10' SCREEN BECAUSE WATER WAS ENCOUNTERED AT 5' bgs.</p> <p>ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.</p>



# LOG OF BORING LC-MW-10S

(Page 1 of 1)

CAMP BONNEVILLE, WA.  
38-EH-004M-03

Geologist : Mary Grez  
Start Date : 11/14/02  
End Date : 11/14/02  
Start Time : 1530  
Weather : Sunny, Partly Cloudy

Drilling Company : Cascade Drilling Inc.  
Drillers : Matt Ross  
: Jesse Cannon  
: Matt Slobig

Depth in	Well: LC-MW-10S Elev.: 349.67	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
0		DARK YELLOWISH-BROWN SLIGHTLY CLAYEY SILT- NO GRAVEL	MOIST, PLASTIC	Bore Hole Depth : 24'3" Bore Diameter : 6"  WELL LOCATION: SE WELL NEAR ROAD.  DRILLING METHOD: CME 580 WITH 8' HOLLOW STEM AUGER AND WOOD PLUG.  WELL INNER DIAMETER: 2 INCH WELL SLOT SIZE: 0.010 INCH WELL SCREEN MATERIAL: PVC  OPEN TRIANGLE: DEPTH TO WATER BEFORE DEVELOPING. CLOSED TRIANGLE: DEPTH WATER ENCOUNTERED.  HEIGHT OF CASING ABOVE GROUND 1.8'  MONUMENT NO. AHA-370  ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.
5			MORE MOIST	
10				
15		GRAYISH-BROWN TO DARK REDDISH-BROWN OR MAROON SLIGHTLY FINE GRAVELY SILT.	NO RETURN FROM 14' WATER AT 14'	
20				
25		BOTTOM OF HOLE 24.25'		



# LOG OF BORING LC-MW-11S

(Page 1 of 1)

CAMP BONNEVILLE, WA  
38-EH-004M-03

Geologist : Mary Grez  
Start Date : 11/14/02  
End Date : 11/14/02  
Start Time : 1430  
Weather : Sunny, Partly Cloudy

Drilling Company : Cascade Drilling Inc.  
Drillers : Matt Ross  
: Matt Slobig  
: Jesse Cannon

Depth in	Well: LC-MW-11S Elev.: 342.72	DESCRIPTION	REMARKS	BORING AND WELL CONSTRUCTION INFORMATION
0		DARK YELLOWISH-BROWN SILT, SOME GRAVEL, POSSIBLE FILL MATERIAL	WATER AT GROUND SURFACE	Bore Hole Depth : 17' Bore Diameter : 6"  WELL LOCATION: NORTH WELL AT DA-2 NE OF POND.  DRILLING METHOD: CME 580 WITH 6" HOLLOW STEM AUGER AND WOOD PLUG.  WELL INNER DIAMETER: 2 INCH WELL SLOT SIZE: 0.010 INCH WELL SCREEN MATERIAL: PVC  WATER IS AT GROUND SURFACE IN UXO AUGER HOLE.  HEIGHT OF CASING ABOVE GROUND 3.0'  MONUMENT NO. AHA-368  USED 10' SCREEN BECAUSE OF SHALLOW WATER TABLE.  USED FORMATION WATER TO HYDRATE BENTONITE.  ALL WELLS COMPLETED WITH STEEL SURFACE MONUMENT SET 2' DEEP INTO CONCRETE WITH A CONCRETE PAD AND THREE PROTECTIVE BALLARDS PAINTED YELLOW.
5		GRAYISH-BROWN SLIGHTLY FINE SANDY SILT CAN HEAR SOME GRAVEL IN HOLE	CHATTER AT 10'	
10				
15				
20				
25				
		BOTTOM OF HOLE 17'	WATER IN BOTTOM OF HOLE	

Project: Landfill 4/Demolition Area 1  
 Project Location: Camp Bonneville, WA  
 Project Number: 53-F0072323.00

### Key to Log of Borings

Sheet 1 of 1

Elevation feet	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID (ppm)	Headspace PID (ppm)	REMARKS
		Type	Number	Blows per 6-inch Interval	Percent Recovery						
		split spoon sample		12-15-18	100%	CLAY (CL)					
						Silty CLAY - Clayey SILT (CL-ML)					
						Silty CLAY (CL)					
						Sandy silty CLAY (CL)					
						Sandy gravelly CLAY (CL)					
						Clayey gravelly SAND (SP)					
					50%	Gravelly silty SAND (SP)					
		rock core				Andesite (Bedrock)					

#### COLUMN DESCRIPTIONS

- 1 Elevation:** Elevation (in feet) with respect to mean sea level or assumed datum.
- 2 Depth:** Vertical distance (in feet) below ground surface.
- 3 Sample Type:** Type of soil sample collected at depth interval depicted; symbols explained above.
- 4 Sample Number:** Sample identification number.
- 5 Blows per 6 inches:** Number of blows required to advance driven sampler each 6-inch drive interval.
- 6 Percent Recovery:** Percentage of sample recovered for given sample interval; blank if not recorded.
- 7 Graphic Log:** Graphic depiction of subsurface material encountered.
- 8 Material Description:** Description of subsurface material encountered, including USCS soil designation.
- 9 Well Completion Log:** Graphic depiction of well subsurface material.
- 10 PID (ppm):** Photoionization detector readings in parts per million (ppm) of standard gas.
- 11 Headspace PID readings:** PID readings taken of enclosed portion of soil sample at recorded depth.
- 12 Remarks:** Comments or observations pertinent to drilling/sampling.

#### GENERAL NOTES

- Soil classifications are based on the Unified Soil Classification System (USCS) and include consistency/relative density (where standard blow count correlation is possible), moisture, and color. Field descriptions may have been modified to reflect results of laboratory tests.
- Descriptions on these boring logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

<b>Project:</b> Landfill 4/Demolition Area 1	<b>Log of Boring L4-MW03A</b>
<b>Project Location:</b> Camp Bonneville, WA	
<b>Project Number:</b> 53-F0072323.00	

Sheet 1 of 2

Date(s) Drilled	6/5/2001	Logged By	J.Rapp	Checked By	S. Wolfe
Drilling Method	Hollow Stem Auger	Drilling Contractor	Cascade Drilling Inc.	Total Depth Drilled (feet)	46.5
Drill Rig Type	CME-75	Sampler Type	18" Split Spoon	Surface Elevation	511.9 NGVD
Groundwater Level	28.50 feet bgs 6/5/01 1410	Hammer Weight and Drop	30" 140 lb	Top of PVC Elevation	514.9 NGVD
Diameter of Hole (inches)	8.75	Diameter of Well (inches)	2	Screen Perforation	0.010"
Type of Sand Pack	20/40, 10/20 Silica	Type and Depth of Seal(s)	filter sand (38'-46' bgs); bentonite (2'-38' bgs); cement (0'-2')		
Comments	Monitoring well coordinates: Easting 1,154,413.64 Northing 141,287.41				

Report: ENV\_23A; Project File: I:\PROJECTS\WCFS-A-1\BONNEL-1\DELIVE-1\JOHNRI-1\BORING-1\CE\_L4.GPJ; Data Template: WC\_CORP1.GDT Printed: 11/26/01

Elevation, feet (MSL)	Depth, feet	SAMPLES				MATERIAL DESCRIPTION	Boring Completion Log	PID (ppm)	Headspace PID (ppm)	Drilling Rate (Time, 24-hour clock)	REMARKS
		Type	Number	Blows per 6-inch Interval	Percent Recovery						
0						Silty CLAY - Clayey SILT (CL-ML); moist; reddish-brown; low to medium plasticity					UXO avoidance to 8' bgs
5						same as above					
505											
10				7-7-7	100	same as above - increasing clay content		0	0	1150	
500											
15				6-6-6	100	Silty CLAY (CL) - moist; light brown; soft; trace of sand		0	0	1156	
495											
20				2-2-5	100	same as above - very soft		0	0	1206	
490											
25				14-15-8	100	black-grey lenses of weathered sand		0	0	1227	
485											
30											groundwater level 28.50' bgs (6/5/01 1410)





Project: Landfill 4/Demolition Area 1  
 Project Location: Camp Bonneville, WA  
 Project Number: 53-F0072323.00

**Log of Boring L4-MW03A**

Sheet 2 of 2

Report: EN \ Project File: I:\PROJECTS\WCFS-A-1\BONNELL-1\JOHNRI-1\BORING-1\CB\_L4.GPJ; Data e:\WC\_CORP1.GDT Printed: 11/28/01

Elevation, feet (MSL)	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID (ppm)	Headspace PID (ppm)	Drilling Rate (Time, 24-hour clock)	REMARKS
		Type	Number	Blows per 6-inch Interval	Percent Recovery							
80				4-3-4	100		Clay (CL) - very moist; soft; light brown		0	0	1250	
480												
35				5-5-5	100		same as above - very soft; highly weathered sand grains; white; black; yellow-orange		0	0	1300	
475												
40				3-3-4	100		Sandy silty CLAY (CL) - wet; weathered sand grains; mottled pink-white-black		0	0	1310	
470												
45				11-30-42	100		same as above - wet; low plasticity; hard		0	0	1324	
465							Boring terminated at approximately 46.5' bgs on 6/5/01 at 1330					groundwater encountered at approx. 43' bgs (6/5/01 1320)
50												
460												
55												
455												
60												
450												
65												
445												
70												



