

Privately owned and headquartered in Woodstock,
Georgia, Sierra Piedmont is a national leader in



environmental consulting, site
assessments, compliance and
remediation.

Our

commitment to clients, client
relationships, the markets we serve



and proven solutions to environmental problems has been



our focus since 1996. Businesses from
Fortune 100 companies to regional
firms in 50 states rely on our advice,
guidance and support to solve their

environmental problems and limit
liability. Our services have recently
expanded to include strategic



planning and



consultation with clients on
environmental issues in addition to
our core business of environmental

site assessments, remediation and compliance work.

SECOND QUARTERLY GROUNDWATER MONITORING REPORT, SEPTEMBER 2011

**AT
UPS UNION GAP
501 WEST VALLEY
MALL BOULEVARD
UNION GAP,
YAKIMA COUNTY,
WASHINGTON
FACILITY ID
#14724678
UST SITE ID #3704**

November 14, 2011

PREPARED FOR:

**Mr. Jason Shira
Site Manager
Toxics Cleanup Program
Washington Department of
Ecology
15 W. Yakima Avenue,
Suite 200
Yakima, WA 98902-3452**

1.0 INTRODUCTION AND BACKGROUND

Sierra Piedmont[®], Inc. (Sierra) has previously completed a Limited Subsurface Investigation (LSI) and one of four quarterly groundwater monitoring events at the above-referenced site. A Work Plan outlining the LSI was provided to the Washington Department of Ecology (WDOE) for review and the WDOE approved the Work Plan (with two minor revisions) via correspondence dated April 26, 2010.

The LSI was conducted in response to a previous Early Notice Letter issued by the WDOE on October 29, 2007. The purpose of the LSI is to evaluate current subsurface soil and groundwater conditions in relation to a former gasoline underground storage tank (UST) and to properly abandon two groundwater monitoring wells located on-site. This report documents the findings of the LSI as compared to the WDOE Model Toxics Control Act (MTCA) guidance. For further details, please refer to the LSI or Work Plan dated October 7, 2010 and May 6, 2011, respectively.

2.0 FIELD METHODS

On Tuesday, September 13, 2011, Sierra personnel were present at the UPS, Union Gap, Washington, facility to commence groundwater purging and sampling activities at the three onsite groundwater monitoring wells (Figures 1 and 2).

Initially, each well cap was removed and the well allowed to equilibrate for at least 30 minutes. Each well was opened and a groundwater level measurement was obtained using a decontaminated ORS[®] Small Diameter Interface Probe. Prior to and between measurements, the probe was decontaminated using a distilled water and Alconox[®] surfactant scrub and triple-distilled-water rinse. Groundwater levels were recorded on field notes presented in Table 1 and Attachment A. Top of casing elevations are taken from the *Limited Subsurface Investigation* report for this facility.

Table 1 – Groundwater Levels

Depth to Water (feet)	Total Well Depth (feet)	Top of Casing Elevation – Relative (feet)	Well	Top of Casing Elevation Reference to USGS Map (feet)	Groundwater Elevation (feet)
6.96	14.43	99.25	MW-1	999.25	992.29
6.32	13.32	98.61	MW-2	998.61	992.29
6.52	13.12	98.97	MW-3	998.97	992.45

Groundwater purging was conducted using a non-contact, peristaltic electric pump (Solinst 410) and new tubing. Groundwater collected during purging was placed in five-gallon buckets and physically carried to a 55-gallon steel drum placed within a designated area of the UPS site for temporary storage. It will be stored pending laboratory analytical results for waste characterization and off-site disposal.

A Horiba® U-22 Multi-Parameter Meter was placed into a flow-through cell and attached to the effluent side of the pump tubing. This device was used to measure pH, temperature, and conductivity. Parameter readings were obtained initially and at three-minute intervals thereafter. Groundwater purge data is presented in Tables 2 through 4 and Attachment A.

**Table 2 – Groundwater Purging Parameters
 Monitoring Well MW-1**

Time	pH	Temperature (Celsius)	Conductivity (µS/CM)	Turbidity (NTU)
12:03	7.01	15.31	0.886	131
12:06	7.06	15.25	0.886	142
12:09	7.06	15.21	0.886	105
12:12	7.05	15.22	0.886	67.2
12:15	7.11	15.05	0.886	83.3
12:18	7.05	15.12	0.887	50
12:21	7.06	15.08	0.887	48.1
12:24	7.04	15.11	0.887	53.4

(µS/CM) = microSiemens per centimeter
 NTU = nephelometric turbidity units

**Table 3 – Groundwater Purging Parameters
 Monitoring Well MW-2**

Time	pH	Temperature (Celsius)	Conductivity (µS/CM)	Turbidity (NTU)
13:15	7.46	15.71	0.327	25.1
13:18	7.46	15.76	0.323	10.4
13:21	7.46	15.82	0.323	13.1
13:24	7.45	15.88	0.323	12.2
13:27	7.45	15.94	0.323	16.0
13:30	7.45	15.99	0.324	15.7
13:33	7.45	16.10	0.324	14.1

(µS/CM) = microSiemens per centimeter
 NTU = nephelometric turbidity units

**Table 4 – Groundwater Purging Parameters
 Monitoring Well MW-3**

Time	pH	Temperature (Celsius)	Conductivity (µS/CM)	Turbidity (NTU)
14:30	7.04	15.12	0.310	140
14:33	7.04	15.11	0.310	135
14:36	7.04	15.12	0.310	125
14:39	7.05	15.12	0.310	117
1442	7.12	15.11	0.310	111
1445	7.12	15.12	0.310	102
1448	7.12	15.10	0.310	85.2
1451	7.15	15.08	0.310	90.4
1454	7.12	15.12	0.310	83.3

(µS/CM) = microSiemens per centimeter
 NTU = nephelometric turbidity units

Groundwater samples from each well were collected immediately after purging for analysis for the presence of the following: volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tert-butyl ether (MTBE), 1,2-dichloroethane (EDC), and naphthalene, by EPA-approved Method 8260C, 1,2-dibromoethane (EDB) by EPA approved Method 504.1, total petroleum hydrocarbons (TPH) gasoline range organics, by Method Northwest (NW) NWTPH-Gx, TPH diesel range organics, by Method NWTPH-Dx), and total lead, by EPA-approved Method 6010. A blind duplicate sample (MW-11) was collected from MW-2, to be analyzed for the same parameters for quality assurance purposes.

