PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

for the

JET BOAT PROPERTY

17635 HIGHWAY 101, KLAMATH, CALIFORNIA
(APN: 140-050-25)

October 1, 2014

Prepared for:
Yurok Tribe Environmental Program
190 Klamath Boulevard
Klamath, California 95548

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EXECUTIVE SUMMARY

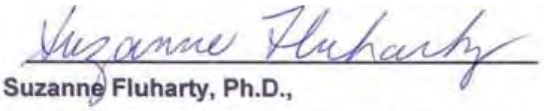
The Yurok Tribe Environmental Program, acting as agent of the Yurok Tribe and user of this report, stipulated that the primary objectives of this Phase II Environmental Site Assessment Report for the Jet Boat Property were to assess and evaluate the recognized environmental conditions and to provide confirmation regarding the presence or absence of contamination at the Jet Boat Property. The reason for performing assessments on the property was to ensure that contamination does not threaten public health and the environment during and after redevelopment.

This assessment has revealed the following conditions in connection with the Subject Property:

- concentration of nickel in the soil in both compartments of the Smoke House is considered a potential human risk if the contaminated soils are disturbed during commercial use
- concentrations of TPPH-GRO and xylenes (gasoline residues) in the soil downhill of the AST area are considered a potential human and ecological risk
- concentration of TPH-Motor Oil in the soil in the southern area of the Subject Property is considered a potential human and ecological risk.

In our opinion, the above stated conditions, would be considered Recognized Environmental Conditions (RECs) principally associated with historic activities and prior management of the property, especially those procedures associated with the fueling and maintenance of the jet boats.

Appendix F of this report summarizes current Best Management Practices for small docks and vessel fueling procedures that if followed offer alternatives for the present uses of the property that should help control the environmental liability for the property and generally protect the public health.



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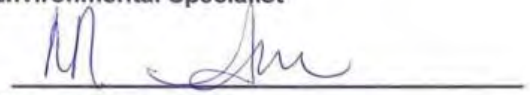

Micah Gibson,
Yurok Tribe Environmental Program
Interim Director

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ACRONYMS AND ABBREVIATIONS

ASTM	ASTM International (formerly American Society for Testing and Materials)
bgs	below ground surface
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
GRO	Gasoline Range Organics
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
PDS	Post digestion spike
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
RPD	Relative Percent Difference
RSLs	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
TPPH	Total Purgeable Petroleum Hydrocarbons
TPPH-GRO	Total Purgeable Petroleum Hydrocarbons - Gasoline Range Organics
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) of the Jet Boat Tours Property (the Subject Property). A Phase I ESA conducted by the Yurok Tribe Environmental Program (YTEP) dated July 10, 2013 (YTEP, 2013) was completed for the Subject Property. FES developed a Sampling and Analysis Plan (SAP) for the Subject Property dated May 21, 2014. The SAP was approved by the EPA on May 27, 2014.

This report conforms to the process and principles recommended in the *Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process*, E-1903-11, (ASTM, 2011). This report documents the soil sampling activities performed at the Subject Property. The location of the Subject Property 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 the Yurok Tribe Environmental Program (YTEP, 2013), and to provide sufficient information regarding the presence or absence of contamination at the Site (ASTM, 2011). The scope of work developed by FES for this assessment was based on the conclusions of the Phase I ESA.

Section 9.0 of the Phase I ESA (YTEP, 2013) listed the following as Recognized Environmental Conditions (quoted directly from the report).

- *It was discovered that the smoke house appears to be the site of dumping of used petroleum oil products that are associated with the jet boats used for the Jet Boat Tours. The smoke house has no containment in the flooring, it appears to be dirt. There were other hazardous materials observed being stored in the smoke house as well. This was verified by interviewing both a former employee of the Jet Boat Tours and the Director of Economic Development for the Yurok Tribe.*

- *It was discovered that the Aboveground Storage Tank and the associated piping and fittings were leaking. The surrounding areas of the fittings and the tank were discolored in a pattern that would indicate a petroleum leak has been occurring. This was verified by interviewing the current maintenance worker at the Jet Boat Tours.*

- *Stained and distressed vegetation is an indicator of the likely presence of contaminants in or around the vegetative matter. Stained and distressed vegetation was observed on the south end of the property.*

The principal questions to be answered by the investigation are listed below (quoted directly from the SAP).

- *Does soil contamination exist inside the Smoke House indicating previous releases or systematic disposal of used motor oil or volatile organic compounds?*
- *Does gasoline contaminated soil exist in the area of the fuel tank and associated piping over the Environmental Screening Levels (ESLs) for residential use?*

- *Does waste oil contaminated soil exist in the "southern portion of the Site" over ESLs for residential use?*
- *If waste oil is present in the "southern portion of the Site" are "wear metals" present in excess of the ESLs for residential use?*

The alternative actions that could result from resolution of the principal study questions are listed below (quoted directly from the SAP).

- *If contamination is not identified over allowable levels on the Subject Property the Yurok Tribe can proceed with further development of the Subject Property; and*
- *If contamination is identified over allowable levels, additional assessment and/or cleanup may be necessary prior to redevelopment and use of the Subject Property.*

This Phase II ESA is a Tribal Response Program project being funded by a CERCLA Section 128(a), Tribal Response Program grant that includes hazardous substances and petroleum products.

1.1 Subject Property Name

The Subject Property is currently operated as Klamath River Jet Boat Tours which provides seasonal river tours on the Klamath River. The Subject Property is an active commercial property which has been used as a Jet Boat Tour operation beginning in the mid 1970s based on an interview in the Phase I ESA (YTEP, 2013). The Jet Boat Tours operation is conducted on APN: 140-050-25. The area along the river edge is public property administered by the State Lands Commission. The Subject Property is known as the Jet Boat Tours Property.

1.2 Subject Property Location

The Subject Property is located west of State Highway 101 and east of the Klamath River near the town of Klamath in Del Norte County, California. The location of the Subject Property is shown on Figures 1 through 3. The Subject Property is located in the northwest corner of Section 10, Township 13 North, Range 1 East and in the southwest corner of Section 3, Township 13 North, Range 1 East of the Humboldt Base and Meridian. The Subject Property is located within the boundaries of APN 140-050-25 and also includes the strip of land along the eastern bank of the Klamath River in Del Norte County, California.

2.0 BACKGROUND

The Subject Property is currently a commercial property located approximately 2,000 feet northwest of Klamath, California. The parcel which includes most of the Subject Property (APN 140-050-25) occupies an area of approximately 0.8 acres. Based on information in the Phase I ESA (YTEP, 2013) the Subject Property was purchased by the Yurok Tribe in April 2013.

Section 7.0 of the Phase I ESA (YTEP, 2013) listed the following as findings (quoted directly from the report).

- *The Subject Property was inspected by Ray Martell of the Yurok Tribe Environmental Program on May 31st, 2013. It was discovered that the smoke house appears to be the site of dumping of used petroleum oil products that are associated with the jet boats used for the Jet Boat Tours. The smoke house has no containment in the flooring, it appears to be dirt. There were other potentially hazardous materials observed being stored in the smoke house as well.*
- *The Subject Property was inspected by Ray Martell of the Yurok Tribe Environmental Program on May 31st, 2013. It was discovered that there is distressed and discolored vegetation on the south end of the property.*
- *The Subject Property was inspected by Ray Martell of the Yurok Tribe Environmental Program on May 31st, 2013. It was discovered that the Above Ground Storage Tank and the associated piping and fittings were leaking. The surrounding areas of the fittings and the tank were discolored in a pattern that would indicate a petroleum leak has been occurring.*
- *An interview with a former employee has verified that there has been dumping of used petroleum products throughout the property.*
- *A July 3rd, 2013 interview with Brad Osborne, maintenance worker, indicated that there has been ongoing leaking occurring at the AST, the fittings and the hose. He indicated that the hose was designed for water and not petroleum.*
- *A July 3rd interview with Tonya Sangrey, Director of Economic Development for the Yurok Tribe, indicated she was told that there were used petroleum products being dumped in the old smoke house.*

Section 9.0 of the Phase I ESA (YTEP, 2013) listed the following as Recognized Environmental Conditions (quoted directly from the report).

- *It was discovered that the smoke house appears to be the site of dumping of used petroleum oil products that are associated with the jet boats used for the Jet Boat Tours. The smoke house has no containment in the flooring, it appears to be dirt. There were other hazardous materials observed being stored in the smoke house as well. This was verified by interviewing both a former employee of the Jet Boat Tours and the Director of Economic Development for the Yurok Tribe.*

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a pattern that would indicate a petroleum leak has been occurring. This was verified by interviewing the current maintenance worker at the Jet Boat Tours.

- *Stained and distressed vegetation is an indicator of the likely presence of contaminants in or around the vegetative matter. Stained and distressed vegetation was observed on the south end of the property.*

2.1 Sampling Area Description

The Subject Property occupies approximately 0.8 acre that is mostly flat and located approximately 2,000 feet northwest of the town of Klamath between State Highway 101 and the Klamath River. Most of the northern one-third of the Subject Property is used for parking and is mostly paved. The central portion of the Subject Property is occupied by the building housing the Jet Boat Tours office and a paved parking lot on the east side of the building. The rest of the central portion consists of the Smoke House and grassy areas. The southern portion of the Subject Property has been cleared of most vegetation with some trees and brush. The parcel to the north of the Subject Property is occupied by a recreational vehicle park.

The Phase I ESA, (YTEP, 2013) indicated that the oldest historic documentation is a 1947 Historical Topographic Map that shows the presence of several structures in the vicinity of the Subject Property. Based on interviews conducted for the Phase I ESA the Subject Property was used as a salmon cannery and restaurant after the 1964 flood and by the 1970s was being used for the Jet Boat Tours operations.

2.2 Previous Investigations/Regulatory Involvement

The only known investigation of the Subject Property has been a Phase I ESA, (YTEP 2013) performed for the Yurok Tribe and the United States Environmental Protection Agency (US EPA) Region 9 Brownfields Program with funding through CERCLA 128(a) Tribal Response Grant. The Yurok Tribe Environmental Program is not aware of any previous sampling efforts at the Subject Property.

3.0 SITE GEOLOGY AND HYDROLOGY

The Subject Property ranges in elevation from approximately mean sea level along the Klamath River to approximately 20 feet above mean sea level along Highway 101 based on the United States Geological Survey (USGS) 7.5 minute Requa Quadrangle. The topography of most of the Subject Property is relatively flat with a slight slope towards the Klamath River which is adjacent to the Subject Property. The slope directly adjacent to the Klamath River is steeper. Based on data obtained from the Natural Resource Conservation Service (NRCS), the average annual precipitation at the Subject Property is approximately 75 inches.

The Subject Property is shown on the "Geologic Map of the Weed Quadrangle, California" (Wagner and Saucedo, 1987) as being within an area of Holocene (within the last 11,000 years) alluvium. The nearest fault zoned as active (within the last 11,000 years) under the Alquist-Priolo Earthquake Fault Zoning Act, is approximately 32 miles to the south-southwest of the Subject Property. The Subject Property is within the Tsunami Inundation Zone as shown on the California Emergency Management Agency's March 30, 2009 Tsunami Inundation Map for Emergency Planning, Requa Quadrangle. The Subject Property is entirely within the California Coastal Zone.

Information on soils at the Subject Property was not available from the Natural Resource Conservation Service (NRCS). Based on the location of the Subject Property it is likely that the soils underlying the Subject Property consist of river deposits which likely include gravel, sand, and silt. Significant portions of the Subject Property are covered with asphalt and the area around the dock is covered in rock.

The nearest surface water is the Klamath River which is adjacent to the western portion of the Subject Property.

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 Subject Property in the areas where the proposed soil sampling would take place. YTEP also has an approved Cultural Resources Management Permit Application (Appendix E) to ensure that the project would have no impact to cultural resources. Soil samples were collected at a maximum depth of approximately 2.0 feet below ground surface (bgs). Most of the soil samples were collected using a shovel and electric jackhammer to loosen the soil around the sample location. Boring logs were prepared for each sample location and are included in Appendix A.

4.2 Soil Sampling – June 5, 2014

A total of 19 soil samples (excluding two co-located samples) were collected at the Subject Property on June 5, 2014. The approximate sample locations are shown on Figures 5, 6, 7, and 8. One of the samples (Jet-Boat-Metals) was collected to provide reference/comparison metals concentrations outside of the expected contamination area at the Subject Property. The samples were collected from a depth intervals ranging from of 0.0 to 2.0 feet bgs. FES documented the sample locations by measuring from buildings that were present on the aerial photographs. FES also collected GPS data for the sample locations. The GPS points were found to be less accurate than using the distances from buildings.

4.2 Chemical Analysis Methods

The soil samples were analyzed by Eurofins Calscience (Calscience) of Garden Grove, California. Calscience is certified by the California Department of Public Health for the requested analysis.

4.3 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 modifications included:

- The SAP indicted that EPA Method 8015B would be used for gasoline. The method was changed to 8260B to reduce the number of Terra Core® kits used by 50%.

- The SAP indicated that the soil samples would be collected from two depth intervals. The first interval was proposed to be 0.0 to 0.5 feet bgs and the second proposed interval was to be 0.5 to 1.0 feet bgs. The actual depths range from approximately 0.0 to 2.0 feet.

- Three additional samples were collected on August 8, 2014 in the area around Jet-Boat-6 where concentrations of TPH-Motor Oil exceeded the screening level.

- The SAP indicated that soil cuttings from the Smoke House would be containerized in 5-gallon buckets. Because there were no indications of contamination these soils were placed back in the borings.

- The SAP indicated that the soil for the co-located samples for TPH-Motor Oil and metals would be homogenized in the field. The co-located sample Jet-Boat-15-(0.1'-0.25') was inadvertently not homogenized in the field.

- The SAP indicated that a MS/MSD would be conducted for Jet-Boat-1 and Jet-Boat-4. The laboratory included an MS/MSD in the laboratory report for 14 VOCs but not for TPPH-GRO because it is not required for the 8260B Method. FES was not aware that no MS/MSD would be included.

5.0 CHEMICAL ANALYSIS RESULTS

The laboratory analytical reports are included in Appendix B, Appendix C, and Appendix D. Detections of analytes that exceeded the screening levels are shown in the table below. The reporting limit exceeded the screening level limit for xylenes (Jet-Boat-1-(1.0') and arsenic.

SUMMARY OF CHEMICAL CONCENTRATIONS EXCEEDING THE RESIDENTIAL SCREENING LEVELS IN SOIL SAMPLES

Sample ID	Date	TPH-Motor Oil With Silica Gel (mg/kg)	TPPH Gasoline Range Organics (mg/kg)	p/m-Xylene (mg/kg)	o-Xylene (mg/kg)	Arsenic (mg/kg)	Nickel (mg/kg)
	RSL	100	100	2.3	2.3	0.39	150
Jet-Boat-1-(1.0')	6/5/14	--	**4,600**	<4.6	<2.3	--	--
Jet-Boat-1-(2.0')	6/5/14	--	**4,500**	**4.0**	**14**	--	--
Jet-Boat-9-(1.0') Duplicate of Jet-Boat-1-(1.0')	6/5/14	--	**4,400**	<2.0	<0.98	--	--
Jet-Boat-2-(0.9')	6/5/14	--	**0.32**	<0.0024	<0.0012	--	--
Jet-Boat-2-(1.5')	6/5/14	--	**0.17**	**0.0030**	**0.0019**	--	--
Jet-Boat-3-(0.8')	6/5/14	--	**0.46**	<0.0024	<0.0012	--	--
Jet-Boat-3-(2.0')	6/5/14	--	**0.093**	<0.0024	<0.0012	--	--
Jet-Boat-4-(0.1')	6/5/14	<25	**0.083**	<0.0021	<0.0011	**5.896**	**165**
Jet-Boat-10-(0.1') Duplicate of Jet-Boat-4-(0.1')	6/5/14	<25	<0.054	<0.0021	<0.0011	--	**170**
Jet-Boat-4-(1.1')	6/5/14	<25	<0.055	<0.0022	<0.0011	--	**24.9**
Jet-Boat-5-(0.1')	6/5/14	<25	<0.055	<0.0022	<0.0011	--	**161**
Jet-Boat-5-(1.0')	6/5/14	<25	<0.056	<0.0023	<0.0011	--	**142**
Jet-Boat-6-(0.1'-0.2')	6/5/14	**2,300**	--	--	--	--	**78.2**
Jet-Boat-6-(1.0')	6/5/14	**44**	--	--	--	--	**45.7**
Jet-Boat-7-(0.1'-0.2')	6/5/14	**130**	--	--	--	--	**89.1**
Jet-Boat-7-(0.9')	6/5/14	<25	--	--	--	--	**79.8**
Jet-Boat-8-(0.0'-0.3')	6/5/14	<25	--	--	--	--	**110**
Jet-Boat-8-(0.9'-1.0')	6/5/14	**29**	--	--	--	--	**52.3**
Jet-Boat-Metals-(0.75')	6/5/14	--	--	--	--	**3.64**	**23.7**
Jet-Boat-12-(0.0'-0.25')	8/8/14	**160**	--	--	--	--	**78.4**
Jet-Boat-12-(1.0')	8/8/14	**52**	--	--	--	--	**102**
Jet-Boat-13-(0.0'-0.25')	8/8/14	**170**	--	--	--	--	**26.1**
Jet-Boat-13-(1.0')	8/8/14	**35**	--	--	--	--	**55.1**
Jet-Boat-14-(0.1'-0.25')	8/8/14	**490**	--	--	--	--	**129**
Jet-Boat-15-(0.1'-0.25') Duplicate of Jet-Boat-14-(0.1'-0.25')	8/8/14	**1,400**	--	--	--	--	**208**
Jet-Boat-14-(1.0')	8/8/14	<25	--	--	--	--	**114**

NOTES:

0.32 Analytes detected below the screening level shown in bold.

4,600 Analytes detected at or above the screening level shown in red bold.

TPPH Total Purgeable Petroleum Hydrocarbons

mg/kg milligrams per kilogram

RSL Residential Screening Level

TPH-Motor Oil reported after silica gel cleanup.