**Project: Landfill 4/Demolition Area 1**  
**Project Location: Camp Bonneville, WA**  
**Project Number: 53-F0072323.00**

**Log of Boring L4-MW04A**

Sheet 1 of 2

Date(s) Drilled	6/4/2001	Logged By	J.Rapp	Checked By	S. Wolfe
Drilling Method	Hollow Stem Auger	Drilling Contractor	Cascade Drilling Inc.	Total Depth Drilled (feet)	54.0
Drill Rig Type	CME-75	Sampler Type	18" Split Spoon	Surface Elevation	508.8 NGVD
Groundwater Level	35 feet bgs 6/5/01 0730	Hammer Weight and Drop	30" 140 lb	Top of PVC Elevation	511.8 NGVD
Diameter of Hole (inches)	8.75	Diameter of Well (inches)	2	Screen Perforation	0.010"
Type of Sand Pack	20/40, 10/20 Silica	Type and Depth of Seal(s)	bentonite (2'-30', 43'-54'); filter sand (30'-43'); cement (0'-2')		
Comments	Monitoring well coordinates: Easting 1,154,420.93 Northing 141,521.95				

Report: ENV\_23A; Project File: I:\PROJECTS\WCFS-A-1\BONNEL-1\DELIVE-1\JOHNRI-1\BORING-1\CB\_L4.GPJ; Data Template: WC\_CORP1.GDT Printed: 11/26/01

Elevation, feet (MSL)	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Boring Completion Log	PID (ppm)	Headspace PID (ppm)	Drilling Rate (Time, 24-hour clock)	REMARKS
		Type	Number	Blows per 6-inch Interval	Percent Recovery							
0	0						Silty CLAY - Clayey SILT (CL-ML); moist; reddish-brown; low to medium plasticity		0	0	0815	UXO avoidance to 8' using a backhoe
505	5						same as above					
500	10						same as above - very soft clay	0	0	0820		
495	15						Silty CLAY (CL) - moist; light brown; soft; mottled grey-black					Rig down for repairs 0900 - 1130
490	20						same as above - weathered sand grains; mottled orange with black lenses	0	0	0830		
485	25			25-20-6	100		same as above - medium stiff; trace of yellow gravel	0	0	1155		
480	30											

**URS**

Project: Landfill 4/Demolition Area 1  
 Project Location: Camp Bonneville, WA  
 Project Number: 53-F0072323.00

**Log of Boring L4-MW04A**

Sheet 2 of 2

Report: ENV.      Project File: I:\PROJECTS\WCF5-A-1\BONNEL-1\DELIVE-1\UOHNR1-1\BORING-1\CB\_L4.GPJ; Data T  
 .WC\_CORP1.GDT      Printed: 11/26/01

Elevation, feet (MSL)	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID (ppm)	Headspace PID (ppm)	Drilling Rate (Time, 24-hour clock)	REMARKS
		Type	Number	Blows per 6-inch Interval	Percent Recovery							
475	38			6-5-6	100	[Hatched pattern]	Sandy silty CLAY (CL) - very moist; highly weathered sand grains; yellow; red; black	[Well completion log]	0	0	1207	Depth to groundwater approx. 33' bgs on 6/4/01 1345
				20-13-16	100				0	0	1220	
470	35			6-6-7	100	[Hatched pattern]	same as above - highly weathered sand grains; white; black; yellow-orange; very soft	[Well completion log]	0	0	1228	
				9-14-20	100				0	0	1300	
465	40			14-30-33	100	[Hatched pattern]	same as above - wet; weathered sand grains; mottled white-black	[Well completion log]	0	0	1313	Groundwater encountered at approx. 41' bgs on 6/4/01 1313
				14-56/6"	50				0	0		
460	45			20-50/4"	25	[Hatched pattern]	weathered andesite fragments, hard	[Well completion log]	0	0		
									0	0		
455	50					[Hatched pattern]	same as above	[Well completion log]				
450	55						Boring terminated at approximately 54 feet bgs on 6/4/01 1500					
445	60											
440	65											
	70											



<b>Project:</b> Landfill 4/Demolition Area 1	<b>Log of Boring L4-MW05A</b>
<b>Project Location:</b> Camp Bonneville, WA	
<b>Project Number:</b> 53-F0072323.00	

Sheet 1 of 2

Date(s) Drilled	6/6/2001	Logged By	J.Rapp	Checked By	S. Wolfe
Drilling Method	Hollow Stem Auger	Drilling Contractor	Cascade Drilling Inc.	Total Depth Drilled (feet)	36.5
Drill Rig Type	CME-75	Sampler Type	18" Split Spoon	Surface Elevation	506.9 NGVD
Groundwater Level	29.30 feet bgs 6/6/01 1130	Hammer Weight and Drop	30" 140 lb	Top of PVC Elevation	509.9 NGVD
Diameter of Hole (inches)	8.75	Diameter of Well (inches)	2	Screen Perforation	0.010"
Type of Sand Pack	20/40, 10/20 Silica	Type and Depth of Seal(s)	bentonite (2'-25', 34'-36' bgs); filter sand (25'-34' bgs); cement (0'-2')		
Comments	Monitoring well coordinates: Easting 1,154,337.25 Northing 141,243.45				

Report: ENV\_23A; Project File: I:\PROJECTS\WCF5-A-1\BONNELL-1\DELIVE-1\UOHNRI-1\BORING-1\CB\_L4.GPJ; Data Template: WC\_CORP1.GDT Printed: 11/26/01

Elevation, feet (MSL)	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Boring Completion Log	PID (ppm)	Headspace PID (ppm)	Drilling Rate (Time, 24-hour clock)	REMARKS
		Type	Number	Blows per 6-inch Interval	Percent Recovery							
0							Silty CLAY - Clayey SILT (CL-ML); moist; reddish-brown; low to medium plasticity		0	0	0940	UXO avoidance to 8' bgs
505							same as above					
5							same as above					
500							same as above					
10			4-7-10	100			same as above		0	0	0946	
495							same as above					
15			5-7-9	100			Silty CLAY (CL) - moist; light brown; mottled grey-black; medium plasticity		0	0	0954	
490							same as above					
20			4-7-9	100			same as above		0	0	1001	
485							same as above					
25			6-10-18	100			Sandy CLAY (CL) - wet; stiff; red-brown; weathered sand; trace of yellow gravel		0	0	1008	
480							same as above					
30							same as above					
												Depth to ground water 28.3' bgs on 6/6/01 1130

**URS**

Project: Landfill 4/Demolition Area 1  
 Project Location: Camp Bonneville, WA  
 Project Number: 53-F0072323.00

**Log of Boring L4-MW05A**  
 Sheet 2 of 2

Elevation, feet (MSL)	Depth, feet	SAMPLES				MATERIAL DESCRIPTION	Well Completion Log	PID (ppm)	Headspace PID (ppm)	Drilling Rate (Time, 24-hour clock)	REMARKS
		Type	Number	Blows per 6-inch Interval	Percent Recovery						
30				4-5-7	100	same as above - decreasing stiffness	0	0	1016	Groundwater encountered at approx. 31' bgs 6/6/01 1110	
475											
35				5-7-10	100	same as above - wet; medium stiff; red-brown; some gravel	0	0	1023		
470						Boring terminated at approximately 36.5' bgs on 6/6/01 1136					
40											
465											
45											
460											
50											
455											
55											
450											
60											
445											
65											
440											
70											

Report: EN  
 Project File: I:\PROJECTS\WCFS-A-1\BONNEL-1\DELIVE-1\JOHNRI-1\BORING-1\CB-L4.GPJ; Data  
 a:WC\_CORP1.GDT Printed: 11/26/01



<b>Project:</b> Landfill 4/Demolition Area 1	<b>Log of Boring L4-MW06A</b> Sheet 1 of 1
<b>Project Location:</b> Camp Bonneville, WA	
<b>Project Number:</b> 53-F0072323.00	

Date(s) Drilled	9/9/02	Logged By	J. Rapp	Checked By	S. Wolfe
Drilling Method	Hand Auger	Drilling Contractor	Cascade Drilling Inc.	Total Depth Drilled (FT BGS)	6.0
Drill Rig Type	NA	Sampler Type	18" Split Spoon	Surface Elevation	
Groundwater Level	6 feet bgs	Drill Bit Size/Type	4" OD hand auger	Top of PVC Elevation	
Diameter of Hole (inches)	4	Diameter of Well (inches)	0.75	Type of Well Casing	Schedule 40 PVC
Type of Sand Pack	10/20 Silica	Type and Depth of Seal(s)	bentonite (0-4'); filter sand (4-6')		
Comments	Monitoring well coordinates: Easting: Northing:				

Elevation, feet (MSL)	Depth, feet	SAMPLES					MATERIAL DESCRIPTION	Well Completion Log	Water/Soil Sheen Test	Soil - UV Fluorescence	PID Readings (ppm)	REMARKS
		Type	Number	Time 24-hr clock	Dye test	Graphic Log						
0						Surface vegetation					No odor or evidence of contamination	
1						Brown silty CLAY (CL-ML) - dense, moist, some to trace yellow sub-rounded to rounded gravel, gravel size is 0.125" median diameter						
2												
3			0930			Same as above with trace black, weathered, angular bedrock (andesite) fragments						
4												
5						Same as above 30% black sub-angular to angular bedrock in silty clay matrix						
6						Soil boring terminated at 6 feet bgs (due to refusal) on 9/9/02 at 0930						
7												
8												
9												
10												