Chain-of-custody protocol was followed in sample collection, handling, transport, and receipt by the laboratory, Columbia Analytical Services, 1317 South 13th Avenue, Kelso, Washington. All groundwater samples were transported via UPS to Columbia. All reporting forms, including the Certificate of Analysis and Chain-of-Custody form, are presented in Attachment B.\

3.0 ANALYTICAL RESULTS

The analytical results for groundwater samples collected during the September 2011 sampling event are presented in Table 5. Please note that the method detection limit (MDL) for NWTPH-Dx, residual range organics, is 520 µg/L instead of the regulatory requirement of 500 µg/L. This is due to matrix interference in the samples. We are discussing with the laboratory what steps can be taken to attempt to reach the required detection.

In addition, quality assurance/quality control (QA/QC) groundwater samples were obtained. One blind duplicate sample, MW-11, as well as matrix spike/matrix spike duplicates (MS/MSD) and a trip blank were laboratory analyzed. After laboratory analysis, and during extraction for QA/QC purposes the sample from MW-02 (being analyzed for NWTPY-Dx) was damaged. Additionally, the laboratory reported matrix interference in all NWTPH-Dx samples, which elevated the method reporting limit (MRL).

Laboratory analytical results are presented in Table 5 and Attachment B.

TABLE 5 – SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

Analytical Parameter	Analytical Method	Method A Groundwater Quality Standard (µg/l)	Method Reporting Limit (MRL) (µg/l)	MW-1 (µg/l)	MW-11 (Blind Duplicate of MW-2) (µg/l)	MW-2 (µg/l)	MW-3 (µg/l)
Diesel Range Organics (DRO)	NWTPH-Dx	500	260	ND	ND	ND	ND
Residual Range Organics (RRO)	NWTPH-Dx	500	520	ND	ND	ND	ND
Gasoline Range Organics (GRO)	NWTPH-Gx	1,000*	250	ND	ND	ND	ND
Benzene	EPA Method 8260C	5	0.5	ND	ND	ND	ND
Toluene	EPA Method 8260C	1,000	0.5	0.11 ⁽⁴⁾	0.11 ⁽⁴⁾	0.12 ⁽⁴⁾	0.13 ⁽⁴⁾
Ethylbenzene	EPA Method 8260C	700	0.5	ND	ND	ND	ND
M,p-Xylenes	EPA Method 8260C	1,000*	0.5	ND	ND	ND	ND
o-Xylenes	EPA Method 8260C	1,000*	0.5	ND	ND	ND	ND
Methyl tert-Butyl Ether (MTBE)	EPA Method 8260C	20	0.5	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	EPA Method 8260C	5	0.5	ND	ND	ND	ND
1,2-Dibromomethane (EDB)	EPA Method 504.1	0.01 ⁽¹⁾	0.0095	ND	ND	ND	ND
Naphthalene	EPA Method 8260C	160 ⁽²⁾	2.0	ND	ND	ND	ND
Lead	EPA Method 6010C	15 ⁽³⁾	10	ND	ND	ND	ND

Notes:

- * = The standard is for total xylenes
- µg/l = micrograms per liter
- ND = non-detect
- = Cleanup level with no benzene detected in groundwater
- (1) = Cleanup level based on concentration derived using Equation 720-2, adjusted for the practical quantitation limit
- (2) = This is the value for total naphthalene, 1-methyl naphthalene, and 2-methyl naphthalene
- (3) = Cleanup level based on applicable State and Federal regulations (40 CFR §141.80)
- (4) = The result is an estimated value which was recorded under the MRL.

4.0 CONCLUSIONS

Findings for the September 2011 groundwater monitoring event are as follows:

- NWTPH-DRO and NWTPH-GRO were not detected above the laboratory reporting limits in any sample.
- VOCs were not detected above the laboratory reporting limits in any sample.
- Total lead was not detected above the laboratory reporting limit in any sample.

Pick-up and proper disposal of the 55-gallon steel drum containing purge water was scheduled, and a manifest for disposal will be provided under separate cover. Sierra will schedule the next quarterly groundwater monitoring event for December 2011. UPS will be contacted prior to mobilization to finalize coordination of scheduling.

5.0 RECOMMENDATIONS

This is the report for the second quarterly sampling at UPS, Union Gap, Washington. It is recommended to continue with the two additional quarterly sampling events that are scheduled for December 2011 and March 2012. A request for no further action, if appropriate, will be made after the March event.

