

**PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT  
FOR THE TULLY SITE (APN 534-182-015)  
TULLY CREEK ROAD, NEAR WEITCHPEC, CALIFORNIA**

Prepared for:  
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October 16, 2012

Prepared by:

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of



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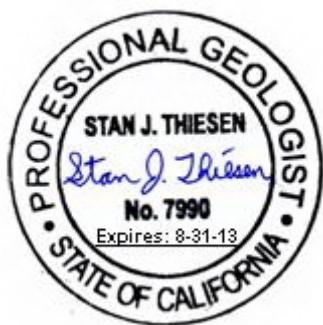
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## ACRONYMS AND ABBREVIATIONS

APN	Assessors Parcel Number
ASTM	American Society for Testing and Materials
bgs	below ground surface
CalRecycle	California Department of Resources Recycling and Recovery
CERCLA	Comprehensive Environmental Response, Cleanup, and Liability Act
CFR	Code of Federal Regulations
CHHSL	California Human Health Screening Levels
CLP	Contract Laboratory Program
CWA	Clean Water Act
DQA	Data quality assessment
DQI	Data quality indicators
DQO	Data quality objectives
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
ESL	Environmental Screening Levels
FEMA	Federal Emergency Management Agency
FES	Freshwater Environmental Services
FSP	Field sampling plan
GPS	Global Positioning System
GIS	Geographic Information System
GC/MS	Gas chromatography and mass spectrometry
IDW	Investigation-derived waste
IRIS	Integrated Risk Information System (USEPA)
LCS/LCSD	Laboratory control sample and laboratory control sample duplicates
MDL	Method detection limit
MPC	Measurement Performance Criteria
MQO	Measurement quality objective
MS/MSD	Matrix spike and matrix spike duplicate
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
NRCS	Natural Resource Conservation Service
PARCCS	Precision, accuracy, representativeness, completeness, comparability, and sensitivity
PCB	Polychlorinated Biphenyl
PE	Performance evaluation
PRG	Preliminary remediation goal
PRQL	Project-required quantitation limit
QA	Quality assurance
QA/QC	Quality assurance/quality control
QAPP	Quality assurance project plan
QC	Quality control
QL	Quantitation limit
RCRA	Resource Conservation and Recovery Act
RECs	Recognized Environmental Conditions
RPD	Relative percent difference
RSIs	Residential Screening Levels
%R	Percent recovery

SAP	Sampling and analysis plan (an integrated FSP and QAPP)
SOP	Standard operating procedures
SOW	Statement of work
SVOC	Semi-volatile organic compound
TPH	Total Petroleum Hydrocarbons
USCS	Unified Soil Classification System
USDA	United States Department of Agriculture
USGS	United States Geological Survey
VOC	Volatile organic compound
YTEP	Yurok Tribe Environmental Program

# 1.0 INTRODUCTION

Freshwater Environmental Services (FES) has prepared this report of findings for the Phase II Environmental Site Assessment (ESA) near the end of Tully Creek Road, near Weitchpec, Humboldt County, California (APN 534-182-015) (the Site or Subject Property). The report was prepared for the Yurok Tribe Environmental Program (YTEP) with funding from the United States Environmental Protection Agency (USEPA) Brownfields Program grant No. 331. The Site location is shown on Figure 1.

This report conforms to the process and principles recommended in the *Standard Guide for Environmental Assessments: Phase II Environmental Site Assessment Process*, E-1903, (ASTM, 2002). This report documents the soil sampling performed at the Site. The location of the parcel that contains the Site is shown on Figure 1, Figure 2, and Figure 3.

The primary objectives of this Phase II ESA were to assess and evaluate the recognized environmental conditions identified in the Phase I ESA conducted by FES dated September 9, 2009 (FES, 2009), and to provide sufficient information regarding the presence or absence of contamination at the Site (ASTM, 2002). The scope of work developed by FES for this assessment was based on the findings of the Phase I ESA. The following Recognized Environmental Conditions (RECs) were identified in the Phase I ESA:

- Former use of the Subject Property for illegal dumping, including solid waste, tires, appliances, liquid waste (petroleum related materials), flammable liquid, flammable solids, poison solids, auto batteries, and RCRA batteries. There is also a discarded UST on the Subject Property.
- Former use of Subject Property for illegal waste burning. Five separate areas were discovered. These areas were removed and sampled to ensure that metals contamination was removed. A report with the results of the sampling is in the process of being prepared but was not available at the time of this report.
- Potential former use of an area in the northeast section of the Subject Property for methamphetamine production.

The Phase I ESA conducted by FES was completed on APN 534-182-015 and on a portion of the adjacent parcel (APN 534-182-009) which was possibly the location of a former illegal methamphetamine laboratory (meth lab). Additional information on the location of the meth lab was obtained from the California Department of Resources Recycling and Recovery (CalRecycle) (the agency that conducted the cleanup of the Site) on May 31, 2012 indicating that the meth lab was located between the former residence and the illegal dumping area. The map showing the probable location of the meth lab is shown on Figure 7. Based on this map the meth lab was within the boundaries of APN 534-182-015. The meth lab was cleaned up by CalRecycle in 2008 and was not evaluated for this Phase II.

The principal study questions for the Subject Property in order of priority include:

- Does the Site contain contaminated soils, resulting from the former use as an illegal dump site above concentrations regarded as safe for reuse of the Site?

- Has the former use of the Site as an illegal dump site resulted in impacts to surface water quality to the onsite creek above concentrations regarded as safe for human and/or ecological receptors?

## **2.0 SITE BACKGROUND**

The Subject Property includes a former illegal dump site approximately 6 miles north/northwest of Weitchpec, Humboldt County, California. The Site is located on the west side of the Klamath River near the end of Tully Creek Road. The location of the parcel that contains the Subject Property is shown on Figures 1 through 4. The Site occupies approximately 216 acres in a forested rural undeveloped area. The Subject Property is currently vacant undeveloped land on the Yurok Indian Reservation. Most of the Site is now forested after being harvested sometime between 1954 and 1965.

The Site was cleaned up in 2008 with a grant from CalRecycle. During the cleanup process two soil samples were collected to determine background concentrations of metals in areas not expected to have been impacted by disposal activities. Some of the soil and ash from areas where burning of waste occurred was containerized and one sample was collected to characterize the waste for disposal. The Yurok Tribe Environmental Program is not aware of any other sampling at the Site.

Mr. Ken Henderson formerly with YTEP provided information in 2009 on the cleanup that was obtained from CalRecycle regarding disposal of waste from the Subject Property. Mr. Todd Thalhamer, of CalRecycle, indicated that approximately 168 tons of solid waste was removed from the property. In addition, 145 tires, 15 appliances, and 15 cathode ray televisions were removed. With regard to hazardous waste, Mr. Thalhamer indicated that the following were removed: 3 gallons of petroleum related liquid waste, 6 gallons of flammable liquid, 60 pounds of flammable solids, 127 pounds of poison solids, 36 auto batteries, and 400 pounds of batteries classified as a Federal hazardous waste under the Resource Conservation and Recovery Act (RCRA).

Mr. Thalhamer indicated that during the cleanup process, five areas were discovered where waste was burned. Some soil and ash in the burn areas was removed and characterized for disposal. One sample was collected for waste characterization and analyzed for metals, Volatile Organic Compounds (VOCs), and Semi-Volatile Organic Compounds (SVOCs). Two background soil samples were analyzed for metals. The laboratory results and documents related to the sampling and disposal of burned material at the Site by CalRecycle is contained in Appendix E. A Generator's Hazardous Waste Profile Sheet was signed on October 23, 2008 listing four 55-gallon drums. A letter from Waste Management (operators of the Kettleman Hills Facility near Kettleman City, California) dated October 30, 2008 indicates that the waste was approved for disposal at Kettleman Hills.

### **3.0 SITE GEOLOGY AND HYDROLOGY**

The elevation of the Subject Property ranges from approximately 360 feet to 1,360 feet above mean sea level. The area of the Site where the illegal dumping occurred is approximately 560 feet above mean sea level. The topography of the Subject Property generally slopes moderately to steeply to the east towards the Klamath River. The nearest stream shown on the USGS topographic map is Waukell Creek which flows eastward through the Site to the Klamath River approximately 600 feet east of the eastern boundary of the Subject Property. Based on data obtained from the Natural Resource Conservation Service (NRCS), the average annual precipitation at the Site is approximately 73 inches in the western portion of the Site and approximately 65 inches in the eastern portion of the Site.

The Subject Property is shown on the "Geologic Map of the Weed Quadrangle, California" (Wagner and Saucedo, 1987) as being underlain by the South Fork Mountain Schist. Schist is a metamorphic rock type with sub-parallel orientation of micaceous minerals which typically dominant the composition. The nearest fault zoned as active (within the last 11,000 years) under the Alquist-Priolo Earthquake Fault Zoning Act, is approximately 22 miles southwest of the Subject Property.

Waukell Creek runs through the Subject Property and is shown on the USGS 7.5 minute Johnsons quadrangle as a perennial stream flowing from west to east through the main dumping area. Waukell Creek enters the Klamath River approximately 2,000 feet east of the main dumping area. There are two tributaries shown on the topographic map with the northern tributary shown just south of the former residence area. The locations of Waukell Creek and its tributaries are shown on Figures 1 to 3 and Figures 5 and 6.

All of the soil samples were collected from fill materials associated with road development and other activities at the Site. Based on the aerial photos, prior to 1954 there appears to be no visible development at the Site. The 1965 aerial photo shows significant development including roads that appear to be similar to the current configuration. Some time in 2012, the Yurok Tribe Roads Department began using the Site for stockpiling of rock for use on roads. Site photographs taken during the Phase II ESA show significant changes in the current configuration of the Site compared to photographs taken during the 2008 cleanup and the 2009 Phase I ESA. Figures 8 through 10 show the main dumping areas on images dated 2010, 2009, and 2005.

The excavations at the Site encountered mostly sand, gravel, and cobbles up to a depth of approximately 3.5 feet. These coarse materials appear to be derived from fill materials either from within the Site or imported from local sources. The gravel and cobbles appeared to be composed primarily of schist which is the type of rock shown on geologic maps at the Site. Because of activities at the Site there are probably at least two generations of fill in the main dumping area.

## **4.0 SAMPLING METHODS AND ANALYSIS**

### **4.1 Field Methods**

The Yurok Tribe Environmental Program was responsible for determining whether subsurface utilities were present at the Site in the areas where borings were to be advanced. YTEP also completed a Cultural Resources Management Permit Application to ensure that the project would have no impact to cultural resources. Soil borings were advanced to a maximum depth of approximately 3.5 feet below ground surface (bgs). The soil borings were advanced using a shovel except for samples Dump-1 through Dump-5 which were advanced with a Bobcat E50 with a narrow bucket. Boring logs were prepared for each boring and are included in Appendix C.

### **4.2 Soil Sampling**

#### Residence

Two soil samples were collected in the area of the former residence at the end of the road. The samples were collected from a depth interval of 0.0 to 0.25 feet bgs. The samples were collected from locations where there was some concrete and metallic debris. The approximate sample locations are shown on Figure 5 and Figure 6.

#### Former Dumping Area

As shown on Photos 1 and 2 in Appendix C the former dumping area has been significantly altered by the Yurok Tribe Road Department to accommodate stockpiles of materials. The alterations included the movement of fill materials around the perimeter of the former dumping area and the addition of large stockpiles mostly in the center of the area. These alterations precluded the use of visual indicators of contamination for selecting sample locations. FES used a sketch map and photos obtained from Mr. Todd Thalhamer in May of 2012 to select sample locations. However, because of alterations to the former dumping area the locations sampled for this project probably did not correspond to the actual locations shown on the sketch map and photos. Sample locations Dump-2 and Dump-3 were probably close to locations mapped as "Contaminated Soil Areas" shown on Figure 7.

It appeared that the fill materials present in 2009 in most of the former dumping had been buried under more recent materials. Because of the expected difficulty in digging through the recent fill it was decided to use a small excavator to try and dig down to the 2009 surface. Since most of the fill materials appeared similar the presence of roots and organic materials were used to estimate the 2009 surface. The samples were collected at depths ranging from 0.25 to 2.75 feet bgs based on the estimated depth of the 2009 surface. Six soil samples were collected in the area where most of the dumping occurred. The approximate sample locations are shown on Figure 5 and Figure 6.

### **4.3 Surface Water Sampling**

One surface water sample (Waukell-1) and a duplicate (Waukell-2) were collected just below the confluence of Waukell Creek with the unnamed tributary to the north as shown on Figure 5 and Photo 14 in Appendix C. The creek location shown on Figure 5 is only approximate so the confluence on the map does not align with the sample location. The samples were collected within approximately two minutes of each other using a peristaltic pump and new tubing. The VOC samples were collected directly from the creek. The combined flow at the sampling point was relatively low on the order of

several gallons per minute. The sources of the flow were springs approximately 50 feet upstream of the sampling point. These springs originated downhill of the fill in the former dumping area. There were no obvious indications that the creeks flow across the Site although it is possible that surface water flows across the Site during precipitation events.

#### **4.4 Chemical Analysis Methods**

The soil and water samples were analyzed by North Coast Laboratories, Ltd. (North Coast) of Arcata, California and TestAmerica of West Sacramento, California. TestAmerica conducted the PCB analyses and North Coast conducted all of the other analyses. Three samples were submitted to Calscience Environmental Laboratories, Inc. (Calscience) for arsenic analysis. All of these laboratories are certified by the California Department of Public Health for the requested analyses.

#### **4.5 Modifications to the Approved Sampling and Analysis Plan**

Because of conditions in the field there were some modifications to the Sampling and Analysis Plan (SAP). These modification included:

- The sample locations proposed in the SAP were different from the actual sample locations for most of the soil samples. The differences in the actual locations was primarily due to alterations at the former dumping area at the Site which made it difficult to determine where the potentially contaminated areas were. Locations of the samples in the former residence were based on the presence of concrete and metallic debris.
- The location of the surface water sample was different then shown on the Figures in the SAP but was just below the confluence of the creeks as proposed in the SAP.
- The SAP indicated that the soil samples would be collected from a depth interval of approximately 0.0 to 0.5 feet. The soil samples at the residence were collected from a depth interval of 0.0 to 0.25 feet because it appeared that this interval was most likely to contain contaminants. The depth intervals in the former dumping area were based on the depth to the estimated 2009 surface which in most places appeared to be buried under recent fill.
- The soil samples analyzed for gasoline by North Coast did not include matrix spikes or matrix spike duplicates as requested on the chain-of-custody. The samples analyzed for VOCs by North Coast included matrix spikes but not matrix spike duplicates.
- The soil and water samples analyzed for PCBs by TestAmerica included matrix spikes but not matrix duplicates because of insufficient sample volume.
- The water samples analyzed for TPH-D/MO did not include matrix spikes or matrix spike duplicates as requested on the chain-of-custody. The water samples analyzed for VOCs and gasoline by North Coast included matrix spikes but not matrix spike duplicates as requested on the chain-of-custody.

## 5.0 CHEMICAL ANALYSIS RESULTS

### 5.1 Soil Analytical Results

The laboratory analytical reports are included in Appendix C. Because of the consistently high concentrations of arsenic in the soil samples analyzed by North Coast all of the soil samples were reanalyzed for arsenic by Calscience and only the Calscience results are shown in the table below. Arsenic results from North Coast and Calscience are included in Table 1. Results for soil samples with analytes detected at concentrations above the detection limits are provided in the table below and in Table 1. There were no detections of any other analytes in the soil samples.

#### SUMMARY OF CHEMICAL CONCENTRATIONS IN SOIL SAMPLES FROM THE JULY 19, 2012 SAMPLING EVENT

Sample ID	Date	TPH-Diesel (mg/kg) With Silica Gel	TPH-Motor Oil (mg/kg) With Silica Gel	As (mg/kg)	Cr (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Ni (mg/kg)	Zn (mg/kg)
	RSL	83	370	22	2,500	3,100	400	1,600	23,000
Dump-1-(0.25'-0.5')	7/19/12	<1.0	<10	8.21 <sup>1</sup>	130	31	13	90	66
Dump-2-(1.0'-1.25')	7/19/12	<1.0	<10	5.76 <sup>1</sup>	110	25	11	80	78
Dump-3-(0.75'-1.0')	7/19/12	<1.0	<10	7.82 <sup>1</sup>	120	50	16	97	68
Dump-4-(0.25'-0.5')	7/19/12	<1.0	<10	5.22 <sup>1</sup>	76	18	<10	52	240
Dump-5-(2.5'-2.75')	7/19/12	1.4	<10	7.07 <sup>1</sup>	240	29	11	130	60
Dump-6-(0.25'-0.5') (Duplicate of Dump-1)	7/19/12	<1.0	<10	7.71 <sup>1</sup>	150	30	12	96	55
Residence-1-(0.0'-0.25')	7/19/12	<20	<b>660</b>	9.10 <sup>1</sup>	120	43	64	66	170
Residence-2-(0.0'-0.25')	7/19/12	10	340	5.53 <sup>1</sup>	190	55	76	170	180

#### NOTES:

There were no detections of TPH-Gas, cadmium, mercury, PCBs, or any VOCs.

Samples with detections of TPH-D/MO were subjected to a silica gel cleanup.

Results without silica gel cleanup are shown in Table 1.

**120** Analytes detected at or above the screening level shown in red bold.

RSL Resident Screening Level. Sources of screening levels are included in Table 1.

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbon

<sup>1</sup> Samples were reanalyzed for arsenic by Calscience Environmental Laboratories, Inc.

### 5.2 Surface Water Analytical Results

The temperature, conductivity and pH of the water from which the surface water sample was collected was measured with a Myron Ultrameter II™ 6P at the time of sampling. The temperature of the water was measured at 11.8 °C (53.2 °F), the conductivity was measured at 65 microseimens, and the pH was measured at 6.37.

The laboratory analytical reports are included in Appendix D. Results for water samples are provided in the table below and in Table 2. The only two detections were of chromium and nickel which were below the screening levels. The concentrations of all of the other analytes in the surface water samples were either less than the screening levels or below the detection limits. There were no detections of TPH-D/MO, TPH-Gas, VOCs, or PCBs in the surface water samples.

### **SUMMARY OF CHEMICAL CONCENTRATIONS IN WATER SAMPLES FROM THE JULY 19, 2012 SAMPLING EVENT**

<b>Sample ID</b>	<b>Date</b>	<b>TPH-Diesel (µg/L)</b>	<b>TPH-Motor Oil (µg/L)</b>	<b>As (µg/L)</b>	<b>Cr (µg/L)</b>	<b>Cu (µg/L)</b>	<b>Pb (µg/L)</b>	<b>Ni (µg/L)</b>	<b>Zn (µg/L)</b>
	Screening Level	56	100	0.018	50	2.7-29 <sup>1</sup>	0.54-11 <sup>1</sup>	16-170 <sup>1</sup>	36-380 <sup>1</sup>
Waukell-1-Water	7/19/12	<50	<170	<2.0	1.6	<2.0	<1.0	<2.0	<20
Waukell-2-Water (Duplicate of Waukell-1)	7/19/12	<50	<170	<2.0	<1.0	<2.0	<1.0	2.2	<20

**NOTES:**

There were no detections of TPH-D/MO, TPH-Gas, cadmium, mercury, PCBs, or any VOCs.

Sources of screening levels are shown in Table 2.

µg/L Micrograms per liter

TPH Total Petroleum Hydrocarbon

<sup>1</sup> Screening level is based on water hardness.

## 6.0 DATA QUALITY EVALUATION

### 6.1 Review of Laboratory Reports

The laboratory analytical reports are included in Appendix D. FES reviewed the laboratory analytical reports to determine if there were any data quality issues.

#### North Coast Laboratories (TPH-D/MO, TPH-Gas, VOCs and Metals)

North Coast conducted the analyses for all analytes except PCBs. There were no detections in the method blanks. The laboratory control sample was below the acceptable recovery limits for chloroethane and trichlorofluoromethane. The laboratory control sample duplicate was below the acceptable recovery limit for trichlorofluoromethane. The matrix spike was below the acceptable recovery limits for chloroethane and trichlorofluoromethane. Based on the above information all of the North Coast results were considered acceptable. The arsenic results were significantly higher than expected based on previous background soil samples so all of the soil samples were reanalyzed by Calscience. After the soil samples were reanalyzed by Calscience, North Coast reissued the lab report excluding the arsenic results. The narrative in the reissued lab report states that:

*"The arsenic results have been removed from this analytical report. The inter-element correction factor was not properly adjusted for arsenic. The other reported metals were within acceptance limits in the interference check standard."*

Based on the narrative the North Coast arsenic results were not considered accurate and the Calscience results were accepted. The North Coast arsenic results are included in the tables and text to document the issue.

#### TestAmerica (PCBs)

TestAmerica conducted the analyses for PCBs. There were no detections in the method blanks. The laboratory control samples were within acceptable recovery limits. TestAmerica did not prepare laboratory control sample duplicates. The matrix spikes were within acceptable recovery limits. TestAmerica did not prepare matrix spike duplicates. The surrogate recovery was slightly high for one of the samples. Based on the above information all of the TestAmerica results were considered acceptable.

#### Calscience Environmental Laboratories, Inc. (Arsenic)

Calscience reanalyzed all of the soil samples for arsenic due to the unexplained high concentrations detected by North Coast. There were no quality control issues with the Calscience results. The arsenic results from Calscience were accepted and the North Coast arsenic results rejected as described above.

### 6.2 Assessment of Field Variability of Co-Located Soil Samples

One co-located soil sample was collected for this project. The sample results are shown in the table below. There were no detections above the detection limits for TPH-D/MO, TPH-Gas, VOCs, cadmium, mercury, or PCBs so these analytes are not included in the table. The relative percent differences (RPDs) were calculated for the sample from Dump-1-(0.25'-0.5') and the co-located sample Dump-6-(0.25'-0.5'). A RPD of 35% or less is generally considered acceptable for soil samples. The RPDs are shown in the

table below. The highest RPD was for chromium at 13.6%. The RPD values for arsenic, chromium (total), copper, lead, nickel, and zinc ranged from 3.4% to 10.8%.

### **SUMMARY OF CHEMICAL CONCENTRATIONS IN THE CO-LOCATED SOIL SAMPLE FROM THE JULY 19, 2012 SAMPLING EVENT**

Sample ID	Date	As (mg/kg)	Cr (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Ni (mg/kg)	Zn (mg/kg)
	RSL	22	2,500	3,100	400	1,600	23,000
Dump-1-(0.25'-0.5')	7/19/12	8.21 <sup>1</sup>	130	31	13	90	66
Dump-6-(0.25'-0.5') (Duplicate of Dump-1)	7/19/12	7.71 <sup>1</sup>	150	30	12	96	55
Relative Percent Difference Dump-1 and Dump-6		3.4%/6.3% <sup>1</sup>	13.6%	10.8%	9.9%	8.0%	8.9%

NOTES:

There were no detections of TPH-Gas, cadmium, mercury, PCBs, or any VOCs.

RSL Resident Screening Level. Sources of screening levels are included in Table 1.

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbon

<sup>1</sup> Samples were reanalyzed for arsenic by Calscience Environmental Laboratories, Inc.

### **6.3 Assessment of Field Variability of Co-Located Water Samples**

One co-located surface water sample was collected for this project. The sample results are shown in the table below. There were no detections above the reporting limits for TPH-D/MO, TPH-Gas, VOCs, PCBs, copper, zinc so these analytes are not included in the table. Because chromium and nickel were not detected in both of the water samples no relative percent differences can be calculated.

### **SUMMARY OF CHEMICAL CONCENTRATIONS IN CO-LOCATED WATER SAMPLES FROM THE JULY 19, 2012 SAMPLING EVENT**

Sample ID	Date	Cr (µg/L)	Ni (µg/L)
	Screening Level	50	16-170 <sup>1</sup>
Waukell-1-Water	7/19/12	1.6	<2.0
Waukell-2-Water (Duplicate of Waukell-1)	7/19/12	<1.0	2.2

NOTES:

There were no detections of TPH-D/MO, TPH-Gas, cadmium, mercury, PCBs, or any VOCs.

Sources of screening levels are shown in Table 2.

µg/L Micrograms per liter

TPH Total Petroleum Hydrocarbon

<sup>1</sup> Screening level is based on water hardness.

#### **6.4 Equipment Blanks**

No equipment blanks were collected because the samples were either collected from near the surface with no contact between the equipment and the soil collected for the sample. In the case of the excavated pits that were in contact with the equipment the surfaces were sloughed off with new nitrile gloves.

#### **6.5 Investigation Derived Wastes**

All solid investigation derived wastes were placed back in the holes where they were collected. No water was used for decontamination.

## **7.0 MEASUREMENT QUALITY OBJECTIVES (MQOs)**

Data assessment criteria are used to evaluate the quality of the field sampling and laboratory performance for the sampling event, and are expressed in terms of analytical precision, accuracy, representativeness, completeness, and comparability, which are described below.

### **7.1 Precision**

Precision is the degree of mutual agreement between or among independent measurements of a similar property usually reported as relative percent difference (RPD). This indicator relates to the analysis of duplicate laboratory samples, duplicate matrix spikes, and field duplicates. An RPD of <20% for water and <35% for soil, depending upon the chemical being analyzed is generally considered acceptable.

RDPs for the co-located soil samples ranged from 3.4% to 13.6%. These RPDs are within the acceptable levels of precision. There were no RPDs calculated for the water samples because there were no detections of the same analytes from both samples.

Laboratory precision was assessed using laboratory control samples and laboratory control sample duplicates (LCS/LCSD) and matrix spikes and matrix spike duplicates (MS/MSD). Precision was expressed in terms of RPD between the values resulting from duplicate analysis. RPDs for all laboratory analysis were within acceptable ranges for the specific analytical techniques.

### **7.2 Accuracy/Bias**

Accuracy is the degree of agreement of a measurement with a known or true value. To determine accuracy, a laboratory value was compared to a known or true concentration. Accuracy for this project was determined by laboratory control samples and laboratory control sample duplicates and matrix spikes and matrix spike duplicates. Accuracy is expressed as a bias (high or low) and is determined by calculating percent recovery (%R) from MSs/MSDs and LCSs/LCSDs.

LCS %R indicates accuracy relevant to an analytical batch lot and is a measure of analytical accuracy conditions independent of samples and matrices. MS/MSD and surrogate spike %Rs indicate accuracy relevant to a unique sample matrix. The %R of an analyte, and the resulting degree of accuracy expected for the analysis of spiked samples, are dependent upon the sample matrix, method of analysis, and the compound or element being measured. The concentration of the analyte relative to the detection limit of the method also is a significant factor in determining the accuracy of the measurement.

QC samples that were used in this investigation to measure accuracy/bias include the following:

- Matrix spikes - To monitor sample preparation/analysis methodology, as well as, to represent the actual sample matrix itself; and
- Standard reference materials and/or laboratory control samples to monitor sample preparation/analysis methodology and often of a similar media (such as water, soil, sediment) as the field samples.

### **7.3 Representativeness**

Representativeness is the expression of the degree to which data accurately and precisely represent a characteristic of an environmental condition or a population. It relates both to the area of interest and to the method of taking the individual sample. The principal study questions for this project are whether the Site contains contaminated soils above concentrations regarded as safe for reuse of the Site resulting from illegal dumping.

This project collected judgmental samples in areas that the Phase I identified as the most likely to contain contaminants and from three other locations that were not known to have been areas likely to be contaminated.

Factors that affect representativeness include:

- Use of appropriate sampling procedures, including equipment and equipment decontamination and sample holding temperatures;
- Use of appropriate analytical methods for the required parameters and project reporting limits; and
- Analysis of samples within the required holding times,

The portion of each collected sample that was chosen for analysis also affects sample representativeness. The laboratory homogenized all samples prior to taking aliquots for analysis to ensure that the reported results were representative of the sample received.

This investigation used sampling and analytical methods for ensuring the data collected reflects the environmental conditions in the areas sampled. To further ensure the representativeness of the data collected, chain-of-custody procedures, sample preservation, and maximum sample holding times were followed.

QC samples that were used in this investigation to quantitatively measure representativeness included the use of temperature blanks. The temperatures were recorded upon receipt of the samples by the laboratories to serve as a QC check for temperature-related sample preservation. All samples were received within the acceptance criteria for samples requiring preservation at 4°C +/- 2°C.

A qualitative measure of representativeness included verification that documented sample collection and analytical methods (including sample handling, chain-of-custody procedures, sample preservation, and sample holding times protocols) were followed to ensure that the data reflects the environmental conditions.

No MS and MSDs were performed on the samples that were analyzed by North Coast for TPH-Gas even though they were requested on the chain-of-custody. There were only matrix spikes for the samples analyzed by North Coast for VOCS. Matrix spikes and matrix spike duplicates were requested on the chain-of-custody for all samples. The soil and water samples analyzed for PCBs by TestAmerica included matrix spikes but not matrix spike duplicates because of insufficient volume.

The water samples analyzed for TPH-D/MO did not include matrix spikes or matrix spike duplicates as requested on the chain-of-custody. The water samples analyzed for VOCs and gasoline by North Coast included matrix spikes but not matrix spike duplicates as requested on the chain-of-custody. These samples were also analyzed approximately 36 days after collection which is beyond the 14-day hold time.

## **7.4 Comparability**

Comparability expresses the confidence with which one dataset can be compared to another. The use of methods from EPA or "Standard Methods" or from some other recognized sources allows the data to be compared facilitating evaluation of trends or changes at a site. Comparability also refers to the reporting of data in comparable units so direct comparisons are simplified. Comparability during analysis is dependent upon analytical methods, detection limits, laboratories, units of measure, and sample preparation procedures. Comparability is determined on a qualitative rather than quantitative basis. For this project, comparability of all data collected was ensured by adherence to standard sample collection procedures, standard field measurement procedures, and standard analysis and reporting methods, including consistent units.

Because of the high concentrations of arsenic (67 mg/kg to 140 mg/kg) reported by North Coast in the eight soil samples collected at the Site, all eight of the samples were reanalyzed by Calscience. The concentrations reported by Calscience ranged from 5.22 mg/kg to 9.10 mg/kg which are comparable to previous arsenic background concentrations in two soil samples collected during cleanup of the Site on October 10, 2008 which ranged from 6.0 mg/kg to 6.9 mg/kg. The North Coast concentrations are considered to be high and were rejected. The results from the analysis by Calscience were accepted.

## **7.5 Completeness**

Completeness is expressed as percent of valid usable data actually obtained compared to the amount that was expected.

A total of seven soil samples (excluding the co-located sample) were collected from the residence area and dump area locations. The Sampling and Analysis Plan called for the collection of seven soil samples from these two locations. The percent completeness is 100% based on the number of samples planned, versus the number of samples analyzed.

## **7.6 Sensitivity**

Laboratory methods utilized in the assessment were sensitive enough to be able to quantify the parameters of concern at or below the screening levels except for the analytes described below. The only soil analyte with a reporting limit above the screening level was cadmium with a reporting limit of 2.0 mg/kg and a screening level of 1.7 mg/kg.

There are four surface water analytes with a reporting limit above the screening levels. The reporting limit for TPH-Motor Oil was 170 µg/L which exceeds the screening level of 100 µg/L. The reporting limit for arsenic was 2.0 µg/L which exceeds the screening level of 0.018 µg/L. The reporting limit for lead was 1.0 µg/L which exceeds the screening levels of 0.54 µg/L to 11 µg/L which are hardness dependant. The reporting limits for PCBs ranged from 0.97 µg/L to 0.98 µg/L which exceeds the screening level of 0.014 µg/L.

## **8.0 DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS**

### **8.1 Illegal Dumping Area**

#### Sample Location Descriptions

Six soil samples were collected from the area where most of the illegal dumping was reported to have occurred. One of these was a co-located sample. As described in Section 4.2 there was difficulty in selecting sample locations because of alterations to the Site. Sample Dump-1-(0.25'-0.5') was located approximately 40 feet to the west of the "Contaminated Soils Area" as shown on the CalRecycle map presented as Figure 7. The map provided by CalRecycle appears to indicate that samples Dump-2-(1.0'-1.25') and Dump-3-(0.75'-1.0') were close to locations mapped by CalRecycle as "Contaminated Soils Area" which were the intended target. Sample Dump-4-(0.25'-0.5') was located just west of the "Auto Recycling" area which was the intended target. Sample Dump-5-(2.5'-2.75') was located approximately 90 feet east of the "Burn Ash Area" which was the intended target. Sample Dump-6-(0.25'-0.5') was a co-located sample of Dump-1-(0.25'-0.5').

#### Discussion

There were no detections of TPH-Gas, cadmium, mercury or PCBs in the six soil samples from the dumping area. All of the other analytes were below the screening levels shown in the tables in Section 5.1, and in Table 1. TPH-D and TPH-MO were detected at very low levels in sample Dump-5-(2.5'-2.75') and were even lower after the silica gel cleanup. All of the metal detections were well below the screening levels.

Some of the concentrations of metals were above the background concentrations as shown on the maps in USGS Professional Paper 1648 (USGS, 2001). The highest concentration of chromium from the samples collected in the dumping area was 240 mg/kg from Dump-5-(2.5'-2.75') which is well below the screening level of 2,500 mg/kg. The highest concentration of nickel from the samples collected in the dumping area was 130 mg/kg from Dump-5-(2.5'-2.75') which is well below the screening level of 1,600 mg/kg. The highest concentration of zinc from the samples collected in the dumping area was 240 mg/kg from Dump-4-(0.25'-0.5') which is well below the screening level of 23,000 mg/kg. All of the copper and lead concentrations were within the published background concentrations.

The results from the soil samples collected during cleanup activities in 2008 are presented in Table 1. All of the concentrations of metals were below the screening level except for the concentration of cadmium in the sample labeled "Burn Ash" which contained 5.9 mg/kg. The "Burn Ash" sample was a composite sample collected from the four 55-gallon drums which was used to characterize the material prior to disposal. Soil sample Dump-5-(2.5'-2.75') was intended to sample surface soil in the area marked as the "Burn Ash Area" on the CalRecycle map but was probably at least 90 feet east of the intended target. Based on the concentration of cadmium in the "Burn Ash" sample and assuming that the cleanup in 2008 removed the most contaminated material the concentration of cadmium in the "Burn Ash Area" is probably less than the 5.9 mg/kg concentration detected in the "Burn Ash" sample.

The "Burn Ash" samples collected by CalRecycle in 2008 were also analyzed for VOCs and SVOCs. One VOC and one SVOC were detected in these samples. The VOC

methylene chloride was detected in the "Burn Ash" sample at a concentration of 0.00807 mg/kg which is below the screening level of 360 mg/kg. The SVOC bis (2-Ethylhexyl) phthalate was detected in the "Burn Ash" sample at a concentration of 3.150 mg/kg which is below the screening level of 3,500 mg/kg.

#### Conclusion

All of the concentrations of analytes detected in the soil samples from the illegal dumping area for this Phase II ESA were below the screening levels. There are no recommendations for further soil sampling in this area however a Soil Contingency Plan could be prepared in case future activities expose contaminated soil. The only exceedance of a screening level for the samples collected by CalRecycle and analyzed for metals, VOCs, and SVOCs was for cadmium in the "Burn Ash" sample. The "Burn Ash" sample was a composite sample used for disposal characterization of the four 55-gallon drums. The Soil Contingency Plan could include instructions describing procedures to be followed if ash is encountered at the Site.

#### Recommendations

FES recommends that a Soil Contingency Plan be prepared in case activities at the Site expose contamination. The Soil Contingency Plan would include procedures to follow in case contamination is exposed as well as maps showing the most likely areas where contamination could be encountered.

#### Human Risk

The analytes that were detected in the soil samples from the dumping area were all below the screening levels and are not considered to contribute to human risk from the Site. Because of alterations to the dumping area there is some uncertainty as to whether there are chemicals present at concentrations above the screening levels.

#### Ecological Risk

The analytes that were detected in the soil samples from the dumping area were below the screening levels and are not considered to contribute to ecological risk from the Site. There are two species listed by the United States Fish and Wildlife Service for the Johnsons 7.5-minute USGS Topographic Map that includes the Site, the marbled murrelet and the northern spotted owl. Both are threatened with critical habitat designated. The fisher is listed as a candidate species.

### **8.2 Residence Area**

#### Sample Location Descriptions

Two samples were collected from the former residence area where there was some metallic debris present at the time of this sampling. Sample locations were selected based on the presence of metallic debris and concrete rubble as well as possible surface staining. The samples were collected from the interval of 0.0 to 0.25 feet.

#### Discussion

TPH-Diesel was detected at concentrations of 11 mg/kg and 10 mg/kg in samples Residence-1-(0.0'-0.25') and Residence-2-(0.0'-0.25') respectively prior to the silica gel cleanup and <20 mg/kg and 10 mg/kg after the silica gel cleanup. Based on the narrative in the laboratory report these detections may be components of the TPH-Motor Oil that was also present in the samples. TPH-Motor Oil was detected at concentrations of 1,000 mg/kg and 400 mg/kg in samples Residence-1-(0.0'-0.25') and Residence-2-(0.0'-0.25') respectively prior to the silica gel cleanup and 660 mg/kg and 340 mg/kg after the silica gel cleanup. The screening level for TPH-Motor Oil is 370 mg/kg so the

only detection over the screening level after the silica gel cleanup was from Residence-1-(0.0'-0.25') at 660 mg/kg.

There were no detections of cadmium in the two samples from the former residence area. All of the other metal concentrations were below the screening levels shown in the tables in Section 5.1, and in Table 1.

Some of the concentrations of metals were above the background concentrations as shown on the maps in USGS Professional Paper 1648 (USGS, 2001). The highest concentration of chromium from the samples collected in the residence area was 190 mg/kg from Residence-1-(0.0'-0.25') which is well below the screening level of 2,500 mg/kg. The highest concentration of lead from the samples collected in the residence area was 76 mg/kg from Residence-2-(0.0'-0.25') which is below the screening level of 400 mg/kg. The highest concentration of nickel from the samples collected in the residence area was 170 mg/kg from Residence-2-(0.0'-0.25') which is well below the screening level of 1,600 mg/kg. The highest concentration of zinc from the samples collected in the residence area was 180 mg/kg from Residence-2-(0.0'-0.25') which is well below the screening level of 23,000 mg/kg. All of the copper concentrations were within the published background concentrations.

#### Conclusion

All of the concentrations of analytes detected in the residence area were below the screening levels except for TPH-Motor Oil which in Residence-1-(0.0'-0.25') (660 mg/kg) which exceeded the screening level of 370 mg/kg. Additional sampling will be needed to delineate the extent of the contamination.

#### Recommendations

FES recommends additional sampling that will include deeper samples from the area where Residence-1-(0.0'-0.25') was collected as well as additional samples to delineate the horizontal extent of the contamination. The additional samples would be analyzed for TPH-Motor Oil.

#### Human Risk

The concentration of TPH-Motor Oil presents a minimal risk to humans if the Site is not developed for use. Areas where TPH-Motor Oil exceeds the screening level will need to be removed from the Site and disposed of at an appropriate permitted facility.

#### Ecological Risk

The concentrations of TPH-Motor Oil in the residence area are considered a minimal ecological risk as it is unlikely that significant concentrations would be mobilized by surface water flowing across the residence area. There are two species listed by the United States Fish and Wildlife Service for the Johnsons 7.5-minute USGS Topographic Map that includes the Site, the marbled murrelet and the northern spotted owl. Both are threatened with critical habitat designated. The fisher is listed as a candidate species.

### **8.3 Waukell Creek**

#### Sample Location Descriptions

One surface water sample (Waukell-1) and a duplicate (Waukell-2) were collected just below the confluence of Waukell Creek with the unnamed tributary to the north as shown on Photo 14 in Appendix C. The samples were collected within approximately two minutes of each other. The combined flow at the sampling point was relatively low on the order of several gallons per minute. The sources of the flow were springs approximately 50 feet upstream of the sampling point. These springs originated

approximately 250 feet northeast of the fill in the former dumping area. There were no obvious indications that the creeks flow across the Site although it is possible that surface water flows across the Site during precipitation events.

#### Discussion

The only analyte detected in the surface water sample Waukell-1-Water was chromium at a concentration of 1.5 µg/L which is well below the screening level of 50 µg/L. Sample Waukell-2-Water was a co-located sample collected within approximately two minutes of Waukell-1-Water. The only analyte detected in Waukell-2-Water was nickel at a concentration of 2.2 µg/L which is below the lowest hardness-based screening level of 16 µg/L.

#### Conclusion

The only analytes detected were chromium and nickel and both are below the screening levels.

#### Recommendations

There are no recommendations for further surface water sampling at the Site.

#### Human Risk

The analytes that were detected in the surface water samples from Waukell Creek were well below the screening levels and are not considered to contribute to human risk from the Site.

#### Ecological Risk

The analytes that were detected in the surface water samples from Waukell Creek downhill of the dumping area were below the screening levels and are not considered to contribute to ecological risk from the Site. There are two species listed by the United States Fish and Wildlife Service for the Johnsons 7.5-minute USGS Topographic Map that includes the Site, the marbled murrelet and the northern spotted owl. Both are threatened with critical habitat designated. The fisher is listed as a candidate species.

### **8.4 Principal Study Questions**

The principal study questions for the Subject Property in order of priority include:

- Does the Site contain contaminated soils, resulting from the former use as an illegal dump site above concentrations regarded as safe for reuse of the Site?
- Has the former use of the Site as an illegal dump site resulted in impacts to surface water quality to the onsite creek above concentrations regarded as safe for human and/or ecological receptors?

This assessment has concluded that the Site contains at least one area of soil with concentrations of TPH-Motor Oil near the former residence above concentrations regarded as safe for reuse of the Site. This assessment has also concluded that the soils in the other areas sampled do not contain chemicals above the screening levels. Based on the analysis of the surface water samples collected from Waukell Creek the creek does not contain contaminants above the screening levels at the time the sampling was conducted.

Because of the uncertainty about the sample locations in the dumping area FES recommends that a Soil Contingency Plan be prepared in case activities in this area expose contaminated soils.

## **9.0 REFERENCES**

ASTM E1903 – 97, 2002, *Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process.*

California Environmental Protection Agency, 2005, *Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties*, January 2005.

California Regional Water Quality Control Board San Francisco Bay Region, 2008, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, INTERIM FINAL- November 2007 (Revised May 2008).*

Central Valley Regional Water Quality Control Board, 2008, *A Compilation of Water Quality Goals*, July 2008.

Freshwater Environmental Services, 2009, *Phase I Environmental Site Assessment Report for the Tully Creek Former Illegal Dumpsite Site, (APN 534-182-015) Located on Tully Creek Road Near Weitchpec, California*, September 9.

USEPA, 2012, *Regional Screening Level (RSL) Resident Soil Table*, May.

U.S. Geological Survey, 2001, *Professional Paper 1648, Geochemical Landscapes of the Conterminous United States - New Map Presentations for 22 Elements.*

Wagner and Saucedo, 1987, *Geologic Map of the Weed Quadrangle, California*, California Division of Mines and Geology.

## **TABLES**

**TABLE 1**  
**SUMMARY OF CHEMICAL ANALYSES OF SOIL SAMPLES**  
**TULLY SITE**  
Humboldt County, California

		TPH-D/MO (EPA 8015B)			Gas/VOC s (EPA)	Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Zinc (EPA 6010B) Mercury (EPA 7471A)							PCBs (EPA 8082)		
	Date Sampled	TPH-Diesel (mg/kg)	TPH-Diesel (mg/kg) WITH SILICA GEL CLEANUP	TPH-Motor Oil (mg/kg)	TPH-Motor Oil (mg/kg) WITH SILICA GEL CLEANUP	TPH-Gasoline (mg/kg)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)	PCBs (mg/kg)
Sample ID	Residential Screening Level	83 <sup>a</sup>	83 <sup>a</sup>	370 <sup>a</sup>	370 <sup>a</sup>	83 <sup>a</sup>	22 <sup>b</sup>	1.7 <sup>c</sup>	2,500 <sup>a</sup>	3,100 <sup>a</sup>	400 <sup>b</sup>	10 <sup>b</sup>	1,600 <sup>c</sup>	23,000 <sup>b</sup>	1.1 to 3.9 <sup>b</sup>
Dump-1-(0.25'-0.5')	19-Jul-12	<1.0	--	<10	--	<1.1	120/8.21 <sup>5</sup>	<2.0	130	31	13	<0.10	90	66	<0.036
Dump-2-(1.0'-1.25')	19-Jul-12	<1.0	<1.0	10 <sup>1</sup>	<10	<1.4	86/5.76 <sup>5</sup>	<2.0	110	25	11	<0.10	80	78	<0.039
Dump-3-(0.75'-1.0')	19-Jul-12	<1.0	--	<10	--	<0.96	140/7.82 <sup>5</sup>	<2.0	120	50	16	<0.10	97	68	<0.035
Dump-4-(0.25'-0.5')	19-Jul-12	<1.0	<1.0	32 <sup>1</sup>	<10	<1.1	67/5.22 <sup>5</sup>	<2.0	76	18	<10	<0.10	52	240	<0.041
Dump-5-(2.5'-2.75')	19-Jul-12	1.7 <sup>2</sup>	1.4 <sup>2</sup>	10 <sup>1</sup>	<10	<1.2	110/7.07 <sup>5</sup>	<2.0	240	29	11	<0.10	130	60	<0.038
Dump-6-(0.25'-0.5') <sup>3</sup>	19-Jul-12	<1.0	--	<10	--	<1.4	110/7.71 <sup>5</sup>	<2.0	150	30	12	<0.10	96	55	<0.037
Residence-1-(0.0'-0.25')	19-Jul-12	11 <sup>4</sup>	<20	1,000	660	--	110/9.10 <sup>5</sup>	<2.0	120	43	64	--	66	170	--
Residence-2-(0.0'-0.25')	19-Jul-12	10 <sup>2,4</sup>	10	400	340	--	110/5.53 <sup>5</sup>	<2.0	190	55	76	--	170	180	--
Burn Ash	10-Oct-08	--	--	--	--	--	9.7 <sup>6</sup>	5.9 <sup>6</sup>	144 <sup>6</sup>	511 <sup>6</sup>	218 <sup>6</sup>	0.058 <sup>6</sup>	353 <sup>6</sup>	12,200 <sup>6</sup>	--
Background-001	10-Oct-08	--	--	--	--	--	6.9 <sup>6</sup>	0.16 <sup>6</sup>	139 <sup>6</sup>	35.4 <sup>6</sup>	6.7 <sup>6</sup>	0.041 <sup>6</sup>	124 <sup>6</sup>	64.3 <sup>6</sup>	--
Background-002	10-Oct-08	--	--	--	--	--	6.0 <sup>6</sup>	0.14 <sup>6</sup>	238 <sup>6</sup>	35.5 <sup>6</sup>	7.5 <sup>6</sup>	0.059 <sup>6</sup>	154 <sup>6</sup>	84.2 <sup>6</sup>	--

Notes:

**120** Red bold indicates a result that exceeds a screening level.

Samples with detections of TPH-Diesel/Motor Oil were subjected to a silica gel cleanup.

Samples analyzed for TPH-Gasoline were also analyzed for an extended list of VOCs. There were no detections of VOCs.

-- Not analyzed.

mg/kg milligrams per kilogram or parts per million

<sup>a</sup> Table A Environmental Screening Levels (ESLs) Shallow Soils (<3m bgs) Groundwater is Current or Potential Source of Drinking Water. California Regional Water Quality Control Board San Francisco Bay Region, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, November 2007, revised May 2008. The environmental screening level for TPH (residual fuels) was applied to motor oil.

<sup>b</sup> USEPA - Regional Screening Level (RSL) Resident Soil Table May 2012.

<sup>c</sup> California Environmental Protection Agency (CALEPA), Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties, January 2005.

<sup>1</sup> The laboratory reported that "The sample does not have the typical pattern of fresh motor oil. However, the results reported represents the amount of material in the motor oil range."

<sup>2</sup> The laboratory reported that "The sample contains material in the diesel range of molecular weights, but the material does not exhibit the peak pattern typical of diesel oil."

<sup>3</sup> Sample Dump-6-(0.25'-0.5') is a duplicate of Dump-1-(0.25'-0.5').

<sup>4</sup> The laboratory reported that "The sample contains material in the diesel range of molecular weights and beyond. This suggests the presence of an oil heavier than diesel."

<sup>5</sup> The samples were reanalyzed for arsenic by Calscience Laboratories because of the high concentrations of arsenic reported by North Coast Laboratories.

<sup>6</sup> Results are from the tables included in the CalRecycle documents included as Appendix E.

**TABLE 2**  
**SUMMARY OF CHEMICAL ANALYSES OF WATER SAMPLES**  
**TULLY SITE**  
Humboldt County, California

		TPH-D/MO (EPA 8015B)		TPH-Gas/VOCs (EPA 8260)	Arsenic, Cadmium, Lead, Chromium, Copper, Nickel, Zinc (EPA 200.8) Mercury (EPA 245.1)								PCBs (EPA 8082)
	Date Sampled	TPH-Diesel (µg/L)	TPH-Motor Oil (µg/L)	TPH-Gasoline (µg/L)	Arsenic (µg/L)	Cadmium (µg/L)	Chromium (µg/L)	Copper (µg/L)	Lead (µg/L)	Mercury (µg/L)	Nickel (µg/L)	Zinc (µg/L)	PCBs (µg/L)
Sample ID	Residential Screening Level	56 <sup>a</sup>	100 <sup>b</sup>	100 <sup>b</sup>	0.018 <sup>c</sup>	3.5 <sup>a</sup>	50 <sup>d</sup>	2.7-29 <sup>e</sup>	0.54-11 <sup>e</sup>	1.2 <sup>f</sup>	16-170 <sup>e</sup>	36-380 <sup>e</sup>	0.014 <sup>c</sup>
Waukell-1-Water	19-Jul-12	<50	<170	<50	<2.0	<1.0	1.6	<2.0	<1.0	<1.0	<2.0	<20	<0.98
Waukell-2-Water <sup>1</sup>	19-Jul-12	<50	<170	<50	<2.0	<1.0	<1.0	<2.0	<1.0	<1.0	2.2	<20	<0.97

Notes:

Samples analyzed for TPH-Gasoline were also analyzed for an extended list of VOCs. There were no detections of VOCs.

µg/L micrograms per liter or parts per billion

<sup>a</sup> USEPA IRIS Reference Dose (RfD) as a drinking water level.

<sup>b</sup> Table F. Environmental Screening Levels (ESLs) Surface Water Bodies. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater. California Regional Water Quality Control Board San Francisco Bay Region. INTERIM FINAL - November 2007 (Revised May 2008).

<sup>c</sup> USEPA National Recommended Water Quality Criteria

<sup>d</sup> California Department of Public Health Primary MCL.

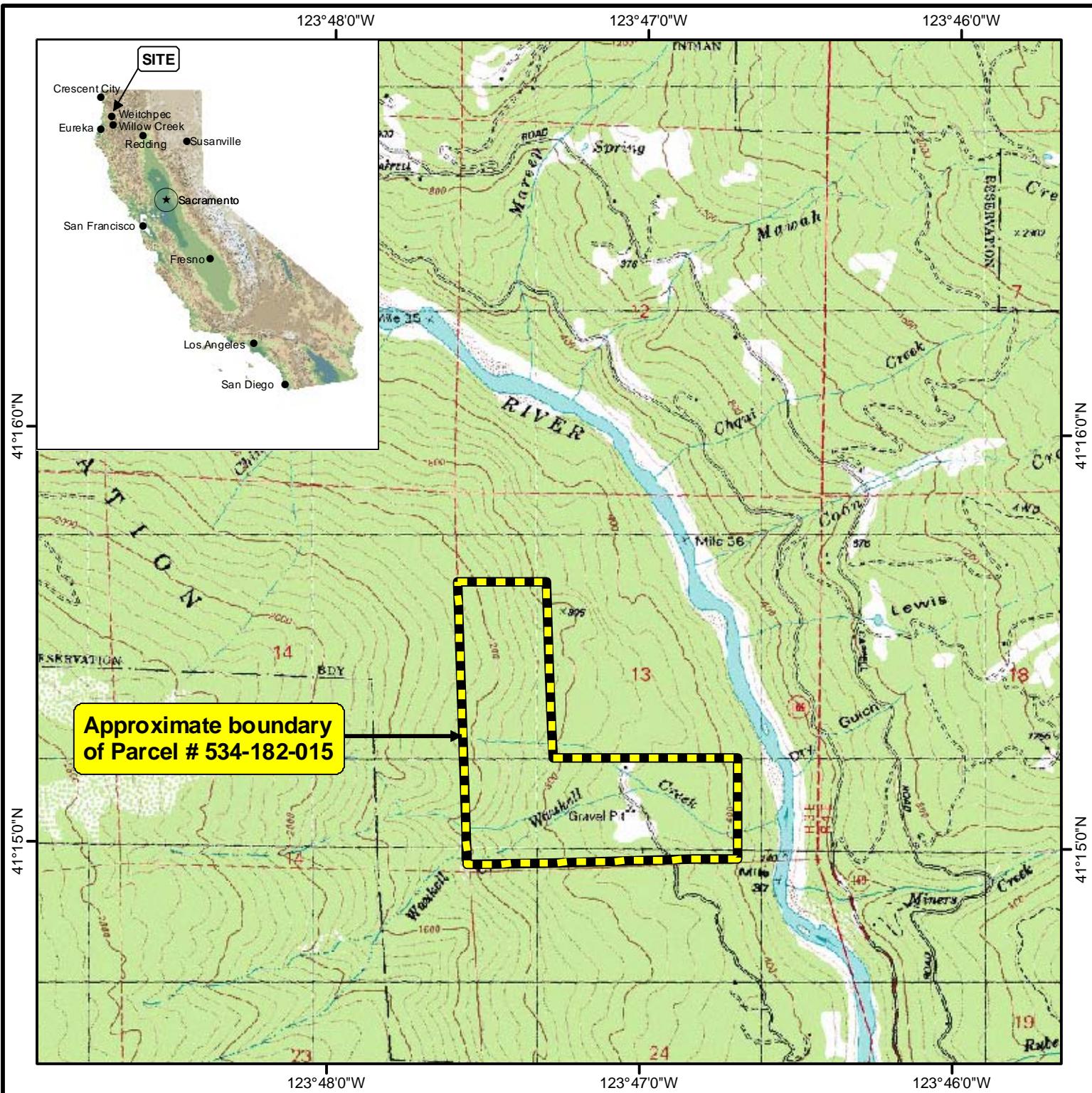
<sup>e</sup> USEPA, California Inland Surface Water -California Toxics Rule Criteria, Freshwater Aquatic Life Protection, hardness dependant.

<sup>1</sup> Sample Waukell-2-Water is a duplicate of Waukell-1-Water.

**TABLE 3**  
**GPS POINTS COLLECTED BY THE**  
**YUROK TRIBE ENVIRONMENTAL PROGRAM**  
**TULLY SITE**  
Humboldt County, California

<b>Feature</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Date Collected</b>	<b>Horizontal Datum</b>
Dump-1	41.251649	-123.783662	19-Apr-12	NAD 83
Dump-2	41.251729	-123.783900	19-Apr-12	NAD 83
Dump-3	41.251770	-123.784038	19-Apr-12	NAD 83
Dump-4	41.252105	-123.784169	19-Apr-12	NAD 83
Dump-5	41.251827	-123.783371	19-Apr-12	NAD 83
Residence-1	41.253134	-123.784166	19-Apr-12	NAD 83
Residence-2	41.253172	-123.784283	19-Apr-12	NAD 83
Waukell-1	41.251703	-123.783782	19-Apr-12	NAD 83
Test Pit	41.251748	-123.783962	19-Apr-12	NAD 83
Test Pit	41.251757	-123.784162	19-Apr-12	NAD 83
Test Pit	41.252348	-123.783073	19-Apr-12	NAD 83

## **FIGURES**



0 500 1,000 2,000 3,000 4,000  
Feet

#### LEGEND

Base Image Data Source:  
1:24,000 Digital Raster Graph Mosaic of  
Humboldt County, California

ALL LOCATIONS APPROXIMATE

Yurok Tribe  
Environmental Program

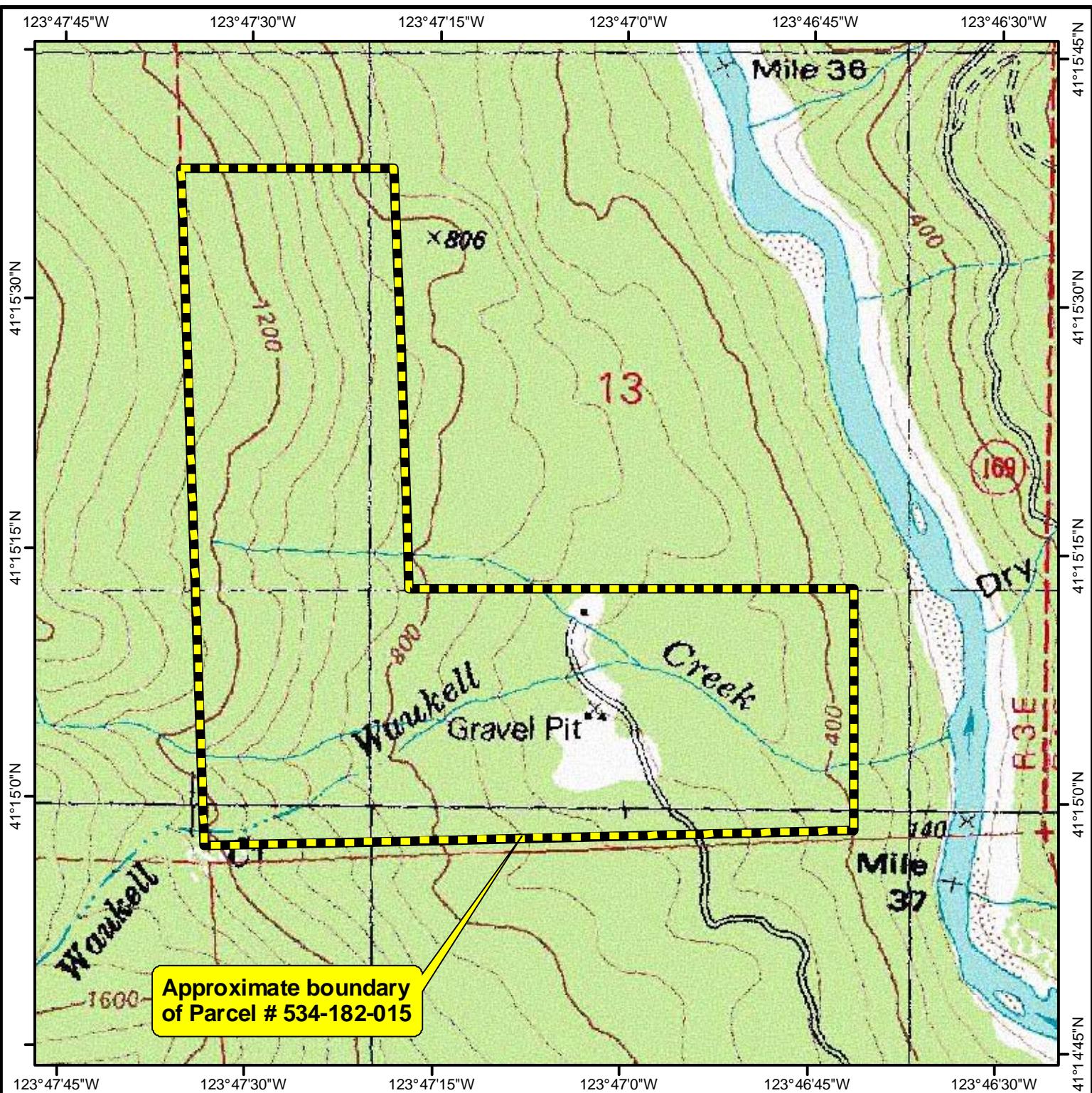
Figure 1  
Site Location Map  
Tully Creek Site  
Humboldt County, California



Freshwater Environmental Services

Date: 9-20-12

By: SJT



0 250 500 1,000 1,500  
Feet

#### LEGEND

Base Image Data Source:  
1:24,000 Digital Raster Graph Mosaic of  
Humboldt County, California

ALL LOCATIONS APPROXIMATE

Yurok Tribe  
Environmental Program

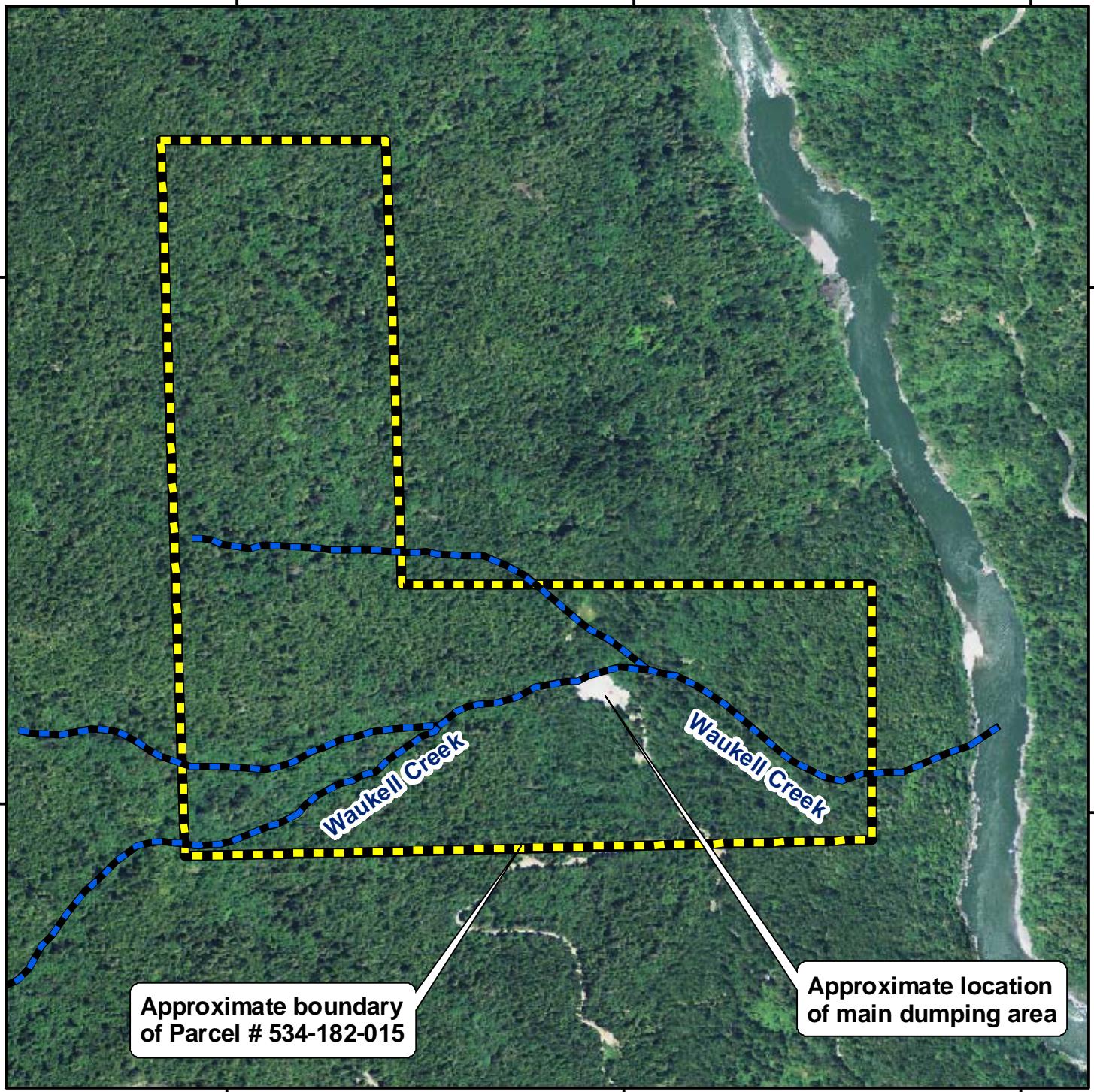
Figure 2  
USGS Topographic Map  
Tully Creek Site  
Humboldt County, California



Freshwater Environmental Services

Date: 9-20-12

By: SJT



Approximate boundary  
of Parcel # 534-182-015

Approximate location  
of main dumping area



0    250    500    1,000    1,500  
Feet

#### LEGEND

Base Image Data Source: USDA-FSA Aerial Photography Field Office Color Digital Ortho Photo Quad, Image Date May 31, 2012.