-- Not analyzed

6.0 DATA QUALITY EVALUATION

6.1 Review of Reporting Limits

The sampling and analysis plan included tables listing the reporting limits provided by Calscience for all analytes. Reporting limits were raised for samples that contained significant quantities of gasoline.

TPH-Motor Oil (TPH-MO) EPA Method 8015B (M)

Calscience estimated a reporting limit of 25 mg/kg for the TPH-MO analysis. All of the samples with no detections had a reporting limit of 25 mg/kg. The reporting limits for the samples with detections ranged from 25 mg/kg to 120 mg/kg. The screening level for TPH-MO was 100 mg/kg so the reporting limits were considered acceptable.

Total Purgeable Petroleum Hydrocarbons - Gasoline Range Organics EPA Method 8260B

Calscience estimated a reporting limit of 0.50 mg/kg for the Total Purgeable Petroleum Hydrocarbons - Gasoline Range Organics (TPPH-GRO) analysis. All of the samples with no detections had a reporting limits ranging from 0.54 to 0.56 mg/kg. The screening level for gasoline was 100 mg/kg so the reporting limits were considered acceptable.

LIST OF ANALYTES WHICH WERE NOT DETECTED IN THE SOIL SAMPLES BUT FOR WHICH THE REPORTING LIMIT EQUALED OR EXCEEDED THE RESIDENTIAL SCREENING LEVEL

Analyte	Units	Screening Level	Range of Reporting Limits that Exceeded the Screening Level	Number of Samples for which the Reporting Limit Equals or Exceeds the Screening Level and for which there was no Detection of the Analyte
Acetone	mg/kg	0.5	2.7	1
Benzene	mg/kg	0.044	0.90 - 2.3	3
Chlorobenzene	mg/kg	1.5	2.3	1
1,2-Dibromo-3-Chloropropane	mg/kg	0.0045	0.0053 - 2.3	5
1,2-Dibromoethane	mg/kg	0.00033	0.0011 - 2.3	12
1,2-Dichlorobenzene	mg/kg	1.1	2.3	1
1,4-Dichlorobenzene	mg/kg	0.59	0.90 - 2.3	3
1,2-Dichloroethane	mg/kg	0.0045	0.90 - 2.3	3
Naphthalene	mg/kg	1.2	9.0 - 23	3
p/m-Xylene	mg/kg	2.3	4.6	1
o-Xylene	mg/kg	2.3	2.3	1
Methyl-t-Butyl Ether (MTBE)	mg/kg	0.023	1.8 - 4.6	3
Tert-Butyl Alcohol (TBA)	mg/kg	0.075	18 - 46	3

NOTES:
mg/kg Milligrams per kilogram.

Volatile Organic Compounds (VOCs) EPA Method 8260B

A total of 71 VOCs were analyzed for this project. Screening levels were not available for 32 of the VOCs. Six of the 71 VOCs were detected in the soil samples. Thirteen of the VOCs had reporting limits that were higher than the screening levels. The other reporting limits were less than the screening levels. The table above shows the analytes for which the reporting limits exceeded the screening levels. The VOC reporting limits for these analytes were considered acceptable because they were the lowest that the laboratory stated that they could achieve.

Metals by EPA Method 6020 (All metals except chromium VI and mercury)

A total of 20 metals (excluding chromium VI and mercury) were analyzed for the Jet-Boat-Metals-(0.75') in a location outside of the areas where soil contamination was considered more likely to have occurred. All of the other samples that were analyzed for metals were analyzed for cadmium, chromium, nickel, lead, and zinc. There was no screening level available for magnesium. The reporting limits for the 21 metals were all lower than the screening levels except for arsenic which had a reporting limit of 1.00 mg/kg which is higher than the screening level of 0.39 mg/kg. Analysis for arsenic was only done for the Jet-Boat-Metals sample which had a concentration of 3.64 mg/kg. The metals reporting limits were considered acceptable.

Mercury by EPA Method 7471A

The reporting limit for mercury was 0.0835 mg/kg which is well below the screening level of 6.7 mg/kg. There were no detections of mercury in the sample. The reporting limit for mercury was considered acceptable.

Chromium VI by EPA Method 7196A

The reporting limit for Chromium VI was 0.080 mg/kg which is well below the screening level of 8.0 mg/kg. There were no detections of Chromium VI in the sample. The reporting limit for Chromium VI was considered acceptable.

6.2 Review of Laboratory Reports

The laboratory analytical reports are included in Appendix B, Appendix C, and Appendix D. All of the analyses were conducted by Calscience. FES reviewed the laboratory analytical reports to determine if there were any data quality issues. The discussions below are based on a review of the quality control results.

TPH-Motor Oil (TPH-MO) EPA Method 8015B (M)

There were no detections of TPH-MO in the method blanks. Surrogate recoveries were within the acceptable range. The laboratory control sample and laboratory control sample duplicate were within acceptable recovery limits and within relative percent difference limits for the samples collected on June 5, 2014. The laboratory did not include a LCSD for the samples collected on August 8, 2014. The matrix spike and matrix spike duplicate recoveries were within the acceptable

range. The RPDs for the MS/MSD were within the laboratory control limit of 15%. The results for the TPH-MO analyses were considered acceptable.

Total Purgeable Petroleum Hydrocarbons - Gasoline Range Organics EPA Method 8260B

There were no detections of TPPH-GRO in the method blanks. Surrogate recoveries were within the acceptable range. The laboratory control sample and laboratory control sample duplicate were within acceptable recovery limits and within relative percent difference limits. The laboratory included an MS/MSD in the laboratory report for 14 VOCs but not for TPPH-GRO because it is not required for the 8260B Method. FES was not aware that no MS/MSD would be included. The laboratory indicated that an MS/MSD that would include TPPH-GRO and all VOCs would need to be requested prior to sample analysis and that there would be additional cost. The results for the TPPH-GRO analyses were considered acceptable based on the LCS/LCSD.

Volatile Organic Compounds (VOCs) EPA Method 8260B

There were no detections of VOCs in the method blanks. Surrogate recoveries were within the acceptable range.

The laboratory control sample and laboratory control sample duplicate were lower than the acceptable recovery limits for Ethyl-t-Butyl Ether and Tert-Amyl-Methyl-Ether. The recovery of ethanol was higher than the acceptable range for the LCS and LCSD. The laboratory control sample and laboratory control sample duplicate were within acceptable recovery limits and within relative percent difference limits for the other VOCs analyzed. There were no detections of these three analytes in the samples.

The matrix spike and matrix spike duplicate recoveries for Jet-Boat-1-(1.0') were within the acceptable. The RPDs for the MS/MSD for Jet-Boat-1-(1.0') were within the acceptable range. The matrix spike and matrix spike duplicate recoveries for Jet-Boat-4-(0.1') were lower than the acceptable range for p/m-Xylene and o-Xylene. This may indicate a low bias in the results for this sample. There were no detections of these analytes in the sample. The RPDs for the MS/MSD for Jet-Boat-4-(0.1') higher than the acceptable range for 1,2-Dichloroethane, p/m-Xylene, and o-Xylene. There were no detections of these three analytes in the samples. The results for the VOC analyses were considered acceptable.

Metals by EPA Method 6020 (All metals except chromium VI and mercury)

There were no detections of metals in the method blanks. The laboratory control sample and laboratory control sample duplicate were within acceptable recovery limits and within relative percent difference limits. The matrix spike and matrix spike duplicate recoveries were within the acceptable range except for zinc in the MS/MSD prepared from Jet-Boat-12-(0.0'-0.25') which had a higher recovery than the acceptable range. No RPD was calculated for nickel in the MS/MSD for Jet-Boat-4-(0.1') because of suspected matrix interference. The post digestion spike (PDS) analyses were

within the acceptable recovery limits. No RPD was calculated for nickel in the PDS for Jet-Boat-4-(0.1') because the concentration of nickel in the sample was greater than four times the spike concentration. The results for the metals analyses were considered acceptable.

Chromium VI by EPA Method 7196A

Chromium VI was not detected in the method blank. The laboratory control sample was within acceptable recovery limits. The laboratory did not include a laboratory control sample duplicate. The matrix spike and matrix spike duplicate recoveries were within the acceptable range. The results for the Chromium VI analysis were considered acceptable.

Mercury by EPA Method 7471A

Mercury was not detected in the method blank. The laboratory control sample and laboratory control sample duplicate were within acceptable recovery limits and within relative percent difference limits. The matrix spike and matrix spike duplicate recoveries were within the acceptable range. The results for the mercury analysis were considered acceptable.

6.3 Assessment of Field Variability of Co-Located Soil Samples

Three co-located soil samples were collected for this project. The co-located samples were created by placing soil from the same location and depth in a clean glass mixing bowl and homogenizing the sample with gloved hands. Soil from the homogenized sample was placed into the various containers and the co-located sample was submitted "blind" to the laboratory. No co-located sample was collected for VOC analysis because volatilization can occur during mixing. The laboratory homogenized the individual samples prior to extraction and analysis.

The equation for calculating the RPD is:

$RPD = |X1 - X2| \div [(X1 + X2)/2] \times 100$

RPD = Relative Percent Difference (as %)

X1 - X2 = Absolute value (always positive) of X1 – X2

X1 = Original sample concentration

X2 = Duplicate sample concentration

A RPD of 35% or less is generally considered acceptable for soil samples. The RPDs for the co-located samples with detections in both samples are shown in the two tables on the following page.

The only petroleum compounds that were detected in both the sample and co-located sample were TPPH-GRO and TPH-Motor Oil. The RPD for TPPH-GRO was 4.4% which is well within the acceptable range.

The RPD for TPH-Motor Oil was 96% which is well outside of the acceptable limit of 35%. The TPH-Motor Oil sample was inadvertently not homogenized in the field prior to placing in the separate

containers. The laboratory homogenized the TPH-Motor Oil samples prior to analysis. The lack of field homogenization probably contributed to the high RPD for TPH-Motor Oil.

Two co-located samples were collected for metal analysis. The RPDs for the metals for the sample and co-located sample collected at Jet-Boat-4-(0.1') were all less than or equal to 3%. The RPDs for the metals for the sample and co-located sample collected at Jet-Boat-14-(0.1'-0.25') were all less than 35% except for nickel which was 46.9%. Nickel was analyzed from the same co-located sample that was inadvertently not homogenized in the field prior to placing in the separate containers. The laboratory homogenized the metals samples prior to analysis. The lack of field homogenization probably contributed to the high RPD for nickel.

SUMMARY OF RELATIVE PERCENT DIFFERENCES FOR PETROLEUM HYDROCARBONS IN THE CO-LOCATED SOIL SAMPLES

Sample ID	Date	TPPH Gasoline Range Organics (mg/kg)	TPH-Motor Oil With Silica Gel (mg/kg)
Jet-Boat-1-(1.0')	6/5/14	4,600	--
Jet-Boat-9-(1.0') Duplicate of Jet-Boat-1-(1.0')	6/5/14	4,400	--
Relative Percent Difference (RPD)		4.4%	NA
Jet-Boat-4-(0.1')	6/5/14	<25	0.083
Jet-Boat-10-(0.1') Duplicate of Jet-Boat-4-(0.1')	6/5/14	<25	<0.054
Relative Percent Difference (RPD)		NA	NA
Jet-Boat-14-(0.1'-0.25')	8/8/14	490	--
Jet-Boat-15-(0.1'-0.25') Duplicate of Jet-Boat-14-(0.1'-0.25')	8/8/14	1,400	--
Relative Percent Difference (RPD)		96.3%	NA

NOTES:

TPPH Total Purgeable Petroleum Hydrocarbons

mg/kg milligrams per kilogram

NA Not Applicable

SUMMARY OF RELATIVE PERCENT DIFFERENCES FOR METALS IN THE CO-LOCATED SOIL SAMPLES

Sample ID	Date	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
Jet-Boat-4-(0.1')	6/5/14	<1.00	94.3	5.85	165	59.1
Jet-Boat-10-(0.1') Duplicate of Jet-Boat-4-(0.1')	6/5/14	<1.00	94.9	5.84	170	60.8
Relative Percent Difference (RPD)		NA	0.6%	0.2%	3.0%	2.8%
Jet-Boat-14-(0.1'-0.25')	8/8/14	<1.00	62.4	13.0	129	104
Jet-Boat-15-(0.1'-0.25') Duplicate of Jet-Boat-14-(0.1'-0.25')	8/8/14	<1.00	83.3	16.4	208	106
Relative Percent Difference (RPD)		NA	28.7%	23.1%	46.9%	1.9%

NOTES:

mg/kg milligrams per kilogram

NA Not Applicable

6.4 Equipment Blanks

One equipment blank was collected for this project after the first soil sample was collected from Jet-Boat-4-(0.1'). After completing the normal decontamination procedures, distilled water was poured on the shovel and the rinse water collected in the appropriate containers. The equipment blank was submitted “blind” to the laboratory as Jet-Boat-11 and analyzed for TPH-MO, TPPH-GRO, VOCs, cadmium, chromium, nickel, lead, and zinc which are the same analytes that were analyzed for Jet-Boat-4-(0.1'). The only analyte that was detected was zinc at a concentration of 0.0167 µg/L. This may indicate a high bias for zinc in the soil samples collected with the shovel. None of the zinc samples contained zinc exceeding the residential screening level.

6.5 Investigation Derived Wastes

During the initial sampling on June 5, 2014 there was a strong gasoline odor at Jet-Boat-1 so all soil cuttings from this area were containerized in 5-gallon buckets. Five buckets of soils and one bucket of decontamination fluids were transferred to the custody of YTEP and were hauled off after the sampling in this area was completed. There were no field indicators of contamination at the other locations. The SAP indicated that soil cuttings from the Smoke House would be containerized in 5-gallon buckets. Because there were no indications of contamination these soils were placed back in the borings.

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 (co-located samples). An RPD of <20% for water and <35% for soil, depending upon the chemical being analyzed is generally considered acceptable.

RPDs for the co-located soil samples ranged from 0.2% to 96.3%. The only analytes that exceeded 35% were TPH-Motor Oil (96.3%) and nickel (46.9%). The TPH-Motor Oil and metals sample was inadvertently not homogenized in the field prior to placing in the separate containers.

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. The results of these analyses are described in Section 6.2.

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 question for this project was whether the Subject Property contains contaminated soils above concentrations regarded as safe for reuse of the Subject Property.

This project collected judgmental samples in areas that were suspected to have been contaminated with gasoline, motor oil, VOCs, and metals. The Jet-Boat-Metals sample was collected from an area that was not suspected of being 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.

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.

7.5 Completeness

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

A total of 23 soil samples (excluding the co-located samples) were collected from the Subject Property. One of the samples (Jet-Boat-Metals-(0.75') was collected from an area not expected to have been impacted by activities at the Subject Property to determine reference metals concentrations. The Sampling and Analysis Plan called for the collection of 17 soil samples. The samples collected on August 8, 2014, included three new locations, Jet-Boat-12, Jet-Boat-13, and Jet-Boat-14. The percent completeness is 100% based on the number of samples in the SAP. The additional samples collected on August 8, 2014 were not included in the SAP.

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 in Section 6.1. A table listing analytes for which the reporting limits were higher than the screening levels is provided in Section 6.1.

8.0 DISCUSSION

8.1 Sample Locations

A total of 23 soil samples (excluding the co-located samples) from 12 locations were collected from the Subject Property. One of the samples, Jet-Boat-Metals-(0.75') was collected from an area not expected to have been impacted by activities at the Subject Property to assess the concentrations of metals in soil. The samples were collected from various intervals with a maximum depth of 2.0 feet bgs.

The following sample locations were from areas expected to contain some contamination:

- Jet-Boat-1, Jet-Boat-2, and Jet-Boat-3 were collected in the area downhill of the AST where gasoline was reported to have been released;
- Jet-Boat-4 and Jet-Boat-5 were collected inside the Smoke House where motor oil, gasoline, and VOCs were suspected to have been stored; and
- Jet-Boat-6, Jet-Boat-7, and Jet-Boat-8 were collected in the southern area of the Subject Property where motor oil was reported to have been disposed directly onto the ground;

The following sample locations were from the area around Jet-Boat-6 where motor oil was detected above the screening level:

- Jet-Boat-12, Jet-Boat-13 and Jet-Boat-14 were collected on three sides of Jet-Boat-6.

The following sample location was in an area not expected to have been impacted by activities at the Subject Property:

- Jet-Boat-Metals.

Three co-located samples were collected as listed below:

- Jet-Boat-9-(1.0') was co-located with Jet-Boat-1-(1.0');
- Jet-Boat-10-(0.1') was co-located with Jet-Boat-4-(0.1'); and
- Jet-Boat-15-(0.1'-0.25') was co-located with Jet-Boat-14-(0.1'-0.25').

8.2 Aboveground Storage Tank (AST) Area

<u>Jet-Boat-1 Discussion</u>

Jet-Boat-1 was located just downhill of the concrete apron that is present near the southwest corner of the AST building (Figures 5 and 6, Photos 4, 5, and 6). The soil at Jet-Boat-1 was approximately 90% sand and had a strong gasoline odor at approximately 1.0' bgs. A total of three samples were collected at this location from the following depths:

- Jet-Boat-1-(1.0') was collected on June 5, 2014 at a depth of approximately 1.0' bgs;
- Jet-Boat-9-(1.0') was co-located with Jet-Boat-1-(1.0') and collected at a depth of approximately 1.0'; and

- Jet-Boat-1-(2.0') was collected on June 5, 2014 at a depth of approximately 2.0' bgs.

TPPH-GRO was detected in all three samples at concentrations well above the screening level. P/m-xylene and o-xylene were detected in the deeper sample at concentrations exceeded the screening levels. The reporting limits were significantly raised for all VOCs at this location due to the high concentration of TPPH-GRO.

The concentrations of TPPH-GRO in the shallow samples (4,600 mg/kg/4,400 mg/kg) and in the deeper sample (4,500 mg/kg) exceeded the residential ESL (100 mg/kg). The concentrations of p/m-xylene and o-xylene in the deeper sample (4.0 mg/kg and 14 mg/kg respectively) exceeded the residential ESLs. Because of the presence of rocks at approximately 2.0' bgs no deeper samples could be obtained. The vertical delineation of contamination at this location has not been achieved.