FIGURES

Figure 1 – Area Map

Figure 2 – Potentiometric Surface Map

ATTACHMENTS

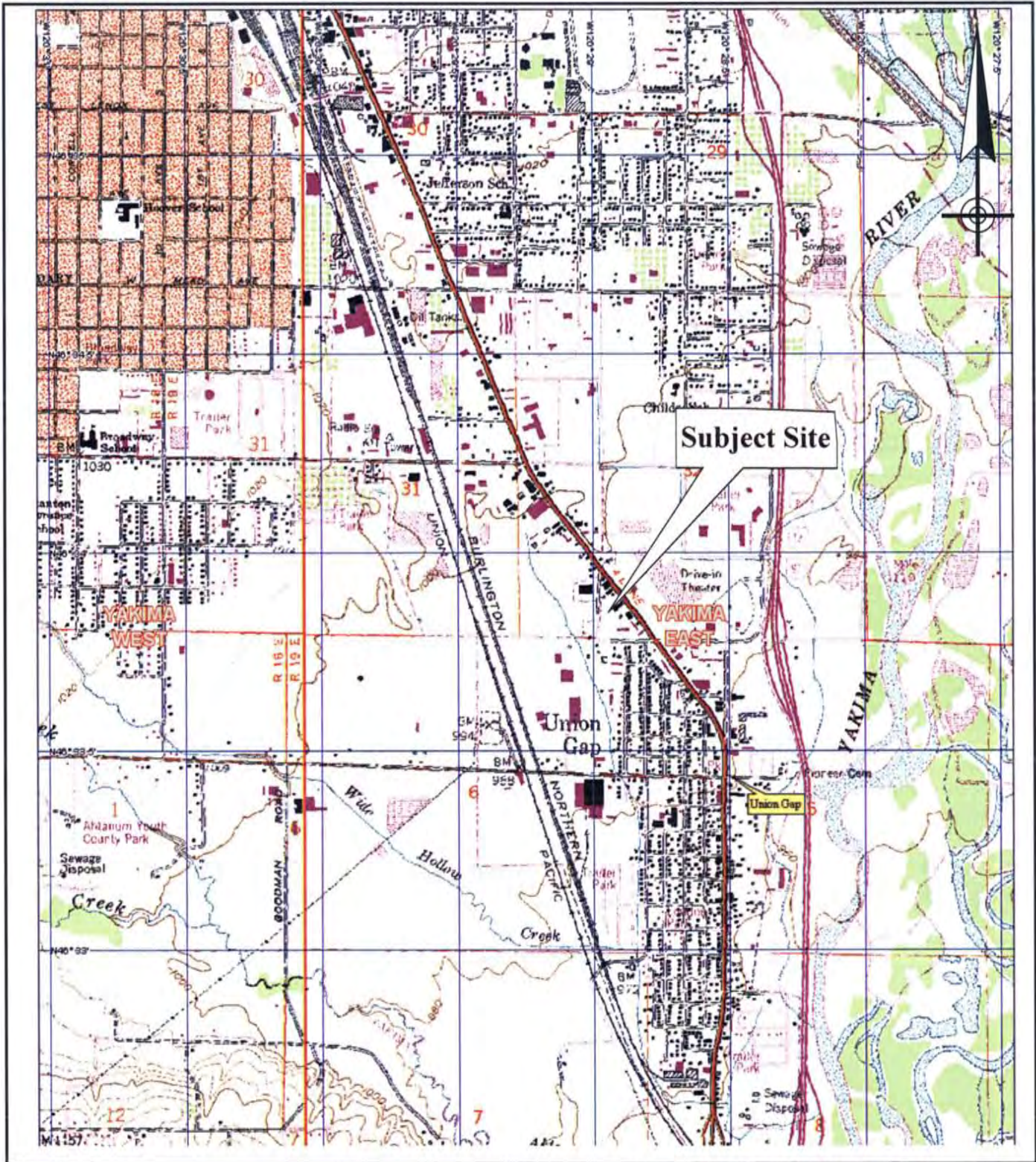
Attachment A – Field Notes

Attachment B – Laboratory Analytical Report and Chain-of-Custody

Document Ownership

This document has been prepared by Sierra Piedmont (Sierra) for its private use in providing professional service to the above-mentioned client. Ideas and standardized design are the property of Sierra and are not to be used in whole or in part, without the written authorization of Sierra.

FIGURES



sierrapiedmont
Solutions for today's environment.

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Woodstock, GA 30188
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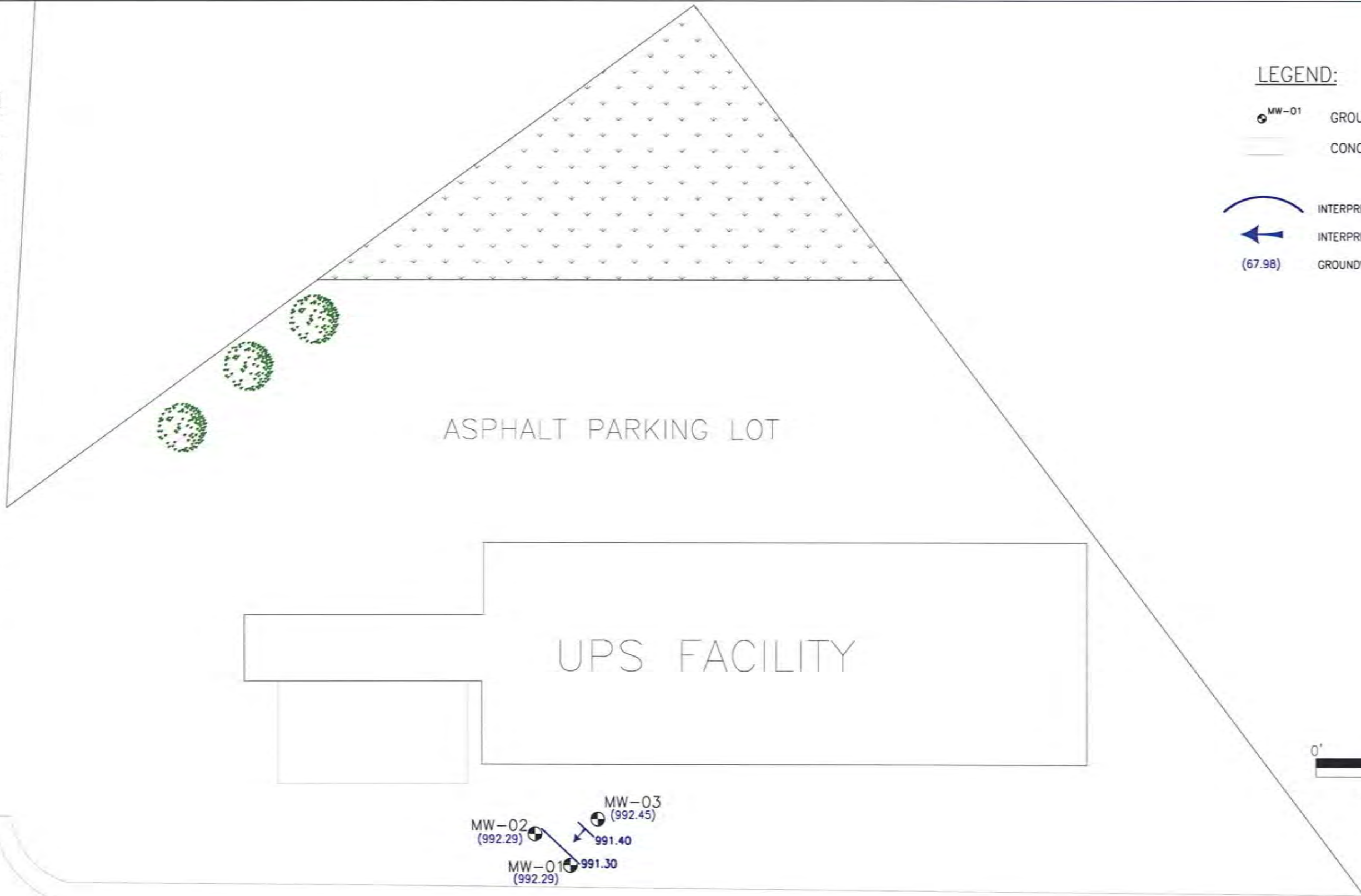
UPS UNION GAP PACKAGE CENTER
501 WEST VALLEY MALL BOULEVARD
UNION GAP, YAKIMA COUNTY, WASHINGTON 98903

AREA MAP
YAKIMA EAST (WA) - ORIG. DATE 1985

SCALE: NTS	DRAWN BY: BLM	DRAWING NO. UPSS10118.02	REV NO.
DATE: 10/17/2011	CHECKED BY: TLD	FIGURE NUMBER	X
REVISION DATE	APPROVED BY: TLD	FIGURE 1	



SOUTH OLD TOWN ROAD



WEST VALLEY WALL BLVD



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UPS UNION GAP PACKAGE CENTER
501 WEST VALLEY MALL BOULEVARD
UNION GAP, YAKIMA COUNTY, WASHINGTON

POTENTIOMETRIC SURFACE MAP

SCALE: 1"=20'	DRAWN BY: BLM	DRAWING NO. UPSS10118.02	REV. NO.
DATE: 10/18/2011	CHECKED BY: TLD	FIGURE NUMBER	
REVISION DATE:	APPROVED BY:	FIGURE 2	1

ATTACHMENT A

1/3
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UPSS0118.01
YACUM, WA
QUANTILE SAMPLING
7-13-11

7:30 AM - ARRIVE AT SITE AND OPEN
ALL THREE TANKS TO ACCESS FOR
PRESSURE STABILIZATION (MU-2 &
MU-3 ARE VERY DIFFICULT TO
TOP OFF LID).