Report: ENV\_23A; Project File: E:\PROJECTS\BONNEL-1\DELVE-1\UHNRI-1\BORING-1\CE\_L4.GPJ; Data Template: VC\_CORP.rgdt Printed: 10/30/02



Project: Landfill 4/Demolition Area 1	<b>Log of Boring L4-SB07A</b>
Project Location: Camp Bonneville, WA	
Project Number: 53-F0072323.00	

Sheet 1 of 2

Date(s) Drilled	12/16/02	Logged By	J. Rapp	Checked By	S. Wolfe
Drilling Method	Hollow Stem Auger	Drill Bit Size/Type	8.75" OD auger	Total Depth Drilled (feet)	40.0
Drill Rig Type	CME-150	Drilling Contractor	Cascade Drilling Inc.	Top of PVC Elevation (feet)	NA
Groundwater Level (feet)	40 feet bgs on 12/16/02	Hammer Weight/ Drop (lbs/in.)	30" 140 lb	Approx. Surface Elevation (feet)	476.35 NGVD
Diameter of Hole (inches)	8	Diameter of Well (inches)	NA	Screen Perforation	NA
Type of Sand Pack	NA	Type of Well Casing	NA		
		Type/Thickness of Seal(s)	NA		
Comments	Soil boring abandoned and backfilled with bentonite chips. Boring coordinates: Northing: 140745.21 Easting: 1154417.20				

Report: ENV\_1A; Project File: E:\PROJECTS\BONNEL-1\JOHNRI-1\BORING-1\CB\_L4.GPJ; Data Template: WC\_CORP1.GDT Printed: 1/16/03

Elevation feet	Depth, feet	SAMPLES				MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
		Type	Number	Blows/foot	Headspace (ppm)				
0						Reddish-brown silty CLAY (CL) - medium dense, moist, medium plasticity, trace fine rock fragments	0856		0-40 feet: No odor or visual evidence of contamination
-475									
	5			6 11 14			0900		
-470									
	10			7 17 20		Reddish-brown clayey SILT to silty CLAY (CL-ML) - dense, moist, slight plasticity, some sub-round yellow-orange fine gravel, trace weathered black sand grains	0906		
-465									
	15			6 8 10		Reddish-brown CLAY (CL) - medium stiff, moist, mottled gray and black, medium to low plasticity	0916		auger retracted - no groundwater present
-460									
	20			4 9 19			0923		auger retracted - no groundwater present
-455									
25									

**URS**

Project: Landfill 4/Demolition Area 1  
 Project Location: Camp Bonneville, WA  
 Project Number: 53-F0072323.00

### Log of Boring L4-SB07A

Sheet 2 of 2

Elevation feet	Depth, feet	SAMPLES				MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
		Type	Number	Blows/foot	Headspace (ppm)				
450	25			10 10 13		Grayish brown CLAY (CL) - moist, medium stiff to stiff, some fine sand, gray, white and black mottled appearance	0943		auger retracted - no groundwater present
445	30			6 20 54		Grayish-brown CLAY (CL) - moist, very stiff to hard, some fine sand, trace to some angular rock fragments (weathered bedrock)	1000		auger retracted - no groundwater present
440	35			16 23 36			1020		auger retracted - no groundwater present
435	40			9 11 55		Boring Terminated at 40 feet bgs at 1040 on 12/19/02	1040	▽	Water encountered at approximately 40 feet bgs Boring backfilled - no monitoring well installed
430	45								
425	50								
420	55								

Report: ENV\_1A; Project: File: E:\PROJECTS\BONNELL-1\DELIVER-1\UOHNR1-1\BORING-1\CB\_L4.GPJ; Data Template: MC\_CORP-1.GDT Printed: 1/16/03



**Project: Landfill 4/Demolition Area 1**  
**Project Location: Camp Bonneville, WA**  
**Project Number: 53-F0072323.00**

**Log of Boring L4-MW01B**

Sheet 1 of 3

Date(s) Drilled	6/14/2001 to 6/18/2001	Logged By	J.Rapp	Checked By	S. Wolfe
Drilling Method	Air Rotary Tubex	Drilling Contractor	Cascade Drilling Inc.	Total Depth Drilled (feet)	76.0
Drill Rig Type	IR T3W Ingersoll Rand	Sampler Type	NA	Surface Elevation	526.6 NGVD
Groundwater Level	11 feet bgs 6/19/01 1120	Hammer Weight and Drop	NA	Top of PVC Elevation	529.6 NGVD
Diameter of Hole (inches)	10	Diameter of Well (inches)	2	Screen Perforation	0.010"
Type of Sand Pack	20/40 Silica	Type and Depth of Seal(s)	bentonite (35'-38', 58'-76'); filter sand (38'-58'); cement grout (2'-35'); cement (0'-2')		
Comments	Monitoring well coordinates: Easting 1,154,600.01 Northing 141,304.73				

Report: ENW  
 Project File: I:\PROJECTS\WCFS-A-1\BONNEL-1\DELIVE-1\JOHNRI-1\BORING-1\CB\_L4.GPJ; Data  
 a:\WC\_CORP1.GDT Printed: 11/26/01

Elevation, feet (MSL)	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Boring Completion Log	PID (ppm)	Headspace PID (ppm)	Drilling Rate (Time, 24-hour clock)	REMARKS
		Type	Number	Blows per 6-inch Interval	Percent Recovery							
0	0									0810	UXO Avoidance to 10'	
525	5						same as above			0812		
520	10						same as above			0828	Depth to groundwater 11' bgs (6/19/01 at 1120)	
515	15						Silty CLAY (CL) - moist; light brown; soft;			0836		
510	20						same as above - weathered sand grains; mottled orange with black lenses of weathered sand			0859	centralizer at 20' bgs	
505	25						same as above - trace of yellow gravel			0905		
500	30											



Project: Landfill 4/Demolition Area 1  
 Project Location: Camp Bonneville, WA  
 Project Number: 53-F0072323.00

### Log of Boring L4-MW01B

Sheet 2 of 3

Elevation, feet (MSL)	Depth, feet	SAMPLES				MATERIAL DESCRIPTION	Well Completion Log	PID (ppm)	Headspace PID (ppm)	Drilling Rate (Time, 24-hour clock)	REMARKS
		Type	Number	Blows per 6-inch Interval	Percent Recovery						
30						Sandy silty CLAY (CL) - moist; red-brown; medium stiff; trace of gravel		0	0	0942	
495						same as above		0	0	0945	
35											
490						Sandy CLAY (CL) - moist; mottled; yellow; black; weathered sand grains; weathered bedrock; trace yellow gravel		0	0	0959	centralizer at 40' bgs
40											
485						same as above		0	0	1003	bentonite seal 4 <sup>5</sup> -49' bgs
45											
480						Sandy gravelly CLAY (CL) - wet; black; white; green; weathered bedrock; angular		0	0	1041	water encountered at approx. 50' bgs (6/14/01 1140) advance 7" steel casing from 49' bgs
50											
475						same as above - calcite nodules, weathered bedrock		0	0	1240	air rotary drilling through weathered bedrock zone, no coring
55											
470						Gravelly SAND (SP-GP) - wet, black, angular fragments of andesite		0	0	1301	
60											
465											
65											
460		Run #1		92%		top of apparent competent bedrock Phaneritic Andesite - unweathered bedrock; porphyritic; hornblende; olivine; hard horizontal fracture (8 degrees); crystalline-carbonate infilling fracture (5 degrees) vesicles		0	0		bentonite seal placed at 65' bgs rock coring started on 6/15/01 0737 advance rock core bit from 66' bgs @ 9 RPM
70											

Report: ENV\_23A; Project File: I:\PROJECTS\WCFS-A-1\BONNEL-1\DELIVE-1\UOHNR1-1\BORING-1\CB\_L4.GPJ; Data Template: WC\_CORP1.GDT Printed: 11/26/01

Project: Landfill 4/Demolition Area 1  
 Project Location: Camp Bonneville, WA  
 Project Number: 53-F0072323.00

**Log of Boring L4-MW01B**

Sheet 3 of 3

Elevation, feet (MSL)	Depth, feet	SAMPLES				MATERIAL DESCRIPTION	Well Completion Log	PID (ppm)	Headspace PID (ppm)	Drilling Rate (Time, 24-hour clock)	REMARKS
		Type	Number	Blows per 6-inch Interval	Percent Recovery						
455	70		Run #2		46%	vesicles horizontal fracture vesicles horizontal fracture horizontal fracture fracture (15 degrees)		0	0		Run #1 66' - 71' bgs; 92% recovery; 86% RQD  73.2' bgs bottom of recovered rock core
450	75					Boring terminated at approx. 76' bgs (6/18/01 @ 1052); bottom 2.8' of core not recovered					Run #2 71' - 76' bgs; 46% recovery; 100% RQD
445	80										
440	85										
435	90										
430	95										
425	100										
420	105										
110											

Report: EW  
 Project File: \\PROJECTS\WCFS-A-1\BONNEL-1\DELIVE-1\JOHNRI-1\BORING-1\CB\_L4.GPJ, Data  
 XWC\_CORP1.GDT Printed: 11/26/01