Jet-Boat-2 Discussion

Jet-Boat-2 was located approximately 7' downhill of Jet-Boat-1 (Figures 5 and 6, Photos 4, 5, and 6). The soil at Jet-Boat-2 was approximately 90% sand and did not have any gasoline odor. A total of two samples were collected at this location from the following depths:

- Jet-Boat-2-(0.9') was collected on June 5, 2014 at a depth of approximately 0.9' bgs; and
- Jet-Boat-2-(1.5') was collected on June 5, 2014 at a depth of approximately 1.5' bgs.

TPPH-GRO and several VOCs were detected in both samples at concentrations well below the screening levels.

The concentrations of TPPH-GRO in the shallow sample (0.32 mg/kg) and in the deeper sample (0.17 mg/kg) were well below the residential ESL (100 mg/kg). The concentrations of benzene, p/m-xylene, o-xylene, and toluene were well below the screening levels (0.44 mg/kg, 2.3 mg/kg, 2.3 mg/kg, and 2.9 mg/kg respectively) for residential land use. Because of the presence of rocks at approximately 1.5' bgs no deeper samples could be obtained. The vertical delineation will be evaluated at the time of excavation at Jet-Boat-1.

Jet-Boat-3 Discussion

Jet-Boat-3 was located approximately 5' downhill of Jet-Boat-2 (Figures 5 and 6, Photos 4, 5, and 6). The soil at Jet-Boat-3 was approximately 90% sand and did not have any gasoline odor. A total of two samples were collected at this location from the following depths:

- Jet-Boat-3-(0.8') was collected on June 5, 2014 at a depth of approximately 0.8' bgs; and
- Jet-Boat-3-(2.0') was collected on June 5, 2014 at a depth of approximately 2.0' bgs.

TPPH-GRO was detected in both samples at concentrations well below the screening levels. Toluene was detected in the shallower sample at a concentration well below the screening level.

The concentrations of TPPH-GRO in the shallow sample (0.46 mg/kg) and in the deeper sample (0.093 mg/kg) were well below the residential ESL (100 mg/kg). The concentration of toluene in the shallow sample (0.0028 mg/kg) was well below the screening level (2.9 mg/kg) for residential land use. Because of the presence of rocks at approximately 2.0' bgs no deeper samples could be obtained. The vertical delineation will be confirmed at the time of the proposed excavation at Jet-Boat-1.

8.3 Smoke House

Jet-Boat-4 Discussion

Jet-Boat-4 was located in the center of the western compartment of the Smoke House (Figures 5 and 7, Photos 13 and 14). The western compartment is approximately 7' by 7' and is enclosed with concrete walls up to approximately 3' above the ground surface. The soil at Jet-Boat-4 consisted of a surface layer of clay approximately 0.1' thick. There was a layer of mostly sand and gravel below the clay to a depth of at least 1.2' bgs (the bottom of the boring). The sand and gravel appeared to have been "burned" (see Photo 14) based on the orange color and the presence of small amounts of charcoal down to approximately 1.1' bgs. A total of three samples were collected at this location from the following depths:

- Jet-Boat-4-(0.1') was collected on June 5, 2014 at a depth of approximately 0.1' bgs;
- Jet-Boat-9-(0.1') was co-located with Jet-Boat-4-(0.1') and was collected at a depth of approximately 0.1'; and
- Jet-Boat-4-(1.1') was collected on June 5, 2014 at a depth of approximately 1.1' bgs.

TPPH-GRO was detected in one of the shallow samples at a concentration well below the screening level. P-isopropyltoluene and toluene were also detected in one of the shallow samples at concentrations well below the screening levels. Chromium, lead, nickel, and zinc were detected in both of the samples. Nickel exceeded the screening level in both of the shallow samples.

The only analyte that exceeded the screening level was nickel in the shallow samples. The concentrations of nickel in the shallow samples (165 mg/kg and 170 mg/kg) exceeded the residential ESL. The horizontal extent of contamination with nickel is considered to be the entire floor space of the western compartment. The vertical delineation of contamination at this location has been achieved.

Jet-Boat-5 Discussion

Jet-Boat-5 was located in the center of the eastern compartment of the Smoke House (Figures 5 and 7, Photo 15). The eastern compartment is approximately 7' by 7' and is enclosed with concrete

walls up to approximately 3' above the ground surface. The soil at Jet-Boat-5 consisted of a surface layer of silt approximately 0.2' thick. There was a layer of mostly sand and gravel below the silt to a depth of at least 1.3' bgs (the bottom of the boring). The sand and gravel appeared to have been "burned" based on the orange color and the presence of small amounts of charcoal down to approximately 1.2' bgs. A total of two samples were collected at this location from the following depths:

- Jet-Boat-5-(0.1') was collected on June 5, 2014 at a depth of approximately 0.1' bgs;
- Jet-Boat-5-(1.0') was collected on June 5, 2014 at a depth of approximately 1.0' bgs.

Acetone was detected in both the shallow sample at a concentration well below the screening level. Chromium, lead, nickel, and zinc were detected in both of the samples with only nickel exceeding the screening level in the shallow sample.

The only analyte that exceeded the screening level was nickel in the shallow sample. The concentration of nickel in the shallow sample (161 mg/kg) exceeded the residential ESL (150 mg/kg). The horizontal extent of contamination with nickel is considered to be the entire floor space of the western compartment. The vertical delineation of contamination at this location has been achieved.

8.4 Southern Area

Jet-Boat-6 Discussion

Jet-Boat-6 was located at the southern end of the Subject Property as shown on Figures 5 and 8, Photos 18 and 19. The sample location was chosen based on reports that used motor oil had been disposed onto the ground in this area. The soil at Jet-Boat-6 consisted of mostly sand and gravel to a depth of approximately 1.0' bgs (the bottom of the boring). A total of two samples were collected at this location from the following depths:

- Jet-Boat-6-(0.1'-0.2') was collected on June 5, 2014 at a depth of approximately 0.1 to 0.2' bgs; and
- Jet-Boat-6-(1.0') was collected on June 5, 2014 at a depth of approximately 1.0' bgs.

TPH-Motor Oil was detected in the shallow sample at a concentration well above the screening level. Chromium, lead, nickel, and zinc were detected in both of the samples at concentrations below the screening levels.

The only analyte that exceeded the screening level was TPH-Motor Oil in the shallow sample. The concentration of TPH-Motor Oil in the shallow sample (2,300 mg/kg) exceeded the residential ESL (100 mg/kg). Additional samples (Jet-Boat-12, Jet-Boat-13, and Jet-Boat-14) were collected in this area on August 8, 2014. The vertical delineation of TPH-Motor Oil contamination at this location has been achieved.

Jet-Boat-7 Discussion

Jet-Boat-7 was located at the southern end of the Subject Property as shown on Figures 5 and 8, Photos 18 and 20. The sample location was chosen based on reports that used motor oil had been disposed onto the ground in this area. The soil at Jet-Boat-7 consisted of mostly sand and gravel to a depth of approximately 0.9' bgs (the bottom of the boring). A total of two samples were collected at this location from the following depths:

- Jet-Boat-7-(0.1'-0.2') was collected on June 5, 2014 at a depth of approximately 0.1 to 0.2' bgs; and
- Jet-Boat-7-(0.9') was collected on June 5, 2014 at a depth of approximately 0.9' bgs.

TPH-Motor Oil was detected in the shallow sample at a concentration above the residential screening level. Chromium, lead, nickel, and zinc were detected in both of the samples at concentrations below the screening level.

The only analyte that exceeded the screening level was TPH-Motor Oil in the shallow sample. The concentration of TPH-Motor Oil in the shallow sample (130 mg/kg) exceeded the residential ESL (100 mg/kg). The vertical delineation of TPG-Motor Oil at Jet-Boat-7 has been achieved.

Jet-Boat-8 Discussion

Jet-Boat-8 was located at the southern end of the Subject Property as shown on Figures 5 and 8, Photos 18 and 21. The sample location was chosen based on reports that used motor oil had been disposed onto the surface in this area. The soil at Jet-Boat-8 consisted of mostly silt and sand to a depth of approximately 0.2' bgs. Below approximately 0.2' bgs the soil was a mixture of gravel, and silt to a depth of approximately 1.0' bgs (the bottom of the boring). A total of two samples were collected at this location from the following depths:

- Jet-Boat-8-(0.0'-0.3') was collected on June 5, 2014 at a depth of approximately 0.0' to 0.3' bgs; and
- Jet-Boat-8-(0.9'-1.0') was collected on June 5, 2014 at a depth of approximately 0.9' to 1.0' bgs.

TPH-Motor Oil was detected in the deeper sample at a concentration well below the residential screening level. Chromium, lead, nickel, and zinc were detected in both of the samples at concentrations below the screening levels.

No analytes exceeded the screening levels at Jet-Boat-8.

Jet-Boat-9-(1.0') was a co-located sample with Jet-Boat-1-(1.0').

Jet-Boat-10-(0.1') was a co-located sample with Jet-Boat-4-(1.0').

Jet-Boat-11 was an equipment blank. The only analyte that was detected was zinc at a concentration of 0.0167 µg/L. This may indicate a high bias for zinc in the soil samples collected with the shovel. None of the zinc samples contained zinc exceeding the residential screening level.

Jet-Boat-12 Discussion

Jet-Boat-12 was located at the southern end of the Subject Property as shown on Figures 5 and 8, Photos 23 and 24. The sample location was chosen based on the presence of TPH-Motor Oil at Jet-Boat-6. The soil at Jet-Boat-12 consisted of mostly gravel and sand to a depth of approximately 1.0' bgs (the bottom of the boring). A total of two samples were collected at this location from the following depths:

- Jet-Boat-12-(0.0'-0.25') was collected on August 8, 2014 at a depth of approximately 0.0' to 0.25' bgs; and
- Jet-Boat-12-(1.0') was collected on August 8, 2014 at a depth of approximately 1.0' bgs.

TPH-Motor Oil was detected in both of the samples. The concentration of TPH-Motor Oil in the shallow sample exceeded the residential screening level. Chromium, lead, nickel, and zinc were detected in both of the samples at concentrations below the screening levels.

The only analyte that exceeded the screening level was TPH-Motor Oil in the shallow sample. The concentration of TPH-Motor Oil in the shallow sample (160 mg/kg) exceeded the residential ESL (100 mg/kg). The vertical delineation of TPH-Motor Oil contamination was achieved.

Jet-Boat-13 Discussion

Jet-Boat-13 was located at the southern end of the Subject Property as shown on Figures 5 and 8, Photos 23, 25, 26, and 27. The sample location was chosen based on the presence of TPH-Motor Oil at Jet-Boat-6. The soil at Jet-Boat-13 consisted of mostly gravel and sand to a depth of approximately 1.0' bgs (the bottom of the boring). A total of two samples were collected at this location from the following depths:

- Jet-Boat-13-(0.0'-0.25') was collected on August 8, 2014 at a depth of approximately 0.0' to 0.25' bgs; and
- Jet-Boat-13-(1.0') was collected on August 8, 2014 at a depth of approximately 1.0' bgs.

TPH-Motor Oil was detected in both of the samples. The concentration of TPH-Motor Oil in the shallow sample exceeded the residential screening level. Chromium, lead, nickel, and zinc were detected in both of the samples at concentrations below the screening levels.

The only analyte that exceeded the screening level was TPH-Motor Oil in the shallow sample. The concentration of TPH-Motor Oil in the shallow sample (170 mg/kg) exceeded the residential ESL. The vertical delineation of TPH-Motor Oil contamination was achieved.

Jet-Boat-14 Discussion

Jet-Boat-14 was located at the southern end of the Subject Property as shown on Figures 5 and 8, Photos 23, and 28. The sample location was chosen based on the presence of TPH-Motor Oil at Jet-Boat-6. The soil at Jet-Boat-14 consisted of mostly gravel and sand to a depth of approximately 1.0' bgs (the bottom of the boring). A total of three samples were collected at this location from the following depths:

- Jet-Boat-14-(0.0'-0.25') was collected on August 8, 2014 at a depth of approximately 0.0' to 0.25' bgs;
- Jet-Boat-15-(0.0'-0.25') was co-located with Jet-Boat-14-(0.0'-0.25') and was collected at a depth of approximately 0.0' to 0.25' bgs; and
- Jet-Boat-14-(1.0') was collected on August 8, 2014 at a depth of approximately 1.0' bgs.

TPH-Motor Oil was detected in both of the shallow samples. The concentration of TPH-Motor Oil in both of the shallow samples exceeded the residential screening level. Chromium, lead, nickel, and zinc were detected in both of the samples at concentrations below the screening levels except for nickel in the shallow sample.

The only analytes that exceeded the screening level were TPH-Motor Oil and nickel in the shallow samples. The concentrations of TPH-Motor Oil in the shallow samples (490 mg/kg and 1,400 mg/kg) exceeded the residential ESL (100 mg/kg). The concentration of nickel in the co-located sample exceeded the residential ESL (150 mg/kg). The vertical delineation of TPH-Motor Oil and nickel has been achieved.

Jet-Boat-15-(0.0'-0.25') was a co-located sample with Jet-Boat-14-(0.0'-0.25').

8.5 Human Risk

AST Area

The concentrations of TPPH-GRO and xylenes in the soil downhill of the AST area are considered a potential human risk if impacted soils are not removed. If the Subject Property continues to be used for its current commercial use the risk is considered minimal unless the contaminated soils are disturbed. We recommend the excavation and offsite disposal of soils in this area that exceed the residential screening level of 100 mg/kg.

Smoke House

The concentration of nickel in the soil in both compartments of the Smoke House is considered a potential human risk if impacted soils are not removed. If the Subject Property continues to be used for its current commercial use the risk is considered minimal unless the contaminated soils are disturbed. Prior to reuse of the Smoke House we recommend the excavation and offsite disposal of soils to a depth of approximately 1.5' bgs or to the bottom of the "burned" layer whichever is deeper.

Southern Area

The concentration of TPH-Motor Oil in the soil in the southern area of the Subject Property is considered a potential human risk if impacted soils are not removed. If the Subject Property continues to be used for its current commercial use the risk is considered minimal unless the contaminated soils are disturbed. We recommend the excavation and offsite disposal of soils exceeding the residential screening level of 100 mg/kg.

8.6 Ecological Risk

AST Area

The concentrations of TPPH-GRO and xylenes in the soil downhill of the AST area are considered a potential ecological risk if impacted soils are not removed. The contaminants present in the soil in this area are less than 20' from the eastern edge of the Klamath River. During high flows the distance could be significantly less. The contaminated soil is mostly sand which enhances the leaching of contaminants down to the water table which is at least as high as the elevation of Klamath River. This may be a source of historic release of petroleum to the Klamath River. We recommend the excavation and offsite disposal of soils in this area that exceed the residential screening level of 100 mg/kg.

Smoke House

The concentration of nickel in the soil in both compartments of the Smoke House is not considered a potential ecological risk. Prior to reuse of the Smoke House we recommend the excavation and offsite disposal of soils to a depth of approximately 1.5' bgs or to the bottom of the "burned" layer whichever is deeper.

Southern Area

The concentration of TPH-Motor Oil in the soil in the southern area of the Subject Property is considered a potential ecological risk if impacted soils are not removed. Surface runoff from the contaminated area may reach the Klamath River during heavy rainfall. TPH-Motor Oil is likely being leached down to the water table with the groundwater gradient very likely to be towards the Klamath River. We recommend the excavation and offsite disposal of soils exceeding the residential screening level of 100 mg/kg.

The table on the following page includes species that are listed by the United States Fish and Wildlife Service and the National Marine Fisheries Service for the Requa 7.5 minute quadrangle which includes the Subject Property.

Type/Listing Agency	Common Name	Category	Critical Habitat
Invertebrates			
NMFS	black abalone	Endangered species	No
Fish			
NMFS	green sturgeon	Threatened species	Yes

US FWS	tidewater goby	Endangered species	Yes
NMFS	S. OR/N. CA coho salmon	Threatened species	Yes
NMFS	CA coastal chinook salmon	Threatened species	Yes
NMFS	Southern eulachon DPS	Threatened species	Yes
US FWS	Northern California steelhead	Threatened species	Yes
Reptiles			
NMFS	loggerhead turtle	Threatened species	No
NMFS	green turtle	Threatened species	No
NMFS	leatherback turtle	Endangered species	Yes
NMFS	olive (=Pacific) ridley sea turtle	Threatened species	No
Birds			
US FWS	marbled murrelet	Threatened species	Yes
US FWS	western snowy plover	Threatened species	Yes
US FWS	Western yellow-billed cuckoo	Proposed Threatened	No
US FWS	short-tailed albatross	Endangered species	No
US FWS	northern spotted owl	Threatened species	Yes
US FWS	Xantus's murrelet	Candidate species	No
Mammals			
NMFS	sei whale	Endangered species	No
NMFS	blue whale	Endangered species	No
NMFS	fin whale	Endangered species	No
NMFS	Steller (=northern) sea-lion	Threatened species	Yes
US FWS	fisher, West Coast DPS	Candidate species	No
NMFS	humpback whale	Endangered species	No
NMFS	killer whale, S. resident	Endangered species	Yes
NMFS	sperm whale	Endangered species	No

Notes:

US FWS	US Fish and Wildlife Service
NMFS	National Marine Fisheries Service
DPS	Distinct Population Segment

8.7 Reporting Limits Exceeding Screening Levels for VOCs

As listed in the table in Section 6.0 there were multiple instances where the reporting limits exceeded the screening levels for VOCs. Most of these were due to the presence of TPPH-GRO in the samples near the AST. There were two compounds (1,2-Dibromo-3-Chloropropane and 1,2-Dibromoethane) which have very low screening levels which resulted in the reporting limits exceeding the screening levels in all instances. By removing the soils known to be contaminated with TPPH-GRO as recommended it seems less likely that VOCs exceeding the screening levels but below the reporting limits would remain in the AST area.

9.0 CONCLUSIONS AND RECOMENDATIONS

We have performed a Phase II Environmental Site Assessment of the property located at 17635 Highway 101 near Klamath, CA (APN: 140-050-25) in conformance with the scope and limitations of ASTM Practice E 1903-11 and for the following objectives developed pursuant to section 5.1 of ASTM Practice E 1903-11:

- Assess and evaluate the recognized environmental conditions identified in the Phase I ESA conducted by YTEP in 2013; and
- Provide sufficient information regarding the presence or absence of contamination at the Subject Property.