10:30 AM - SET UP DRAIN AND PUMPING
FOUNDATION WHILE WATER LEVELS
STABILIZE.

10:45 AM - TAKE WATER LEVELS

WELL	DIV	WD	WC	PH	VOLUME	WELL	STATUS
MU-01	6.96	14.93	7.77	3.74	Z		
MU-02	6.32	13.32	7.00	3.50	Z		
MU-03	6.52	13.12	6.60	3.30	Z		

11:15 AM - BEGIN PUMPING MU-01, PUMP
SAMPLE CONTAINERS.

11:45 AM - FIND OUT THAT I AM MISSING
SAMPLE CONTAINERS FOR COB, USA
LOAN COLUMN SETS UP A CASE TO
GET ALL CONTAINERS FROM.

12:00 PM - BEGIN STABILIZATION REIDRINGS AND
MU-01

BM 7-13-11

2/3

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STABILIZATION FOR MU-01

TIME	PH	TEMP	CONDUCT	TURB
12:03	7.91	15.31	0.886	131.0
12:06	7.04	15.25	0.886	142.0
12:07	7.06	15.21	0.886	145.00
12:12	7.05	15.22	0.886	67.2
12:15	7.11	15.05	0.886	83.3
12:18	7.05	15.12	0.887	50.0
12:21	7.06	15.08	0.887	48.1
12:24	7.04	15.11	0.887	53.7

→ TAKE SAMPLE

BM 7-13-11

12:55 AM - MOVE TO MU-02 AND BEGIN
PUMPING SAMPLES. DRY-17-11
SETBACK UP FOR SAMPLES. BUILD WUM
RE TREN FROM MU-02 (MU-11).

STABILIZATION FOR MU-02

TIME	PH	TEMP	CONDUCT	TURB
13:15	7.46	15.71	0.327	25.1
13:18	7.46	15.76	0.323	10.4
13:21	7.46	15.82	0.323	13.1
13:24	7.45	15.88	0.323	12.2
13:27	7.45	15.94	0.323	16.0
13:30	7.45	15.99	0.324	15.7
13:33	7.45	16.10	0.324	14.1

→ SAMPLE MU-02
→ 6 LIMP (MU-11)

3/3

11:00PM - MOVE TO MW-03 AND BEGAN

SITTING UP FOR PULBING/SAMPLES.
(MS/M50 WITH 14 TUBES FROM MW-03)

TIME	Ph	TEMP (C)	MOIST	YIELD
1430	7.09	15.12	0.310	140.1
1433	7.04	15.11	0.310	135.0
1436	7.04	15.12	0.310	125.0
1437	7.05	15.12	0.310	117.0
1442	7.12	15.11	0.310	111.0
1445	7.12	15.12	0.310	102.0
1448	7.12	15.10	0.310	85.2
1451	7.15	15.08	0.310	70.7
1454	7.12	15.12	0.310	83.3

1455 - TAKE SAMPLE 1 MS/M50

1545 - SAMPLES PREPARED AND STOPPED

9-13-11
Bm

ATTACHMENT B

October 13, 2011

Analytical Report for Service Request No: K1108588

Ben Moss
Sierra Piedmont
12045 Highway 92
Woodstock, GA 30188

RE: UPSS10118.01/UPSS10118.01

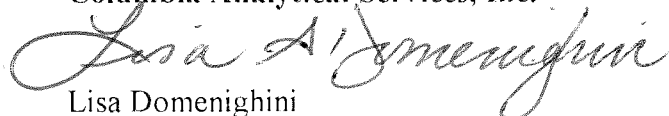
Dear Ben:

Enclosed are the results of the samples submitted to our laboratory on September 14, 2011. For your reference, these analyses have been assigned our service request number K1108588.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3363. You may also contact me via Email at LDomenighini@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Lisa Domenighini
Project Chemist

LD/jw

Page 1 of 58

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.1 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.1 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.1 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

Columbia Analytical Services, Inc.
Kelso, WA
State Certifications, Accreditations, and Licenses

Agency	Number
Alaska DEC UST	UST-040
Arizona DHS	AZ0339
Arkansas - DEQ	88-0637
California DHS	2286
Florida DOH	E87412
Hawaii DOH	-
Idaho DHW	-
Indiana DOH	C-WA-01
Louisiana DEQ	3016
Louisiana DHH	LA050010
Maine DHS	WA0035
Michigan DEQ	9949
Minnesota DOH	053-999-368
Montana DPHHS	CERT0047
Nevada DEP	WA35
New Jersey DEP	WA005
New Mexico ED	-
North Carolina DWQ	605
Oklahoma DEQ	9801
Oregon - DEQ	WA100010
South Carolina DHEC	61002
Washington DOE	C1203
Wisconsin DNR	998386840
Wyoming (EPA Region 8)	-



Case Narrative

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Sierra Piedmont
Project: UPSS10118.01
Sample Matrix: Water

Service Request No.: K1108588
Date Received: 09/14/11

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Matrix/Duplicate Matrix Spike (MS/DMS), and Laboratory Control Sample (LCS).

Sample Receipt

Four water samples and a trip blank sample were received for analysis at Columbia Analytical Services on 09/14/11. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Total Metals

No anomalies associated with the analysis of these samples were observed.

Diesel Range Organics by NWTPH Dx

Surrogate Exceptions:

The control criteria were exceeded for o-Terphenyl and n-Triacontane in MW-02. An error occurred during the extraction process in which extract volume was lost. A re-analysis was not performed because insufficient sample was available. No further corrective action was possible.

Elevated Detection Limits:

The detection limit was elevated for o-Terphenyl in all field samples. The sample extract was diluted prior to instrumental analysis due to relatively high levels of non-target background components that caused the CCV's to fall out of control criteria. A semiquantitative screen was performed prior to final analysis. The results of the screening indicated the need to perform a dilution. The results were flagged to indicate the matrix interference.