ALL LOCATIONS APPROXIMATE

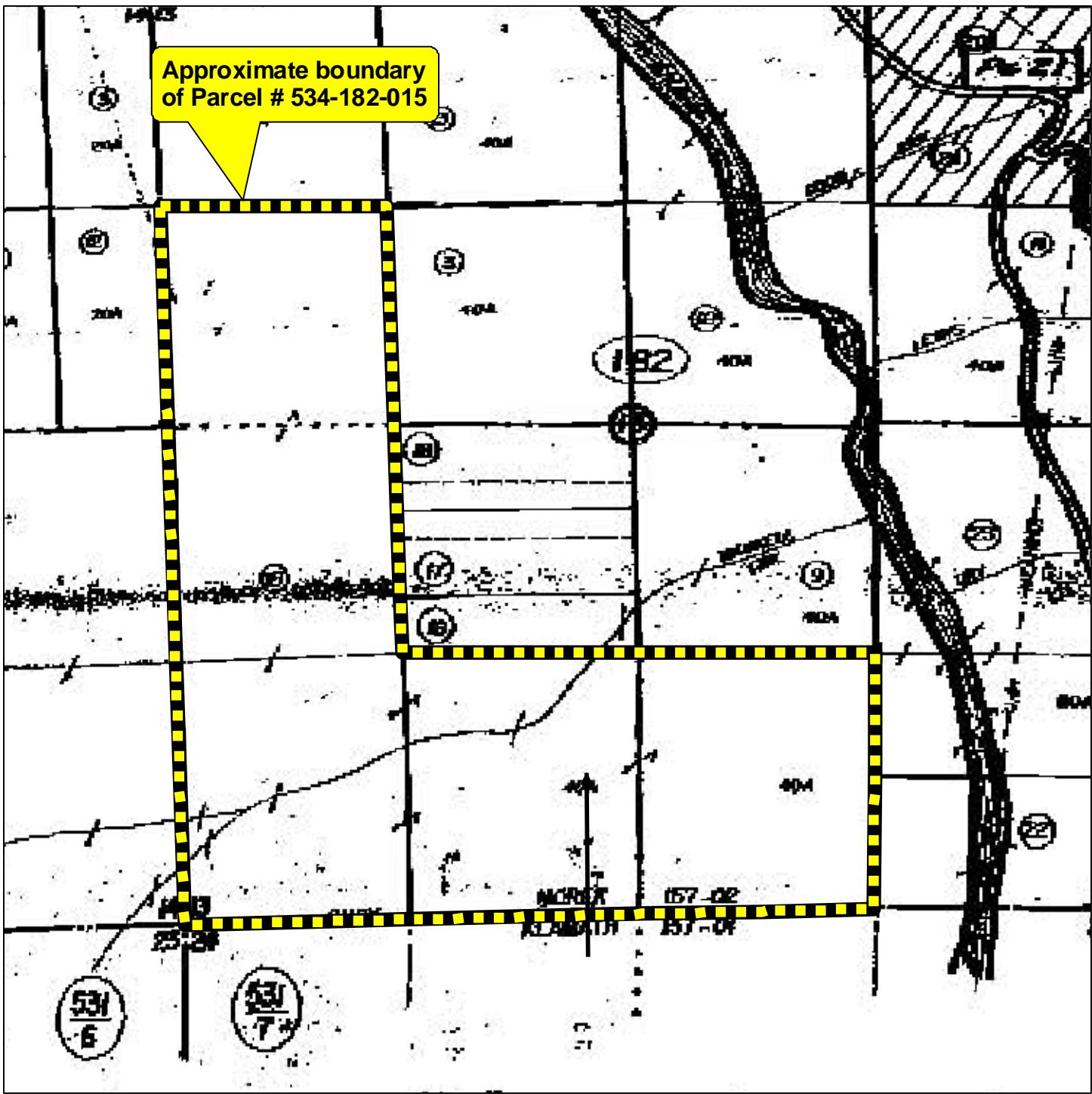
**Yurok Tribe  
Environmental Program**  
**Figure 3**  
**2012 Aerial**  
**Tully Creek Site**  
**Humboldt County, California**



**Freshwater Environmental Services**

Date: 9-20-12

By: SJT



Approximate Scale  
Feet

0 250 500 1,000 1,500

#### LEGEND

Parcel Map obtained from ParcelQuest.com

ALL LOCATIONS APPROXIMATE

Yurok Tribe  
Environmental Program

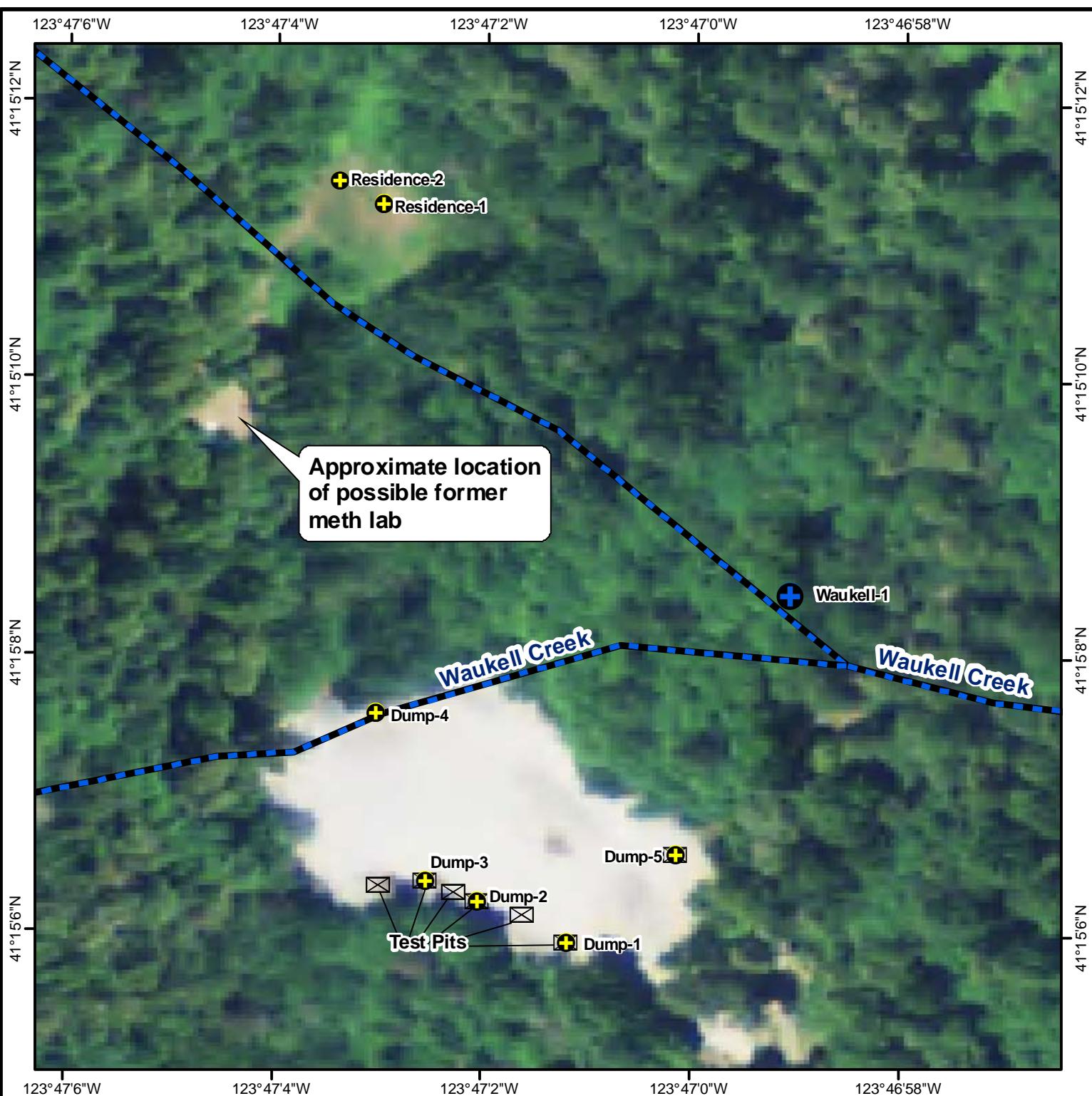
Figure 4  
Parcel Map  
Tully Creek Site  
Humboldt County, California



Freshwater Environmental Services

Date: 9-20-12

By: SJT



#### LEGEND

Base Image Data Source: USDA-FSA Aerial Photography Field Office Color Digital Ortho Photo Quad, Image Date May 31, 2012.

ALL LOCATIONS APPROXIMATE

Yurok Tribe  
Environmental Program

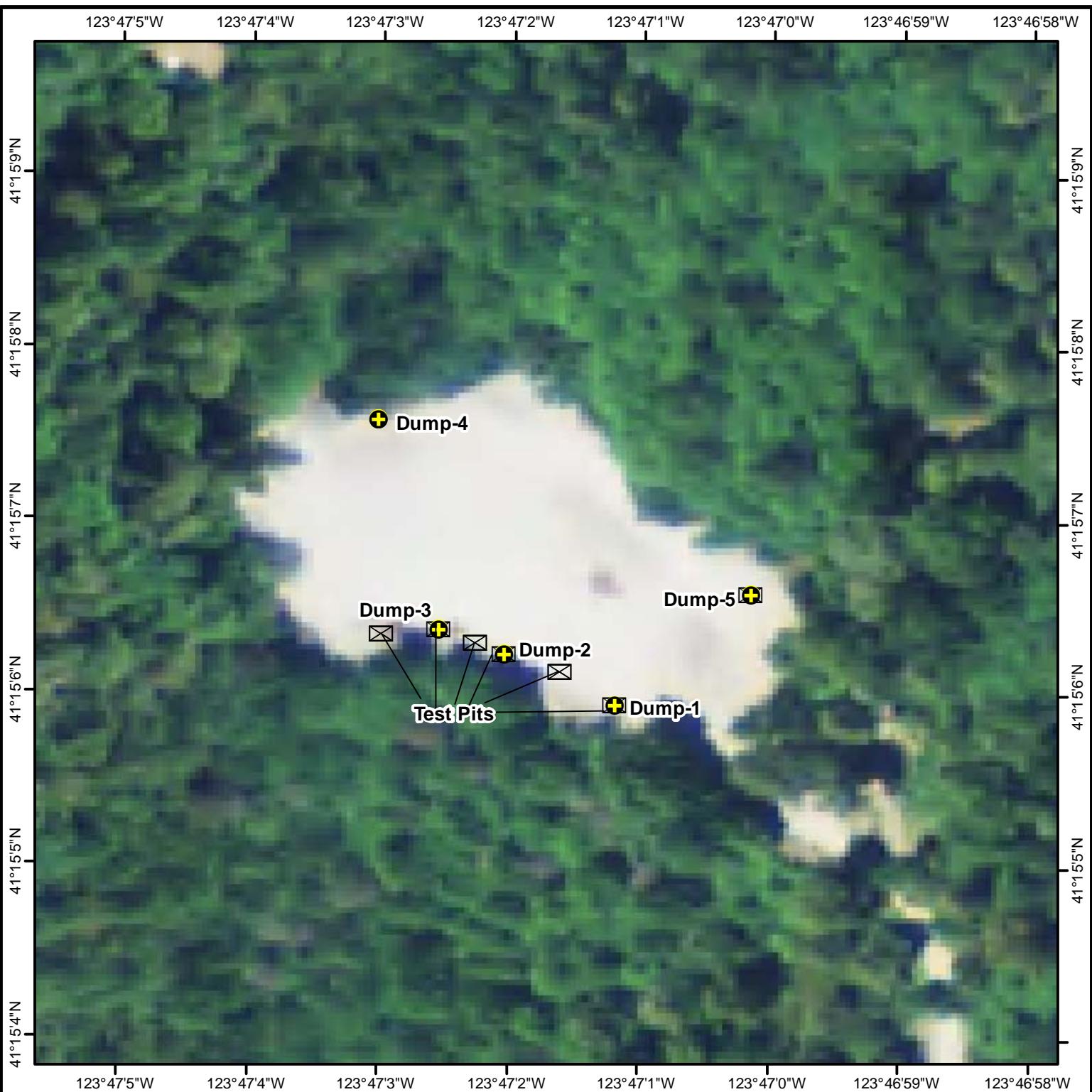
Figure 5  
Sample Locations  
Tully Creek Site  
Humboldt County, California



Freshwater Environmental Services

Date: 10-1-12

By: SJT



<p>LEGEND Base Image Data Source: USDA-FSA Aerial Photography Field Office Color Digital Ortho Photo Quad, Image Date May 31, 2012. ALL LOCATIONS APPROXIMATE</p>	<p><b>Yurok Tribe Environmental Program</b></p>
	<p><b>Figure 6</b></p> <p><b>Sample Locations - 2012 Aerial Tully Creek Site Humboldt County, California</b></p>
<p><b>Freshwater Environmental Services</b></p>	<p>Date: 10-1-12 By: SJT</p>



<p>Approximate Scale Feet</p> <p>0 25 50 100 150 200</p>	<p><b>LEGEND</b></p> <p>Image with information obtained from CalRecycle in May 2012.</p> <p>ALL LOCATIONS APPROXIMATE</p>	<p>Yurok Tribe Environmental Program</p> <p>Figure 7</p> <p>CalRecycle Map</p> <p>Tully Creek Site</p> <p>Humboldt County, California</p>
	<p>Freshwater Environmental Services</p>	<p>Date: 10-1-12</p> <p>By: SJT</p>



0    25    50    100    150  
Feet

#### LEGEND

Base Image Data Source: USDA-FSA Aerial Photography Field Office Color Digital Ortho Photo Quad, Image Date June 13, 2010.

ALL LOCATIONS APPROXIMATE

**Yurok Tribe  
Environmental Program**

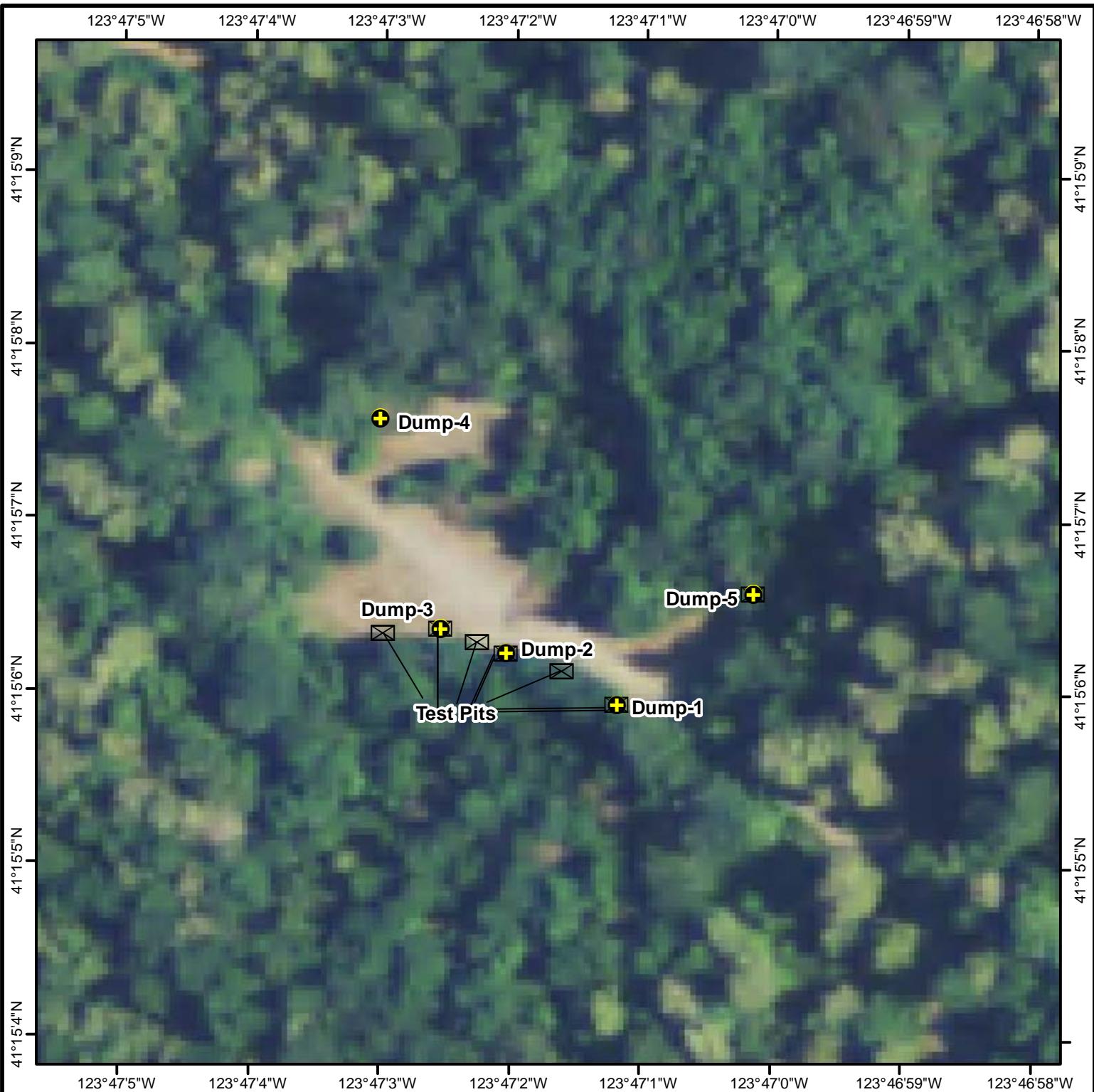
**Figure 8  
Sample Locations - 2010 Aerial  
Tully Creek Site  
Humboldt County, California**



**Freshwater Environmental Services**

Date: 10-1-12

By: SJT



0    25    50    100    150

#### LEGEND

Base Image Data Source: USDA-FSA Aerial Photography Field Office Color Digital Ortho Photo Quad, Image Date June 22, 2009.

ALL LOCATIONS APPROXIMATE

**Yurok Tribe  
Environmental Program**

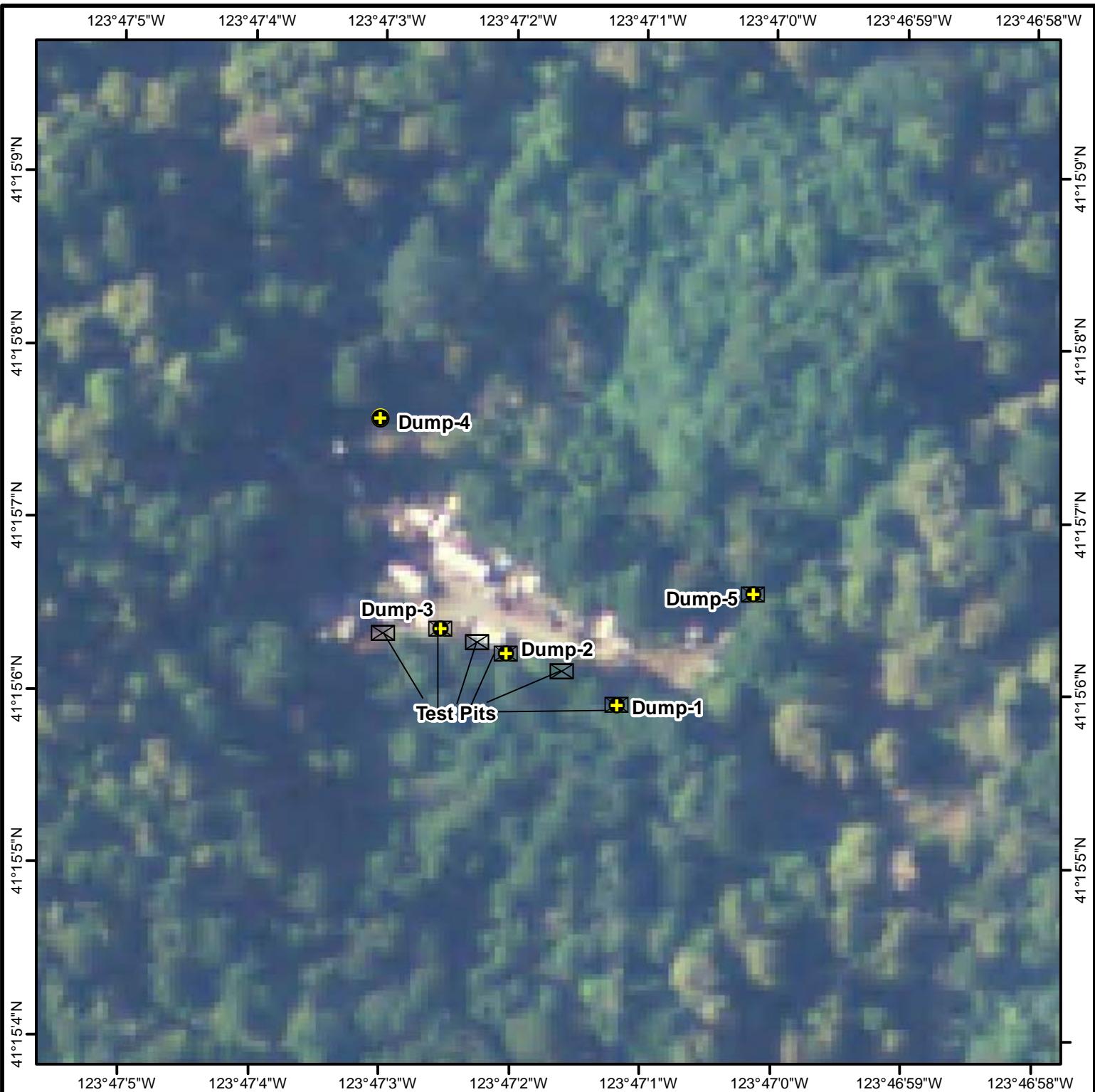
**Figure 9  
Sample Locations - 2009 Aerial  
Tully Creek Site  
Humboldt County, California**



**Freshwater Environmental Services**

Date: 10-1-12

By: SJT



 	<b>LEGEND</b> Base Image Data Source: USDA-FSA Aerial Photography Field Office Color Digital Ortho Photo Quad, Image Date June 30, 2005. ALL LOCATIONS APPROXIMATE	<b>Yurok Tribe Environmental Program</b> <b>Figure 10</b> <b>Sample Locations - 2005 Aerial</b> <b>Tully Creek Site</b> <b>Humboldt County, California</b>
	<b>Freshwater Environmental Services</b>	Date: 10-1-12 By: SJT

## **APPENDIX A**

### **Boring Permit**

HUMBOLDT COUNTY DIVISION OF ENVIRONMENTAL HEALTH - HAZARDOUS MATERIALS UNIT  
WELL AND BORING PERMIT APPLICATION

Facility ID # S34-182-015 Permit # S34-182-015-A

Facility Name: Tully Creek Site

Site Address: Tully Creek Road approximately 6 miles north/northwest of Weitchpec, CA

Site Owner: United States of America - Yurok Tribal Allotment Telephone: 707-482-1822  
Address: No address for this site as it is not a residence or business. APP# 534-182-015

RP Name: Ray Martell Telephone: 707-482-1822  
Address: PO Box 1027, Klamath, CA 95548

Consultant: Freshwater Environmental Services Telephone: 707 839-0091  
Address: 78 Sunny Brae Center, Arcata, CA 95521 Reg.#/Type: P.G. 7990

Driller: Hand-Augered by Freshwater Environmental Services Telephone:   
Address:  C-57 Lic.#:

# On-site	# Off-site		
Wells	Borings	Wells	Borings

Activity:  Construct  Destroy  Repair/Modify Electrode Type:

Well Type:  Monitoring Well  Injection Well  Vapor Extraction  Geologic Boring  
 Extraction Well  Piezometer  Vapor Point  Soil Gas Survey  
 Vadose Well  Cathodic Protection  Direct Push Boring  Temporary Well Point

Investigation Type:  Site Assessment  Disposal Practice  UST  Other\*  
 Surface Contamination  Surface Impoundment  AST

\*Specify:

Investigation Phase:  Initial  Subsequent  Remediation  Closure

Suspected Contaminants: Petroleum products and metals.

Disposal/Containment for Soil Cuttings: Cuttings will be containerized pending analysis.

Disposal/Containment for Rinsate:

Disposal/Containment for Development Water: NA

Permits will not be processed without the following information:

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Scaled Construction Detail  | <input checked="" type="checkbox"/> Appropriate Fees                            |
| <input checked="" type="checkbox"/> Detailed Site Plan          | <input checked="" type="checkbox"/> Copy of Workplan (if not on file at HCDHEU) |
| <input checked="" type="checkbox"/> Lead Agency Approval Letter |   |
| <input type="checkbox"/> Off-Site Well Requirements:            |   |
| <input type="checkbox"/> Legal Right of Entry                   | Proposed Work Date: <u>July 17, 2012</u>  |
| <input type="checkbox"/> Off-Site Address/Location              |   |
| <input type="checkbox"/> Encroachment Permit                    |   |
| <input type="checkbox"/> Coastal Zone Permit                    |   |

HUMBOLDT COUNTY DIVISION OF ENVIRONMENTAL HEALTH - HAZARDOUS MATERIALS UNIT  
WELL and BORING PERMIT APPLICATION

2

Facility ID # 534-182-015 Permit # 534-182-015-A

I hereby agree to comply with all laws, ordinances and regulations of the county of Humboldt and State of California pertaining to water well construction. I will contact the Humboldt County Hazardous Materials Unit at (707) 445-6215 five (5) working days prior to commencing this work. I will furnish to the County of Humboldt, Division of Environmental Health, and the owner a legible copy of the State Water Well Completion Report (form DWR 188) within fifteen (15) days after completion of work to obtain final approval of the well(s). I acknowledge that the application will become a permit ONLY after site approval by the Local Implementing Agency (HCDEH, NCRWQCB, DTSC, EPA). I understand this permit is not transferable and expires one hundred twenty (120) days from the date of issuance.

Certificates of Insurance:

- A currently effective General Liability Certificate of Insurance is on file with this office, endorsed to include the Humboldt County Division of Environmental Health as additional named insured.
- A currently effective Worker's Compensation Certificate of Insurance is on file with this office, endorsed to include the Humboldt County Division of Environmental Health as additional named insured.

\_\_\_\_\_  
Signature of Well Driller - no proxies - original signature only in blue ink

\_\_\_\_\_  
Date

- Well identification number and type must be affixed to exterior surface of security structure.
- The applicant is responsible for notifying Underground Services Alert at least 48 hours prior to the scheduled work date.
- A State of California Department of Water resources Well Completion Report (Form DWR 1-88) must be filed within 15 days of completion of work for all well completions and destructions.
- A licensed California C-57 Well Driller is required for all wells and direct push work.

FOR OFFICE USE ONLY

Permit Approval:

Norman Crawford

Date:

7/14/2012

Fee:

\$185.00

Date:

7/11/2012

Receipt: 252873

Initial Inspection:

Date:

Final Inspection:

Date:

## **APPENDIX B**

### **Boring Logs**

# Log of Boring Dump-1

**Date Started:** July 19, 2012  
**Date Completed:** July 19, 2012

**Driller:** Yurok Tribe Road Department  
**Drilling Method:** Bobcat E50

Recovery	Depth (ft)	Description	USCS	Remarks
<b>Ground Surface</b>				
100%	0	~50% sand, fine to medium, subangular to subrounded, ~40% gravel and cobbles up to six inches diameter, ~10% silt, moist, 10YR 4/1 (dark gray).	SP	
	0.08			
	0.17			
	0.25	few roots, ~40% sand, fine to coarse, subangular to subrounded, ~40% gravel and cobbles, ~20% silt, moist, 10YR 4/1 (dark gray).	SW	
	0.33			
	0.42			
	0.5			
BOH ~ 0.5'				
	0.58			
	0.67			
	0.75			
	0.83			
	0.92			
	1.0			

**Total Depth:** ~ 0.5 feet

**Dump-1**

Yurok Tribe Environmental Program  
Tully Site (APN 534-182-015)



Freshwater Environmental Services

Date: 8-23-12      By: SJT

# Log of Boring Dump-2

**Date Started:** July 19, 2012  
**Date Completed:** July 19, 2012

**Driller:** Yurok Tribe Road Department  
**Drilling Method:** Bobcat E50

Recovery	Depth (ft)	Description	USCS	Remarks	
	0	<b>Ground Surface</b>			
	0.25	~30% cobbles, up to 3 inches diameter, subangular to subrounded, ~20% gravel, subangular to subrounded, ~40% sand, ~10% silt, moist, 10YR 4/1 (dark gray).	GM		
100%	1.0	~80% sand, fine to coarse, ~10% gravel, up to $\frac{3}{4}$ inch diameter, ~10% silt, moist, 10YR 4/1 (dark gray).	SW		
	1.25	~60% cobbles, up to 10 inches diameter, ~35% sand, fine to coarse, ~5% silt, moist, 10YR 4/1 (dark gray).	GP		
	3.5	BOH ~ 3.5			
	3.75				

**Total Depth:** ~ 3.5 feet

**Dump-2**



**Freshwater Environmental Services**

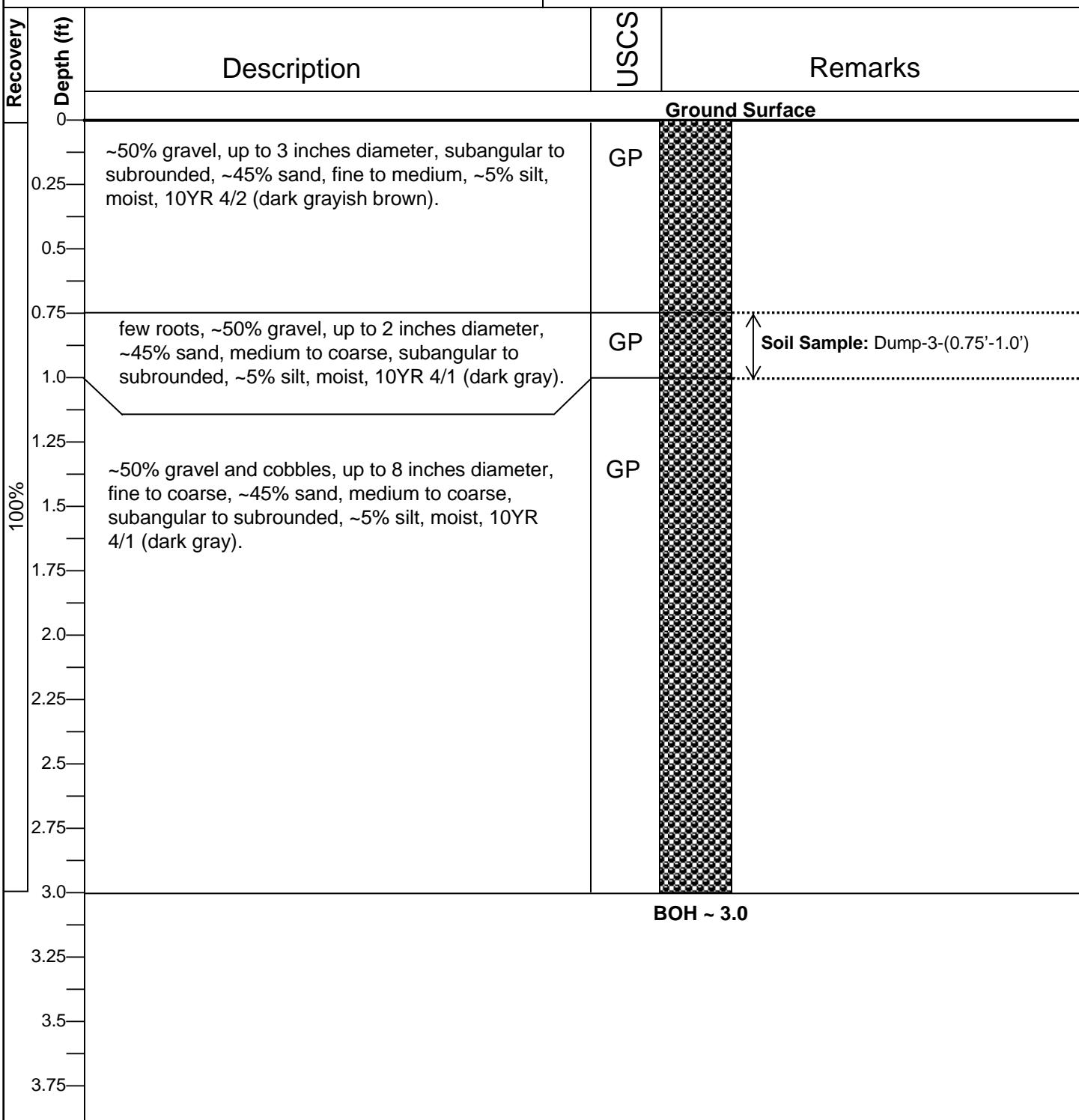
Yurok Tribe Environmental Program  
Tully Site (APN 534-182-015)

Date: 8-24-12      By: SJT

# Log of Boring Dump-3

**Date Started:** July 19, 2012  
**Date Completed:** July 19, 2012

**Driller:** Yurok Tribe Road Department  
**Drilling Method:** Bobcat E50



**Total Depth:** ~ 3.0 feet

**Dump-3**

Yurok Tribe Environmental Program  
Tully Site (APN 534-182-015)



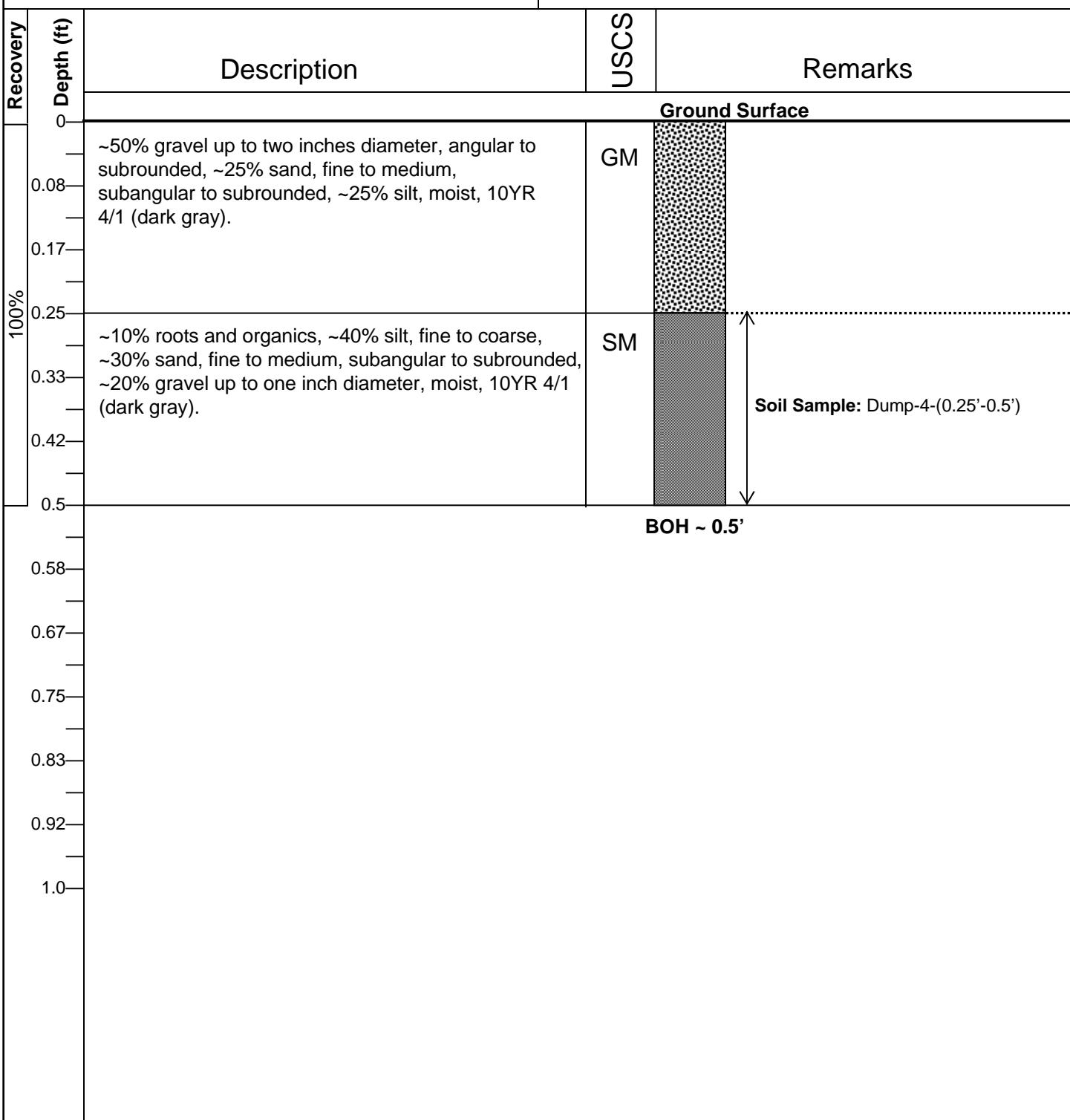
Freshwater Environmental Services

Date: 8-24-12 By: SJT

# Log of Boring Dump-4

**Date Started:** July 19, 2012  
**Date Completed:** July 19, 2012

**Driller:** Freshwater Environmental Services  
**Drilling Method:** Shovel



**Total Depth:** ~ 0.5 feet

**Dump-4**

Yurok Tribe Environmental Program  
Tully Site (APN 534-182-015)



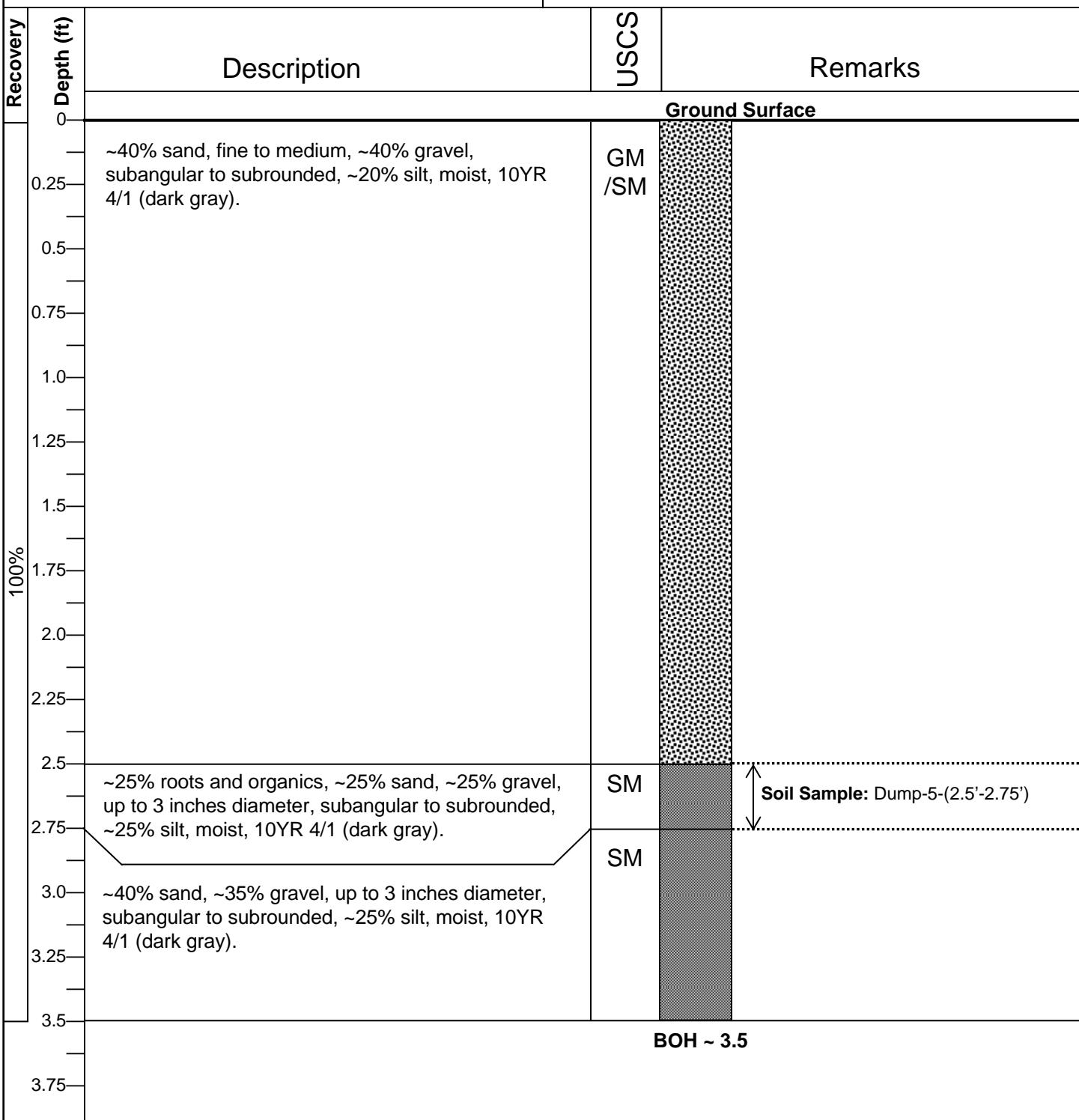
Freshwater Environmental Services

Date: 8-23-12 By: SJT

# Log of Boring Dump-5

**Date Started:** July 19, 2012  
**Date Completed:** July 19, 2012

**Driller:** Yurok Tribe Road Department  
**Drilling Method:** Bobcat E50



**Total Depth:** ~ 3.5 feet

**Dump-5**

Yurok Tribe Environmental Program  
Tully Site (APN 534-182-015)



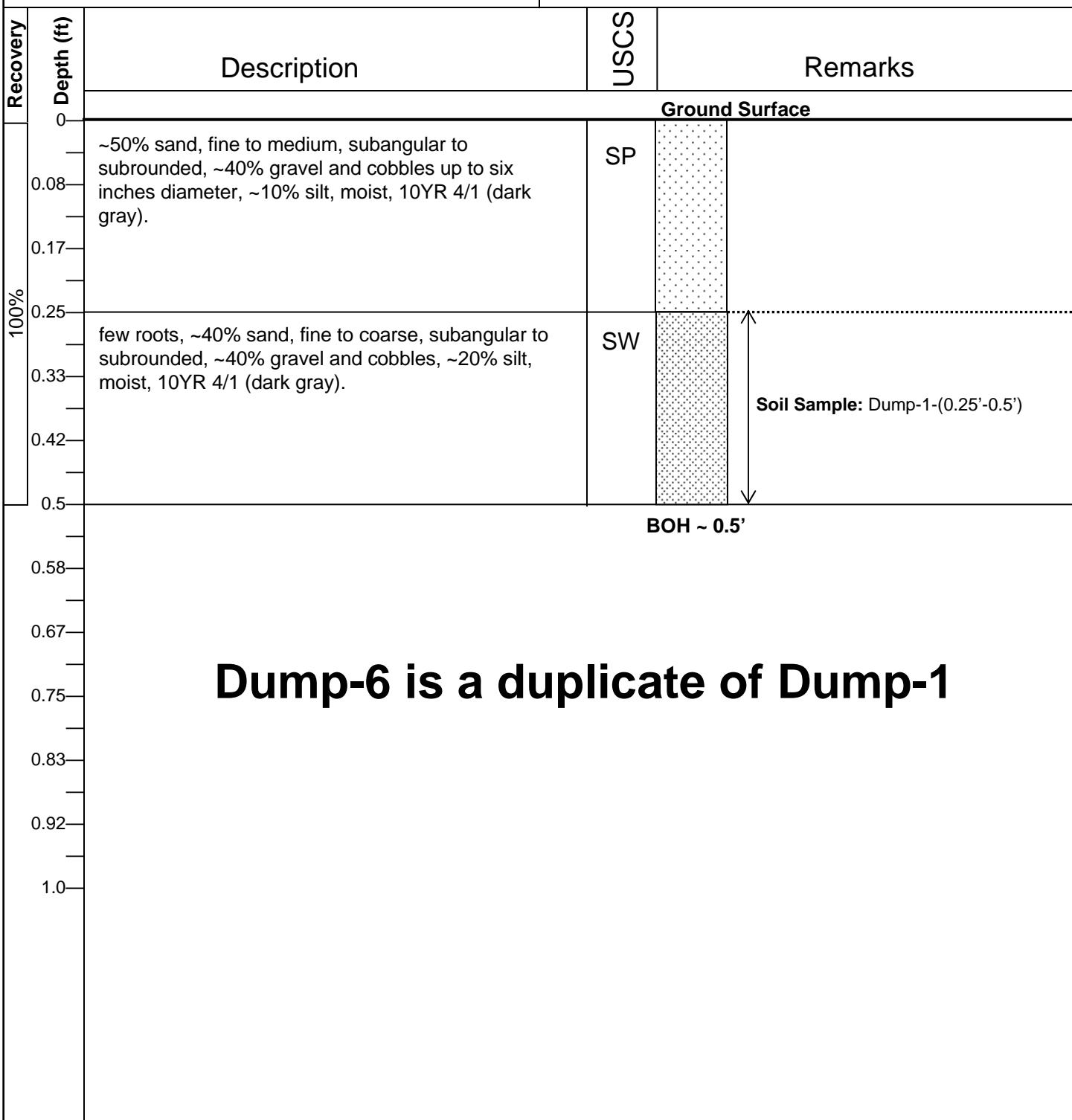
Freshwater Environmental Services

Date: 8-24-12 By: SJT

# Log of Boring Dump-6

**Date Started:** July 19, 2012  
**Date Completed:** July 19, 2012

**Driller:** Yurok Tribe Road Department  
**Drilling Method:** Bobcat E50



## Dump-6 is a duplicate of Dump-1

**Total Depth:** ~ 0.5 feet

## Dump-6

Yurok Tribe Environmental Program  
Tully Site (APN 534-182-015)



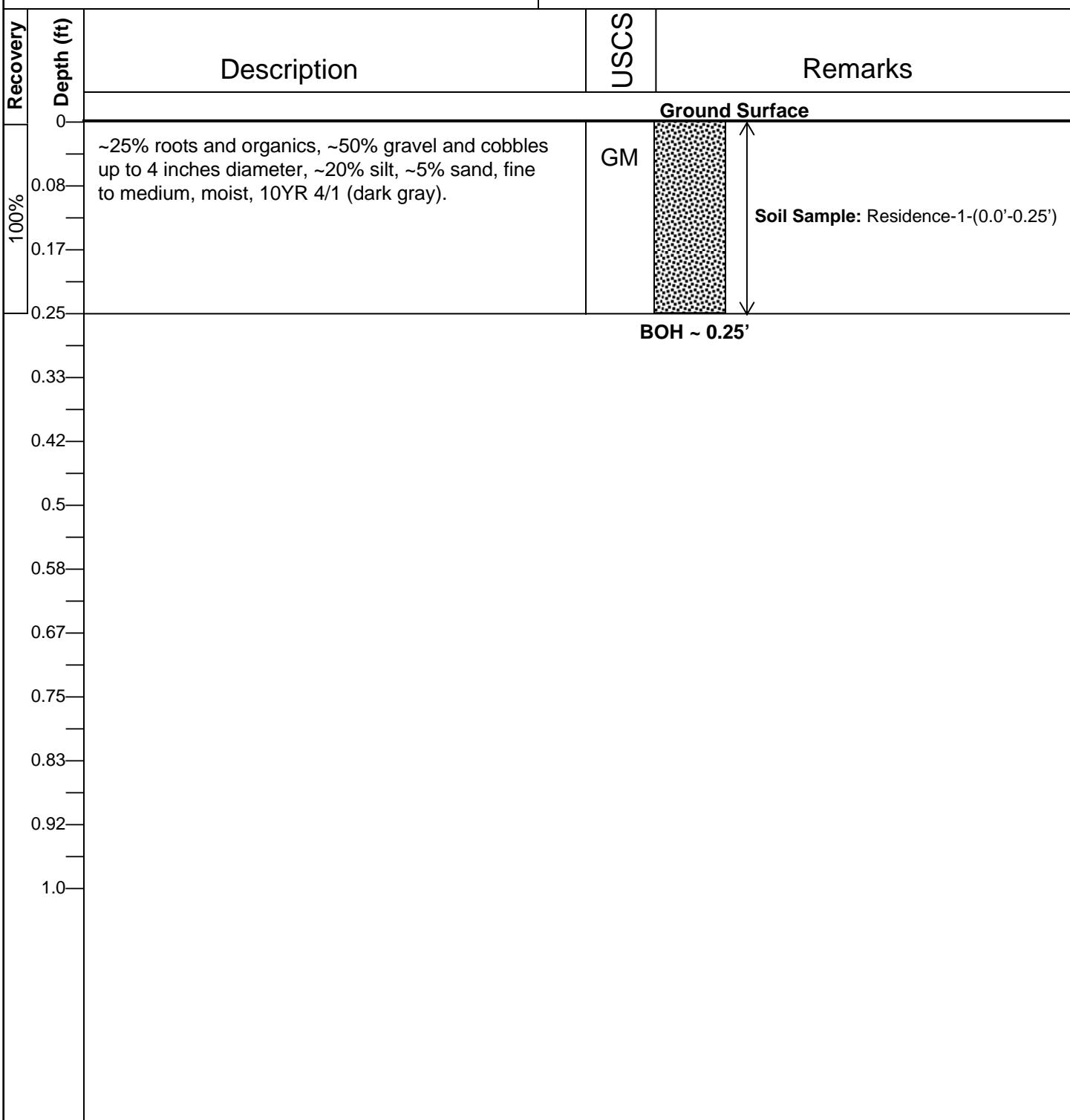
Freshwater Environmental Services

Date: 8-23-12 By: SJT

# Log of Boring **Residence-1**

**Date Started:** July 19, 2012  
**Date Completed:** July 19, 2012

**Driller:** Freshwater Environmental Services  
**Drilling Method:** Shovel



**Total Depth:** ~ 0.25 feet

**Residence-1**



**Freshwater Environmental Services**

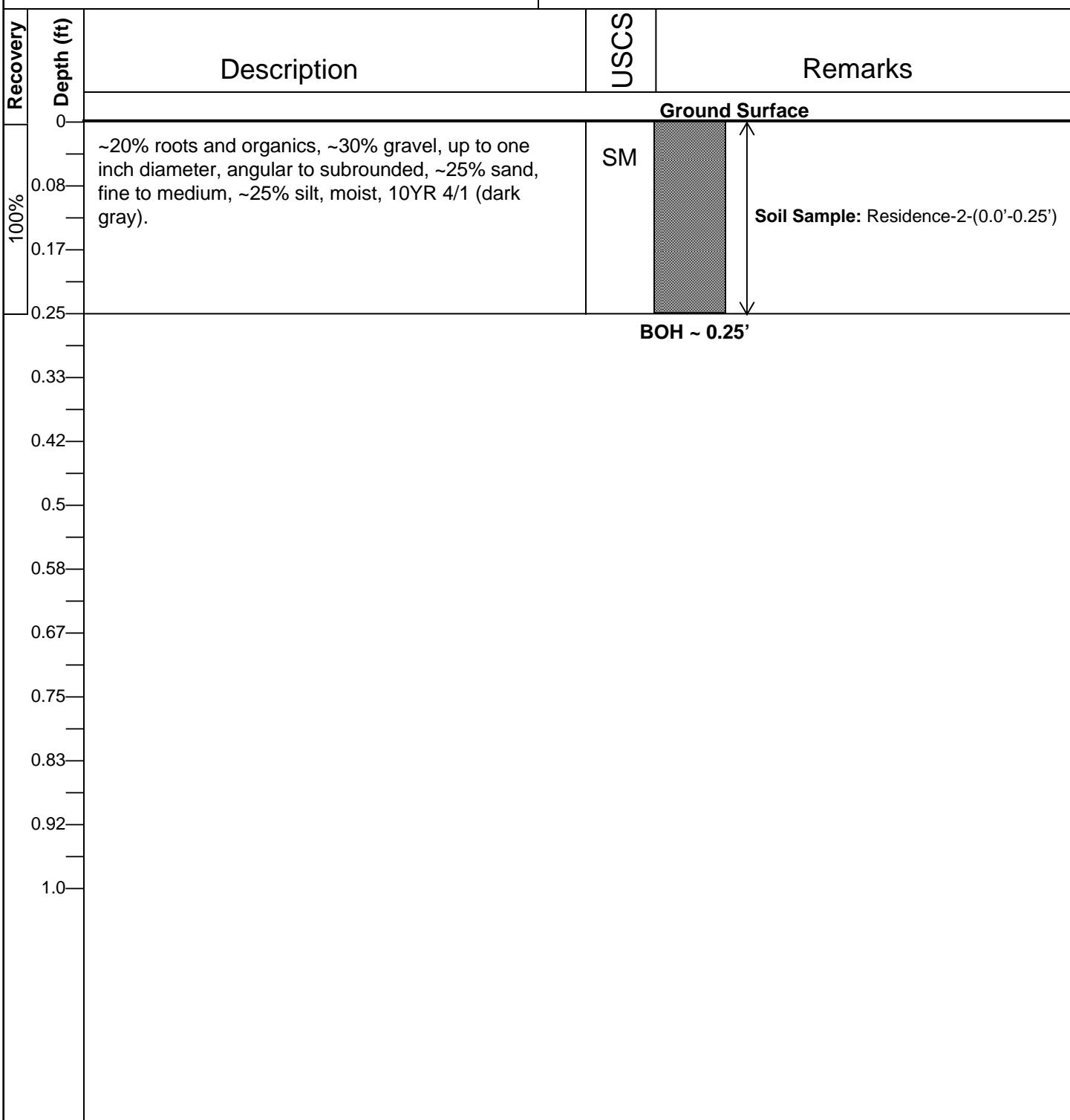
Yurok Tribe Environmental Program  
Tully Site (APN 534-182-015)

Date: 8-23-12      By: SJT

# Log of Boring **Residence-2**

**Date Started:** July 19, 2012  
**Date Completed:** July 19, 2012

**Driller:** Freshwater Environmental Services  
**Drilling Method:** Shovel



**Total Depth:** ~ 0.25 feet

**Residence-2**



Freshwater Environmental Services

Yurok Tribe Environmental Program  
Tully Site (APN 534-182-015)

Date: 8-23-12      By: SJT

**APPENDIX C**  
**Sample Location Photographs**



**Photo 1.** Location of main illegal dumping area looking east.  
Image date: May 7, 2009.



**Photo 2.** Location of main illegal dumping area looking east.  
Image date: July 17, 2012.



**Photo 3 (Dump-1).** Sample location for Dump-1.

Image date: July 19, 2012.



**Photo 4 (Dump-2).** Sample location for Dump-2.

Image date: July 19, 2012.



**Photo 5 (Dump-3).** Sample location for Dump-3.  
Image date: July 19, 2012.



**Photo 6 (Dump-4).** Sample location for Dump-4.  
Image date: July 19, 2012.



**Photo 7 (Dump-4).** Sample location for Dump-4.  
Image date: July 19, 2012.



**Photo 8 (Dump-5).** Sample location for Dump-5.  
Image date: July 19, 2012.



07/19/2012 14:44

**Photo 9 (Dump-5).** Sample location for Dump-5.

Image date: July 19, 2012.



07/19/2012 14:23

**Photo 10 (Residence-1).** Sample location for Residence-1.

Image date: July 19, 2012.



**Photo 11 (Residence-1).** Sample location for Residence-1.

Image date: July 19, 2012.



**Photo 12 (Residence-2).** Sample location for Residence-2.

Image date: July 19, 2012.



**Photo 13 (Residence-2).** Sample location for Residence-1.

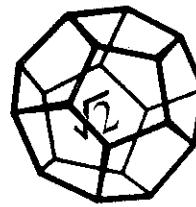
Image date: July 19, 2012.



**Photo 14 (Waukell-1).** Sample location for Waukell-1.

Image date: July 19, 2012.

**APPENDIX D**  
**Laboratory Reports and Chain-of-Custody Records**



**NORTH COAST  
LABORATORIES LTD.**

September 28, 2012

Freshwater Environmental Services  
78 Sunny Brae Center  
Arcata, CA 95521

Order No.: 1207365  
Invoice No.: 104390  
PO No.:  
ELAP No.1247-Expires July 2014

Attn: Stan Thiesen

RE: Yurok Tribe-Tully Site

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	Dump-1-(0.25'-0.5')
01B	Dump-1-(0.25'-0.5')
01C	Dump-1-(0.25'-0.5')
02A	Dump-2-(1.0'-1.25')
02B	Dump-2-(1.0'-1.25')
02C	Dump-2-(1.0'-1.25')
03A	Dump-3-(0.75'-1.0')
03B	Dump-3-(0.75'-1.0')
03C	Dump-3-(0.75'-1.0')
04A	Dump-4-(0.25'-0.5')
04B	Dump-4-(0.25'-0.5')
04C	Dump-4-(0.25'-0.5')
05A	Dump-5-(2.5'-2.75')
05B	Dump-5-(2.5'-2.75')
05C	Dump-5-(2.5'-2.75')
06A	Dump-6-(0.25'-0.5')
06B	Dump-6-(0.25'-0.5')
06C	Dump-6-(0.25'-0.5')
07A	Residence-1-(0.0'-0.25')
07B	Residence-1-(0.0'-0.25')
08A	Residence-2-(0.0"-0.25")
08B	Residence-2-(0.0"-0.25")

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**REPORT CERTIFIED BY**

Laboratory Supervisor(s)

QA Unit

Jesse G. Chaney, Jr.  
Laboratory Director

**CLIENT:** Freshwater Environmental Services  
**Project:** Yurok Tribe-Tully Site  
**Lab Order:** 1207365

**CASE NARRATIVE****THIS IS AN AMENDED REPORT:**

The arsenic results have been removed from this analytical report. The inter-element correction factor was not properly adjusted for arsenic. The other reported metals were within acceptance limits in the interference check standard.

D3: The sample contains material in the diesel range of molecular weights, but the material does not exhibit the peak pattern typical of diesel oil.

D4: The sample contains material in the diesel range of molecular weights and beyond. This suggests the presence of an oil heavier than diesel.

M3: The sample does not have the typical pattern of fresh motor oil. However, the result reported represents the amount of material in the motor oil range.

**EPA 5035/8260:**

The dilution factor ("DF") pertains to a weight correction for the EPA 5035 extraction procedure.

Due to instrumentation issues, the samples were analyzed after the recommended holding time had expired. The samples were initially analyzed within the holding time but the reporting limits were elevated due to the sample preparation method.

The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) and matrix spike (MS) recoveries were below the lower acceptance limits for chloroethane (MS and LCS only) and trichlorofluoromethane. The response of the reporting limit standard was such that the analytes would have been detected even with the low recoveries; therefore, the data were accepted.

Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-1-(0.25'-0.5')  
Lab ID: 1207365-01A

Received: 7/20/2012  
Collected: 7/19/2012 14:00

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3550/EPA 8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		1.0	mg/kg	1.0	7/26/2012	7/26/2012
TPHC Motor Oil	ND		10	mg/kg	1.0	7/26/2012	7/26/2012

Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-1-(0.25'-0.5')  
Lab ID: 1207365-01B

Received: 7/20/2012  
Collected: 7/19/2012 14:00

Test Name: EPA 8260B

Reference: EPA 5035/EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Chloromethane	ND		0.044	mg/Kg	1.1	7/21/2012	8/23/2012
Vinyl chloride	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Bromomethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Chloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Trichlorofluoromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1-Dichloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Methylene chloride	ND		0.044	mg/Kg	1.1	7/21/2012	8/23/2012
trans-1,2-Dichloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Methyl tert-butyl ether (MTBE)	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Tert-butyl alcohol (TBA)	ND		0.22	mg/Kg	1.1	7/21/2012	8/23/2012
Di-isopropyl ether (Dipe)	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1-Dichloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Ethyl tert-butyl ether (ETBE)	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
cis-1,2-Dichloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
2,2-Dichloropropane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Bromochloromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Chloroform	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Carbon Tetrachloride	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1,1-Trichloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1-Dichloropropene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Benzene	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Tert-amyl methyl ether (TAME)	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dichloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Trichloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Dibromomethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dichloropropane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Bromodichloromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
cis-1,3-Dichloropropene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Toluene	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Tetrachloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
trans-1,3-Dichloropropene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1,2-Trichloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Dibromochloromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,3-Dichloropropane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dibromoethane (EDB)	ND		0.044	mg/Kg	1.1	7/21/2012	8/23/2012
Chlorobenzene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Ethylbenzene	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
1,1,1,2-Tetrachloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
m,p-Xylene	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012

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Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-1-(0.25'-0.5')

Lab ID: 1207365-01B

Received: 7/20/2012

Collected: 7/19/2012 14:00

o-Xylene	ND	0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Bromoform	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Styrene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Isopropylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Bromobenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
n-Propylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1,2,2-Tetrachloroethane	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
2-Chlorotoluene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
4-Chlorotoluene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2,3-Trichloropropane	ND	0.044	mg/Kg	1.1	7/21/2012	8/23/2012
1,3,5-Trimethylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
tert-Butylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2,4-Trimethylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
sec-Butylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
4-Isopropyltoluene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,3-Dichlorobenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,4-Dichlorobenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
n-Butylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dichlorobenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.11	mg/Kg	1.1	7/21/2012	8/23/2012
1,2,4-Trichlorobenzene	ND	0.044	mg/Kg	1.1	7/21/2012	8/23/2012
Hexachlorobutadiene	ND	0.044	mg/Kg	1.1	7/21/2012	8/23/2012
Naphthalene	ND	0.044	mg/Kg	1.1	7/21/2012	8/23/2012
1,2,3-Trichlorobenzene	ND	0.044	mg/Kg	1.1	7/21/2012	8/23/2012
Surrogate: 1,2-Dichloroethane-d4	99.8	44.9-146	% Rec	1.1	7/21/2012	8/23/2012
Surrogate: Dibromofluoromethane	93.4	61.5-123	% Rec	1.1	7/21/2012	8/23/2012
Surrogate: Toluene-d8	94.6	90.5-108	% Rec	1.1	7/21/2012	8/23/2012

Test Name: TPH as Gasoline

Reference: EPA 5035/EPA 8260B Modified

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND		1.1	mg/kg	1.1	7/21/2012	8/23/2012

Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-1-(0.25'-0.5')  
Lab ID: 1207365-01C

Received: 7/20/2012  
Collected: 7/19/2012 14:00

Test Name: EPA 6010B

Reference: EPA 6010B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Chromium	130		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Copper	31		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Lead	13		10	mg/kg	1.0	7/24/2012	7/26/2012
Nickel	90		5.0	mg/kg	1.0	7/24/2012	7/26/2012
Zinc	66		5.0	mg/kg	1.0	7/24/2012	7/26/2012

Test Name: Mercury

Reference: EPA 7471A

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		0.10	mg/kg	1.0	7/31/2012	8/2/2012

Client Sample ID: Dump-2-(1.0'-1.25')  
Lab ID: 1207365-02A

Received: 7/20/2012  
Collected: 7/19/2012 13:45

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3550/EPA 8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		1.0	mg/kg	1.0	7/26/2012	7/26/2012
TPHC Motor Oil	10	M3	10	mg/kg	1.0	7/26/2012	7/26/2012

Test Name: TPH passed through Silica Gel Column

Reference: EPA 3550/3630/8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		1.0	mg/kg	1.0	7/26/2012	8/1/2012
TPHC Motor Oil	ND		10	mg/kg	1.0	7/26/2012	8/1/2012

Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-2-(1.0'-1.25')  
Lab ID: 1207365-02B

Received: 7/20/2012  
Collected: 7/19/2012 13:45

Test Name: EPA 8260B

Reference: EPA 5035/EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Chloromethane	ND		0.058	mg/Kg	1.4	7/21/2012	8/23/2012
Vinyl chloride	ND		0.0072	mg/Kg	1.4	7/21/2012	8/23/2012
Bromomethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Chloroethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Trichlorofluoromethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,1-Dichloroethene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Methylene chloride	ND		0.058	mg/Kg	1.4	7/21/2012	8/23/2012
trans-1,2-Dichloroethene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Methyl tert-butyl ether (MTBE)	ND		0.0072	mg/Kg	1.4	7/21/2012	8/23/2012
Tert-butyl alcohol (TBA)	ND		0.29	mg/Kg	1.4	7/21/2012	8/23/2012
Di-isopropyl ether (DIPE)	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,1-Dichloroethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Ethyl tert-butyl ether (ETBE)	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
cis-1,2-Dichloroethene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
2,2-Dichloropropane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Bromochloromethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Chloroform	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Carbon Tetrachloride	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,1,1-Trichloroethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,1-Dichloropropene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Benzene	ND		0.0072	mg/Kg	1.4	7/21/2012	8/23/2012
Tert-amyl methyl ether (TAME)	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dichloroethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Trichloroethene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Dibromomethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dichloropropane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Bromodichloromethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
cis-1,3-Dichloropropene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Toluene	ND		0.0072	mg/Kg	1.4	7/21/2012	8/23/2012
Tetrachloroethene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
trans-1,3-Dichloropropene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,1,2-Trichloroethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Dibromochloromethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,3-Dichloropropane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dibromoethane (EDB)	ND		0.058	mg/Kg	1.4	7/21/2012	8/23/2012
Chlorobenzene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Ethylbenzene	ND		0.0072	mg/Kg	1.4	7/21/2012	8/23/2012
1,1,1,2-Tetrachloroethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
m,p-Xylene	ND		0.0072	mg/Kg	1.4	7/21/2012	8/23/2012

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Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-2-(1.0'-1.25')

Lab ID: 1207365-02B

Received: 7/20/2012

Collected: 7/19/2012 13:45

o-Xylene	ND	0.0072	mg/Kg	1.4	7/21/2012	8/23/2012
Bromoform	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Styrene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Isopropylbenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Bromobenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
n-Propylbenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,1,2,2-Tetrachloroethane	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
2-Chlorotoluene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
4-Chlorotoluene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,2,3-Trichloropropane	ND	0.058	mg/Kg	1.4	7/21/2012	8/23/2012
1,3,5-Trimethylbenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
tert-Butylbenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,2,4-Trimethylbenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
sec-Butylbenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
4-Isopropyltoluene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,3-Dichlorobenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,4-Dichlorobenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
n-Butylbenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dichlorobenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.14	mg/Kg	1.4	7/21/2012	8/23/2012
1,2,4-Trichlorobenzene	ND	0.058	mg/Kg	1.4	7/21/2012	8/23/2012
Hexachlorobutadiene	ND	0.058	mg/Kg	1.4	7/21/2012	8/23/2012
Naphthalene	ND	0.058	mg/Kg	1.4	7/21/2012	8/23/2012
1,2,3-Trichlorobenzene	ND	0.058	mg/Kg	1.4	7/21/2012	8/23/2012
Surrogate: 1,2-Dichloroethane-d4	102	44.9-146	% Rec	1.4	7/21/2012	8/23/2012
Surrogate: Dibromofluoromethane	96.5	61.5-123	% Rec	1.4	7/21/2012	8/23/2012
Surrogate: Toluene-d8	90.8	90.5-108	% Rec	1.4	7/21/2012	8/23/2012

Test Name: TPH as Gasoline

Reference: EPA 5035/EPA 8260B Modified

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND		1.4	mg/kg	1.4	7/21/2012	8/23/2012

Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-2-(1.0'-1.25')  
Lab ID: 1207365-02C

Received: 7/20/2012  
Collected: 7/19/2012 13:45

Test Name: EPA 6010B

Reference: EPA 6010B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Chromium	110		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Copper	25		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Lead	11		10	mg/kg	1.0	7/24/2012	7/26/2012
Nickel	80		5.0	mg/kg	1.0	7/24/2012	7/26/2012
Zinc	78		5.0	mg/kg	1.0	7/24/2012	7/26/2012

Test Name: Mercury

Reference: EPA 7471A

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		0.10	mg/kg	1.0	7/31/2012	8/2/2012

Client Sample ID: Dump-3-(0.75'-1.0')  
Lab ID: 1207365-03A

Received: 7/20/2012  
Collected: 7/19/2012 13:55

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3550/EPA 8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		1.0	mg/kg	1.0	7/26/2012	7/26/2012
TPHC Motor Oil	ND		10	mg/kg	1.0	7/26/2012	7/26/2012

Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-3-(0.75'-1.0')  
Lab ID: 1207365-03B

Received: 7/20/2012  
Collected: 7/19/2012 13:55

Test Name: EPA 8260B

Reference: EPA 5035/EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Chloromethane	ND		0.038	mg/Kg	0.96	7/21/2012	8/23/2012
Vinyl chloride	ND		0.0048	mg/Kg	0.96	7/21/2012	8/23/2012
Bromomethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Chloroethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Trichlorofluoromethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,1-Dichloroethene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Methylene chloride	ND		0.038	mg/Kg	0.96	7/21/2012	8/23/2012
trans-1,2-Dichloroethene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Methyl tert-butyl ether (MTBE)	ND		0.0048	mg/Kg	0.96	7/21/2012	8/23/2012
Tert-butyl alcohol (TBA)	ND		0.19	mg/Kg	0.96	7/21/2012	8/23/2012
Di-isopropyl ether (DIPE)	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,1-Dichloroethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Ethyl tert-butyl ether (ETBE)	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
cis-1,2-Dichloroethene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
2,2-Dichloropropane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Bromochloromethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Chloroform	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Carbon Tetrachloride	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,1,1-Trichloroethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,1-Dichloropropene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Benzene	ND		0.0048	mg/Kg	0.96	7/21/2012	8/23/2012
Tert-amyl methyl ether (TAME)	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,2-Dichloroethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Trichloroethene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Dibromomethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,2-Dichloropropane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Bromodichloromethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
cis-1,3-Dichloropropene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Toluene	ND		0.0048	mg/Kg	0.96	7/21/2012	8/23/2012
Tetrachloroethene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
trans-1,3-Dichloropropene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,1,2-Trichloroethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Dibromochloromethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,3-Dichloropropane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,2-Dibromoethane (EDB)	ND		0.038	mg/Kg	0.96	7/21/2012	8/23/2012
Chlorobenzene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Ethylbenzene	ND		0.0048	mg/Kg	0.96	7/21/2012	8/23/2012
1,1,1,2-Tetrachloroethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
m,p-Xylene	ND		0.0048	mg/Kg	0.96	7/21/2012	8/23/2012

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Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-3-(0.75'-1.0')

Lab ID: 1207365-03B

Received: 7/20/2012

Collected: 7/19/2012 13:55

o-Xylene	ND	0.0048	mg/Kg	0.96	7/21/2012	8/23/2012
Bromoform	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Styrene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Isopropylbenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Bromobenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
n-Propylbenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,1,2,2-Tetrachloroethane	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
2-Chlorotoluene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
4-Chlorotoluene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,2,3-Trichloropropane	ND	0.038	mg/Kg	0.96	7/21/2012	8/23/2012
1,3,5-Trimethylbenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
tert-Butylbenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,2,4-Trimethylbenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
sec-Butylbenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
4-Isopropyltoluene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,3-Dichlorobenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,4-Dichlorobenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
n-Butylbenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,2-Dichlorobenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.096	mg/Kg	0.96	7/21/2012	8/23/2012
1,2,4-Trichlorobenzene	ND	0.038	mg/Kg	0.96	7/21/2012	8/23/2012
Hexachlorobutadiene	ND	0.038	mg/Kg	0.96	7/21/2012	8/23/2012
Naphthalene	ND	0.038	mg/Kg	0.96	7/21/2012	8/23/2012
1,2,3-Trichlorobenzene	ND	0.038	mg/Kg	0.96	7/21/2012	8/23/2012
Surrogate: 1,2-Dichloroethane-d4	104	44.9-146	% Rec	0.96	7/21/2012	8/23/2012
Surrogate: Dibromofluoromethane	85.0	61.5-123	% Rec	0.96	7/21/2012	8/23/2012
Surrogate: Toluene-d8	97.5	90.5-108	% Rec	0.96	7/21/2012	8/23/2012

Test Name: TPH as Gasoline

Reference: EPA 5035/EPA 8260B Modified

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND		0.96	mg/kg	0.96	7/21/2012	8/23/2012

Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-3-(0.75'-1.0')  
Lab ID: 1207365-03C

Received: 7/20/2012  
Collected: 7/19/2012 13:55

Test Name: EPA 6010B

Reference: EPA 6010B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Chromium	120		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Copper	50		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Lead	16		10	mg/kg	1.0	7/24/2012	7/26/2012
Nickel	97		5.0	mg/kg	1.0	7/24/2012	7/26/2012
Zinc	68		5.0	mg/kg	1.0	7/24/2012	7/26/2012

Test Name: Mercury

Reference: EPA 7471A

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		0.10	mg/kg	1.0	7/31/2012	8/2/2012

Client Sample ID: Dump-4-(0.25'-0.5')  
Lab ID: 1207365-04A

Received: 7/20/2012  
Collected: 7/19/2012 13:00

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3550/EPA 8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		1.0	mg/kg	1.0	7/26/2012	7/27/2012
TPHC Motor Oil	32	M3	10	mg/kg	1.0	7/26/2012	7/27/2012

Test Name: TPH passed through Silica Gel Column

Reference: EPA 3550/3630/8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		1.0	mg/kg	1.0	7/26/2012	8/1/2012
TPHC Motor Oil	ND		10	mg/kg	1.0	7/26/2012	8/1/2012

Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-4-(0.25'-0.5')  
Lab ID: 1207365-04B

Received: 7/20/2012  
Collected: 7/19/2012 13:00

Test Name: EPA 8260B

Reference: EPA 5035/EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Chloromethane	ND		0.045	mg/Kg	1.1	7/21/2012	8/23/2012
Vinyl chloride	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Bromomethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Chloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Trichlorofluoromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1-Dichloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Methylene chloride	ND		0.045	mg/Kg	1.1	7/21/2012	8/23/2012
trans-1,2-Dichloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Methyl tert-butyl ether (MTBE)	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Tert-butyl alcohol (TBA)	ND		0.22	mg/Kg	1.1	7/21/2012	8/23/2012
Di-isopropyl ether (Dipe)	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1-Dichloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Ethyl tert-butyl ether (ETBE)	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
cis-1,2-Dichloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
2,2-Dichloropropane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Bromochloromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Chloroform	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Carbon Tetrachloride	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1,1-Trichloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1-Dichloropropene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Benzene	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Tert-amyl methyl ether (TAME)	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dichloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Trichloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Dibromomethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dichloropropane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Bromodichloromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
cis-1,3-Dichloropropene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Toluene	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Tetrachloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
trans-1,3-Dichloropropene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1,2-Trichloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Dibromochloromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,3-Dichloropropane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dibromoethane (EDB)	ND		0.045	mg/Kg	1.1	7/21/2012	8/23/2012
Chlorobenzene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Ethylbenzene	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
1,1,1,2-Tetrachloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
m,p-Xylene	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012

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Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-4-(0.25'-0.5')

Lab ID: 1207365-04B

Received: 7/20/2012

Collected: 7/19/2012 13:00

o-Xylene	ND	0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Bromoform	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Styrene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Isopropylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Bromobenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
n-Propylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1,2,2-Tetrachloroethane	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
2-Chlorotoluene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
4-Chlorotoluene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2,3-Trichloropropane	ND	0.045	mg/Kg	1.1	7/21/2012	8/23/2012
1,3,5-Trimethylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
tert-Butylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2,4-Trimethylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
sec-Butylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
4-Isopropyltoluene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,3-Dichlorobenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,4-Dichlorobenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
n-Butylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dichlorobenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.11	mg/Kg	1.1	7/21/2012	8/23/2012
1,2,4-Trichlorobenzene	ND	0.045	mg/Kg	1.1	7/21/2012	8/23/2012
Hexachlorobutadiene	ND	0.045	mg/Kg	1.1	7/21/2012	8/23/2012
Naphthalene	ND	0.045	mg/Kg	1.1	7/21/2012	8/23/2012
1,2,3-Trichlorobenzene	ND	0.045	mg/Kg	1.1	7/21/2012	8/23/2012
Surrogate: 1,2-Dichloroethane-d4	105	44.9-146	% Rec	1.1	7/21/2012	8/23/2012
Surrogate: Dibromofluoromethane	97.5	61.5-123	% Rec	1.1	7/21/2012	8/23/2012
Surrogate: Toluene-d8	89.0	90.5-108	% Rec	1.1	7/21/2012	8/23/2012

Test Name: TPH as Gasoline

Reference: EPA 5035/EPA 8260B Modified

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND		1.1	mg/kg	1.1	7/21/2012	8/23/2012

Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-4-(0.25'-0.5')  
Lab ID: 1207365-04C

Received: 7/20/2012  
Collected: 7/19/2012 13:00

Test Name: EPA 6010B

Reference: EPA 6010B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Chromium	76		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Copper	18		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Lead	ND		10	mg/kg	1.0	7/24/2012	7/26/2012
Nickel	52		5.0	mg/kg	1.0	7/24/2012	7/26/2012
Zinc	240		5.0	mg/kg	1.0	7/24/2012	7/26/2012

Test Name: Mercury

Reference: EPA 7471A

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		0.10	mg/kg	1.0	7/31/2012	8/2/2012

Client Sample ID: Dump-5-(2.5'-2.75')  
Lab ID: 1207365-05A

Received: 7/20/2012  
Collected: 7/19/2012 13:20

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3550/EPA 8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	1.7	D3	1.0	mg/kg	1.0	7/26/2012	7/27/2012
TPHC Motor Oil	10	M3	10	mg/kg	1.0	7/26/2012	7/27/2012

Test Name: TPH passed through Silica Gel Column

Reference: EPA 3550/3630/8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	1.4	D3	1.0	mg/kg	1.0	7/26/2012	8/1/2012
TPHC Motor Oil	ND		10	mg/kg	1.0	7/26/2012	8/1/2012

Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-5-(2.5'-2.75')  
Lab ID: 1207365-05B

Received: 7/20/2012  
Collected: 7/19/2012 13:20

Test Name: EPA 8260B

Reference: EPA 5035/EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Chloromethane	ND		0.050	mg/Kg	1.2	7/21/2012	8/23/2012
Vinyl chloride	ND		0.0062	mg/Kg	1.2	7/21/2012	8/23/2012
Bromomethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Chloroethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Trichlorofluoromethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,1-Dichloroethene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Methylene chloride	ND		0.050	mg/Kg	1.2	7/21/2012	8/23/2012
trans-1,2-Dichloroethene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Methyl tert-butyl ether (MTBE)	ND		0.0062	mg/Kg	1.2	7/21/2012	8/23/2012
Tert-butyl alcohol (TBA)	ND		0.25	mg/Kg	1.2	7/21/2012	8/23/2012
Di-isopropyl ether (DIPE)	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,1-Dichloroethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Ethyl tert-butyl ether (ETBE)	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
cis-1,2-Dichloroethene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
2,2-Dichloropropane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Bromochloromethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Chloroform	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Carbon Tetrachloride	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,1,1-Trichloroethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,1-Dichloropropene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Benzene	ND		0.0062	mg/Kg	1.2	7/21/2012	8/23/2012
Tert-amyl methyl ether (TAME)	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,2-Dichloroethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Trichloroethene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Dibromomethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,2-Dichloropropane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Bromodichloromethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
cis-1,3-Dichloropropene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Toluene	ND		0.0062	mg/Kg	1.2	7/21/2012	8/23/2012
Tetrachloroethene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
trans-1,3-Dichloropropene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,1,2-Trichloroethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Dibromochloromethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,3-Dichloropropane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,2-Dibromoethane (EDB)	ND		0.050	mg/Kg	1.2	7/21/2012	8/23/2012
Chlorobenzene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Ethylbenzene	ND		0.0062	mg/Kg	1.2	7/21/2012	8/23/2012
1,1,1,2-Tetrachloroethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
m,p-Xylene	ND		0.0062	mg/Kg	1.2	7/21/2012	8/23/2012

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Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-5-(2.5'-2.75')

Lab ID: 1207365-05B

Received: 7/20/2012

Collected: 7/19/2012 13:20

o-Xylene	ND	0.0062	mg/Kg	1.2	7/21/2012	8/23/2012
Bromoform	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Styrene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Isopropylbenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Bromobenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
n-Propylbenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,1,2,2-Tetrachloroethane	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
2-Chlorotoluene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
4-Chlorotoluene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,2,3-Trichloropropane	ND	0.050	mg/Kg	1.2	7/21/2012	8/23/2012
1,3,5-Trimethylbenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
tert-Butylbenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,2,4-Trimethylbenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
sec-Butylbenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
4-Isopropyltoluene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,3-Dichlorobenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,4-Dichlorobenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
n-Butylbenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,2-Dichlorobenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.12	mg/Kg	1.2	7/21/2012	8/23/2012
1,2,4-Trichlorobenzene	ND	0.050	mg/Kg	1.2	7/21/2012	8/23/2012
Hexachlorobutadiene	ND	0.050	mg/Kg	1.2	7/21/2012	8/23/2012
Naphthalene	ND	0.050	mg/Kg	1.2	7/21/2012	8/23/2012
1,2,3-Trichlorobenzene	ND	0.050	mg/Kg	1.2	7/21/2012	8/23/2012
Surrogate: 1,2-Dichloroethane-d4	105	44.9-146	% Rec	1.2	7/21/2012	8/23/2012
Surrogate: Dibromofluoromethane	102	61.5-123	% Rec	1.2	7/21/2012	8/23/2012
Surrogate: Toluene-d8	101	90.5-108	% Rec	1.2	7/21/2012	8/23/2012

Test Name: TPH as Gasoline

Reference: EPA 5035/EPA 8260B Modified

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND		1.2	mg/kg	1.2	7/21/2012	8/23/2012

Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-5-(2.5'-2.75')  
Lab ID: 1207365-05C

Received: 7/20/2012  
Collected: 7/19/2012 13:20

Test Name: EPA 6010B

Reference: EPA 6010B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Chromium	240		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Copper	29		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Lead	11		10	mg/kg	1.0	7/24/2012	7/26/2012
Nickel	130		5.0	mg/kg	1.0	7/24/2012	7/26/2012
Zinc	60		5.0	mg/kg	1.0	7/24/2012	7/26/2012

Test Name: Mercury

Reference: EPA 7471A

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		0.10	mg/kg	1.0	7/31/2012	8/2/2012

Client Sample ID: Dump-6-(0.25'-0.5')  
Lab ID: 1207365-06A

Received: 7/20/2012  
Collected: 7/19/2012 14:10

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3550/EPA 8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		1.0	mg/kg	1.0	7/26/2012	7/27/2012
TPHC Motor Oil	ND		10	mg/kg	1.0	7/26/2012	7/27/2012

Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-6-(0.25'-0.5')  
Lab ID: 1207365-06B

Received: 7/20/2012  
Collected: 7/19/2012 14:10

Test Name: EPA 8260B

Reference: EPA 5035/EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Chloromethane	ND		0.056	mg/Kg	1.4	7/21/2012	8/23/2012
Vinyl chloride	ND		0.0070	mg/Kg	1.4	7/21/2012	8/23/2012
Bromomethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Chloroethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Trichlorofluoromethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,1-Dichloroethene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Methylene chloride	ND		0.056	mg/Kg	1.4	7/21/2012	8/23/2012
trans-1,2-Dichloroethene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Methyl tert-butyl ether (MTBE)	ND		0.0070	mg/Kg	1.4	7/21/2012	8/23/2012
Tert-butyl alcohol (TBA)	ND		0.28	mg/Kg	1.4	7/21/2012	8/23/2012
Di-isopropyl ether (Dipe)	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,1-Dichloroethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Ethyl tert-butyl ether (ETBE)	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
cis-1,2-Dichloroethene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
2,2-Dichloropropane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Bromochloromethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Chloroform	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Carbon Tetrachloride	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,1,1-Trichloroethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,1-Dichloropropene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Benzene	ND		0.0070	mg/Kg	1.4	7/21/2012	8/23/2012
Tert-amyl methyl ether (TAME)	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dichloroethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Trichloroethene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Dibromomethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dichloropropane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Bromodichloromethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
cis-1,3-Dichloropropene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Toluene	ND		0.0070	mg/Kg	1.4	7/21/2012	8/23/2012
Tetrachloroethene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
trans-1,3-Dichloropropene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,1,2-Trichloroethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Dibromochloromethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,3-Dichloropropane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dibromoethane (EDB)	ND		0.056	mg/Kg	1.4	7/21/2012	8/23/2012
Chlorobenzene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Ethylbenzene	ND		0.0070	mg/Kg	1.4	7/21/2012	8/23/2012
1,1,1,2-Tetrachloroethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
m,p-Xylene	ND		0.0070	mg/Kg	1.4	7/21/2012	8/23/2012

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Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

**Client Sample ID:** Dump-6-(0.25'-0.5')

**Received:** 7/20/2012  
**Collected:** 7/19/2012 14:10

**Lab ID:** 1207365-06B

o-Xylene	ND	0.0070	mg/Kg	1.4	7/21/2012	8/23/2012
Bromoform	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Styrene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Isopropylbenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Bromobenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
n-Propylbenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,1,2,2-Tetrachloroethane	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
2-Chlorotoluene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
4-Chlorotoluene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,2,3-Trichloropropane	ND	0.056	mg/Kg	1.4	7/21/2012	8/23/2012
1,3,5-Trimethylbenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
tert-Butylbenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,2,4-Trimethylbenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
sec-Butylbenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
4-Isopropyltoluene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,3-Dichlorobenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,4-Dichlorobenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
n-Butylbenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dichlorobenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.14	mg/Kg	1.4	7/21/2012	8/23/2012
1,2,4-Trichlorobenzene	ND	0.056	mg/Kg	1.4	7/21/2012	8/23/2012
Hexachlorobutadiene	ND	0.056	mg/Kg	1.4	7/21/2012	8/23/2012
Naphthalene	ND	0.056	mg/Kg	1.4	7/21/2012	8/23/2012
1,2,3-Trichlorobenzene	ND	0.056	mg/Kg	1.4	7/21/2012	8/23/2012
Surrogate: 1,2-Dichloroethane-d4	108	44.9-146	% Rec	1.4	7/21/2012	8/23/2012
Surrogate: Dibromofluoromethane	108	61.5-123	% Rec	1.4	7/21/2012	8/23/2012
Surrogate: Toluene-d8	101	90.5-108	% Rec	1.4	7/21/2012	8/23/2012

**Test Name:** TPH as Gasoline

**Reference:** EPA 5035/EPA 8260B Modified

<b>Parameter</b>	<b>Result</b>	<b>Flag</b>	<b>Limit</b>	<b>Units</b>	<b>DF</b>	<b>Extracted</b>	<b>Analyzed</b>
TPHC Gasoline	ND		1.4	mg/kg	1.4	7/21/2012	8/23/2012

Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-6-(0.25'-0.5')  
Lab ID: 1207365-06C

Received: 7/20/2012  
Collected: 7/19/2012 14:10

Test Name: EPA 6010B

Reference: EPA 6010B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Chromium	150		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Copper	30		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Lead	12		10	mg/kg	1.0	7/24/2012	7/26/2012
Nickel	96		5.0	mg/kg	1.0	7/24/2012	7/26/2012
Zinc	55		5.0	mg/kg	1.0	7/24/2012	7/26/2012

Test Name: Mercury

Reference: EPA 7471A

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		0.10	mg/kg	1.0	7/31/2012	8/2/2012

Client Sample ID: Residence-1-(0.0'-0.25')  
Lab ID: 1207365-07A

Received: 7/20/2012  
Collected: 7/19/2012 14:20

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3550/EPA 8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	11	D4	1.0	mg/kg	1.0	7/26/2012	7/27/2012
TPHC Motor Oil	1,000		200	mg/kg	20	7/26/2012	8/1/2012

Test Name: TPH passed through Silica Gel Column

Reference: EPA 3550/3630/8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		20	mg/kg	20	7/26/2012	8/1/2012
TPHC Motor Oil	660		200	mg/kg	20	7/26/2012	8/1/2012

Client Sample ID: Residence-1-(0.0'-0.25')  
Lab ID: 1207365-07B

Received: 7/20/2012  
Collected: 7/19/2012 14:20

Test Name: EPA 6010B

Reference: EPA 6010B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Chromium	120		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Copper	43		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Lead	64		10	mg/kg	1.0	7/24/2012	7/26/2012
Nickel	66		5.0	mg/kg	1.0	7/24/2012	7/26/2012
Zinc	170		5.0	mg/kg	1.0	7/24/2012	7/26/2012

Date: 28-Sep-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

**Client Sample ID:** Residence-2-(0.0"-0.25')

**Received:** 7/20/2012

**Lab ID:** 1207365-08A

**Collected:** 7/19/2012 14:25

**Test Name:** TPH as Diesel/Motor Oil

**Reference:** EPA 3550/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Diesel (C12-C22)	10	D3, D4	1.0	mg/kg	1.0	7/26/2012	7/27/2012
TPHC Motor Oil	400		100	mg/kg	10	7/26/2012	8/1/2012

**Test Name:** TPH passed through Silica Gel Column

**Reference:** EPA 3550/3630/8015B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Diesel (C12-C22)	10	D3, D4	10	mg/kg	10	7/26/2012	8/1/2012
TPHC Motor Oil	340		100	mg/kg	10	7/26/2012	8/1/2012

**Client Sample ID:** Residence-2-(0.0"-0.25')

**Received:** 7/20/2012

**Lab ID:** 1207365-08B

**Collected:** 7/19/2012 14:25

**Test Name:** EPA 6010B

**Reference:** EPA 6010B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Cadmium	ND		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Chromium	190		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Copper	55		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Lead	76		10	mg/kg	1.0	7/24/2012	7/26/2012
Nickel	170		5.0	mg/kg	1.0	7/24/2012	7/26/2012
Zinc	180		5.0	mg/kg	1.0	7/24/2012	7/26/2012

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Method Blank

Sample ID: MB-27820	Batch ID: 27820a	Test Code: 5035_8260S	Units: mg/Kg	Analysis Date 8/23/2012 3:28:00 PM			Prep Date: 7/21/2012				
Client ID:		Run ID: ORGCMS2_120823B		SeqNo: 1042049							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	ND	0.020									
Chloromethane	ND	0.040									
Vinyl chloride	ND	0.0050									
Bromomethane	ND	0.020									
Chloroethane	ND	0.020									
Trichlorofluoromethane	ND	0.020									
1,1-Dichloroethene	ND	0.020									
Methylene chloride	ND	0.040									
trans-1,2-Dichloroethene	ND	0.020									
Methyl tert-butyl ether (MTBE)	ND	0.0050									
Tert-butyl alcohol (TBA)	ND	0.20									
Di-isopropyl ether (DIPE)	ND	0.020									
1,1-Dichloroethane	ND	0.020									
Ethyl tert-butyl ether (ETBE)	ND	0.020									
cis-1,2-Dichloroethene	ND	0.020									
2,2-Dichloropropane	ND	0.020									
Bromochloromethane	ND	0.020									
Chloroform	ND	0.020									
Carbon Tetrachloride	ND	0.020									
1,1,1-Trichloroethane	ND	0.020									
1,1-Dichloropropene	ND	0.020									
Benzene	ND	0.0050									
Tert-amyl methyl ether (TAME)	ND	0.020									
1,2-Dichloroethane	ND	0.020									
Trichloroethene	ND	0.020									
Dibromomethane	ND	0.020									
1,2-Dichloropropane	ND	0.020									
Bromodichloromethane	ND	0.020									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Method Blank

cis-1,3-Dichloropropene	ND	0.020
Toluene	ND	0.0050
Tetrachloroethene	ND	0.020
trans-1,3-Dichloropropene	ND	0.020
1,1,2-Trichloroethane	ND	0.020
Dibromochloromethane	ND	0.020
1,3-Dichloropropane	ND	0.020
1,2-Dibromoethane (EDB)	ND	0.040
Chlorobenzene	ND	0.020
Ethylbenzene	ND	0.0050
1,1,1,2-Tetrachloroethane	ND	0.020
m,p-Xylene	ND	0.0050
o-Xylene	ND	0.0050
Bromoform	ND	0.020
Styrene	ND	0.020
Isopropylbenzene	ND	0.020
Bromobenzene	ND	0.020
n-Propylbenzene	ND	0.020
1,1,2,2-Tetrachloroethane	ND	0.020
2-Chlorotoluene	ND	0.020
4-Chlorotoluene	ND	0.020
1,2,3-Trichloropropane	ND	0.040
1,3,5-Trimethylbenzene	ND	0.020
tert-Butylbenzene	ND	0.020
1,2,4-Trimethylbenzene	ND	0.020
sec-Butylbenzene	ND	0.020
4-Isopropyltoluene	ND	0.020
1,3-Dichlorobenzene	ND	0.020
1,4-Dichlorobenzene	ND	0.020
n-Butylbenzene	ND	0.020
1,2-Dichlorobenzene	ND	0.020
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.10
1,2,4-Trichlorobenzene	ND	0.040
Hexachlorobutadiene	ND	0.040

**Qualifiers:** ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Method Blank

Naphthalene	ND	0.040							
1,2,3-Trichlorobenzene	ND	0.040							
Surrogate: 1,2-Dichloroethane-d4	0.994	0.0020	1.00	0	99.4%	45	146	0	
Surrogate: Dibromofluoromethane	1.04	0.0020	1.00	0	104%	62	123	0	
Surrogate: Toluene-d8	0.912	0.0020	1.00	0	91.2%	91	108	0	

Sample ID: MB-27820	Batch ID: 27820a	Test Code: 5035_GASS-	Units: mg/kg		Analysis Date	8/23/2012 3:28:00 PM	Prep Date:	7/21/2012			
Client ID:		Run ID:	ORGCMS2_120823A		SeqNo:	1041965					
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	ND	1.0									
Sample ID: MB-27801	Batch ID: 27801	Test Code: 6ICPS	Units: mg/kg		Analysis Date	7/26/2012 11:48:00 AM	Prep Date:	7/24/2012			
Client ID:		Run ID:	INIC2_120726A		SeqNo:	1036130					
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	2.0									
Chromium	ND	2.0									
Copper	ND	2.0									
Lead	ND	10									
Nickel	ND	5.0									
Zinc	ND	5.0									
Sample ID: MB-27832	Batch ID: 27832	Test Code: MERCS	Units: mg/kg		Analysis Date	8/2/2012	Prep Date:	7/31/2012			
Client ID:		Run ID:	CVAA1_120802A		SeqNo:	1037862					
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.10									

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Method Blank

Sample ID: MB-27808	Batch ID: 27808	Test Code: SGTPDMS	Units: mg/kg	Analysis Date 8/1/2012 12:24:01 AM			Prep Date: 7/26/2012				
Client ID:		Run ID:	ORGC14_120731A	SeqNo: 1037449							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	ND	1.0									
TPHC Motor Oil	ND	10									
Sample ID: MB-27807	Batch ID: 27807	Test Code: TPHDMS	Units: mg/kg	Analysis Date 7/26/2012 8:23:35 PM			Prep Date: 7/26/2012				
Client ID:		Run ID:	ORGC14_120726B	SeqNo: 1037427							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	ND	1.0									
TPHC Motor Oil	ND	10									

<b>Qualifiers:</b>	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 1207365-01CMS	Batch ID: 27801	Test Code: 6ICPS	Units: mg/kg	Analysis Date 7/26/2012 12:51:00 PM				Prep Date: 7/24/2012			
Client ID: Dump-1-(0.25'-0.5')		Run ID: INIC2_120726A		SeqNo: 1036145							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	87.16	2.0	100	0	87.2%	70	130	0			
Chromium	232.1	2.0	100	135	97.2%	70	130	0			
Copper	125.3	2.0	100	30.7	94.6%	70	130	0			
Lead	98.31	10	100	13.4	84.9%	70	130	0			
Nickel	184.5	5.0	100	90.3	94.3%	70	130	0			
Zinc	150.4	5.0	100	65.5	84.9%	70	130	0			
Sample ID: 1207365-01CMDS	Batch ID: 27801	Test Code: 6ICPS	Units: mg/kg	Analysis Date 7/26/2012 12:55:00 PM				Prep Date: 7/24/2012			
Client ID: Dump-1-(0.25'-0.5')		Run ID: INIC2_120726A		SeqNo: 1036146							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	87.61	2.0	100	0	87.6%	70	130	87.2	0.515%	20	
Chromium	220.8	2.0	100	135	85.8%	70	130	232	5.00%	20	
Copper	122.3	2.0	100	30.7	91.6%	70	130	125	2.42%	20	
Lead	97.79	10	100	13.4	84.4%	70	130	98.3	0.530%	20	
Nickel	171.1	5.0	100	90.3	80.8%	70	130	184	7.55%	20	
Zinc	149.4	5.0	100	65.5	83.8%	70	130	150	0.674%	20	
Sample ID: 1207365-01CMS	Batch ID: 27832	Test Code: MERCS	Units: mg/kg	Analysis Date 8/2/2012				Prep Date: 7/31/2012			
Client ID: Dump-1-(0.25'-0.5')		Run ID: CVAA1_120802A		SeqNo: 1037836							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.4700	0.10	0.400	0.0500	105%	70	130	0			

<b>Qualifiers:</b>	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	

<b>CLIENT:</b>	Freshwater Environmental Services	<b>QC SUMMARY REPORT</b>									
<b>Work Order:</b>	1207365	Sample Matrix Spike Duplicate									
<b>Project:</b>	Yurok Tribe-Tully Site										

Sample ID: 1207365-01CMSD	Batch ID: 27832	Test Code: MERCS	Units: mg/kg	Analysis Date 8/2/2012				Prep Date: 7/31/2012		
Client ID: Dump-1-(0.25'-0.5')		Run ID: CVAA1_120802A		SeqNo: 1037837						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Mercury	0.4500	0.10	0.400	0.0500	100%	70	130	0.470	4.35%	20
Sample ID: 1207365-01AMS	Batch ID: 27808	Test Code: SGTPDMS	Units: mg/kg	Analysis Date 8/1/2012 1:54:23 AM				Prep Date: 7/26/2012		
Client ID: Dump-1-(0.25'-0.5')		Run ID: ORGC14_120731A		SeqNo: 1037452						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
TPHC Diesel (C12-C22)	9.033	1.0	10.0	0	90.3%	70	132	0		
TPHC Motor Oil	22.97	10	20.0	0	115%	69	136	0		
Sample ID: 1207365-01AMSD	Batch ID: 27808	Test Code: SGTPDMS	Units: mg/kg	Analysis Date 8/1/2012 2:24:29 AM				Prep Date: 7/26/2012		
Client ID: Dump-1-(0.25'-0.5')		Run ID: ORGC14_120731A		SeqNo: 1037453						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
TPHC Diesel (C12-C22)	10.08	1.0	10.0	0	101%	70	132	9.03	10.9%	30
TPHC Motor Oil	22.51	10	20.0	0	113%	69	136	23.0	2.02%	30
Sample ID: 1207365-01AMS	Batch ID: 27807	Test Code: TPHDMS	Units: mg/kg	Analysis Date 7/26/2012 9:54:16 PM				Prep Date: 7/26/2012		
Client ID: Dump-1-(0.25'-0.5')		Run ID: ORGC14_120726B		SeqNo: 1037430						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
TPHC Diesel (C12-C22)	9.930	1.0	10.0	0	99.3%	80	119	0		
TPHC Motor Oil	23.57	10	20.0	1.20	112%	89	116	0		
Sample ID: 1207365-01AMSD	Batch ID: 27807	Test Code: TPHDMS	Units: mg/kg	Analysis Date 7/26/2012 10:24:23 PM				Prep Date: 7/26/2012		
Client ID: Dump-1-(0.25'-0.5')		Run ID: ORGC14_120726B		SeqNo: 1037431						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
TPHC Diesel (C12-C22)	9.932	1.0	10.0	0	99.3%	80	119	9.93	0.0170%	30
TPHC Motor Oil	22.91	10	20.0	1.20	109%	89	116	23.6	2.83%	30
<b>Qualifiers:</b>	ND - Not Detected at the Reporting Limit			S - Spike Recovery outside accepted recovery limits				B - Analyte detected in the associated Method Blank		
	J - Analyte detected below quantitation limits			R - RPD outside accepted recovery limits						

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: LCS-27820	Batch ID: 27820a	Test Code: 5035_8260S	Units: mg/Kg	Analysis Date 8/23/2012 1:26:00 PM				Prep Date: 7/21/2012			
Client ID:		Run ID: ORGCMS2_120823B		SeqNo: 1042047							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	0.02817	0.020	0.0500	0	56.3%	14	149	0			
Chloromethane	0.04266	0.040	0.0500	0	85.3%	40	145	0			
Vinyl chloride	0.03630	0.0050	0.0500	0	72.6%	54	153	0			
Bromomethane	0.03903	0.020	0.0500	0	78.1%	74	160	0			
Chloroethane	0.03022	0.020	0.0500	0	60.4%	65	138	0			S
Trichlorofluoromethane	0.03359	0.020	0.0500	0	67.2%	73	151	0			S
1,1-Dichloroethene	0.04375	0.020	0.0500	0	87.5%	45	154	0			
Methylene chloride	0.04844	0.040	0.0500	0	96.9%	26	175	0			
trans-1,2-Dichloroethene	0.04152	0.020	0.0500	0	83.0%	40	156	0			
Methyl tert-butyl ether (MTBE)	0.04320	0.0050	0.0500	0	86.4%	42	135	0			
Tert-butyl alcohol (TBA)	1.014	0.20	1.00	0	101%	49	185	0			
Di-isopropyl ether (DIPE)	0.04781	0.020	0.0500	0	95.6%	36	159	0			
1,1-Dichloroethane	0.05026	0.020	0.0500	0	101%	35	164	0			
Ethyl tert-butyl ether (ETBE)	0.05144	0.020	0.0500	0	103%	54	128	0			
cis-1,2-Dichloroethene	0.04857	0.020	0.0500	0	97.1%	34	159	0			
2,2-Dichloropropane	0.04969	0.020	0.0500	0	99.4%	46	155	0			
Bromochloromethane	0.04862	0.020	0.0500	0	97.2%	38	154	0			
Chloroform	0.04821	0.020	0.0500	0	96.4%	31	160	0			
Carbon Tetrachloride	0.05195	0.020	0.0500	0	104%	65	162	0			
1,1,1-Trichloroethane	0.05056	0.020	0.0500	0	101%	57	148	0			
1,1-Dichloropropene	0.04952	0.020	0.0500	0	99.0%	61	146	0			
Benzene	0.04976	0.0050	0.0500	0	99.5%	45	145	0			
Tert-amyl methyl ether (TAME)	0.05253	0.020	0.0500	0	105%	55	126	0			
1,2-Dichloroethane	0.05203	0.020	0.0500	0	104%	45	129	0			
Trichloroethene	0.05244	0.020	0.0500	0	105%	63	129	0			
Dibromomethane	0.04918	0.020	0.0500	0	98.4%	51	135	0			
1,2-Dichloropropane	0.04930	0.020	0.0500	0	98.6%	62	126	0			
Bromodichloromethane	0.05051	0.020	0.0500	0	101%	57	132	0			

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**  
**Laboratory Control Spike**

cis-1,3-Dichloropropene	0.04455	0.020	0.0500	0	89.1%	48	138	0
Toluene	0.04949	0.0050	0.0500	0	99.0%	42	153	0
Tetrachloroethene	0.05362	0.020	0.0500	0	107%	40	182	0
trans-1,3-Dichloropropene	0.04888	0.020	0.0500	0	97.8%	59	128	0
1,1,2-Trichloroethane	0.05035	0.020	0.0500	0	101%	67	121	0
Dibromochloromethane	0.04019	0.020	0.0500	0	80.4%	63	126	0
1,3-Dichloropropane	0.04424	0.020	0.0500	0	88.5%	68	122	0
1,2-Dibromoethane (EDB)	0.04402	0.040	0.0500	0	88.0%	63	127	0
Chlorobenzene	0.04277	0.020	0.0500	0	85.5%	54	145	0
Ethylbenzene	0.04407	0.0050	0.0500	0	88.1%	57	148	0
1,1,1,2-Tetrachloroethane	0.04163	0.020	0.0500	0	83.3%	65	127	0
m,p-Xylene	0.08963	0.0050	0.100	0	89.6%	68	126	0
o-Xylene	0.04525	0.0050	0.0500	0	90.5%	59	131	0
Bromoform	0.04702	0.020	0.0500	0	94.0%	64	127	0
Styrene	0.04512	0.020	0.0500	0	90.2%	65	139	0
Isopropylbenzene	0.04462	0.020	0.0500	0	89.2%	76	129	0
Bromobenzene	0.04330	0.020	0.0500	0	86.6%	57	140	0
n-Propylbenzene	0.04649	0.020	0.0500	0	93.0%	76	137	0
1,1,2,2-Tetrachloroethane	0.04441	0.020	0.0500	0	88.8%	70	124	0
2-Chlorotoluene	0.04527	0.020	0.0500	0	90.5%	66	125	0
4-Chlorotoluene	0.04636	0.020	0.0500	0	92.7%	56	142	0
1,2,3-Trichloropropane	0.04530	0.040	0.0500	0	90.6%	61	130	0
1,3,5-Trimethylbenzene	0.04583	0.020	0.0500	0	91.7%	58	143	0
tert-Butylbenzene	0.05054	0.020	0.0500	0	101%	70	140	0
1,2,4-Trimethylbenzene	0.05113	0.020	0.0500	0	102%	59	142	0
sec-Butylbenzene	0.05065	0.020	0.0500	0	101%	71	145	0
4-Isopropyltoluene	0.05097	0.020	0.0500	0	102%	63	154	0
1,3-Dichlorobenzene	0.05288	0.020	0.0500	0	106%	48	152	0
1,4-Dichlorobenzene	0.05159	0.020	0.0500	0	103%	49	146	0
n-Butylbenzene	0.05324	0.020	0.0500	0	106%	72	147	0
1,2-Dichlorobenzene	0.05064	0.020	0.0500	0	101%	66	125	0
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.10	0.0500	0	106%	49	136	0
1,2,4-Trichlorobenzene	0.05759	0.040	0.0500	0	115%	52	164	0
Hexachlorobutadiene	0.05372	0.040	0.0500	0	107%	47	173	0

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**  
Laboratory Control Spike

Naphthalene	0.05467	0.040	0.0500	0	109%	39	199	0
1,2,3-Trichlorobenzene	0.05291	0.040	0.0500	0	106%	33	199	0
Surrogate: 1,2-Dichloroethane-d4	1.03	0.0020	1.00	0	103%	45	146	0
Surrogate: Dibromofluoromethane	0.984	0.0020	1.00	0	98.4%	62	123	0
Surrogate: Toluene-d8	0.986	0.0020	1.00	0	98.6%	91	108	0

**Qualifiers:**  
ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**  
**Laboratory Control Spike Duplicate**

Sample ID: LCSD-27820	Batch ID: 27820a	Test Code: 5035_8260S	Units: mg/Kg	Analysis Date 8/23/2012 1:56:00 PM				Prep Date: 7/21/2012			
Client ID:		Run ID: ORGCMS2_120823B		SeqNo: 1042048							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	0.03172	0.020	0.0500	0	63.4%	14	149	0.0282	11.8%	30	
Chloromethane	0.04106	0.040	0.0500	0	82.1%	40	145	0.0427	3.83%	30	
Vinyl chloride	0.04128	0.0050	0.0500	0	82.6%	54	153	0.0363	12.8%	30	
Bromomethane	0.04221	0.020	0.0500	0	84.4%	74	160	0.0390	7.83%	30	
Chloroethane	0.03616	0.020	0.0500	0	72.3%	65	138	0.0302	17.9%	30	
Trichlorofluoromethane	0.03298	0.020	0.0500	0	66.0%	73	151	0.0336	1.83%	30	S
1,1-Dichloroethene	0.05131	0.020	0.0500	0	103%	45	154	0.0438	15.9%	30	
Methylene chloride	0.05693	0.040	0.0500	0	114%	26	175	0.0484	16.1%	30	
trans-1,2-Dichloroethene	0.05420	0.020	0.0500	0	108%	40	156	0.0415	26.5%	30	
Methyl tert-butyl ether (MTBE)	0.04990	0.0050	0.0500	0	99.8%	42	135	0.0432	14.4%	30	
Tert-butyl alcohol (TBA)	1.071	0.20	1.00	0	107%	49	185	1.01	5.45%	30	
Di-isopropyl ether (DIPE)	0.05657	0.020	0.0500	0	113%	36	159	0.0478	16.8%	30	
1,1-Dichloroethane	0.05854	0.020	0.0500	0	117%	35	164	0.0503	15.2%	30	
Ethyl tert-butyl ether (ETBE)	0.05975	0.020	0.0500	0	119%	54	128	0.0514	14.9%	30	
cis-1,2-Dichloroethene	0.05633	0.020	0.0500	0	113%	34	159	0.0486	14.8%	30	
2,2-Dichloropropane	0.05824	0.020	0.0500	0	116%	46	155	0.0497	15.8%	30	
Bromochloromethane	0.05614	0.020	0.0500	0	112%	38	154	0.0486	14.3%	30	
Chloroform	0.05652	0.020	0.0500	0	113%	31	160	0.0482	15.9%	30	
Carbon Tetrachloride	0.06056	0.020	0.0500	0	121%	65	162	0.0520	15.3%	30	
1,1,1-Trichloroethane	0.05786	0.020	0.0500	0	116%	57	148	0.0506	13.5%	30	
1,1-Dichloropropene	0.05694	0.020	0.0500	0	114%	61	146	0.0495	13.9%	30	
Benzene	0.05780	0.0050	0.0500	0	116%	45	145	0.0498	14.9%	30	
Tert-amyl methyl ether (TAME)	0.05975	0.020	0.0500	0	119%	55	126	0.0525	12.9%	30	
1,2-Dichloroethane	0.06017	0.020	0.0500	0	120%	45	129	0.0520	14.5%	30	
Trichloroethene	0.06041	0.020	0.0500	0	121%	63	129	0.0524	14.1%	30	
Dibromomethane	0.05627	0.020	0.0500	0	113%	51	135	0.0492	13.4%	30	
1,2-Dichloropropane	0.04580	0.020	0.0500	0	91.6%	62	126	0.0493	7.35%	30	
Bromodichloromethane	0.04738	0.020	0.0500	0	94.8%	57	132	0.0505	6.41%	30	
cis-1,3-Dichloropropene	0.05357	0.020	0.0500	0	107%	48	138	0.0446	18.4%	30	

**Qualifiers:** ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**  
**Laboratory Control Spike Duplicate**

Toluene	0.05677	0.0050	0.0500	0	114%	42	153	0.0495	13.7%	30
Tetrachloroethene	0.05981	0.020	0.0500	0	120%	40	182	0.0536	10.9%	30
trans-1,3-Dichloropropene	0.05546	0.020	0.0500	0	111%	59	128	0.0489	12.6%	30
1,1,2-Trichloroethane	0.05581	0.020	0.0500	0	112%	67	121	0.0504	10.3%	30
Dibromochloromethane	0.04775	0.020	0.0500	0	95.5%	63	126	0.0402	17.2%	30
1,3-Dichloropropane	0.05141	0.020	0.0500	0	103%	68	122	0.0442	15.0%	30
1,2-Dibromoethane (EDB)	0.05095	0.040	0.0500	0	102%	63	127	0.0440	14.6%	30
Chlorobenzene	0.05179	0.020	0.0500	0	104%	54	145	0.0428	19.1%	30
Ethylbenzene	0.05215	0.0050	0.0500	0	104%	57	148	0.0441	16.8%	30
1,1,1,2-Tetrachloroethane	0.04939	0.020	0.0500	0	98.8%	65	127	0.0416	17.0%	30
m,p-Xylene	0.1066	0.0050	0.100	0	107%	68	126	0.0896	17.3%	30
o-Xylene	0.05358	0.0050	0.0500	0	107%	59	131	0.0452	16.9%	30
Bromoform	0.05449	0.020	0.0500	0	109%	64	127	0.0470	14.7%	30
Styrene	0.05335	0.020	0.0500	0	107%	65	139	0.0451	16.7%	30
Isopropylbenzene	0.05424	0.020	0.0500	0	108%	76	129	0.0446	19.5%	30
Bromobenzene	0.05604	0.020	0.0500	0	112%	57	140	0.0433	25.6%	30
n-Propylbenzene	0.06042	0.020	0.0500	0	121%	76	137	0.0465	26.1%	30
1,1,2,2-Tetrachloroethane	0.05774	0.020	0.0500	0	115%	70	124	0.0444	26.1%	30
2-Chlorotoluene	0.05829	0.020	0.0500	0	117%	66	125	0.0453	25.1%	30
4-Chlorotoluene	0.05932	0.020	0.0500	0	119%	56	142	0.0464	24.5%	30
1,2,3-Trichloropropane	0.05829	0.040	0.0500	0	117%	61	130	0.0453	25.1%	30
1,3,5-Trimethylbenzene	0.05822	0.020	0.0500	0	116%	58	143	0.0458	23.8%	30
tert-Butylbenzene	0.05868	0.020	0.0500	0	117%	70	140	0.0505	14.9%	30
1,2,4-Trimethylbenzene	0.05954	0.020	0.0500	0	119%	59	142	0.0511	15.2%	30
sec-Butylbenzene	0.05925	0.020	0.0500	0	119%	71	145	0.0506	15.6%	30
4-Isopropyltoluene	0.05922	0.020	0.0500	0	118%	63	154	0.0510	15.0%	30
1,3-Dichlorobenzene	0.06118	0.020	0.0500	0	122%	48	152	0.0529	14.6%	30
1,4-Dichlorobenzene	0.05939	0.020	0.0500	0	119%	49	146	0.0516	14.1%	30
n-Butylbenzene	0.06102	0.020	0.0500	0	122%	72	147	0.0532	13.6%	30
1,2-Dichlorobenzene	0.05857	0.020	0.0500	0	117%	66	125	0.0506	14.5%	30
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.10	0.0500	0	118%	49	136	0.0531	10.9%	30
1,2,4-Trichlorobenzene	0.06509	0.040	0.0500	0	130%	52	164	0.0576	12.2%	30
Hexachlorobutadiene	0.06060	0.040	0.0500	0	121%	47	173	0.0537	12.0%	30
Naphthalene	0.06189	0.040	0.0500	0	124%	39	199	0.0547	12.4%	30

**Qualifiers:**  
 ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Laboratory Control Spike Duplicate

1,2,3-Trichlorobenzene	0.06133	0.040	0.0500	0	123%	33	199	0.0529	14.7%	30	
Surrogate: 1,2-Dichloroethane-d4	1.04	0.0020	1.00	0	104%	45	146	1.03	0.365%	30	
Surrogate: Dibromofluoromethane	0.985	0.0020	1.00	0	98.5%	62	123	0.984	0.0927%	30	
Surrogate: Toluene-d8	0.971	0.0020	1.00	0	97.1%	91	108	0.986	1.53%	30	
Sample ID: LCSG-27820	Batch ID: 27820a	Test Code: 5035_GASS-	Units: mg/kg		Analysis Date	8/23/2012 2:27:00 PM	Prep Date: 7/21/2012				
Client ID:		Run ID: ORGCMS2_120823A			SeqNo:	1041963					
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	5.016	1.0	5.00	0	100%	75	129	0			
Sample ID: LCSDG-27820	Batch ID: 27820a	Test Code: 5035_GASS-	Units: mg/kg		Analysis Date	8/23/2012 2:58:00 PM	Prep Date: 7/21/2012				
Client ID:		Run ID: ORGCMS2_120823A			SeqNo:	1041964					
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	5.640	1.0	5.00	0	113%	75	129	5.02	11.7%	20	
Sample ID: LCS-27801	Batch ID: 27801	Test Code: 6ICPS	Units: mg/kg		Analysis Date	7/26/2012 11:53:00 AM	Prep Date: 7/24/2012				
Client ID:		Run ID: INIC2_120726A			SeqNo:	1036131					
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	92.93	2.0	100	0	92.9%	85	115	0			
Chromium	94.28	2.0	100	0	94.3%	85	115	0			
Copper	93.03	2.0	100	0	93.0%	85	115	0			
Lead	92.61	10	100	0	92.6%	85	115	0			
Nickel	94.37	5.0	100	0	94.4%	85	115	0			
Zinc	94.87	5.0	100	0.350	94.5%	85	115	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**  
**Laboratory Control Spike Duplicate**

Sample ID: LCSD-27801	Batch ID: 27801	Test Code: 6ICPS			Units: mg/kg		Analysis Date 7/26/2012 11:57:00 AM			Prep Date: 7/24/2012		
Client ID:		Run ID: INIC2_120726A			SeqNo: 1036132							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Cadmium	93.38	2.0	100	0	93.4%	85	115	92.9	0.483%	20		
Chromium	95.29	2.0	100	0	95.3%	85	115	94.3	1.07%	20		
Copper	93.35	2.0	100	0	93.4%	85	115	93.0	0.343%	20		
Lead	93.22	10	100	0	93.2%	85	115	92.6	0.657%	20		
Nickel	95.10	5.0	100	0	95.1%	85	115	94.4	0.771%	20		
Zinc	94.68	5.0	100	0.350	94.3%	85	115	94.9	0.200%	20		
Sample ID: LCS-27832	Batch ID: 27832	Test Code: MERCS			Units: mg/kg		Analysis Date 8/2/2012			Prep Date: 7/31/2012		
Client ID:		Run ID: CVAA1_120802A			SeqNo: 1037863							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Mercury	0.4100	0.10	0.400	0	102%	85	115	0				
Sample ID: LCSD-27832	Batch ID: 27832	Test Code: MERCS			Units: mg/kg		Analysis Date 8/2/2012			Prep Date: 7/31/2012		
Client ID:		Run ID: CVAA1_120802A			SeqNo: 1037864							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Mercury	0.4200	0.10	0.400	0	105%	85	115	0.410	2.41%	20		
Sample ID: LCS-27808	Batch ID: 27808	Test Code: SGTPDMS			Units: mg/kg		Analysis Date 8/1/2012 12:54:10 AM			Prep Date: 7/26/2012		
Client ID:		Run ID: ORGC14_120731A			SeqNo: 1037450							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
TPHC Diesel (C12-C22)	9.068	1.0	10.0	0	90.7%	70	132	0				
TPHC Motor Oil	21.89	10	20.0	0	109%	69	136	0				

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits

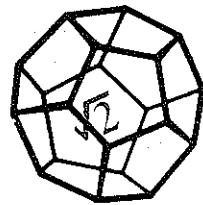
**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**  
Laboratory Control Spike Duplicate

Sample ID: LCSD-27808	Batch ID: 27808	Test Code: SGTPDMS	Units: mg/kg	Analysis Date 8/1/2012 1:24:16 AM				Prep Date: 7/26/2012			
Client ID:		Run ID: ORGC14_120731A		SeqNo: 1037451							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	9.767	1.0	10.0	0	97.7%	70	132	9.07	7.42%	30	
TPHC Motor Oil	23.12	10	20.0	0	116%	69	136	21.9	5.49%	30	
Sample ID: LCS-27807	Batch ID: 27807	Test Code: TPHDMS	Units: mg/kg	Analysis Date 7/26/2012 8:53:53 PM				Prep Date: 7/26/2012			
Client ID:		Run ID: ORGC14_120726B		SeqNo: 1037428							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	10.19	1.0	10.0	0	102%	80	119	0			
TPHC Motor Oil	22.02	10	20.0	0	110%	89	116	0			
Sample ID: LCSD-27807	Batch ID: 27807	Test Code: TPHDMS	Units: mg/kg	Analysis Date 7/26/2012 9:24:07 PM				Prep Date: 7/26/2012			
Client ID:		Run ID: ORGC14_120726B		SeqNo: 1037429							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	10.29	1.0	10.0	0	103%	80	119	10.2	0.991%	30	
TPHC Motor Oil	22.00	10	20.0	0	110%	89	116	22.0	0.0656%	30	

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits





**NORTH COAST  
LABORATORIES LTD.**

August 27, 2012

Freshwater Environmental Services  
78 Sunny Brae Center  
Arcata, CA 95521

Order No.: 1207365  
Invoice No.: 104390  
PO No.:  
ELAP No.1247-Expires July 2014

Attn: Stan Thiesen

RE: Yurok Tribe-Tully Site

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	Dump-1-(0.25'-0.5')
01B	Dump-1-(0.25'-0.5')
01C	Dump-1-(0.25'-0.5')
02A	Dump-2-(1.0'-1.25')
02B	Dump-2-(1.0'-1.25')
02C	Dump-2-(1.0'-1.25')
03A	Dump-3-(0.75'-1.0')
03B	Dump-3-(0.75'-1.0')
03C	Dump-3-(0.75'-1.0')
04A	Dump-4-(0.25'-0.5')
04B	Dump-4-(0.25'-0.5')
04C	Dump-4-(0.25'-0.5')
05A	Dump-5-(2.5'-2.75')
05B	Dump-5-(2.5'-2.75')
05C	Dump-5-(2.5'-2.75')
06A	Dump-6-(0.25'-0.5')
06B	Dump-6-(0.25'-0.5')
06C	Dump-6-(0.25'-0.5')
07A	Residence-1-(0.0'-0.25')
07B	Residence-1-(0.0'-0.25')
08A	Residence-2-(0.0"-0.25')
08B	Residence-2-(0.0"-0.25')

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**REPORT CERTIFIED BY**

Laboratory Supervisor(s)

QA Unit

Jesse G. Chaney, Jr.  
Laboratory Director

**CLIENT:** Freshwater Environmental Services  
**Project:** Yurok Tribe-Tully Site  
**Lab Order:** 1207365

**CASE NARRATIVE**

D3: The sample contains material in the diesel range of molecular weights, but the material does not exhibit the peak pattern typical of diesel oil.

D4: The sample contains material in the diesel range of molecular weights and beyond. This suggests the presence of an oil heavier than diesel.

M3: The sample does not have the typical pattern of fresh motor oil. However, the result reported represents the amount of material in the motor oil range.

EPA 5035/8260:

The dilution factor ("DF") pertains to a weight correction for the EPA 5035 extraction procedure.

Due to instrumentation issues, the samples were analyzed after the recommended holding time had expired.

The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) and matrix spike (MS) recoveries were below the lower acceptance limits for chloroethane (MS and LCS only) and trichlorofluoromethane. The response of the reporting limit standard was such that the analytes would have been detected even with the low recoveries; therefore, the data were accepted.

Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-1-(0.25'-0.5")  
Lab ID: 1207365-01A

Received: 7/20/2012  
Collected: 7/19/2012 14:00

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3550/EPA 8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		1.0	mg/kg	1.0	7/26/2012	7/26/2012
TPHC Motor Oil	ND		10	mg/kg	1.0	7/26/2012	7/26/2012

Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-1-(0.25'-0.5')

Received: 7/20/2012

Lab ID: 1207365-01B

Collected: 7/19/2012 14:00

Test Name: EPA 8260B

Reference: EPA 5035/EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Chloromethane	ND		0.044	mg/Kg	1.1	7/21/2012	8/23/2012
Vinyl chloride	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Bromomethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Chloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Trichlorofluoromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1-Dichloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Methylene chloride	ND		0.044	mg/Kg	1.1	7/21/2012	8/23/2012
trans-1,2-Dichloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Methyl tert-butyl ether (MTBE)	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Tert-butyl alcohol (TBA)	ND		0.22	mg/Kg	1.1	7/21/2012	8/23/2012
Di-isopropyl ether (DIPE)	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1-Dichloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Ethyl tert-butyl ether (ETBE)	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
cis-1,2-Dichloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
2,2-Dichloropropane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Bromochloromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Chloroform	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Carbon Tetrachloride	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1,1-Trichloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1-Dichloropropene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Benzene	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Tert-amyl methyl ether (TAME)	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dichloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Trichloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Dibromomethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dichloropropane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Bromodichloromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
cis-1,3-Dichloropropene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Toluene	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Tetrachloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
trans-1,3-Dichloropropene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1,2-Trichloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Dibromochloromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,3-Dichloropropane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dibromoethane (EDB)	ND		0.044	mg/Kg	1.1	7/21/2012	8/23/2012
Chlorobenzene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Ethylbenzene	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
1,1,1,2-Tetrachloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
m,p-Xylene	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012

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Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-1-(0.25'-0.5')

Lab ID: 1207365-01B

					Received: 7/20/2012	
					Collected: 7/19/2012 14:00	
o-Xylene	ND	0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Bromoform	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Styrene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Isopropylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Bromobenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
n-Propylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1,2,2-Tetrachloroethane	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
2-Chlorotoluene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
4-Chlorotoluene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2,3-Trichloropropane	ND	0.044	mg/Kg	1.1	7/21/2012	8/23/2012
1,3,5-Trimethylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
tert-Butylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2,4-Trimethylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
sec-Butylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
4-Isopropyltoluene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,3-Dichlorobenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,4-Dichlorobenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
n-Butylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dichlorobenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.11	mg/Kg	1.1	7/21/2012	8/23/2012
1,2,4-Trichlorobenzene	ND	0.044	mg/Kg	1.1	7/21/2012	8/23/2012
Hexachlorobutadiene	ND	0.044	mg/Kg	1.1	7/21/2012	8/23/2012
Naphthalene	ND	0.044	mg/Kg	1.1	7/21/2012	8/23/2012
1,2,3-Trichlorobenzene	ND	0.044	mg/Kg	1.1	7/21/2012	8/23/2012
Surrogate: 1,2-Dichloroethane-d4	99.8	44.9-146	% Rec	1.1	7/21/2012	8/23/2012
Surrogate: Dibromofluoromethane	93.4	61.5-123	% Rec	1.1	7/21/2012	8/23/2012
Surrogate: Toluene-d8	94.6	90.5-108	% Rec	1.1	7/21/2012	8/23/2012

Test Name: TPH as Gasoline

Reference: EPA 5035/EPA 8260B Modified

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND		1.1	mg/kg	1.1	7/21/2012	8/23/2012

Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-1-(0.25'-0.5')  
Lab ID: 1207365-01C

Received: 7/20/2012  
Collected: 7/19/2012 14:00

Test Name: EPA 6010B

Reference: EPA 6010B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Arsenic	120		25	mg/kg	1.0	7/24/2012	7/26/2012
Cadmium	ND		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Chromium	130		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Copper	31		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Lead	13		10	mg/kg	1.0	7/24/2012	7/26/2012
Nickel	90		5.0	mg/kg	1.0	7/24/2012	7/26/2012
Zinc	66		5.0	mg/kg	1.0	7/24/2012	7/26/2012

Test Name: Mercury

Reference: EPA 7471A

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		0.10	mg/kg	1.0	7/31/2012	8/2/2012

Client Sample ID: Dump-2-(1.0'-1.25')  
Lab ID: 1207365-02A

Received: 7/20/2012  
Collected: 7/19/2012 13:45

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3550/EPA 8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		1.0	mg/kg	1.0	7/26/2012	7/26/2012
TPHC Motor Oil	10	M3	10	mg/kg	1.0	7/26/2012	7/26/2012

Test Name: TPH passed through Silica Gel Column

Reference: EPA 3550/3630/8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		1.0	mg/kg	1.0	7/26/2012	8/1/2012
TPHC Motor Oil	ND		10	mg/kg	1.0	7/26/2012	8/1/2012

Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-2-(1.0'-1.25')  
Lab ID: 1207365-02B

Received: 7/20/2012  
Collected: 7/19/2012 13:45

Test Name: EPA 8260B

Reference: EPA 5035/EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Chloromethane	ND		0.058	mg/Kg	1.4	7/21/2012	8/23/2012
Vinyl chloride	ND		0.0072	mg/Kg	1.4	7/21/2012	8/23/2012
Bromomethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Chloroethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Trichlorofluoromethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,1-Dichloroethene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Methylene chloride	ND		0.058	mg/Kg	1.4	7/21/2012	8/23/2012
trans-1,2-Dichloroethene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Methyl tert-butyl ether (MTBE)	ND		0.0072	mg/Kg	1.4	7/21/2012	8/23/2012
Tert-butyl alcohol (TBA)	ND		0.29	mg/Kg	1.4	7/21/2012	8/23/2012
Di-isopropyl ether (DIPE)	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,1-Dichloroethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Ethyl tert-butyl ether (ETBE)	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
cis-1,2-Dichloroethene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
2,2-Dichloropropane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Bromochloromethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Chloroform	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Carbon Tetrachloride	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,1,1-Trichloroethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,1-Dichloropropene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Benzene	ND		0.0072	mg/Kg	1.4	7/21/2012	8/23/2012
Tert-amyl methyl ether (TAME)	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dichloroethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Trichloroethene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Dibromomethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dichloropropane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Bromodichloromethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
cis-1,3-Dichloropropene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Toluene	ND		0.0072	mg/Kg	1.4	7/21/2012	8/23/2012
Tetrachloroethene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
trans-1,3-Dichloropropene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,1,2-Trichloroethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Dibromochloromethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,3-Dichloropropane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dibromoethane (EDB)	ND		0.058	mg/Kg	1.4	7/21/2012	8/23/2012
Chlorobenzene	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Ethylbenzene	ND		0.0072	mg/Kg	1.4	7/21/2012	8/23/2012
1,1,1,2-Tetrachloroethane	ND		0.029	mg/Kg	1.4	7/21/2012	8/23/2012
m,p-Xylene	ND		0.0072	mg/Kg	1.4	7/21/2012	8/23/2012

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Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-2-(1.0'-1.25')

Lab ID: 1207365-02B

Received: 7/20/2012

Collected: 7/19/2012 13:45

o-Xylene	ND	0.0072	mg/Kg	1.4	7/21/2012	8/23/2012
Bromoform	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Styrene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Isopropylbenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
Bromobenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
n-Propylbenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,1,2,2-Tetrachloroethane	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
2-Chlorotoluene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
4-Chlorotoluene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,2,3-Trichloropropane	ND	0.058	mg/Kg	1.4	7/21/2012	8/23/2012
1,3,5-Trimethylbenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
tert-Butylbenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,2,4-Trimethylbenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
sec-Butylbenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
4-Isopropyltoluene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,3-Dichlorobenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,4-Dichlorobenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
n-Butylbenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dichlorobenzene	ND	0.029	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.14	mg/Kg	1.4	7/21/2012	8/23/2012
1,2,4-Trichlorobenzene	ND	0.058	mg/Kg	1.4	7/21/2012	8/23/2012
Hexachlorobutadiene	ND	0.058	mg/Kg	1.4	7/21/2012	8/23/2012
Naphthalene	ND	0.058	mg/Kg	1.4	7/21/2012	8/23/2012
1,2,3-Trichlorobenzene	ND	0.058	mg/Kg	1.4	7/21/2012	8/23/2012
Surrogate: 1,2-Dichloroethane-d4	102	44.9-146	% Rec	1.4	7/21/2012	8/23/2012
Surrogate: Dibromofluoromethane	96.5	61.5-123	% Rec	1.4	7/21/2012	8/23/2012
Surrogate: Toluene-d8	90.8	90.5-108	% Rec	1.4	7/21/2012	8/23/2012

Test Name: TPH as Gasoline

Reference: EPA 5035/EPA 8260B Modified

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND		1.4	mg/kg	1.4	7/21/2012	8/23/2012

Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-2-(1.0'-1.25')  
Lab ID: 1207365-02C

Received: 7/20/2012  
Collected: 7/19/2012 13:45

Test Name: EPA 6010B

Reference: EPA 6010B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Arsenic	86		25	mg/kg	1.0	7/24/2012	7/26/2012
Cadmium	ND		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Chromium	110		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Copper	25		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Lead	11		10	mg/kg	1.0	7/24/2012	7/26/2012
Nickel	80		5.0	mg/kg	1.0	7/24/2012	7/26/2012
Zinc	78		5.0	mg/kg	1.0	7/24/2012	7/26/2012

Test Name: Mercury

Reference: EPA 7471A

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		0.10	mg/kg	1.0	7/31/2012	8/2/2012

Client Sample ID: Dump-3-(0.75'-1.0')  
Lab ID: 1207365-03A

Received: 7/20/2012  
Collected: 7/19/2012 13:55

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3550/EPA 8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		1.0	mg/kg	1.0	7/26/2012	7/26/2012
TPHC Motor Oil	ND		10	mg/kg	1.0	7/26/2012	7/26/2012

Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-3-(0.75'-1.0')  
Lab ID: 1207365-03B

Received: 7/20/2012  
Collected: 7/19/2012 13:55

Test Name: EPA 8260B

Reference: EPA 5035/EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Chloromethane	ND		0.038	mg/Kg	0.96	7/21/2012	8/23/2012
Vinyl chloride	ND		0.0048	mg/Kg	0.96	7/21/2012	8/23/2012
Bromomethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Chloroethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Trichlorofluoromethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,1-Dichloroethene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Methylene chloride	ND		0.038	mg/Kg	0.96	7/21/2012	8/23/2012
trans-1,2-Dichloroethene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Methyl tert-butyl ether (MTBE)	ND		0.0048	mg/Kg	0.96	7/21/2012	8/23/2012
Tert-butyl alcohol (TBA)	ND		0.19	mg/Kg	0.96	7/21/2012	8/23/2012
Di-isopropyl ether (DIPE)	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,1-Dichloroethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Ethyl tert-butyl ether (ETBE)	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
cis-1,2-Dichloroethene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
2,2-Dichloropropane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Bromochloromethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Chloroform	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Carbon Tetrachloride	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,1,1-Trichloroethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,1-Dichloropropene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Benzene	ND		0.0048	mg/Kg	0.96	7/21/2012	8/23/2012
Tert-amyl methyl ether (TAME)	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,2-Dichloroethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Trichloroethene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Dibromomethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,2-Dichloropropane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Bromodichloromethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
cis-1,3-Dichloropropene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Toluene	ND		0.0048	mg/Kg	0.96	7/21/2012	8/23/2012
Tetrachloroethene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
trans-1,3-Dichloropropene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,1,2-Trichloroethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Dibromochloromethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,3-Dichloropropane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,2-Dibromoethane (EDB)	ND		0.038	mg/Kg	0.96	7/21/2012	8/23/2012
Chlorobenzene	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Ethylbenzene	ND		0.0048	mg/Kg	0.96	7/21/2012	8/23/2012
1,1,1,2-Tetrachloroethane	ND		0.019	mg/Kg	0.96	7/21/2012	8/23/2012
m,p-Xylene	ND		0.0048	mg/Kg	0.96	7/21/2012	8/23/2012

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Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-3-(0.75'-1.0')

Lab ID: 1207365-03B

					Received: 7/20/2012	
					Collected: 7/19/2012 13:55	
o-Xylene	ND	0.0048	mg/Kg	0.96	7/21/2012	8/23/2012
Bromoform	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Styrene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Isopropylbenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
Bromobenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
n-Propylbenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,1,2,2-Tetrachloroethane	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
2-Chlorotoluene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
4-Chlorotoluene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,2,3-Trichloropropane	ND	0.038	mg/Kg	0.96	7/21/2012	8/23/2012
1,3,5-Trimethylbenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
tert-Butylbenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,2,4-Trimethylbenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
sec-Butylbenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
4-Isopropyltoluene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,3-Dichlorobenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,4-Dichlorobenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
n-Butylbenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,2-Dichlorobenzene	ND	0.019	mg/Kg	0.96	7/21/2012	8/23/2012
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.096	mg/Kg	0.96	7/21/2012	8/23/2012
1,2,4-Trichlorobenzene	ND	0.038	mg/Kg	0.96	7/21/2012	8/23/2012
Hexachlorobutadiene	ND	0.038	mg/Kg	0.96	7/21/2012	8/23/2012
Naphthalene	ND	0.038	mg/Kg	0.96	7/21/2012	8/23/2012
1,2,3-Trichlorobenzene	ND	0.038	mg/Kg	0.96	7/21/2012	8/23/2012
Surrogate: 1,2-Dichloroethane-d4	104	44.9-146	% Rec	0.96	7/21/2012	8/23/2012
Surrogate: Dibromofluoromethane	85.0	61.5-123	% Rec	0.96	7/21/2012	8/23/2012
Surrogate: Toluene-d8	97.5	90.5-108	% Rec	0.96	7/21/2012	8/23/2012

Test Name: TPH as Gasoline

Reference: EPA 5035/EPA 8260B Modified

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND		0.96	mg/kg	0.96	7/21/2012	8/23/2012

Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-3-(0.75'-1.0')  
Lab ID: 1207365-03C

Received: 7/20/2012  
Collected: 7/19/2012 13:55

Test Name: EPA 6010B

Reference: EPA 6010B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Arsenic	140		25	mg/kg	1.0	7/24/2012	7/26/2012
Cadmium	ND		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Chromium	120		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Copper	50		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Lead	16		10	mg/kg	1.0	7/24/2012	7/26/2012
Nickel	97		5.0	mg/kg	1.0	7/24/2012	7/26/2012
Zinc	68		5.0	mg/kg	1.0	7/24/2012	7/26/2012

Test Name: Mercury

Reference: EPA 7471A

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		0.10	mg/kg	1.0	7/31/2012	8/2/2012

Client Sample ID: Dump-4-(0.25'-0.5')  
Lab ID: 1207365-04A

Received: 7/20/2012  
Collected: 7/19/2012 13:00

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3550/EPA 8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		1.0	mg/kg	1.0	7/26/2012	7/27/2012
TPHC Motor Oil	32	M3	10	mg/kg	1.0	7/26/2012	7/27/2012

Test Name: TPH passed through Silica Gel Column

Reference: EPA 3550/3630/8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		1.0	mg/kg	1.0	7/26/2012	8/1/2012
TPHC Motor Oil	ND		10	mg/kg	1.0	7/26/2012	8/1/2012

Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-4-(0.25'-0.5')  
Lab ID: 1207365-04B

Received: 7/20/2012  
Collected: 7/19/2012 13:00

Test Name: EPA 8260B

Reference: EPA 5035/EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Chloromethane	ND		0.045	mg/Kg	1.1	7/21/2012	8/23/2012
Vinyl chloride	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Bromomethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Chloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Trichlorofluoromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1-Dichloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Methylene chloride	ND		0.045	mg/Kg	1.1	7/21/2012	8/23/2012
trans-1,2-Dichloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Methyl tert-butyl ether (MTBE)	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Tert-butyl alcohol (TBA)	ND		0.22	mg/Kg	1.1	7/21/2012	8/23/2012
Di-isopropyl ether (DIPE)	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1-Dichloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Ethyl tert-butyl ether (ETBE)	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
cis-1,2-Dichloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
2,2-Dichloropropane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Bromochloromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Chloroform	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Carbon Tetrachloride	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1,1-Trichloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1-Dichloropropene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Benzene	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Tert-amyl methyl ether (TAME)	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dichloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Trichloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Dibromomethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dichloropropane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Bromodichloromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
cis-1,3-Dichloropropene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Toluene	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Tetrachloroethene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
trans-1,3-Dichloropropene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1,2-Trichloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Dibromochloromethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,3-Dichloropropane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dibromoethane (EDB)	ND		0.045	mg/Kg	1.1	7/21/2012	8/23/2012
Chlorobenzene	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Ethylbenzene	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
1,1,1,2-Tetrachloroethane	ND		0.022	mg/Kg	1.1	7/21/2012	8/23/2012
m,p-Xylene	ND		0.0056	mg/Kg	1.1	7/21/2012	8/23/2012

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Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-4-(0.25'-0.5')

Lab ID: 1207365-04B

					Received: 7/20/2012	
					Collected: 7/19/2012 13:00	
o-Xylene	ND	0.0056	mg/Kg	1.1	7/21/2012	8/23/2012
Bromoform	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Styrene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Isopropylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
Bromobenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
n-Propylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,1,2,2-Tetrachloroethane	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
2-Chlorotoluene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
4-Chlorotoluene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2,3-Trichloropropane	ND	0.045	mg/Kg	1.1	7/21/2012	8/23/2012
1,3,5-Trimethylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
tert-Butylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2,4-Trimethylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
sec-Butylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
4-Isopropyltoluene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,3-Dichlorobenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,4-Dichlorobenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
n-Butylbenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dichlorobenzene	ND	0.022	mg/Kg	1.1	7/21/2012	8/23/2012
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.11	mg/Kg	1.1	7/21/2012	8/23/2012
1,2,4-Trichlorobenzene	ND	0.045	mg/Kg	1.1	7/21/2012	8/23/2012
Hexachlorobutadiene	ND	0.045	mg/Kg	1.1	7/21/2012	8/23/2012
Naphthalene	ND	0.045	mg/Kg	1.1	7/21/2012	8/23/2012
1,2,3-Trichlorobenzene	ND	0.045	mg/Kg	1.1	7/21/2012	8/23/2012
Surrogate: 1,2-Dichloroethane-d4	105	44.9-146	% Rec	1.1	7/21/2012	8/23/2012
Surrogate: Dibromofluoromethane	97.5	61.5-123	% Rec	1.1	7/21/2012	8/23/2012
Surrogate: Toluene-d8	89.0	90.5-108	% Rec	1.1	7/21/2012	8/23/2012

Test Name: TPH as Gasoline

Reference: EPA 5035/EPA 8260B Modified

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND		1.1	mg/kg	1.1	7/21/2012	8/23/2012

Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-4-(0.25'-0.5')  
Lab ID: 1207365-04C

Received: 7/20/2012  
Collected: 7/19/2012 13:00

Test Name: EPA 6010B

Reference: EPA 6010B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Arsenic	67		25	mg/kg	1.0	7/24/2012	7/26/2012
Cadmium	ND		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Chromium	76		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Copper	18		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Lead	ND		10	mg/kg	1.0	7/24/2012	7/26/2012
Nickel	52		5.0	mg/kg	1.0	7/24/2012	7/26/2012
Zinc	240		5.0	mg/kg	1.0	7/24/2012	7/26/2012

Test Name: Mercury

Reference: EPA 7471A

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		0.10	mg/kg	1.0	7/31/2012	8/2/2012

Client Sample ID: Dump-5-(2.5'-2.75')  
Lab ID: 1207365-05A

Received: 7/20/2012  
Collected: 7/19/2012 13:20

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3550/EPA 8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	1.7	D3	1.0	mg/kg	1.0	7/26/2012	7/27/2012
TPHC Motor Oil	10	M3	10	mg/kg	1.0	7/26/2012	7/27/2012

Test Name: TPH passed through Silica Gel Column

Reference: EPA 3550/3630/8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	1.4	D3	1.0	mg/kg	1.0	7/26/2012	8/1/2012
TPHC Motor Oil	ND		10	mg/kg	1.0	7/26/2012	8/1/2012

Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-5-(2.5'-2.75')  
Lab ID: 1207365-05B

Received: 7/20/2012  
Collected: 7/19/2012 13:20

Test Name: EPA 8260B

Reference: EPA 5035/EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Chloromethane	ND		0.050	mg/Kg	1.2	7/21/2012	8/23/2012
Vinyl chloride	ND		0.0062	mg/Kg	1.2	7/21/2012	8/23/2012
Bromomethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Chloroethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Trichlorodifluoromethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,1-Dichloroethene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Methylene chloride	ND		0.050	mg/Kg	1.2	7/21/2012	8/23/2012
trans-1,2-Dichloroethene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Methyl tert-butyl ether (MTBE)	ND		0.0062	mg/Kg	1.2	7/21/2012	8/23/2012
Tert-butyl alcohol (TBA)	ND		0.25	mg/Kg	1.2	7/21/2012	8/23/2012
Di-isopropyl ether (DIPE)	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,1-Dichloroethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Ethyl tert-butyl ether (ETBE)	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
cis-1,2-Dichloroethene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
2,2-Dichloropropane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Bromochloromethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Chloroform	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Carbon Tetrachloride	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,1,1-Trichloroethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,1-Dichloropropene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Benzene	ND		0.0062	mg/Kg	1.2	7/21/2012	8/23/2012
Tert-amyl methyl ether (TAME)	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,2-Dichloroethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Trichloroethene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Dibromomethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,2-Dichloropropane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Bromodichloromethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
cis-1,3-Dichloropropene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Toluene	ND		0.0062	mg/Kg	1.2	7/21/2012	8/23/2012
Tetrachloroethene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
trans-1,3-Dichloropropene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,1,2-Trichloroethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Dibromochloromethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,3-Dichloropropane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,2-Dibromoethane (EDB)	ND		0.050	mg/Kg	1.2	7/21/2012	8/23/2012
Chlorobenzene	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Ethylbenzene	ND		0.0062	mg/Kg	1.2	7/21/2012	8/23/2012
1,1,1,2-Tetrachloroethane	ND		0.025	mg/Kg	1.2	7/21/2012	8/23/2012
m,p-Xylene	ND		0.0062	mg/Kg	1.2	7/21/2012	8/23/2012

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Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-5-(2.5'-2.75')

Lab ID: 1207365-05B

Received: 7/20/2012

Collected: 7/19/2012 13:20

o-Xylene	ND	0.0062	mg/Kg	1.2	7/21/2012	8/23/2012
Bromoform	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Styrene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Isopropylbenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
Bromobenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
n-Propylbenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,1,2,2-Tetrachloroethane	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
2-Chlorotoluene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
4-Chlorotoluene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,2,3-Trichloropropane	ND	0.050	mg/Kg	1.2	7/21/2012	8/23/2012
1,3,5-Trimethylbenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
tert-Butylbenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,2,4-Trimethylbenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
sec-Butylbenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
4-Isopropyltoluene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,3-Dichlorobenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,4-Dichlorobenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
n-Butylbenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,2-Dichlorobenzene	ND	0.025	mg/Kg	1.2	7/21/2012	8/23/2012
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.12	mg/Kg	1.2	7/21/2012	8/23/2012
1,2,4-Trichlorobenzene	ND	0.050	mg/Kg	1.2	7/21/2012	8/23/2012
Hexachlorobutadiene	ND	0.050	mg/Kg	1.2	7/21/2012	8/23/2012
Naphthalene	ND	0.050	mg/Kg	1.2	7/21/2012	8/23/2012
1,2,3-Trichlorobenzene	ND	0.050	mg/Kg	1.2	7/21/2012	8/23/2012
Surrogate: 1,2-Dichloroethane-d4	105	44.9-146	% Rec	1.2	7/21/2012	8/23/2012
Surrogate: Dibromofluoromethane	102	61.5-123	% Rec	1.2	7/21/2012	8/23/2012
Surrogate: Toluene-d8	101	90.5-108	% Rec	1.2	7/21/2012	8/23/2012

Test Name: TPH as Gasoline

Reference: EPA 5035/EPA 8260B Modified

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND		1.2	mg/kg	1.2	7/21/2012	8/23/2012

Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-5-(2.5'-2.75')  
Lab ID: 1207365-05C

Received: 7/20/2012  
Collected: 7/19/2012 13:20

Test Name: EPA 6010B

Reference: EPA 6010B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Arsenic	110		25	mg/kg	1.0	7/24/2012	7/26/2012
Cadmium	ND		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Chromium	240		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Copper	29		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Lead	11		10	mg/kg	1.0	7/24/2012	7/26/2012
Nickel	130		5.0	mg/kg	1.0	7/24/2012	7/26/2012
Zinc	60		5.0	mg/kg	1.0	7/24/2012	7/26/2012

Test Name: Mercury

Reference: EPA 7471A

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		0.10	mg/kg	1.0	7/31/2012	8/2/2012

Client Sample ID: Dump-6-(0.25'-0.5')  
Lab ID: 1207365-06A

Received: 7/20/2012  
Collected: 7/19/2012 14:10

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3550/EPA 8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		1.0	mg/kg	1.0	7/26/2012	7/27/2012
TPHC Motor Oil	ND		10	mg/kg	1.0	7/26/2012	7/27/2012

Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-6-(0.25'-0.5')  
Lab ID: 1207365-06B

Received: 7/20/2012  
Collected: 7/19/2012 14:10

Test Name: EPA 8260B

Reference: EPA 5035/EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Chloromethane	ND		0.056	mg/Kg	1.4	7/21/2012	8/23/2012
Vinyl chloride	ND		0.0070	mg/Kg	1.4	7/21/2012	8/23/2012
Bromomethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Chloroethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Trichlorofluoromethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,1-Dichloroethene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Methylene chloride	ND		0.056	mg/Kg	1.4	7/21/2012	8/23/2012
trans-1,2-Dichloroethene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Methyl tert-butyl ether (MTBE)	ND		0.0070	mg/Kg	1.4	7/21/2012	8/23/2012
Tert-butyl alcohol (TBA)	ND		0.28	mg/Kg	1.4	7/21/2012	8/23/2012
Di-isopropyl ether (DIPE)	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,1-Dichloroethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Ethyl tert-butyl ether (ETBE)	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
cis-1,2-Dichloroethene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
2,2-Dichloropropane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Bromochloromethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Chloroform	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Carbon Tetrachloride	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,1,1-Trichloroethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,1-Dichloropropene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Benzene	ND		0.0070	mg/Kg	1.4	7/21/2012	8/23/2012
Tert-amyl methyl ether (TAME)	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dichloroethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Trichloroethene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Dibromomethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dichloropropane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Bromodichloromethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
cis-1,3-Dichloropropene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Toluene	ND		0.0070	mg/Kg	1.4	7/21/2012	8/23/2012
Tetrachloroethene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
trans-1,3-Dichloropropene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,1,2-Trichloroethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Dibromochloromethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,3-Dichloropropane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dibromoethane (EDB)	ND		0.056	mg/Kg	1.4	7/21/2012	8/23/2012
Chlorobenzene	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Ethylbenzene	ND		0.0070	mg/Kg	1.4	7/21/2012	8/23/2012
1,1,1,2-Tetrachloroethane	ND		0.028	mg/Kg	1.4	7/21/2012	8/23/2012
m,p-Xylene	ND		0.0070	mg/Kg	1.4	7/21/2012	8/23/2012

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Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-6-(0.25'-0.5')

Lab ID: 1207365-06B

Received: 7/20/2012

Collected: 7/19/2012 14:10

o-Xylene	ND	0.0070	mg/Kg	1.4	7/21/2012	8/23/2012
Bromoform	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Styrene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Isopropylbenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
Bromobenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
n-Propylbenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,1,2,2-Tetrachloroethane	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
2-Chlorotoluene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
4-Chlorotoluene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,2,3-Trichloropropane	ND	0.056	mg/Kg	1.4	7/21/2012	8/23/2012
1,3,5-Trimethylbenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
tert-Butylbenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,2,4-Trimethylbenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
sec-Butylbenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
4-Isopropyltoluene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,3-Dichlorobenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,4-Dichlorobenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
n-Butylbenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dichlorobenzene	ND	0.028	mg/Kg	1.4	7/21/2012	8/23/2012
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.14	mg/Kg	1.4	7/21/2012	8/23/2012
1,2,4-Trichlorobenzene	ND	0.056	mg/Kg	1.4	7/21/2012	8/23/2012
Hexachlorobutadiene	ND	0.056	mg/Kg	1.4	7/21/2012	8/23/2012
Naphthalene	ND	0.056	mg/Kg	1.4	7/21/2012	8/23/2012
1,2,3-Trichlorobenzene	ND	0.056	mg/Kg	1.4	7/21/2012	8/23/2012
Surrogate: 1,2-Dichloroethane-d4	108	44.9-146	% Rec	1.4	7/21/2012	8/23/2012
Surrogate: Dibromofluoromethane	108	61.5-123	% Rec	1.4	7/21/2012	8/23/2012
Surrogate: Toluene-d8	101	90.5-108	% Rec	1.4	7/21/2012	8/23/2012

Test Name: TPH as Gasoline

Reference: EPA 5035/EPA 8260B Modified

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND		1.4	mg/kg	1.4	7/21/2012	8/23/2012

Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Dump-6-(0.25'-0.5')  
Lab ID: 1207365-06C

Received: 7/20/2012  
Collected: 7/19/2012 14:10

Test Name: EPA 6010B

Reference: EPA 6010B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Arsenic	110		25	mg/kg	1.0	7/24/2012	7/26/2012
Cadmium	ND		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Chromium	150		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Copper	30		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Lead	12		10	mg/kg	1.0	7/24/2012	7/26/2012
Nickel	96		5.0	mg/kg	1.0	7/24/2012	7/26/2012
Zinc	55		5.0	mg/kg	1.0	7/24/2012	7/26/2012

Test Name: Mercury

Reference: EPA 7471A

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Mercury	ND		0.10	mg/kg	1.0	7/31/2012	8/2/2012

Client Sample ID: Residence-1-(0.0'-0.25')  
Lab ID: 1207365-07A

Received: 7/20/2012  
Collected: 7/19/2012 14:20

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3550/EPA 8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	11	D4	1.0	mg/kg	1.0	7/26/2012	7/27/2012
TPHC Motor Oil	1,000		200	mg/kg	20	7/26/2012	8/1/2012

Test Name: TPH passed through Silica Gel Column

Reference: EPA 3550/3630/8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		20	mg/kg	20	7/26/2012	8/1/2012
TPHC Motor Oil	660		200	mg/kg	20	7/26/2012	8/1/2012

Client Sample ID: Residence-1-(0.0'-0.25')  
Lab ID: 1207365-07B

Received: 7/20/2012  
Collected: 7/19/2012 14:20

Test Name: EPA 6010B

Reference: EPA 6010B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Arsenic	110		25	mg/kg	1.0	7/24/2012	7/26/2012
Cadmium	ND		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Chromium	120		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Copper	43		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Lead	64		10	mg/kg	1.0	7/24/2012	7/26/2012
Nickel	66		5.0	mg/kg	1.0	7/24/2012	7/26/2012
Zinc	170		5.0	mg/kg	1.0	7/24/2012	7/26/2012

Date: 27-Aug-2012  
WorkOrder: 1207365

## ANALYTICAL REPORT

Client Sample ID: Residence-2-(0.0"-0.25')  
Lab ID: 1207365-08A

Received: 7/20/2012  
Collected: 7/19/2012 14:25

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3550/EPA 8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	10	D3, D4	1.0	mg/kg	1.0	7/26/2012	7/27/2012
TPHC Motor Oil	400		100	mg/kg	10	7/26/2012	8/1/2012

Test Name: TPH passed through Silica Gel Column

Reference: EPA 3550/3630/8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	10		10	mg/kg	10	7/26/2012	8/1/2012
TPHC Motor Oil	340		100	mg/kg	10	7/26/2012	8/1/2012

Client Sample ID: Residence-2-(0.0"-0.25')  
Lab ID: 1207365-08B

Received: 7/20/2012  
Collected: 7/19/2012 14:25

Test Name: EPA 6010B

Reference: EPA 6010B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Arsenic	110		25	mg/kg	1.0	7/24/2012	7/26/2012
Cadmium	ND		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Chromium	190		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Copper	55		2.0	mg/kg	1.0	7/24/2012	7/26/2012
Lead	76		10	mg/kg	1.0	7/24/2012	7/26/2012
Nickel	170		5.0	mg/kg	1.0	7/24/2012	7/26/2012
Zinc	180		5.0	mg/kg	1.0	7/24/2012	7/26/2012

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Method Blank

Sample ID: MB-27820	Batch ID: 27820	Test Code: 5035_8260S	Units: mg/Kg	Analysis Date: 8/23/2012 3:28:00 PM				Prep Date: 7/21/2012			
Client ID:		Run ID:	ORG CMS2_120823B	SeqNo: 1042049							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	ND	0.020									
Chloromethane	ND	0.040									
Vinyl chloride	ND	0.0050									
Bromomethane	ND	0.020									
Chloroethane	ND	0.020									
Trichlorofluoromethane	ND	0.020									
1,1-Dichloroethene	ND	0.020									
Methylene chloride	ND	0.040									
trans-1,2-Dichloroethene	ND	0.020									
Methyl tert-butyl ether (MTBE)	ND	0.0050									
Tert-butyl alcohol (TBA)	ND	0.20									
Di-isopropyl ether (DIPE)	ND	0.020									
1,1-Dichloroethane	ND	0.020									
Ethyl tert-butyl ether (ETBE)	ND	0.020									
cis-1,2-Dichloroethene	ND	0.020									
2,2-Dichloropropane	ND	0.020									
Bromochloromethane	ND	0.020									
Chloroform	ND	0.020									
Carbon Tetrachloride	ND	0.020									
1,1,1-Trichloroethane	ND	0.020									
1,1-Dichloropropene	ND	0.020									
Benzene	ND	0.0050									
Tert-amyl methyl ether (TAME)	ND	0.020									
1,2-Dichloroethane	ND	0.020									
Trichloroethene	ND	0.020									
Dibromomethane	ND	0.020									
1,2-Dichloropropane	ND	0.020									
Bromodichloromethane	ND	0.020									

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
                   J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Method Blank

cis-1,3-Dichloropropene	ND	0.020
Toluene	ND	0.0050
Tetrachloroethene	ND	0.020
trans-1,3-Dichloropropene	ND	0.020
1,1,2-Trichloroethane	ND	0.020
Dibromochloromethane	ND	0.020
1,3-Dichloropropane	ND	0.020
1,2-Dibromoethane (EDB)	ND	0.040
Chlorobenzene	ND	0.020
Ethylbenzene	ND	0.0050
1,1,1,2-Tetrachloroethane	ND	0.020
m,p-Xylene	ND	0.0050
o-Xylene	ND	0.0050
Bromoform	ND	0.020
Styrene	ND	0.020
Isopropylbenzene	ND	0.020
Bromobenzene	ND	0.020
n-Propylbenzene	ND	0.020
1,1,2,2-Tetrachloroethane	ND	0.020
2-Chlorotoluene	ND	0.020
4-Chlorotoluene	ND	0.020
1,2,3-Trichloropropane	ND	0.040
1,3,5-Trimethylbenzene	ND	0.020
tert-Butylbenzene	ND	0.020
1,2,4-Trimethylbenzene	ND	0.020
sec-Butylbenzene	ND	0.020
4-Isopropyltoluene	ND	0.020
1,3-Dichlorobenzene	ND	0.020
1,4-Dichlorobenzene	ND	0.020
n-Butylbenzene	ND	0.020
1,2-Dichlorobenzene	ND	0.020
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.10
1,2,4-Trichlorobenzene	ND	0.040
Hexachlorobutadiene	ND	0.040

**Qualifiers:** ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Method Blank

Naphthalene	ND	0.040									
1,2,3-Trichlorobenzene	ND	0.040									
Surrogate: 1,2-Dichloroethane-d4	0.994	0.0020	1.00	0	99.4%	45	146	0			
Surrogate: Dibromofluoromethane	1.04	0.0020	1.00	0	104%	62	123	0			
Surrogate: Toluene-d8	0.912	0.0020	1.00	0	91.2%	91	108	0			

Sample ID: MB-27820	Batch ID: 27820	Test Code: 5035_GASS-	Units: mg/kg			Prep Date: 7/21/2012
Client ID:		Run ID: ORGCMS2_120823A		SeqNo:	1041965	

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	ND	1.0									

Sample ID: MB-27801	Batch ID: 27801	Test Code: 6ICPS	Units: mg/kg			Prep Date: 7/24/2012
Client ID:		Run ID: INIC2_120726A		SeqNo:	1036130	

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	25									
Cadmium	ND	2.0									
Chromium	ND	2.0									
Copper	ND	2.0									
Lead	ND	.10									
Nickel	ND	5.0									
Zinc	ND	5.0									

Sample ID: MB-27832	Batch ID: 27832	Test Code: MERCS	Units: mg/kg			Prep Date: 7/31/2012					
Client ID:		Run ID: CVAA1_120802A		SeqNo:	1037862						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.10									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 S - Spike Recovery outside accepted recovery limits  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 R - RPD outside accepted recovery limits

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**  
Method Blank

Sample ID: MB-27808	Batch ID: 27808	Test Code: SGTPDMS	Units: mg/kg	Analysis Date: 8/1/2012 12:24:01 AM			Prep Date: 7/26/2012				
Client ID:		Run ID: ORGC14_120731A		SeqNo: 1037449							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	ND	1.0									
TPHC Motor Oil	ND	10									
Sample ID: MB-27807	Batch ID: 27807	Test Code: TPHDMS	Units: mg/kg	Analysis Date: 7/26/2012 8:23:35 PM			Prep Date: 7/26/2012				
Client ID:		Run ID: ORGC14_120726B		SeqNo: 1037427							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	ND	1.0									
TPHC Motor Oil	ND	10									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**

Sample Matrix Spike

Sample ID: 1207365-01BMS Batch ID: 27820		Test Code: 5035_8260S Units: mg/Kg			Analysis Date: 8/24/2012 4:38:00 PM				Prep Date: 7/21/2012		
Client ID: Dump-1-(0.25"-0.5")		Run ID: ORGCMS2_120823B			SeqNo: 1042231						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	0.03056	0.021	0.0535	0.0000574	57.0%	14	149	0			
Chloromethane	0.04978	0.043	0.0535	0.0000206	93.0%	40	145	0			
Vinyl chloride	0.04969	0.0054	0.0535	0	92.9%	54	153	0			
Bromomethane	0.05273	0.021	0.0535	0	98.6%	74	160	0			
Chloroethane	0.03099	0.021	0.0535	0	57.9%	65	138	0			S
Trichlorofluoromethane	0.03496	0.021	0.0535	0.000202	65.0%	73	151	0			S
1,1-Dichloroethene	0.05713	0.021	0.0535	0	107%	45	154	0			
Methylene chloride	0.06642	0.043	0.0535	0.000244	124%	26	175	0			
trans-1,2-Dichloroethene	0.06062	0.021	0.0535	0	113%	40	156	0			
Methyl tert-butyl ether (MTBE)	0.06830	0.0054	0.0535	0	128%	42	135	0			
Tert-butyl alcohol (TBA)	1.646	0.21	1.07	0.0135	153%	49	185	0			
Di-isopropyl ether (DIPE)	0.06171	0.021	0.0535	0	115%	36	159	0			
1,1-Dichloroethane	0.06611	0.021	0.0535	0	124%	35	164	0			
Ethyl tert-butyl ether (ETBE)	0.06542	0.021	0.0535	0	122%	54	128	0			
cis-1,2-Dichloroethene	0.06065	0.021	0.0535	0	113%	34	159	0			
2,2-Dichloropropane	0.06065	0.021	0.0535	0.000156	113%	46	155	0			
Bromochloromethane	0.05898	0.021	0.0535	0	110%	38	154	0			
Chloroform	0.05410	0.021	0.0535	0	101%	31	160	0			
Carbon Tetrachloride	0.04789	0.021	0.0535	0	89.5%	65	162	0			
1,1,1-Trichloroethane	0.05436	0.021	0.0535	0	102%	57	148	0			
1,1-Dichloropropene	0.04749	0.021	0.0535	0.0000254	88.7%	61	146	0			
Benzene	0.04824	0.0054	0.0535	0.00171	87.0%	45	145	0			
Tert-amyl methyl ether (TAME)	0.05386	0.021	0.0535	0	101%	55	126	0			
1,2-Dichloroethane	0.05871	0.021	0.0535	0	110%	45	129	0			
Trichloroethene	0.05059	0.021	0.0535	0	94.6%	63	129	0			
Dibromomethane	0.05403	0.021	0.0535	0	101%	51	135	0			
1,2-Dichloropropane	0.05052	0.021	0.0535	0	94.4%	62	126	0			
Bromodichloromethane	0.05520	0.021	0.0535	0	103%	57	132	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Sample Matrix Spike

cis-1,3-Dichloropropene	0.06428	0.021	0.0535	0	120%	48	138	0
Toluene	0.04503	0.0054	0.0535	0	84.2%	42	153	0
Tetrachloroethene	0.04401	0.021	0.0535	0	82.3%	40	182	0
trans-1,3-Dichloropropene	0.04683	0.021	0.0535	0.00141	84.9%	59	128	0
1,1,2-Trichloroethane	0.05054	0.021	0.0535	0	94.5%	67	121	0
Dibromochloromethane	0.04645	0.021	0.0535	0	86.8%	63	126	0
1,3-Dichloropropane	0.05259	0.021	0.0535	0	98.3%	68	122	0
1,2-Dibromoethane (EDB)	0.05111	0.043	0.0535	0	95.5%	63	127	0
Chlorobenzene	0.04292	0.021	0.0535	0.0000117	80.2%	54	145	0
Ethylbenzene	0.04360	0.0054	0.0535	0	81.5%	57	148	0
1,1,1,2-Tetrachloroethane	0.04431	0.021	0.0535	0	82.8%	65	127	0
m,p-Xylene	0.08460	0.0054	0.107	0	79.1%	68	126	0
o-Xylene	0.04482	0.0054	0.0535	0	83.8%	59	131	0
Bromoform	0.05215	0.021	0.0535	0	97.5%	64	127	0
Styrene	0.04097	0.021	0.0535	0	76.6%	65	139	0
Isopropylbenzene	0.04447	0.021	0.0535	0	83.1%	76	129	0
Bromobenzene	0.04160	0.021	0.0535	0	77.8%	57	140	0
n-Propylbenzene	0.04304	0.021	0.0535	0.0000772	80.3%	76	137	0
1,1,2,2-Tetrachloroethane	0.05275	0.021	0.0535	0	98.6%	70	124	0
2-Chlorotoluene	0.04086	0.021	0.0535	0.0000477	76.3%	66	125	0
4-Chlorotoluene	0.04099	0.021	0.0535	0.0000201	76.6%	56	142	0
1,2,3-Trichloropropane	0.05311	0.043	0.0535	0	99.3%	61	130	0
1,3,5-Trimethylbenzene	0.04083	0.021	0.0535	0.000362	75.6%	58	143	0
tert-Butylbenzene	0.04340	0.021	0.0535	0.000221	80.7%	70	140	0
1,2,4-Trimethylbenzene	0.04126	0.021	0.0535	0.000239	76.7%	59	142	0
sec-Butylbenzene	0.04104	0.021	0.0535	0.000260	76.2%	71	145	0
4-Isopropyltoluene	0.04036	0.021	0.0535	0.000594	74.3%	63	154	0
1,3-Dichlorobenzene	0.03975	0.021	0.0535	0.0000223	74.3%	48	152	0
1,4-Dichlorobenzene	0.03832	0.021	0.0535	0.000127	71.4%	49	146	0
n-Butylbenzene	0.03994	0.021	0.0535	0.000413	73.9%	72	147	0
1,2-Dichlorobenzene	0.03922	0.021	0.0535	0.000205	72.9%	66	125	0
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.11	0.0535	0	98.5%	49	136	0
1,2,4-Trichlorobenzene	ND	0.043	0.0535	0.000105	69.7%	52	164	0
Hexachlorobutadiene	ND	0.043	0.0535	0	65.5%	47	173	0

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**  
**Sample Matrix Spike**

Naphthalene	ND	0.043	0.0535	0.000672	66.0%	39	199	0
1,2,3-Trichlorobenzene	ND	0.043	0.0535	0.000731	63.4%	33	199	0
Surrogate: 1,2-Dichloroethane-d4	1.21	0.0021	1.07	0	113%	45	146	0
Surrogate: Dibromofluoromethane	1.19	0.0021	1.07	0	111%	62	123	0
Surrogate: Toluene-d8	1.06	0.0021	1.07	0	98.6%	91	108	0

Sample ID: 1207365-01CMS Batch ID: 27801 Test Code: 6ICPS Units: mg/kg Analysis Date: 7/26/2012 12:51:00 PM Prep Date: 7/24/2012  
Client ID: Dump-1-(0.25'-0.5') Run ID: INIC2\_120726A SeqNo: 1036145

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	209.2	25	100	122	87.5%	70	130	0			
Cadmium	87.16	2.0	100	0	87.2%	70	130	0			
Chromium	232.1	2.0	100	135	97.2%	70	130	0			
Copper	125.3	2.0	100	30.7	94.6%	70	130	0			
Lead	98.31	10	100	13.4	84.9%	70	130	0			
Nickel	184.5	5.0	100	90.3	94.3%	70	130	0			
Zinc	150.4	5.0	100	65.5	84.9%	70	130	0			

Sample ID: 1207365-01CMSP Batch ID: 27801 Test Code: 6ICPS Units: mg/kg Analysis Date: 7/26/2012 12:55:00 PM Prep Date: 7/24/2012  
Client ID: Dump-1-(0.25'-0.5') Run ID: INIC2\_120726A SeqNo: 1036146

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	200.2	25	100	122	78.5%	70	130	209	4.41%	20	
Cadmium	87.61	2.0	100	0	87.6%	70	130	87.2	0.515%	20	
Chromium	220.8	2.0	100	135	85.8%	70	130	232	5.00%	20	
Copper	122.3	2.0	100	30.7	91.6%	70	130	125	2.42%	20	
Lead	97.79	10	100	13.4	84.4%	70	130	98.3	0.530%	20	
Nickel	171.1	5.0	100	90.3	80.8%	70	130	184	7.55%	20	
Zinc	149.4	5.0	100	65.5	83.8%	70	130	150	0.674%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

**CLIENT:** Freshwater Environmental Services  
**Work Order:** I207365  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**  
 Sample Matrix Spike

Sample ID: 1207365-01CMS	Batch ID: 27832	Test Code: MERCS	Units: mg/kg	Analysis Date: 8/2/2012				Prep Date: 7/31/2012		
Client ID: Dump-1-(0.25'-0.5')		Run ID: CVAA1_120802A		SeqNo: 1037836						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Mercury	0.4700	0.10	0.400	0.0500	105%	70	130	0		Qual
Sample ID: 1207365-01CMSD	Batch ID: 27832	Test Code: MERCS	Units: mg/kg	Analysis Date: 8/2/2012				Prep Date: 7/31/2012		
Client ID: Dump-1-(0.25'-0.5')		Run ID: CVAA1_120802A		SeqNo: 1037837						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Mercury	0.4500	0.10	0.400	0.0500	100%	70	130	0.470	4.35%	20
Sample ID: 1207365-01AMS	Batch ID: 27808	Test Code: SGTPDMS	Units: mg/kg	Analysis Date: 8/1/2012 1:54:23 AM				Prep Date: 7/26/2012		
Client ID: Dump-1-(0.25'-0.5')		Run ID: ORGC14_120731A		SeqNo: 1037452						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
TPHC Diesel (C12-C22)	9.033	1.0	10.0	0	90.3%	70	132	0		Qual
TPHC Motor Oil	22.97	10	20.0	0	115%	69	136	0		Qual
Sample ID: 1207365-01AMSD	Batch ID: 27808	Test Code: SGTPDMS	Units: mg/kg	Analysis Date: 8/1/2012 2:24:29 AM				Prep Date: 7/26/2012		
Client ID: Dump-1-(0.25'-0.5')		Run ID: ORGC14_120731A		SeqNo: 1037453						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
TPHC Diesel (C12-C22)	10.08	1.0	10.0	0	101%	70	132	9.03	10.9%	30
TPHC Motor Oil	22.51	10	20.0	0	113%	69	136	23.0	2.02%	30
Sample ID: 1207365-01AMS	Batch ID: 27807	Test Code: TPHDMS	Units: mg/kg	Analysis Date: 7/26/2012 9:54:16 PM				Prep Date: 7/26/2012		
Client ID: Dump-1-(0.25'-0.5')		Run ID: ORGC14_120726B		SeqNo: 1037430						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
TPHC Diesel (C12-C22)	9.930	1.0	10.0	0	99.3%	80	119	0		Qual
TPHC Motor Oil	23.57	10	20.0	1.20	112%	89	116	0		Qual

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**  
Sample Matrix Spike Duplicate

Sample ID: 1207365-01AMSD	Batch ID: 27807	Test Code: TPHDMS	Units: mg/kg	Analysis Date: 7/26/2012 10:24:23 PM				Prep Date: 7/26/2012			
Client ID: Dump-1-(0.25'-0.5')		Run ID: ORGC14_120726B		SeqNo: 1037431							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	9.932	1.0	10.0	0	99.3%	80	119	9.93	0.0170%	30	
TPHC Motor Oil	22.91	10	20.0	1.20	109%	89	116	23.6	2.83%	30	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: LCS-27820	Batch ID: 27820	Test Code: 5035_8260S Units: mg/Kg			Analysis Date: 8/23/2012 1:26:00 PM				Prep Date: 7/21/2012			
Client ID:		Run ID:	ORGCMS2_120823B			SeqNo:	1042047			%RPD	RPDLimit	Qual
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val				
Dichlorodifluoromethane	0.02817	0.020	0.0500	0	56.3%	14	149	0				
Chloromethane	0.04266	0.040	0.0500	0	85.3%	40	145	0				
Vinyl chloride	0.03630	0.0050	0.0500	0	72.6%	54	153	0				
Bromomethane	0.03903	0.020	0.0500	0	78.1%	74	160	0				
Chloroethane	0.03022	0.020	0.0500	0	60.4%	65	138	0			S	
Trichlorofluoromethane	0.03359	0.020	0.0500	0	67.2%	73	151	0			S	
1,1-Dichloroethene	0.04375	0.020	0.0500	0	87.5%	45	154	0				
Methylene chloride	0.04844	0.040	0.0500	0	96.9%	26	175	0				
trans-1,2-Dichloroethene	0.04152	0.020	0.0500	0	83.0%	40	156	0				
Methyl tert-butyl ether (MTBE)	0.04320	0.0050	0.0500	0	86.4%	42	135	0				
Tert-butyl alcohol (TBA)	1.014	0.20	1.00	0	101%	49	185	0				
Di-isopropyl ether (DIPE)	0.04781	0.020	0.0500	0	95.6%	36	159	0				
1,1-Dichloroethane	0.05026	0.020	0.0500	0	101%	35	164	0				
Ethyl tert-butyl ether (ETBE)	0.05144	0.020	0.0500	0	103%	54	128	0				
cis-1,2-Dichloroethene	0.04857	0.020	0.0500	0	97.1%	34	159	0				
2,2-Dichloropropane	0.04969	0.020	0.0500	0	99.4%	46	155	0				
Bromochloromethane	0.04862	0.020	0.0500	0	97.2%	38	154	0				
Chloroform	0.04821	0.020	0.0500	0	96.4%	31	160	0				
Carbon Tetrachloride	0.05195	0.020	0.0500	0	104%	65	162	0				
1,1,1-Trichloroethane	0.05056	0.020	0.0500	0	101%	57	148	0				
1,1-Dichloropropene	0.04952	0.020	0.0500	0	99.0%	61	146	0				
Benzene	0.04976	0.0050	0.0500	0	99.5%	45	145	0				
Tert-amyl methyl ether (TAME)	0.05253	0.020	0.0500	0	105%	55	126	0				
1,2-Dichloroethane	0.05203	0.020	0.0500	0	104%	45	129	0				
Trichloroethene	0.05244	0.020	0.0500	0	105%	63	129	0				
Dibromomethane	0.04918	0.020	0.0500	0	98.4%	51	135	0				
1,2-Dichloropropane	0.04930	0.020	0.0500	0	98.6%	62	126	0				
Bromodichloromethane	0.05051	0.020	0.0500	0	101%	57	132	0				

**Qualifiers:** ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**  
**Laboratory Control Spike**

cis-1,3-Dichloropropene	0.04455	0.020	0.0500	0	89.1%	48	138	0
Toluene	0.04949	0.0050	0.0500	0	99.0%	42	153	0
Tetrachloroethene	0.05362	0.020	0.0500	0	107%	40	182	0
trans-1,3-Dichloropropene	0.04888	0.020	0.0500	0	97.8%	59	128	0
1,1,2-Trichloroethane	0.05035	0.020	0.0500	0	101%	67	121	0
Dibromochloromethane	0.04019	0.020	0.0500	0	80.4%	63	126	0
1,3-Dichloropropane	0.04424	0.020	0.0500	0	88.5%	68	122	0
1,2-Dibromoethane (EDB)	0.04402	0.040	0.0500	0	88.0%	63	127	0
Chlorobenzene	0.04277	0.020	0.0500	0	85.5%	54	145	0
Ethylbenzene	0.04407	0.0050	0.0500	0	88.1%	57	148	0
1,1,1,2-Tetrachloroethane	0.04163	0.020	0.0500	0	83.3%	65	127	0
m,p-Xylene	0.08963	0.0050	0.100	0	89.6%	68	126	0
o-Xylene	0.04525	0.0050	0.0500	0	90.5%	59	131	0
Bromoform	0.04702	0.020	0.0500	0	94.0%	64	127	0
Styrene	0.04512	0.020	0.0500	0	90.2%	65	139	0
Isopropylbenzene	0.04462	0.020	0.0500	0	89.2%	76	129	0
Bromobenzene	0.04330	0.020	0.0500	0	86.6%	57	140	0
n-Propylbenzene	0.04649	0.020	0.0500	0	93.0%	76	137	0
1,1,2,2-Tetrachloroethane	0.04441	0.020	0.0500	0	88.8%	70	124	0
2-Chlorotoluene	0.04527	0.020	0.0500	0	90.5%	66	125	0
4-Chlorotoluene	0.04636	0.020	0.0500	0	92.7%	56	142	0
1,2,3-Trichloropropane	0.04530	0.040	0.0500	0	90.6%	61	130	0
1,3,5-Trimethylbenzene	0.04583	0.020	0.0500	0	91.7%	58	143	0
tert-Butylbenzene	0.05054	0.020	0.0500	0	101%	70	140	0
1,2,4-Trimethylbenzene	0.05113	0.020	0.0500	0	102%	59	142	0
sec-Butylbenzene	0.05065	0.020	0.0500	0	101%	71	145	0
4-Isopropyltoluene	0.05097	0.020	0.0500	0	102%	63	154	0
1,3-Dichlorobenzene	0.05288	0.020	0.0500	0	106%	48	152	0
1,4-Dichlorobenzene	0.05159	0.020	0.0500	0	103%	49	146	0
n-Butylbenzene	0.05324	0.020	0.0500	0	106%	72	147	0
1,2-Dichlorobenzene	0.05064	0.020	0.0500	0	101%	66	125	0
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.10	0.0500	0	106%	49	136	0
1,2,4-Trichlorobenzene	0.05759	0.040	0.0500	0	115%	52	164	0
Hexachlorobutadiene	0.05372	0.040	0.0500	0	107%	47	173	0

**Qualifiers:** ND - Not Detected at the Reporting Limit  
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R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**  
Laboratory Control Spike

Naphthalene	0.05467	0.040	0.0500	0	109%	39	199	0
1,2,3-Trichlorobenzene	0.05291	0.040	0.0500	0	106%	33	199	0
Surrogate: 1,2-Dichloroethane-d4	1.03	0.0020	1.00	0	103%	45	146	0
Surrogate: Dibromofluoromethane	0.984	0.0020	1.00	0	98.4%	62	123	0
Surrogate: Toluene-d8	0.986	0.0020	1.00	0	98.6%	91	108	0

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**  
**Laboratory Control Spike Duplicate**

Sample ID: LCSD-27820	Batch ID: 27820	Test Code: 5035_8260S	Units: mg/Kg	Analysis Date: 8/23/2012 1:56:00 PM					Prep Date: 7/21/2012		
Client ID:		Run ID: ORGCMS2_120823B		SeqNo: 1042048							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	0.03172	0.020	0.0500	0	63.4%	14	149	0.0282	11.8%	30	
Chloromethane	0.04106	0.040	0.0500	0	82.1%	40	145	0.0427	3.83%	30	
Vinyl chloride	0.04128	0.0050	0.0500	0	82.6%	54	153	0.0363	12.8%	30	
Bromomethane	0.04221	0.020	0.0500	0	84.4%	74	160	0.0390	7.83%	30	
Chloroethane	0.03616	0.020	0.0500	0	72.3%	65	138	0.0302	17.9%	30	
Trichlorofluoromethane	0.03298	0.020	0.0500	0	66.0%	73	151	0.0336	1.83%	30	S
1,1-Dichloroethene	0.05131	0.020	0.0500	0	103%	45	154	0.0438	15.9%	30	
Methylene chloride	0.05693	0.040	0.0500	0	114%	26	175	0.0484	16.1%	30	
trans-1,2-Dichloroethene	0.05420	0.020	0.0500	0	108%	40	156	0.0415	26.5%	30	
Methyl tert-butyl ether (MTBE)	0.04990	0.0050	0.0500	0	99.8%	42	135	0.0432	14.4%	30	
Tert-butyl alcohol (TBA)	1.071	0.20	1.00	0	107%	49	185	1.01	5.45%	30	
Di-isopropyl ether (DIPE)	0.05657	0.020	0.0500	0	113%	36	159	0.0478	16.8%	30	
1,1-Dichloroethane	0.05854	0.020	0.0500	0	117%	35	164	0.0503	15.2%	30	
Ethyl tert-butyl ether (ETBE)	0.05975	0.020	0.0500	0	119%	54	128	0.0514	14.9%	30	
cis-1,2-Dichloroethene	0.05633	0.020	0.0500	0	113%	34	159	0.0486	14.8%	30	
2,2-Dichloropropane	0.05824	0.020	0.0500	0	116%	46	155	0.0497	15.8%	30	
Bromochloromethane	0.05614	0.020	0.0500	0	112%	38	154	0.0486	14.3%	30	
Chloroform	0.05652	0.020	0.0500	0	113%	31	160	0.0482	15.9%	30	
Carbon Tetrachloride	0.06056	0.020	0.0500	0	121%	65	162	0.0520	15.3%	30	
1,1,1-Trichloroethane	0.05786	0.020	0.0500	0	116%	57	148	0.0506	13.5%	30	
1,1-Dichloropropene	0.05694	0.020	0.0500	0	114%	61	146	0.0495	13.9%	30	
Benzene	0.05780	0.0050	0.0500	0	116%	45	145	0.0498	14.9%	30	
Tert-amyl methyl ether (TAME)	0.05975	0.020	0.0500	0	119%	55	126	0.0525	12.9%	30	
1,2-Dichloroethane	0.06017	0.020	0.0500	0	120%	45	129	0.0520	14.5%	30	
Trichloroethene	0.06041	0.020	0.0500	0	121%	63	129	0.0524	14.1%	30	
Dibromomethane	0.05627	0.020	0.0500	0	113%	51	135	0.0492	13.4%	30	
1,2-Dichloropropane	0.04580	0.020	0.0500	0	91.6%	62	126	0.0493	7.35%	30	
Bromodichloromethane	0.04738	0.020	0.0500	0	94.8%	57	132	0.0505	6.41%	30	
cis-1,3-Dichloropropene	0.05357	0.020	0.0500	0	107%	48	138	0.0446	18.4%	30	

**Qualifiers:** ND - Not Detected at the Reporting Limit

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B - Analyte detected in the associated Method Blank

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Toluene	0.05677	0.0050	0.0500	0	114%	42	153	0.0495	13.7%	30
Tetrachloroethene	0.05981	0.020	0.0500	0	120%	40	182	0.0536	10.9%	30
trans-1,3-Dichloropropene	0.05546	0.020	0.0500	0	111%	59	128	0.0489	12.6%	30
1,1,2-Trichloroethane	0.05581	0.020	0.0500	0	112%	67	121	0.0504	10.3%	30
Dibromochloromethane	0.04775	0.020	0.0500	0	95.5%	63	126	0.0402	17.2%	30
1,3-Dichloropropane	0.05141	0.020	0.0500	0	103%	68	122	0.0442	15.0%	30
1,2-Dibromoethane (EDB)	0.05095	0.040	0.0500	0	102%	63	127	0.0440	14.6%	30
Chlorobenzene	0.05179	0.020	0.0500	0	104%	54	145	0.0428	19.1%	30
Ethylbenzene	0.05215	0.0050	0.0500	0	104%	57	148	0.0441	16.8%	30
1,1,1,2-Tetrachloroethane	0.04939	0.020	0.0500	0	98.8%	65	127	0.0416	17.0%	30
m,p-Xylene	0.1066	0.0050	0.100	0	107%	68	126	0.0896	17.3%	30
o-Xylene	0.05358	0.0050	0.0500	0	107%	59	131	0.0452	16.9%	30
Bromoform	0.05449	0.020	0.0500	0	109%	64	127	0.0470	14.7%	30
Styrene	0.05335	0.020	0.0500	0	107%	65	139	0.0451	16.7%	30
Isopropylbenzene	0.05424	0.020	0.0500	0	108%	76	129	0.0446	19.5%	30
Bromobenzene	0.05604	0.020	0.0500	0	112%	57	140	0.0433	25.6%	30
n-Propylbenzene	0.06042	0.020	0.0500	0	121%	76	137	0.0465	26.1%	30
1,1,2,2-Tetrachloroethane	0.05774	0.020	0.0500	0	115%	70	124	0.0444	26.1%	30
2-Chlorotoluene	0.05829	0.020	0.0500	0	117%	66	125	0.0453	25.1%	30
4-Chlorotoluene	0.05932	0.020	0.0500	0	119%	56	142	0.0464	24.5%	30
1,2,3-Trichloropropane	0.05829	0.040	0.0500	0	117%	61	130	0.0453	25.1%	30
1,3,5-Trimethylbenzene	0.05822	0.020	0.0500	0	116%	58	143	0.0458	23.8%	30
tert-Butylbenzene	0.05868	0.020	0.0500	0	117%	70	140	0.0505	14.9%	30
1,2,4-Trimethylbenzene	0.05954	0.020	0.0500	0	119%	59	142	0.0511	15.2%	30
sec-Butylbenzene	0.05925	0.020	0.0500	0	119%	71	145	0.0506	15.6%	30
4-Isopropyltoluene	0.05922	0.020	0.0500	0	118%	63	154	0.0510	15.0%	30
1,3-Dichlorobenzene	0.06118	0.020	0.0500	0	122%	48	152	0.0529	14.6%	30
1,4-Dichlorobenzene	0.05939	0.020	0.0500	0	119%	49	146	0.0516	14.1%	30
n-Butylbenzene	0.06102	0.020	0.0500	0	122%	72	147	0.0532	13.6%	30
1,2-Dichlorobenzene	0.05857	0.020	0.0500	0	117%	66	125	0.0506	14.5%	30
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.10	0.0500	0	118%	49	136	0.0531	10.9%	30
1,2,4-Trichlorobenzene	0.06509	0.040	0.0500	0	130%	52	164	0.0576	12.2%	30
Hexachlorobutadiene	0.06060	0.040	0.0500	0	121%	47	173	0.0537	12.0%	30
Naphthalene	0.06189	0.040	0.0500	0	124%	39	199	0.0547	12.4%	30

**Qualifiers:** ND - Not Detected at the Reporting Limit

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B - Analyte detected in the associated Method Blank

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Laboratory Control Spike Duplicate

1,2,3-Trichlorobenzene	0.06133	0.040	0.0500	0	123%	33	199	0.0529	14.7%	30	
Surrogate: 1,2-Dichloroethane-d4	1.04	0.0020	1.00	0	104%	45	146	1.03	0.365%	30	
Surrogate: Dibromofluoromethane	0.985	0.0020	1.00	0	98.5%	62	123	0.984	0.0927%	30	
Surrogate: Toluene-d8	0.971	0.0020	1.00	0	97.1%	91	108	0.986	1.53%	30	
Sample ID: LCSG-27820	Batch ID: 27820	Test Code: 5035_GASS- Units: mg/kg			Analysis Date: 8/23/2012 2:27:00 PM			Prep Date: 7/21/2012			
Client ID:		Run ID:	ORGCMS2_120823A			SeqNo:	1041963				
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	5.016	1.0	5.00	0	100%	75	129	0			
Sample ID: LCSDG-27820	Batch ID: 27820	Test Code: 5035_GASS- Units: mg/kg			Analysis Date: 8/23/2012 2:58:00 PM			Prep Date: 7/21/2012			
Client ID:		Run ID:	ORGCMS2_120823A			SeqNo:	1041964				
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	5.640	1.0	5.00	0	113%	75	129	5.02	11.7%	20	
Sample ID: LCS-27801	Batch ID: 27801	Test Code: 6ICPS Units: mg/kg			Analysis Date: 7/26/2012 11:53:00 AM			Prep Date: 7/24/2012			
Client ID:		Run ID:	INIC2_120726A			SeqNo:	1036131				
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	94.48	25	100	0	94.5%	85	115	0			
Cadmium	92.93	2.0	100	0	92.9%	85	115	0			
Chromium	94.28	2.0	100	0	94.3%	85	115	0			
Copper	93.03	2.0	100	0	93.0%	85	115	0			
Lead	92.61	10	100	0	92.6%	85	115	0			
Nickel	94.37	5.0	100	0	94.4%	85	115	0			
Zinc	94.87	5.0	100	0.350	94.5%	85	115	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
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**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207365  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**  
**Laboratory Control Spike Duplicate**

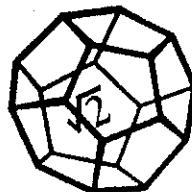
Sample ID: LCSD-27801	Batch ID: 27801	Test Code: 6ICPS			Units: mg/kg		Analysis Date: 7/26/2012 11:57:00 AM			Prep Date: 7/24/2012		
Client ID:		Run ID: INIC2_120726A			SeqNo: 1036132							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Arsenic	94.91	25	100	0	94.9%	85	115	94.5	0.454%	20		
Cadmium	93.38	2.0	100	0	93.4%	85	115	92.9	0.483%	20		
Chromium	95.29	2.0	100	0	95.3%	85	115	94.3	1.07%	20		
Copper	93.35	2.0	100	0	93.4%	85	115	93.0	0.343%	20		
Lead	93.22	10	100	0	93.2%	85	115	92.6	0.657%	20		
Nickel	95.10	5.0	100	0	95.1%	85	115	94.4	0.771%	20		
Zinc	94.68	5.0	100	0.350	94.3%	85	115	94.9	0.200%	20		
Sample ID: LCS-27832	Batch ID: 27832	Test Code: MERCS			Units: mg/kg		Analysis Date: 8/2/2012			Prep Date: 7/31/2012		
Client ID:		Run ID: CVAA1_120802A			SeqNo: 1037863							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Mercury	0.4100	0.10	0.400	0	102%	85	115	0				
Sample ID: LCSD-27832	Batch ID: 27832	Test Code: MERCS			Units: mg/kg		Analysis Date: 8/2/2012			Prep Date: 7/31/2012		
Client ID:		Run ID: CVAA1_120802A			SeqNo: 1037864							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Mercury	0.4200	0.10	0.400	0	105%	85	115	0.410	2.41%	20		
Sample ID: LCS-27808	Batch ID: 27808	Test Code: SGTPDMS			Units: mg/kg		Analysis Date: 8/1/2012 12:54:10 AM			Prep Date: 7/26/2012		
Client ID:		Run ID: ORGC14_120731A			SeqNo: 1037450							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
TPHC Diesel (C12-C22)	9.068	1.0	10.0	0	90.7%	70	132	0				
TPHC Motor Oil	21.89	10	20.0	0	109%	69	136	0				

**Qualifiers:** ND - Not Detected at the Reporting Limit  
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R - RPD outside accepted recovery limits      B - Analyte detected in the associated Method Blank

<b>CLIENT:</b>	Freshwater Environmental Services	<b>QC SUMMARY REPORT</b>									
<b>Work Order:</b>	1207365	Laboratory Control Spike Duplicate									
<b>Project:</b>	Yurok Tribe-Tully Site										

Sample ID: LCSD-27808	Batch ID: 27808	Test Code: SGTPDMS	Units: mg/kg	Analysis Date: 8/1/2012 1:24:16 AM					Prep Date: 7/26/2012		
Client ID:		Run ID: ORGC14_120731A		SeqNo: 1037451							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	9.767	1.0	10.0	0	97.7%	70	132	9.07	7.42%	30	
TPHC Motor Oil	23.12	10	20.0	0	116%	69	136	21.9	5.49%	30	
Sample ID: LCS-27807	Batch ID: 27807	Test Code: TPHDMS	Units: mg/kg	Analysis Date: 7/26/2012 8:53:53 PM					Prep Date: 7/26/2012		
Client ID:		Run ID: ORGC14_120726B		SeqNo: 1037428							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	10.19	1.0	10.0	0	102%	80	119	0			
TPHC Motor Oil	22.02	10	20.0	0	110%	89	116	0			
Sample ID: LCSD-27807	Batch ID: 27807	Test Code: TPHDMS	Units: mg/kg	Analysis Date: 7/26/2012 9:24:07 PM					Prep Date: 7/26/2012		
Client ID:		Run ID: ORGC14_120726B		SeqNo: 1037429							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	10.29	1.0	10.0	0	103%	80	119	10.2	0.991%	30	
TPHC Motor Oil	22.00	10	20.0	0	110%	89	116	22.0	0.0656%	30	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits      S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits      B - Analyte detected in the associated Method Blank



# NORTH COAST LABORATORIES LTD.

5680 West End Road • Arcata • CA 95521-9202  
707-822-4649 Fax 707-822-6831

Attention: Stan Thiesen  
Results & Invoice to: Stan Thiesen  
Address: 78 Sunny Brae Center, Arcata, CA, 95521

---

Phone: 707 839-0091  
Copies of Report to: Stan Thiesen  
stan@freshwaterenvironmentalservices.com

---

Sampler (Sign & Print): Stan Thiesen *Stan Thiesen*

## **PROJECT INFORMATION**

Project Number: \_\_\_\_\_  
Project Name: Yurok Tribe - Tully Site  
Purchase Order Number: \_\_\_\_\_

LAB ID	SAMPLE ID	DATE	TIME	MATRIX
	Dump-1-(0.25'-0.5')	07/19/12	14:00	S
	Dump-2-(1.0'-1.25')	07/19/12	13:45	S
	Dump-3-(0.75'-1.0')	07/19/12	13:55	S
	Dump-4-(0.25'-0.5')	07/19/12	13:00	S
	Dump-5-(2.5'-2.75')	07/19/12	13:20	S
	Dump-6-(0.25'-0.5')	07/19/12	14:10	S
	Residence-1-(0.0'-0.25')	07/19/12	14:20	S
	Residence-2-(0.0'-0.25')	07/19/12	14:25	S
	Temp-Blank			W

<b>RELINQUISHED BY: (Sign &amp; Print)</b>	<b>DATE/TIME</b>
<u>Stan Thiesen</u>	7-20-12 1300

## **Chain of Custody**

P. 1 of 1

**LABORATORY NUMBER:** 201565

TAT:  STD(2-3 Wk)  Other:  
PRIOR AUTHORIZATION IS REQUIRED FOR  
RUSH SAMPLES.