The principal questions to be answered by the investigation are listed below (quoted directly from the SAP).

- Does soil contamination exist inside the Smoke House indicating previous releases or systematic disposal of used motor oil or volatile organic compounds?
- Does gasoline contaminated soil exist in the area of the fuel tank and associated piping over the Environmental Screening Levels (ESLs) for residential use?
- Does waste oil contaminated soil exist in the "southern portion of the Site" over ESLs for residential use?
- If waste oil is present in the “southern portion of the Site" are "wear metals" present in excess of the ESLs for residential use?

The alternative actions that could result from resolution of the principal study questions include:

- If contamination is not identified over allowable levels on the Subject Property the Yurok Tribe can proceed with further development of the Subject Property; and
- If contamination is identified over allowable levels, additional assessment and/or cleanup may be necessary prior to redevelopment and use of the Subject Property.

This assessment has concluded that contamination is present over the residential ESLs at the following locations:

- The vicinity of the AST;
- Inside both compartments of the Smoke House; and
- The southern area of the Subject Property.

Additional assessment and/or cleanup may be necessary prior to redevelopment and use of the Subject Property. The following sections describe recommended additional assessment activities and options for remediation.

9.1 AST Area

Option 1 - *Excavation and Disposal of Gasoline-Impacted Soils Exceeding the Residential Screening Level*

Option 1 for the AST area is for further horizontal and vertical delineation at this location and the disposal of gasoline-impacted soils at an appropriately licensed facility. Further delineation is unlikely without the use of heavy equipment because of the large rocks. The final delineation could be completed at the time of the excavation by collecting confirmation samples from the sides and floor of the excavation. We recommend that the proposed excavation around Jet-Boat-1 extend to Jet-Boat-2 and that confirmation samples be collected at the limits of the gasoline impact based on field indications. We recommend that the proposed excavation around Jet-Boat-1 extend to include the area at Jet-Boat-3 if field indications of contamination are present at depth at Jet-Boat-2.

Option 2 - *Capping of Gasoline-Impacted Soils Exceeding the Residential Screening Level*

Option 2 for the AST area is for installation of a concrete cap in the area downhill of the AST and extending as close as possible to the edge of the Klamath River. The concrete cap would prevent people from direct contact with contaminated soils and would reduce gasoline vapors in the area of the boat ramp. Capping the contaminated area would not prevent contamination of the groundwater adjacent to the river and during high flows the contaminated soils would be submerged which would release some gasoline into the river.

9.2 Smoke House

Option 1 - *Excavation and Disposal of Nickel-Impacted Soils Exceeding the Residential Screening Level*

Option 1 for the Smoke House is for the removal of soils inside both compartments down to a depth of approximately 1.5' bgs or at least to include the "burned" layer indicated by orange color and the presence of charcoal prior to reuse.

Option 2 - *Capping of Nickel-Impacted Soils Exceeding the Residential Screening Level*

Option 2 for the Smoke House is for installation of a concrete cap over the nickel-impacted soils in both compartments of the Smoke House. The concrete cap would prevent people from direct contact with the contaminated soils. If a concrete cap is installed a layer of clean soil or sand could be placed over the concrete to prevent damage to the concrete from the heat generated during potential future use for smoking fish.

9.3 Southern Area

Option 1 - *Excavation and Disposal of Motor Oil Impacted Soils Exceeding the Commercial Screening Level*

For continued commercial use we recommend additional shallow soil sampling around Jet-Boat-14 to determine the extent of motor oil contamination to the south that exceeds the commercial ESL. We recommend the excavation and offsite disposal of soil in this area to a depth of approximately 1.0' bgs. The extent of the proposed excavation would be determined by the results of the additional sampling.

Option 2 - *Excavation and Disposal of Motor Oil Impacted Soils Exceeding the residential Screening Level*

For redevelopment and residential use we recommend additional soil sampling around Jet-Boat-12, Jet-Boat-13 and Jet-Boat-14 to determine the extent of motor oil contamination to the north, west, and south that exceeds the residential ESL. We recommend the excavation and offsite disposal of soil in this area to a depth of approximately 1.0' bgs. The extent of the proposed excavation would be determined by the results of the additional sampling.

10.0 REFERENCES

ASTM E1903 – 11, 2011, *Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process*.

California Regional Water Quality Control Board San Francisco Bay Region, 2013, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, INTERIM FINAL- November 2007 (Revised May 2008)*.

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

Yurok Tribe Environmental Program, 2013, *Phase I Environmental Site Assessment Report for: Jet Boat Tours, Located on: 17635 Highway 101, Klamath, California, APN: 140-050-25,* July 10.

TABLES

TABLE 1
SUMMARY OF CHEMICAL ANALYSES OF SOIL SAMPLES FOR PETROLEUM AND VOCs
JET BOAT PROPERTY
Del Norte County, California

	Date Sampled	Total Petroleum Hydrocarbons-Motor Oil (with silica gel cleanup)	Total Purgeable Petroleum Hydrocarbons Gasoline Range Organics	Acetone	Benzene	p/m-Xylene	o-Xylene	p-Isopropyltoluene	Toluene
	Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample ID	Residential Screening Level	100 [a]	100 [a]	0.5 [a]	0.044 [a]	2.3 [a]	2.3 [a]	NA	2.9 [a]
Jet-Boat-1-(1.0')	05-Jun-14	--	**4,600**	--	<2.3	<4.6	<2.3	--	<2.3
Jet-Boat-9-(1.0') - [Duplicate of Jet-Boat-1-(1.0')]	05-Jun-14	--	**4,400**	--	<0.98	<2.0	<0.98	--	<0.98
Jet-Boat-1-(2.0')	05-Jun-14	--	**4,500**	--	<0.90	**4.0**	**14**	--	<0.90
Jet-Boat-2-(0.9')	05-Jun-14	--	**0.32**	--	<0.0012	<0.0024	<0.0012	--	**0.0028**
Jet-Boat-2-(1.5')	05-Jun-14	--	**0.17**	--	**0.0013**	**0.0030**	**0.0019**	--	**0.0063**
Jet-Boat-3-(0.8')	05-Jun-14	--	**0.46**	--	<0.0012	<0.0024	<0.0012	--	**0.0028**
Jet-Boat-3-(2.0')	05-Jun-14	--	**0.093**	--	<0.0012	<0.0024	<0.0012	--	<0.0012
Jet-Boat-4-(0.1')	05-Jun-14	<25 [1]	**0.083**	<2.7	<0.0011	<0.0021	<0.0011	**0.0011**	**0.0011**
Jet-Boat-10-(0.1') - [Duplicate of Jet-Boat-4-(0.1')]	05-Jun-14	<25 [1]	<0.054	**0.072**	<0.0011	<0.0021	<0.0011	<0.0011	<0.0011
Jet-Boat-4-(1.1')	05-Jun-14	<25 [1]	<0.055	**0.075**	<0.0011	<0.0022	<0.0011	<0.0011	<0.0011
Jet-Boat-5-(0.1')	05-Jun-14	<25 [1]	<0.055	**0.073**	<0.0011	<0.0022	<0.0011	<0.0011	<0.0011
Jet-Boat-5-(1.0')	05-Jun-14	<25 [1]	<0.056	<0.056	<0.0011	<0.0023	<0.0011	<0.0011	<0.0011
Jet-Boat-6-(0.1'-0.2')	05-Jun-14	**2,300** [1]	--	--	--	--	--	--	--
Jet-Boat-6-(1.0')	05-Jun-14	**44** [1]	--	--	--	--	--	--	--
Jet-Boat-7-(0.1'-0.2')	05-Jun-14	**130** [1]	--	--	--	--	--	--	--
Jet-Boat-7-(0.9')	05-Jun-14	<25 [1]	--	--	--	--	--	--	--
Jet-Boat-8-(0.0'-0.3')	05-Jun-14	<25 [1]	--	--	--	--	--	--	--
Jet-Boat-8-(0.9'-1.0')	05-Jun-14	**29** [1]	--	--	--	--	--	--	--
Jet-Boat-12-(0.0'-0.25')	08-Aug-14	**160** [1]	--	--	--	--	--	--	--
Jet-Boat-12-(1.0')	08-Aug-14	**52** [1]	--	--	--	--	--	--	--
Jet-Boat-13-(0.0'-0.25')	08-Aug-14	**170** [1]	--	--	--	--	--	--	--
Jet-Boat-13-(1.0')	08-Aug-14	**35** [1]	--	--	--	--	--	--	--
Jet-Boat-14-(0.1'-0.25')	08-Aug-14	**490** [1]	--	--	--	--	--	--	--
Jet-Boat-15-(0.1'-0.25') - [Duplicate of Jet-Boat-14-(0.1'-0.25')]	08-Aug-14	**1,400** [1]	--	--	--	--	--	--	--
Jet-Boat-14-(1.0')	08-Aug-14	<25 [1]	--	--	--	--	--	--	--

TABLE 1
SUMMARY OF CHEMICAL ANALYSES OF SOIL SAMPLES FOR PETROLEUM AND VOCs
JET BOAT PROPERTY
Del Norte County, California

Notes:

0.32 Bold indicates a result that exceeds the detection limit.

4,600 Red bold indicates a result that exceeds a screening level.

NA Not Applicable

-- Not analyzed

mg/kg milligrams per kilogram or parts per million

[a] Table A Environmental Screening Levels (ESLs) (Residential Land Use) Shallow Soils (≤3m bgs) Groundwater is Current or Potential Source of Drinking Water. California Regional Water Quality Control Board San Francisco Bay Region, December 2013.

[1] The laboratory reported that "The chromatographic pattern was inconsistent with the profile of the reference fuel standard."

TABLE 2
SUMMARY OF CHEMICAL ANALYSES OF SOIL SAMPLES FOR METALS
JET BOAT PROPERTY
Del Norte County, California

Sample ID	Date Sampled	Cadmium	Chromium	Lead	Nickel	Zinc	Aluminum	Antimony	Arsenic	Barium	Beryllium	Chromium (III)	Chromium (VI)	Cobalt	Copper	Magnesium	Manganese	Mercury	Molybdenum	Selenium	Silver	Thallium	Vanadium
Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Residential Screening Level		12 [a]	1,000 [a]	80 [a]	150 [a]	600 [a]	77,400 [b]	20 [a]	0.39 [a]	750 [a]	4.0 [a]	750 [a]	8.0 [a]	23 [a]	230 [a]	NA	1,800 [b]	6.7 [a]	40 [a]	10 [a]	20 [a]	0.78 [a]	200 [a]
Jet-Boat-Metals-(0.75')	05-Jun-14	<1.00	**16.1**	**7.25**	**23.7**	**59.8**	**17,900**	<2.0	**3.64**	**94.3**	<1.00	**16**	<0.80	**7.53**	**19.5**	**7,460**	**403**	<0.0820	<1.00	<1.00	<1.00	<1.00	**31.6**
Jet-Boat-4-(0.1')	05-Jun-14	<1.00	**94.3**	**5.85**	**165**	**59.1**	--	ND [1]	**5.896** [1]	--	--	--	--	--	**49.99** [1]	--	--	--	--	ND [1]	ND [1]	ND [1]	--
Jet-Boat-10-(0.1') Duplicate of Jet-Boat-4-(0.1')	05-Jun-14	<1.00	**94.9**	**5.84**	**170**	**60.8**	--																
Jet-Boat-4-(1.1')	05-Jun-14	<1.00	**22.5**	**67.0**	**24.9**	**231**	--																
Jet-Boat-5-(0.1')	05-Jun-14	<1.00	**95.8**	**13.2**	**161**	**311**	--																
Jet-Boat-5-(1.0')	05-Jun-14	<1.00	**92.4**	**27.4**	**142**	**101**	--																
Jet-Boat-6-(0.1'-0.2')	05-Jun-14	<1.00	**54.9**	**8.47**	**78.2**	**73.6**	--																
Jet-Boat-6-(1.0')	05-Jun-14	<1.00	**29.6**	**11.0**	**45.7**	**72.7**	--																
Jet-Boat-7-(0.1'-0.2')	05-Jun-14	<1.00	**59.2**	**9.90**	**89.1**	**80.9**	--																
Jet-Boat-7-(0.9')	05-Jun-14	<1.00	**33.2**	**10.7**	**79.8**	**78.0**	--																
Jet-Boat-8-(0.0'-0.3')	05-Jun-14	<1.00	**64.1**	**15.9**	**110**	**100**	--																
Jet-Boat-8-(0.9'-1.0')	05-Jun-14	<1.00	**37.7**	**22.0**	**52.3**	**84.9**	--																
Jet-Boat-12-(0.0'-0.25')	08-Aug-14	<1.00	**70.3**	**10.8**	**78.4**	**73.4**																	
Jet-Boat-12-(1.0')	08-Aug-14	<1.00	**51.6**	**10.5**	**102**	**99.0**																	
Jet-Boat-13-(0.0'-0.25')	08-Aug-14	<1.00	**16.8**	**6.73**	**26.1**	**62.4**																	
Jet-Boat-13-(1.0')	08-Aug-14	<1.00	**37.4**	**35.7**	**55.1**	**82.5**																	
Jet-Boat-14-(0.1'-0.25')	08-Aug-14	<1.00	**62.4**	**13.0**	**129**	**104**																	
Jet-Boat-15-(0.1'-0.25') - [Duplicate of Jet-Boat-14-(0.1'-0.25')]	08-Aug-14	<1.00	**83.3**	**16.4**	**208**	**106**																	
Jet-Boat-14-(1.0')	08-Aug-14	<1.00	**64.7**	**6.15**	**114**	**50.3**	--																

Notes:

16.1 Bold indicates a result that exceeds the detection limit.

165 Red bold indicates a result that exceeds a screening level.

mg/kg milligrams per kilogram or parts per million

NA Not Applicable

ND Not detected

-- Not analyzed

[a] Table A Environmental Screening Levels (ESLs) (Residential Land Use) Shallow Soils (≤3m bgs) Groundwater is Current or Potential Source of Drinking Water. California Regional Water Quality Control Board San Francisco Bay Region, December 2013.

[b] US EPA - Online RSL Calculator - Resident Risk-Based Screening Levels (RSL) for Soil. http://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search

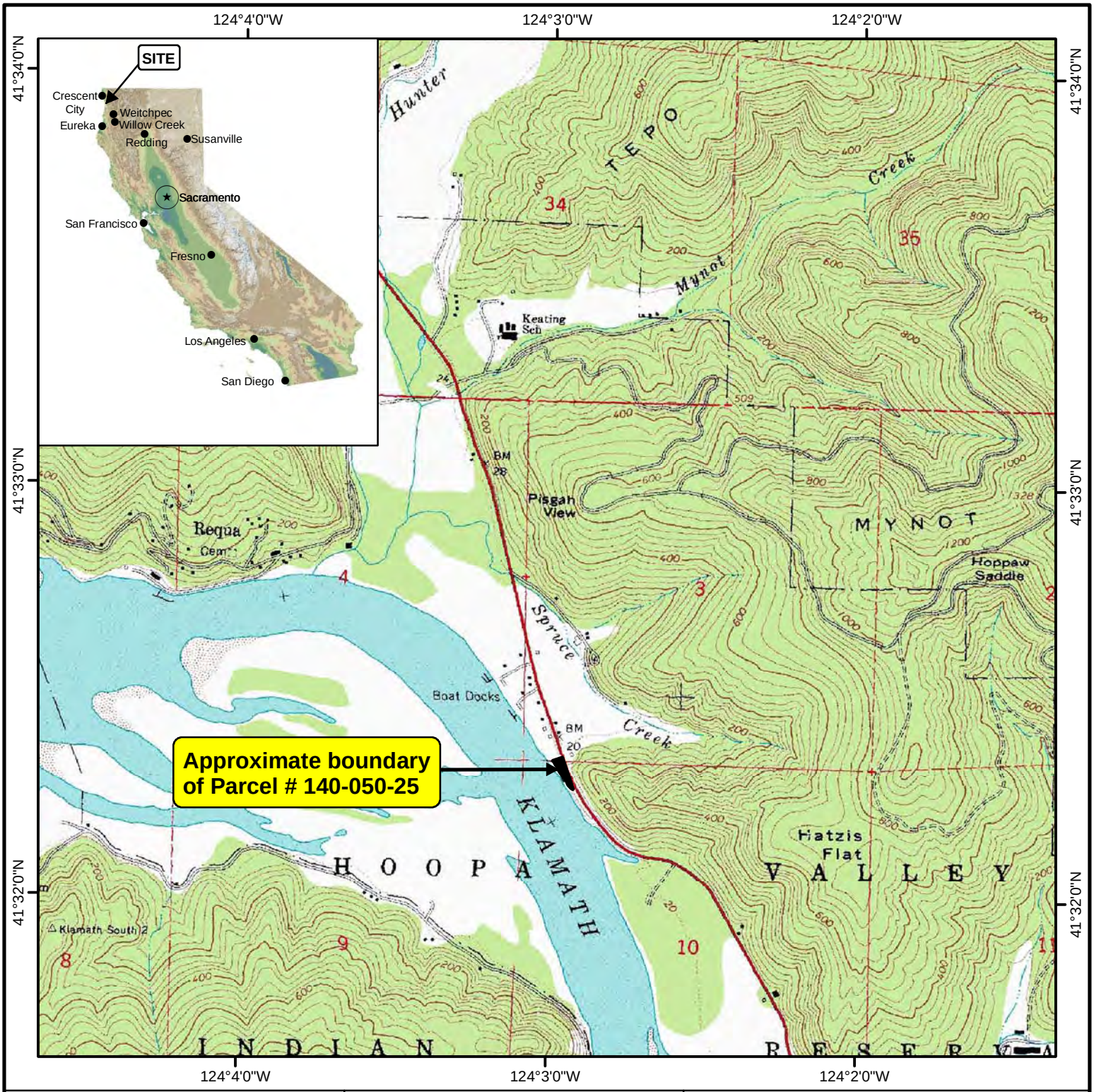
[1] The laboratory reported additional metals for Jet-Boat-4-(0.1') as part of their quality control analysis. Reporting limits were not included for these analytes so the non-detections are listed as ND.