No other anomalies associated with the analysis of these samples were observed.

Gasoline Range Organics by NWTPH Gx

No anomalies associated with the analysis of these samples were observed.

EDB by EPA Method 504.1

No anomalies associated with the analysis of these samples were observed.

Volatile Organic Compounds by EPA Method 8260

No anomalies associated with the analysis of these samples were observed.

Approved by Lisa A. Jernigan Date 10/13/11

Chain of Custody

**Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form**

PC List

Client / Project: UPS Service Request K11 8588
 Received: 9/14/11 Opened: 9/14/11 By: SAW Unloaded: 9/14/11 By: SAW

1. Samples were received via? Mail Fed Ex UPS DHL PDX Courier Hand Delivered
2. Samples were received in: (circle) Cooler Box Envelope Other NA
3. Were custody seals on coolers? NA Y N If yes, how many and where? 2 front + back
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Cooler Temp °C	Temp Blank °C	Thermometer ID	Cooler/COC ID	NA	Tracking Number	NA	Filed
-0.5	1.5	265			K196 496 9025		

7. Packing material used. Inserts Baggies Bubble Wrap Gel Packs Wet Ice Sleeves Other _____
8. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
9. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA Y N
10. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
11. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
12. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
13. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
14. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
15. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____

Metals

COLUMBIA ANALYTICAL SERVICES, INC.

- Cover Page -

INORGANIC ANALYSIS DATA PACKAGE

Client : Sierra Piedmont, Inc.
Project Name : UPSS10118.01
Project No. : UPSS10118.01

Service Request : K1108588

Sample Name :

MW-01
MW-11
MW-02
MW-03
Laboratory Control Sample
Method Blank
Batch QCD
Batch QCS

Lab Code :

K1108588-001
K1108588-002
K1108588-003
K1108588-004
K1108588-LCS
K1108588-MB
K1108854-007S
K1108854-007SD

Comments:

Approved By: SC

Date: 10/12/11

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Sierra Piedmont, Inc.
Project Name : UPSS10118.01
Project No. : UPSS10118.01
Matrix : Water

Service Request : K1108588
Date Collected : 09/13/11
Date Received : 09/14/11
Date Extracted : 10/04/11

Total Metals

Sample Name : MW-01
Lab Code : K1108588-001

Units : ug/L (ppb)
Basis : NA

Analyte	Analysis Method	MRL	Date Analyzed	Sample Result	Result Notes
Lead	6010C	10	10/10/11	ND	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Sierra Piedmont, Inc.
Project Name : UPSS10118.01
Project No. : UPSS10118.01
Matrix : Water

Service Request : K1108588
Date Collected : 09/13/11
Date Received : 09/14/11
Date Extracted : 10/04/11

Total Metals

Sample Name : MW-11
Lab Code : K1108588-002

Units : ug/L (ppb)
Basis : NA

Analyte	Analysis Method	MRL	Date Analyzed	Sample Result	Result Notes
Lead	6010C	10	10/10/11	ND	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Sierra Piedmont, Inc.
Project Name : UPSS10118.01
Project No. : UPSS10118.01
Matrix : Water

Service Request : K1108588
Date Collected : 09/13/11
Date Received : 09/14/11
Date Extracted : 10/04/11

Total Metals

Sample Name : MW-02
Lab Code : K1108588-003

Units : ug/L (ppb)
Basis : NA

Analyte	Analysis Method	MRL	Date Analyzed	Sample Result	Result Notes
Lead	6010C	10	10/10/11	ND	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Sierra Piedmont, Inc.
Project Name : UPSS10118.01
Project No. : UPSS10118.01
Matrix : Water

Service Request : K1108588
Date Collected : 09/13/11
Date Received : 09/14/11
Date Extracted : 10/04/11

Total Metals

Sample Name : MW-03
Lab Code : K1108588-004

Units : ug/L (ppb)
Basis : NA

Analyte	Analysis Method	MRL	Date Analyzed	Sample Result	Result Notes
Lead	6010C	10	10/10/11	ND	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Sierra Piedmont, Inc.
Project Name : UPSS10118.01
Project No. : UPSS10118.01
Matrix : Water

Service Request : K1108588
Date Collected : NA
Date Received : NA
Date Extracted : 10/04/11

Total Metals

Sample Name : Method Blank
Lab Code : K1108588-MB

Units : ug/L (ppb)
Basis : NA

Analyte	Analysis Method	MRL	Date Analyzed	Sample Result	Result Notes
Lead	6010C	10	10/10/11	ND	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Sierra Piedmont, Inc.
Project Name : UPSS10118.01
Project No. : UPSS10118.01
Matrix : Water

Service Request : K1108588
Date Collected : NA
Date Received : NA
Date Extracted : 10/04/11
Date Analyzed : 10/07/11

Matrix Spike Summary
Total Metals

Sample Name : Batch QCD
Lab Code : K1108854-007S

Units : ug/L (ppb)
Basis : NA

Analyte	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Lead	10	500	ND	482	96	75-125	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Sierra Piedmont, Inc.
Project Name : UPSS10118.01
Project No. : UPSS10118.01
Matrix : Water

Service Request : K1108588
Date Collected : NA
Date Received : NA
Date Extracted : 10/04/11
Date Analyzed : 10/07/11

Matrix Spike/Duplicate Matrix Spike Summary
 Total Metals

Sample Name : Batch QCS
Lab Code : K1108854-007S K1108854-007SD

Units : ug/L (ppb)
Basis : NA

Analyte	Analysis Method	MRL	Spike Level		Sample Result	Spike Result		MS	DMS	CAS Acceptance Limits	Relative Percent Difference	Result Notes
			MS	DMS		MS	DMS					
Lead	6010C	10	500	500	ND	482	479	96	96	75-125	<1	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Sierra Piedmont, Inc.
Project Name : UPSS10118.01
Project No. : UPSS10118.01
Matrix : Water

Service Request : K1108588
Date Collected : NA
Date Received : NA
Date Extracted : 10/04/11
Date Analyzed : 10/07/11

Laboratory Control Sample Summary
Total Metals

Sample Name : Laboratory Control Sample
Lab Code : K1108588-LCS

Units : ug/L (ppb)
Basis : NA

Analyte	Analysis Method	True Value	Result	Percent	CAS Percent Recovery Acceptance Limits	Result Notes
Lead	6010C	2500	2500	100	80-120	

Comments:

Diesel and Residual Range Organics

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: 09/13/2011
Date Received: 09/14/2011