<b>Project:</b> Landfill 4/Demolition Area 1	<b>Log of Boring L4-MW02B</b>
<b>Project Location:</b> Camp Bonneville, WA	
<b>Project Number:</b> 53-F0072323.00	

Sheet 1 of 3

Date(s) Drilled	6/19/2001 to 6/22/2001	Logged By	J.Rapp	Checked By	S. Wolfe
Drilling Method	Air Rotary Tubex	Drilling Contractor	Cascade Drilling Inc.	Total Depth Drilled (feet)	85.0
Drill Rig Type	IR T3W Ingersoll Rand	Sampler Type	NA	Surface Elevation	515.5 NGVD
Groundwater Level	32.8 feet bgs 6/25/01 1133	Hammer Weight and Drop	NA	Top of PVC Elevation	518.5 NGVD
Diameter of Hole (inches)	10	Diameter of Well (inches)	2	Screen Perforation	0.010"
Type of Sand Pack	20/40 Silica	Type and Depth of Seal(s)	bentonite (35'-38', 72'-85'); filter sand (57'-72'); cement grout (2'-35'); cement (0'-2')		
Comments	Monitoring well coordinates: Easting 1,154,354.30 Northing 141,385.97				

Elevation, feet (MSL)	Depth, feet	SAMPLES				MATERIAL DESCRIPTION	Boring Completion Log	PID (ppm)	Headspace PID (ppm)	Drilling Rate (Time, 24-hour clock)	REMARKS
		Type	Number	Blows per 6-inch Interval	Percent Recovery						
515	0					Gravelly silty SAND (SP) - dry; light brown; possible imported fill		0	0	1440	UXO Avoidance to 8' bgs advance 9.75" steel casing
510	5							0	0	1443	
505	10					Rock - aphanitic; mica, hornblende, crystalline carbonate, possible boulder		0	0	1512	rock obstruction casing pushed off center. Use 14" hammer to open hole past rock obstruction.
500	15					Silty CLAY - Clayey SILT (CL-ML); moist; reddish-brown; low to medium plasticity		0	0		approximate bottom of rock obstruction
495	20					same as above		0	0	1627	resume drilling 6/20/01
490	25					same as above - trace of yellow gravel		0	0		centralizer at 19' bgs
	30							0	0	1654	

Report: ENV\_23A; Project File: I:\PROJECTS\WCF5-A-1\BONNEL-1\DELIVE-1\JOHNRI-1\BORING-1\CB\_L4.GPJ; Data Template: WC\_CORP1.GDT Printed: 11/26/01



Report: ENV    Project File: I:\PROJECTS\WCFS-A-1\BONNEL-1\DELIVE-1\JOHNRI-1\BORING-1\CB\_L4.GPJ; Data    I:\WC\_CORP1.GDT    Printed: 11/26/01

Elevation, feet (MSL)	Depth, feet	SAMPLES				MATERIAL DESCRIPTION	Well Completion Log	PID (ppm)	Headspace PID (ppm)	Drilling Rate (Time, 24-hour clock)	REMARKS
		Type	Number	Blows per 6-inch Interval	Percent Recovery						
-485	30					same as above - mottled yellow orange					
-480	35					same as above	0	0	1706		static water level recorded on 6/25/01 1133
-475	40					Sandy CLAY (CL) - moist; mottled; yellow; black; weathered sand grains; weathered bedrock; trace yellow gravel; low plasticity					centralizer at 39' bgs  water encountered at 41.6' on 6/21/01 0843
-470	45					same as above	0	0	1732		
-465	50					same as above	0	0	1745		resume drilling 6/21/01
-460	55					same as above					
-455	60					same as above	0	0	0815		centralizer at 59' bgs
-450	65					same as above - wet; hard; stiff	0	0	0857		
	70						0	0	0921		

Project: Landfill 4/Demolition Area 1  
 Project Location: Camp Bonneville, WA  
 Project Number: 53-F0072323.00

**Log of Boring L4-MW02B**  
 Sheet 3 of 3

Report: ENV\_23A; Project File: \\PROJECT\SWCFS-A-1\BONNELL-1\DELIVE-1\UOHINFI-1\BORING-1\CB\_L4.GPJ; Data Template: WC\_CORP1.GDT Printed: 11/28/01

Elevation, feet (MSL)	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID (ppm)	Headspace PID (ppm)	Drilling Rate (Time, 24-hour clock)	REMARKS
		Type	Number	Blows per 6-inch Interval	Percent Recovery							
445	70						Clayey gravelly SAND (SW) - wet; black; white; green; weathered andesite; angular		0	0	0938	
440	75		Run #1		40%		top of apparent competent bedrock Phaneritic Andesite - unweathered bedrock; porphyritic; hornblende; olivine; hard vesicles horizontal fracture horizontal fracture		0	0	1240	bentonite seal; begin rock coring at 75' bgs
435	80		Run #2		0%				0	0	1320	end of core Run #1; 40% recovery; 100% RQD
430	85						Boring terminated at 85' bgs on 6/21/01 1500		0	0	1446	end of core Run #2; 0% recovery
425	90											
420	95											
415	100											
410	105											
110												



<b>Project: Landfill 4/Demolition Area 1</b> <b>Project Location: Camp Bonneville, WA</b> <b>Project Number: 53-F0072323.00</b>	<h2 style="margin: 0;">Log of Boring L4-MW03B</h2> <p style="margin: 0;">Sheet 1 of 2</p>
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Date(s) Drilled	6/25/2001 to 6/27/2001	Logged By	J.Rapp	Checked By	S. Wolfe
Drilling Method	Air Rotary Tubex	Drilling Contractor	Cascade Drilling Inc.	Total Depth Drilled (feet)	70.0
Drill Rig Type	IR T3W Ingersoll Rand	Sampler Type	NA	Surface Elevation	508.5 NGVD
Groundwater Level	27 feet bgs 6/26/01 0755	Hammer Weight and Drop	NA	Top of PVC Elevation	511.5 NGVD
Diameter of Hole (inches)	10	Diameter of Well (inches)	2	Screen Perforation	0.010"
Type of Sand Pack	20/40 Silica	Type and Depth of Seal(s)	bentonite (42'-45', 60'-70'); filter sand (45'-60'); cement (2'-42'); cement (0'-2')		
Comments	Monitoring well coordinates: Easting 1,154,398.22 Northing 141,268.17				

Report: ENV Project File: I:\PROJECTS\WCFS-A-1\BONNELL-1\DELIVE-1\UOHNRI-1\BORING-1\CB\_L4.GPJ; Data 1  
 I:\WC\_CORP1.GDT Printed: 11/26/01

Elevation, feet (MSL)	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Boring Completion Log	PID (ppm)	Headspace PID (ppm)	Drilling Rate (Time, 24-hour clock)	REMARKS
		Type	Number	Blows per 6-inch Interval	Percent Recovery							
0	0					Silty CLAY - Clayey SILT (CL-ML) - moist; red-brown; some sand; trace gravel; low to medium plasticity		0	0	1330	UXO Avoidance to 8' bgs advance 9.75" steel casing	
505	5					same as above		0	0	1334	centralizer at 7' bgs	
500	10					same as above						
495	15					same as above		0	0	1355		
490	20					same as above		0	0	1400		
485	25					same as above - medium stiff; trace of yellow gravel						
480	30					same as above - some sand, some gravel		0	0	1450	Depth to groundwater 27' bgs 6/26/01 0755 centralizer at 27' bgs	
475	35											