TABLE 3
JET BOAT PROPERTY
GEOGRAPHIC COORDINATES CALCULATED BY FES USING GIS
Del Norte County, California

Feature	Latitude	Longitude	Collection Method	Horizontal Datum
Jet-Boat-1	41.53865479	-124.04963582	Calculated in GIS	NAD 83
Jet-Boat-9 - (Co-Located with Jet-Boat-1)	41.53865479	-124.04963582	Calculated in GIS	NAD 83
Jet-Boat-2	41.53864674	-124.04965992	Calculated in GIS	NAD 83
Jet-Boat-3	41.53864096	-124.04967478	Calculated in GIS	NAD 83
Jet-Boat-4	41.53844100	-124.04934601	Calculated in GIS	NAD 83
Jet-Boat-10 - (Co-Located with Jet-Boat-4)	41.53844100	-124.04934601	Calculated in GIS	NAD 83
Jet-Boat-5	41.53844816	-124.04931371	Calculated in GIS	NAD 83
Jet-Boat-6	41.53794184	-124.04891688	Calculated in GIS	NAD 83
Jet-Boat-7	41.53795062	-124.04886696	Calculated in GIS	NAD 83
Jet-Boat-8	41.53795974	-124.04880647	Calculated in GIS	NAD 83
Jet-Boat-12	41.53798173	-124.04893143	Calculated in GIS	NAD 83
Jet-Boat-13	41.53793155	-124.04896467	Calculated in GIS	NAD 83
Jet-Boat-14	41.53789923	-124.04890108	Calculated in GIS	NAD 83
Jet-Boat-15 - (Co-Located with Jet-Boat-14)	41.53789923	-124.04890108	Calculated in GIS	NAD 83
Jet-Boat-Metals	41.53804631	-124.04906977	Calculated in GIS	NAD 83

Notes: Geographic coordinates in this table were based on field measurements of distances to buildings visible on the 2010 aerial image obtained from terraserver®. The measurements were transferred onscreen to the image and the geographic coordinates were calculated in GIS by FES.

FIGURES



N
W E
S

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

LEGEND

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

ALL LOCATIONS APPROXIMATE

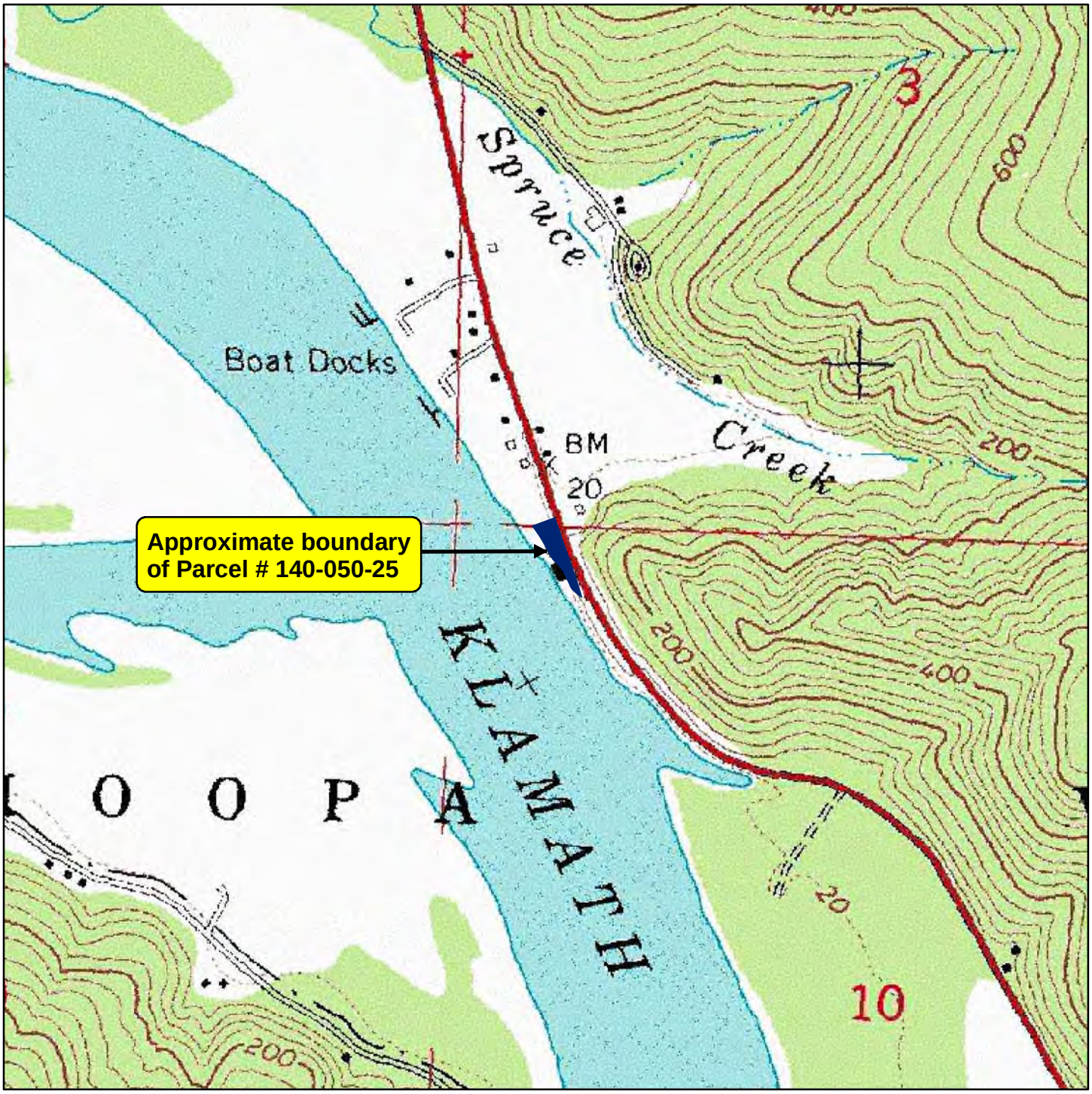
Yurok Tribe
Environmental Program

Figure 1
Subject Property Location Map
Jet Boat Property
Humboldt County, California

Freshwater Environmental Services

Date: 8-31-14

By: SJT



N
W E
S

Feet
0 250 500 1,000 1,500

LEGEND

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

ALL LOCATIONS APPROXIMATE

Yurok Tribe
Environmental Program

Figure 2
USGS 7.5' Topographic Map
Jet Boat Property
Klamath, California

Freshwater Environmental Services

Date: 8-31-14

By: SJT

N
W E
S

Feet
0 250 500 1,000 1,500

LEGEND

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

ALL LOCATIONS APPROXIMATE

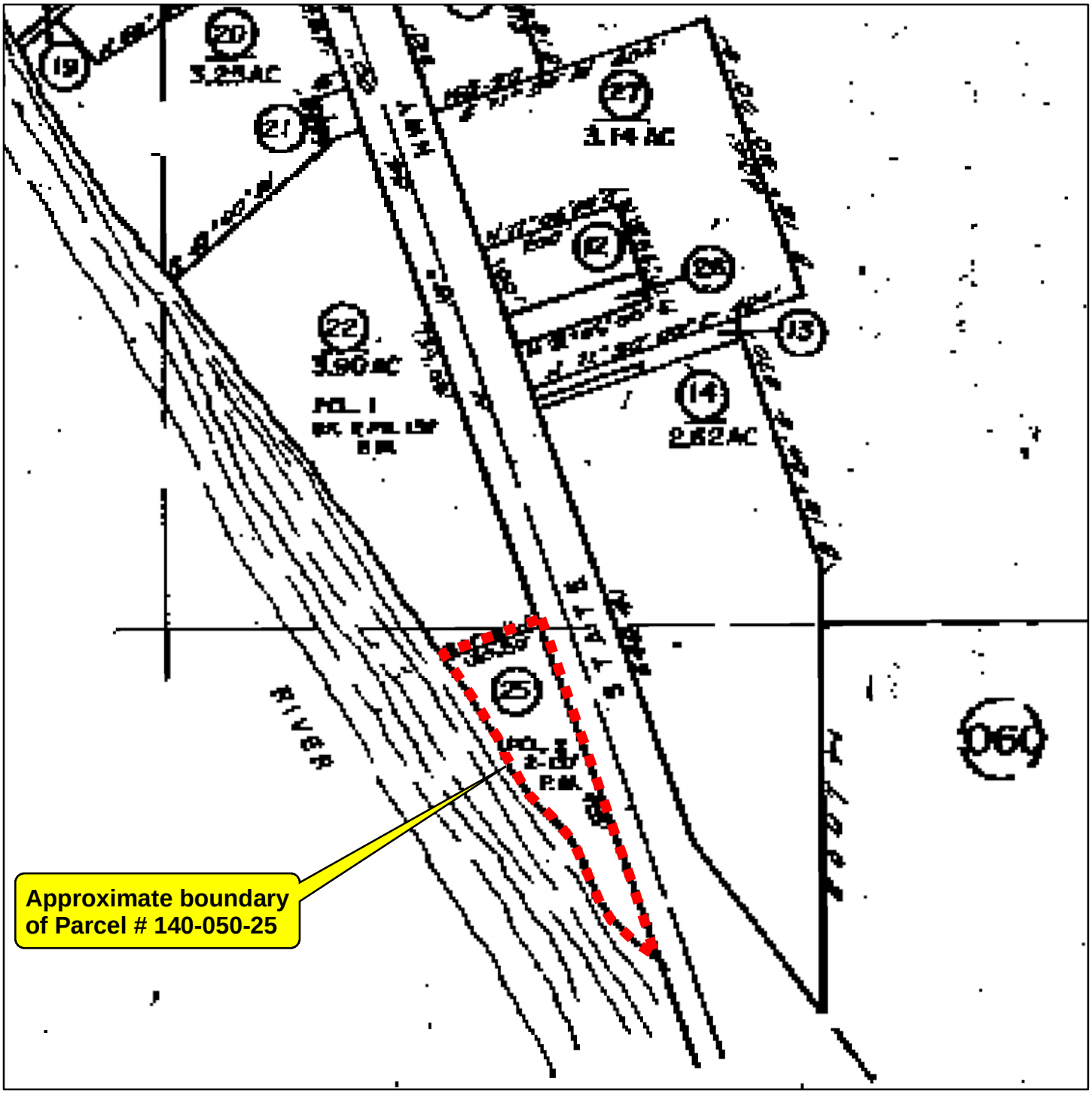
Yurok Tribe
Environmental Program

Figure 3
2012 Aerial Photograph
Jet Boat Property
Klamath, California

Freshwater Environmental Services

Date: 8-31-14

By: SJT



N
W E
S

Approximate Scale
Feet
0 100 200 400

LEGEND

Parcel map obtained from ParcelQuest.

ALL LOCATIONS APPROXIMATE

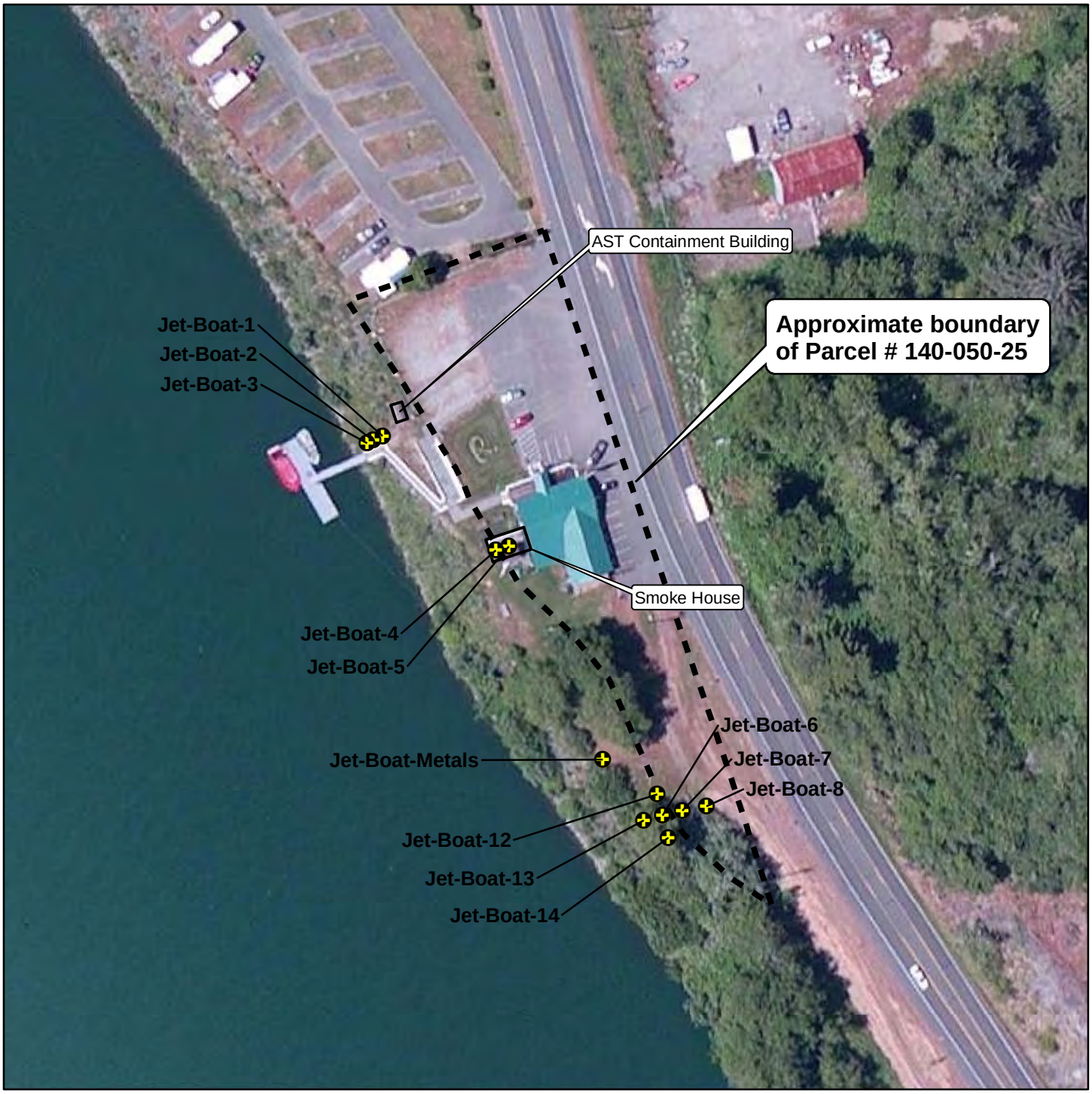
Yurok Tribe
Environmental Program

Figure 4
Parcel Map APN: 140-050-25
Jet Boat Property
Klamath, California

Freshwater Environmental Services

Date: 8-31-14

By: SJT



N
W E
S

Feet

0 20 40 80 120 160 200

LEGEND

Sample locations

Base Image Data Source: terraserver
Image Date June 30, 2010.

ALL LOCATIONS APPROXIMATE

Yurok Tribe
Environmental Program

Figure 5

Sample Locations
Jet Boat Property
Klamath, California

Freshwater Environmental Services

Date: 8-31-14

By: SJT

N
W E
S

Feet
0 5 10 20 30 40 50 60

LEGEND

Sample locations

Base Image Data Source:
Google Earth Pro
Image Date: June 6, 2013.

ALL LOCATIONS APPROXIMATE

Yurok Tribe
Environmental Program

Figure 6

AST Area Detail
Jet Boat Property
Klamath, California

Freshwater Environmental Services

Date: 8-31-14

By: SJT

N
W E
S

Feet
0 10 20 40 60 80

LEGEND

Sample locations

Base Image Data Source:
Google Earth Pro
Image Date: June 6, 2013.

ALL LOCATIONS APPROXIMATE

Yurok Tribe
Environmental Program

Figure 7

Sample Locations
Jet Boat Property
Klamath, California

Freshwater Environmental Services

Date: 8-31-14

By: SJT

PHOTOGRAPHS

Photo 1. Aboveground storage tank building and former dispenser hose.
Image date: November 4, 2013.

Photo 2. Detail of former dispenser hose.
Image date: November 4, 2013.

Photo 3. Rebuilt AST building and hose path.
Image date: July 12, 2014.

Photo 4. Water released at corner of AST building to determine flow path.
Image date: June 5, 2014.

Photo 5. Boring locations; Jet-Boat-1, Jet-Boat-2, and Jet-Boat-3.
Image date: June 5, 2014.