Diesel and Residual Range Organics

Sample Name: MW-01
Lab Code: K1108588-001
Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	260	1	09/19/11	09/30/11	KWG1109740	
Residual Range Organics (RRO)	ND	U	520	1	09/19/11	09/30/11	KWG1109740	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	93	50-150	10/11/11	Acceptable
n-Triacontane	104	50-150	09/30/11	Acceptable

Comments: _____

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: 09/13/2011
Date Received: 09/14/2011

Diesel and Residual Range Organics

Sample Name: MW-11
Lab Code: K1108588-002
Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	260	1	09/19/11	09/30/11	KWG1109740	
Residual Range Organics (RRO)	ND	U	520	1	09/19/11	09/30/11	KWG1109740	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	69	50-150	10/12/11	Acceptable
n-Triacontane	79	50-150	09/30/11	Acceptable

Comments: _____

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: 09/13/2011
Date Received: 09/14/2011

Diesel and Residual Range Organics

Sample Name: MW-02
Lab Code: K1108588-003
Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	260	1	09/19/11	09/30/11	KWG1109740	
Residual Range Organics (RRO)	ND	U	520	1	09/19/11	09/30/11	KWG1109740	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	15	50-150	10/12/11	Outside Control Limits
n-Triacontane	14	50-150	09/30/11	Outside Control Limits

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: 09/13/2011
Date Received: 09/14/2011

Diesel and Residual Range Organics

Sample Name: MW-03
Lab Code: K1108588-004

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	260	1	09/19/11	09/30/11	KWG1109740	
Residual Range Organics (RRO)	ND	U	520	1	09/19/11	09/30/11	KWG1109740	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	85	50-150	10/12/11	Acceptable
n-Triacontane	89	50-150	09/30/11	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: NA
Date Received: NA

Diesel and Residual Range Organics

Sample Name: Method Blank **Units:** ug/L
Lab Code: KWG1109740-3 **Basis:** NA
Extraction Method: EPA 3510C **Level:** Low
Analysis Method: NWTPH-Dx

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	250	1	09/19/11	09/30/11	KWG1109740	
Residual Range Organics (RRO)	ND	U	500	1	09/19/11	09/30/11	KWG1109740	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	108	50-150	10/11/11	Acceptable
n-Triacontane	90	50-150	09/30/11	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588

**Surrogate Recovery Summary
 Diesel and Residual Range Organics**

Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: PERCENT
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>
Batch QC	K1108289-001	98 D	102
MW-01	K1108588-001	93 D	104
MW-11	K1108588-002	69 D	79
MW-02	K1108588-003	15 D *	14 *
MW-03	K1108588-004	85 D	89
Batch QCDUP	KWG1109740-1	88 D	92
Method Blank	KWG1109740-3	108	90
Lab Control Sample	KWG1109740-2	105	105

Surrogate Recovery Control Limits (%)

Sur1 = o-Terphenyl	50-150
Sur2 = n-Triacontane	50-150

Results flagged with an asterisk (*) indicate values outside control criteria.
 Results flagged with a pound (#) indicate the control criteria is not applicable.

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Extracted: 09/19/2011
Date Analyzed: 09/30/2011

**Duplicate Sample Summary
 Diesel and Residual Range Organics**

Sample Name: Batch QC
Lab Code: K1108289-001
Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1109740

Analyte Name	MRL	Sample Result	Batch QCDUP KWG1109740-1 Duplicate Sample		Relative Percent Difference	RPD Limit
			Result	Average		
Diesel Range Organics (DRO)	270	ND	ND	ND	-	30
Residual Range Organics (RRO)	530	ND	ND	ND	-	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Extracted: 09/19/2011
Date Analyzed: 09/30/2011

**Lab Control Spike Summary
 Diesel and Residual Range Organics**

Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1109740

Analyte Name	Lab Control Sample KWG1109740-2 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Diesel Range Organics (DRO)	4150	3200	130	46-140
Residual Range Organics (RRO)	1860	1600	116	45-159

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Gasoline Range Organics

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: 09/13/2011
Date Received: 09/14/2011

Gasoline Range Organics

Sample Name: MW-01
Lab Code: K1108588-001
Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPI	ND	U	250	1	09/19/11	09/19/11	KWG1109286	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	87	50-150	09/19/11	Acceptable

Comments _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: 09/13/2011
Date Received: 09/14/2011

Gasoline Range Organics

Sample Name: MW-11
Lab Code: K1108588-002
Extraction Method: EPA 5030B
Analysis Method: NWTPEH-Gx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPEH	ND	U	250	1	09/19/11	09/19/11	KWG1109286	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	87	50-150	09/19/11	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: 09/13/2011
Date Received: 09/14/2011

Gasoline Range Organics

Sample Name: MW-02
Lab Code: K1108588-003
Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	ND	U	250	1	09/19/11	09/19/11	KWG1109286	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	87	50-150	09/19/11	Acceptable

Comments _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: 09/13/2011
Date Received: 09/14/2011

Gasoline Range Organics

Sample Name: MW-03
Lab Code: K1108588-004
Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	ND	U	250	1	09/19/11	09/19/11	KWG1109286	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	88	50-150	09/19/11	Acceptable

Comments _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: NA
Date Received: NA

Gasoline Range Organics

Sample Name: Method Blank
Lab Code: KWG1109286-3
Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	ND	U	250	1	09/19/11	09/19/11	KWG1109286	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	87	50-150	09/19/11	Acceptable

Comments: _____

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588

**Surrogate Recovery Summary
 Gasoline Range Organics**

Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: PERCENT
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
MW-01	K1108588-001	87
MW-11	K1108588-002	87
MW-02	K1108588-003	87
MW-03	K1108588-004	88
MW-03DUP	KWG1109286-1	87
Method Blank	KWG1109286-3	87
Lab Control Sample	KWG1109286-2	91

Surrogate Recovery Control Limits(%)

Sur1 = 1,4-Difluorobenzene 50-150

Results flagged with an asterisk (*) indicate values outside control criteria.
 Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Extracted: 09/19/2011
Date Analyzed: 09/19/2011

**Duplicate Sample Summary
 Gasoline Range Organics**

Sample Name: MW-03
Lab Code: K1108588-004
Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1109286

Analyte Name	MRL	Sample Result	MW-03DUP KWG1109286-1 Duplicate Sample		Relative Percent Difference	RPD Limit
			Result	Average		
Gasoline Range Organics-NWTPH	250	ND	ND	ND	-	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Extracted: 09/19/2011
Date Analyzed: 09/19/2011