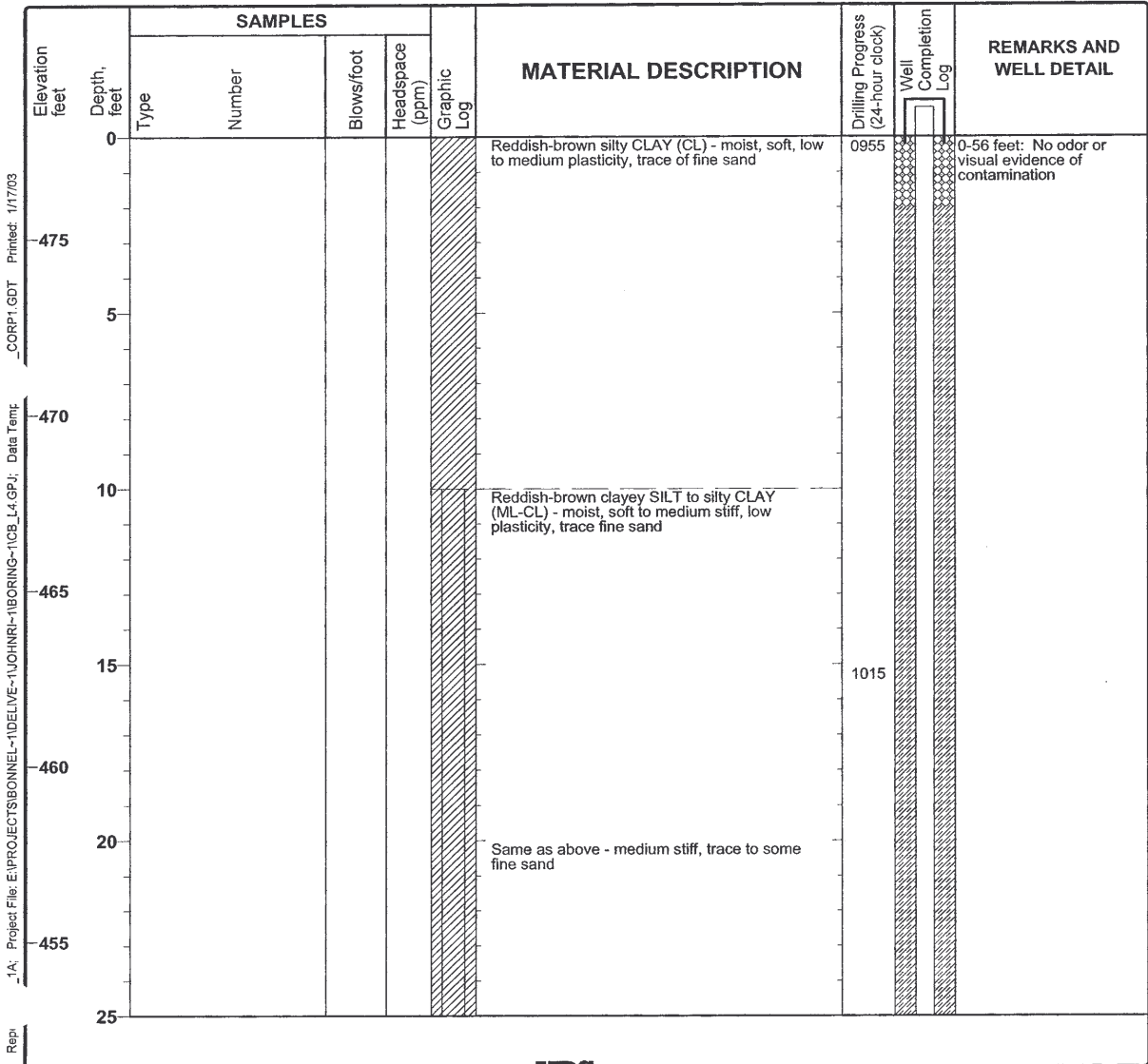
Report: ENV\_23A; Project File: I:\PROJECTS\WCPFA-1\BONNELL-1\DELIVE-1\UOHNR1-1\BORING-1\CB\_L4.GPJ; Data Template: WC\_CORP1.GDT Printed: 11/28/01

Elevation, feet (MSL)	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID (ppm)	Headspace PID (ppm)	Drilling Rate (Time, 24-hour clock)	REMARKS
		Type	Number	Blows per 6-inch Interval	Percent Recovery							
35							same as above					
470												
40							Sandy CLAY (CL) - mottled; weathered sand grains; some yellow gravel		0	0	1457	
465												
45							same as above - some gravel to 1"; weathered andesite fragments					centralizer at 47' bgs
460												
50							same as above - weathered andesite, altered sand grains, quartz nodules		0	0	1550	groundwater encountered at approx. 50 feet bgs 6/25/01 1600
455												
55							same as above - weathered andesite		0	0	1605	
450												
60		Run #1			93%		Phaneritic Andesite - unweathered bedrock; porphyritic; hornblende; olivine; hard horizontal fracture fracture 30 - 35 degrees vesicles horizontal fracture		0	0		9.75" casing on top of competent bedrock; bentonite seal set prior to rock coring
445												
65		Run #2			100%		fracture 2 degrees		0	0		Bottom of Run #1; 93% Recovery; 100% RQD
440							healed fracture; crystalline carbonate infilling					
70												
435							Boring terminated at 70' bgs on 6/26/01 at 1416					Bottom of Run #2; 100% Recovery; 100% RQD
430												
80												



<b>Project:</b> Landfill 4/Demolition Area 1	<b>Log of Boring L4-MW07B</b> Sheet 1 of 2
<b>Project Location:</b> Camp Bonneville, WA	
<b>Project Number:</b> 53-F0072323.00	

Date(s) Drilled	12/19/02	Logged By	J. Rapp	Checked By	S. Wolfe		
Drilling Method	Air Rotary	Drill Bit Size/Type	Tricone	Total Depth Drilled (feet)	56.4		
Drill Rig Type	IR T3W Ingersoll Rand	Drilling Contractor	Cascade Drilling Inc.	Top of PVC Elevation (feet)	480.80		
Groundwater Level (feet)	39.32 feet bgs on 12/20/02 0800		Hammer Weight/Drop (lbs/in.)	NA	Approx. Surface Elevation (feet)	477.89 NGVD	
Diameter of Hole (inches)	10	Diameter of Well (inches)	2	Type of Well Casing	Schedule 40 PVC V-wrap	Screen Perforation	0.010"
Type of Sand Pack	20/40, 10/20 Silica		Type/Thickness of Seal(s)	bentonite (2'-43' bgs); filter sand (41'-56' bgs); cement (0'-2'); screen interval (46-56')			
Comments	Monitoring well coordinates: Easting: 1154434.64 Northing: 140735.34						



URS

Repr:   
 \_1A: Project File: E:\PROJECTS\BONNEL-1\DELIVE-1\UOHNR1-1\BORING-1\CB\_L4.GPJ; Data Temp   
 \_CORP1.GDT Printed: 1/17/03

Project: Landfill 4/Demolition Area 1  
 Project Location: Camp Bonneville, WA  
 Project Number: 53-F0072323.00

**Log of Boring L4-MW07B**  
 Sheet 2 of 2

Elevation feet	Depth, feet	SAMPLES				MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
		Type	Number	Blows/foot	Headspace (ppm)				
25						Same as above			
450	30					Same as above - Grayish-brown, trace fine yellow gravel			
445	35						1100		
440	40					Same as above - Trace yellow fine gravel, trace black angular rock fragments			39.32' Static groundw. level measured on 12/20/02 at 0800 Groundwater encountered at approximately 40 feet bgs on 12/19/02 at 1110
435	45					Apparent top of weathered bedrock unit	1140		
430	50					Medium grey to black ANDESITE - finely granular, porphyritic, mostly plagioclase, some noticeable amounts of hornblende and biotite occurring as phenocrysts, quartz nodules			
425	55								
420						Soil boring terminated at 56.4 feet bgs at 1150 on 12/19/02			

Report: ENV\_1A; Project File: E:\PROJECTS\BONNEL-1\DELIVE-1\BORING-1\CB\_L4.GPJ; Data Template: WC\_CORP1.GDT; Printed: 1/17/03



4412 SW CORBETT  
PORTLAND, OREGON  
97239  
(503) 248-1939  
FAX  
(503) 248-0223

### Bore Hole/Well Construction Log

Project Number:  
16978.004

Boring/Well Number:  
L4-MW17

Sheet  
1 of 1

Project Name: **CAMP BONNEVILLE**  
Project Location: **LACAMAS CREEK/ LANDFILL 4**  
Driller/Equipment: **CASCADE DRILLING/ AIR ROTARY**  
Geologist/Engineer: **ANDREW HARVEY**  
Sample Method: **DAMES AND MOORE SAMPLER**

TOC Elevation (feet above datum): 361.48  
Surface Elevation (feet above datum): 358.81  
Start/End Date: 5/17/04  
Hole Depth: 15 FEET  
Outer Hole Diameter: 8 INCH

Depth (feet, BCS)	Well Construction Details	Sample Data				Lithologic Column	Soil Description
		Sample Interval	PID Reading (ppm)	Sample Number	Blows/ft.		
1	STEEL COVER						0-5': Brown, sandy SILT with gravel and trace cobbles. Slightly moist, firm.
2							
3	BENTONITE SEAL 1' TO 4'						
4	2" SCH. 40 PVC BLANK						
5							
6							5'-15': Gray BASALT. Moderately to slightly weathered, hard.
7							
8							
9							Becomes unweathered at 9 feet.
10	10-20 SILICA SAND						▼ Groundwater at 10.06' on 6-14-04.
11							
12	2" SCH. 40 PVC SCREEN 0.01" SLOT						
13							
14							
15							
16							<b>BOTTOM OF BORING AT 15'</b> Well finished with aboveground steel pipe monument set in concrete pad.
17							
18							
19							
20							

**NOTES**

- SOIL INTERFACES AND DESCRIPTIONS ARE INTERPRETIVE AND ACTUAL CHANGES AND TRANSITIONS MAY BE GRADUAL.
- WATER LEVEL IS FOR DATE SHOWN AND MAY VARY WITH TIME OF YEAR.
- SOIL DESCRIPTIONS NOT INTENDED TO BE USED FOR GEOTECHNICAL DESIGN PURPOSES.