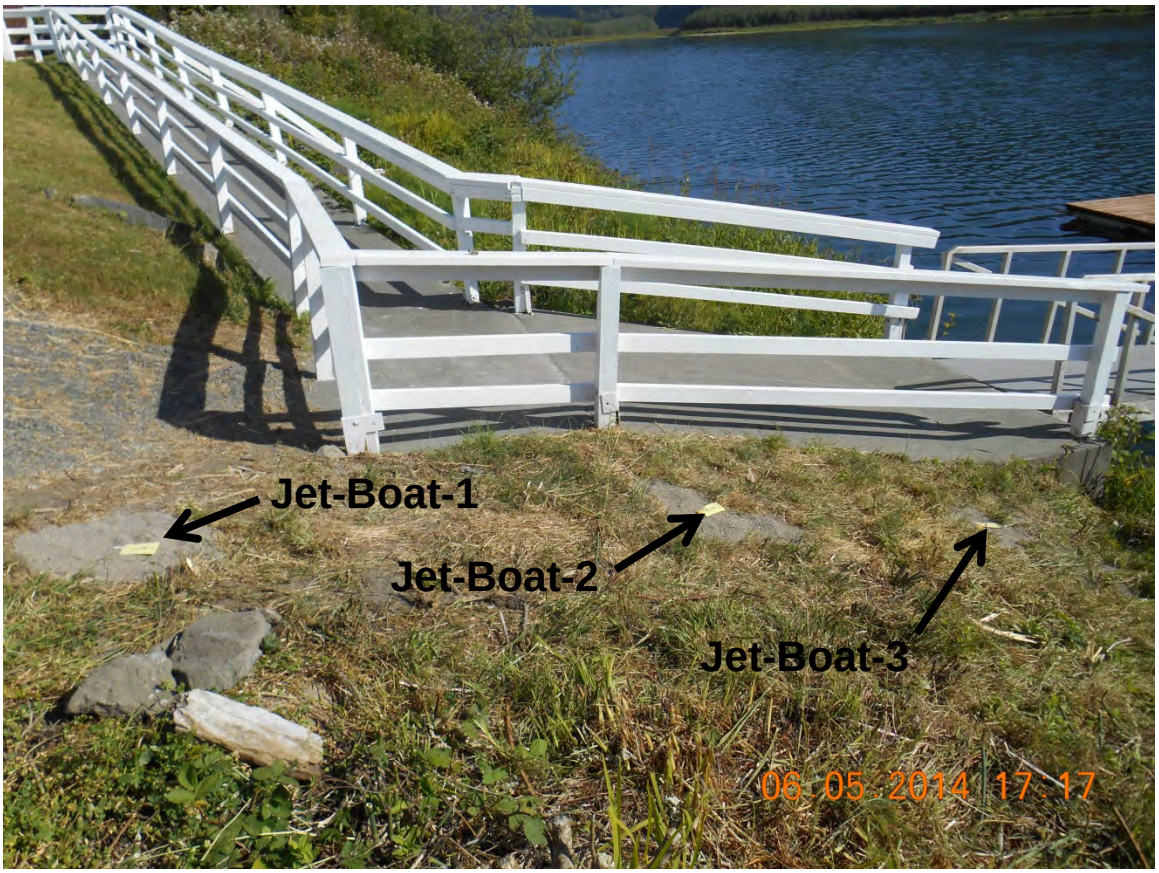


Photo 6. Boring locations; Jet-Boat-1, Jet-Boat-2, and Jet-Boat-3.
Image date: June 5, 2014.

Photo 7. New hose in place for fueling.
Image date: July 12, 2014.

Photo 8. New hose detail.
Image date: July 12, 2014.

Photo 9. Smoke House location.
Image date: November 4, 2013.

Photo 10. Two compartments of Smoke House.
Image date: June 5, 2014.

Photo 11. Western compartment of Smoke House.
Image date: November 4, 2013.

Photo 12. Eastern compartment of Smoke House.
Image date: November 4, 2013.

Photo 13. Boring Jet-Boat-4 in western compartment of Smoke House. Image date: June 5, 2014.

Photo 14. Boring Jet-Boat-4 in western compartment of Smoke House. Image date: June 5, 2014.

Photo 15. Boring Jet-Boat-5 in eastern compartment of Smoke House.
Image date: June 5, 2014.

Photo 16. Southern area of Subject Property.
Image date: November 4, 2013.

Photo 17. Looking southeast at area of “stressed” vegetation.
Image date: November 4, 2013.

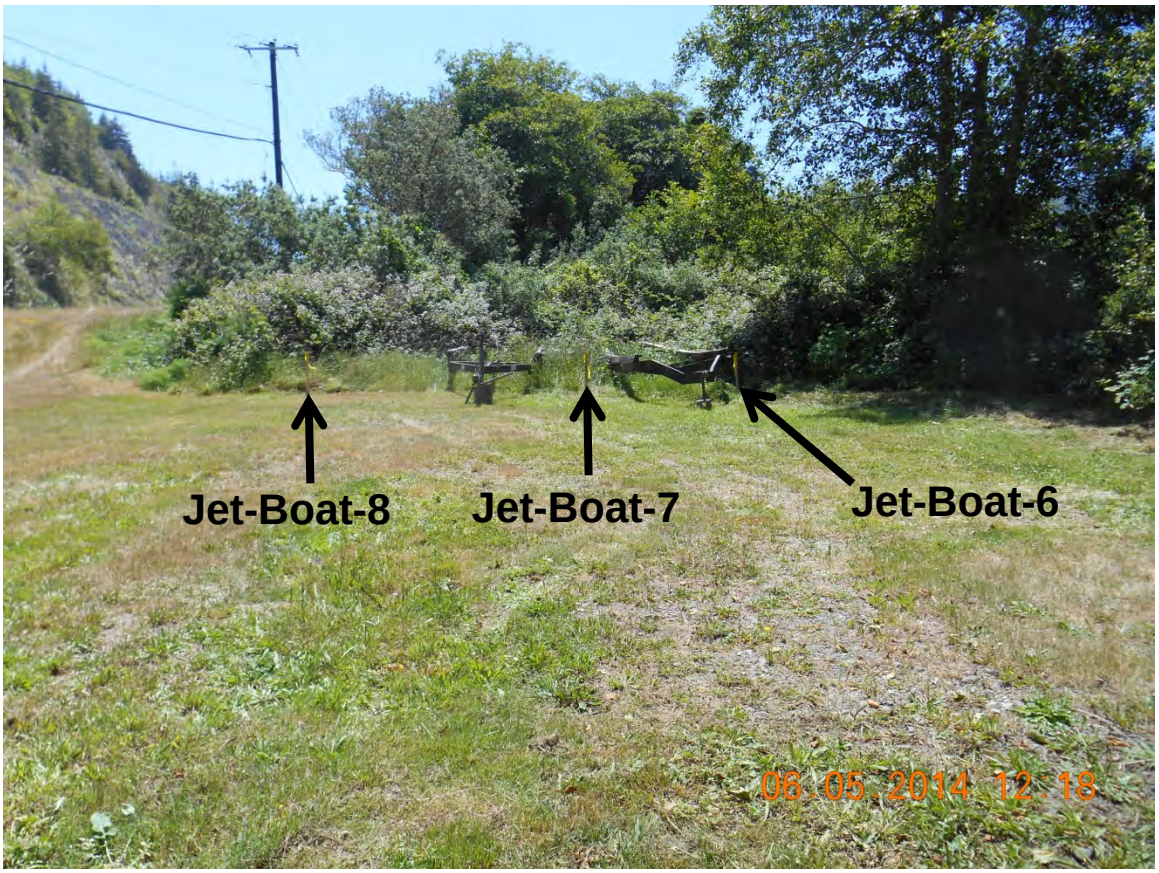


Photo 18. Borings locations; Jet-Boat-6, Jet-Boat-7, and Jet-Boat-8.
Image date: June 5, 2014.

Photo 19. Boring location Jet-Boat-6.
Image date: June 5, 2014.

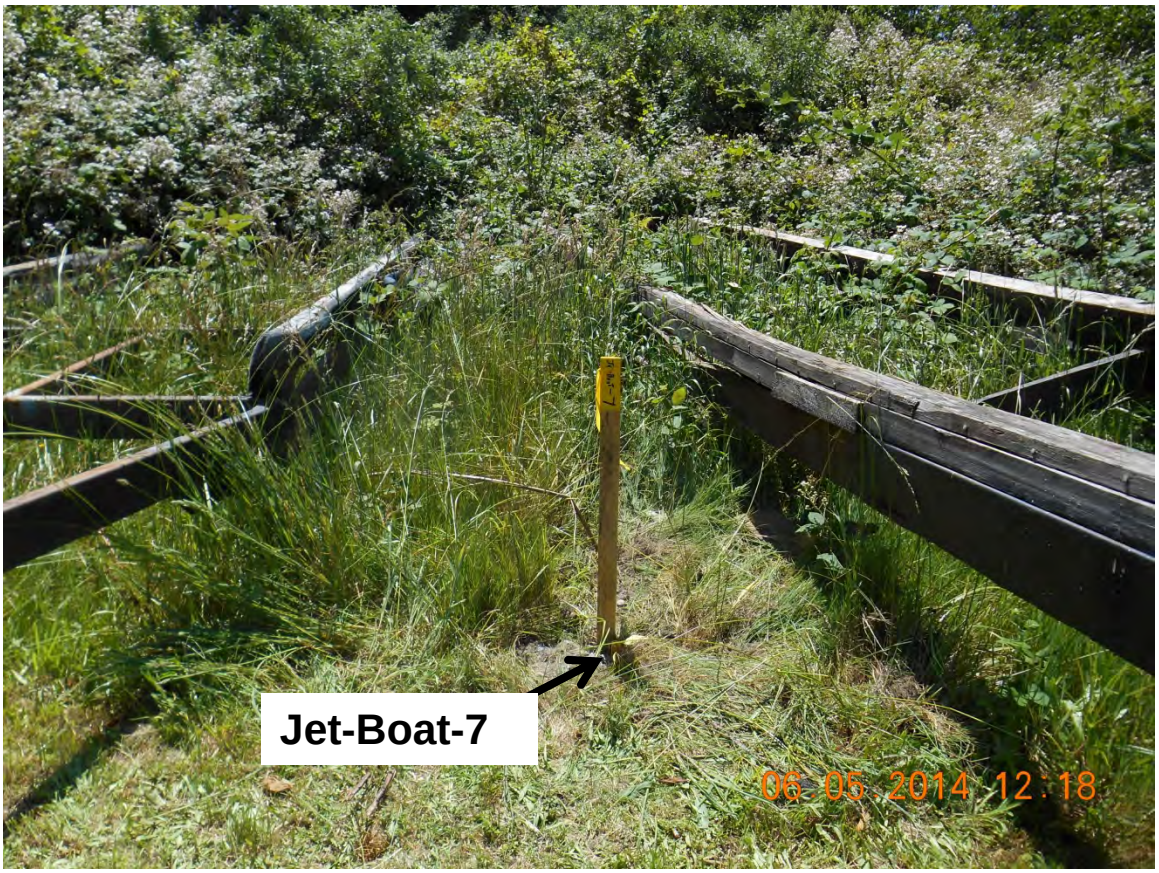


Photo 20. Boring location Jet-Boat-7.
Image date: June 5, 2014.

Photo 21. Boring location Jet-Boat-8.
Image date: June 5, 2014.

Photo 22. Boring location Jet-Boat-Metals.
Image date: June 5, 2014.

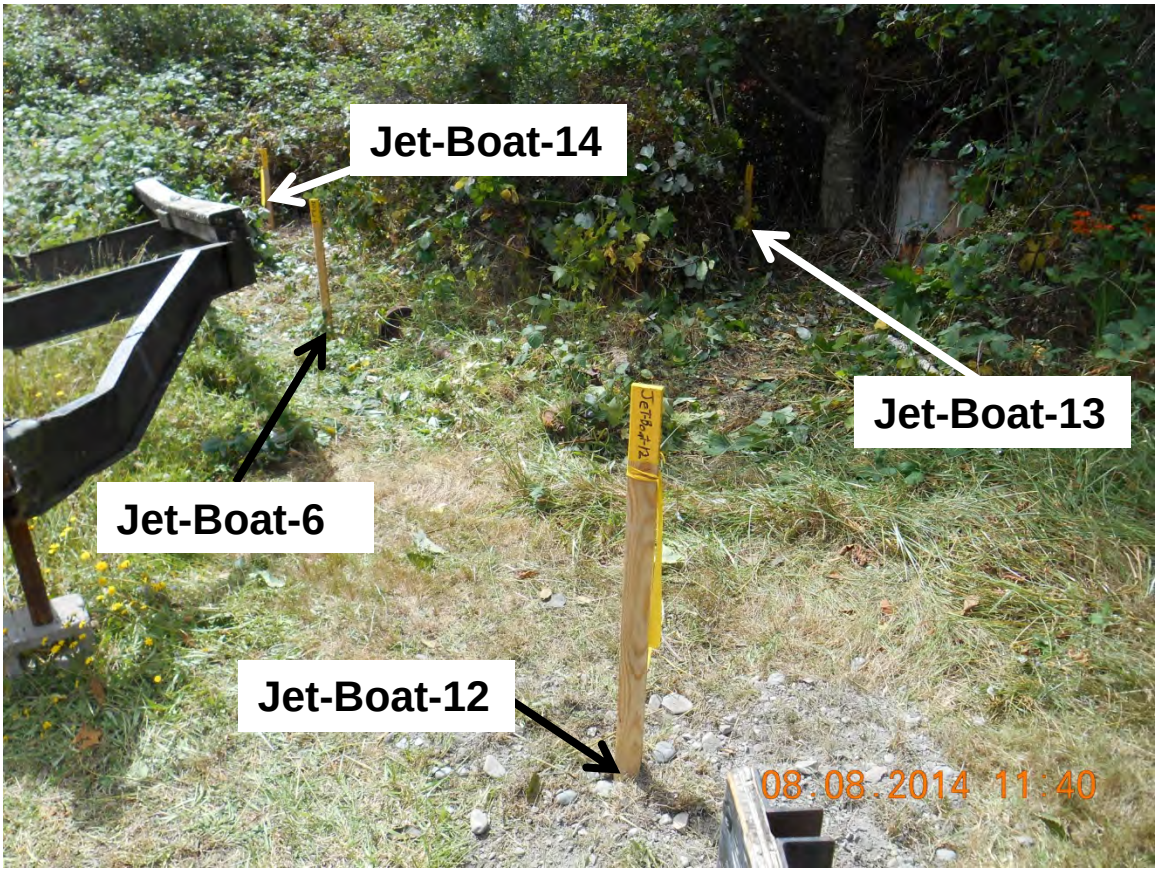


Photo 23. Boring locations around Jet-Boat-6.
Image date: August 8, 2014.

Photo 24. Boring location Jet-Boat-12.
Image date: August 8, 2014.

Photo 25. Boring location Jet-Boat-13.
Image date: August 8, 2014.

Photo 26. Boring location Jet-Boat-13.
Image date: August 8, 2014.

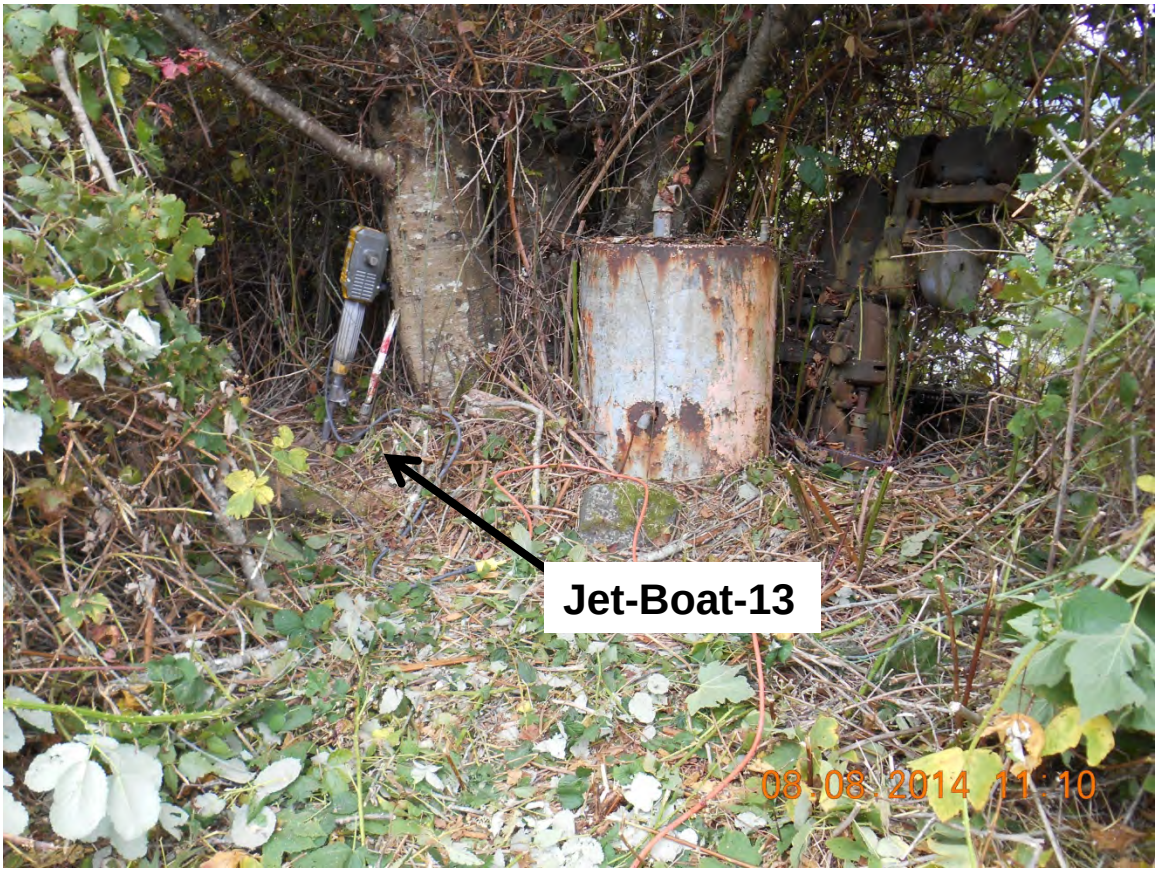


Photo 27. Equipment around Jet-Boat-13.
Image date: August 8, 2014.

Photo 28. Boring location Jet-Boat-14.
Image date: August 8, 2014.

APPENDIX A
Boring Logs

Log of Boring **Jet-Boat-1**

Date Started: June 5, 2014
Date Completed: June 5, 2014

Driller: Freshwater Environmental Services
Drilling Method: Shovel

Recovery	Depth (ft)	Description	USCS	Remarks
	0			**Ground Surface**
100%	0.1–0.8	Grass and roots at surface, sand ~90%, very fine to fine, subangular to subrounded, silt ~10%, dry, 10YR 4/1 (dark gray).	SP	
	0.9–1.9	Sand ~90%, very fine to fine, subangular to subrounded, silt ~10%, moist, 10YR 4/1 (dark gray). Strong gasoline odor.	SP	**Soil Sample:** Jet-Boat-1-(1.0') (Collected on 6-5-14) (**4,600** mg/kg gas)
	2.0			**Soil Sample:** Jet-Boat-1-(2.0') (Collected on 6-5-14) (**4,500** mg/kg gas)
	2.1–3.0	Refusal encountered at 2.0 feet due to large rocks.		**BOH ~ 2.0'**

Total Depth: ~ 2.0 feet
Completion: Boring backfilled with bags of clean sand.