**Lab Control Spike Summary
 Gasoline Range Organics**

Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1109286

Analyte Name	Lab Control Sample KWG1109286-2 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Gasoline Range Organics-NWTPH	480	500	96	80-119

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

EPA Method 504.1

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: 09/13/2011
Date Received: 09/14/2011

EPA Method 504.1

Sample Name: MW-01
Lab Code: K1108588-001
Extraction Method: METHOD
Analysis Method: 504.1

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0095	1	09/19/11	09/19/11	KWG1109283	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: 09/13/2011
Date Received: 09/14/2011

EPA Method 504.1

Sample Name: MW-11
Lab Code: K1108588-002
Extraction Method: METHOD
Analysis Method: 504.1

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND U	0.0095	1	09/19/11	09/19/11	KWG1109283	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: 09/13/2011
Date Received: 09/14/2011

EPA Method 504.1

Sample Name: MW-02
Lab Code: K1108588-003
Extraction Method: METHOD
Analysis Method: 504.1

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND U	0.0095	1	09/19/11	09/19/11	KWG1109283	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: 09/13/2011
Date Received: 09/14/2011

EPA Method 504.1

Sample Name: MW-03
Lab Code: K1108588-004
Extraction Method: METHOD
Analysis Method: 504.1

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND U	0.0094	1	09/19/11	09/19/11	KWG1109283	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Drinking water

Service Request: K1108588
Date Collected: NA
Date Received: NA

EPA Method 504.1

Sample Name: Method Blank
Lab Code: KWG1109283-9
Extraction Method: METHOD
Analysis Method: 504.1

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.010	1	09/19/11	09/20/11	KWG1109283	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Sierra Piedmont, Inc.
 Project: UPSS10118.01/UPSS10118.01
 Sample Matrix: Water

Service Request: K1108588
 Date Extracted: 09/19/2011
 Date Analyzed: 09/20/2011

Matrix Spike/Duplicate Matrix Spike Summary
 EPA Method 504.1

Sample Name: Batch QC
 Lab Code: K1108690-004
 Extraction Method: METHOD
 Analysis Method: 504.1

Units: ug/L
 Basis: NA
 Level: Low
 Extraction Lot: KWG1109283

Analyte Name	Sample Result	Batch QCMS KWG1109283-1 Matrix Spike			Batch QCDMS KWG1109283-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
1,2-Dibromoethane (EDB)	ND	0.240	0.242	99	0.252	0.242	104	65-135	5	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Extracted: 09/19/2011
Date Analyzed: 09/20/2011

**Matrix Spike/Duplicate Matrix Spike Summary
 EPA Method 504.1**

Sample Name: Batch QC
Lab Code: K1108704-008
Extraction Method: METHOD
Analysis Method: 504.1

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1109283

Analyte Name	Sample Result	Batch QCMS KWG1109283-3 Matrix Spike			Batch QCDMS KWG1109283-4 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
1,2-Dibromoethane (EDB)	ND	0.273	0.241	113	0.267	0.242	110	65-135	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Extracted: 09/19/2011
Date Analyzed: 09/19/2011

**Matrix Spike Summary
 EPA Method 504.1**

Sample Name: MW-03
Lab Code: K1108588-004
Extraction Method: METHOD
Analysis Method: 504.1

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1109283

Analyte Name	Sample Result	MW-03MS KWG1109283-5 Matrix Spike			%Rec Limits
		Result	Expected	%Rec	
1,2-Dibromoethane (EDB)	ND	0.213	0.238	90	65-135

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Drinking water

Service Request: K1108588
Date Extracted: 09/19/2011
Date Analyzed: 09/20/2011

**Lab Control Spike Summary
 EPA Method 504.1**

Extraction Method: METHOD
Analysis Method: 504.1

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1109283

Lab Control Sample
 KWG1109283-6
 Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
1,2-Dibromoethane (EDB)	0.267	0.250	107	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Drinking water

Service Request: K1108588
Date Extracted: 09/19/2011
Date Analyzed: 09/20/2011

**Lab Control Spike Summary
 EPA Method 504.1**

Extraction Method: METHOD
Analysis Method: 504.1

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1109283

Analyte Name	Lab Control Sample KWG1109283-7 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
1,2-Dibromoethane (EDB)	0.268	0.250	107	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Drinking water

Service Request: K1108588
Date Extracted: 09/19/2011
Date Analyzed: 09/20/2011

Lab Control Spike Summary
EPA Method 504.1

Extraction Method: METHOD
Analysis Method: 504.1

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1109283

Analyte Name	Lab Control Sample KWG1109283-8 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
1,2-Dibromoethane (EDB)	0.275	0.250	110	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Volatile Organic Compounds

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: 09/13/2011
Date Received: 09/14/2011

Volatile Organic Compounds

Sample Name: MW-01
Lab Code: K1108588-001
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Methyl tert-Butyl Ether	ND	U	0.50	0.11	1	09/24/11	09/24/11	KWG1109538	
Benzene	ND	U	0.50	0.054	1	09/24/11	09/24/11	KWG1109538	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	09/24/11	09/24/11	KWG1109538	
Toluene	0.11	J	0.50	0.052	1	09/24/11	09/24/11	KWG1109538	
Ethylbenzene	ND	U	0.50	0.050	1	09/24/11	09/24/11	KWG1109538	
m,p-Xylenes	ND	U	0.50	0.091	1	09/24/11	09/24/11	KWG1109538	
o-Xylene	ND	U	0.50	0.074	1	09/24/11	09/24/11	KWG1109538	
Naphthalene	ND	U	2.0	0.088	1	09/24/11	09/24/11	KWG1109538	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	73-122	09/24/11	Acceptable
Toluene-d8	111	65-144	09/24/11	Acceptable
4-Bromofluorobenzene	110	68-117	09/24/11	Acceptable

Comments _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: 09/13/2011
Date Received: 09/14/2011

Volatile Organic Compounds

Sample Name: MW-11
Lab Code: K1108588-002
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Methyl tert-Butyl Ether	ND	U	0.50	0.11	1	09/24/11	09/24/11	KWG1109538	
Benzene	ND	U	0.50	0.054	1	09/24/11	09/24/11	KWG1109538	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	09/24/11	09/24/11	KWG1109538	
Toluene	0.11	J	0.50	0.052	1	09/24/11	09/24/11	KWG1109538	
Ethylbenzene	ND	U	0.50	0.050	1	09/24/11	09/24/11	KWG1109538	
m,p-Xylenes	ND	U	0.50	0.091	1	09/24/11	09/24/11	KWG1109538	
o-Xylene	ND	U	0.50	0.074	1	09/24/11	09/24/11	KWG1109538	
Naphthalene	ND	U	2.0	0.088	1	09/24/11	09/24/11	KWG1109538	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	111	73-122	09/24/11	Acceptable
Toluene-d8	112	65-144	09/24/11	Acceptable
4-Bromofluorobenzene	109	68-117	09/24/11	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: 09/13/2011
Date Received: 09/14/2011