# MW-17

8/5/04 11:49 P:\6600\16978 Camp Bonneville GW\16978.004 - 2nd dr 2004\16978.004\_Monitoring\_Well\_Drill\_Overburden\_2004.dwg



4412 SW CORBETT  
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### Bore Hole/Well Construction Log

Project Number:  
 16978.004

Boring/Well Number:  
 L4-MW18

Sheet  
 1 of 1

Project Name: **CAMP BONNEVILLE**  
 Project Location: **LACAMAS CREEK/ LANDFILL 4**  
 Driller/Equipment: **CASCADE DRILLING/ AIR ROTARY**  
 Geologist/Engineer: **ANDREW HARVEY**  
 Sample Method: **DAMES AND MOORE SAMPLER**

TOC Elevation (feet above datum): 362.48  
 Surface Elevation (feet above datum): 360.47  
 Start/End Date: 5/18/04  
 Hole Depth: 20 FEET  
 Outer Hole Diameter: 8 INCH

Depth (feet, BCS)	Well Construction Details	Sample Data			Lithologic Column	Soil Description
		Sample Interval	RIP Reading (ppm)	Sample Number		
0-1	STEEL COVER					0-5': Brown, sandy SILT with gravel and trace cobbles. Slightly moist to moist, medium stiff.
1-2	SLIP CAP CONCRETE 0' TO 1' STEEL COLLAR					
2-3	BENTONITE SEAL 1' TO 8'					Some clay at 3' depth.
3-4		3.5'-5'		S-1	13	3'-15.5': Gray SILT with sand. Slightly moist, stiff. Decomposed basalt with remnant rock texture to 8' depth.
4-8						
8-9	2" SCH. 40 PVC BLANK					Grades to mottled brown-gray-tan, sandy SILT with clay at 8' depth. Highly weathered basalt.
9-10	10-20 SILICA SAND	10-11.5		S-2	29	
10-11						Wet at 11'.
11-12	2" SCH. 40 PVC SCREEN 0.01" SLOT					▼ Groundwater at 11.34' on 6-14-04.
12-16						
16-17						15.5'-16': Gray clayey SILT with trace sand. Wet, medium stiff to hard.
17-18		17-18.5		S-3	50 for 6"	16'-20': Dark green to gray, clayey SAND. Wet, hard. Highly weathered to decomposed basalt.
18-20						

**BOTTOM OF BORING AT 20'**  
 Well finished with aboveground steel pipe monument set in concrete pad.

**NOTES**

- SOIL INTERFACES AND DESCRIPTIONS ARE INTERPRETIVE AND ACTUAL CHANGES AND TRANSITIONS MAY BE GRADUAL.
- WATER LEVEL IS FOR DATE SHOWN AND MAY VARY WITH TIME OF YEAR.
- SOIL DESCRIPTIONS NOT INTENDED TO BE USED FOR GEOTECHNICAL DESIGN PURPOSES.

# MW-18

8/5/04 11:48 P:\66000\16978.004 - 2nd cfr. 2004\16978.004\_Monitoring\_Wells\_2nd\_Quarter\_2004.dwg  
 REV.

DRAFT

TABLE 4. CONSTITUENTS DETECTED IN GROUNDWATER SAMPLES - 2nd QUARTER 2007  
SUMMARY OF GROUNDWATER LABORATORY ANALYSIS  
CAMP BONNEVILLE, VANCOUVER, WASHINGTON

Sample No.	Sample Date	Sample Location	Total Metals (µg/L)													VOCs (µg/L)	SVOCs (µg/L)	Petroleum Hydrocarbons (mg/L)			Ordinance Explosives Compounds (µg/L)		NG (µg/L)	PETN (µg/L)	Picric Acid (µg/L)	Perchlorate (µg/L)	TOC (mg/L)	DOC (mg/L)	TSS (mg/L)	Alkalinity (HCO3) (mg/L)	Alkalinity (CO3) (mg/L)	Ions (results above detection limits shown)					
			Antimony	Arsenic	Beryllium	Cadmium	Chromium (total)	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc			NWTPH-Dx	Oil Range	NWTPH-Gx	HMX	RDX															
15LCMW01SW	6/21/2007	Lacamas Cr.	0.188(J)	0.231(J)	ND	ND	3.87(J)	ND	ND	ND	2.40	0.264(J)	ND	ND	2.83(J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 1.0	< 1.0	< 2	42	< 4.0	chloride 1.3 mg/L						
15LCMW01DW	6/21/2007	Lacamas Cr.	0.096(J)	0.386(J)	ND	0.131(J)	1.01(J)	ND	ND	ND	1.16	ND	ND	ND	3.19(J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 1.0	< 1.0	< 2	44	< 4.0	chloride 1.5 mg/L						
15LCMW02SW	6/21/2007	Lacamas Cr.	0.247(J)	0.431(J)	ND	ND	ND	ND	ND	ND	0.616(J)	0.184(J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 1.0	< 1.0	< 2	42	< 4.0	chloride 1.6 mg/L						
15LCMW02DW	6/21/2007	Lacamas Cr.	0.077(J)	0.570(J)	ND	0.104(J)	0.769(J)	ND	ND	ND	0.961(J)	0.122(J)	ND	ND	2.50(J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 1.0	< 1.0	< 2	44	< 4.0	nitrate as N 0.23 mg/L; sulfate as SO <sub>4</sub> 1.0 mg/L; chloride 2.1 mg/L						
15LCMW03SW	6/22/2007	Lacamas Cr.	ND	0.544(J)	ND	ND	0.206(J)	ND	ND	ND	0.534(J)	0.145(J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 1.0	< 1.0	< 2	42	< 4.0	nitrate as N 0.25 mg/L; chloride 1.5 mg/L						
15LCMW03DW	6/22/2007	Lacamas Cr.	ND	0.797(J)	ND	ND	0.312(J)	ND	ND	ND	0.624(J)	ND	ND	ND	2.17(J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 1.0	< 1.0	< 2	44	< 4.0	nitrate as N 0.33 mg/L; chloride 1.7 mg/L						
15LCMW04SW	6/22/2007	Lacamas Cr.	ND	0.145(J)	ND	ND	0.621(J)	ND	ND	ND	0.767(J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 1.0	< 1.0	3	38	< 4.0	nitrate as N 1.1 mg/L; chloride 2.7 mg/L						
15LCMW04DW	6/22/2007	Lacamas Cr.	ND	1.10	ND	ND	0.589(J)	ND	ND	ND	0.761(J)	ND	ND	ND	2.82(J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 1.0	< 1.0	< 2	49	< 4.0	sulfate as SO <sub>4</sub> 1.7 mg/L; chloride 1.9 mg/L						
15L4MW01AW	6/19/2007	Landfill 4	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	ND	nt	nt	nt	nt	ND	ND	ND	nt	1.9	nt	nt	nt	nt	nt	nt						
15L4MW01BW	6/19/2007	Landfill 4	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	ND	nt	nt	nt	nt	ND	ND	ND	nt	ND	nt	nt	nt	nt	nt	nt	nt					
15L4MW02AW	6/19/2007	Landfill 4	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	ND	nt	nt	nt	nt	3.2	20	ND	ND	nt	170	nt	nt	nt	nt	nt	nt	nt				
15L4MW02BW	6/19/2007	Landfill 4	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	Detect: see VOC table	nt	nt	nt	nt	3.9	78(E)	ND	ND	nt	290	nt	nt	nt	nt	nt	nt	nt				
15L4MW03AW	6/20/2007	Landfill 4	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	ND	nt	nt	nt	nt	9.7	ND	ND	nt	94	nt	nt	nt	nt	nt	nt	nt	nt				
15L4MW03BW	6/20/2007	Landfill 4	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	ND	nt	nt	nt	nt	3.2	ND	ND	nt	44	nt	nt	nt	nt	nt	nt	nt	nt				
15L4MW04AW	6/19/2007	Landfill 4	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	ND	nt	nt	nt	nt	ND	1.8	ND	ND	nt	40	nt	nt	nt	nt	nt	nt	nt				
15L4MW05AW	6/20/2007	Landfill 4	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	ND	nt	nt	nt	nt	ND	2.5	ND	ND	nt	39	nt	nt	nt	nt	nt	nt	nt				
15L4MW07BW	6/18/2007	Landfill 4	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	ND	nt	nt	nt	nt	ND	ND	ND	nt	3.0	nt	nt	nt	nt	nt	nt	nt	nt				
15L4MW17W	6/18/2007	Landfill 4	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	ND	nt	nt	nt	nt	ND	ND	ND	nt	1.7	nt	nt	nt	nt	nt	nt	nt	nt				
15L4MW18W	6/18/2007	Landfill 4	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	ND	nt	nt	nt	nt	ND	ND	ND	nt	ND	nt	nt	nt	nt	nt	nt	nt	nt	nt			
15L4MW425W (field duplicate of 15L4MW02BW)	6/19/2007	Landfill 4	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	Detect: see VOC table	nt	nt	nt	nt	2.9	58(E)	ND	ND	nt	290	nt	nt	nt	nt	nt	nt	nt	nt			
RPD for duplicate 15L4MW02BW																					29%	29%															
MS/MSD (field duplicate of 15LCMW01DW)	6/21/2007	Lacamas Cr.	0.096(J)	0.386(J)	ND	0.131(J)	1.015(J)	ND	ND	ND	1.161	ND	ND	ND	3.187(J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.18	nt	< 1	44	0			chloride 1.5 mg/L				
15LCMW415W (field duplicate of 15LCMW03DW)	6/22/2007	Lacamas Cr.	0.181(J)	0.788(J)	ND	ND	0.304(J)	ND	ND	ND	0.607(J)	0.188(J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 1.0	< 1.0	< 2	44	< 4.0			nitrate as N 0.29 mg/L; chloride 1.7 mg/L				
RPD for duplicate 15LCMW03DW				1%			3%				3%																										
15LCMW420W (field equipment rinse)	6/20/2007	Lacamas Cr.	0.26(J)	ND	ND	0.143(J)	0.991(J)	ND	ND	ND	0.216(J)	ND	ND	ND	ND	Detect: see VOC table	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 1.0	< 1.0	< 2	< 2	< 2.0			none above detection limits				
15LCMW430W (metals blank; deionized water)	6/20/2007		ND	ND	ND	0.372(J)	0.456(J)	ND	ND	ND	0.735(J)	ND	ND	ND	ND	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt		
Trip Blank 1	6/18/2007		nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	ND	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt		
Trip Blank 2	6/19/2007		nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	ND	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	
Trip Blank 3	6/20/2007		nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	Detect: see VOC table	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	
Trip Blank 4	6/21/2007		nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	Detect: see VOC table	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
Trip Blank 5	6/2/2007		nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	Detect: see VOC table	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
Lab detection limit			0.08	0.03	0.02	0.02	0.04	0.08	0.002	0.02	0.04	0.01	0.02	0.01	0.02	varies	varies	0.10 mg/L	0.40 mg/L	0.025 mg/L	0.48-0.60 µg/L	0.48-0.60 µg/L	2.4 µg/L	1.1 µg/L	0.94-1 µg/L	1.0 µg/L	1.0 mg/L	1.0 mg/L	2.0 mg/L	4 mg/L	2 - 4 mg/L			see lab data report for limits			
WA MTCA Method A Cleanup Levels (µg/L)			n/a	5	n/a	5	50	n/a	15	2	n/a	n/a	n/a	n/a	n/a	varies	varies	500	500	1,000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
WA MTCA Method B Levels (µg/L)			1.4 - 8		0.02			592		4,800	320	80	80	1.1	4,800																						