Jet-Boat-1

Freshwater Environmental Services

Jet Boat Property – Klamath, CA

Date: 7-15-14 | By: SJT

Log of Boring **Jet-Boat-2**

Date Started: June 5, 2014
Date Completed: June 5, 2014

Driller: Freshwater Environmental Services
Drilling Method: Shovel

Recovery	Depth (ft)	Description	USCS	Remarks
	0			**Ground Surface**
100%	0.1–0.8	Grass and roots at surface, sand ~90%, very fine to fine, subangular to subrounded, silt ~10%, dry, 10YR 4/1 (dark gray).	SP	
	0.9–1.5	Sand ~90%, very fine to fine, subangular to subrounded, silt ~10%, moist, 10YR 4/1 (dark gray).	SP	**Soil Sample:** Jet-Boat-2-(0.9') (Collected on 6-5-14) (0.32 mg/kg gas) **Soil Sample:** Jet-Boat-2-(1.5') (Collected on 6-5-14) (0.17 mg/kg gas)
	1.6	Refusal encountered at 1.5 feet due to large rocks.		**BOH ~ 1.5'**

Total Depth: ~ 1.5 feet
Completion: Boring backfilled with soil cuttings.

Jet-Boat-2

Freshwater Environmental Services

Jet Boat Property – Klamath, CA

Date: 7-15-14 | By: SJT

Log of Boring **Jet-Boat-3**

Date Started: June 5, 2014
Date Completed: June 5, 2014

Driller: Freshwater Environmental Services
Drilling Method: Shovel

Recovery	Depth (ft)	Description	USCS	Remarks
	0			**Ground Surface**
100%	0.1–0.8	Grass and roots at surface, sand ~90%, very fine to fine, subangular to subrounded, silt ~10%, dry, 10YR 4/1 (dark gray).	SP	
	0.9–1.9	Sand ~90%, very fine to fine, subangular to subrounded, silt ~10%, moist, 10YR 4/1 (dark gray).	SP	**Soil Sample:** Jet-Boat-3-(0.8') (Collected on 6-5-14) (0.46 mg/kg gas)
	2.0			**Soil Sample:** Jet-Boat-3-(2.0') (Collected on 6-5-14) (0.093 mg/kg gas)
	2.1–3.0	Refusal encountered at 2.0 feet due to large rocks.		**BOH ~ 2.0'**

Total Depth: ~ 2.0 feet
Completion: Boring backfilled with soil cuttings.

Jet-Boat-3

Freshwater Environmental Services

Jet Boat Property – Klamath, CA

Date: 7-15-14 | By: SJT

Log of Boring **Jet-Boat-4**

Date Started: June 5, 2014
Date Completed: June 5, 2014

Driller: Freshwater Environmental Services
Drilling Method: Shovel & Electric Jackhammer

Recovery	Depth (ft)	Description	USCS	Remarks
	0			**Ground Surface**
100%	0.1	Clay ~90%, silt ~10%, medium plasticity, moist, 10YR 4/1 (dark gray).	CL	**Soil Sample:** Jet-Boat-4-(0.1') (Collected on 6-5-14) (**165** mg/kg nickel)
	0.2	Sand ~60%, fine to coarse, gravel ~30%, subangular to subrounded, up to ~3" diameter, silt ~10%, moist, 10YR 4/1 (dark gray). This layer appears to have been burned probably from fire and coals during smoking operations.	SW	
	0.3			
	0.4			
	0.5			
	0.6			
	0.7			
	0.8			
	0.9			
	1.0			
	1.1	Gravel ~60%, subangular to subrounded, sand ~30%, fine to coarse, silt ~10%, moist, 10YR 4/1 (dark gray).	GW	**Soil Sample:** Jet-Boat-4-(1.1') (Collected on 6-5-14) (24.9 mg/kg nickel)
	1.2			**BOH ~ 1.2'**
	1.3			
	1.4			
	1.5			

Total Depth: ~ 1.2 feet
Completion: Boring backfilled with soil cuttings.

Jet-Boat-4

Freshwater Environmental Services

Jet Boat Property – Klamath, CA

Date: 7-15-14 | By: SJT

Log of Boring **Jet-Boat-5**

Date Started: June 5, 2014
Date Completed: June 5, 2014

Driller: Freshwater Environmental Services
Drilling Method: Shovel & Electric Jackhammer

Recovery	Depth (ft)	Description	USCS	Remarks
	0	**Ground Surface**		
100%	0 – 0.2	Silt ~80%, clay ~20%, slight plasticity, moist, 10YR 4/1 (dark gray).	ML	**Soil Sample:** Jet-Boat-5-(0.1') (Collected on 6-5-14) (**161** mg/kg nickel)
	0.2 – 0.8	Sand ~60%, fine to medium, gravel ~30%, subangular to subrounded, up to ~3" diameter, silt ~10%, moist, 10YR 4/1 (dark gray). This layer appears to have been burned probably from fire and coals during smoking operations.	SW	
	0.8 – 1.2	Sand ~80%, fine to very fine, silt ~20%, moist, 10YR 4/1 (dark gray).	SP	**Soil Sample:** Jet-Boat-5-(1.0') (Collected on 6-5-14) (142 mg/kg nickel)
	1.2 – 1.3	Sand ~80%, fine to very fine, gravel ~20%, subangular to subrounded, up to ~2" diameter, silt ~ 10%, moist, 10YR 4/1 (dark gray).	SP	
	1.3	**BOH ~ 1.3'**		
	1.4 – 1.5			

Total Depth: ~ 1.3 feet
Completion: Boring backfilled with soil cuttings.

Jet-Boat-5

Freshwater Environmental Services

Jet Boat Property – Klamath, CA

Date: 7-15-14 | By: SJT

Log of Boring **Jet-Boat-6**

Date Started: June 5, 2014
Date Completed: June 5, 2014

Driller: Freshwater Environmental Services
Drilling Method: Shovel & Electric Jackhammer

Recovery	Depth (ft)	Description	USCS	Remarks
	0	**Ground Surface**		
100%	0.1–0.3	Grass and roots at surface, sand ~70%, medium, subrounded, gravel ~20%, subangular to subrounded, up to ~1" diameter, silt ~10%, moist, 10YR 4/1 (dark gray).	SP	**Soil Sample:** Jet-Boat-6-(0.1'-0.2') (Collected on 6-5-14) (**2,300** mg/kg TPH-MO)
	0.3–1.0	Gravel ~50%, up to ~2" diameter, medium, rounded to subrounded, sand, ~40%, subangular to subrounded, silt ~10%, moist, 10YR 4/1 (dark gray).	GP	**Soil Sample:** Jet-Boat-6-(1.0') (Collected on 6-5-14) (44 mg/kg TPH-MO)
	1.0	**BOH ~ 1.0'**		
	1.1–1.5			

Total Depth: ~ 1.0 feet
Completion: Boring backfilled with soil cuttings.

Jet-Boat-6

Freshwater Environmental Services

Jet Boat Property – Klamath, CA

Date: 7-15-14 | By: SJT

Log of Boring **Jet-Boat-7**

Date Started: June 5, 2014
Date Completed: June 5, 2014

Driller: Freshwater Environmental Services
Drilling Method: Shovel & Electric Jackhammer

Recovery	Depth (ft)	Description	USCS	Remarks
	0	**Ground Surface**		
100%	0 – 0.2	Grass and roots at surface, sand ~80%, fine, subangular to subrounded, silt ~20%, moist, 10YR 4/1 (dark gray).	SP	**Soil Sample:** Jet-Boat-7-(0.1'-0.2') (Collected on 6-5-14) (**130** mg/kg TPH-MO)
	0.2 – 0.9	Sand, ~60%, fine, subangular to subrounded, gravel ~30%, subangular to subrounded, medium, silt ~10%, moist, 10YR 4/1 (dark gray).	SP	**Soil Sample:** Jet-Boat-7-(0.9') (Collected on 6-5-14) (<25 mg/kg TPH-MO)
	0.9	**BOH ~ 0.9'**		
	1.0 – 1.5			

Total Depth: ~ 0.9 feet
Completion: Boring backfilled with soil cuttings.

Jet-Boat-7

Freshwater Environmental Services

Jet Boat Property – Klamath, CA

Date: 7-15-14 | By: SJT

Log of Boring **Jet-Boat-8**

Date Started: June 5, 2014
Date Completed: June 5, 2014

Driller: Freshwater Environmental Services
Drilling Method: Shovel & Electric Jackhammer

Recovery	Depth (ft)	Description	USCS	Remarks
	0	**Ground Surface**		
100%	0 – 0.2	Grass and roots at surface, silt ~60%, sand ~40%, fine to very fine, subangular to subrounded, dry, 10YR 4/1 (dark gray).	ML	**Soil Sample:** Jet-Boat-8-(0.0'-0.3') (Collected on 6-5-14) (<25 mg/kg TPH-MO)
	0.2 – 1.0	Gravel, ~40%, subangular to subrounded, sand ~30%, fine to very fine, silt ~30%, moist, 10YR 4/1 (dark gray).	GP	**Soil Sample:** Jet-Boat-8-(0.9'-1.0') (Collected on 6-5-14) (29 mg/kg TPH-MO)
	1.0	**BOH ~ 1.0'**		
	1.1			
	1.2			
	1.3			
	1.4			
	1.5			

Total Depth: ~ 1.0 feet
Completion: Boring backfilled with soil cuttings.

Jet-Boat-8

Freshwater Environmental Services

Jet Boat Property – Klamath, CA

Date: 7-15-14 | By: SJT

Log of Boring **Jet-Boat-9** (duplicate of Jet-Boat-1)

Date Started: June 5, 2014
Date Completed: June 5, 2014

Driller: Freshwater Environmental Services
Drilling Method: Shovel

Recovery	Depth (ft)	Description	USCS	Remarks
	0			**Ground Surface**
100%	0.1–0.8	Grass and roots at surface, sand ~90%, very fine to fine, subangular to subrounded, silt ~10%, dry, 10YR 4/1 (dark gray).	SP	
	0.8–2.0	Sand ~90%, very fine to fine, subangular to subrounded, silt ~10%, moist, 10YR 4/1 (dark gray). Strong gasoline odor.	SP	**Soil Sample:** Jet-Boat-9-(1.0') (Collected on 6-5-14) (**4,400** mg/kg gas)
	2.0	Refusal encountered at 2.0 feet due to large rocks.		**BOH ~ 2.0'**

Jet-Boat-9 is a duplicate of Jet-Boat-1

Total Depth: ~ 2.0 feet
Completion: Boring backfilled with clean sand.

Jet-Boat-9

Freshwater Environmental Services

Jet Boat Property – Klamath, CA

Date: 7-15-14 | By: SJT

Log of Boring **Jet-Boat-10** (duplicate of Jet-Boat-4)

Date Started: June 5, 2014
Date Completed: June 5, 2014

Driller: Freshwater Environmental Services
Drilling Method: Shovel

Recovery	Depth (ft)	Description	USCS	Remarks
	0			**Ground Surface**
100%	0 – 0.1	Clay ~90%, silt ~10%, medium plasticity, moist, 10YR 4/1 (dark gray).	CL	**Soil Sample:** Jet-Boat-10-(0.1') (Collected on 6-5-14) (**170** mg/kg nickel)
	0.1 – 1.1	Sand ~60%, fine to coarse, gravel ~30%, subangular to subrounded, up to ~3" diameter, silt ~10%, moist, 10YR 4/1 (dark gray). This layer appears to have been burned probably from fire and coals during smoking operations.	SW	
	1.1 – 1.2	Gravel ~60%, subangular to subrounded, sand ~30%, fine to coarse, silt ~10%, moist, 10YR 4/1 (dark gray).	GW	
	1.2			**BOH ~ 1.2'**

Jet-Boat-10 is a duplicate of Jet-Boat-4

Total Depth: ~ 1.2 feet
Completion: Boring backfilled with soil cuttings.

Jet-Boat-10

Freshwater Environmental Services

Jet Boat Property – Klamath, CA

Date: 7-15-14 | By: SJT

Log of Boring **Jet-Boat-Metals**

Date Started: June 5, 2014
Date Completed: June 5, 2014

Driller: Freshwater Environmental Services
Drilling Method: Shovel & Electric Jackhammer

Recovery	Depth (ft)	Description	USCS	Remarks
	0	**Ground Surface**		
100%	0.1	Grass and roots at surface, sand ~40%, medium, gravel ~30%, up to 1" diameter, silt ~ 30%, dry, 10YR 4/1 (dark gray).	SP	
	0.2			
	0.3			
	0.4	Gravel, ~60%, up to 3" diameter, subrounded, sand ~30%, fine to medium, silt ~10%, moist, 10YR 4/1 (dark gray).	GP	
	0.5			
	0.6			
	0.7			**Soil Sample:** Jet-Boat-Metals-(0.75') (Collected on 6-5-14) (**3.64** mg/kg arsenic)
	0.8	**BOH ~ 0.75'**		
	0.9			
	1.0			
	1.1			
	1.2			
	1.3			
	1.4			
	1.5			

Total Depth: ~ 0.75 feet
Completion: Boring backfilled with soil cuttings.

Jet-Boat-Metals

Freshwater Environmental Services

Jet Boat Property – Klamath, CA

Date: 7-15-14 | By: SJT

Log of Boring **Jet-Boat-12**

Date Started: August 8, 2014
Date Completed: August 8, 2014

Driller: Freshwater Environmental Services
Drilling Method: Shovel & Electric Jackhammer

Recovery	Depth (ft)	Description	USCS	Remarks
	0	**Ground Surface**		
100%	0 – 1.0	Grass surface, gravel, ~60%, up to 4", angular to subrounded, sand ~35%, fine to very fine, silt ~5%, dry, 10YR 4/1 (dark gray).	GW	**Soil Sample:** Jet-Boat-12-(0.0'-0.25') (Collected on 8-8-14) (**160** mg/kg TPH-MO) **Soil Sample:** Jet-Boat-12-(1.0') (Collected on 8-8-14) (52 mg/kg TPH-MO)
	1.0	**BOH ~ 1.0'**		

Total Depth: ~ 1.0 feet
Completion: Boring backfilled with soil cuttings.

Jet-Boat-12

Freshwater Environmental Services

Jet Boat Property – Klamath, CA

Date: 9-1-14 | By: SJT

Log of Boring **Jet-Boat-13**

Date Started: August 8, 2014
Date Completed: August 8, 2014

Driller: Freshwater Environmental Services
Drilling Method: Shovel & Electric Jackhammer

Recovery	Depth (ft)	Description	USCS	Remarks
	0	**Ground Surface**		
100%	0 – 1.0	Roots down to 0.5', gravel, up to 4", ~60%, angular to subrounded, sand ~35%, fine to very fine, silt ~5%, dry, 10YR 4/1 (dark gray).	GW	**Soil Sample:** Jet-Boat-13-(0.0'-0.25') (Collected on 8-8-14) (**170** mg/kg TPH-MO) **Soil Sample:** Jet-Boat-13-(1.0') (Collected on 8-8-14) (35 mg/kg TPH-MO)
	1.0	**BOH ~ 1.0'**		

Total Depth: ~ 1.0 feet
Completion: Boring backfilled with soil cuttings.

Jet-Boat-13

Freshwater Environmental Services

Jet Boat Property – Klamath, CA

Date: 9-1-14 | By: SJT

Log of Boring **Jet-Boat-14**

Date Started: August 8, 2014
Date Completed: August 8, 2014

Driller: Freshwater Environmental Services
Drilling Method: Shovel & Electric Jackhammer

Recovery	Depth (ft)	Description	USCS	Remarks
	0			**Ground Surface**
100%	0.1 – 1.0	Roots down to 0.5', gravel, up to 6", ~60%, up to 6", subangular to subrounded, sand ~35%, fine to very fine, silt ~5%, dry, 10YR 4/1 (dark gray).	GW	**Soil Sample:** Jet-Boat-14-(0.1'-0.25') (Collected on 8-8-14) (**490** mg/kg TPH-MO) **Soil Sample:** Jet-Boat-14-(1.0') (Collected on 8-8-14) (<25 mg/kg TPH-MO)
	1.0			**BOH ~ 1.0'**
	1.1 – 1.5			

Total Depth: ~ 1.0 feet
Completion: Boring backfilled with soil cuttings.

Jet-Boat-14

Freshwater Environmental Services

Jet Boat Property – Klamath, CA

Date: 9-1-14 | By: SJT

Log of Boring **Jet-Boat-15** (duplicate of Jet-Boat-14)

Date Started: August 8, 2014
Date Completed: August 8, 2014

Driller: Freshwater Environmental Services
Drilling Method: Shovel & Electric Jackhammer

Recovery	Depth (ft)	Description	USCS	Remarks
	0	**Ground Surface**		
100%	0 – 1.0	Roots down to 0.5', gravel, ~60%, up to 6", subangular to subrounded, sand ~35%, fine to very fine, silt ~5%, dry, 10YR 4/1 (dark gray).	GW	**Soil Sample:** Jet-Boat-15-(0.1'-0.25') (Collected on 8-8-14) (**1,400** mg/kg TPH-MO)
	1.0	**BOH ~ 1.0'**		

Jet-Boat-15 is a duplicate of Jet-Boat-14

Total Depth: ~ 1.0 feet
Completion: Boring backfilled with soil cuttings.

Jet-Boat-15

Freshwater Environmental Services

Jet Boat Property – Klamath, CA

Date: 9-1-14 | By: SJT

APPENDIX B
Laboratory Report and Chain-of-Custody Record - 1

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Supplemental Report 1

The original report has been revised/corrected.