## **REPORTING REQUIREMENTS:**

State Forms  
 Geotracker  SWAMP  Other EDD:  
 Final Report PDF  FAX By:

**CONTAINER CODES:** 1—½ gal. pl; 2—250 ml pl;  
3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG;  
6—500 ml BG; 7—1 L BG; 8—40 ml VOA;  
9—60 ml VOA; 10—125 ml VOA; 11—4 oz glass jar;

**PRESERVATIVE CODES:** a— $\text{HNO}_3$ ; b— $\text{HCl}$ ; c— $\text{H}_2\text{SO}_4$ ;  
d— $\text{Na}_2\text{S}_2\text{O}_3$ ; e— $\text{NaOH}$ ; f— $\text{C}_6\text{H}_5\text{O}_2\text{Cl}$ ; g—other

SAMPLE CONDITION/SPECIAL INSTRUCTIONS	
Temperature:	0.2 °C
Received On Ice?	Y N
Samples Intact?	Y N
Preserved?	Y N
Preserved @ NCL ?	SGC for D/mo Please perform MS/MSD on Dump-1-(0.25'-0.5')
Y / N / NA	

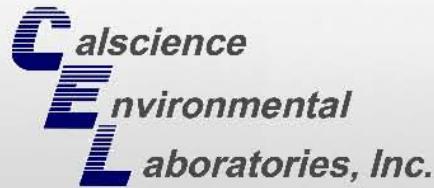
SAMPLE DISPOSAL

NCL Disposal of Non-Contaminated  
 Return                     Pickup

**CHAIN OF CUSTODY SEALS Y/N/NA**  
**SHIPPED VIA: UPS Fed-Ex Hand**

\***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; WW=Waste Water; S=Soil; O=Other

**ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT**



# CALSCIENCE

## WORK ORDER NUMBER: 12-09-1044

*The difference is service*



AIR   SOIL   WATER   MARINE CHEMISTRY

### Analytical Report For

**Client:** North Coast Laboratories, Ltd.

**Client Project Name:** 1209234

**Attention:** Trudie Blasi  
5680 West End Road  
Arcata, CA 95521-9202

---

Approved for release on 09/20/2012 by:  
Don Burley  
Project Manager

[ResultLink ▶](#)

[Email your PM ▶](#)



Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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NELAP ID: 03220CA | DoD-ELAP ID: L10-41 | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

## **Contents**

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Work Order Number: 12-09-1044

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North Coast Laboratories, Ltd.  
5680 West End Road  
Arcata, CA 95521-9202

Date Received: 09/18/12  
Work Order No: 12-09-1044  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: 1209234

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
1209234-01A / Dump-1-(0.25'-0.5')	12-09-1044-1-A	07/19/12 14:00	Solid	ICP 7300	09/19/12	09/20/12 13:44	120919L03

Parameter	Result	RL	DF	Qual	Units
Arsenic	8.21	0.750	1		mg/kg

1209234-02A / Dump-3-(0.75'-1.0')	12-09-1044-2-A	07/19/12 13:55	Solid	ICP 7300	09/19/12	09/20/12 13:46	120919L03
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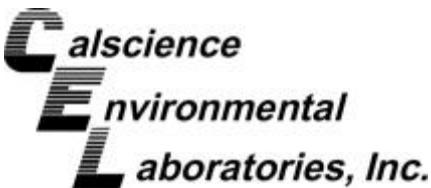
Parameter	Result	RL	DF	Qual	Units
Arsenic	7.82	0.750	1		mg/kg

1209234-03A / Residence-1-(0.0'-0.25')	12-09-1044-3-A	07/19/12 14:20	Solid	ICP 7300	09/19/12	09/20/12 13:48	120919L03
--	----------------	----------------	-------	----------	----------	----------------	-----------

Parameter	Result	RL	DF	Qual	Units
Arsenic	9.10	0.750	1		mg/kg

Method Blank	097-01-002-16,193	N/A	Solid	ICP 7300	09/19/12	09/19/12 17:01	120919L03
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Parameter	Result	RL	DF	Qual	Units
Arsenic	ND	0.750	1		mg/kg



## Quality Control - Spike/Spike Duplicate



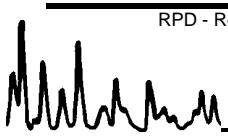
North Coast Laboratories, Ltd.  
5680 West End Road  
Arcata, CA 95521-9202

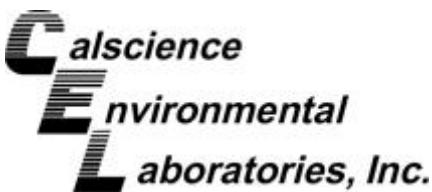
Date Received: 09/18/12  
Work Order No: 12-09-1044  
Preparation: EPA 3050B  
Method: EPA 6010B

Project 1209234

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-09-1137-36	Solid	ICP 7300	09/19/12	09/19/12	120919S03

Parameter	<u>SAMPLE CONC</u>	<u>SPIKE ADDED</u>	<u>MS CONC</u>	<u>MS %REC</u>	<u>MSD CONC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Arsenic	1.967	25.00	30.36	114	29.30	109	75-125	4	0-20	





## Quality Control - PDS / PDSD



North Coast Laboratories, Ltd.  
5680 West End Road  
Arcata, CA 95521-9202

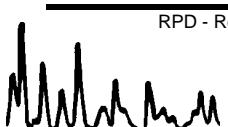
Date Received 09/18/12  
Work Order No: 12-09-1044  
Preparation: EPA 3050B  
Method: EPA 6010B

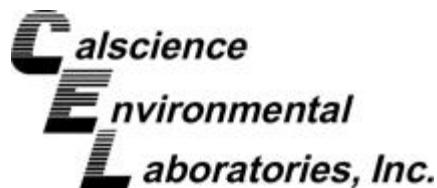
Project: 1209234

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
12-09-1137-36	Solid	ICP 7300	09/19/12	09/19/12	120919S03

Parameter	<u>SAMPLE CONC</u>	<u>SPIKE ADDED</u>	<u>PDS CONC</u>	<u>PDS %REC</u>	<u>PDSD CONC</u>	<u>PDSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Arsenic	1.967	25.00	26.54	98	25.93	96	75-125	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - LCS/LCS Duplicate



North Coast Laboratories, Ltd.  
5680 West End Road  
Arcata, CA 95521-9202

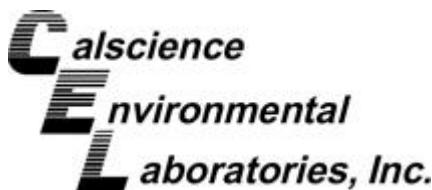
Date Received: N/A  
Work Order No: 12-09-1044  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: 1209234

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-002-16,193	Solid	ICP 7300	09/19/12	09/19/12	120919L03

Parameter	<u>SPIKE ADDED</u>	<u>LCS CONC</u>	<u>LCS %REC</u>	<u>LCSD CONC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Arsenic	25.00	23.01	92	22.89	92	80-120	0	0-20	





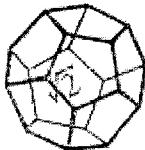
## Glossary of Terms and Qualifiers



Work Order Number: 12-09-1044

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	MPN - Most Probable Number





**NORTH COAST  
LABORATORIES LTD.**

## Sub-Contract Chain of Custody Record

**Date Shipped:** 9/17/2012

**Date Due:** 9/21/2012

**PO #:** 1209234

**Subcontractor:** Calscience Environmental Labs  
7440 Lincoln Way  
Garden Grove, CA 92841  
Attn: SAMPLE RECEIVING

714 895-5494

**Send Results to:** North Coast Labs  
5680 West End Road  
Arcata, CA 95521  
(707) 822-4649

Attn: Trudie Blasi, [tblasi@northcoastlabs.com](mailto:tblasi@northcoastlabs.com)

**12-09-1044**

<b>NCL Sample #</b>	<b>Collection Date</b>	<b>Matrix</b>	<b>State Form System</b>	<b>Sampler</b>	<b>Analysis</b>
<b>Sample ID</b>	<b>Bottle</b>		<b>Source</b>	<b>Employer</b>	<b>Remarks</b>
1 <b>1209234-01A</b>	7/19/2012 02:00 pm	Soil Dump-1-(0.25'-0.5')	4-oz clear glass, unpreserved		Subcontract Metals Arsenic TTLC
2 <b>1209234-02A</b>	7/19/2012 01:55 pm	Soil Dump-3-(0.75'-1.0')	4-oz clear glass, unpreserved		Subcontract Metals Arsenic TTLC
3 <b>1209234-03A</b>	7/19/2012 02:20 pm	Soil Residence-1-(0.0'-0.25')	4-oz clear glass, unpreserved		Subcontract Metals Arsenic TTLC

Relinquished by: <i>R. G.</i>	Date/Time: 9/17/12 1045	Received by: <i>J. P. Blasi</i>	Date/Time: 9/18/12 1030
Relinquished by: <i>R. G.</i>		Received by: <i>J. P. Blasi</i>	

**Special Instructions:** Please include NCL Sample #, Sample ID, and QC data on all analytical work; include PO # on invoice.



1044

**Ship From:**  
 SAMPLE CONTROL  
 NORTH COAST LABORATORIES  
 5680 WEST END RD  
 ARCATA, CA 95521

**Ship To:**  
**SAMPLE RECEIVING**  
**CALSCIENCE ENVIRONMENTAL**  
**LABS**  
**7440 LINCOLN WAY**  
**GARDEN GROVE, CA 92841**

**COD:**  
 \$0.00

**Reference:**

**Delivery Instructions:**

**Signature Type:**  
 SIGNATURE REQUIRED

< WebShip > > > >  
 800-322-5555 www.gso.com

**Tracking #:** 519998613

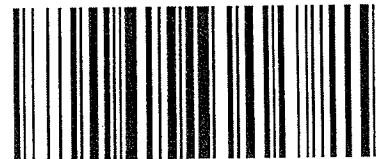


PDS

A

**ORC**  
**GARDEN GROVE**

**D92841A**



4735975

Print Date : 09/17/12 12:09 PM

1 of 1

[Send Label To Printer](#)

[Print All](#)

[Edit Shipment](#)

[Finish](#)

### LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

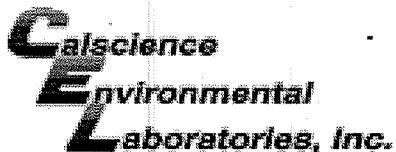
### ADDITIONAL OPTIONS:

[Send Label Via Email](#)

[Create Return Label](#)

### TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section. Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but are not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.



WORK ORDER #: 12-09-1044

**SAMPLE RECEIPT FORM**Cooler 1 of 1CLIENT: North CoastDATE: 09/18/12**TEMPERATURE:** Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen)Temperature 3.3 °C - 0.3 °C (CF) = 3.0 °C  Blank  Sample

- Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_).
- Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.
- Received at ambient temperature, placed on ice for transport by Courier.

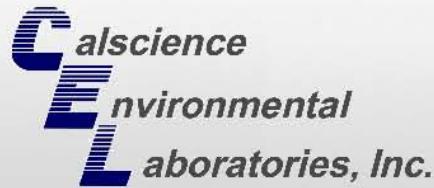
Ambient Temperature:  Air  FilterInitial: JF**CUSTODY SEALS INTACT:**

<input type="checkbox"/> Cooler	<input type="checkbox"/> _____	<input type="checkbox"/> No (Not Intact)	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Initial: <u>JF</u>
<input type="checkbox"/> Sample	<input type="checkbox"/> _____	<input type="checkbox"/> No (Not Intact)	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/>	Initial: <u>TS</u>

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours...	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:**Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores®  TerraCores®  \_\_\_\_\_Water:  VOA  VOAh  VOAna<sub>2</sub>  125AGB  125AGBh  125AGBp  1AGB  1AGBna<sub>2</sub>  1AGBs 500AGB  500AGJ  500AGJs  250AGB  250CGB  250CGBs  1PB  1PBna  500PB 250PB  250PBn  125PB  125PBznna  100PJ  100PJna<sub>2</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_Air:  Tedlar®  Summa® Other:  \_\_\_\_\_ Trip Blank Lot#: \_\_\_\_\_ Labeled/Checked by: TSContainer: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: PSPreservative: h: HCl n: HNO<sub>3</sub> na<sub>2</sub>:Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> na: NaOH p: H<sub>3</sub>PO<sub>4</sub> s: H<sub>2</sub>SO<sub>4</sub> u: Ultra-pure znna: ZnAc<sub>2</sub>+NaOH f: Filtered Scanned by: PS



# CALSCIENCE

## WORK ORDER NUMBER: 12-09-1520

*The difference is service*



AIR   SOIL   WATER   MARINE CHEMISTRY

### Analytical Report For

**Client:** North Coast Laboratories, Ltd.

**Client Project Name:** 1209379

**Attention:** Trudie Blasi  
5680 West End Road  
Arcata, CA 95521-9202

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Approved for release on 09/28/2012 by:  
Don Burley  
Project Manager

[ResultLink ▶](#)

[Email your PM ▶](#)



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NELAP ID: 03220CA | DoD-ELAP ID: L10-41 | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

## **Contents**

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Work Order Number: 12-09-1520

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3	Glossary of Terms and Qualifiers .....	7
4	Chain of Custody/Sample Receipt Form .....	8



North Coast Laboratories, Ltd. Date Received: 09/25/12  
 5680 West End Road Work Order No: 12-09-1520  
 Arcata, CA 95521-9202 Preparation: EPA 3050B  
   Method: EPA 6010B

Project: 1209379

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
1209379-01A / Dump-2-(1.0'-1.25')	12-09-1520-1-A	07/19/12 13:45	Solid	ICP 7300	09/25/12	09/26/12 12:37	120925L03

Parameter	Result	RL	DF	Qual	Units		
Arsenic	5.76	0.750	1		mg/kg		
1209379-02A / Dump-4-(0.25'-0.5')	12-09-1520-2-A	07/19/12 13:00	Solid	ICP 7300	09/25/12	09/26/12 12:39	120925L03

Parameter	Result	RL	DF	Qual	Units		
Arsenic	5.22	0.750	1		mg/kg		
1209379-03A / Dump-5-(2.5'-2.75')	12-09-1520-3-A	07/19/12 13:20	Solid	ICP 7300	09/25/12	09/26/12 12:40	120925L03

Parameter	Result	RL	DF	Qual	Units		
Arsenic	7.07	0.750	1		mg/kg		
1209379-04A / Dump-6-(0.25'-0.5')	12-09-1520-4-A	07/19/12 14:10	Solid	ICP 7300	09/25/12	09/26/12 12:41	120925L03

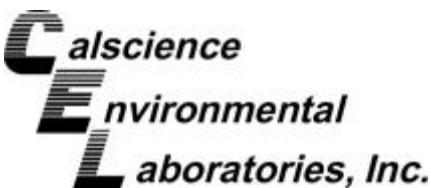
Parameter	Result	RL	DF	Qual	Units		
Arsenic	7.71	0.750	1		mg/kg		
1209379-05A / Residence-2-(0.0'-0.25')	12-09-1520-5-A	07/19/12 14:25	Solid	ICP 7300	09/25/12	09/26/12 12:43	120925L03

Parameter	Result	RL	DF	Qual	Units		
Arsenic	5.53	0.750	1		mg/kg		
Method Blank	097-01-002-16,218	N/A	Solid	ICP 7300	09/25/12	09/26/12 13:16	120925L03

Parameter	Result	RL	DF	Qual	Units
Arsenic	ND	0.750	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





## Quality Control - Spike/Spike Duplicate



North Coast Laboratories, Ltd.  
5680 West End Road  
Arcata, CA 95521-9202

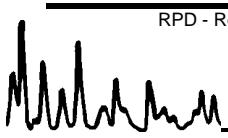
Date Received: 09/25/12  
Work Order No: 12-09-1520  
Preparation: EPA 3050B  
Method: EPA 6010B

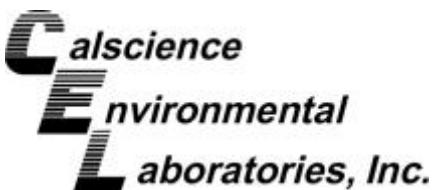
Project 1209379

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-09-1278-9	Solid	ICP 7300	09/25/12	09/25/12	120925S03

Parameter	<u>SAMPLE CONC</u>	<u>SPIKE ADDED</u>	<u>MS CONC</u>	<u>MS %REC</u>	<u>MSD CONC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Arsenic	3.193	25.00	29.32	105	30.80	110	75-125	5	0-20	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - PDS / PDSD



North Coast Laboratories, Ltd.  
5680 West End Road  
Arcata, CA 95521-9202

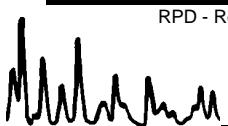
Date Received 09/25/12  
Work Order No: 12-09-1520  
Preparation: EPA 3050B  
Method: EPA 6010B

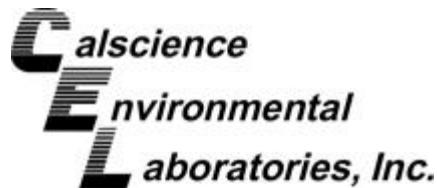
Project: 1209379

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
12-09-1278-9	Solid	ICP 7300	09/25/12	09/25/12	120925S03

Parameter	<u>SAMPLE CONC</u>	<u>SPIKE ADDED</u>	<u>PDS CONC</u>	<u>PDS %REC</u>	<u>PDSD CONC</u>	<u>PDSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Arsenic	3.193	25.00	27.38	97	27.01	95	75-125	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - LCS/LCS Duplicate



North Coast Laboratories, Ltd.  
5680 West End Road  
Arcata, CA 95521-9202

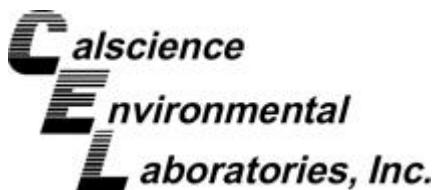
Date Received: N/A  
Work Order No: 12-09-1520  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: 1209379

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-002-16,218	Solid	ICP 7300	09/25/12	09/25/12	120925L03

Parameter	<u>SPIKE ADDED</u>	<u>LCS CONC</u>	<u>LCS %REC</u>	<u>LCSD CONC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Arsenic	25.00	22.68	91	23.19	93	80-120	2	0-20	





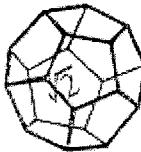
## Glossary of Terms and Qualifiers



Work Order Number: 12-09-1520

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	MPN - Most Probable Number





**NORTH COAST  
LABORATORIES LTD.**

## Sub-Contract Chain of Custody Record

**Date Shipped:** 9/24/2012

**Date Due:** 9/28/2012

**PO #:** 1209379

**Subcontractor:** Calscience Environmental Labs  
7440 Lincoln Way  
Garden Grove, CA 92841  
  
Attn: SAMPLE RECEIVING                    714 895-5494

**Send Results to:** North Coast Labs  
5680 West End Road  
Arcata, CA 95521  
(707) 822-4649

Attn: Trudie Blasi, [tblasi@northcoastlabs.com](mailto:tblasi@northcoastlabs.com)

**12-09-1520**

<b>NCL Sample #</b>	<b>Collection Date</b>	<b>Matrix</b>	<b>State Form System</b>	<b>Sampler</b>	<b>Analysis</b>
<b>Sample ID</b>	<b>Bottle</b>		<b>Source</b>	<b>Employer</b>	<b>Remarks</b>
1 1209379-01A	7/19/2012 01:45 pm	Soil Dump-2-(1.0'-1.25')	4-oz clear glass, unpreserved		Subcontract Metals Arsenic TTLC
2 1209379-02A	7/19/2012 01:00 pm	Soil Dump-4-(0.25'-0.5)	4-oz clear glass, unpreserved		Subcontract Metals Arsenic TTLC
3 1209379-03A	7/19/2012 01:20 pm	Soil Dump-5-(2.5'-2.75')	4-oz clear glass, unpreserved		Subcontract Metals Arsenic TTLC
4 1209379-04A	7/19/2012 02:10 pm	Soil Dump-6-(0.25'-0.5')	4-oz clear glass, unpreserved		Subcontract Metals Arsenic TTLC
5 1209379-05A	7/19/2012 02:25 pm	Soil Residence-2-(0.0'-0.25')	4-oz clear glass, unpreserved		Subcontract Metals Arsenic TTLC

3-Day Rush

Relinquished by: <i>[Signature]</i>	Date/Time: 9/24/12 11:10	Received by: <i>[Signature]</i>	Date/Time: 9/25/12 10:30
Relinquished by: _____	Received by: _____		

**Special Instructions:** Please include NCL Sample #, Sample ID, and QC data on all analytical work; include PO # on invoice.


WebShip >>>>
800-322-5555 [www.gso.com](http://www.gso.com)

(1520)

**Ship From:**  
 SAMPLE CONTROL  
 NORTH COAST LABORATORIES  
 5680 WEST END RD  
 ARCATA, CA 95521

**Ship To:**  
 SAMPLE RECEIVING  
 CALSCIENCE ENVIRONMENTAL  
 LABS  
 7440 LINCOLN WAY  
 GARDEN GROVE, CA 92841

COD:  
 \$0.00

Reference:

Delivery Instructions:

**Signature Type:**  
 SIGNATURE REQUIRED

Tracking #: 520050171



PDS

ORC  
**GARDEN GROVE**

A

**D92841A**



4956712

Print Date : 09/24/12 11:54 AM

1 of 1

[Send Label To Printer](#)

[Print All](#)

[Edit Shipment](#)

[Finish](#)

## LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

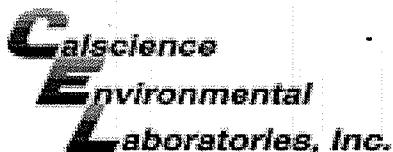
## ADDITIONAL OPTIONS:

[Send Label Via Email](#)

[Create Return Label](#)

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section. Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.



WORK ORDER #: 12-09-1 5 2 0

**SAMPLE RECEIPT FORM**

Cooler 1 of 1

CLIENT: North Coast

DATE: 09/25/12

**TEMPERATURE:** Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen)Temperature 4.2 °C - 0.3 °C (CF) = 3.9 °C  Blank  Sample

- Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_).
- Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

 Received at ambient temperature, placed on ice for transport by Courier.Ambient Temperature:  Air  Filter

Initial:

**CUSTODY SEALS INTACT:**

<input type="checkbox"/> Cooler	<input type="checkbox"/> _____	<input type="checkbox"/> No (Not Intact)	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Initial:
<input type="checkbox"/> Sample	<input type="checkbox"/> _____	<input type="checkbox"/> No (Not Intact)	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Initial:

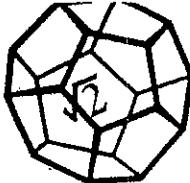
**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours...	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:**Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores®  TerraCores®  \_\_\_\_\_Water:  VOA  VOAh  VOAna<sub>2</sub>  125AGB  125AGBh  125AGBp  1AGB  1AGBna<sub>2</sub>  1AGBs 500AGB  500AGJ  500AGJs  250AGB  250CGB  250CGBs  1PB  1PBna  500PB 250PB  250PBn  125PB  125PBznna  100PJ  100PJna<sub>2</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_Air:  Tedlar®  Summa® Other:  \_\_\_\_\_ Trip Blank Lot#: \_\_\_\_\_ Labeled/Checked by: 

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by:

Preservative: h: HCL n: HNO<sub>3</sub> na<sub>2</sub>:Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> na: NaOH p: H<sub>3</sub>PO<sub>4</sub> s: H<sub>2</sub>SO<sub>4</sub> u: Ultra-pure znna: ZnAc<sub>2</sub>+NaOH f: Filtered Scanned by:



# NORTH COAST LABORATORIES LTD.

5680 West End Road • Arcata • CA 95521-9202  
707-822-4649 Fax 707-822-6831

Attention: Stan Thiesen  
Results & Invoice to: Stan Thiesen  
Address: 78 Sunny Brae Center, Arcata, CA, 95521

Phone: 707 839-0091  
Copies of Report to: Stan Thiesen  
stan@freshwaterenvironmentalservices.com  
Sampler (Sign & Print): Stan Thiesen *Stan Thiesen*

## PROJECT INFORMATION

Project Number: \_\_\_\_\_  
Project Name: Yurok Tribe - Tully Site  
Purchase Order Number: \_\_\_\_\_

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*
	Dump-1-(0.25'-0.5')	07/19/12	14:00	S
	Dump-2-(1.0'-1.25')	07/19/12	13:45	S
	Dump-3-(0.75'-1.0')	07/19/12	13:55	S
	Dump-4-(0.25'-0.5')	07/19/12	13:00	S
	Dump-5-(2.5'-2.75')	07/19/12	13:20	S
	Dump-6-(0.25'-0.5')	07/19/12	14:10	S
	Residence-1-(0.0'-0.25')	07/19/12	14:20	S
	Residence-2-(0.0'-0.25')	07/19/12	14:25	S
	Temp-Blank			W

RElinQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
<i>Stan Thiesen Stan Thiesen</i>	7-19-12 1300	<i>A. Parker</i>	7/20/12 13:25

\*MATRIX: DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; WW=Waste Water; S=Soil; O=Other.

# Chain of Custody

P. 1 of 1

1269379

*Coey* *7/19/12*

LABORATORY NUMBER: **1269379**

TAT:  STD (2-3 Wk)  Other:  
PRIOR AUTHORIZATION IS REQUIRED FOR RUSH SAMPLES.

## REPORTING REQUIREMENTS:

State Forms  
 Geotracker  SWAMP  Other EDD:  
 Final Report PDF  FAX By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—40 ml VOA; 9—60 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO<sub>3</sub>; b—HCl; c—H<sub>2</sub>SO<sub>4</sub>; d—Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>; e—NaOH; f—C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>Cl; g—other

## SAMPLE CONDITION/SPECIAL INSTRUCTIONS

Temperature: <i>71.2 °C</i>	Metals: arsenic, cadmium, chromium (total), copper, nickel, lead, zinc, and mercury.
Received On Ice? <i>Y</i> / <i>N</i>	
Samples Intact? <i>Y</i> / <i>N</i>	
Preserved? <i>Y</i> / <i>N</i>	
	<i>SGC for D/mo</i>
Preserved @ NCL?	Please perform MS/MSD
<i>Y</i> / <i>N</i> / <i>NA</i>	on Dump-1-(0.25'-0.5')

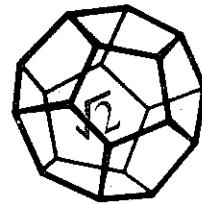
## SAMPLE DISPOSAL

NCL Disposal of Non-Contaminated  
 Return  Pickup

CHAIN OF CUSTODY SEALS Y/N/NA **1269379**

SHIPPED VIA: UPS Fed-Ex Hand

**ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT**



**NORTH COAST  
LABORATORIES LTD.**

August 16, 2012

Freshwater Environmental Services  
78 Sunny Brae Center  
Arcata, CA 95521

Order No.: 1207369  
Invoice No.: 104482  
PO No.:  
ELAP No.1247-Expires July 2014

Attn: Stan Thiesen

RE: Yurok Tribe-Tully Site

**SAMPLE IDENTIFICATION**

Fraction	Client Sample Description
01A	Waukell-1-Water
01C	Waukell-1-Water
01D	Waukell-1-Water(DISSOLVED)
02A	Waukell-2-Water
02C	Waukell-2-Water
02D	Waukell-2-Water(DISSOLVED)

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

**REPORT CERTIFIED BY**

Laboratory Supervisor(s)

QA Unit

Jesse G. Chaney, Jr.  
Laboratory Director

**CLIENT:** Freshwater Environmental Services  
**Project:** Yurok Tribe-Tully Site  
**Lab Order:** 1207369

**CASE NARRATIVE****THIS IS AN AMENDED REPORT:**

Some of the reporting limits for the metals were lowered as per client request.

**Zinc:**

Due to trace contamination of the method blank the reporting limit was raised.

**EPA 8260:**

The matrix spike (MS) recovery was below the lower acceptance limit for methyl tert-butyl ether. The response of the reporting limit standard was such that the analyte would have been detected even with the low recovery; therefore, the data were accepted.

The matrix spike (MS) recoveries were above the upper acceptance limits for trans-1,3-dichloropropene, 1,2-dibromo-3-chloropropane, and hexachlorobutadiene. The elevated recoveries equate to a high bias. There were no detectable levels of these analytes in the sample; therefore, the data were accepted.

The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries were below the lower acceptance limits methyl tert-butyl ether and trans-1,2-dichloroethene (LCS only). The response of the reporting limit standard was such that the analytes would have been detected even with the low recoveries; therefore, the data were accepted.

The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries were above the upper acceptance limits for toluene, 1,2-dibromo-3-chloropropane, and hexachlorobutadiene (LCS only). The elevated recoveries equate to a high bias. There were no detectable levels of these analytes in the sample; therefore, the data were accepted.

Date: 16-Aug-2012  
WorkOrder: 1207369

## ANALYTICAL REPORT

Client Sample ID: Waukell-1-Water  
Lab ID: 1207369-01A

Received: 7/20/2012  
Collected: 7/19/2012 12:15

Test Name: TPH as Diesel/Motor Oil

Reference: LUFT/EPA 3511/EPA 8015B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND		50	µg/L	1.0	7/23/2012	8/7/2012
TPHC Motor Oil	ND		170	µg/L	1.0	7/23/2012	8/7/2012

Page 1 of 7

Date: 16-Aug-2012  
WorkOrder: 1207369

## ANALYTICAL REPORT

Client Sample ID: Waukell-1-Water  
Lab ID: 1207369-01C

Received: 7/20/2012  
Collected: 7/19/2012 12:15

Test Name: EPA 8260B

Reference: EPA 8260B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		7/31/2012
Chloromethane	ND		0.50	µg/L	1.0		7/31/2012
Vinyl chloride	ND		0.50	µg/L	1.0		7/31/2012
Bromomethane	ND		0.50	µg/L	1.0		7/31/2012
Chloroethane	ND		0.50	µg/L	1.0		7/31/2012
Trichlorofluoromethane	ND		0.50	µg/L	1.0		7/31/2012
1,1-Dichloroethene	ND		0.50	µg/L	1.0		7/31/2012
Methylene chloride	ND		0.50	µg/L	1.0		7/31/2012
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		7/31/2012
Methyl tert-butyl ether (MTBE)	ND		0.50	µg/L	1.0		7/31/2012
Tert-butyl alcohol (TBA)	ND		10	µg/L	1.0		7/31/2012
Di-isopropyl ether (DIPE)	ND		1.0	µg/L	1.0		7/31/2012
1,1-Dichloroethane	ND		0.50	µg/L	1.0		7/31/2012
Ethyl tert-butyl ether (ETBE)	ND		1.0	µg/L	1.0		7/31/2012
cis-1,2-Dichloroethene	ND		0.50	µg/L	1.0		7/31/2012
2,2-Dichloropropane	ND		0.50	µg/L	1.0		7/31/2012
Bromochloromethane	ND		0.50	µg/L	1.0		7/31/2012
Chloroform	ND		0.50	µg/L	1.0		7/31/2012
Carbon Tetrachloride	ND		0.50	µg/L	1.0		7/31/2012
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		7/31/2012
1,1-Dichloropropene	ND		0.50	µg/L	1.0		7/31/2012
Benzene	ND		0.50	µg/L	1.0		7/31/2012
Tert-amyl methyl ether (TAME)	ND		0.50	µg/L	1.0		7/31/2012
1,2-Dichloroethane	ND		0.50	µg/L	1.0		7/31/2012
Trichloroethene	ND		0.50	µg/L	1.0		7/31/2012
Dibromomethane	ND		0.50	µg/L	1.0		7/31/2012
1,2-Dichloropropane	ND		1.0	µg/L	1.0		7/31/2012
Bromodichloromethane	ND		0.50	µg/L	1.0		7/31/2012
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		7/31/2012
Toluene	ND		0.50	µg/L	1.0		7/31/2012
Tetrachloroethene	ND		0.50	µg/L	1.0		7/31/2012
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		7/31/2012
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		7/31/2012
Dibromochloromethane	ND		0.50	µg/L	1.0		7/31/2012
1,3-Dichloropropane	ND		1.0	µg/L	1.0		7/31/2012
1,2-Dibromoethane (EDB)	ND		1.0	µg/L	1.0		7/31/2012
Chlorobenzene	ND		0.50	µg/L	1.0		7/31/2012
Ethylbenzene	ND		0.50	µg/L	1.0		7/31/2012
1,1,1,2-Tetrachloroethane	ND		0.50	µg/L	1.0		7/31/2012
m,p-Xylene	ND		0.50	µg/L	1.0		7/31/2012

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Date: 16-Aug-2012  
WorkOrder: 1207369

## ANALYTICAL REPORT

Client Sample ID: Waukell-1-Water

Received: 7/20/2012  
Collected: 7/19/2012 12:15

Lab ID: 1207369-01C

o-Xylene	ND	0.50	µg/L	1.0	7/31/2012
Bromoform	ND	0.50	µg/L	1.0	7/31/2012
Styrene	ND	0.50	µg/L	1.0	7/31/2012
Isopropylbenzene	ND	0.50	µg/L	1.0	7/31/2012
Bromobenzene	ND	0.50	µg/L	1.0	7/31/2012
n-Propylbenzene	ND	0.50	µg/L	1.0	7/31/2012
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1.0	7/31/2012
2-Chlorotoluene	ND	0.50	µg/L	1.0	7/31/2012
1,2,3-Trichloropropane	ND	1.0	µg/L	1.0	7/31/2012
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1.0	7/31/2012
4-Chlorotoluene	ND	0.50	µg/L	1.0	7/31/2012
tert-Butylbenzene	ND	0.50	µg/L	1.0	7/31/2012
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1.0	7/31/2012
sec-Butylbenzene	ND	0.50	µg/L	1.0	7/31/2012
4-Isopropyltoluene	ND	0.50	µg/L	1.0	7/31/2012
1,3-Dichlorobenzene	ND	0.50	µg/L	1.0	7/31/2012
1,4-Dichlorobenzene	ND	0.50	µg/L	1.0	7/31/2012
n-Butylbenzene	ND	0.50	µg/L	1.0	7/31/2012
1,2-Dichlorobenzene	ND	0.50	µg/L	1.0	7/31/2012
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	µg/L	1.0	7/31/2012
Hexachlorobutadiene	ND	0.50	µg/L	1.0	7/31/2012
1,2,4-Trichlorobenzene	ND	0.50	µg/L	1.0	7/31/2012
Naphthalene	ND	1.0	µg/L	1.0	7/31/2012
1,2,3-Trichlorobenzene	ND	0.50	µg/L	1.0	7/31/2012
Surrogate: 1,2-Dichloroethane-d4	94.5	70-130	% Rec	1.0	7/31/2012
Surrogate: Dibromofluoromethane	92.6	70.9-120	% Rec	1.0	7/31/2012
Surrogate: Toluene-d8	118	70-130	% Rec	1.0	7/31/2012

Test Name: TPH as Gasoline

Reference: LUFT/EPA 8260B Modified

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND		50	µg/L	1.0		7/31/2012

Date: 16-Aug-2012  
WorkOrder: 1207369

## ANALYTICAL REPORT

Client Sample ID: Waukell-1-Water(DISSOLVED)  
Lab ID: 1207369-01D

Received: 7/20/2012  
Collected: 7/19/2012 12:15

Test Name: ICP-MS Metals

Reference: EPA 200.8 Rev 5.4 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Arsenic	ND		2.0	µg/L	1.0	7/26/2012	7/31/2012
Cadmium	ND		1.0	µg/L	1.0	7/26/2012	7/31/2012
Chromium	1.6		1.0	µg/L	1.0	7/26/2012	7/31/2012
Copper	ND		2.0	µg/L	1.0	7/26/2012	7/31/2012
Lead	ND		1.0	µg/L	1.0	7/26/2012	7/31/2012
Nickel	ND		2.0	µg/L	1.0	7/26/2012	7/31/2012
Zinc	ND		20	µg/L	1.0	7/26/2012	7/31/2012

Test Name: Mercury

Reference: EPA 245.1 Rev 3.0 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Mercury	ND		1.0	µg/L	1.0	7/24/2012	7/26/2012

Client Sample ID: Waukell-2-Water  
Lab ID: 1207369-02A

Received: 7/20/2012  
Collected: 7/19/2012 12:17

Test Name: TPH as Diesel/Motor Oil

Reference: LUFT/EPA 3511/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Diesel (C12-C22)	ND		50	µg/L	1.0	7/31/2012	7/31/2012
TPHC Motor Oil	ND		170	µg/L	1.0	7/31/2012	7/31/2012

Date: 16-Aug-2012  
WorkOrder: 1207369

## ANALYTICAL REPORT

Client Sample ID: Waukell-2-Water  
Lab ID: 1207369-02C

Received: 7/20/2012  
Collected: 7/19/2012 12:17

Test Name: EPA 8260B

Reference: EPA 8260B

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
Dichlorodifluoromethane	ND		0.50	µg/L	1.0		7/31/2012
Chloromethane	ND		0.50	µg/L	1.0		7/31/2012
Vinyl chloride	ND		0.50	µg/L	1.0		7/31/2012
Bromomethane	ND		0.50	µg/L	1.0		7/31/2012
Chloroethane	ND		0.50	µg/L	1.0		7/31/2012
Trichlorofluoromethane	ND		0.50	µg/L	1.0		7/31/2012
1,1-Dichloroethene	ND		0.50	µg/L	1.0		7/31/2012
Methylene chloride	ND		0.50	µg/L	1.0		7/31/2012
trans-1,2-Dichloroethene	ND		0.50	µg/L	1.0		7/31/2012
Methyl tert-butyl ether (MTBE)	ND		0.50	µg/L	1.0		7/31/2012
Tert-butyl alcohol (TBA)	ND		10	µg/L	1.0		7/31/2012
Di-isopropyl ether (DIPE)	ND		1.0	µg/L	1.0		7/31/2012
1,1-Dichloroethane	ND		0.50	µg/L	1.0		7/31/2012
Ethyl tert-butyl ether (ETBE)	ND		1.0	µg/L	1.0		7/31/2012
cis-1,2-Dichloroethene	ND		0.50	µg/L	1.0		7/31/2012
2,2-Dichloropropane	ND		0.50	µg/L	1.0		7/31/2012
Bromochloromethane	ND		0.50	µg/L	1.0		7/31/2012
Chloroform	ND		0.50	µg/L	1.0		7/31/2012
Carbon Tetrachloride	ND		0.50	µg/L	1.0		7/31/2012
1,1,1-Trichloroethane	ND		0.50	µg/L	1.0		7/31/2012
1,1-Dichloropropene	ND		0.50	µg/L	1.0		7/31/2012
Benzene	ND		0.50	µg/L	1.0		7/31/2012
Tert-amyl methyl ether (TAME)	ND		0.50	µg/L	1.0		7/31/2012
1,2-Dichloroethane	ND		0.50	µg/L	1.0		7/31/2012
Trichloroethene	ND		0.50	µg/L	1.0		7/31/2012
Dibromomethane	ND		0.50	µg/L	1.0		7/31/2012
1,2-Dichloropropane	ND		1.0	µg/L	1.0		7/31/2012
Bromodichloromethane	ND		0.50	µg/L	1.0		7/31/2012
cis-1,3-Dichloropropene	ND		1.0	µg/L	1.0		7/31/2012
Toluene	ND		0.50	µg/L	1.0		7/31/2012
Tetrachloroethene	ND		0.50	µg/L	1.0		7/31/2012
trans-1,3-Dichloropropene	ND		1.0	µg/L	1.0		7/31/2012
1,1,2-Trichloroethane	ND		0.50	µg/L	1.0		7/31/2012
Dibromochloromethane	ND		0.50	µg/L	1.0		7/31/2012
1,3-Dichloropropane	ND		1.0	µg/L	1.0		7/31/2012
1,2-Dibromoethane (EDB)	ND		1.0	µg/L	1.0		7/31/2012
Chlorobenzene	ND		0.50	µg/L	1.0		7/31/2012
Ethylbenzene	ND		0.50	µg/L	1.0		7/31/2012
1,1,1,2-Tetrachloroethane	ND		0.50	µg/L	1.0		7/31/2012
m,p-Xylene	ND		0.50	µg/L	1.0		7/31/2012

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Date: 16-Aug-2012  
WorkOrder: 1207369

## ANALYTICAL REPORT

**Client Sample ID:** Waukell-2-Water

**Received:** 7/20/2012

**Lab ID:** 1207369-02C

**Collected:** 7/19/2012 12:17

o-Xylene	ND	0.50	µg/L	1.0	7/31/2012
Bromoform	ND	0.50	µg/L	1.0	7/31/2012
Styrene	ND	0.50	µg/L	1.0	7/31/2012
Isopropylbenzene	ND	0.50	µg/L	1.0	7/31/2012
Bromobenzene	ND	0.50	µg/L	1.0	7/31/2012
n-Propylbenzene	ND	0.50	µg/L	1.0	7/31/2012
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1.0	7/31/2012
2-Chlorotoluene	ND	0.50	µg/L	1.0	7/31/2012
1,2,3-Trichloropropane	ND	1.0	µg/L	1.0	7/31/2012
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1.0	7/31/2012
4-Chlorotoluene	ND	0.50	µg/L	1.0	7/31/2012
tert-Butylbenzene	ND	0.50	µg/L	1.0	7/31/2012
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1.0	7/31/2012
sec-Butylbenzene	ND	0.50	µg/L	1.0	7/31/2012
4-Isopropyltoluene	ND	0.50	µg/L	1.0	7/31/2012
1,3-Dichlorobenzene	ND	0.50	µg/L	1.0	7/31/2012
1,4-Dichlorobenzene	ND	0.50	µg/L	1.0	7/31/2012
n-Butylbenzene	ND	0.50	µg/L	1.0	7/31/2012
1,2-Dichlorobenzene	ND	0.50	µg/L	1.0	7/31/2012
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	µg/L	1.0	7/31/2012
Hexachlorobutadiene	ND	0.50	µg/L	1.0	7/31/2012
1,2,4-Trichlorobenzene	ND	0.50	µg/L	1.0	7/31/2012
Naphthalene	ND	1.0	µg/L	1.0	7/31/2012
1,2,3-Trichlorobenzene	ND	0.50	µg/L	1.0	7/31/2012
Surrogate: 1,2-Dichloroethane-d4	98.8	70-130	% Rec	1.0	7/31/2012
Surrogate: Dibromofluoromethane	91.8	70.9-120	% Rec	1.0	7/31/2012
Surrogate: Toluene-d8	114	70-130	% Rec	1.0	7/31/2012

**Test Name:** TPH as Gasoline

**Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Flag	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND		50	µg/L	1.0		7/31/2012

Date: 16-Aug-2012  
WorkOrder: 1207369

## ANALYTICAL REPORT

Client Sample ID: Waukell-2-Water(DISSOLVED)  
Lab ID: 1207369-02D

Received: 7/20/2012  
Collected: 7/19/2012 12:17

Test Name: ICP-MS Metals

Reference: EPA 200.8 Rev 5.4 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Arsenic	ND		2.0	µg/L	1.0	7/26/2012	7/31/2012
Cadmium	ND		1.0	µg/L	1.0	7/26/2012	7/31/2012
Chromium	ND		1.0	µg/L	1.0	7/26/2012	7/31/2012
Copper	ND		2.0	µg/L	1.0	7/26/2012	7/31/2012
Lead	ND		1.0	µg/L	1.0	7/26/2012	7/31/2012
Nickel	2.2		2.0	µg/L	1.0	7/26/2012	7/31/2012
Zinc	ND		20	µg/L	1.0	7/26/2012	7/31/2012

Test Name: Mercury

Reference: EPA 245.1 Rev 3.0 (1994)

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Mercury	ND		1.0	µg/L	1.0	7/24/2012	7/26/2012

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207369  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Method Blank

Sample ID: MB 073112	Batch ID: R71499	Test Code: 8260EW	Units: µg/L	Analysis Date	7/31/2012 12:42:00 PM	Prep Date:
Client ID:		Run ID:	ORGCMS2_120731A	SeqNo:	1038923	
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
n-Butylbenzene	ND	0.50				
1,2,4-Trichlorobenzene	ND	0.50				
1,2,3-Trichlorobenzene	ND	0.50				
Sample ID: MB 073112	Batch ID: R71390	Test Code: GASW-MS	Units: µg/L	Analysis Date	7/31/2012 12:42:00 PM	Prep Date:
Client ID:		Run ID:	ORGCMS2_120731B	SeqNo:	1037209	
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
TPHC Gasoline	ND	50				
Sample ID: MB-27806	Batch ID: 27806	Test Code: ICPMSW	Units: µg/L	Analysis Date	7/31/2012 12:47:41 PM	Prep Date: 7/26/2012
Client ID:		Run ID:	ICPMS_120731A	SeqNo:	1037121	
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Arsenic	ND	2.0				
Cadmium	ND	1.0				
Chromium	ND	1.0				
Copper	ND	2.0				
Lead	ND	1.0				
Nickel	ND	2.0				
Zinc	ND	20				
Sample ID: MB-27800	Batch ID: 27800	Test Code: MERCW	Units: µg/L	Analysis Date	7/26/2012	Prep Date: 7/24/2012
Client ID:		Run ID:	CVAA1_120726A	SeqNo:	1036162	
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	ND	1.0				

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207369  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**  
Method Blank

Sample ID: MB-27830	Batch ID: 27830	Test Code: TPHDMW	Units: µg/L	Analysis Date	7/31/2012 8:51:23 PM	Prep Date:	7/31/2012				
Client ID:		Run ID:	ORGC14_120731B	SeqNo:	1037462						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	ND	50									
TPHC Motor Oil	ND	170									

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207369  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 1207369-01CMS	Batch ID: R71499	Test Code: 8260EW	Units: µg/L	Analysis Date 7/31/2012 4:06:00 PM				Prep Date:			
Client ID: Waukell-1-Water		Run ID: ORGCMS2_120731A		SeqNo: 1038930							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	23.37	0.50	20.0	0	117%	52	146	0			
Chloromethane	23.52	0.50	20.0	0	118%	29	140	0			
Vinyl chloride	22.89	0.50	20.0	0	114%	12	175	0			
Bromomethane	10.54	0.50	20.0	0	52.7%	37	140	0			
Chloroethane	21.88	0.50	20.0	0	109%	17	159	0			
Trichlorofluoromethane	23.77	0.50	20.0	0	119%	24	161	0			
1,1-Dichloroethene	21.03	0.50	20.0	0	105%	50	143	0			
Methylene chloride	19.11	0.50	20.0	0	95.5%	70	125	0			
trans-1,2-Dichloroethene	19.63	0.50	20.0	0	98.2%	65	129	0			
Methyl tert-butyl ether (MTBE)	9.729	0.50	20.0	0	48.6%	60	152	0			S
Tert-butyl alcohol (TBA)	457.8	10	400	0	114%	35	174	0			
Di-isopropyl ether (DIPE)	15.52	1.0	20.0	0	77.6%	70	130	0			
1,1-Dichloroethane	17.70	0.50	20.0	0	88.5%	66	133	0			
Ethyl tert-butyl ether (ETBE)	16.86	1.0	20.0	0	84.3%	80	131	0			
cis-1,2-Dichloroethene	18.94	0.50	20.0	0	94.7%	69	126	0			
2,2-Dichloropropane	19.83	0.50	20.0	0	99.1%	63	183	0			
Bromochloromethane	18.05	0.50	20.0	0	90.3%	68	136	0			
Chloroform	19.75	0.50	20.0	0	98.7%	72	125	0			
Carbon Tetrachloride	20.09	0.50	20.0	0	100%	78	123	0			
1,1,1-Trichloroethane	20.28	0.50	20.0	0	101%	75	130	0			
1,1-Dichloropropene	22.24	0.50	20.0	0	111%	77	126	0			
Benzene	19.98	0.50	20.0	0	99.9%	83	120	0			
Tert-amyl methyl ether (TAME)	19.03	0.50	20.0	0	95.1%	76	137	0			
1,2-Dichloroethane	20.10	0.50	20.0	0	101%	69	131	0			
Trichloroethene	19.54	0.50	20.0	0	97.7%	81	122	0			
Dibromomethane	21.64	0.50	20.0	0	108%	70	130	0			
1,2-Dichloropropane	22.76	1.0	20.0	0	114%	80	118	0			
Bromodichloromethane	22.27	0.50	20.0	0	111%	77	125	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207369  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Sample Matrix Spike

cis-1,3-Dichloropropene	18.35	1.0	20.0	0	91.8%	72	136	0
Toluene	21.72	0.50	20.0	0	109%	83	118	0
Tetrachloroethene	19.62	0.50	20.0	0	98.1%	76	120	0
trans-1,3-Dichloropropene	27.08	1.0	20.0	0	135%	81	121	0
1,1,2-Trichloroethane	22.11	0.50	20.0	0	111%	74	122	0
Dibromochloromethane	20.38	0.50	20.0	0	102%	70	130	0
1,3-Dichloropropane	20.91	1.0	20.0	0	105%	75	123	0
1,2-Dibromoethane (EDB)	21.82	1.0	20.0	0	109%	70	130	0
Chlorobenzene	18.93	0.50	20.0	0	94.7%	70	130	0
Ethylbenzene	19.59	0.50	20.0	0	97.9%	70	130	0
1,1,1,2-Tetrachloroethane	19.67	0.50	20.0	0	98.3%	77	116	0
m,p-Xylene	40.60	0.50	40.0	0	102%	68	134	0
o-Xylene	20.60	0.50	20.0	0	103%	68	134	0
Bromoform	20.50	0.50	20.0	0	102%	72	133	0
Styrene	17.43	0.50	20.0	0	87.2%	66	132	0
Isopropylbenzene	20.56	0.50	20.0	0	103%	69	132	0
Bromobenzene	20.15	0.50	20.0	0	101%	73	122	0
n-Propylbenzene	21.88	0.50	20.0	0	109%	63	138	0
1,1,2,2-Tetrachloroethane	26.79	0.50	20.0	0	134%	54	144	0
2-Chlorotoluene	21.56	0.50	20.0	0	108%	62	138	0
1,2,3-Trichloropropane	24.96	1.0	20.0	0	125%	58	144	0
1,3,5-Trimethylbenzene	19.38	0.50	20.0	0	96.9%	66	134	0
4-Chlorotoluene	21.94	0.50	20.0	0	110%	65	136	0
tert-Butylbenzene	22.49	0.50	20.0	0	112%	64	138	0
1,2,4-Trimethylbenzene	19.79	0.50	20.0	0	98.9%	65	136	0
sec-Butylbenzene	22.44	0.50	20.0	0	112%	63	137	0
4-Isopropyltoluene	20.10	0.50	20.0	0	101%	70	133	0
1,3-Dichlorobenzene	21.80	0.50	20.0	0	109%	72	122	0
1,4-Dichlorobenzene	20.78	0.50	20.0	0	104%	71	126	0
n-Butylbenzene	25.29	0.50	20.0	0	126%	64	138	0
1,2-Dichlorobenzene	20.69	0.50	20.0	0	103%	70	125	0
1,2-Dibromo-3-chloropropane (DBCP)	32.65	2.0	20.0	0	163%	67	123	0
Hexachlorobutadiene	24.93	0.50	20.0	0	125%	74	123	0
1,2,4-Trichlorobenzene	21.96	0.50	20.0	0	110%	75	125	0

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207369  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Sample Matrix Spike

Naphthalene	25.59	1.0	20.0	0	128%	57	133	0
1,2,3-Trichlorobenzene	25.22	0.50	20.0	0	126%	57	134	0
Surrogate: Dibromofluoromethane	0.972	0.10	1.00	0	97.2%	71	120	0
Surrogate: 1,2-Dichloroethane-d4	1.06	0.10	1.00	0	106%	70	130	0
Surrogate: Toluene-d8	1.11	0.10	1.00	0	111%	70	130	0

Sample ID: 1207369-02CMS Batch ID: R71390 Test Code: GASW-MS Units: µg/L Analysis Date 7/31/2012 4:35:00 PM Prep Date:  
 Client ID: Waukell-2-Water Run ID: ORGCMS2\_120731B SeqNo: 1037212

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,136	50	1,000	0	114%	57	159	0			

Sample ID: 1207369-01DMS Batch ID: 27806 Test Code: ICPMSW Units: µg/L Analysis Date 7/31/2012 1:04:59 PM Prep Date: 7/26/2012  
 Client ID: Waukell-1-Water(DISSOLVED) Run ID: ICPMS\_120731A SeqNo: 1037125

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	479.1	4.0	500	1.84	95.5%	70	130	0			
Cadmium	480.4	2.0	500	0	96.1%	70	130	0			
Chromium	473.8	2.0	500	1.56	94.4%	70	130	0			
Copper	465.6	4.0	500	0.590	93.0%	70	130	0			
Lead	468.3	2.0	500	0	93.7%	70	130	0			
Nickel	472.1	4.0	500	1.04	94.2%	70	130	0			
Zinc	499.5	40	500	8.14	98.3%	70	130	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
                   J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207369  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID: 1207369-01DMSD	Batch ID: 27806	Test Code: ICPMSW	Units: µg/L	Analysis Date 7/31/2012 1:09:18 PM				Prep Date: 7/26/2012			
Client ID: Waukell-1-Water(DISSOLVED)		Run ID: ICPMS_120731A		SeqNo: 1037126							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	481.0	4.0	500	1.84	95.8%	70	130	479	0.392%	20	
Cadmium	490.8	2.0	500	0	98.2%	70	130	480	2.15%	20	
Chromium	479.4	2.0	500	1.56	95.6%	70	130	474	1.19%	20	
Copper	469.6	4.0	500	0.590	93.8%	70	130	466	0.847%	20	
Lead	474.1	2.0	500	0	94.8%	70	130	468	1.23%	20	
Nickel	474.5	4.0	500	1.04	94.7%	70	130	472	0.494%	20	
Zinc	509.3	40	500	8.14	100%	70	130	500	1.94%	20	
Sample ID: 1207369-01DMS	Batch ID: 27800	Test Code: MERCW	Units: µg/L	Analysis Date 7/26/2012				Prep Date: 7/24/2012			
Client ID: Waukell-1-Water(DISSOLVED)		Run ID: CVAA1_120726A		SeqNo: 1036173							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.180	1.0	5.00	0	104%	70	130	0			
Sample ID: 1207369-01DMSD	Batch ID: 27800	Test Code: MERCW	Units: µg/L	Analysis Date 7/26/2012				Prep Date: 7/24/2012			
Client ID: Waukell-1-Water(DISSOLVED)		Run ID: CVAA1_120726A		SeqNo: 1036174							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.290	1.0	5.00	0	106%	70	130	5.18	2.10%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 S - Spike Recovery outside accepted recovery limits  
 J - Analyte detected below quantitation limits  
 R - RPD outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207369  
**Project:** Yurok Tribe-Tully Site

## QC SUMMARY REPORT

### Laboratory Control Spike

Sample ID: LCS-12244	Batch ID: R71499	Test Code: 8260EW	Units: µg/L	Analysis Date 7/31/2012 11:15:00 AM				Prep Date:			
Client ID:		Run ID: ORGCMS2_120731A		SeqNo: 1038921							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Butylbenzene	24.01	0.50	20.0	0	120%	64	138	0			
1,2,4-Trichlorobenzene	22.25	0.50	20.0	0	111%	75	125	0			
1,2,3-Trichlorobenzene	24.96	0.50	20.0	0	125%	57	134	0			
Sample ID: LCSD-12244	Batch ID: R71499	Test Code: 8260EW	Units: µg/L	Analysis Date 7/31/2012 11:44:00 AM				Prep Date:			
Client ID:		Run ID: ORGCMS2_120731A		SeqNo: 1038922							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Butylbenzene	23.64	0.50	20.0	0	118%	64	138	24.0	1.55%	30	
1,2,4-Trichlorobenzene	22.13	0.50	20.0	0	111%	75	125	22.2	0.545%	30	
1,2,3-Trichlorobenzene	25.10	0.50	20.0	0	126%	57	134	25.0	0.567%	30	
Sample ID: LCS-12245	Batch ID: R71390	Test Code: GASW-MS	Units: µg/L	Analysis Date 7/31/2012 10:17:00 AM				Prep Date:			
Client ID:		Run ID: ORGCMS2_120731B		SeqNo: 1037207							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,153	50	1,000	0	115%	78	135	0			
Sample ID: LCSD-12245	Batch ID: R71390	Test Code: GASW-MS	Units: µg/L	Analysis Date 7/31/2012 10:46:00 AM				Prep Date:			
Client ID:		Run ID: ORGCMS2_120731B		SeqNo: 1037208							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,043	50	1,000	0	104%	78	135	1,150	9.99%	20	

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits

<b>CLIENT:</b>	Freshwater Environmental Services	<b>QC SUMMARY REPORT</b>
<b>Work Order:</b>	1207369	Laboratory Control Spike
<b>Project:</b>	Yurok Tribe-Tully Site	

Sample ID: <b>LCS-27806</b>	Batch ID: <b>27806</b>	Test Code: <b>ICPMSW</b>	Units: <b>µg/L</b>	Analysis Date	<b>7/31/2012 12:52:01 PM</b>	Prep Date: <b>7/26/2012</b>					
Client ID:		Run ID: <b>ICPMS_120731A</b>	SeqNo: <b>1037122</b>								
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	494.3	4.0	500	1.43	98.6%	85	115	0			
Cadmium	488.0	2.0	500	0	97.6%	85	115	0			
Chromium	488.4	2.0	500	0	97.7%	85	115	0			
Copper	476.6	4.0	500	0.320	95.3%	85	115	0			
Lead	473.6	2.0	500	0	94.7%	85	115	0			
Nickel	482.4	4.0	500	0.180	96.5%	85	115	0			
Zinc	505.8	40	500	9.21	99.3%	85	115	0			
Sample ID: <b>LCSD-27806</b>	Batch ID: <b>27806</b>	Test Code: <b>ICPMSW</b>	Units: <b>µg/L</b>	Analysis Date	<b>7/31/2012 12:56:20 PM</b>	Prep Date: <b>7/26/2012</b>					
Client ID:		Run ID: <b>ICPMS_120731A</b>	SeqNo: <b>1037123</b>								
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	480.5	4.0	500	1.43	95.8%	85	115	494	2.82%	20	
Cadmium	486.1	2.0	500	0	97.2%	85	115	488	0.394%	20	
Chromium	472.0	2.0	500	0	94.4%	85	115	488	3.41%	20	
Copper	470.5	4.0	500	0.320	94.0%	85	115	477	1.28%	20	
Lead	472.7	2.0	500	0	94.5%	85	115	474	0.186%	20	
Nickel	471.2	4.0	500	0.180	94.2%	85	115	482	2.36%	20	
Zinc	507.5	40	500	9.21	99.6%	85	115	506	0.328%	20	
Sample ID: <b>LCS-27800</b>	Batch ID: <b>27800</b>	Test Code: <b>MERCW</b>	Units: <b>µg/L</b>	Analysis Date	<b>7/26/2012</b>	Prep Date: <b>7/24/2012</b>					
Client ID:		Run ID: <b>CVAA1_120726A</b>	SeqNo: <b>1036163</b>								
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.820	1.0	5.00	0	96.4%	85	115	0			

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

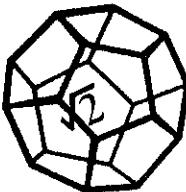
S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

**CLIENT:** Freshwater Environmental Services  
**Work Order:** 1207369  
**Project:** Yurok Tribe-Tully Site

**QC SUMMARY REPORT**  
Laboratory Control Spike Duplicate

Sample ID: LCSD-27800	Batch ID: 27800	Test Code: MERCW	Units: µg/L	Analysis Date 7/26/2012				Prep Date: 7/24/2012			
Client ID:		Run ID: CVAA1_120726A		SeqNo: 1036164							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.250	1.0	5.00	0	105%	85	115	4.82	8.54%	20	
Sample ID: LCS-27830	Batch ID: 27830	Test Code: TPHDMW	Units: µg/L	Analysis Date 7/31/2012 9:22:05 PM				Prep Date: 7/31/2012			
Client ID:		Run ID: ORGC14_120731B		SeqNo: 1037463							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	413.9	50	500	0	82.8%	74	120	0			
TPHC Motor Oil	1,025	170	1,000	0	102%	81	126	0			
Sample ID: LCSD-27830	Batch ID: 27830	Test Code: TPHDMW	Units: µg/L	Analysis Date 7/31/2012 9:52:42 PM				Prep Date: 7/31/2012			
Client ID:		Run ID: ORGC14_120731B		SeqNo: 1037464							
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	428.8	50	500	0	85.8%	74	120	414	3.54%	30	
TPHC Motor Oil	1,046	170	1,000	0	105%	81	126	1,020	2.05%	30	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
B - Analyte detected in the associated Method Blank



# **NORTH COAST LABORATORIES LTD.**

5680 West End Road • Arcata • CA 95521-9202  
707-822-4649 Fax 707-822-6831

Attention: Stan Thiesen  
Results & Invoice to: Stan Thiesen  
Address: 78 Sunny Brae Center, Arcata, CA, 95521

Phone: 707 839-0091  
Copies of Report to: Stan Thiesen  
stan@freshwaterenvironmentalservices.com  
Sampler (Sign & Print): Stan Thiesen Stan Thiesen

## **PROJECT INFORMATION**

Project Number: \_\_\_\_\_  
Project Name: Yurok Tribe - Tully Site  
Purchase Order Number:

RELINQUISHED BY (Sign & Print)	DATE/TIME
Stan Thiesen Stan Thiesen	7-26-12 7:30 AM

## **Chain of Custody**

1

**LABORATORY NUMBER:** 207369

TAT:  STD (2-3 Wk)  Other:  
PRIOR AUTHORIZATION IS REQUIRED FOR  
RUSH SAMPLES.