**Notes:**  
 Only detected analytes are shown; see laboratory reports for complete listing of compounds tested  
 nt - Sample not tested  
 µg/L - micrograms per liter  
 mg/L - milligrams per liter  
 ND - Not detected to the limit of laboratory detection indicated  
 n/a - Not applicable. MTCA Method A Cleanup Level not provided.  
 Detect - VOC compound detected; see separate VOC table  
 J or E = value estimated  
 RPD = relative percent difference between sample versus duplicate  
 WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.



<b>DRAFT</b> TABLE 5. DISSOLVED METALS AND DOC - 2nd QUARTER 2007 SUMMARY OF GROUNDWATER LABORATORY ANALYSIS CAMP BONNEVILLE, VANCOUVER, WASHINGTON																
Sample No.	Sample Date	Sample Location	Dissolved Metals - field filtered (µg/L)													DOC (mg/L)
			Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	
15LCMW01SW	6/21/2007	Lacamas Cr.	ND	0.160(J)	ND	0.096(J)	1.18	ND	ND	ND	1.31	ND	ND	ND	2.27(J)	< 1.0
15LCMW01DW	6/21/2007	Lacamas Cr.	ND	0.382(J)	ND	ND	0.756(J)	ND	ND	ND	1.33	ND	ND	ND	1.99(J)	< 1.0
15LCMW02SW	6/21/2007	Lacamas Cr.	0.303(J)	0.443(J)	ND	0.099(J)	0.632(J)	ND	ND	ND	1.09	ND	ND	ND	ND	< 1.0
15LCMW02DW	6/21/2007	Lacamas Cr.	0.087(J)	0.487(J)	ND	ND	0.273(J)	ND	ND	ND	0.601(J)	ND	ND	ND	2.37(J)	< 1.0
15LCMW03SW	6/22/2007	Lacamas Cr.	0.205(J)	0.499(J)	ND	ND	0.356(J)	ND	ND	ND	0.781(J)	ND	ND	ND	ND	< 1.0
15LCMW03DW	6/22/2007	Lacamas Cr.	ND	0.745(J)	ND	ND	0.596(J)	ND	ND	ND	1.60	ND	ND	ND	ND	< 1.0
15LCMW04SW	6/22/2007	Lacamas Cr.	ND	0.110(J)	ND	ND	0.585(J)	ND	ND	ND	.0846(J)	ND	ND	ND	2.11(J)	< 1.0
15LCMW04DW	6/22/2007	Lacamas Cr.	ND	1.16	ND	ND	0.481(J)	ND	ND	ND	1.07	ND	ND	ND	2.89	< 1.0
MS/MSD (field duplicate of 15LCMW01DW)	6/21/2007	Landfill 4	ND	0.382(J)	ND	ND	0.756(J)	ND	ND	ND	1.33	ND	ND	ND	1.99(J)	< 1.0
15LCMW415W (field duplicate of 15LCMW03DW)	6/22/2007	Lacamas Cr.	ND	0.787(J)	ND	ND	0.349(J)	ND	ND	ND	1.41	ND	ND	ND	ND	ND
RPD for duplicate 15LCMW03DW				5%			52%				13%					
15LCMW420W (field equipment rinsate)	6/20/2007	Lacamas Cr.	ND	ND	ND	0.388(J)	0.835(J)	ND	ND	ND	1.13	ND	ND	ND	ND	< 1.0
15LCMW430W (metals blank; deionized water)	6/20/2007		ND	ND	ND	0.609(J)	0.585(J)	ND	ND	ND	0.138(J)	ND	ND	ND	1.85(J)	nt
Lab detection limit			0.08	0.03	0.02	0.02	0.04	0.08	0.002	0.013	0.04	0.01	0.02	0.01	0.02	1.0
WA MTCA Method A Cleanup Levels (µg/L)			n/a	5	n/a	5	50	n/a	15	2	n/a	n/a	n/a	n/a	n/a	n/a
WA MTCA Method B Levels (µg/L)			1.4 - 8		0.02			592		4,800	320	80	80	1.1	4,800	

**BOLD** print indicates concentration exceeding WA MTCA Method A Cleanup Level

Only detected analytes are shown; see laboratory reports for complete listing of compounds tested

nt - Sample not tested

ug/L - micrograms per liter

J or E = value estimated

ND - Not detected to the limit of laboratory detection indicated

n/a - Not applicable. MTCA Method A Cleanup Level not provided.

RPD = relative percent difference between sample versus duplicate

WA MTCA Method B Levels from "Multi-Sites Investigation Report", Shannon & Wilson, 1999.

**DRAFT**

**TABLE 6. VOLATILE AND SEMI-VOLATILE ORGANIC COMPOUNDS**  
**2nd QUARTER 2007**  
**SUMMARY OF GROUNDWATER LABORATORY ANALYSIS**  
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

Sample No.	Sample Date	Sample Location	VOCs (µg/l)										SVOCs (µg/l)	
			Acetone	2-Butanone	Chloroform	1,1-Dichloroethane	1,1-Dichloroethene	Dichlorodifluoromethane	Methylene Chloride	1,1,1-Trichloroethane	Tetrachloroethene	1,1,2,2-Tetrachloroethane	Benzoic Acid	bis(2-Ethylhexyl)phthalate
15L4MW02BW	6/19/2007	Landfill 4	3.2(J)	2.0(J)	ND	33	17	80	ND	51	0.65(J)	0.51(J)	nt	nt
15LCMW420W (field equipment rinsate)	6/20/2007	Lacamas Cr.	2.4(J)	ND	5.5	ND	ND	ND	ND	ND	ND	ND	ND	ND
15LCMW430W (metals blank; deionized water)	6/20/2007		nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
15L4MW425W (field duplicate of 15L4MW02BW)	6/19/2007	Landfill 4	3.1(J)	1.8(J)	ND	32	15	69	ND	50	0.64(J)	0.52(J)	nt	nt
RPD for duplicate 15L4MW02BW			3%	11%		3%	13%	15%		2%	2%	2%		
Trip Blank 3	6/20/2007	Lacamas Cr.	0.79(J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	nt	nt
Trip Blank 4	6/21/2007	Lacamas Cr.	1.1(J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	nt	nt
Trip Blank 5	6/22/2007	Lacamas Cr.	ND	ND	ND	ND	ND	ND	1.0	ND	ND	ND	nt	nt
Lab detection limit			5.0	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.3	1.7
WA MTCA Method A Cleanup Levels (µg/L)			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**Note:**

**Only analytes detected in at least one sample are shown; see lab reports for complete listing of compounds tested.**

nt - Sample not tested

ND - Not detected to the limit of laboratory detection indicated

µg/L - micrograms per liter

J = value estimated

B = also detected in the method blank associated with the sample

n/a - Not applicable. MTCA Method A Cleanup Level not provided.