Volatile Organic Compounds

Sample Name: MW-02
Lab Code: K1108588-003
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Methyl tert-Butyl Ether	ND	U	0.50	0.11	1	09/24/11	09/24/11	KWG1109538	
Benzene	ND	U	0.50	0.054	1	09/24/11	09/24/11	KWG1109538	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	09/24/11	09/24/11	KWG1109538	
Toluene	0.12	J	0.50	0.052	1	09/24/11	09/24/11	KWG1109538	
Ethylbenzene	ND	U	0.50	0.050	1	09/24/11	09/24/11	KWG1109538	
m,p-Xylenes	ND	U	0.50	0.091	1	09/24/11	09/24/11	KWG1109538	
o-Xylene	ND	U	0.50	0.074	1	09/24/11	09/24/11	KWG1109538	
Naphthalene	ND	U	2.0	0.088	1	09/24/11	09/24/11	KWG1109538	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	109	73-122	09/24/11	Acceptable
Toluene-d8	112	65-144	09/24/11	Acceptable
4-Bromofluorobenzene	111	68-117	09/24/11	Acceptable

Comments _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: 09/13/2011
Date Received: 09/14/2011

Volatile Organic Compounds

Sample Name: MW-03
Lab Code: K1108588-004
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Methyl tert-Butyl Ether	ND	U	0.50	0.11	1	09/25/11	09/25/11	KWG1109538	
Benzene	ND	U	0.50	0.054	1	09/25/11	09/25/11	KWG1109538	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	09/25/11	09/25/11	KWG1109538	
Toluene	0.13	J	0.50	0.052	1	09/25/11	09/25/11	KWG1109538	
Ethylbenzene	ND	U	0.50	0.050	1	09/25/11	09/25/11	KWG1109538	
m,p-Xylenes	ND	U	0.50	0.091	1	09/25/11	09/25/11	KWG1109538	
o-Xylene	ND	U	0.50	0.074	1	09/25/11	09/25/11	KWG1109538	
Naphthalene	ND	U	2.0	0.088	1	09/25/11	09/25/11	KWG1109538	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	108	73-122	09/25/11	Acceptable
Toluene-d8	112	65-144	09/25/11	Acceptable
4-Bromofluorobenzene	109	68-117	09/25/11	Acceptable

Comments _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1109538-4
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Methyl tert-Butyl Ether	ND	U	0.50	0.11	1	09/24/11	09/24/11	KWG1109538	
Benzene	ND	U	0.50	0.054	1	09/24/11	09/24/11	KWG1109538	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	09/24/11	09/24/11	KWG1109538	
Toluene	ND	U	0.50	0.052	1	09/24/11	09/24/11	KWG1109538	
Ethylbenzene	ND	U	0.50	0.050	1	09/24/11	09/24/11	KWG1109538	
m,p-Xylenes	ND	U	0.50	0.091	1	09/24/11	09/24/11	KWG1109538	
o-Xylene	ND	U	0.50	0.074	1	09/24/11	09/24/11	KWG1109538	
Naphthalene	ND	U	2.0	0.088	1	09/24/11	09/24/11	KWG1109538	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	73-122	09/24/11	Acceptable
Toluene-d8	112	65-144	09/24/11	Acceptable
4-Bromofluorobenzene	112	68-117	09/24/11	Acceptable

Comments _____

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588

**Surrogate Recovery Summary
 Volatile Organic Compounds**

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: PERCENT
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
MW-01	K1108588-001	106	111	110
MW-11	K1108588-002	111	112	109
MW-02	K1108588-003	109	112	111
MW-03	K1108588-004	108	112	109
Method Blank	KWG1109538-4	105	112	112
MW-03MS	KWG1109538-1	105	111	115
MW-03DMS	KWG1109538-2	103	112	113
Lab Control Sample	KWG1109538-3	104	112	112

Surrogate Recovery Control Limits(%)

Sur1 = Dibromofluoromethane	73-122
Sur2 = Toluene-d8	65-144
Sur3 = 4-Bromofluorobenzene	68-117

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Sierra Piedmont, Inc.
 Project: UPSS10118.01/UPSS10118.01
 Sample Matrix: Water

Service Request: K1108588
 Date Extracted: 09/24/2011
 Date Analyzed: 09/24/2011

Matrix Spike/Duplicate Matrix Spike Summary
 Volatile Organic Compounds

Sample Name: MW-03
 Lab Code: K1108588-004
 Extraction Method: EPA 5030B
 Analysis Method: 8260C

Units: ug/L
 Basis: NA
 Level: Low
 Extraction Lot: KWG1109538

Analyte Name	Sample Result	MW-03MS KWG1109538-1 Matrix Spike			MW-03DMS KWG1109538-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Methyl tert-Butyl Ether	ND	10.4	10.0	104	11.2	10.0	112	54-126	8	30
Benzene	ND	10.0	10.0	100	10.8	10.0	108	63-144	8	30
1,2-Dichloroethane (EDC)	ND	9.69	10.0	97	10.4	10.0	104	56-141	7	30
Toluene	0.13	10.2	10.0	100	11.3	10.0	112	71-136	11	30
Ethylbenzene	ND	10.6	10.0	106	11.4	10.0	114	66-136	7	30
m,p-Xylenes	ND	20.8	20.0	104	22.6	20.0	113	67-135	8	30
o-Xylene	ND	10.5	10.0	105	11.4	10.0	114	67-127	8	30
Naphthalene	ND	10.3	10.0	103	10.8	10.0	108	52-147	5	30

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Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Sierra Piedmont, Inc.
Project: UPSS10118.01/UPSS10118.01
Sample Matrix: Water

Service Request: K1108588
Date Extracted: 09/24/2011
Date Analyzed: 09/24/2011

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1109538

Analyte Name	Lab Control Sample KWG1109538-3 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Methyl tert-Butyl Ether	10.1	10.0	101	54-126
Benzene	9.27	10.0	93	69-124
1,2-Dichloroethane (EDC)	9.31	10.0	93	56-142
Toluene	9.39	10.0	94	69-124
Ethylbenzene	9.76	10.0	98	67-121
m,p-Xylenes	19.3	20.0	96	69-121
o-Xylene	9.72	10.0	97	71-119
Naphthalene	9.93	10.0	99	64-126

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.