## **REPORTING REQUIREMENTS:**

- State Forms
- Geotracker  SWAMP  Other EDD:
- Final Report PDF  FAX By:

**CONTAINER CODES:** 1-½ gal. pl; 2-250 ml pl;  
3-500 ml pl; 4-1 L Nalgene; 5-250 ml BG;  
6-500 ml BG; 7-1 L BG; 8-40 ml VOA;  
9-60 ml VOA; 10-105 ml VOA; 11-10 ml VOA

9-60 ml VOA; 10-25 ml VOA; 11-4 oz glass jar;  
 12-8 oz glass jar; 13-brass tube; 14-other  
**PRESERVATIVE CODES:** a— $\text{HNO}_3$ ; b— $\text{HCl}$ ; c— $\text{H}_2\text{SO}_4$ ;  
 d— $\text{Na}_2\text{S}_2\text{O}_3$ ; e— $\text{NaOH}$ ; f— $\text{C}_2\text{H}_3\text{O}_2\text{Cl}$ ; g—other

**SAMPLE CONDITION/SPECIAL INSTRUCTIONS**

Temperature:	<u>0.2</u> °C	Samples for metals analysis were field-filtered within 15 minutes of collection.
Received On Ice?	<input checked="" type="checkbox"/> N	
Samples Intact?	<input checked="" type="checkbox"/> N	Metals: arsenic, cadmium, chromium (total), copper, nickel, lead, zinc and mercury. Please perform MS/MSD on
Preserved?	Y / N	
Preserved @ NCL ?	Y / N / NA	
SGC for you		Waukell-1-Water

SAMPLE DISPOSAL

NCL Disposal of Non-Contaminated  
 Return                    Pickup

**CHAIN OF CUSTODY SEALS Y/N/NA**   
**SHIPPED VIA:** UPS Fed-Ex Hand

\***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; WW=Waste Water; S=Soil; O=Other.

**ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica West Sacramento

880 Riverside Parkway

West Sacramento, CA 95605

Tel: (916)373-5600

TestAmerica Job ID: G2G240464

Client Project Description: Yurok Tribe-Tully Site

For:

Freshwater Environmental Servi

1372 Anderson Avenue

McKinleyville, CA 95519

Attn: Orrin Plocher



Authorized for release by:

8/15/2012 8:13:02 AM

David Alltucker

Project Manager

david.alltucker@testamericainc.com

### LINKS

Review your project  
results through

TotalAccess

Have a Question?

Ask  
The  
Expert

Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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## Definitions/Glossary

Client: Freshwater Environmental Servi

TestAmerica Job ID: G2G240464

### Qualifiers

#### GC/MS Semi VOA

Qualifier	Qualifier Description
*	Surrogate recovery is outside stated control limits.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⊗	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## Case Narrative

### TestAmerica West Sacramento Project Number G2G240464

#### **WATER, 8082, PCB Aroclors**

Sample(s): 7, 8

Insufficient sample was provided to run the requested matrix spike/matrix spike duplicate on sample Waukell-1-Water. After consultation with the client it was decided to use the two sample bottles to extract the sample and an associated matrix spike.

SOLID, 8082, PCB Aroclors

**Sample(s): 1, 2, 3, 4, 5, 6**

The percent difference values for analytes listed below are above the method acceptance limits in the continuing calibration standard, indicating a high bias. This standard was analyzed after the associated samples. As the associated samples are non-detect and there is a potential for a high bias, there is no adverse impact on the data quality.

GC74A; 06-Aug-2012, 20:40

	%D	Limits
	=====	=====
Aroclor 1221 (Peak-1)	16	(+/-15%D)
Aroclor 1221 (Peak-2)	17	(+/-15%D)
Aroclor 1221 (Peak-3)	17	(+/-15%D)

Sample(s): 2

The Decachlorobiphenyl (DCB) surrogate recovery for the sample was high and outside criteria. However, the surrogate recoveries in the associated method blank and laboratory control sample (LCS) were within established control limits. The results may be biased high, however, no target analytes were detected in this sample. The matrix effect was confirmed by visible chromatographic interferences.

There were no other anomalies associated with this project.

## Detection Summary

Client: Freshwater Environmental Servi

TestAmerica Job ID: G2G240464

**Client Sample ID: DUMP-1(0.25'-0.5')**

**Lab Sample ID: G2G240464001**

No Detections

**Client Sample ID: DUMP-1(0.25'-0.5') DUP**

**Lab Sample ID: G2G240464001X**

No Detections

**Client Sample ID: DUMP-2(1.0'-1.25')**

**Lab Sample ID: G2G240464002**

No Detections

**Client Sample ID: DUMP-3(0.75'-1.0')**

**Lab Sample ID: G2G240464003**

No Detections

**Client Sample ID: DUMP-4(0.25'-0.5')**

**Lab Sample ID: G2G240464004**

No Detections

**Client Sample ID: DUMP-5(2.5'-2.75')**

**Lab Sample ID: G2G240464005**

No Detections

**Client Sample ID: DUMP-6(0.25'-0.5')**

**Lab Sample ID: G2G240464006**

No Detections

**Client Sample ID: WAUKELL-1-WATER**

**Lab Sample ID: G2G240464007**

No Detections

**Client Sample ID: WAUKELL-2-WATER**

**Lab Sample ID: G2G240464008**

No Detections

# Client Sample Results

Client: Freshwater Environmental Servi

TestAmerica Job ID: G2G240464

**Client Sample ID: DUMP-1(0.25'-0.5')**

Date Collected: 07/19/12 14:00

Date Received: 07/24/12 09:00

**Lab Sample ID: G2G240464001**

Matrix: Solid

Percent Solids: 88

**Method: 8082 - PCBs (8082)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.036	0.0038	mg/kg	⊗	08/01/12 11:00	08/06/12 17:21	0.97
Aroclor 1221	ND		0.036	0.0058	mg/kg	⊗	08/01/12 11:00	08/06/12 17:21	0.97
Aroclor 1232	ND		0.036	0.0071	mg/kg	⊗	08/01/12 11:00	08/06/12 17:21	0.97
Aroclor 1242	ND		0.036	0.0082	mg/kg	⊗	08/01/12 11:00	08/06/12 17:21	0.97
Aroclor 1248	ND		0.036	0.0063	mg/kg	⊗	08/01/12 11:00	08/06/12 17:21	0.97
Aroclor 1254	ND		0.036	0.0030	mg/kg	⊗	08/01/12 11:00	08/06/12 17:21	0.97
Aroclor 1260	ND		0.036	0.0032	mg/kg	⊗	08/01/12 11:00	08/06/12 17:21	0.97
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>		<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl	109			77 - 123			08/01/12 11:00	08/06/12 17:21	0.97
Tetrachloro-m-xylene	89			64 - 139			08/01/12 11:00	08/06/12 17:21	0.97

**Client Sample ID: DUMP-2(1.0'-1.25')**

Date Collected: 07/19/12 13:45

Date Received: 07/24/12 09:00

**Lab Sample ID: G2G240464002**

Matrix: Solid

Percent Solids: 82

**Method: 8082 - PCBs (8082)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.039	0.0040	mg/kg	⊗	08/01/12 11:00	08/06/12 18:27	0.97
Aroclor 1221	ND		0.039	0.0061	mg/kg	⊗	08/01/12 11:00	08/06/12 18:27	0.97
Aroclor 1232	ND		0.039	0.0076	mg/kg	⊗	08/01/12 11:00	08/06/12 18:27	0.97
Aroclor 1242	ND		0.039	0.0087	mg/kg	⊗	08/01/12 11:00	08/06/12 18:27	0.97
Aroclor 1248	ND		0.039	0.0067	mg/kg	⊗	08/01/12 11:00	08/06/12 18:27	0.97
Aroclor 1254	ND		0.039	0.0032	mg/kg	⊗	08/01/12 11:00	08/06/12 18:27	0.97
Aroclor 1260	ND		0.039	0.0034	mg/kg	⊗	08/01/12 11:00	08/06/12 18:27	0.97
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>		<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl	125	*		77 - 123			08/01/12 11:00	08/06/12 18:27	0.97
Tetrachloro-m-xylene	91			64 - 139			08/01/12 11:00	08/06/12 18:27	0.97

**Client Sample ID: DUMP-3(0.75'-1.0')**

Date Collected: 07/19/12 13:55

Date Received: 07/24/12 09:00

**Lab Sample ID: G2G240464003**

Matrix: Solid

Percent Solids: 95.4

**Method: 8082 - PCBs (8082)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.035	0.0036	mg/kg	⊗	08/01/12 11:00	08/06/12 18:49	1.02
Aroclor 1221	ND		0.035	0.0056	mg/kg	⊗	08/01/12 11:00	08/06/12 18:49	1.02
Aroclor 1232	ND		0.035	0.0068	mg/kg	⊗	08/01/12 11:00	08/06/12 18:49	1.02
Aroclor 1242	ND		0.035	0.0079	mg/kg	⊗	08/01/12 11:00	08/06/12 18:49	1.02
Aroclor 1248	ND		0.035	0.0061	mg/kg	⊗	08/01/12 11:00	08/06/12 18:49	1.02
Aroclor 1254	ND		0.035	0.0029	mg/kg	⊗	08/01/12 11:00	08/06/12 18:49	1.02
Aroclor 1260	ND		0.035	0.0031	mg/kg	⊗	08/01/12 11:00	08/06/12 18:49	1.02
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>		<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl	103			77 - 123			08/01/12 11:00	08/06/12 18:49	1.02
Tetrachloro-m-xylene	87			64 - 139			08/01/12 11:00	08/06/12 18:49	1.02

# Client Sample Results

Client: Freshwater Environmental Servi

TestAmerica Job ID: G2G240464

**Client Sample ID: DUMP-4(0.25'-0.5')**

Date Collected: 07/19/12 13:00

Date Received: 07/24/12 09:00

**Lab Sample ID: G2G240464004**

Matrix: Solid

Percent Solids: 82

**Method: 8082 - PCBs (8082)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.041	0.0042	mg/kg	⊗	08/01/12 11:00	08/06/12 19:11	1.01
Aroclor 1221	ND		0.041	0.0064	mg/kg	⊗	08/01/12 11:00	08/06/12 19:11	1.01
Aroclor 1232	ND		0.041	0.0079	mg/kg	⊗	08/01/12 11:00	08/06/12 19:11	1.01
Aroclor 1242	ND		0.041	0.0091	mg/kg	⊗	08/01/12 11:00	08/06/12 19:11	1.01
Aroclor 1248	ND		0.041	0.0070	mg/kg	⊗	08/01/12 11:00	08/06/12 19:11	1.01
Aroclor 1254	ND		0.041	0.0033	mg/kg	⊗	08/01/12 11:00	08/06/12 19:11	1.01
Aroclor 1260	ND		0.041	0.0036	mg/kg	⊗	08/01/12 11:00	08/06/12 19:11	1.01
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>		<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl	112			77 - 123			08/01/12 11:00	08/06/12 19:11	1.01
Tetrachloro-m-xylene	84			64 - 139			08/01/12 11:00	08/06/12 19:11	1.01

**Client Sample ID: DUMP-5(2.5'-2.75')**

Date Collected: 07/19/12 13:20

Date Received: 07/24/12 09:00

**Lab Sample ID: G2G240464005**

Matrix: Solid

Percent Solids: 87

**Method: 8082 - PCBs (8082)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.038	0.0039	mg/kg	⊗	08/01/12 11:00	08/06/12 19:34	1.01
Aroclor 1221	ND		0.038	0.0060	mg/kg	⊗	08/01/12 11:00	08/06/12 19:34	1.01
Aroclor 1232	ND		0.038	0.0074	mg/kg	⊗	08/01/12 11:00	08/06/12 19:34	1.01
Aroclor 1242	ND		0.038	0.0086	mg/kg	⊗	08/01/12 11:00	08/06/12 19:34	1.01
Aroclor 1248	ND		0.038	0.0066	mg/kg	⊗	08/01/12 11:00	08/06/12 19:34	1.01
Aroclor 1254	ND		0.038	0.0031	mg/kg	⊗	08/01/12 11:00	08/06/12 19:34	1.01
Aroclor 1260	ND		0.038	0.0034	mg/kg	⊗	08/01/12 11:00	08/06/12 19:34	1.01
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>		<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl	105			77 - 123			08/01/12 11:00	08/06/12 19:34	1.01
Tetrachloro-m-xylene	92			64 - 139			08/01/12 11:00	08/06/12 19:34	1.01

**Client Sample ID: DUMP-6(0.25'-0.5')**

Date Collected: 07/19/12 14:10

Date Received: 07/24/12 09:00

**Lab Sample ID: G2G240464006**

Matrix: Solid

Percent Solids: 90.1

**Method: 8082 - PCBs (8082)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.037	0.0038	mg/kg	⊗	08/01/12 11:00	08/06/12 19:56	1
Aroclor 1221	ND		0.037	0.0058	mg/kg	⊗	08/01/12 11:00	08/06/12 19:56	1
Aroclor 1232	ND		0.037	0.0071	mg/kg	⊗	08/01/12 11:00	08/06/12 19:56	1
Aroclor 1242	ND		0.037	0.0082	mg/kg	⊗	08/01/12 11:00	08/06/12 19:56	1
Aroclor 1248	ND		0.037	0.0063	mg/kg	⊗	08/01/12 11:00	08/06/12 19:56	1
Aroclor 1254	ND		0.037	0.0030	mg/kg	⊗	08/01/12 11:00	08/06/12 19:56	1
Aroclor 1260	ND		0.037	0.0032	mg/kg	⊗	08/01/12 11:00	08/06/12 19:56	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>		<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl	108			77 - 123			08/01/12 11:00	08/06/12 19:56	1
Tetrachloro-m-xylene	92			64 - 139			08/01/12 11:00	08/06/12 19:56	1

# Client Sample Results

Client: Freshwater Environmental Servi

TestAmerica Job ID: G2G240464

## Client Sample ID: WAUKELL-1-WATER

Date Collected: 07/19/12 12:30

Date Received: 07/24/12 09:00

Lab Sample ID: G2G240464007

Matrix: Water

### Method: 8082 - PCBs (8082)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.98	0.088	ug/L		07/26/12 11:00	08/07/12 16:26	0.98
Aroclor 1221	ND		0.98	0.11	ug/L		07/26/12 11:00	08/07/12 16:26	0.98
Aroclor 1232	ND		0.98	0.17	ug/L		07/26/12 11:00	08/07/12 16:26	0.98
Aroclor 1242	ND		0.98	0.12	ug/L		07/26/12 11:00	08/07/12 16:26	0.98
Aroclor 1248	ND		0.98	0.059	ug/L		07/26/12 11:00	08/07/12 16:26	0.98
Aroclor 1254	ND		0.98	0.049	ug/L		07/26/12 11:00	08/07/12 16:26	0.98
Aroclor 1260	ND		0.98	0.049	ug/L		07/26/12 11:00	08/07/12 16:26	0.98
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl		101		29 - 128			07/26/12 11:00	08/07/12 16:26	0.98
Tetrachloro-m-xylene		90		57 - 116			07/26/12 11:00	08/07/12 16:26	0.98

## Client Sample ID: WAUKELL-2-WATER

Date Collected: 07/19/12 12:40

Date Received: 07/24/12 09:00

Lab Sample ID: G2G240464008

Matrix: Water

### Method: 8082 - PCBs (8082)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.97	0.087	ug/L		07/26/12 11:00	08/07/12 17:11	0.97
Aroclor 1221	ND		0.97	0.11	ug/L		07/26/12 11:00	08/07/12 17:11	0.97
Aroclor 1232	ND		0.97	0.16	ug/L		07/26/12 11:00	08/07/12 17:11	0.97
Aroclor 1242	ND		0.97	0.12	ug/L		07/26/12 11:00	08/07/12 17:11	0.97
Aroclor 1248	ND		0.97	0.058	ug/L		07/26/12 11:00	08/07/12 17:11	0.97
Aroclor 1254	ND		0.97	0.048	ug/L		07/26/12 11:00	08/07/12 17:11	0.97
Aroclor 1260	ND		0.97	0.048	ug/L		07/26/12 11:00	08/07/12 17:11	0.97
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl		96		29 - 128			07/26/12 11:00	08/07/12 17:11	0.97
Tetrachloro-m-xylene		80		57 - 116			07/26/12 11:00	08/07/12 17:11	0.97

# Surrogate Summary

Client: Freshwater Environmental Servi

TestAmerica Job ID: G2G240464

## Method: 8082 - PCBs (8082)

Matrix: Solid

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		Decachlorobiphenyl (77-123)	TCX (64-139)
G2G240464001	DUMP-1(0.25'-0.5')	109	89
G2G240464001D	DUMP-1(0.25'-0.5')	106	89
G2G240464001S	DUMP-1(0.25'-0.5')	113	95
G2G240464002	DUMP-2(1.0'-1.25')	125 *	91
G2G240464003	DUMP-3(0.75'-1.0')	103	87
G2G240464004	DUMP-4(0.25'-0.5')	112	84
G2G240464005	DUMP-5(2.5'-2.75')	105	92
G2G240464006	DUMP-6(0.25'-0.5')	108	92
G2H010000080B	Method Blank	106	95
G2H010000080C	Lab Control Sample	106	94

### Surrogate Legend

Decachlorobiphenyl = Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

## Method: 8082 - PCBs (8082)

Matrix: Water

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		Decachlorobiphenyl (29-128)	TCX (57-116)
G2G240464007	WAUKELL-1-WATER	101	90
G2G240464007S	WAUKELL-1-WATER	102	91
G2G240464008	WAUKELL-2-WATER	96	80
G2G260000066B	Method Blank	109	74
G2G260000066C	Lab Control Sample	87	88

### Surrogate Legend

Decachlorobiphenyl = Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

# QC Sample Results

Client: Freshwater Environmental Servi

TestAmerica Job ID: G2G240464

## Method: 8082 - PCBs (8082)

**Lab Sample ID: G2G260000066B**

**Matrix: Water**

**Analysis Batch: 2208066**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 2208066\_P**

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aroclor 1016	ND		1.0	0.090	ug/L		07/26/12 11:00	08/07/12 15:42	1
Aroclor 1221	ND		1.0	0.11	ug/L		07/26/12 11:00	08/07/12 15:42	1
Aroclor 1232	ND		1.0	0.17	ug/L		07/26/12 11:00	08/07/12 15:42	1
Aroclor 1242	ND		1.0	0.12	ug/L		07/26/12 11:00	08/07/12 15:42	1
Aroclor 1248	ND		1.0	0.060	ug/L		07/26/12 11:00	08/07/12 15:42	1
Aroclor 1254	ND		1.0	0.050	ug/L		07/26/12 11:00	08/07/12 15:42	1
Aroclor 1260	ND		1.0	0.050	ug/L		07/26/12 11:00	08/07/12 15:42	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Decachlorobiphenyl	109		29 - 128	07/26/12 11:00	08/07/12 15:42	1
Tetrachloro-m-xylene	74		57 - 116	07/26/12 11:00	08/07/12 15:42	1

**Lab Sample ID: G2G260000066C**

**Matrix: Water**

**Analysis Batch: 2208066**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 2208066\_P**

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
	Added	Result							
Aroclor 1016		2.00	2.26		ug/L		113	63 - 114	
Aroclor 1260		2.00	2.21		ug/L		111	64 - 114	

Surrogate	LCS		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Decachlorobiphenyl	87		29 - 128			
Tetrachloro-m-xylene	88		57 - 116			

**Lab Sample ID: G2G240464007S**

**Matrix: Water**

**Analysis Batch: 2208066**

**Client Sample ID: WAUKELL-1-WATER**

**Prep Type: Total**

**Prep Batch: 2208066\_P**

Analyte	Sample Result	Sample Qualifier	Spike		MS1 Result	MS1 Qualifier	Unit	D	%Rec	Limits
			Added	Result						
Aroclor 1016	ND		1.99	2.25			ug/L		113	63 - 114
Aroclor 1260	ND		1.99	2.22			ug/L		112	64 - 114

Surrogate	MS1		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Decachlorobiphenyl	102		29 - 128			
Tetrachloro-m-xylene	91		57 - 116			

**Lab Sample ID: G2H010000080B**

**Matrix: Solid**

**Analysis Batch: 2214080**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 2214080\_P**

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aroclor 1016	ND		0.033	0.0034	mg/kg		08/01/12 11:00	08/06/12 12:52	1
Aroclor 1221	ND		0.033	0.0052	mg/kg		08/01/12 11:00	08/06/12 12:52	1
Aroclor 1232	ND		0.033	0.0064	mg/kg		08/01/12 11:00	08/06/12 12:52	1
Aroclor 1242	ND		0.033	0.0074	mg/kg		08/01/12 11:00	08/06/12 12:52	1
Aroclor 1248	ND		0.033	0.0057	mg/kg		08/01/12 11:00	08/06/12 12:52	1
Aroclor 1254	ND		0.033	0.0027	mg/kg		08/01/12 11:00	08/06/12 12:52	1
Aroclor 1260	ND		0.033	0.0029	mg/kg		08/01/12 11:00	08/06/12 12:52	1

# QC Sample Results

Client: Freshwater Environmental Servi

TestAmerica Job ID: G2G240464

## Method: 8082 - PCBs (8082) (Continued)

**Lab Sample ID: G2H010000080B**

**Matrix: Solid**

**Analysis Batch: 2214080**

**Client Sample ID: Method Blank**  
**Prep Type: Total**  
**Prep Batch: 2214080\_P**

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
Decachlorobiphenyl	106		77 - 123			08/01/12 11:00	08/06/12 12:52	1
Tetrachloro-m-xylene	95		64 - 139			08/01/12 11:00	08/06/12 12:52	1

**Lab Sample ID: G2H010000080C**

**Matrix: Solid**

**Analysis Batch: 2214080**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total**  
**Prep Batch: 2214080\_P**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits	Prepared
	Added	Result	Qualifier					
Aroclor 1016	0.0667	0.0720		mg/kg		108	81 - 114	
Aroclor 1260	0.0667	0.0779		mg/kg		117	85 - 123	

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits	Prepared
	Added	Result				
Decachlorobiphenyl	106	77 - 123				
Tetrachloro-m-xylene	94	64 - 139				

**Lab Sample ID: G2G240464001D**

**Matrix: Solid**

**Analysis Batch: 2214080**

**Client Sample ID: DUMP-1(0.25'-0.5')**  
**Prep Type: Total**  
**Prep Batch: 2214080\_P**

Analyte	Sample	Sample	Spike	SD1	SD1	Unit	D	%Rec	Limits	Prepared
	Result	Qualifier	Added	Result	Qualifier					
Aroclor 1016	ND		0.0770	0.0811		mg/kg	⊗	105	81 - 114	2.8
Aroclor 1260	ND		0.0770	0.0867		mg/kg	⊗	113	85 - 123	4.6

Surrogate	SD1	SD1	%Recovery	Qualifier	Limits	Prepared
	Added	Result				
Decachlorobiphenyl	106	77 - 123				
Tetrachloro-m-xylene	89	64 - 139				

**Lab Sample ID: G2G240464001S**

**Matrix: Solid**

**Analysis Batch: 2214080**

**Client Sample ID: DUMP-1(0.25'-0.5')**  
**Prep Type: Total**  
**Prep Batch: 2214080\_P**

Analyte	Sample	Sample	Spike	MS1	MS1	Unit	D	%Rec	Limits	Prepared
	Result	Qualifier	Added	Result	Qualifier					
Aroclor 1016	ND		0.0765	0.0834		mg/kg	⊗	109	81 - 114	
Aroclor 1260	ND		0.0765	0.0907		mg/kg	⊗	119	85 - 123	

Surrogate	MS1	MS1	%Recovery	Qualifier	Limits	Prepared
	Added	Result				
Decachlorobiphenyl	113	77 - 123				
Tetrachloro-m-xylene	95	64 - 139				

# QC Association Summary

Client: Freshwater Environmental Servi

TestAmerica Job ID: G2G240464

## GC/MS Semi VOA

### Analysis Batch: 2208066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
G2G240464007	WAUKELL-1-WATER	Total	Water	8082	
G2G240464007S	WAUKELL-1-WATER	Total	Water	8082	
G2G240464008	WAUKELL-2-WATER	Total	Water	8082	
G2G260000066B	Method Blank	Total	Water	8082	
G2G260000066C	Lab Control Sample	Total	Water	8082	

### Analysis Batch: 2214080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
G2G240464001	DUMP-1(0.25'-0.5')	Total	Solid	8082	
G2G240464001D	DUMP-1(0.25'-0.5')	Total	Solid	8082	
G2G240464001S	DUMP-1(0.25'-0.5')	Total	Solid	8082	
G2G240464002	DUMP-2(1.0'-1.25')	Total	Solid	8082	
G2G240464003	DUMP-3(0.75'-1.0')	Total	Solid	8082	
G2G240464004	DUMP-4(0.25'-0.5')	Total	Solid	8082	
G2G240464005	DUMP-5(2.5'-2.75')	Total	Solid	8082	
G2G240464006	DUMP-6(0.25'-0.5')	Total	Solid	8082	
G2H010000080B	Method Blank	Total	Solid	8082	
G2H010000080C	Lab Control Sample	Total	Solid	8082	

### Prep Batch: 2208066\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
G2G240464007	WAUKELL-1-WATER	Total	Water	3510C	
G2G240464007S	WAUKELL-1-WATER	Total	Water	3510C	
G2G240464008	WAUKELL-2-WATER	Total	Water	3510C	
G2G260000066B	Method Blank	Total	Water	3510C	
G2G260000066C	Lab Control Sample	Total	Water	3510C	

### Prep Batch: 2214080\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
G2G240464001	DUMP-1(0.25'-0.5')	Total	Solid	3550B/3665A	
G2G240464001D	DUMP-1(0.25'-0.5')	Total	Solid	3550B/3665A	
G2G240464001S	DUMP-1(0.25'-0.5')	Total	Solid	3550B/3665A	
G2G240464002	DUMP-2(1.0'-1.25')	Total	Solid	3550B/3665A	
G2G240464003	DUMP-3(0.75'-1.0')	Total	Solid	3550B/3665A	
G2G240464004	DUMP-4(0.25'-0.5')	Total	Solid	3550B/3665A	
G2G240464005	DUMP-5(2.5'-2.75')	Total	Solid	3550B/3665A	
G2G240464006	DUMP-6(0.25'-0.5')	Total	Solid	3550B/3665A	
G2H010000080B	Method Blank	Total	Solid	3550B/3665A	
G2H010000080C	Lab Control Sample	Total	Solid	3550B/3665A	

## General Chemistry

### Analysis Batch: 2215095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
G2G240464001	DUMP-1(0.25'-0.5')	Total	Solid	D 2216-90	
G2G240464001X	DUMP-1(0.25'-0.5') DUP	Total	Solid	D 2216-90	
G2G240464002	DUMP-2(1.0'-1.25')	Total	Solid	D 2216-90	
G2G240464003	DUMP-3(0.75'-1.0')	Total	Solid	D 2216-90	
G2G240464004	DUMP-4(0.25'-0.5')	Total	Solid	D 2216-90	
G2G240464005	DUMP-5(2.5'-2.75')	Total	Solid	D 2216-90	
G2G240464006	DUMP-6(0.25'-0.5')	Total	Solid	D 2216-90	

## Lab Chronicle

**Client Sample ID: DUMP-1(0.25'-0.5')**

Date Collected: 07/19/12 14:00

Date Received: 07/24/12 09:00

**Lab Sample ID: G2G240464001**

Matrix: Solid

Percent Solids: 88

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	3550B/3665A			2214080_P	08/01/12 11:00	AM	TAL WSC
Total	Analysis	8082		0.97	2214080	08/06/12 17:21	KG	TAL WSC
Total	Analysis	D 2216-90		1	2215095	08/03/12 06:36	SV	TAL WSC

**Client Sample ID: DUMP-2(1.0'-1.25')**

Date Collected: 07/19/12 13:45

Date Received: 07/24/12 09:00

**Lab Sample ID: G2G240464002**

Matrix: Solid

Percent Solids: 82

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	3550B/3665A			2214080_P	08/01/12 11:00	AM	TAL WSC
Total	Analysis	8082		0.97	2214080	08/06/12 18:27	KG	TAL WSC
Total	Analysis	D 2216-90		1	2215095	08/03/12 06:37	SV	TAL WSC

**Client Sample ID: DUMP-3(0.75'-1.0')**

Date Collected: 07/19/12 13:55

Date Received: 07/24/12 09:00

**Lab Sample ID: G2G240464003**

Matrix: Solid

Percent Solids: 95.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	3550B/3665A			2214080_P	08/01/12 11:00	AM	TAL WSC
Total	Analysis	8082		1.02	2214080	08/06/12 18:49	KG	TAL WSC
Total	Analysis	D 2216-90		1	2215095	08/03/12 06:37	SV	TAL WSC

**Client Sample ID: DUMP-4(0.25'-0.5')**

Date Collected: 07/19/12 13:00

Date Received: 07/24/12 09:00

**Lab Sample ID: G2G240464004**

Matrix: Solid

Percent Solids: 82

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	3550B/3665A			2214080_P	08/01/12 11:00	AM	TAL WSC
Total	Analysis	8082		1.01	2214080	08/06/12 19:11	KG	TAL WSC
Total	Analysis	D 2216-90		1	2215095	08/03/12 06:37	SV	TAL WSC

**Client Sample ID: DUMP-5(2.5'-2.75')**

Date Collected: 07/19/12 13:20

Date Received: 07/24/12 09:00

**Lab Sample ID: G2G240464005**

Matrix: Solid

Percent Solids: 87

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	3550B/3665A			2214080_P	08/01/12 11:00	AM	TAL WSC
Total	Analysis	8082		1.01	2214080	08/06/12 19:34	KG	TAL WSC
Total	Analysis	D 2216-90		1	2215095	08/03/12 06:37	SV	TAL WSC

## Lab Chronicle

**Client Sample ID: DUMP-6(0.25'-0.5')**

Date Collected: 07/19/12 14:10

Date Received: 07/24/12 09:00

**Lab Sample ID: G2G240464006**

Matrix: Solid

Percent Solids: 90.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	3550B/3665A			2214080_P	08/01/12 11:00	AM	TAL WSC
Total	Analysis	8082		1	2214080	08/06/12 19:56	KG	TAL WSC
Total	Analysis	D 2216-90		1	2215095	08/03/12 06:38	SV	TAL WSC

**Client Sample ID: WAUKELL-1-WATER**

Date Collected: 07/19/12 12:30

Date Received: 07/24/12 09:00

**Lab Sample ID: G2G240464007**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	3510C			2208066_P	07/26/12 11:00	WS	TAL WSC
Total	Analysis	8082		0.98	2208066	08/07/12 16:26	KG	TAL WSC

**Client Sample ID: WAUKELL-2-WATER**

Date Collected: 07/19/12 12:40

Date Received: 07/24/12 09:00

**Lab Sample ID: G2G240464008**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	3510C			2208066_P	07/26/12 11:00	WS	TAL WSC
Total	Analysis	8082		0.97	2208066	08/07/12 17:11	KG	TAL WSC

**Laboratory References:**

TAL WSC = TestAmerica West Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

## Certification Summary

Client: Freshwater Environmental Servi

TestAmerica Job ID: G2G240464

### Laboratory: TestAmerica West Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-14
Alaska (UST)	State Program	10	UST-055	12-18-12
Arizona	State Program	9	AZ0708	08-11-13
Arkansas DEQ	State Program	6	88-0691	06-17-13
California	NELAC	9	1119CA	01-31-13
Colorado	State Program	8	N/A	08-31-13
Connecticut	State Program	1	PH-0691	06-30-13
Florida	NELAC	4	E87570	06-30-13
Georgia	State Program	4	960	06-30-12
Guam	State Program	9	N/A	08-31-12
Hawaii	State Program	9	N/A	01-31-13
Illinois	NELAC	5	200060	03-17-13
Kansas	NELAC	7	E-10375	10-31-12
Louisiana	NELAC	6	30612	06-30-13
Michigan	State Program	5	9947	01-31-13
Nevada	State Program	9	CA44	09-30-12
New Jersey	NELAC	2	CA005	06-30-13
New Mexico	State Program	6	N/A	06-30-12
New York	NELAC	2	11666	04-01-13
Northern Mariana Islands	State Program	9	MP0007	01-31-13
Oregon	NELAC	10	CA200005	03-28-13
Pennsylvania	NELAC	3	68-01272	03-31-13
South Carolina	State Program	4	87014	06-30-13
Texas	NELAC	6	T104704399-08-TX	05-31-13
US Fish & Wildlife	Federal		LE148388-0	02-28-13
USDA	Federal		P330-11-00436	12-30-14
Utah	NELAC	8	QUAN1	01-31-13
Washington	State Program	10	C581	05-05-13
West Virginia	State Program	3	9930C	12-31-12
West Virginia DEP	State Program	3	334	07-31-13
Wisconsin	State Program	5	998204680	08-31-12
Wyoming	State Program	8	8TMS-Q	01-31-13

## Method Summary

Client: Freshwater Environmental Servi

TestAmerica Job ID: G2G240464

Method	Method Description	Protocol	Laboratory
8082	PCBs (8082)	SW846	TAL WSC
D 2216-90	Moisture, Percent (D2216-90) - AFCEE	ASTM	TAL WSC

### Protocol References:

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL WSC = TestAmerica West Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

## Sample Summary

Client: Freshwater Environmental Servi

TestAmerica Job ID: G2G240464

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
G2G240464001	DUMP-1(0.25'-0.5')	Solid	07/19/12 14:00	07/24/12 09:00
G2G240464002	DUMP-2(1.0'-1.25')	Solid	07/19/12 13:45	07/24/12 09:00
G2G240464003	DUMP-3(0.75'-1.0')	Solid	07/19/12 13:55	07/24/12 09:00
G2G240464004	DUMP-4(0.25'-0.5')	Solid	07/19/12 13:00	07/24/12 09:00
G2G240464005	DUMP-5(2.5'-2.75')	Solid	07/19/12 13:20	07/24/12 09:00
G2G240464006	DUMP-6(0.25'-0.5')	Solid	07/19/12 14:10	07/24/12 09:00
G2G240464007	WAUKELL-1-WATER	Water	07/19/12 12:30	07/24/12 09:00
G2G240464008	WAUKELL-2-WATER	Water	07/19/12 12:40	07/24/12 09:00

West Sacramento  
880 Riverside Parkway

West Sacramento, CA 95605  
phone 916.374.4378 fax 916.372.1059

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING

## Chain of Custody Record

626240464

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Orrin Plocher			Site Contact: Stan Thiesen		Date: 7-23-12	COC No:
Freshwater Environmental Services 78 Sunny Brae Center Arcata, CA 95521 (707) 839-0091 Phone Email: stan@freshwaterenvironmentalservices.com Project Name: Yurok Tribe - Tully Site Site: Yurok Tribe - Tully Site P O # NA		Tel/Fax: 707 839-0091 Analysis Turnaround Time Calendar (C) or Work Days (W)			Lab Contact: David Alltucker/Jill K.		Carrier: FedEx	1 of 1 COCs
		TAT if different from Below						Job No.
		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day						
		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample PCBs 8082	Sample Specific Notes:  Please perform MS/MSD on soil sample Dump-1-(0.25'-0.5') and water sample Waukell-1-Water.
Page 18 of 21	Dump-1-(0.25'-0.5')	7/19/12	1400		Soil	1	X	
	Dump-2-(1.0'-1.25')	7/19/12	1345		Soil	1	X	
	Dump-3-(0.75'-1.0')	7/19/12	1355		Soil	1	X	
	Dump-4-(0.25'-0.5')	7/19/12	1300		Soil	1	X	
	Dump-5-(2.5'-2.75')	7/19/12	1320		Soil	1	X	
	Dump-6-(0.25'-0.5')	7/19/12	1410		Soil	1	X	
	Waukell-1-Water	7/19/12	1230		W	2	X	
	Waukell-2-Water	7/19/12	1240		W	2	X	
Temp-Blank				W	1			
								Please return cooler to: Freshwater Environmental Services 78 Sunny Brae Center Arcata, CA 95521 707 839-0091
Reservation Used: 1=Ice, 2=HCl; 3=H <sub>2</sub> SO <sub>4</sub> ; 4=HNO <sub>3</sub> ; 5=NaOH; 6=Other								Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input checked="" type="checkbox"/>								
Special Instructions/QC Requirements & Comments: Please invoice Freshwater Environmental Services at 78 Sunny Brae Center, Arcata, CA, 95521.								

elinquished by: <i>Orrin Plocher</i> 8/15/2012	Company: Freshwater Env. Date/Time: 1026 7/23/12	Received by: <i>Laser Sode</i>	Company: TAL W-SAC Date/Time: 7-24-12 / 1505
elinquished by: 	Company:                      Date/Time:                      Received by:                      Company:                      Date/Time:		
elinquished by: 	Company:                      Date/Time:                      Received by:                      Company:                      Date/Time:		



THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST  
TestAmerica West Sacramento

CLIENT \_\_\_\_\_ FRESHWATER PM DA \_\_\_\_\_

LOT# (QUANTIMS ID) G2G240464 QUOTE# 77396 LOCATION W23A

DATE RECEIVED 7/24/12 TIME RECEIVED 9:00 Checked (✓) DELIVERED BY  FEDEX  ON TRAC  OTHER GOLDENSTATE  UPS  EZ PARCEL TAL COURIER  TAL SF  CLIENTSHIPPING CONTAINER(S)  TAL  CLIENT  N/AMULTI-COOLER(S) (If checked see multi-cooler form) 

SINGLE COOLER INFORMATION N/A

CUSTODY SEAL STATUS  INTACT  BROKEN  N/A

CUSTODY SEAL #(S) NA

COC #(S) NA

TEMPERATURE BLANK Observed: NA Corrected: NA

SAMPLE TEMPERATURE - (TEMPERATURES ARE IN °C)

Observed: 5.1,5.1,6.6 Average 5.6 Corrected Average 3.6

**LABORATORY THERMOMETER ID:**IR UNIT: #4  #5   OTHERCH 7/24/12  
Initials DatepH MEASURED  YES  ANOMALY  N/A

LABELED BY..... NB

LOGGED IN BY..... CH

SHORT HOLD TEST NOTIFICATION SAMPLE RECEIVING

WETCHEM  N/AVOA-ENCORES  N/A METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL  N/A COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES  N/A CLOUSEAU  TEMPERATURE EXCEEDED (0 °C – 6 °C)<sup>\*1</sup>  N/A WET ICE  BLUE ICE  GEL PACK  NO COOLING AGENTS USEDCH 7/24/12  
Initials Date

Notes \_\_\_\_\_

\*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C.

Lot  
ID:

G2G240464

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VOA*																				
VOAh*																				
VOAmeoh																				
AGB							2	2												
AGBs																				
250AGB																				
250AGBs																				
250AGBn																				
500AGB																				
AGJ																				
500AGJ																				
250AGJ																				
125AGJ																				
125AGJmeoh																				
CGJ																				
500CGJ																				
250CGJ																				
125CGJ	1	1	1	1	1	1														
PJ																				
PJn																				
500PJ																				
500PJn																				
500PJna																				
500PJzn/na																				
250PJ																				
250PJn																				
250PJna																				
250PJzn/na																				
Acetate Tube																				
"CT																				
Encore																				
Folder/filter																				
PUF																				
Petri/Filter																				
XAD Trap																				
Ziploc																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

h = hydrochloric acid   s = sulfuric acid   na = sodium hydroxide   n = nitric acid   zn = zinc acetate

Number of VOAs with air bubbles present / total number of VOA's

1

2

3

4

5

6

7

8

9

10

11

12

13

14

From: (707) 839-0091  
 Stan Thiesen  
 Freshwater Environmental  
 78 Sunny Brae Center

Arcata, CA 95521

Origin ID: EKAA



Ship Date: 23JUL12  
 Actual Wt: 50.0 LB  
 CDP: 4822189/INET3300

Dims: 25 X 15 X 15 IN

Delivery Address Bar Code



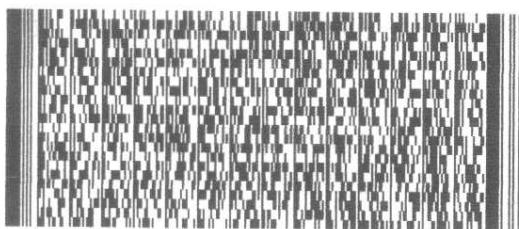
Ref # Yurok - Tully Site  
 Invoice #  
 PO #  
 Dept #

SHIP TO: (916) 373-5600

BILL SENDER

**David Altucker**  
**TestAmerica West Sacramento**  
**880 RIVERSIDE PKWY**

**WEST SACRAMENTO, CA 95605**

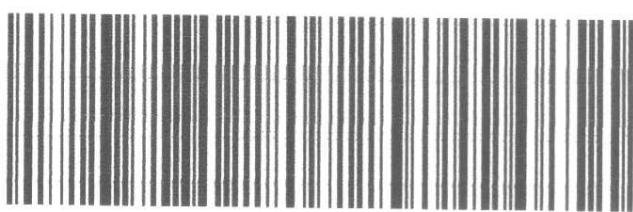


TRK# 7938 1916 9263  
 0201

TUE - 24 JUL A1  
**STANDARD OVERNIGHT**

**84 BLUA**

**95605**  
 CA-US  
**SMF**



515G1/E052/AA44

**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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## **APPENDIX E**

### **CalRecycle Data**



Google earth

feet | 400  
meters | 100



Tully Creek Debris Removal  
CalRecycle









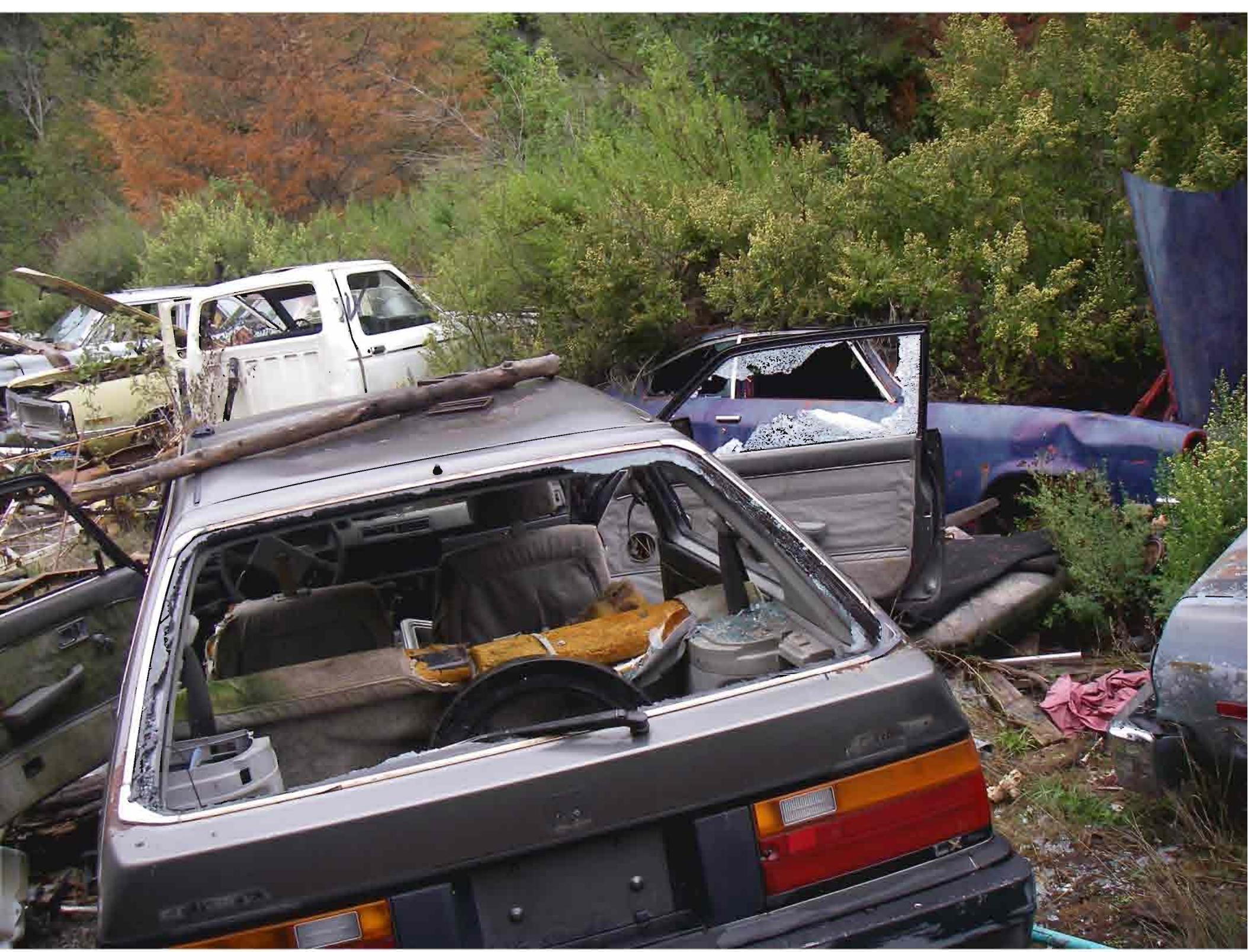












**Generator's Hazardous Waste Profile Sheet**Service Agreement on file?  Yes  No Profile Number Check here if there are multiple generating locations for this waste. Attach additional locations. Check here if a Certificate of Destruction or Disposal is requiredRequested Disposal Facility CWM Kettleman Hills Landfill Renewal for Profile Number \_\_\_\_\_

Waste Approval Expiration Date \_\_\_\_\_

**A. Waste Generator Facility Information (must reflect location of waste generation/origin)**

1. Generator Name: Yurok Tribe 7. Email Address: tthalhamer@ciwmb.ca.gov  
 2. Site Address: 190 Klamath Blvd 8. Phone: 916.341.6356  
 3. City/ZIP: Klamath/95548 9. FAX: 916.319.7500  
 4. State: CA 10. NAICS Code: NA  
 5. County: Humboldt 11. Generator USEPA ID #: CAL 000239999  
 6. Contact Name/Title: Todd Thalhamer/Engineer 12. State ID# (if applicable): CAL 000239999

**B. Customer Information  same as above**

P. O. Number: \_\_\_\_\_

1. Customer Name: Guinn Construction 6. Phone: 661.325.109 FAX: 661.325.5173  
 2. Billing Address: 6533 Rosedale Highway 7. Transporter Name: MP Environmental Services, Inc  
 3. City, State and ZIP: Bakersfield, CA 93308 8. Transporter ID # (if appl.): \_\_\_\_\_  
 4. Contact Name: Jay Weller 9. Transporter Address: 3400 Manor Street  
 5. Contact Email: weller@earthmover.com 10. City, State and ZIP: Bakersfield, CA 93308

**C. Waste Stream Information** USEPA Hazardous State Hazardous TSCA

## 1. Description

a. Name of Waste: Yurok burned debris and soil

b. Process Generating Waste:

CIWMB Illegal Disposal Cleanup - Burned residential wastesc. Color: Dark Brownish Grayd. Strong Odor (describe): Nonee. Physical State at 70°F:  Solid  Liquid  Gas  Sludge  Other: \_\_\_\_\_f. Layers?  Single layer  Multi-layerg. Free Liquid Range (%) 0 to 0 Specific Gravity: \_\_\_\_\_ Viscosity: \_\_\_\_\_ BTU/lb: \_\_\_\_\_h. pH Range: 2.1 to 12.4i. Liquid Flash Point:  < 73°F  73°-99°F  100°-139°F  140°-199°F  > 200°F  N/A

## 2. Is this a USEPA hazardous waste (40 CFR Part 261)? If the answer is no, skip to question f

 Yes  No

a. If yes, identify ALL USEPA listed and characteristic waste code numbers (D,F,K,P,U)

b. If a characteristic hazardous waste, do underlying hazardous constituents(UHCs) apply-(40 CFR 268.48)?  Yes  No  
(if yes, list in Section C.2.j)c. Is the waste subject to RCRA Subpart CC Controls-(40 CFR 264.1083 & 265.1084)?  Yes  No  ? Click for Add'l Info

If no, does the waste meet the organic LDR Exemption?

 Yes  No

If no, does the waste contain &lt;500 ppm volatile organic (VOC's)?

 Yes  No

Volatile organic concentration \_\_\_\_\_ ppm

d. Is the waste predominately debris subject to the Alternate Debris Standards (40 CFR 268.45)?  Yes  Noe. Is the waste predominately soil subject to the Alternate Soil Treatment Standards-(40 CFR 268.49)?  Yes  No

If yes, will Underlying Hazardous Constituents apply? (list in C.2.j)

 Yes  No

f. Does the waste represented by this profile contain asbestos?

 Yes  NoIf yes,  Friable  Non-Friable

g. Does the waste represented by this profile contain benzene?

 Yes  No

Is this subject to Benzene Operations Waste NESHAP (40 CFR Part 61 Subpart FF)?

 Yes  No

If yes, complete Benzene Waste Operations NESHAP (BWON) questionnaire

**Generator's Hazardous Waste Profile Sheet**

Profile Number

**C. Waste Stream Information (continued)**

- h. Is this profile for remediation waste from a facility that is a major source of Hazardous Air Pollutants (Site Remediation NESHAP, 40 CFR 63 subpart GGGG)?  Yes  No  
 If yes, does the waste contain <500 ppm VOHAPs at the point of determination?  Yes  No
- i. Does the waste represented by this waste profile sheet contain concentrations of Polychlorinated Biphenyls (PCBs) regulated by 40 CFR 761? (if yes, list in Chemical Composition - C.2.j)  
 Were the PCBs imported into the U.S.?  Yes  No  
 Are PCBs regulated under the "Self-Implementing Remediation Section of (Mega) Rule?" 40CFR 761.61(a)  Yes  No
- j. Chemical Composition (List all constituents [including halogenated organics, debris, and UHC's] present in any concentration and submit representative analysis):  (See Attached - for entering additional constituents)

Constituents (Total Composition Must be > 100%)	Lower Range	Unit of Measure	Upper Range	Unit of Measure
1. Soil	40	%	60	%
2. Debris	10	%	35	%
3. Metal Debris	5	%	4.98	%
4. Lead (STLC)			11.4	mg/kg
5. Zinc (TTLG)			12.200	mg/kg
6.				

- k. Check any that apply:  Pyrophoric  Water Reactive  OSHA Carcinogen  Shock Sensitive  Oxidizer  Infectious
- l. Is the waste subject to controls as a Group 1 wastewater or residual under the Hazardous Organic NESHAP?  Yes  No  
 If yes, is it a Table 8 \_\_\_\_\_ or Table 9 \_\_\_\_\_ compound?
- m. Does the waste represented by this waste profile sheet contain radioactive material?  Yes  No  
 Is disposal regulated by the Nuclear Regulatory Commission?  Yes  No  
 If NORM, identify isotopes and concentration, \_\_\_\_\_ pCi/g
- n. Is the waste from a CERCLA (40 CFR 300, Appendix B) or state mandated clean-up?  Yes  No  
 If yes, attach Record of Decision (ROD), 104/106 or 122 order or court order that governs site clean-up for activity.  
 For state mandated clean-up, provide relevant documentation.
- o. Is this a State Hazardous Waste?  Yes  No If yes, please list applicable codes 611  
 If NY waste codes B001-B007 apply, please complete question C.2.c on page 1.

**D. DOT Information and Shipping Volume**

1. Quantity of Waste
- One Time Event  Base  Repeat Event
  - Estimated Annual Quantity: 4-55 Gallon Drums  Tons  Yards  Drums  Other (specify) \_\_\_\_\_
  - Shipping Frequency: Units: \_\_\_\_\_ Per:  Month  Quarter  Year  One Time  Other \_\_\_\_\_

**2. Shipping Information****a. Packaging:**

- Roll off/End dump: \_\_\_\_\_  Other: \_\_\_\_\_  
 Drum Type/Size: 55 gallon drum  Vacuum Box  
 Tanker  Super Sack  Tote Bin  Cubic Yard Boxes

- b. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If no, skip c, d and e)  Yes  No

- c. Reportable Quantity (lbs.; kgs.): \_\_\_\_\_ d. Primary/Subsidiary Hazard Class(es)/ID#: \_\_\_\_\_

- e. USDOT Shipping Name: \_\_\_\_\_ PG: \_\_\_\_\_

**E. Generator Certification (Please read and certify by signature below)**

I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this wastestream. Any sample submitted is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. I authorize WMI to obtain a sample from any waste shipment for purposes of recertification. If this certification is made by a broker, the undersigned signs as authorized agent of the generator and has confirmed the information contained in this Profile Sheet from information provided by the generator and additional information as it has determined to be reasonably necessary. If approved for management, Contractor has all the necessary permits and licenses for the waste that has been characterized and identified by this approved profile. All relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste will be disclosed to the contractor. All changes which occur in the character of the waste will be identified by the Generator and be disclosed to the Contractor prior to providing the waste to the Contractor.

Certification Signature: Todd Thalhamer Title: Waste Management Engineer

Name (Type or Print): Todd Thalhamer, P.E. Company Name: CIWMB Date: 10/23/2008

Check if additional information is attached. Indicate the number of attached pages 83



## Kettleman Hills Facility

### Exhibit A

#### Confirmation of Pricing & Special Billing Conditions

Date: 10/30/08

APPROVAL PENDING  
SIGNATURE.  
PLEASE SIGN & RETURN  
ASAP!

To: Jay Weller

Fax: N/A

Email: [weller@earthmover.com](mailto:weller@earthmover.com)

Company: Guinn Construction

**Generator: Weitchpec Container**

**Waste Name: Yurok burned debris and soil**

**Profile Number: CA304103**

**Profile Expiration Date: 10/29/09**

Waste Management is pleased to inform you that the above referenced waste stream has been approved for receipt at the Kettleman Hills Facility. Waste Management, the Kettleman Hills Facility, has all the necessary permits and licenses for the waste that has been characterized and identified by this approved profile. If further shipments are required after the expiration date the profile must be recertified. Please submit a signed copy of your profile, along with any new analytical data, for recertification 30 days in advance to avoid any delays. See "Approval Conditions" section for all conditions that each shipment of this waste must comply with and any required information to recertify your profile.