RPD = relative percent difference between sample versus duplicate



**TABLE 7**  
**FIELD PARAMETERS FOR GROUNDWATER SAMPLES - 2nd QUARTER 2007**  
**CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

Field Parameters at Time of Sampling												
Sample No.	Date	Time	Depth to Water in Feet*	Water Elevation in Feet amsl **	Temp. (degrees C)	Conductivity (µS/cm)	Oxidation Reduction Potential (millivolts)	Turbidity (NTUs)	pH	Dissolved Oxygen (mg/L)	Color and Cloudiness	Notes
15LCMW01SW	6/21/2007	1100	5.85	284.31	12.0	91	129.9	1.02	6.44	6.99	clear	
15LCMW01DW	6/21/2007	1245	5.21	285.04	13.1	98	93.1	2.33	6.47	7.36	clear	collected MS/MSD duplicate
15LCMW02SW	6/21/2007	1500	6.82	284.37	13.2	92	129.5	0.93	5.84	8.62	clear	
15LCMW02DW	6/21/2007	1650	6.60	284.99	12.7	97	133.5	1.74	6.94	7.36	clear	
15LCMW03SW	6/22/2007	1255	6.46	284.45	11.3	91	135.3	0.63	6.28	8.19	clear	
15LCMW03DW	6/22/2007	1045	6.34	284.64	11.3	100	152.0	nr	6.27	7.19	clear	collected duplicate
15LCMW04SW	6/22/2007	1615	6.44	285.19	12.6	94	154.9	3.99	5.82	5.82	clear	
15LCMW04DW	6/22/2007	1500	5.96	285.83	11.9	110	111.6	0.93	6.51	6.99	clear	
15L4MW01AW	6/19/2006	1055	16.21	515.19	12.2	36	228.7	32	5.04	10.28	clear	
15L4MW01BW	6/19/2006	0950	13.42	516.18	10.4	26	205.7	4.72	5.18	7.89	clear	
15L4MW02AW	6/20/2007	1000	27.49	492.44	14.6	41	238.6	nr	4.86	7.89	clear	
15L4MW02BW	6/19/2006	1630	31.22	487.24	15.0	69	-25.6	nr	5.6	2.08	clear	collected duplicate
15L4MW03AW	6/20/2007	1120	29.60	485.25	15.9	22	210.7	8.47	4.93	6.57	clear	
15L4MW03BW	6/20/2007	1350	26.80	484.67	14.6	49	136.3	nr	5.51	5.91	clear	
15L4MW04AW	6/19/2006	1215	27.32	484.47	14.8	18	199.0	6.15	5.19	7.99	clear	
15L4MW05AW	6/20/2007	1515	23.88	486.03	13.2	28	216.2	4.67	5.11	6.80	clear	
15L4MW07BW	6/18/2007	1600	39.91	440.51	12.1	34	191.0	10.89	5.29	9.36	clear	
15L4MW17W	6/18/2007	1355	10.69	350.79	14.0	232	-36.4	11.81	7.11	6.09	clear	
15L4MW18W	6/18/2007	1450	11.78	351.06	12.6	130	90.7	46.7	6.20	11.10	clear	

Notes:                   \* = depth in feet measured from top of well PVC casing.  
                             \*\* = water level in feet above mean sea level, relative to top of casing elevation survey (see elevations, Table 8)  
                             nr = value not recorded  
                             Field parameters of temperature, conductivity, oxidation-reduction potential, dissolved oxygen, and pH measured with a YSI Model 556 meter.

**TABLE 8  
WELL NUMBER AND CONSTRUCTION DETAILS  
CAMP BONNEVILLE, VANCOUVER, WASHINGTON**

Well Number in PBS Work Contract	WADOE Well Tag Number	Well Location	Total Depth (ft)*	Screened Interval (ft)**	Top of PVC Casing Elevation (feet above mean sea level)	Well Number on Steel Casings/Caps (CHPPM No.)
LC-MW01S	AHA-359	Lacamas Cr.	22.73	15-20	290.16	LC-MW01S
LC-MW06D	AHA-358	Lacamas Cr.	42.20	30-40	290.25	LC-MW01D
LC-MW02S	AHA-364	Lacamas Cr.	17.50	12.5-17.5	291.19	LC-MW02S
LC-MW07D	AHA-357	Lacamas Cr.	37.85	25-35	291.59	LC-MW02D
LC-MW03S	AHA-363	Lacamas Cr.	20.10	13-18	290.91	LC-MW03S
LC-MW08D	AHA-362	Lacamas Cr.	39.40	27-37	290.98	LC-MW03D
LC-MW04S	AHA-375	Lacamas Cr.	16.54	7-17	291.63	LC-MW04S
LC-MW09D	AHA-361	Lacamas Cr.	37.00	25-35	291.79	LC-MW04D
L4-MW01A	N/A	Landfill 4	30.40	N/A	531.40	L4-MW01A
L4-MW01B	AGL-482	Landfill 4	55.40	43-53	529.57	L4-MW01B
L4-MW02A	N/A	Landfill 4	40.20	N/A	519.93	L4-MW02A
L4-MW02B	AGL-483	Landfill 4	74.60	62-72	518.46	L4-MW02B
L4-MW03A	AGL-466	Landfill 4	48.90	41-46	514.85	L4-MW03A
L4-MW03B	AGL-484	Landfill 4	62.90	49-59	511.47	L4-MW03B
L4-MW04A	AGL-465	Landfill 4	43.40	33-43	511.79	L4-MW04A
L4-MW05A	AGL-467	Landfill 4	36.60	30-35	509.91	L4-MW05A
L4-MW07B	N/A	Landfill 4	58.60	46-56	480.42	L4-MW07B
L4-MW17	ALB-252	Landfill 4	15.00	5-15	361.48	L4-MW17
L4-MW18	ALB-251	Landfill 4	20.00	10-20	362.84	L4-MW18

Notes:

\* = depth in feet measured from top of well PVC casing

\*\* = screened interval reported on well completion logs

N/A = not available

# Laucks

## Testing Laboratories, Inc.

940 South Harney St.  
Seattle, WA 98108  
(206) 767-5060 FAX (206) 767-5063

### FAX Cover Sheet

To: \_\_\_\_\_ FAX Number: \_\_\_\_\_  
Company: \_\_\_\_\_ Date: 8-24-07  
From: \_\_\_\_\_ No. of Pages  
(including cover (including cover  
page): 2

#### Preliminary Results for:

Workorders(s): N/A

SDG (s): CAB35

Analysis: TSS, TDS, Perc

Verified by: [Signature]

Do these samples need to be re-analyzed? Yes  No

If yes, which samples?: \_\_\_\_\_

Reason: \_\_\_\_\_

The preliminary results for the re-analysis will be faxed on (date): \_\_\_\_\_

Laucks does not certify that these results meet NELAC Standards because all NELAC required elements are not included in the facsimile. Please refer to the full report to review all NELAC required elements.

The information contained in or attached to this FAX message is intended only for the confidential use of the individual(s) named above. If you are not the named recipient, or an agent responsible for delivering it to the named recipient, you are hereby notified that you have received this document in error, and that review, dissemination, or copying of this communication is prohibited. If you have received this communication in error, please notify us immediately by telephone at 206-767-5060, and return the original documents to us by mail at the address listed above.



**LAUCKS TESTING LABORATORIES, INC.**  
**SDG Closure for CAB35**

Client: PBS Engineering and Environmental  
Office Due: 9/4/2007  
Client Due: 9/11/2007

PM: Kara Godineaux  
Fax Due: 8/28/2007

**Required SDG Attributes**

Attribute	Value
Bound or Unbound Package	n/a
Data Package Recipients	Andrew Harvey
Data Package Type	Level III
EDD Recipients	Andrew Harvey
EDD TAT	28 days
EDD Type	TerraBase
Forms Summary	Yes
Hard Copy Data Package	No
Invoice Recipient	Accounts Payable
Number of Data Packages	1
PDF	Yes
Penalties	Yes
Preliminary Data Recipients	Andrew Harvey
ProjectID	Camp Bonneville
ProjNumber	Task 6206
Sample Receipt Confirmation	yes
Ship Package w/o EDD	NO

\* = Attribute is not present or not defined.

**Defined Addresses**

Address Type	Address
<i>Required Addresses</i>	
Report Address	4412 SW Corbett Portland, OR 97239
Invoice Address	4412 SW Corbett Portland, OR 97239
EDD Address	Not Defined
Validator Address	Not Defined
<i>Additional Addresses</i>	
No Additional Addresses	

**Defined Contacts**

Contact Type	Contact	Phone
<i>Required Contacts</i>		
Report Contact	Andrew Harvey	503-417-7693 (Office) 503-248-1939 (FAX - Office) 503-880-2923 (Mobile)
Invoice Contact	Accounts Payable	
EDD (Technical) Contact	Not Defined	
Validator Contact	Not defined	
<i>Additional Contacts</i>		
No Additional Contacts		

**Assigned Tests**

Method Number	# of Samples	Matrix	SDG Packet
160.2	1	Water	Conventionals

314.0	1	Water	Conventionals
-------	---	-------	---------------

1 = Packet has not been imported.

FORM LTL-PM-52.0

LAUCKS TESTING LABORATORIES, INC. - SAMPLE CONFIRMATION LOG					
Sample ID (SDG-#)	VTSR	Collected On	Client ID	160.2 Total Suspended Solids	314.0 Perchlorate
CAB35-001	08/14/2007 08:20 AM	08/13/2007 12:26 PM	L4MW17P	A-	IN
Approved By: Notes:		<i>Kara Godmeaux</i>		On:	<i>8/14/2007</i>
Samples identified with a '*' client has requested QC for					
<b>LEGEND:</b> -:Started , +:Completed , IN:Logged In , P:Preparation , A:Analysis , X:Cancelled, PL:Pre-logged					
<b>FORM LTL-PM-8.0</b>					







**Supplemental Sample Receipt Log**  
**Laucks Testing Laboratories**

SDG: CAB35

Cooler: AAD731

Temperatures: 4.6

COC #: 43112

Sample	Bottle #	Bottle Description	pH	Bubbles
CAB35-001	0001	Unknown	7	N/A
	0002	Unknown	7	N/A
	0003	Unknown	7	N/A

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature Allowable temperature range is 4+/- 2 degrees Celsius

Acid Preserved pH pH must be less than 2

Base Preserved pH pH must be greater than 12

NC Not Checked for pH