**Pricing:**

**Disposal Rate: \$60.00/Drum**

**Kings Co Tax: 10%**

**BOE Tax: \$5.72/Ton**

**Note: Special Handling Fuel, Environmental, and Admin Charges: 10%**

**Special Conditions:**

Minimum disposal charge for bulk shipments	\$200.00
Waste rejection fee if a new rejection manifest is generated	\$50.00
Discrepancies will be billed at surcharge rate	
*Hazardous Manifest Fee:	\$2.00/Manifest
*Non-Hazardous Manifest Fee:	\$1.00/Manifest

**Approvals Fees:**

Profiling fee: (waived if shipped in 30 days)	\$75.00
Priority approval fee (< 48 hours):	\$250.00
Same day approval fee:	\$500.00

**To schedule a load please notify our Scheduling Department 24 hours in advance @ (559) 386-6200.  
All loads must be scheduled "No Exceptions". Unscheduled loads will be charged a \$300.00/Fee.**

**\* Approval Conditions:**

**No Free Liquids.**

**No RCRA Waste May Be Shipped On This Profile.**

**Must Not Include Biodegradable Absorbents, Only Clay-Based**

**And Non-Biodegradable.**

**Drums Containing Solids For Direct Landfill Must Be At Least 90% Full.**

**Please Indicate On The Manifest If CD Is Required..**

**\* The Manifest May Include One CA State Code Only...**

### Additional cost worksheet

#### Equipment

Excavator	\$180.00/hr	Scraper	\$220.00/hr
Grader	\$150.00/hr	Backhoe	\$125.00/hr
Bobcat	\$60.00/hr	Roll-off Truck	\$90.00/hr
Forklift	\$60.00/hr	Pickup	\$60.00/hr

#### Man-hours

Manager	\$80.00/hr	Mechanic	\$60.00/hr
Clerk	\$35.00/hr	Laborer	\$45.00/hr
Receiving Tech	\$45.00/hr	Customer service	\$50.00/hr
First Responder	\$60.00/hr		

#### Administrative Cost

Records search	\$30.00/hr	Asbestos search	\$30.00/hr
Copies of invoices	\$25.00 each	Hazardous manifests	\$5.00 each
Tonnage reports	\$10.00 each	Mailing & overnight fees	\$25.00 each
Non-Hazardous manifest	\$2.00 each		

#### Lab Cost

PCBs	\$150.00 each	Mercury	\$150.00 each
TCLP Metals	\$150.00 each	STLC Metals	\$200.00 each
% Moisture	\$25.00 each	Cyanides	\$100.00 each
3 <sup>rd</sup> party analytical	Cost + 25%		

#### Materials

Equip. service	Cost + 20%	Drum Materials	Cost + 20%
PPE	Cost + 30%	Soil for tank Fill	\$30.00/cy

#### Operations cost

Transfer & store	\$250.00/load	Liquid vs Solid bulk load	\$400.00/load
Liquid vs Solid Drum	\$145.00/drum	Open weekends	\$375.00/Hr.
Bin top Absorption	\$250.00/load	Open weekends	\$1,500/Minimum
Washout > 300 gallon	\$0.90/gallon	Washout </= 300 gallons	\$250.00

*The employees of the Kettleman Hills Facility would like to thank for your interest in our services.*

Chris Blaze

Printed Name

Signature

10/30/08

Date

*To Acknowledge Please Sign & Return E-Fax# (866) 652-3745*

Jay Weller

Printed Name

Signature

10/30/08

Date



17326066.00100      06.a  
October 20, 2008

Mr. Todd Thalhamer  
California Integrated Waste Management Board  
1001 "I" Street  
P.O. Box 4025, MS-19A  
Sacramento, California 95812-4025

**SUBJECT:    BURN ASH AND BACKGROUND SOIL SAMPLE RESULTS  
TULLEY CREEK DUMP SITE, HUMBOLDT COUNTY, CALIFORNIA  
STANDARD AGREEMENT NUMBER IWM07035**

Dear Mr. Thalhamer:

URS Corporation (URS) is pleased to provide California Integrated Waste Management Board with this letter report documenting the analytical results for one burn ash and two background soil samples collected at the Tulley Creek Dump site on October 10, 2008. The burn ash and background soil samples were analyzed for metals (total, deionized-waste extraction test [DI-WET], and toxicity characteristic leaching procedure [TCLP]) by Environmental Protection Agency (EPA) method SW6010. The burn ash sample was also analyzed for volatile organic compounds (VOC) by EPA method SW8260B, semi-volatile organic compounds (SVOCs) by EPA method SW8270C, and pH by EPA method 9045D. Copies of the laboratory reports and chain of custody documentation are provided as Attachment A.

The burn ash sample is a composite sample collected from the four 55-gallon drums at the site and the background soil samples were collected from two different locations that appeared not to have been impacted by waste materials. The burn ash sample results for metals and the total threshold limit concentrations (TTLC), soluble threshold limit concentrations (STLC), and TCLP limits are summarized in Table 1. The total metals results show that each metal was detected at a concentration less than 90% of the TTLC, with the exception of zinc, which exceed the TTLC. The DI-WET results show that only lead exceeded the STLC and none of the metals detected by the TCLP exceed the limits. The VOC methylene chloride and the SVOC bis (2-Ethylhexyl) phthalate were detected at concentrations of 8.07 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ) and 3,150  $\mu\text{g}/\text{kg}$ , respectively, in the burn ash sample.

Metals detected in the two background samples were each less than the TTLC, STLC, and TCLP limits (Tables 2 and 3).

URS appreciates the opportunity to provide sampling and reporting services to the CIWMB. Should you have questions or require further information regarding the information in this letter please contact Heidi Rainwater at (530) 893-9675.

Sincerely,  
URS Corporation

Heidi Rainwater, P.G., No. 7732  
Senior Geologist



Mr. Todd Thalhamer  
October 20, 2008  
Page 2 of 2

cc: Project File

**List of Tables**

- Table 1      Burn Ash Sample Results and Waste Characterization
- Table 2      Background-001 Sample Results
- Table 3      Background-002 Sample Results

**Attachment**

- A      Laboratory Analytical Results and Chain of Custody Documentation

## **TABLES**

**Table 1. Burn Ash Sample Results and Waste Characterization**

Tulley Creek Dump Site, Humboldt County, California

Analyte	TTLC			STLC			TCLP		
	Burn Ash (mg/kg)	TTLC (mg/kg)	>90% TTLC?	Burn Ash (mg/L)	STLC (mg/L)	> STLC?	Burn Ash (mg/L)	TCLP mg/L	> TCLP?
Silver	ND	500	NO	ND	5	NO	ND	5	NO
Arsenic	9.7	500	NO	0.33	5.0	NO	ND	5	NO
Barium	204	10000	NO	5.6	100	NO	1.4	100	NO
Beryllium	0.23B	75	NO	0.0059B	0.75	NO	ND	NA	NA
Cadmium	5.9	100	NO	0.47	1.0	NO	0.13	1	NO
Cobalt	13.8J	8000	NO	0.41	80	NO	0.090	NA	NA
Chromium	144	2500	NO	1.0	5	NO	ND	NA	NA
Copper	511	2500	NO	1.8	25	NO	0.22	NA	NA
Molybdenum	4.1	3500	NO	0.19B	350	NO	ND	NA	NA
Nickel	353	2000	NO	2.1	20	NO	0.23	NA	NA
Lead	218	1000	NO	11.4	5.0	YES	1.8	5	NO
Antimony	ND G	500	YES	0.81	15	NO	ND	NA	NA
Selenium	ND	100	NO	0.090B, J	1.0	NO	ND	1	NO
Thallium	0.73B	700	NO	ND	7.0	NO	ND	NA	NA
Vanadium	35.4	2400	NO	0.30	24	NO	ND	NA	NA
Zinc	12200	5000	YES	122	250	NO	56	NA	NA
Mercury	0.058	20	NO	ND	0.2	NO	ND	0.2	NO

B = concentration estimated between method detection limit and reporting limit

G = elevated reporting limit due to matrix interference

J = method blank contamination, result may be biased high

mg/kg = milligram per kilogram

mg/L = milligram per liter

NA = not applicable

ND = not detected

STLC = soluble threshold limit concentration

TCLP = toxicity characteristic leaching procedure

TTLC = total threshold limit concentration

**Table 2. Background-001 Sample Results**

Tulley Creek Dump Site, Humboldt County, California

Analyte	TTLC			STLC			TCLP		
	Bkgrd001 (mg/kg)	TTLC (mg/kg)	>90% TTLC?	Bkgrd001 (mg/L)	STLC (mg/L)	> STLC?	Bkgrd001 (mg/L)	TCLP mg/L	> TCLP?
Silver	ND	500	NO	ND	5	NO	ND	5	NO
Arsenic	6.9	500	NO	0.0066B,J	5.0	NO	ND	5	NO
Barium	43.8	10000	NO	1.1	100	NO	0.18B	100	NO
Beryllium	0.23	75	NO	ND	0.75	NO	ND	NA	NA
Cadmium	0.16	100	NO	ND	1.0	NO	ND	1	NO
Cobalt	14.1	8000	NO	0.35	80	NO	ND	NA	NA
Chromium	139	2500	NO	0.4	5	NO	ND	NA	NA
Copper	35.4	2500	NO	0.32	25	NO	ND	NA	NA
Molybdenum	ND	3500	NO	ND	350	NO	ND	NA	NA
Nickel	124	2000	NO	0.55	20	NO	ND	NA	NA
Lead	6.7	1000	NO	0.10	5.0	NO	ND	5	NO
Antimony	ND	500	NO	ND	15	NO	ND	NA	NA
Selenium	ND	100	NO	0.045B, J	1.0	NO	ND	1	NO
Thallium	0.96B	700	NO	ND	7.0	NO	ND	NA	NA
Vanadium	43.6	2400	NO	0.10	24	NO	ND	NA	NA
Zinc	64.3	5000	NO	0.14	250	NO	ND	NA	NA
Mercury	0.041B	20	NO	ND	0.2	NO	ND	0.2	NO

B = concentration estimated between method detection limit and reporting limit

G = elevated reporting limit due to matrix interference

J = method blank contamination, result may be biased high

mg/kg = milligram per kilogram

mg/L = milligram per liter

NA = not applicable

ND = not detected

STLC = soluble threshold limit concentration

TCLP = toxicity characteristic leaching procedure

TTLC = total threshold limit concentration

**Table 3. Background-002 Sample Results**

Tulley Creek Dump Site, Humboldt County, California

Analyte	TTLC			STLC			TCLP		
	Bkgrd002 (mg/kg)	TTLC (mg/kg)	>90% TTLC?	Bkgrd002 (mg/L)	STLC (mg/L)	> STLC?	Bkgrd002 (mg/L)	TCLP mg/L	> TCLP?
Silver	ND	500	NO	ND	5	NO	ND	5	NO
Arsenic	6.0	500	NO	ND	5.0	NO	ND	5	NO
Barium	72.1	10000	NO	1.7	100	NO	0.24B	100	NO
Beryllium	0.39	75	NO	ND	0.75	NO	ND	NA	NA
Cadmium	0.14B	100	NO	0.0053B	1.0	NO	ND	1	NO
Cobalt	21.7J	8000	NO	0.58	80	NO	ND	NA	NA
Chromium	238	2500	NO	0.4	5	NO	ND	NA	NA
Copper	35.5	2500	NO	0.14	25	NO	ND	NA	NA
Molybdenum	ND	3500	NO	ND	350	NO	ND	NA	NA
Nickel	154	2000	NO	1.2	20	NO	ND	NA	NA
Lead	7.5	1000	NO	0.056B	5.0	NO	ND	5	NO
Antimony	ND	500	NO	ND	15	NO	ND	NA	NA
Selenium	ND	100	NO	0.088B, J	1.0	NO	ND	1	NO
Thallium	ND	700	NO	ND	7.0	NO	ND	NA	NA
Vanadium	54.0	2400	NO	0.13	24	NO	ND	NA	NA
Zinc	84.2	5000	NO	0.54	250	NO	ND	NA	NA
Mercury	0.059	20	NO	ND	0.2	NO	ND	0.2	NO

B = concentration estimated between method detection limit and reporting limit

G = elevated reporting limit due to matrix interference

J = method blank contamination, result may be biased high

mg/kg = milligram per kilogram

mg/L = milligram per liter

NA = not applicable

ND = not detected

STLC = soluble threshold limit concentration

TCLP = toxicity characteristic leaching procedure

TTLC = total threshold limit concentration

**ATTACHMENT A**  
**Laboratory Analytical Results and Chain-of-Custody Documentation**

## **ANALYTICAL REPORT**

PROJECT NO. C1WMB

Tulley Creek Dump Site

Lot #: G8J130165

Accounts Payable

URS Corporation

TESTAMERICA LABORATORIES, INC.

**David R. Alltucker**  
Project Manager

October 20, 2008

## SAMPLE SUMMARY

G8J130165

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
K0QDA	001	BURN ASH	10/10/08	16:20
K0QDE	002	BKGRD001	10/10/08	14:45
K0QDF	003	BKGRD002	10/10/08	15:30
K0QH9	004	BURN ASH	10/10/08	16:20
K0QJC	005	BFGRD001	10/10/08	14:45
K0QJE	006	BFGRD002	10/10/08	15:30

**NOTE(S) :**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

## URS Corporation

Client Sample ID: BURN ASH

## TOTAL Metals

Lot-Sample #....: G8J130165-001  
 Date Sampled....: 10/10/08      Date Received..: 10/13/08  
 % Moisture.....: 24

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>Prep Batch #....: 8288069</b>						
Silver	ND	0.66	mg/kg	SW846 6010B	10/14/08	K0QDA1AC
		Dilution Factor: 1				
Arsenic	9.7	1.3	mg/kg	SW846 6010B	10/14/08	K0QDA1AD
		Dilution Factor: 1				
Barium	204	1.3	mg/kg	SW846 6010B	10/14/08	K0QDA1AE
		Dilution Factor: 1				
Beryllium	0.23 B	0.26	mg/kg	SW846 6010B	10/14/08	K0QDA1AF
		Dilution Factor: 1				
Cadmium	5.9	0.26	mg/kg	SW846 6010B	10/14/08	K0QDA1AG
		Dilution Factor: 1				
Cobalt	13.8 J	0.66	mg/kg	SW846 6010B	10/14/08	K0QDA1AH
		Dilution Factor: 1				
Chromium	144	0.66	mg/kg	SW846 6010B	10/14/08	K0QDA1AJ
		Dilution Factor: 1				
Copper	511	2.0	mg/kg	SW846 6010B	10/14/08	K0QDA1AK
		Dilution Factor: 1				
Molybdenum	4.1	2.6	mg/kg	SW846 6010B	10/14/08	K0QDA1AL
		Dilution Factor: 1				
Nickel	353	1.3	mg/kg	SW846 6010B	10/14/08	K0QDA1AM
		Dilution Factor: 1				
Lead	218	1.3	mg/kg	SW846 6010B	10/14/08	K0QDA1AN
		Dilution Factor: 1				
Antimony	ND G	6.6	mg/kg	SW846 6010B	10/14-10/16/08	K0QDA1AP
		Dilution Factor: 5				
Selenium	ND	1.3	mg/kg	SW846 6010B	10/14/08	K0QDA1AQ
		Dilution Factor: 1				
Thallium	0.73 B	1.3	mg/kg	SW846 6010B	10/14/08	K0QDA1AR
		Dilution Factor: 1				

(Continued on next page)

## URS Corporation

Client Sample ID: BURN ASH

## TOTAL Metals

Lot-Sample #...: G8J130165-001

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS				
Vanadium	35.4	0.66	mg/kg	SW846 6010B	10/14/08	K0QDA1AT	

Dilution Factor: 1

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS				
Zinc	12200	2.6	mg/kg	SW846 6010B	10/14/08	K0QDA1AU	

Dilution Factor: 1

Prep Batch #...: 8288270

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS				
Mercury	0.058	0.053	mg/kg	SW846 7471A	10/14-10/15/08	K0QDA1AV	

Dilution Factor: 1

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

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

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

## URS Corporation

Client Sample ID: BURN ASH

## TCLP Metals

**Lot-Sample #....:** G8J130165-001                   **Matrix.....:** SOLID  
**Date Sampled....:** 10/10/08                   **Date Received..:** 10/13/08  
**Leach Date.....:** 10/13/08                   **Leach Batch #..:** P828805

<u>PARAMETER</u>	<u>RESULT</u>	REPORTING			<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>ANALYSIS DATE</u>	<u>ORDER #</u>
<b>Prep Batch #....:</b> 8288138						
Silver	ND	0.10	mg/L	SW846 6010B	10/14/08	K0QDA1C0
		Dilution Factor: 1				
Arsenic	ND	1.0	mg/L	SW846 6010B	10/14/08	K0QDA1CX
		Dilution Factor: 1				
Barium	1.4	0.50	mg/L	SW846 6010B	10/14/08	K0QDA1C1
		Dilution Factor: 1				
Beryllium	ND	0.050	mg/L	SW846 6010B	10/14/08	K0QDA1C2
		Dilution Factor: 1				
Cadmium	0.13	0.050	mg/L	SW846 6010B	10/14/08	K0QDA1C3
		Dilution Factor: 1				
Cobalt	0.090 B	0.50	mg/L	SW846 6010B	10/14/08	K0QDA1DD
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	10/14/08	K0QDA1C4
		Dilution Factor: 1				
Copper	0.22	0.20	mg/L	SW846 6010B	10/14/08	K0QDA1C5
		Dilution Factor: 1				
Molybdenum	ND	2.0	mg/L	SW846 6010B	10/14/08	K0QDA1DE
		Dilution Factor: 1				
Nickel	0.23 B	0.40	mg/L	SW846 6010B	10/14/08	K0QDA1C6
		Dilution Factor: 1				
Lead	1.8	0.50	mg/L	SW846 6010B	10/14/08	K0QDA1C7
		Dilution Factor: 1				
Antimony	ND	0.60	mg/L	SW846 6010B	10/14/08	K0QDA1C8
		Dilution Factor: 1				
Selenium	ND	0.10	mg/L	SW846 6010B	10/14/08	K0QDA1C9
		Dilution Factor: 1				
Thallium	ND	0.10	mg/L	SW846 6010B	10/14/08	K0QDA1DA
		Dilution Factor: 1				

(Continued on next page)

## URS Corporation

Client Sample ID: BURN ASH

## TCLP Metals

Lot-Sample #....: G8J130165-001

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS	ANALYSIS DATE			
Vanadium	ND	0.50	mg/L	SW846 6010B	10/14/08	K0QDA1DF	Dilution Factor: 1
Zinc	56.0	0.20	mg/L	SW846 6010B	10/14/08	K0QDA1DC	Dilution Factor: 1

Prep Batch #....: 8288274

Mercury	ND	0.0020	mg/L	SW846 7471A	10/14-10/15/08	K0QDA1CW
					Dilution Factor: 1	

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

B Estimated result. Result is less than RL.

## URS Corporation

Client Sample ID: BKGRD001

## TOTAL Metals

Lot-Sample #....: G8J130165-002

Date Sampled....: 10/10/08

Date Received..: 10/13/08

% Moisture.....: 9.6

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	REPORTING <u>LIMIT</u>	UNITS	METHOD	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	WORK <u>ORDER #</u>
<b>Prep Batch #....: 8288069</b>						
Silver	ND	0.55	mg/kg	SW846 6010B	10/14/08	K0QDE1AN
		Dilution Factor: 1				
Arsenic	6.9	1.1	mg/kg	SW846 6010B	10/14/08	K0QDE1AP
		Dilution Factor: 1				
Barium	43.8	1.1	mg/kg	SW846 6010B	10/14/08	K0QDE1AQ
		Dilution Factor: 1				
Beryllium	0.23	0.22	mg/kg	SW846 6010B	10/14/08	K0QDE1AR
		Dilution Factor: 1				
Cadmium	0.16 B	0.22	mg/kg	SW846 6010B	10/14/08	K0QDE1AT
		Dilution Factor: 1				
Cobalt	14.1 J	0.55	mg/kg	SW846 6010B	10/14/08	K0QDE1AU
		Dilution Factor: 1				
Chromium	139	0.55	mg/kg	SW846 6010B	10/14/08	K0QDE1AV
		Dilution Factor: 1				
Copper	35.4	1.7	mg/kg	SW846 6010B	10/14/08	K0QDE1AW
		Dilution Factor: 1				
Molybdenum	ND	2.2	mg/kg	SW846 6010B	10/14/08	K0QDE1AX
		Dilution Factor: 1				
Nickel	124	1.1	mg/kg	SW846 6010B	10/14/08	K0QDE1A0
		Dilution Factor: 1				
Lead	6.7	1.1	mg/kg	SW846 6010B	10/14/08	K0QDE1A1
		Dilution Factor: 1				
Antimony	ND	1.1	mg/kg	SW846 6010B	10/14/08	K0QDE1A2
		Dilution Factor: 1				
Selenium	ND	1.1	mg/kg	SW846 6010B	10/14/08	K0QDE1A3
		Dilution Factor: 1				
Thallium	0.96 B	1.1	mg/kg	SW846 6010B	10/14/08	K0QDE1A4
		Dilution Factor: 1				

(Continued on next page)

## URS Corporation

Client Sample ID: BKGRD001

## TOTAL Metals

Lot-Sample #...: G8J130165-002

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS	ANALYSIS DATE			
Vanadium	43.6	0.55	mg/kg	SW846 6010B	10/14/08	K0QDE1A5	

Dilution Factor: 1

Zinc	64.3	2.2	mg/kg	SW846 6010B	10/14/08	K0QDE1A6
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Dilution Factor: 1

Prep Batch #...: 8288270

Mercury	0.041 B	0.044	mg/kg	SW846 7471A	10/14-10/15/08	K0QDE1A7
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Dilution Factor: 1

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

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

## URS Corporation

Client Sample ID: BKGRD001

## TCLP Metals

Lot-Sample #....: G8J130165-002

Matrix.....: SOLID

Date Sampled....: 10/10/08

Date Received...: 10/13/08

Leach Date.....: 10/13/08

Leach Batch #..: P828805

<u>PARAMETER</u>	<u>RESULT</u>	REPORTING			<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>ANALYSIS DATE</u>	<u>ORDER #</u>
<b>Prep Batch #....: 8288138</b>						
Silver	ND	0.10	mg/L	SW846 6010B	10/14/08	K0QDE1C0
		Dilution Factor: 1				
Arsenic	ND	1.0	mg/L	SW846 6010B	10/14/08	K0QDE1CX
		Dilution Factor: 1				
Barium	0.18 B	0.50	mg/L	SW846 6010B	10/14/08	K0QDE1C1
		Dilution Factor: 1				
Beryllium	ND	0.050	mg/L	SW846 6010B	10/14/08	K0QDE1C2
		Dilution Factor: 1				
Cadmium	ND	0.050	mg/L	SW846 6010B	10/14/08	K0QDE1C3
		Dilution Factor: 1				
Cobalt	ND	0.50	mg/L	SW846 6010B	10/14/08	K0QDE1DD
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	10/14/08	K0QDE1C4
		Dilution Factor: 1				
Copper	ND	0.20	mg/L	SW846 6010B	10/14/08	K0QDE1C5
		Dilution Factor: 1				
Molybdenum	ND	2.0	mg/L	SW846 6010B	10/14/08	K0QDE1DE
		Dilution Factor: 1				
Nickel	ND	0.40	mg/L	SW846 6010B	10/14/08	K0QDE1C6
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/14/08	K0QDE1C7
		Dilution Factor: 1				
Antimony	ND	0.60	mg/L	SW846 6010B	10/14/08	K0QDE1C8
		Dilution Factor: 1				
Selenium	ND	0.10	mg/L	SW846 6010B	10/14/08	K0QDE1C9
		Dilution Factor: 1				
Thallium	ND	0.10	mg/L	SW846 6010B	10/14/08	K0QDE1DA
		Dilution Factor: 1				

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## URS Corporation

Client Sample ID: BKGRD001

## TCLP Metals

Lot-Sample #...: G8J130165-002

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS	ANALYSIS DATE			
Vanadium	ND	0.50	mg/L	SW846 6010B	10/14/08	K0QDE1DF	Dilution Factor: 1
Zinc	ND	0.20	mg/L	SW846 6010B	10/14/08	K0QDE1DC	Dilution Factor: 1

Prep Batch #...: 8288274

Mercury	ND	0.0020	mg/L	SW846 7471A	10/14-10/15/08	K0QDE1CW
					Dilution Factor: 1	

**NOTE(S):**

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

B Estimated result. Result is less than RL.

## URS Corporation

Client Sample ID: BKGRD002

## TOTAL Metals

Lot-Sample #....: G8J130165-003

Date Sampled....: 10/10/08

Date Received..: 10/13/08

% Moisture.....: 15

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>Prep Batch #....: 8288069</b>						
Silver	ND	0.59	mg/kg	SW846 6010B	10/14/08	K0QDF1AN
		Dilution Factor: 1				
Arsenic	6.0	1.2	mg/kg	SW846 6010B	10/14/08	K0QDF1AP
		Dilution Factor: 1				
Barium	72.1	1.2	mg/kg	SW846 6010B	10/14/08	K0QDF1AQ
		Dilution Factor: 1				
Beryllium	0.39	0.24	mg/kg	SW846 6010B	10/14/08	K0QDF1AR
		Dilution Factor: 1				
Cadmium	0.14 B	0.24	mg/kg	SW846 6010B	10/14/08	K0QDF1AT
		Dilution Factor: 1				
Cobalt	21.7 J	0.59	mg/kg	SW846 6010B	10/14/08	K0QDF1AU
		Dilution Factor: 1				
Chromium	238	0.59	mg/kg	SW846 6010B	10/14/08	K0QDF1AV
		Dilution Factor: 1				
Copper	35.5	1.8	mg/kg	SW846 6010B	10/14/08	K0QDF1AW
		Dilution Factor: 1				
Molybdenum	ND	2.4	mg/kg	SW846 6010B	10/14/08	K0QDF1AX
		Dilution Factor: 1				
Nickel	154	1.2	mg/kg	SW846 6010B	10/14/08	K0QDF1A0
		Dilution Factor: 1				
Lead	7.5	1.2	mg/kg	SW846 6010B	10/14/08	K0QDF1A1
		Dilution Factor: 1				
Antimony	ND	1.2	mg/kg	SW846 6010B	10/14/08	K0QDF1A2
		Dilution Factor: 1				
Selenium	ND	1.2	mg/kg	SW846 6010B	10/14/08	K0QDF1A3
		Dilution Factor: 1				
Thallium	ND	1.2	mg/kg	SW846 6010B	10/14/08	K0QDF1A4
		Dilution Factor: 1				

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## URS Corporation

Client Sample ID: BKGRD002

## TOTAL Metals

Lot-Sample #...: G8J130165-003

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS				
Vanadium	54.0	0.59	mg/kg	SW846 6010B	10/14/08	K0QDF1A5	

Dilution Factor: 1

Zinc	84.2	2.4	mg/kg	SW846 6010B	10/14/08	K0QDF1A6
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Dilution Factor: 1

Prep Batch #...: 8288270

Mercury	0.059	0.047	mg/kg	SW846 7471A	10/14-10/15/08	K0QDF1A7
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Dilution Factor: 1

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

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

## URS Corporation

Client Sample ID: BKGRD002

## TCLP Metals

Lot-Sample #....: G8J130165-003

Matrix.....: SOLID

Date Sampled....: 10/10/08

Date Received..: 10/13/08

Leach Date.....: 10/13/08

Leach Batch #..: P828805

<u>PARAMETER</u>	<u>RESULT</u>	REPORTING			<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>ANALYSIS DATE</u>	<u>ORDER #</u>
<b>Prep Batch #....: 8288138</b>						
Silver	ND	0.10	mg/L	SW846 6010B	10/14/08	K0QDF1C0
		Dilution Factor: 1				
Arsenic	ND	1.0	mg/L	SW846 6010B	10/14/08	K0QDF1CX
		Dilution Factor: 1				
Barium	0.24 B	0.50	mg/L	SW846 6010B	10/14/08	K0QDF1C1
		Dilution Factor: 1				
Beryllium	ND	0.050	mg/L	SW846 6010B	10/14/08	K0QDF1C2
		Dilution Factor: 1				
Cadmium	ND	0.050	mg/L	SW846 6010B	10/14/08	K0QDF1C3
		Dilution Factor: 1				
Cobalt	ND	0.50	mg/L	SW846 6010B	10/14/08	K0QDF1DD
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	10/14/08	K0QDF1C4
		Dilution Factor: 1				
Copper	ND	0.20	mg/L	SW846 6010B	10/14/08	K0QDF1C5
		Dilution Factor: 1				
Molybdenum	ND	2.0	mg/L	SW846 6010B	10/14/08	K0QDF1DE
		Dilution Factor: 1				
Nickel	ND	0.40	mg/L	SW846 6010B	10/14/08	K0QDF1C6
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/14/08	K0QDF1C7
		Dilution Factor: 1				
Antimony	ND	0.60	mg/L	SW846 6010B	10/14/08	K0QDF1C8
		Dilution Factor: 1				
Selenium	ND	0.10	mg/L	SW846 6010B	10/14/08	K0QDF1C9
		Dilution Factor: 1				
Thallium	ND	0.10	mg/L	SW846 6010B	10/14/08	K0QDF1DA
		Dilution Factor: 1				

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## URS Corporation

Client Sample ID: BKGRD002

## TCLP Metals

Lot-Sample #...: G8J130165-003

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS	ANALYSIS DATE			
Vanadium	ND	0.50	mg/L	SW846 6010B	10/14/08	K0QDF1DF	Dilution Factor: 1
Zinc	ND	0.20	mg/L	SW846 6010B	10/14/08	K0QDF1DC	Dilution Factor: 1

Prep Batch #...: 8288274

Mercury	ND	0.0020	mg/L	SW846 7471A	10/14-10/15/08	K0QDF1CW
					Dilution Factor: 1	

**NOTE(S):**

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

B Estimated result. Result is less than RL.

## URS Corporation

Client Sample ID: BURN ASH

## STLC Metals

Lot-Sample #....: G8J130165-004

Matrix.....: SOLID

Date Sampled....: 10/10/08

Date Received...: 10/13/08

Leach Date.....: 10/13/08

Leach Batch #..: P828811

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #....:	8288305					
Mercury	ND	0.0020	mg/L	SW846 7471A	10/13-10/16/08	K0QH91AU
		Dilution Factor: 1				
Prep Batch #....:	8288318					
Silver	ND	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QH91AA
		Dilution Factor: 1				
Arsenic	0.33	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QH91AC
		Dilution Factor: 1				
Barium	5.6	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QH91AD
		Dilution Factor: 1				
Beryllium	0.0059 B	0.050	mg/L	SW846 6010B	10/13-10/15/08	K0QH91AE
		Dilution Factor: 1				
Cadmium	0.47	0.050	mg/L	SW846 6010B	10/13-10/15/08	K0QH91AF
		Dilution Factor: 1				
Cobalt	0.41	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QH91AG
		Dilution Factor: 1				
Chromium	1.0	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QH91AH
		Dilution Factor: 1				
Copper	1.8	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QH91AJ
		Dilution Factor: 1				
Molybdenum	0.19 B	0.20	mg/L	SW846 6010B	10/13-10/15/08	K0QH91AK
		Dilution Factor: 1				
Nickel	2.1	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QH91AL
		Dilution Factor: 1				
Lead	11.4	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QH91AM
		Dilution Factor: 1				
Antimony	0.81	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QH91AN
		Dilution Factor: 1				

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## URS Corporation

Client Sample ID: BURN ASH

## STLC Metals

Lot-Sample #....: G8J130165-004

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS	ANALYSIS DATE			
Selenium	0.090 B,J	0.10	mg/L	SW846 6010B		10/13-10/15/08	K0QH91AP
		Dilution Factor:	1				
Thallium	ND	0.10	mg/L	SW846 6010B		10/13-10/15/08	K0QH91AQ
		Dilution Factor:	1				
Vanadium	0.30	0.10	mg/L	SW846 6010B		10/13-10/15/08	K0QH91AR
		Dilution Factor:	1				
Zinc	122	0.10	mg/L	SW846 6010B		10/13-10/15/08	K0QH91AT
		Dilution Factor:	1				

NOTE(S):

Soluable Threshold Limit Concentration (STLC) done in accordance with App II: Waste Extraction procedures. CCR Title 22.

B Estimated result. Result is less than RL.

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

## URS Corporation

Client Sample ID: BFGRD001

## STLC Metals

Lot-Sample #....: G8J130165-005

Matrix.....: SOLID

Date Sampled....: 10/10/08

Date Received...: 10/13/08

Leach Date.....: 10/13/08

Leach Batch #..: P828811

<u>PARAMETER</u>	<u>RESULT</u>	REPORTING <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	WORK <u>ORDER #</u>
<b>Prep Batch #....: 8288305</b>						
Mercury	ND	0.0020	mg/L	SW846 7471A	10/13-10/16/08	K0QJC1AU
Dilution Factor: 1						
<b>Prep Batch #....: 8288318</b>						
Silver	0.0066 B,J	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJC1AA
Dilution Factor: 1						
Arsenic	ND	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJC1AC
Dilution Factor: 1						
Barium	1.1	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJC1AD
Dilution Factor: 1						
Beryllium	ND	0.050	mg/L	SW846 6010B	10/13-10/15/08	K0QJC1AE
Dilution Factor: 1						
Cadmium	ND	0.050	mg/L	SW846 6010B	10/13-10/15/08	K0QJC1AF
Dilution Factor: 1						
Cobalt	0.35	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJC1AG
Dilution Factor: 1						
Chromium	0.36	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJC1AH
Dilution Factor: 1						
Copper	0.32	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJC1AJ
Dilution Factor: 1						
Molybdenum	ND	0.20	mg/L	SW846 6010B	10/13-10/15/08	K0QJC1AK
Dilution Factor: 1						
Nickel	0.55	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJC1AL
Dilution Factor: 1						
Lead	0.10	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJC1AM
Dilution Factor: 1						
Antimony	ND	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJC1AN
Dilution Factor: 1						

(Continued on next page)

## URS Corporation

Client Sample ID: BFGRD001

## STLC Metals

Lot-Sample #....: G8J130165-005

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS	ANALYSIS DATE			
Selenium	0.045 B,J	0.10	mg/L	SW846 6010B		10/13-10/15/08	K0QJC1AP
		Dilution Factor:	1				
Thallium	ND	0.10	mg/L	SW846 6010B		10/13-10/15/08	K0QJC1AQ
		Dilution Factor:	1				
Vanadium	0.10	0.10	mg/L	SW846 6010B		10/13-10/15/08	K0QJC1AR
		Dilution Factor:	1				
Zinc	0.14	0.10	mg/L	SW846 6010B		10/13-10/15/08	K0QJC1AT
		Dilution Factor:	1				

NOTE(S) :

Soluable Threshold Limit Concentration (STLC) done in accordance with App II: Waste Extraction procedures. CCR Title 22.

B Estimated result. Result is less than RL.

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

## URS Corporation

Client Sample ID: BFGRD002

## STLC Metals

**Lot-Sample #....:** G8J130165-006                   **Matrix.....:** SOLID  
**Date Sampled....:** 10/10/08                   **Date Received..:** 10/13/08  
**Leach Date.....:** 10/13/08                   **Leach Batch #..:** P828811

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>Prep Batch #....:</b> 8288305						
Mercury	ND	0.0020	mg/L	SW846 7471A	10/13-10/16/08	K0QJE1AU
		Dilution Factor: 1				
<b>Prep Batch #....:</b> 8288318						
Silver	ND	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJE1AA
		Dilution Factor: 1				
Arsenic	ND	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJE1AC
		Dilution Factor: 1				
Barium	1.7	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJE1AD
		Dilution Factor: 1				
Beryllium	ND	0.050	mg/L	SW846 6010B	10/13-10/15/08	K0QJE1AE
		Dilution Factor: 1				
Cadmium	0.0053 B	0.050	mg/L	SW846 6010B	10/13-10/15/08	K0QJE1AF
		Dilution Factor: 1				
Cobalt	0.58	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJE1AG
		Dilution Factor: 1				
Chromium	0.37	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJE1AH
		Dilution Factor: 1				
Copper	0.14	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJE1AJ
		Dilution Factor: 1				
Molybdenum	ND	0.20	mg/L	SW846 6010B	10/13-10/15/08	K0QJE1AK
		Dilution Factor: 1				
Nickel	1.2	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJE1AL
		Dilution Factor: 1				
Lead	0.056 B	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJE1AM
		Dilution Factor: 1				
Antimony	ND	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0QJE1AN
		Dilution Factor: 1				

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## URS Corporation

Client Sample ID: BFGRD002

## STLC Metals

Lot-Sample #....: G8J130165-006

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS	ANALYSIS DATE			
Selenium	0.088 B,J	0.10	mg/L	SW846 6010B		10/13-10/15/08	K0QJE1AP
		Dilution Factor:	1				
Thallium	ND	0.10	mg/L	SW846 6010B		10/13-10/15/08	K0QJE1AQ
		Dilution Factor:	1				
Vanadium	0.13	0.10	mg/L	SW846 6010B		10/13-10/15/08	K0QJE1AR
		Dilution Factor:	1				
Zinc	0.54	0.10	mg/L	SW846 6010B		10/13-10/15/08	K0QJE1AT
		Dilution Factor:	1				

NOTE(S):

Soluable Threshold Limit Concentration (STLC) done in accordance with App II: Waste Extraction procedures. CCR Title 22.

B Estimated result. Result is less than RL.

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

URS Corporation

Client Sample ID: BURN ASH

General Chemistry

Lot-Sample #....: G8J130165-001      Work Order #....: K0QDA      Matrix.....: SOLID  
Date Sampled....: 10/10/08      Date Received..: 10/13/08  
% Moisture.....: 24

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
			%	ASTM D 2216-90	<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Moisture	23.9	0.10	%	ASTM D 2216-90	10/15-10/16/08	8289287

Dilution Factor: 1

URS Corporation

Client Sample ID: BKGRD001

General Chemistry

Lot-Sample #....: G8J130165-002      Work Order #....: K0QDE      Matrix.....: SOLID  
Date Sampled....: 10/10/08      Date Received..: 10/13/08  
% Moisture.....: 9.6

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
			%	ASTM D 2216-90	<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Moisture	9.6	0.10	%	ASTM D 2216-90	10/15-10/16/08	8289287

Dilution Factor: 1

URS Corporation

Client Sample ID: BKGRD002

General Chemistry

Lot-Sample #....: G8J130165-003      Work Order #....: K0QDF      Matrix.....: SOLID  
Date Sampled....: 10/10/08      Date Received..: 10/13/08  
% Moisture.....: 15

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
			%	ASTM D 2216-90	<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Moisture	15.0	0.10	%	ASTM D 2216-90	10/15-10/16/08	8289287

Dilution Factor: 1

# QC DATA ASSOCIATION SUMMARY

G8J130165

## Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	ASTM D 2216-90		8289287	8289193
	SOLID	SW846 7471A		8288270	8288171
	SOLID	SW846 7471A	P828805	8288274	8288173
	SOLID	SW846 6010B		8288069	8288037
	SOLID	SW846 6010B	P828805	8288138	8288089
002	SOLID	ASTM D 2216-90		8289287	8289193
	SOLID	SW846 7471A		8288270	8288171
	SOLID	SW846 7471A	P828805	8288274	8288173
	SOLID	SW846 6010B		8288069	8288037
	SOLID	SW846 6010B	P828805	8288138	8288089
003	SOLID	ASTM D 2216-90		8289287	8289193
	SOLID	SW846 7471A		8288270	8288171
	SOLID	SW846 7471A	P828805	8288274	8288173
	SOLID	SW846 6010B		8288069	8288037
	SOLID	SW846 6010B	P828805	8288138	8288089
004	SOLID	SW846 7471A	P828811	8288305	8288199
	SOLID	SW846 6010B	P828812	8288318	8288205
005	SOLID	SW846 7471A	P828811	8288305	8288199
	SOLID	SW846 6010B	P828812	8288318	8288205
006	SOLID	SW846 7471A	P828811	8288305	8288199
	SOLID	SW846 6010B	P828812	8288318	8288205

**METHOD BLANK REPORT**

**TOTAL Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>MB Lot-Sample #: G8J140000-069 Prep Batch #....: 8288069</b>						
Antimony	ND	1.0	mg/kg	SW846 6010B	10/14/08	K0Q8A1AN
		Dilution Factor: 1				
Arsenic	ND	1.0	mg/kg	SW846 6010B	10/14/08	K0Q8A1AC
		Dilution Factor: 1				
Barium	ND	1.0	mg/kg	SW846 6010B	10/14/08	K0Q8A1AD
		Dilution Factor: 1				
Beryllium	ND	0.20	mg/kg	SW846 6010B	10/14/08	K0Q8A1AE
		Dilution Factor: 1				
Cadmium	ND	0.20	mg/kg	SW846 6010B	10/14/08	K0Q8A1AF
		Dilution Factor: 1				
Chromium	ND	0.50	mg/kg	SW846 6010B	10/14/08	K0Q8A1AH
		Dilution Factor: 1				
Cobalt	0.20 B	0.50	mg/kg	SW846 6010B	10/14/08	K0Q8A1AG
		Dilution Factor: 1				
Copper	ND	1.5	mg/kg	SW846 6010B	10/14/08	K0Q8A1AJ
		Dilution Factor: 1				
Lead	ND	1.0	mg/kg	SW846 6010B	10/14/08	K0Q8A1AM
		Dilution Factor: 1				
Molybdenum	ND	2.0	mg/kg	SW846 6010B	10/14/08	K0Q8A1AK
		Dilution Factor: 1				
Nickel	ND	1.0	mg/kg	SW846 6010B	10/14/08	K0Q8A1AL
		Dilution Factor: 1				
Selenium	ND	1.0	mg/kg	SW846 6010B	10/14/08	K0Q8A1AP
		Dilution Factor: 1				
Silver	ND	0.50	mg/kg	SW846 6010B	10/14/08	K0Q8A1AA
		Dilution Factor: 1				
Thallium	ND	1.0	mg/kg	SW846 6010B	10/14/08	K0Q8A1AQ
		Dilution Factor: 1				
Vanadium	ND	0.50	mg/kg	SW846 6010B	10/14/08	K0Q8A1AR
		Dilution Factor: 1				

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #....: G8J130165

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS				
Zinc	ND	2.0	mg/kg	SW846 6010B	10/14/08	K0Q8A1AT	
		Dilution Factor: 1					

MB Lot-Sample #: G8J140000-270 Prep Batch #....: 8288270

Mercury ND 0.040 mg/kg SW846 7471A

10/14-10/15/08 K0R641AA

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

**METHOD BLANK REPORT**

**TCLP Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>MB Lot-Sample #: G8J140000-138 Prep Batch #....: 8288138</b>						
Antimony	ND	0.60	mg/L	SW846 6010B	10/14/08	K0RFN1AL
		Dilution Factor: 1				
Arsenic	ND	1.0	mg/L	SW846 6010B	10/14/08	K0RFN1AA
		Dilution Factor: 1				
Barium	ND	0.50	mg/L	SW846 6010B	10/14/08	K0RFN1AD
		Dilution Factor: 1				
Beryllium	ND	0.050	mg/L	SW846 6010B	10/14/08	K0RFN1AE
		Dilution Factor: 1				
Cadmium	ND	0.050	mg/L	SW846 6010B	10/14/08	K0RFN1AF
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	10/14/08	K0RFN1AG
		Dilution Factor: 1				
Cobalt	ND	0.50	mg/L	SW846 6010B	10/14/08	K0RFN1AQ
		Dilution Factor: 1				
Copper	ND	0.20	mg/L	SW846 6010B	10/14/08	K0RFN1AH
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/14/08	K0RFN1AK
		Dilution Factor: 1				
Molybdenum	ND	2.0	mg/L	SW846 6010B	10/14/08	K0RFN1AR
		Dilution Factor: 1				
Nickel	ND	0.40	mg/L	SW846 6010B	10/14/08	K0RFN1AJ
		Dilution Factor: 1				
Selenium	ND	0.10	mg/L	SW846 6010B	10/14/08	K0RFN1AM
		Dilution Factor: 1				
Silver	ND	0.10	mg/L	SW846 6010B	10/14/08	K0RFN1AC
		Dilution Factor: 1				
Thallium	ND	0.10	mg/L	SW846 6010B	10/14/08	K0RFN1AN
		Dilution Factor: 1				
Vanadium	ND	0.50	mg/L	SW846 6010B	10/14/08	K0RFN1AT
		Dilution Factor: 1				

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**METHOD BLANK REPORT**

**TCLP Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

<b>PARAMETER</b>	<b>RESULT</b>	<b>REPORTING</b>			<b>METHOD</b>	<b>PREPARATION-</b>	<b>WORK</b>
		<b>LIMIT</b>	<b>UNITS</b>	<b>ANALYSIS DATE</b>			
Zinc	ND	0.20	mg/L	SW846 6010B	10/14/08	K0RFN1AP	

Dilution Factor: 1

**MB Lot-Sample #:** G8J140000-274 **Prep Batch #....:** 8288274

Mercury ND 0.0020 mg/L SW846 7471A

10/14-10/15/08 K0R7Q1AA

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**METHOD BLANK REPORT**

**STLC Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>MB Lot-Sample #: G8J140000-305 Prep Batch #....: 8288305</b>						
Mercury	ND	0.0020	mg/L	SW846 7471A	10/13-10/16/08	KOTGJ1AA
Dilution Factor: 1						
<b>MB Lot-Sample #: G8J140000-318 Prep Batch #....: 8288318</b>						
Antimony	ND	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0THR1AN
Dilution Factor: 1						
Arsenic	ND	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0THR1AC
Dilution Factor: 1						
Barium	ND	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0THR1AD
Dilution Factor: 1						
Beryllium	ND	0.050	mg/L	SW846 6010B	10/13-10/15/08	K0THR1AE
Dilution Factor: 1						
Cadmium	ND	0.050	mg/L	SW846 6010B	10/13-10/15/08	K0THR1AF
Dilution Factor: 1						
Chromium	ND	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0THR1AH
Dilution Factor: 1						
Cobalt	ND	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0THR1AG
Dilution Factor: 1						
Copper	ND	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0THR1AJ
Dilution Factor: 1						
Lead	ND	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0THR1AM
Dilution Factor: 1						
Molybdenum	ND	0.20	mg/L	SW846 6010B	10/13-10/15/08	K0THR1AK
Dilution Factor: 1						
Nickel	ND	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0THR1AL
Dilution Factor: 1						
Selenium	0.048 B	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0THR1AP
Dilution Factor: 1						
Silver	0.0077 B	0.10	mg/L	SW846 6010B	10/13-10/15/08	K0THR1AA
Dilution Factor: 1						

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**METHOD BLANK REPORT**

**STLC Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

<b>PARAMETER</b>	<b>RESULT</b>	<b>REPORTING</b>			<b>METHOD</b>	<b>PREPARATION-</b>	<b>WORK</b>
		<b>LIMIT</b>	<b>UNITS</b>	<b>ANALYSIS DATE</b>			
Thallium	ND	0.10	mg/L	SW846 6010B		10/13-10/15/08	K0THR1AQ
		Dilution Factor:	1				
Vanadium	ND	0.10	mg/L	SW846 6010B		10/13-10/15/08	K0THR1AR
		Dilution Factor:	1				
Zinc	ND	0.10	mg/L	SW846 6010B		10/13-10/15/08	K0THR1AT
		Dilution Factor:	1				

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**TOTAL Metals**

**Client Lot #...:** G8J130165

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#:	G8J140000-069	Prep Batch #...:	8288069		
Silver	100	(85 - 110)	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1AU
Arsenic	95	(81 - 110)	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1AV
Barium	101	(88 - 110)	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1AW
Beryllium	104	(90 - 110)	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1AX
Cadmium	96	(86 - 110)	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A0
Cobalt	98	(86 - 110)	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A1
Chromium	102	(88 - 110)	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A2
Copper	102	(87 - 110)	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A3
Molybdenum	98	(86 - 110)	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A4
Nickel	101	(86 - 110)	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A5
Lead	96	(85 - 110)	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A6
Antimony	94	(83 - 110)	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A7
Selenium	92	(80 - 110)	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A8
Thallium	97	(89 - 110)	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A9

(Continued on next page)

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**TOTAL Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Vanadium	103	(89 - 110)	SW846 6010B		10/14/08	K0Q8A1CA
		Dilution Factor:	1			
Zinc	100	(87 - 110)	SW846 6010B		10/14/08	K0Q8A1CC
		Dilution Factor:	1			
<b>LCS Lot-Sample#:</b>	G8J140000-270	<b>Prep Batch #....:</b>	8288270			
Mercury	100	(86 - 114)	SW846 7471A		10/14-10/15/08	K0R641AC
		Dilution Factor:	1			

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

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**LABORATORY CONTROL SAMPLE DATA REPORT**

**TOTAL Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>LCS Lot-Sample#:</b> G8J140000-069 <b>Prep Batch #....:</b> 8288069							
Silver	5.00	4.98	mg/kg	100	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1AU
Arsenic	200	189	mg/kg	95	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1AV
Barium	200	202	mg/kg	101	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1AW
Beryllium	5.00	5.20	mg/kg	104	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1AX
Cadmium	5.00	4.78	mg/kg	96	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A0
Cobalt	50.0	49.1	mg/kg	98	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A1
Chromium	20.0	20.4	mg/kg	102	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A2
Copper	25.0	25.4	mg/kg	102	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A3
Molybdenum	100	98.4	mg/kg	98	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A4
Nickel	50.0	50.5	mg/kg	101	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A5
Lead	50.0	48.1	mg/kg	96	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A6
Antimony	50.0	47.0	mg/kg	94	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A7
Selenium	200	185	mg/kg	92	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A8
Thallium	200	194	mg/kg	97	SW846 6010B Dilution Factor: 1	10/14/08	K0Q8A1A9

(Continued on next page)

**LABORATORY CONTROL SAMPLE DATA REPORT**

**TOTAL Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

PARAMETER	SPIKE	MEASURED	PERCNT			PREPARATION-	WORK	
	AMOUNT	AMOUNT	UNITS	RECVRY	METHOD			
Vanadium	50.0	51.7	mg/kg	103	SW846 6010B		10/14/08	K0Q8A1CA
			Dilution Factor:	1				
Zinc	50.0	50.0	mg/kg	100	SW846 6010B		10/14/08	K0Q8A1CC
			Dilution Factor:	1				

**LCS Lot-Sample#:** G8J140000-270 **Prep Batch #....:** 8288270

Mercury	0.0833	0.0832	mg/kg	100	SW846 7471A	10/14-10/15/08	K0R641AC
			Dilution Factor:	1			

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**TCLP Metals**

**Client Lot #...:** G8J130165

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#:	G8J140000-138	Prep Batch #...:	8288138		
Arsenic	97	(90 - 114)	SW846 6010B	10/14/08	K0RFN1AU
		Dilution Factor:	1		
Silver	99	(82 - 121)	SW846 6010B	10/14/08	K0RFN1AV
		Dilution Factor:	1		
Barium	97	(90 - 112)	SW846 6010B	10/14/08	K0RFN1AW
		Dilution Factor:	1		
Beryllium	100	(75 - 125)	SW846 6010B	10/14/08	K0RFN1AX
		Dilution Factor:	1		
Cadmium	96	(88 - 110)	SW846 6010B	10/14/08	K0RFN1A0
		Dilution Factor:	1		
Chromium	99	(84 - 114)	SW846 6010B	10/14/08	K0RFN1A1
		Dilution Factor:	1		
Copper	99	(75 - 125)	SW846 6010B	10/14/08	K0RFN1A2
		Dilution Factor:	1		
Nickel	97	(75 - 125)	SW846 6010B	10/14/08	K0RFN1A3
		Dilution Factor:	1		
Lead	96	(86 - 111)	SW846 6010B	10/14/08	K0RFN1A4
		Dilution Factor:	1		
Antimony	98	(75 - 125)	SW846 6010B	10/14/08	K0RFN1A5
		Dilution Factor:	1		
Selenium	96	(89 - 110)	SW846 6010B	10/14/08	K0RFN1A6
		Dilution Factor:	1		
Thallium	95	(75 - 125)	SW846 6010B	10/14/08	K0RFN1A7
		Dilution Factor:	1		
Zinc	98	(75 - 125)	SW846 6010B	10/14/08	K0RFN1A8
		Dilution Factor:	1		
Cobalt	98	(75 - 125)	SW846 6010B	10/14/08	K0RFN1A9
		Dilution Factor:	1		

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**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**TCLP Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Molybdenum	99	( 75 - 125 )	SW846 6010B		10/14/08	K0RFN1CA

Vanadium	101	( 75 - 125 )	SW846 6010B		10/14/08	K0RFN1CC
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**LCS Lot-Sample#:** G8J140000-274 **Prep Batch #....:** 8288274

Mercury	98	( 61 - 138 )	SW846 7471A		10/14-10/15/08	K0R7Q1AC
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**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**LABORATORY CONTROL SAMPLE DATA REPORT**

**TCLP Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY		PREPARATION- ANALYSIS DATE	WORK ORDER #
				METHOD			
<b>LCS Lot-Sample#:</b> G8J140000-138 <b>Prep Batch #....:</b> 8288138							
Arsenic	10.0	9.70	mg/L	97	SW846 6010B	10/14/08	K0RFN1AU
			Dilution Factor:	1			
Silver	0.250	0.247	mg/L	99	SW846 6010B	10/14/08	K0RFN1AV
			Dilution Factor:	1			
Barium	10.0	9.74	mg/L	97	SW846 6010B	10/14/08	K0RFN1AW
			Dilution Factor:	1			
Beryllium	0.250	0.249	mg/L	100	SW846 6010B	10/14/08	K0RFN1AX
			Dilution Factor:	1			
Cadmium	0.250	0.239	mg/L	96	SW846 6010B	10/14/08	K0RFN1A0
			Dilution Factor:	1			
Chromium	1.00	0.990	mg/L	99	SW846 6010B	10/14/08	K0RFN1A1
			Dilution Factor:	1			
Copper	1.25	1.24	mg/L	99	SW846 6010B	10/14/08	K0RFN1A2
			Dilution Factor:	1			
Nickel	2.50	2.44	mg/L	97	SW846 6010B	10/14/08	K0RFN1A3
			Dilution Factor:	1			
Lead	2.50	2.40	mg/L	96	SW846 6010B	10/14/08	K0RFN1A4
			Dilution Factor:	1			
Antimony	2.50	2.45	mg/L	98	SW846 6010B	10/14/08	K0RFN1A5
			Dilution Factor:	1			
Selenium	10.0	9.56	mg/L	96	SW846 6010B	10/14/08	K0RFN1A6
			Dilution Factor:	1			
Thallium	10.0	9.52	mg/L	95	SW846 6010B	10/14/08	K0RFN1A7
			Dilution Factor:	1			
Zinc	2.50	2.45	mg/L	98	SW846 6010B	10/14/08	K0RFN1A8
			Dilution Factor:	1			
Cobalt	2.50	2.44	mg/L	98	SW846 6010B	10/14/08	K0RFN1A9
			Dilution Factor:	1			

(Continued on next page)

**LABORATORY CONTROL SAMPLE DATA REPORT**

**TCLP Metals**

<b>Client Lot #....:</b> G8J130165	<b>Matrix.....:</b> SOLID				
<b>PARAMETER</b>	<b>SPIKE</b>	<b>MEASURED</b>	<b>PERCNT</b>	<b>PREPARATION-</b>	<b>WORK</b>
	<b>AMOUNT</b>	<b>AMOUNT</b>	<b>RECVRY</b>	<b>ANALYSIS DATE</b>	<b>ORDER #</b>
Molybdenum	5.00	4.95 mg/L	99	SW846 6010B	10/14/08 K0RFN1CA
Dilution Factor: 1					
Vanadium	2.50	2.52 mg/L	101	SW846 6010B	10/14/08 K0RFN1CC
Dilution Factor: 1					
<b>LCS Lot-Sample#:</b> G8J140000-274	<b>Prep Batch #....:</b> 8288274				
Mercury	0.00500	0.00488 mg/L	98	SW846 7471A	10/14-10/15/08 K0R7Q1AC
Dilution Factor: 1					

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**STLC Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>LCS Lot-Sample#:</b> G8J140000-305			<b>Prep Batch #....:</b> 8288305		
Mercury	89	(67 - 127)	SW846 7471A	10/13-10/16/08	K0TGJ1AC
		Dilution Factor:	1		
<b>LCS Lot-Sample#:</b> G8J140000-318			<b>Prep Batch #....:</b> 8288318		
Silver	75	(75 - 125)	SW846 6010B	10/13-10/15/08	K0THR1AU
		Dilution Factor:	1		
Arsenic	94	(75 - 125)	SW846 6010B	10/13-10/15/08	K0THR1AV
		Dilution Factor:	1		
Barium	95	(75 - 125)	SW846 6010B	10/13-10/15/08	K0THR1AW
		Dilution Factor:	1		
Beryllium	92	(75 - 125)	SW846 6010B	10/13-10/15/08	K0THR1AX
		Dilution Factor:	1		
Cadmium	91	(75 - 125)	SW846 6010B	10/13-10/15/08	K0THR1A0
		Dilution Factor:	1		
Cobalt	93	(75 - 125)	SW846 6010B	10/13-10/15/08	K0THR1A1
		Dilution Factor:	1		
Chromium	96	(75 - 125)	SW846 6010B	10/13-10/15/08	K0THR1A2
		Dilution Factor:	1		
Copper	96	(75 - 125)	SW846 6010B	10/13-10/15/08	K0THR1A3
		Dilution Factor:	1		
Molybdenum	94	(75 - 125)	SW846 6010B	10/13-10/15/08	K0THR1A4
		Dilution Factor:	1		
Nickel	92	(75 - 125)	SW846 6010B	10/13-10/15/08	K0THR1A5
		Dilution Factor:	1		
Lead	90	(75 - 125)	SW846 6010B	10/13-10/15/08	K0THR1A6
		Dilution Factor:	1		
Antimony	90	(75 - 125)	SW846 6010B	10/13-10/15/08	K0THR1A7
		Dilution Factor:	1		

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**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**STLC Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Selenium	96	( 75 - 125 )	SW846 6010B		10/13-10/15/08	K0THR1A8
		Dilution Factor:	1			
Thallium	89	( 75 - 125 )	SW846 6010B		10/13-10/15/08	K0THR1A9
		Dilution Factor:	1			
Vanadium	99	( 75 - 125 )	SW846 6010B		10/13-10/15/08	K0THR1CA
		Dilution Factor:	1			
Zinc	94	( 75 - 125 )	SW846 6010B		10/13-10/15/08	K0THR1CC
		Dilution Factor:	1			

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**LABORATORY CONTROL SAMPLE DATA REPORT**

**STLC Metals**

Client Lot #....: G8J130165						Matrix.....: SOLID
PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>LCS Lot-Sample#: G8J140000-305 Prep Batch #....: 8288305</b>						
Mercury	0.0100	0.00894	mg/L	89	SW846 7471A	10/13-10/16/08 K0TGJ1AC
Dilution Factor: 1						
<b>LCS Lot-Sample#: G8J140000-318 Prep Batch #....: 8288318</b>						
Silver	0.500	0.375	mg/L	75	SW846 6010B	10/13-10/15/08 K0THR1AU
Dilution Factor: 1						
Arsenic	20.0	18.8	mg/L	94	SW846 6010B	10/13-10/15/08 K0THR1AV
Dilution Factor: 1						
Barium	20.0	19.0	mg/L	95	SW846 6010B	10/13-10/15/08 K0THR1AW
Dilution Factor: 1						
Beryllium	0.500	0.462	mg/L	92	SW846 6010B	10/13-10/15/08 K0THR1AX
Dilution Factor: 1						
Cadmium	0.500	0.457	mg/L	91	SW846 6010B	10/13-10/15/08 K0THR1A0
Dilution Factor: 1						
Cobalt	5.00	4.65	mg/L	93	SW846 6010B	10/13-10/15/08 K0THR1A1
Dilution Factor: 1						
Chromium	2.00	1.93	mg/L	96	SW846 6010B	10/13-10/15/08 K0THR1A2
Dilution Factor: 1						
Copper	2.50	2.40	mg/L	96	SW846 6010B	10/13-10/15/08 K0THR1A3
Dilution Factor: 1						
Molybdenum	10.0	9.42	mg/L	94	SW846 6010B	10/13-10/15/08 K0THR1A4
Dilution Factor: 1						
Nickel	5.00	4.61	mg/L	92	SW846 6010B	10/13-10/15/08 K0THR1A5
Dilution Factor: 1						
Lead	5.00	4.50	mg/L	90	SW846 6010B	10/13-10/15/08 K0THR1A6
Dilution Factor: 1						
Antimony	5.00	4.48	mg/L	90	SW846 6010B	10/13-10/15/08 K0THR1A7
Dilution Factor: 1						

(Continued on next page)

**LABORATORY CONTROL SAMPLE DATA REPORT**

**STLC Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

PARAMETER	SPIKE	MEASURED	PERCNT			PREPARATION-	WORK
	AMOUNT	AMOUNT	UNITS	RECVRY	METHOD		
Selenium	20.0	19.1	mg/L	96	SW846 6010B	10/13-10/15/08	K0THR1A8
			Dilution Factor:	1			
Thallium	20.0	17.7	mg/L	89	SW846 6010B	10/13-10/15/08	K0THR1A9
			Dilution Factor:	1			
Vanadium	5.00	4.94	mg/L	99	SW846 6010B	10/13-10/15/08	K0THR1CA
			Dilution Factor:	1			
Zinc	5.00	4.70	mg/L	94	SW846 6010B	10/13-10/15/08	K0THR1CC
			Dilution Factor:	1			

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**TOTAL Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

**Date Sampled....:** 10/10/08

**Date Received...:** 10/13/08

<u>PARAMETER</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>	RPD <u>RPD</u>	RPD <u>LIMITS</u>	METHOD	PREPARATION-	WORK
						<u>ANALYSIS DATE</u>	<u>ORDER #</u>
<b>MS Lot-Sample #:</b> G8J130165-001 <b>Prep Batch #....:</b> 8288069							
Antimony	45 N	(83 - 110)		SW846 6010B		% Moisture.....:	24
	49 N	(83 - 110) 8.8 (0-35)		SW846 6010B	Dilution Factor: 5	10/14-10/16/08	K0QDA1D8
						10/14-10/16/08	K0QDA1D9
Arsenic	83	(81 - 110)		SW846 6010B		10/14/08	K0QDA1DK
	84	(81 - 110) 1.7 (0-35)		SW846 6010B	Dilution Factor: 1	10/14/08	K0QDA1DL
Barium	67 N	(88 - 110)		SW846 6010B		10/14/08	K0QDA1DM
	89	(88 - 110) 14 (0-35)		SW846 6010B	Dilution Factor: 1	10/14/08	K0QDA1DN
Beryllium	90	(90 - 110)		SW846 6010B		10/14/08	K0QDA1DP
	92	(90 - 110) 2.5 (0-35)		SW846 6010B	Dilution Factor: 1	10/14/08	K0QDA1DQ
Cadmium	96	(86 - 110)		SW846 6010B		10/14/08	K0QDA1DR
	73 N	(86 - 110) 13 (0-35)		SW846 6010B	Dilution Factor: 1	10/14/08	K0QDA1DT
Chromium	NC,MSB	(88 - 110)		SW846 6010B		10/14/08	K0QDA1DW
	NC,MSB	(88 - 110) (0-35)		SW846 6010B	Dilution Factor: 1	10/14/08	K0QDA1DX
Cobalt	88	(86 - 110)		SW846 6010B		10/14/08	K0QDA1DU
	85 N	(86 - 110) 2.3 (0-35)		SW846 6010B	Dilution Factor: 1	10/14/08	K0QDA1DV
Copper	NC,MSB	(87 - 110)		SW846 6010B		10/14/08	K0QDA1D0
	NC,MSB	(87 - 110) (0-35)		SW846 6010B	Dilution Factor: 1	10/14/08	K0QDA1D1
Lead	12 N	(85 - 110)		SW846 6010B		10/14/08	K0QDA1D6
	50 N	(85 - 110) 10 (0-35)		SW846 6010B	Dilution Factor: 1	10/14/08	K0QDA1D7
Molybdenum	84 N	(86 - 110)		SW846 6010B		10/14/08	K0QDA1D2
	83 N	(86 - 110) 1.0 (0-35)		SW846 6010B	Dilution Factor: 1	10/14/08	K0QDA1D3

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**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**TOTAL Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

**Date Sampled....:** 10/10/08

**Date Received...:** 10/13/08

<u>PARAMETER</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>	RPD <u>RPD</u>	RPD <u>LIMITS</u>	METHOD <u>METHOD</u>	PREPARATION-	WORK
						<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Nickel	NC,MSB	(86 - 110)			SW846 6010B	10/14/08	K0QDA1D4
	NC,MSB	(86 - 110)	(0-35)		SW846 6010B	10/14/08	K0QDA1D5
Dilution Factor: 1							
Selenium	81	(80 - 110)			SW846 6010B	10/14/08	K0QDA1EA
	82	(80 - 110)	0.78 (0-35)		SW846 6010B	10/14/08	K0QDA1EC
Dilution Factor: 1							
Silver	92	(85 - 110)			SW846 6010B	10/14/08	K0QDA1DH
	101	(85 - 110)	9.6 (0-35)		SW846 6010B	10/14/08	K0QDA1DJ
Dilution Factor: 1							
Thallium	83 N	(89 - 110)			SW846 6010B	10/14/08	K0QDA1ED
	83 N	(89 - 110)	0.31 (0-35)		SW846 6010B	10/14/08	K0QDA1EE
Dilution Factor: 1							
Vanadium	97	(89 - 110)			SW846 6010B	10/14/08	K0QDA1EF
	88 N	(89 - 110)	6.1 (0-35)		SW846 6010B	10/14/08	K0QDA1EG
Dilution Factor: 1							
Zinc	NC,MSB	(87 - 110)			SW846 6010B	10/14/08	K0QDA1EH
	NC,MSB	(87 - 110)	(0-35)		SW846 6010B	10/14/08	K0QDA1EJ
Dilution Factor: 1							

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

**MATRIX SPIKE SAMPLE DATA REPORT**

**TOTAL Metals**

**Client Lot #....:** G8J130165  
**Date Sampled....:** 10/10/08

**Date Received...:** 10/13/08

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>MS Lot-Sample #:</b> G8J130165-001 <b>Prep Batch #....:</b> 8288069									
<b>% Moisture.....:</b> 24									
Antimony									
	ND	63.2	28.2 N	mg/kg	45		SW846 6010B	10/14-10/16/08	K0QDA1D8
	ND	63.2	30.8 N	mg/kg	49	8.8	SW846 6010B	10/14-10/16/08	K0QDA1D9
	Dilution Factor: 5								
Arsenic									
	9.7	258	222	mg/kg	83		SW846 6010B	10/14/08	K0QDA1DK
	9.7	258	226	mg/kg	84	1.7	SW846 6010B	10/14/08	K0QDA1DL
	Dilution Factor: 1								
Barium									
	204	258	378 N	mg/kg	67		SW846 6010B	10/14/08	K0QDA1DM
	204	258	435	mg/kg	89	14	SW846 6010B	10/14/08	K0QDA1DN
	Dilution Factor: 1								
Beryllium									
	0.23	6.44	6.00	mg/kg	90		SW846 6010B	10/14/08	K0QDA1DP
	0.23	6.44	6.16	mg/kg	92	2.5	SW846 6010B	10/14/08	K0QDA1DQ
	Dilution Factor: 1								
Cadmium									
	5.9	6.44	12.1	mg/kg	96		SW846 6010B	10/14/08	K0QDA1DR
	5.9	6.44	10.6 N	mg/kg	73	13	SW846 6010B	10/14/08	K0QDA1DT
	Dilution Factor: 1								
Chromium									
	144	25.8	377	mg/kg			SW846 6010B	10/14/08	K0QDA1DW
	144	25.8	Qualifiers: NC,MSB						
	144	25.8	179	mg/kg			SW846 6010B	10/14/08	K0QDA1DX
	Qualifiers: NC,MSB								
	Dilution Factor: 1								
Cobalt									
	13.8	64.4	70.3	mg/kg	88		SW846 6010B	10/14/08	K0QDA1DU
	13.8	64.4	68.7 N	mg/kg	85	2.3	SW846 6010B	10/14/08	K0QDA1DV
	Dilution Factor: 1								
Copper									
	511	32.2	179	mg/kg			SW846 6010B	10/14/08	K0QDA1DO
	511	32.2	Qualifiers: NC,MSB						
	511	32.2	248	mg/kg			SW846 6010B	10/14/08	K0QDA1D1
	Qualifiers: NC,MSB								
	Dilution Factor: 1								

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**MATRIX SPIKE SAMPLE DATA REPORT**

**TOTAL Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

**Date Sampled....:** 10/10/08

**Date Received...:** 10/13/08

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>WORK ORDER #</u>				
<b>Lead</b>													
	218	64.4	225	N mg/kg	12		SW846 6010B	10/14/08	K0QDA1D6				
	218	64.4	250	N mg/kg	50	10	SW846 6010B	10/14/08	K0QDA1D7				
Dilution Factor: 1													
<b>Molybdenum</b>													
	4.1	129	112	N mg/kg	84		SW846 6010B	10/14/08	K0QDA1D2				
	4.1	129	111	N mg/kg	83	1.0	SW846 6010B	10/14/08	K0QDA1D3				
Dilution Factor: 1													
<b>Nickel</b>													
	353	64.4	227	mg/kg			SW846 6010B	10/14/08	K0QDA1D4				
			Qualifiers: NC,MSB										
	353	64.4	152	mg/kg			SW846 6010B	10/14/08	K0QDA1D5				
			Qualifiers: NC,MSB										
Dilution Factor: 1													
<b>Selenium</b>													
	ND	258	210	mg/kg	81		SW846 6010B	10/14/08	K0QDA1EA				
	ND	258	211	mg/kg	82	0.78	SW846 6010B	10/14/08	K0QDA1EC				
Dilution Factor: 1													
<b>Silver</b>													
	ND	6.44	6.02	mg/kg	92		SW846 6010B	10/14/08	K0QDA1DH				
	ND	6.44	6.63	mg/kg	101	9.6	SW846 6010B	10/14/08	K0QDA1DJ				
Dilution Factor: 1													
<b>Thallium</b>													
	0.73	258	215	N mg/kg	83		SW846 6010B	10/14/08	K0QDA1ED				
	0.73	258	215	N mg/kg	83	0.31	SW846 6010B	10/14/08	K0QDA1EE				
Dilution Factor: 1													
<b>Vanadium</b>													
	35.4	64.4	97.9	mg/kg	97		SW846 6010B	10/14/08	K0QDA1EF				
	35.4	64.4	92.1	N mg/kg	88	6.1	SW846 6010B	10/14/08	K0QDA1EG				
Dilution Factor: 1													
<b>Zinc</b>													
	12200	64.4	824	mg/kg			SW846 6010B	10/14/08	K0QDA1EH				
			Qualifiers: NC,MSB										
	12200	64.4	1420	mg/kg			SW846 6010B	10/14/08	K0QDA1EJ				
Qualifiers: NC,MSB													
Dilution Factor: 1													

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**MATRIX SPIKE SAMPLE DATA REPORT**

**TOTAL Metals**

**Client Lot #....:** G8J130165  
**Date Sampled....:** 10/10/08

**Date Received...:** 10/13/08

**Matrix.....:** SOLID

**NOTE(S):**

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Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #....: G8J130165

Matrix.....: SOLID

Date Sampled...: 10/10/08

Date Received...: 10/13/08

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- WORK ANALYSIS DATE	ORDER #
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MS Lot-Sample #: G8J130165-002 Prep Batch #....: 8288270

% Moisture.....: 9.6

Mercury	93	(86 - 113)		SW846 7471A		10/14-10/15/08 K0QDE1DH
	94	(86 - 113)	0.30 (0-17)	SW846 7471A		10/14-10/15/08 K0QDE1DJ

Dilution Factor: 1

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: G8J130165

Matrix.....: SOLID

Date Sampled...: 10/10/08

Date Received...: 10/13/08

SAMPLE	SPIKE	MEASRD	PERCNT	PREPARATION-	WORK		
PARAMETER	AMOUNT	AMOUNT	RECVRY	RPD	METHOD	ANALYSIS DATE	ORDER #

MS Lot-Sample #: G8J130165-002 Prep Batch #...: 8288270

% Moisture....: 9.6

Mercury

0.041	0.277	0.299	mg/kg	93	SW846	7471A	10/14-10/15/08	K0QDE1DH	
0.041	0.277	0.300	mg/kg	94	0.30	SW846	7471A	10/14-10/15/08	K0QDE1DJ

Dilution Factor: 1

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**TCLP Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

**Date Sampled....:** 10/10/08

**Date Received...:** 10/13/08

<u>PARAMETER</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>	RPD <u>RPD</u>	RPD <u>LIMITS</u>	PREPARATION- <u>ANALYSIS DATE</u>	WORK <u>ORDER #</u>
<b>MS Lot-Sample #:</b> G8J130165-001 <b>Prep Batch #....:</b> 8288138						
<b>Leach Date.....:</b> 10/13/08 <b>Leach Batch #..:</b> P828805						
Antimony	103	(75 - 125)		SW846 6010B	10/14/08	K0QDA1E6
	93	(75 - 125) 9.7 (0-20)		SW846 6010B	10/14/08	K0QDA1E7
		Dilution Factor: 1				
Arsenic	99	(90 - 114)		SW846 6010B	10/14/08	K0QDA1EK
	93	(90 - 114) 6.0 (0-20)		SW846 6010B	10/14/08	K0QDA1EL
		Dilution Factor: 1				
Barium	97	(90 - 112)		SW846 6010B	10/14/08	K0QDA1EP
	96	(90 - 112) 1.4 (0-20)		SW846 6010B	10/14/08	K0QDA1EQ
		Dilution Factor: 1				
Beryllium	101	(75 - 125)		SW846 6010B	10/14/08	K0QDA1ER
	98	(75 - 125) 2.8 (0-20)		SW846 6010B	10/14/08	K0QDA1ET
		Dilution Factor: 1				
Cadmium	96	(88 - 110)		SW846 6010B	10/14/08	K0QDA1EU
	88	(88 - 110) 5.8 (0-20)		SW846 6010B	10/14/08	K0QDA1EV
		Dilution Factor: 1				
Chromium	100	(84 - 114)		SW846 6010B	10/14/08	K0QDA1EW
	98	(84 - 114) 2.5 (0-20)		SW846 6010B	10/14/08	K0QDA1EX
		Dilution Factor: 1				
Cobalt	99	(75 - 125)		SW846 6010B	10/14/08	K0QDA1FF
	94	(75 - 125) 5.7 (0-20)		SW846 6010B	10/14/08	K0QDA1FG
		Dilution Factor: 1				
Copper	100	(75 - 125)		SW846 6010B	10/14/08	K0QDA1E0
	98	(75 - 125) 1.6 (0-20)		SW846 6010B	10/14/08	K0QDA1E1
		Dilution Factor: 1				
Lead	97	(86 - 111)		SW846 6010B	10/14/08	K0QDA1E4
	88	(86 - 111) 5.8 (0-20)		SW846 6010B	10/14/08	K0QDA1E5
		Dilution Factor: 1				
Molybdenum	100	(75 - 125)		SW846 6010B	10/14/08	K0QDA1FH
	96	(75 - 125) 4.6 (0-20)		SW846 6010B	10/14/08	K0QDA1FJ
		Dilution Factor: 1				

(Continued on next page)

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**TCLP Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

**Date Sampled....:** 10/10/08

**Date Received...:** 10/13/08

<u>PARAMETER</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>	RPD <u>RPD</u>	RPD <u>LIMITS</u>	METHOD <u>METHOD</u>	PREPARATION-	WORK
						<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Nickel	99	(75 - 125)			SW846 6010B	10/14/08	K0QDA1E2
	96	(75 - 125) 2.6	(0-20)		SW846 6010B	10/14/08	K0QDA1E3
Dilution Factor: 1							
Selenium	98	(89 - 110)			SW846 6010B	10/14/08	K0QDA1E8
	93	(89 - 110) 5.2	(0-20)		SW846 6010B	10/14/08	K0QDA1E9
Dilution Factor: 1							
Silver	99	(82 - 121)			SW846 6010B	10/14/08	K0QDA1EM
	98	(82 - 121) 1.2	(0-20)		SW846 6010B	10/14/08	K0QDA1EN
Dilution Factor: 1							
Thallium	97	(75 - 125)			SW846 6010B	10/14/08	K0QDA1FA
	92	(75 - 125) 4.5	(0-20)		SW846 6010B	10/14/08	K0QDA1FC
Dilution Factor: 1							
Vanadium	101	(75 - 125)			SW846 6010B	10/14/08	K0QDA1FK
	99	(75 - 125) 1.9	(0-20)		SW846 6010B	10/14/08	K0QDA1FL
Dilution Factor: 1							
Zinc	0.0 N	(75 - 125)			SW846 6010B	10/14/08	K0QDA1FD
	0.0 N	(75 - 125) 0.0	(0-20)		SW846 6010B	10/14/08	K0QDA1FE
Dilution Factor: 1							

**MS Lot-Sample #:** G8J130165-001    **Prep Batch #....:** 8288274

**Leach Date.....:** 10/13/08    **Leach Batch #..:** P828805

Mercury	93	(61 - 138)		SW846 7471A	10/14-10/15/08	K0QDA1FM
	91	(61 - 138) 2.2	(0-19)	SW846 7471A	10/14-10/15/08	K0QDA1FN
Dilution Factor: 1						

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

**MATRIX SPIKE SAMPLE DATA REPORT**

**TCLP Metals**

**Client Lot #....:** G8J130165  
**Date Sampled....:** 10/10/08

**Date Received...:** 10/13/08

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>MS Lot-Sample #:</b> G8J130165-001									
<b>Leach Date.....:</b> 10/13/08									
<b>Antimony</b>									
	ND	2.50	2.59	mg/L	103		SW846 6010B	10/14/08	K0QDA1E6
	ND	2.50	2.35	mg/L	93	9.7	SW846 6010B	10/14/08	K0QDA1E7
			Dilution Factor: 1						
<b>Arsenic</b>									
	ND	10.0	9.89	mg/L	99		SW846 6010B	10/14/08	K0QDA1EK
	ND	10.0	9.31	mg/L	93	6.0	SW846 6010B	10/14/08	K0QDA1EL
			Dilution Factor: 1						
<b>Barium</b>									
	1.4	10.0	11.1	mg/L	97		SW846 6010B	10/14/08	K0QDA1EP
	1.4	10.0	11.0	mg/L	96	1.4	SW846 6010B	10/14/08	K0QDA1EQ
			Dilution Factor: 1						
<b>Beryllium</b>									
	ND	0.250	0.252	mg/L	101		SW846 6010B	10/14/08	K0QDA1ER
	ND	0.250	0.245	mg/L	98	2.8	SW846 6010B	10/14/08	K0QDA1ET
			Dilution Factor: 1						
<b>Cadmium</b>									
	0.13	0.250	0.371	mg/L	96		SW846 6010B	10/14/08	K0QDA1EU
	0.13	0.250	0.350	mg/L	88	5.8	SW846 6010B	10/14/08	K0QDA1EV
			Dilution Factor: 1						
<b>Chromium</b>									
	ND	1.00	1.00	mg/L	100		SW846 6010B	10/14/08	K0QDA1EW
	ND	1.00	0.979	mg/L	98	2.5	SW846 6010B	10/14/08	K0QDA1EX
			Dilution Factor: 1						
<b>Cobalt</b>									
	0.090	2.50	2.57	mg/L	99		SW846 6010B	10/14/08	K0QDA1FF
	0.090	2.50	2.43	mg/L	94	5.7	SW846 6010B	10/14/08	K0QDA1FG
			Dilution Factor: 1						
<b>Copper</b>									
	0.22	1.25	1.47	mg/L	100		SW846 6010B	10/14/08	K0QDA1E0
	0.22	1.25	1.44	mg/L	98	1.6	SW846 6010B	10/14/08	K0QDA1E1
			Dilution Factor: 1						

(Continued on next page)

**MATRIX SPIKE SAMPLE DATA REPORT**

**TCLP Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

**Date Sampled....:** 10/10/08

**Date Received...:** 10/13/08

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>Lead</b>									
	1.8	2.50	4.23	mg/L	97		SW846 6010B	10/14/08	K0QDA1E4
	1.8	2.50	4.00	mg/L	88	5.8	SW846 6010B	10/14/08	K0QDA1E5
Dilution Factor: 1									
<b>Molybdenum</b>									
	ND	5.00	5.05	mg/L	100		SW846 6010B	10/14/08	K0QDA1FH
	ND	5.00	4.82	mg/L	96	4.6	SW846 6010B	10/14/08	K0QDA1FJ
Dilution Factor: 1									
<b>Nickel</b>									
	0.23	2.50	2.70	mg/L	99		SW846 6010B	10/14/08	K0QDA1E2
	0.23	2.50	2.63	mg/L	96	2.6	SW846 6010B	10/14/08	K0QDA1E3
Dilution Factor: 1									
<b>Selenium</b>									
	ND	10.0	9.81	mg/L	98		SW846 6010B	10/14/08	K0QDA1E8
	ND	10.0	9.31	mg/L	93	5.2	SW846 6010B	10/14/08	K0QDA1E9
Dilution Factor: 1									
<b>Silver</b>									
	ND	0.250	0.247	mg/L	99		SW846 6010B	10/14/08	K0QDA1EM
	ND	0.250	0.244	mg/L	98	1.2	SW846 6010B	10/14/08	K0QDA1EN
Dilution Factor: 1									
<b>Thallium</b>									
	ND	10.0	9.67	mg/L	97		SW846 6010B	10/14/08	K0QDA1FA
	ND	10.0	9.24	mg/L	92	4.5	SW846 6010B	10/14/08	K0QDA1FC
Dilution Factor: 1									
<b>Vanadium</b>									
	ND	2.50	2.53	mg/L	101		SW846 6010B	10/14/08	K0QDA1FK
	ND	2.50	2.48	mg/L	99	1.9	SW846 6010B	10/14/08	K0QDA1FL
Dilution Factor: 1									
<b>Zinc</b>									
	56.0	2.50	55.6 N	mg/L	0.0		SW846 6010B	10/14/08	K0QDA1FD
	56.0	2.50	54.6 N	mg/L	0.0	0.0	SW846 6010B	10/14/08	K0QDA1FE
Dilution Factor: 1									

**MS Lot-Sample #:** G8J130165-001    **Prep Batch #....:** 8288274

**Leach Date.....:** 10/13/08

**Leach Batch #..:** P828805

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TCLP Metals

Client Lot #...: G8J130165

Matrix.....: SOLID

Date Sampled...: 10/10/08

Date Received..: 10/13/08

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Mercury	ND	0.00500	0.00470	mg/L	93		SW846 7471A	10/14-10/15/08	K0QDA1FM
	ND	0.00500	0.00460	mg/L	91	2.2	SW846 7471A	10/14-10/15/08	K0QDA1FN

Dilution Factor: 1

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

STLC Metals

Client Lot #....: G8J130165

Matrix.....: SOLID

Date Sampled....: 10/10/08

Date Received...: 10/13/08

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- WORK ANALYSIS DATE	ORDER #
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MS Lot-Sample #: G8J130165-005 Prep Batch #....: 8288305

Leach Date.....: 10/13/08 Leach Batch #...: P828811

Mercury	111	(67 - 127)		SW846 7471A	
	102	(67 - 127)	8.2 (0-20)	SW846 7471A	

% Moisture.....:

10/13-10/16/08 K0QJC1AW
10/13-10/16/08 K0QJC1AX

Dilution Factor: 1

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

STLC Metals

Client Lot #....: G8J130165  
Date Sampled....: 10/10/08

Date Received...: 10/13/08

Matrix.....: SOLID

SAMPLE	SPIKE	MEASRD	PERCNT	PREPARATION-	WORK		
PARAMETER	AMOUNT	AMOUNT	RECVRY	RPD	METHOD	ANALYSIS DATE	ORDER #
MS Lot-Sample #:	G8J130165-005	Prep Batch #....:	8288305				
Leach Date.....:	10/13/08	Leach Batch #...:	P828811			% Moisture.....:	
Mercury							
ND	0.0100	0.0114 mg/L	111	SW846	7471A	10/13-10/16/08	K0QJC1AW
ND	0.0100	0.0105 mg/L	102	8.2	SW846	7471A	10/13-10/16/08 K0QJC1AX
Dilution Factor: 1							

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**STLC Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

**Date Sampled....:** 10/10/08

**Date Received...:** 10/13/08

<u>PARAMETER</u>	PERCENT	RECOVERY	RPD	PREPARATION-	WORK
	<u>RECOVERY</u>	<u>LIMITS</u>	<u>RPD</u>	<u>LIMITS</u>	<u>ANALYSIS DATE</u>
<b>MS Lot-Sample #:</b> G8J130165-004 <b>Prep Batch #....:</b> 8288318					
				<b>Leach Batch #..:</b> P828812	<b>% Moisture....:</b>
Antimony	96	(75 - 125)		SW846 6010B	10/13-10/15/08 K0QH91CP
	95	(75 - 125) 1.1 (0-20)		SW846 6010B	10/13-10/15/08 K0QH91CQ
		Dilution Factor: 1			
Arsenic	100	(75 - 125)		SW846 6010B	10/13-10/15/08 K0QH91A2
	99	(75 - 125) 0.90 (0-20)		SW846 6010B	10/13-10/15/08 K0QH91A3
		Dilution Factor: 1			
Barium	97	(75 - 125)		SW846 6010B	10/13-10/15/08 K0QH91A4
	96	(75 - 125) 0.62 (0-20)		SW846 6010B	10/13-10/15/08 K0QH91A5
		Dilution Factor: 1			
Beryllium	95	(75 - 125)		SW846 6010B	10/13-10/15/08 K0QH91A6
	98	(75 - 125) 3.7 (0-20)		SW846 6010B	10/13-10/15/08 K0QH91A7
		Dilution Factor: 1			
Cadmium	97	(75 - 125)		SW846 6010B	10/13-10/15/08 K0QH91A8
	92	(75 - 125) 2.6 (0-20)		SW846 6010B	10/13-10/15/08 K0QH91A9
		Dilution Factor: 1			
Chromium	100	(75 - 125)		SW846 6010B	10/13-10/15/08 K0QH91CD
	97	(75 - 125) 2.6 (0-20)		SW846 6010B	10/13-10/15/08 K0QH91CE
		Dilution Factor: 1			
Cobalt	98	(75 - 125)		SW846 6010B	10/13-10/15/08 K0QH91CA
	95	(75 - 125) 2.8 (0-20)		SW846 6010B	10/13-10/15/08 K0QH91CC
		Dilution Factor: 1			
Copper	101	(75 - 125)		SW846 6010B	10/13-10/15/08 K0QH91CF
	100	(75 - 125) 0.60 (0-20)		SW846 6010B	10/13-10/15/08 K0QH91CG
		Dilution Factor: 1			
Lead	103	(75 - 125)		SW846 6010B	10/13-10/15/08 K0QH91CM
	92	(75 - 125) 3.1 (0-20)		SW846 6010B	10/13-10/15/08 K0QH91CN
		Dilution Factor: 1			
Molybdenum	98	(75 - 125)		SW846 6010B	10/13-10/15/08 K0QH91CH
	96	(75 - 125) 2.2 (0-20)		SW846 6010B	10/13-10/15/08 K0QH91CJ
		Dilution Factor: 1			

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**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**STLC Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

**Date Sampled....:** 10/10/08

**Date Received...:** 10/13/08

<u>PARAMETER</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>	RPD <u>RPD</u>	RPD <u>LIMITS</u>	METHOD <u>METHOD</u>	PREPARATION-	WORK
						<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Nickel	98	(75 - 125)			SW846 6010B	10/13-10/15/08	K0QH91CK
	95	(75 - 125) 2.5	(0-20)		SW846 6010B	10/13-10/15/08	K0QH91CL
Dilution Factor: 1							
Selenium	100	(75 - 125)			SW846 6010B	10/13-10/15/08	K0QH91CR
	99	(75 - 125) 1.1	(0-20)		SW846 6010B	10/13-10/15/08	K0QH91CT
Dilution Factor: 1							
Silver	78	(75 - 125)			SW846 6010B	10/13-10/15/08	K0QH91A0
	76	(75 - 125) 2.9	(0-20)		SW846 6010B	10/13-10/15/08	K0QH91A1
Dilution Factor: 1							
Thallium	92	(75 - 125)			SW846 6010B	10/13-10/15/08	K0QH91CU
	91	(75 - 125) 2.0	(0-20)		SW846 6010B	10/13-10/15/08	K0QH91CV
Dilution Factor: 1							
Vanadium	101	(75 - 125)			SW846 6010B	10/13-10/15/08	K0QH91CW
	101	(75 - 125) 0.28	(0-20)		SW846 6010B	10/13-10/15/08	K0QH91CX
Dilution Factor: 1							
Zinc	NC ,MSB	(75 - 125)			SW846 6010B	10/13-10/15/08	K0QH91C0
	NC ,MSB	(75 - 125)	(0-20)		SW846 6010B	10/13-10/15/08	K0QH91C1
Dilution Factor: 1							

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

**MATRIX SPIKE SAMPLE DATA REPORT**

**STLC Metals**

**Client Lot #....:** G8J130165  
**Date Sampled....:** 10/10/08

**Date Received...:** 10/13/08

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>MS Lot-Sample #:</b> G8J130165-004					<b>Prep Batch #....:</b> 8288318			
<b>Leach Date.....:</b> 10/13/08					<b>Leach Batch #..:</b> P828812			<b>% Moisture.....:</b>
<b>Antimony</b>								
	0.81	5.00	5.61	mg/L	96		SW846 6010B	10/13-10/15/08 K0QH91CP
	0.81	5.00	5.54	mg/L	95	1.1	SW846 6010B	10/13-10/15/08 K0QH91CQ
				Dilution Factor: 1				
<b>Arsenic</b>								
	0.33	20.0	20.3	mg/L	100		SW846 6010B	10/13-10/15/08 K0QH91A2
	0.33	20.0	20.1	mg/L	99	0.90	SW846 6010B	10/13-10/15/08 K0QH91A3
				Dilution Factor: 1				
<b>Barium</b>								
	5.6	20.0	25.0	mg/L	97		SW846 6010B	10/13-10/15/08 K0QH91A4
	5.6	20.0	24.9	mg/L	96	0.62	SW846 6010B	10/13-10/15/08 K0QH91A5
				Dilution Factor: 1				
<b>Beryllium</b>								
	0.0059	0.500	0.479	mg/L	95		SW846 6010B	10/13-10/15/08 K0QH91A6
	0.0059	0.500	0.497	mg/L	98	3.7	SW846 6010B	10/13-10/15/08 K0QH91A7
				Dilution Factor: 1				
<b>Cadmium</b>								
	0.47	0.500	0.952	mg/L	97		SW846 6010B	10/13-10/15/08 K0QH91A8
	0.47	0.500	0.928	mg/L	92	2.6	SW846 6010B	10/13-10/15/08 K0QH91A9
				Dilution Factor: 1				
<b>Chromium</b>								
	1.0	2.00	3.02	mg/L	100		SW846 6010B	10/13-10/15/08 K0QH91CD
	1.0	2.00	2.94	mg/L	97	2.6	SW846 6010B	10/13-10/15/08 K0QH91CE
				Dilution Factor: 1				
<b>Cobalt</b>								
	0.41	5.00	5.32	mg/L	98		SW846 6010B	10/13-10/15/08 K0QH91CA
	0.41	5.00	5.17	mg/L	95	2.8	SW846 6010B	10/13-10/15/08 K0QH91CC
				Dilution Factor: 1				
<b>Copper</b>								
	1.8	2.50	4.36	mg/L	101		SW846 6010B	10/13-10/15/08 K0QH91CF
	1.8	2.50	4.33	mg/L	100	0.60	SW846 6010B	10/13-10/15/08 K0QH91CG
				Dilution Factor: 1				

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**MATRIX SPIKE SAMPLE DATA REPORT**

**STLC Metals**

**Client Lot #....:** G8J130165

**Matrix.....:** SOLID

**Date Sampled....:** 10/10/08

**Date Received...:** 10/13/08

<u>PARAMETER</u>	SAMPLE <u>AMOUNT</u>	SPIKE <u>AMT</u>	MEASRD <u>AMOUNT</u>	UNITS	PERCNT <u>RECVRY</u>	RPD	PREPARATION- <u>ANALYSIS DATE</u>	WORK <u>ORDER #</u>
<b>Lead</b>								
	11.4	5.00	16.6	mg/L	103		SW846 6010B	10/13-10/15/08 K0QH91CM
	11.4	5.00	16.1	mg/L	92	3.1	SW846 6010B	10/13-10/15/08 K0QH91CN
Dilution Factor: 1								
<b>Molybdenum</b>								
	0.19	10.0	10.0	mg/L	98		SW846 6010B	10/13-10/15/08 K0QH91CH
	0.19	10.0	9.82	mg/L	96	2.2	SW846 6010B	10/13-10/15/08 K0QH91CJ
Dilution Factor: 1								
<b>Nickel</b>								
	2.1	5.00	6.99	mg/L	98		SW846 6010B	10/13-10/15/08 K0QH91CK
	2.1	5.00	6.81	mg/L	95	2.5	SW846 6010B	10/13-10/15/08 K0QH91CL
Dilution Factor: 1								
<b>Selenium</b>								
	0.090	20.0	20.1	mg/L	100		SW846 6010B	10/13-10/15/08 K0QH91CR
	0.090	20.0	19.9	mg/L	99	1.1	SW846 6010B	10/13-10/15/08 K0QH91CT
Dilution Factor: 1								
<b>Silver</b>								
	ND	0.500	0.392	mg/L	78		SW846 6010B	10/13-10/15/08 K0QH91A0
	ND	0.500	0.380	mg/L	76	2.9	SW846 6010B	10/13-10/15/08 K0QH91A1
Dilution Factor: 1								
<b>Thallium</b>								
	ND	20.0	18.5	mg/L	92		SW846 6010B	10/13-10/15/08 K0QH91CU
	ND	20.0	18.1	mg/L	91	2.0	SW846 6010B	10/13-10/15/08 K0QH91CV
Dilution Factor: 1								
<b>Vanadium</b>								
	0.30	5.00	5.34	mg/L	101		SW846 6010B	10/13-10/15/08 K0QH91CW
	0.30	5.00	5.36	mg/L	101	0.28	SW846 6010B	10/13-10/15/08 K0QH91CX
Dilution Factor: 1								
<b>Zinc</b>								
	122	5.00	128	mg/L			SW846 6010B	10/13-10/15/08 K0QH91C0
	122	5.00	128	mg/L			SW846 6010B	10/13-10/15/08 K0QH91C1
Qualifiers: NC,MSB								
Qualifiers: NC,MSB								
Dilution Factor: 1								

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

# LABORATORY REPORT

L08100411

10/17/08 14:10

Submitted By

Microbac Laboratories Inc.  
158 Starlite Drive  
Marietta , OH 45750  
( 740 ) 373 - 4071

For

Account Name: URS Consultants

2870 Gateway Oaks Drive, Suite 300  
Sacramento, CA 95833  
Attention: Stacy Louie

Project Number: 2020.101  
Project: Tully Creek  
Site: TULLY CREEK DUMP

## Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
BURN ASH	L08100411-01	8260B	1	14-OCT-08
BURN ASH	L08100411-01	8260B	1	14-OCT-08

Preliminary

Sample Number:L08100411-01  
 Client ID:BURN ASH  
 Matrix:Soil  
 Workgroup Number:WG284997  
 Collect Date:10/10/2008 16:20  
 Sample Tag:01

PrePrep Method:NONE  
 Prep Method:5030B  
 Analytical Method:8260B  
 Analyst:TMB  
 Dilution:1  
 Units:ug/kg

Instrument:HPMS9  
 Prep Date:10/15/2008 12:32  
 Cal Date:10/03/2008 19:41  
 Run Date:10/15/2008 14:39  
 File ID:9M65211  
 Percent Solid:79.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Acetone	67-64-1	U	60.2	30.1	
Benzene	71-43-2	U	30.1	3.01	
Bromobenzene	108-86-1	U	30.1	3.01	
Bromoform	74-97-5	U	30.1	3.01	
Bromochloromethane	75-27-4	U	30.1	3.01	
Bromodichloromethane	75-25-2	U	30.1	3.01	
Bromomethane	74-83-9	U	60.2	6.02	
2-Butanone	78-93-3	U	60.2	15.1	
n-Butylbenzene	104-51-8	U	30.1	3.01	
sec-Butylbenzene	135-98-8	U	30.1	3.01	
tert-Butylbenzene	98-06-6	U	30.1	3.01	
Carbon disulfide	75-15-0	U	30.1	3.01	
Carbon tetrachloride	56-23-5	U	30.1	3.01	
Chlorobenzene	108-90-7	U	30.1	3.01	
Chlorodibromomethane	124-48-1	U	30.1	3.01	
Chloroethane	75-00-3	U	60.2	6.02	
2-Chloroethyl vinyl ether	110-75-8	U	60.2	12.0	
Chloroform	67-66-3	U	30.1	3.01	
Chloromethane	74-87-3	U	60.2	12.0	
2-Chlorotoluene	95-49-8	U	30.1	3.01	
4-Chlorotoluene	106-43-4	U	30.1	3.01	
1,2-Dibromo-3-chloropropane	96-12-8	U	30.1	12.0	
1,2-Dibromoethane	106-93-4	U	30.1	3.01	
Dibromomethane	74-95-3	U	30.1	3.01	
1,2-Dichlorobenzene	95-50-1	U	30.1	3.01	
1,3-Dichlorobenzene	541-73-1	U	30.1	3.01	
1,4-Dichlorobenzene	106-46-7	U	30.1	3.01	
Dichlorodifluoromethane	75-71-8	U	60.2	6.02	
1,1-Dichloroethane	75-34-3	U	30.1	6.02	
1,2-Dichloroethane	107-06-2	U	30.1	3.01	
1,1-Dichloroethene	75-35-4	U	30.1	3.01	
cis-1,2-Dichloroethene	156-59-2	U	30.1	3.01	
trans-1,2-Dichloroethene	156-60-5	U	30.1	3.01	
1,2-Dichloropropane	78-87-5	U	30.1	3.01	
1,3-Dichloropropane	142-28-9	U	30.1	3.01	
2,2-Dichloropropane	594-20-7	U	30.1	3.01	
cis-1,3-Dichloropropene	10061-01-5	U	30.1	3.01	
trans-1,3-Dichloropropene	10061-02-6	U	30.1	3.01	
1,1-Dichloropropene	563-58-6	U	30.1	3.01	
Ethylbenzene	100-41-4	U	30.1	3.01	
2-Hexanone	591-78-6	U	60.2	15.1	
Hexachlorobutadiene	87-68-3	U	30.1	3.01	
Isopropylbenzene	98-82-8	U	30.1	3.01	
p-Isopropyltoluene	99-87-6	U	30.1	3.01	
4-Methyl-2-pentanone	108-10-1	U	60.2	15.1	
Methylene chloride	75-09-2	8.07	J	30.1	6.02
Naphthalene	91-20-3	U	60.2	3.01	
n-Propylbenzene	103-65-1	U	30.1	3.01	
Styrene	100-42-5	U	30.1	3.01	
1,1,1,2-Tetrachloroethane	630-20-6	U	30.1	3.01	
1,1,2,2-Tetrachloroethane	79-34-5	U	30.1	3.01	
Tetrachloroethene	127-18-4	U	30.1	3.01	
Toluene	108-88-3	U	30.1	3.01	
1,2,3-Trichlorobenzene	87-61-6	U	30.1	3.01	
1,2,4-Trichlorobenzene	120-82-1	U	30.1	3.01	
1,1,1-Trichloroethane	71-55-6	U	30.1	3.01	
1,1,2-Trichloroethane	79-00-5	U	30.1	3.01	
Trichloroethene	79-01-6	U	30.1	3.01	
Trichlorofluoromethane	75-69-4	U	60.2	6.02	

Report Number: L08100411

Report Date : October 17, 2008

Sample Number:L08100411-01  
 Client ID:BURN ASH  
 Matrix:Soil  
 Workgroup Number:WG284997  
 Collect Date:10/10/2008 16:20  
 Sample Tag:01

PrePrep Method:NONE  
 Prep Method:5030B  
 Analytical Method:8260B  
 Analyst:TMB  
 Dilution:1  
 Units:ug/kg

Instrument:HPMS9  
 Prep Date:10/15/2008 12:32  
 Cal Date:10/03/2008 19:41  
 Run Date:10/15/2008 14:39  
 File ID:9M65211  
 Percent Solid:79.8

Analyte	CAS. Number	Result	Qual	RL	MDL
1,2,3-Trichloropropane	96-18-4		U	30.1	6.02
1,2,4-Trimethylbenzene	95-63-6		U	30.1	3.01
1,3,5-Trimethylbenzene	108-67-8		U	30.1	3.01
Vinyl acetate	108-05-4		U	60.2	6.02
Vinyl chloride	75-01-4		U	60.2	6.02
o-Xylene	95-47-6		U	30.1	3.01
m-,p-Xylene	136777-61-2		U	30.1	3.01
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	105	80	120		
1,2-Dichloroethane-d4	101	80	120		
Toluene-d8	114	81	117		
4-Bromofluorobenzene	120	74	121		

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

Sample Number:L08100411-01  
 Client ID:BURN ASH  
 Matrix:Soil  
 Workgroup Number:WG284997  
 Collect Date:10/10/2008 16:20  
 Sample Tag:02

PrePrep Method:NONE  
 Prep Method:5030B  
 Analytical Method:8260B  
 Analyst:TMB  
 Dilution:1  
 Units:ug/kg

Instrument:HPMS9  
 Prep Date:10/15/2008 12:32  
 Cal Date:10/03/2008 19:41  
 Run Date:10/15/2008 15:09  
 File ID:9M65212  
 Percent Solid:79.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Acetone	67-64-1	U	60.2	30.1	
Benzene	71-43-2	U	30.1	3.01	
Bromobenzene	108-86-1	U	30.1	3.01	
Bromoform	74-97-5	U	30.1	3.01	
Bromochloromethane	75-27-4	U	30.1	3.01	
Bromodichloromethane	75-25-2	U	30.1	3.01	
Bromomethane	74-83-9	U	60.2	6.02	
2-Butanone	78-93-3	U	60.2	15.1	
n-Butylbenzene	104-51-8	U	30.1	3.01	
sec-Butylbenzene	135-98-8	U	30.1	3.01	
tert-Butylbenzene	98-06-6	U	30.1	3.01	
Carbon disulfide	75-15-0	U	30.1	3.01	
Carbon tetrachloride	56-23-5	U	30.1	3.01	
Chlorobenzene	108-90-7	U	30.1	3.01	
Chlorodibromomethane	124-48-1	U	30.1	3.01	
Chloroethane	75-00-3	U	60.2	6.02	
2-Chloroethyl vinyl ether	110-75-8	U	60.2	12.0	
Chloroform	67-66-3	U	30.1	3.01	
Chloromethane	74-87-3	U	60.2	12.0	
2-Chlorotoluene	95-49-8	U	30.1	3.01	
4-Chlorotoluene	106-43-4	U	30.1	3.01	
1,2-Dibromo-3-chloropropane	96-12-8	U	30.1	12.0	
1,2-Dibromoethane	106-93-4	U	30.1	3.01	
Dibromomethane	74-95-3	U	30.1	3.01	
1,2-Dichlorobenzene	95-50-1	U	30.1	3.01	
1,3-Dichlorobenzene	541-73-1	U	30.1	3.01	
1,4-Dichlorobenzene	106-46-7	U	30.1	3.01	
Dichlorodifluoromethane	75-71-8	U	60.2	6.02	
1,1-Dichloroethane	75-34-3	U	30.1	6.02	
1,2-Dichloroethane	107-06-2	U	30.1	3.01	
1,1-Dichloroethene	75-35-4	U	30.1	3.01	
cis-1,2-Dichloroethene	156-59-2	U	30.1	3.01	
trans-1,2-Dichloroethene	156-60-5	U	30.1	3.01	
1,2-Dichloropropane	78-87-5	U	30.1	3.01	
1,3-Dichloropropane	142-28-9	U	30.1	3.01	
2,2-Dichloropropane	594-20-7	U	30.1	3.01	
cis-1,3-Dichloropropene	10061-01-5	U	30.1	3.01	
trans-1,3-Dichloropropene	10061-02-6	U	30.1	3.01	
1,1-Dichloropropene	563-58-6	U	30.1	3.01	
Ethylbenzene	100-41-4	U	30.1	3.01	
2-Hexanone	591-78-6	U	60.2	15.1	
Hexachlorobutadiene	87-68-3	U	30.1	3.01	
Isopropylbenzene	98-82-8	U	30.1	3.01	
p-Isopropyltoluene	99-87-6	U	30.1	3.01	
4-Methyl-2-pentanone	108-10-1	U	60.2	15.1	
Methylene chloride	75-09-2	U	30.1	6.02	
Naphthalene	91-20-3	U	60.2	3.01	
n-Propylbenzene	103-65-1	U	30.1	3.01	
Styrene	100-42-5	U	30.1	3.01	
1,1,1,2-Tetrachloroethane	630-20-6	U	30.1	3.01	
1,1,2,2-Tetrachloroethane	79-34-5	U	30.1	3.01	
Tetrachloroethene	127-18-4	U	30.1	3.01	
Toluene	108-88-3	U	30.1	3.01	
1,2,3-Trichlorobenzene	87-61-6	U	30.1	3.01	
1,2,4-Trichlorobenzene	120-82-1	U	30.1	3.01	
1,1,1-Trichloroethane	71-55-6	U	30.1	3.01	
1,1,2-Trichloroethane	79-00-5	U	30.1	3.01	
Trichloroethene	79-01-6	U	30.1	3.01	
Trichlorofluoromethane	75-69-4	U	60.2	6.02	

Report Number: L08100411

Report Date : October 17, 2008

Sample Number:L08100411-01  
 Client ID:BURN ASH  
 Matrix:Soil  
 Workgroup Number:WG284997  
 Collect Date:10/10/2008 16:20  
 Sample Tag:02

PrePrep Method:NONE  
 Prep Method:5030B  
 Analytical Method:8260B  
 Analyst:TMB  
 Dilution:1  
 Units:ug/kg

Instrument:HPMS9  
 Prep Date:10/15/2008 12:32  
 Cal Date:10/03/2008 19:41  
 Run Date:10/15/2008 15:09  
 File ID:9M65212  
 Percent Solid:79.8

Analyte	CAS. Number	Result	Qual	RL	MDL
1,2,3-Trichloropropane	96-18-4		U	30.1	6.02
1,2,4-Trimethylbenzene	95-63-6		U	30.1	3.01
1,3,5-Trimethylbenzene	108-67-8		U	30.1	3.01
Vinyl acetate	108-05-4		U	60.2	6.02
Vinyl chloride	75-01-4		U	60.2	6.02
o-Xylene	95-47-6		U	30.1	3.01
m-,p-Xylene	136777-61-2		U	30.1	3.01
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	95.8	80	120		
1,2-Dichloroethane-d4	99.0	80	120		
Toluene-d8	96.6	81	117		
4-Bromofluorobenzene	107	74	121		

U Not detected at or above adjusted sample detection limit

# LABORATORY REPORT

L08100411

10/17/08 14:10

Submitted By

Microbac Laboratories Inc.  
158 Starlite Drive  
Marietta , OH 45750  
( 740 ) 373 - 4071

For

Account Name: URS Consultants

2870 Gateway Oaks Drive, Suite 300  
Sacramento, CA 95833  
Attention: Stacy Louie

Project Number: 2020.101

Project: Tully Creek

Site: TULLY CREEK DUMP

## Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
BURN ASH	L08100411-01	8270C	10	14-OCT-08

Preliminary

Report Number:L08100411

Report Date :October 17, 2008

Sample Number:L08100411-01  
 Client ID:BURN ASH  
 Matrix:Soil  
 Workgroup Number:WG285252  
 Collect Date:10/10/2008 16:20  
 Sample Tag:DL01

PrePrep Method:NONE  
 Prep Method:3545  
 Analytical Method:8270C  
 Analyst:MDC  
 Dilution:10  
 Units:ug/kg

Instrument:HPMS12  
 Prep Date:10/15/2008 08:30  
 Cal Date:10/16/2008 17:43  
 Run Date:10/16/2008 22:38  
 File ID:12M23757  
 Percent Solid:79.8

Analyte	CAS. Number	Result	Qual	RL	MDL
1,2,4-Trichlorobenzene	120-82-1	U	1980	990	
1,2-Dichlorobenzene	95-50-1	U	1980	990	
1,3-Dichlorobenzene	541-73-1	U	1980	990	
1,4-Dichlorobenzene	106-46-7	U	1980	990	
2,4,5-Trichlorophenol	95-95-4	U	1980	990	
2,4,6-Trichlorophenol	88-06-2	U	1980	990	
2,4-Dichlorophenol	120-83-2	U	1980	990	
2,4-Dimethylphenol	105-67-9	U	1980	990	
2,4-Dinitrophenol	51-28-5	U	9900	3960	
2,4-Dinitrotoluene	121-14-2	U	1980	990	
2,6-Dinitrotoluene	606-20-2	U	1980	990	
2-Chloronaphthalene	91-58-7	U	1980	990	
2-Chlorophenol	95-57-8	U	1980	990	
2-Methylnaphthalene	91-57-6	U	1980	990	
2-Methylphenol	95-48-7	U	1980	990	
2-Nitroaniline	88-74-4	U	9900	3960	
2-Nitrophenol	88-75-5	U	1980	990	
3,3'-Dichlorobenzidine	91-94-1	U	3960	1980	
3-,4-Methylphenol	106-44-5	U	1980	990	
3-Nitroaniline	99-09-2	U	9900	3960	
4,6-Dinitro-2-methylphenol	534-52-1	U	9900	3960	
4-Bromophenyl-phenylether	101-55-3	U	1980	990	
4-Chloro-3-methylphenol	59-50-7	U	1980	990	
4-Chloroaniline	106-47-8	U	1980	990	
4-Chlorophenyl-phenyl ether	7005-72-3	U	1980	990	
4-Nitroaniline	100-01-6	U	9900	3960	
4-Nitrophenol	100-02-7	U	9900	3960	
Acenaphthene	83-32-9	U	1980	990	
Acenaphthylene	208-96-8	U	1980	990	
Anthracene	120-12-7	U	1980	990	
Benzo(a)anthracene	56-55-3	U	1980	990	
Benzo(a)pyrene	50-32-8	U	1980	990	
Benzo(b)fluoranthene	205-99-2	U	1980	990	
Benzo(g,h,i)Perylene	191-24-2	U	1980	990	
Benzo(k)fluoranthene	207-08-9	U	1980	990	
Benzoic acid	65-85-0	U	60000	3960	
Benzyl alcohol	100-51-6	U	1980	990	
Bis(2-Chloroethoxy)Methane	111-91-1	U	1980	990	
Bis(2-Chloroethyl)ether	111-44-4	U	1980	990	
bis(2-Chloroisopropyl)ether	39638-32-9	U	1980	990	
bis(2-Ethylhexyl)phthalate	117-81-7	3150		1980	990
Butylbenzylphthalate	85-68-7	U	1980	990	
Chrysene	218-01-9	U	1980	990	
Di-N-Butylphthalate	84-74-2	U	1980	990	
Di-n-octylphthalate	117-84-0	U	1980	990	
Dibenzo(a,h)Anthracene	53-70-3	U	1980	990	
Dibenzofuran	132-64-9	U	1980	990	
Diethylphthalate	84-66-2	U	1980	990	
Dimethylphthalate	131-11-3	U	1980	990	
Fluoranthene	206-44-0	U	1980	990	
Fluorene	86-73-7	U	1980	990	
Hexachlorobenzene	118-74-1	U	1980	990	
Hexachlorobutadiene	87-68-3	U	1980	990	
Hexachlorocyclopentadiene	77-47-4	U	1980	990	
Hexachloroethane	67-72-1	U	1980	990	
Indeno(1,2,3-cd)pyrene	193-39-5	U	1980	990	
Isophorone	78-59-1	U	1980	990	
N-Nitrosodiphenylamine	86-30-6	U	1980	990	
N-Nitrosodipropylamine	621-64-7	U	1980	990	

Report Number: L08100411

Report Date : October 17, 2008

Sample Number:L08100411-01  
 Client ID:BURN ASH  
 Matrix:Soil  
 Workgroup Number:WG285252  
 Collect Date:10/10/2008 16:20  
 Sample Tag:DL01

PrePrep Method:NONE  
 Prep Method:3545  
 Analytical Method:8270C  
 Analyst:MDC  
 Dilution:10  
 Units:ug/kg

Instrument:HPMS12  
 Prep Date:10/15/2008 08:30  
 Cal Date:10/16/2008 17:43  
 Run Date:10/16/2008 22:38  
 File ID:12M23757  
 Percent Solid:79.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Naphthalene	91-20-3		U	1980	990
Nitrobenzene	98-95-3		U	1980	990
Pentachlorophenol	87-86-5		U	9900	3960
Phenanthrene	85-01-8		U	1980	990
Phenol	108-95-2		U	1980	990
Pyrene	129-00-0		U	1980	990
Surrogate	% Recovery	Lower	Upper	Qual	
2,4,6-Tribromophenol	62.6	19	122		
2-Fluorobiphenyl	58.3	30	115		
2-Fluorophenol	46.5	25	121		
Nitrobenzene-d5	53.5	23	120		
p-Terphenyl-d14	73.7	18	137		
Phenol-d5	55.0	24	113		

U Not detected at or above adjusted sample detection limit

# LABORATORY REPORT

L08100411

10/17/08 14:10

Submitted By

Microbac Laboratories Inc.  
158 Starlite Drive  
Marietta , OH 45750  
( 740 ) 373 - 4071

For

Account Name: URS Consultants

2870 Gateway Oaks Drive, Suite 300  
Sacramento, CA 95833  
Attention: Stacy Louie

Project Number: 2020.101

Project: Tully Creek

Site: TULLY CREEK DUMP

## Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
BURN ASH	L08100411-01	9045D	1	14-OCT-08

Preliminary

Report Number: L08100411

Report Date : October 17, 2008

Sample Number:L08100411-01  
Client ID:BURN ASH  
Matrix:Soil  
Workgroup Number:WG284920  
Collect Date:10/10/2008 16:20

PrePrep Method:NONE  
Prep Method:9045D  
Analytical Method:9045D  
Analyst:TMM  
Dilution:1  
Units:UNITS

Instrument:ORION-4STA  
Prep Date:10/14/2008 16:20  
Cal Date:  
Run Date:10/14/2008 16:20  
File ID:OS08101615043501

Analyte	CAS. Number	Result	Qual	RL	MDL
Corrosivity pH	10-29-7	7.13			

Microbac Laboratories Inc.  
Analyst Listing  
October 17, 2008

---

ADC - ANTHONY D. CANTER	AJF - AMANDA J. FICKIESEN	ALB - ANNIE L. BROWN
AM - ALISON J. MILLER	AML - ANTHONY M. LONG	BRG - BRENDA R. GREGORY
CAA - CASSIE A. AUGENSTEIN	CAF - CHERYL A. FLOWERS	CAH - CHARLES A. HALL
CEB - CHAD E. BARNES	CLC - CHRYS L. CRAWFORD	CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEPHENS	CPD - CHAD P. DAVIS	CSH - CHRIS S. HILL
CTB - CHRIS T. BUCINA	DDE - DEBRA D. ELLIOTT	DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG	DGB - DOUGLAS G. BUTCHER	DIH - DEANNA I. HESSON
DLB - DAVID L. BUMGARNER	DLP - DOROTHY L. PAYNE	DLR - DIANNA L. RAUCH
DR - DEANNA ROBERTS	DSF - DEBRA S. FREDERICK	EAB - EDDIE A. BYERS
ECL - ERIC C. LAWSON	ED - EMILY E. DECKER	EDA - ERIN D. AGEE
EDH - ETHAN D. MORRIS	ERP - ERIN R. PORTER	FJB - FRANCES J. BOLDEN
HAV - HEMA VILASAGAR	HJR - HOLLY J. REED	JBK - JEREMY B. KINNEY
JC - JOHN L. CONLEY	JDH - JUSTIN D. HESSON	JKP - JACQUELINE K. PARSONS
JKT - JANE K. THOMPSON	JWR - JOHN W. RICHARDS	JWS - JACK W. SHEAVES
JYH - JI Y. HU	KEB - KATHRYN E. BARNES	KHR - KIM H. RHODES
KJW - KATIE J. WIEFERICH	KRA - KATHY R. ALBERTSON	LKN - LINDA K. NEDEFF
LSB - LESLIE S. BUCINA	MDA - MIKE D. ALBERTSON	MDC - MICHAEL D. COCHRAN
MES - MARY E. SCHILLING	MMB - MAREN M. BEERY	MRT - MICHELLE R. TAYLOR
MSW - MATT S. WILSON	NPM - NATHANIEL P. MILLER	PDM - PIERCE D. MORRIS
RAH - ROY A. HALSTEAD	RB - ROBERT BUCHANAN	REK - ROBERT E. KYER
RLK - ROBIN L. KLINGER	RWC - RODNEY W. CAMPBELL	SAV - SARAH A. VANDENBERG
SDH - SHANA D. HINYARD	SDL - SHELLY D. LENT	SLM - STEPHANIE L. MOSSBURG
SLP - SHERI L. PFALZGRAF	SMH - SHAUNA M. HYDE	TDH - TRICIA D. HUCK
TIP - TAE I. PARRISH	TMB - TIFFANY M. BAILEY	TMM - TAMMY M. MORRIS
VC - VICKI COLLIER	WTD - WADE T. DELONG	

Preliminary

## Microbac Laboratories Inc.

## List of Valid Qualifiers

October 17, 2008

Qualkey: STD

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	Analyte present in method blank
B3	Target analyte detected in calibration blank at or above the method reporting limit
C	Confirmed by GC/MS
CG	Confluent growth
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of target analyte.
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to sample matrix interference
E1	Concentration estimated. Analyte exceeded calibration range. Insufficient sample for reanalysis.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to matrix.
E3	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to holding time requirements
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
FL	Free Liquid
H1	Sample analysis performed past holding time.
I	Semiquantitative result (out of instrument calibration range)
J	The analyte was positively identified, but the quantitation was below the RL
J,B	Analyte detected in both the method blank and sample above the MDL.
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
M1	Matrix spike recovery was high; the associated blank spike recovery was acceptable.
M2	Matrix spike recovery was low; the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration is disproportionate to the spike level.
N	Tentatively identified compound(TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria fail. See narrative.
Q1	Sample integrity was not maintained. See report narrative.
QNS	Quantity of sample not sufficient to perform analysis
R1	Duplicate RPD/RSD exceeded the method acceptance limit.
R2	Duplicate RPD/RSD exceeded the laboratory acceptance limit.
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Undetected; the concentration is below the reported MDL.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.
V2	CCV recovery was above method acceptance limits. Insufficient volume for sample reanalysis.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

## \*\*\*Special Notes for Organic Analytes



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Microbac Laboratories Inc.

List of Valid Qualifiers

October 17, 2008

Qualkey: STD

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.



Preliminary

# CHAIN OF CUSTODY RECORD

USE A BALLPOINT PEN AND PRESS FIRMLY  
THE INSTRUCTIONS FOR FILLING OUT  
THIS FORM ARE ON THE BACK



2870 GATEWAY OAKS, SUITE 300  
SACRAMENTO, CA 95833  
PH. (916) 679-2000  
FAX (916) 679-2900

08330

TASK OR SUB TASK (one per form): <b>TULLY CREEK DUMP SITE</b>				LABORATORY NAME AND ADDRESS: <b>Mirrabac Laboratories</b> <b>158 Starlite Dr.</b>					
CONTRACT NAME: CIWMB				CHARGE NUMBER: 17326066.C0100					
SAMPLE NUMBER	COLLECTION		SAMPLER'S INITIALS	NUMBER OF UNITS	UNIT QUANTITY	MATRIX CODE	PRESERVATIVE	TYPE OF ANALYSIS	CC
	DATE	TIME							
BURN ASH	10/10/08	1620 HR/MD	3	802 602 1	402	SO	Ø	SW9045 (pH) SW8270C SW8260B RCI, E1010 SW8280 SW8151A, SW8081A, SW8082, E828(SW8141)	
Bkgrd#61	10/10/08	1445 HR/MD	2	802 2 1	602 402	SO	Ø	SW9045, SW8270C SW8260B, RCI (E1010) SW8280, SW8151A, SW8081A, SW8082, E828(SW8141)	
Bkgrd#62	10/10/08	1530 HR/MD	1	802 1	602 1	SO	Ø	SW9045, SW8270C SW8260B, RCI(E1010) SW8280, SW8151A SW8081A, SW8082, E828	
RELEASED BY		DATE	TIME	COMMENTS:					
<i>Hud. Kunitz</i>		10/13/08	12:00						
RECEIVED BY		DATE	TIME	RELINQUISHED BY		DATE	TIME		
<i>Eim. Poirier</i>		10/14/08	9:00			/ /	:		
		/ /	:			/ /	:		
		/ /	:			/ /	:		
		/ /	:			/ /	:		
DISPOSAL CONFIRMED BY		DATE	TIME	CHAIN-OF-CUSTODY RETURNED BY		DATE	TIME		
		/ /	:			/ /	:		

**DO NOT WRITE IN THIS AREA**

Client:	URS
Workorder Number:	B
Date Received:	10-14-08
Delivered by:	( <input checked="" type="checkbox"/> Fedx <input type="checkbox"/> UPS <input type="checkbox"/> Client <input type="checkbox"/> Courier)
Opened by:	CRP
IR Temp Gun:	( <input type="checkbox"/> D    ( <input checked="" type="checkbox"/> VG))
Logged by:	ERD/JKT    L 0810 0411

## Cooler information

Cooler ID	Temp C	Airbill#	COC#	Other
2210	1	790601135979		3 day

## Inspection Checklist

	Y	N	NA	Discrepancy ID
Were shipping coolers sealed?	✓			
Were custody seals intact?	✓			
Were cooler temperatures in range of 0 - 6?	✓			
Was ice present?	✓			
Were COC's received/ information complete/signed and dated?	✓			
Were sample containers and labels intact and match COC?	✓			
Were the correct containers and volumes received?	✓			
Were correct preservatives used? (water only)		✓		
Were pH ranges acceptable? (voa's excluded)		✓		
Were VOA samples free of headspace (< 6mm)?		✓		
Were samples received within EPA hold times?	✓			

## Discrepancy/Comments/Other Problems


## Distribution

Name of Microbac representative:
Client/Company:
Person Contacted:
Date contacted:

## Resolution/other comments:


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## Internal Chain of Custody Report

**Login:** L08100411**Account:** 2020**Project:** 2020.101**Samples:** 1**Due Date:** 17-OCT-2008

<u>Samplenumber</u>	<u>Container ID</u>	<u>Products</u>
L08100411-01	511952	G-60-W

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	14-OCT-2008 14:53	ERE	
2	ANALYZ	L1	ORG4	14-OCT-2008 15:00	AM	RLK

<u>Samplenumber</u>	<u>Container ID</u>	<u>Products</u>
L08100411-01	511953	PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2008 14:53	ERE	
2	ANALYZ	W1	WET	14-OCT-2008 15:48	TMM	JKT
3	EXTRACT	EXT	SEMI	15-OCT-2008 06:49		CEB
4	PREP	WET	EXT	15-OCT-2008 08:06	CEB	JDH
5	STORE	EXT	W1	15-OCT-2008 09:54	JKT	CEB
6	ANALYZ	W1	WET	15-OCT-2008 14:43	JDR	ERE
7	EXTRACT	EXT	SEMI	15-OCT-2008 14:58		RAH

A1 - Sample Archive (COLD)  
A2 - Sample Archive (AMBIENT)  
F1 - Volatiles Freezer in Login  
V1 - Volatiles Refrigerator in Login  
W1 - Walkin Cooler in Login



# Preliminary