WORK ORDER NUMBER: 14-06-0704

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Freshwater Environmental Services

Client Project Name: Jet Boat Property

Attention: Stan Thiesen
78 Sunny Brae Center
Arcata, CA 95521-6742

Approved for release on 06/19/2014 by:
Don Burley
Project Manager

ResultLink

Email your PM

Eurofins Calscience, 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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Work Order Narrative

Work Order: 14-06-0704 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/10/14. They were assigned to Work Order 14-06-0704.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Project: Jet Boat Property

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-11	**14-06-0704-19-E**	**06/05/14 13:45**	**Aqueous**	**GC 46**	**06/11/14**	**06/12/14 07:02**	**140611B17**

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	250	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	76	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-278-635**	**N/A**	**Aqueous**	**GC 46**	**06/11/14**	**06/12/14 06:09**	**140611B17**

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	250	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	76	68-140	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Project: Jet Boat Property

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-4-(0.1')	**14-06-0704-7-A**	**06/05/14 13:00**	**Solid**	**GC 46**	**06/11/14**	**06/12/14 02:23**	**140611B08**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	25	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	91	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-4-(1.1')	**14-06-0704-8-A**	**06/05/14 13:35**	**Solid**	**GC 46**	**06/11/14**	**06/12/14 02:40**	**140611B08**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	25	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	89	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-5-(0.1')	**14-06-0704-9-A**	**06/05/14 13:55**	**Solid**	**GC 46**	**06/11/14**	**06/12/14 02:57**	**140611B08**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	25	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	93	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-5-(1.0')	**14-06-0704-10-A**	**06/05/14 14:10**	**Solid**	**GC 46**	**06/11/14**	**06/12/14 03:14**	**140611B08**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	25	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	90	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Project: Jet Boat Property

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-6-(0.1'-0.2')	**14-06-0704-11-A**	**06/05/14 10:40**	**Solid**	**GC 46**	**06/11/14**	**06/12/14 03:32**	**140611B08**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	2300	120	5.00	HD,SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-6-(1.0')	**14-06-0704-12-A**	**06/05/14 10:52**	**Solid**	**GC 46**	**06/11/14**	**06/12/14 03:49**	**140611B08**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	44	25	1.00	HD,SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	94	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-7-(0.1'-0.2')	**14-06-0704-13-A**	**06/05/14 11:10**	**Solid**	**GC 46**	**06/11/14**	**06/12/14 04:07**	**140611B08**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	130	25	1.00	HD,SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	102	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-7-(0.9')	**14-06-0704-14-A**	**06/05/14 11:25**	**Solid**	**GC 46**	**06/11/14**	**06/12/14 04:24**	**140611B08**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	25	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	93	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
		Units:	mg/kg
Project: Jet Boat Property			Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-8-(0.0'-0.3')	**14-06-0704-15-A**	**06/05/14 11:40**	**Solid**	**GC 46**	**06/11/14**	**06/12/14 04:42**	**140611B08**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	25	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	85	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-8-(0.9'-1.0')	**14-06-0704-16-A**	**06/05/14 11:50**	**Solid**	**GC 46**	**06/11/14**	**06/12/14 04:59**	**140611B08**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	29	25	1.00	HD,SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	86	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-10-(0.1')	**14-06-0704-18-A**	**06/05/14 12:30**	**Solid**	**GC 46**	**06/11/14**	**06/12/14 05:52**	**140611B08**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	25	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	89	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-420-947**	**N/A**	**Solid**	**GC 46**	**06/11/14**	**06/12/14 01:11**	**140611B08**

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	25	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	89	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Project: Jet Boat Property

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-11	**14-06-0704-19-D**	**06/05/14 13:45**	**Aqueous**	**ICP/MS 04**	**06/16/14**	**06/16/14 20:35**	**140616L02**

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Zinc	0.0167	0.00500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**096-06-003-4446**	**N/A**	**Aqueous**	**ICP/MS 04**	**06/16/14**	**06/16/14 20:11**	**140616L02**

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 3050B
Method: EPA 6020
Units: mg/kg

Project: Jet Boat Property

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-4-(0.1')	**14-06-0704-7-AA**	**06/05/14 13:00**	**Solid**	**ICP/MS 04**	**06/11/14**	**06/12/14 16:46**	**140611L02A**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	94.3	2.00	1.00	
Lead	5.85	1.00	1.00	
Nickel	165	1.00	1.00	
Zinc	59.1	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-4-(1.1')	**14-06-0704-8-AA**	**06/05/14 13:35**	**Solid**	**ICP/MS 04**	**06/11/14**	**06/12/14 16:49**	**140611L02A**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	22.5	2.00	1.00	
Lead	67.0	1.00	1.00	
Nickel	24.9	1.00	1.00	
Zinc	231	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-5-(0.1')	**14-06-0704-9-AA**	**06/05/14 13:55**	**Solid**	**ICP/MS 04**	**06/11/14**	**06/12/14 16:53**	**140611L02A**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	95.8	2.00	1.00	
Lead	13.2	1.00	1.00	
Nickel	161	1.00	1.00	
Zinc	311	5.00	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Jet Boat Property			Page 2 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-5-(1.0')	**14-06-0704-10-AA**	**06/05/14 14:10**	**Solid**	**ICP/MS 04**	**06/11/14**	**06/12/14 16:56**	**140611L02A**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	92.4	2.00	1.00	
Lead	27.4	1.00	1.00	
Nickel	142	1.00	1.00	
Zinc	101	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-6-(0.1'-0.2')	**14-06-0704-11-AA**	**06/05/14 10:40**	**Solid**	**ICP/MS 04**	**06/11/14**	**06/12/14 16:59**	**140611L02A**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	54.9	2.00	1.00	
Lead	8.47	1.00	1.00	
Nickel	78.2	1.00	1.00	
Zinc	73.6	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-6-(1.0')	**14-06-0704-12-AA**	**06/05/14 10:52**	**Solid**	**ICP/MS 04**	**06/11/14**	**06/12/14 17:03**	**140611L02A**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	29.6	2.00	1.00	
Lead	11.0	1.00	1.00	
Nickel	45.7	1.00	1.00	
Zinc	72.7	5.00	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Jet Boat Property			Page 3 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-7-(0.1'-0.2')	**14-06-0704-13-AA**	**06/05/14 11:10**	**Solid**	**ICP/MS 04**	**06/11/14**	**06/12/14 17:06**	**140611L02A**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	59.2	2.00	1.00	
Lead	9.90	1.00	1.00	
Nickel	89.1	1.00	1.00	
Zinc	80.9	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-7-(0.9')	**14-06-0704-14-AA**	**06/05/14 11:25**	**Solid**	**ICP/MS 04**	**06/11/14**	**06/12/14 17:10**	**140611L02A**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	33.2	2.00	1.00	
Lead	10.7	1.00	1.00	
Nickel	79.8	1.00	1.00	
Zinc	78.0	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-8-(0.0'-0.3')	**14-06-0704-15-AA**	**06/05/14 11:40**	**Solid**	**ICP/MS 04**	**06/11/14**	**06/12/14 17:23**	**140611L02A**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	64.1	2.00	1.00	
Lead	15.9	1.00	1.00	
Nickel	110	1.00	1.00	
Zinc	100	5.00	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Jet Boat Property			Page 4 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-8-(0.9'-1.0')	**14-06-0704-16-AA**	**06/05/14 11:50**	**Solid**	**ICP/MS 04**	**06/11/14**	**06/12/14 17:27**	**140611L02A**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	37.7	2.00	1.00	
Lead	22.0	1.00	1.00	
Nickel	52.3	1.00	1.00	
Zinc	84.9	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-10-(0.1')	**14-06-0704-18-AA**	**06/05/14 12:30**	**Solid**	**ICP/MS 04**	**06/11/14**	**06/12/14 17:30**	**140611L02A**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	94.9	2.00	1.00	
Lead	5.84	1.00	1.00	
Nickel	170	1.00	1.00	
Zinc	60.8	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-Metals-(0.75')	**14-06-0704-20-AA**	**06/05/14 10:05**	**Solid**	**ICP/MS 04**	**06/11/14**	**06/12/14 17:34**	**140611L02A**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	2.00	1.00	
Arsenic	3.64	1.00	1.00	
Cadmium	ND	1.00	1.00	
Chromium	16.1	2.00	1.00	
Copper	19.5	1.00	1.00	
Lead	7.25	1.00	1.00	
Nickel	23.7	1.00	1.00	
Selenium	ND	1.00	1.00	
Silver	ND	1.00	1.00	
Thallium	ND	1.00	1.00	
Zinc	59.8	5.00	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 3050B
Method: EPA 6020
Units: mg/kg

Project: Jet Boat Property

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-621-519**	**N/A**	**Solid**	**ICP/MS 03**	**06/11/14**	**06/11/14 19:50**	**140611L02A**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	2.00	1.00	
Arsenic	ND	1.00	1.00	
Cadmium	ND	1.00	1.00	
Chromium	ND	2.00	1.00	
Copper	ND	1.00	1.00	
Lead	ND	1.00	1.00	
Nickel	ND	1.00	1.00	
Selenium	ND	1.00	1.00	
Silver	ND	1.00	1.00	
Thallium	ND	1.00	1.00	
Zinc	ND	5.00	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B
Units: ug/L

Project: Jet Boat Property

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-11	**14-06-0704-19-B**	**06/05/14 13:45**	**Aqueous**	**GC/MS R**	**06/17/14**	**06/17/14 21:08**	**140617L037**

Comment(s): - TPPH represents total purgeable petroleum hydrocarbons, approximate carbon range C4-C12.

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B
Units: ug/L

Project: Jet Boat Property

Parameter	Result	RL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	1.00	
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1.00	
Ethanol	ND	100	1.00	
TPPH	ND	50	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5030C
	Method:	GC/MS / EPA 8260B
	Units:	ug/L
Project: Jet Boat Property		Page 3 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	97	78-126	
1,2-Dichloroethane-d4	100	75-135	
Toluene-d8	99	80-120	
Toluene-d8-TPPH	105	88-112	
1,4-Bromofluorobenzene	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B
Units: ug/L

Project: Jet Boat Property

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-767-6569**	**N/A**	**Aqueous**	**GC/MS R**	**06/17/14**	**06/17/14 18:54**	**140617L037**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5030C
	Method:	GC/MS / EPA 8260B
	Units:	ug/L
Project: Jet Boat Property		Page 5 of 6

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1.00	
Ethanol	ND	100	1.00	
TPPH	ND	50	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5030C
	Method:	GC/MS / EPA 8260B
	Units:	ug/L
Project: Jet Boat Property		Page 6 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	99	78-126	
1,2-Dichloroethane-d4	101	75-135	
Toluene-d8	100	80-120	
Toluene-d8-TPPH	105	88-112	
1,4-Bromofluorobenzene	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 5035
Method: GC/MS / EPA 8260B
Units: mg/kg

Project: Jet Boat Property

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-4-(0.1')	**14-06-0704-7-F**	**06/05/14 13:00**	**Solid**	**GC/MS R**	**06/05/14**	**06/13/14 14:58**	**140613L003**

Comment(s): - TPPH represents total purgeable petroleum hydrocarbons, approximate carbon range C4-C12.

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0011	1.00	
Bromobenzene	ND	0.0011	1.00	
Bromochloromethane	ND	0.0021	1.00	
Bromodichloromethane	ND	0.0011	1.00	
Bromoform	ND	0.0053	1.00	
Bromomethane	ND	0.021	1.00	
2-Butanone	ND	0.021	1.00	
n-Butylbenzene	ND	0.0011	1.00	
sec-Butylbenzene	ND	0.0011	1.00	
tert-Butylbenzene	ND	0.0011	1.00	
Carbon Disulfide	ND	0.011	1.00	
Carbon Tetrachloride	ND	0.0011	1.00	
Chlorobenzene	ND	0.0011	1.00	
Chloroethane	ND	0.0021	1.00	
Chloroform	ND	0.0011	1.00	
Chloromethane	ND	0.021	1.00	
2-Chlorotoluene	ND	0.0011	1.00	
4-Chlorotoluene	ND	0.0011	1.00	
Dibromochloromethane	ND	0.0021	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0053	1.00	
1,2-Dibromoethane	ND	0.0011	1.00	
Dibromomethane	ND	0.0011	1.00	
1,2-Dichlorobenzene	ND	0.0011	1.00	
1,3-Dichlorobenzene	ND	0.0011	1.00	
1,4-Dichlorobenzene	ND	0.0011	1.00	
Dichlorodifluoromethane	ND	0.0021	1.00	
1,1-Dichloroethane	ND	0.0011	1.00	
1,2-Dichloroethane	ND	0.0011	1.00	
1,1-Dichloroethene	ND	0.0011	1.00	
c-1,2-Dichloroethene	ND	0.0011	1.00	
t-1,2-Dichloroethene	ND	0.0011	1.00	
1,2-Dichloropropane	ND	0.0011	1.00	
1,3-Dichloropropane	ND	0.0011	1.00	
2,2-Dichloropropane	ND	0.0053	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
	Units:	mg/kg
Project: Jet Boat Property		Page 2 of 24

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	0.0021	1.00	
c-1,3-Dichloropropene	ND	0.0011	1.00	
t-1,3-Dichloropropene	ND	0.0021	1.00	
Ethylbenzene	ND	0.0011	1.00	
2-Hexanone	ND	0.021	1.00	
Isopropylbenzene	ND	0.0011	1.00	
p-Isopropyltoluene	0.0011	0.0011	1.00	
Methylene Chloride	ND	0.011	1.00	
4-Methyl-2-Pentanone	ND	0.021	1.00	
Naphthalene	ND	0.011	1.00	
n-Propylbenzene	ND	0.0021	1.00	
Styrene	ND	0.0011	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0011	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0021	1.00	
Tetrachloroethene	ND	0.0011	1.00	
Toluene	0.0011	0.0011	1.00	
1,2,3-Trichlorobenzene	ND	0.0021	1.00	
1,2,4-Trichlorobenzene	ND	0.0021	1.00	
1,1,1-Trichloroethane	ND	0.0011	1.00	
1,1,2-Trichloroethane	ND	0.0011	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.011	1.00	
Trichloroethene	ND	0.0021	1.00	
Trichlorofluoromethane	ND	0.011	1.00	
1,2,3-Trichloropropane	ND	0.0021	1.00	
1,2,4-Trimethylbenzene	ND	0.0021	1.00	
1,3,5-Trimethylbenzene	ND	0.0021	1.00	
Vinyl Acetate	ND	0.011	1.00	
Vinyl Chloride	ND	0.0011	1.00	
p/m-Xylene	ND	0.0021	1.00	
o-Xylene	ND	0.0011	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0021	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.021	1.00	
Diisopropyl Ether (DIPE)	ND	0.0011	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0011	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0011	1.00	
Ethanol	ND	0.53	1.00	
TPPH	0.083	0.053	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
	Units:	mg/kg
Project: Jet Boat Property		Page 3 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	118	79-139	
1,2-Dichloroethane-d4	143	71-155	
1,4-Bromofluorobenzene	86	80-120	
Toluene-d8	98	80-120	
Toluene-d8-TPPH	100	87-111	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-4-(0.1')	**14-06-0704-7-G**	**06/05/14 13:00**	**Solid**	**GC/MS R**	**06/05/14**	**06/13/14 17:12**	**140613L026**

Comment(s): - TPPH represents total purgeable petroleum hydrocarbons, approximate carbon range C4-C12.

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	2.7	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	101	79-139	
1,2-Dichloroethane-d4	122	71-155	
1,4-Bromofluorobenzene	101	80-120	
Toluene-d8	103	80-120	
Toluene-d8-TPPH	105	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
		Units:	mg/kg
Project: Jet Boat Property			Page 4 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-4-(1.1')	**14-06-0704-8-D**	**06/05/14 13:35**	**Solid**	**GC/MS R**	**06/05/14**	**06/11/14 18:26**	**140611L008**

Comment(s): - TPPH represents total purgeable petroleum hydrocarbons, approximate carbon range C4-C12.

Parameter	Result	RL	DF	Qualifiers
Acetone	0.075	0.055	1.00	
Benzene	ND	0.0011	1.00	
Bromobenzene	ND	0.0011	1.00	
Bromochloromethane	ND	0.0022	1.00	
Bromodichloromethane	ND	0.0011	1.00	
Bromoform	ND	0.0055	1.00	
Bromomethane	ND	0.022	1.00	
2-Butanone	ND	0.022	1.00	
n-Butylbenzene	ND	0.0011	1.00	
sec-Butylbenzene	ND	0.0011	1.00	
tert-Butylbenzene	ND	0.0011	1.00	
Carbon Disulfide	ND	0.011	1.00	
Carbon Tetrachloride	ND	0.0011	1.00	
Chlorobenzene	ND	0.0011	1.00	
Chloroethane	ND	0.0022	1.00	
Chloroform	ND	0.0011	1.00	
Chloromethane	ND	0.022	1.00	
2-Chlorotoluene	ND	0.0011	1.00	
4-Chlorotoluene	ND	0.0011	1.00	
Dibromochloromethane	ND	0.0022	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0055	1.00	
1,2-Dibromoethane	ND	0.0011	1.00	
Dibromomethane	ND	0.0011	1.00	
1,2-Dichlorobenzene	ND	0.0011	1.00	
1,3-Dichlorobenzene	ND	0.0011	1.00	
1,4-Dichlorobenzene	ND	0.0011	1.00	
Dichlorodifluoromethane	ND	0.0022	1.00	
1,1-Dichloroethane	ND	0.0011	1.00	
1,2-Dichloroethane	ND	0.0011	1.00	
1,1-Dichloroethene	ND	0.0011	1.00	
c-1,2-Dichloroethene	ND	0.0011	1.00	
t-1,2-Dichloroethene	ND	0.0011	1.00	
1,2-Dichloropropane	ND	0.0011	1.00	
1,3-Dichloropropane	ND	0.0011	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
	Units:	mg/kg
Project: Jet Boat Property		Page 5 of 24

Parameter	Result	RL	DF	Qualifiers
2,2-Dichloropropane	ND	0.0055	1.00	
1,1-Dichloropropene	ND	0.0022	1.00	
c-1,3-Dichloropropene	ND	0.0011	1.00	
t-1,3-Dichloropropene	ND	0.0022	1.00	
Ethylbenzene	ND	0.0011	1.00	
2-Hexanone	ND	0.022	1.00	
Isopropylbenzene	ND	0.0011	1.00	
p-Isopropyltoluene	ND	0.0011	1.00	
Methylene Chloride	ND	0.011	1.00	
4-Methyl-2-Pentanone	ND	0.022	1.00	
Naphthalene	ND	0.011	1.00	
n-Propylbenzene	ND	0.0022	1.00	
Styrene	ND	0.0011	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0011	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0022	1.00	
Tetrachloroethene	ND	0.0011	1.00	
Toluene	ND	0.0011	1.00	
1,2,3-Trichlorobenzene	ND	0.0022	1.00	
1,2,4-Trichlorobenzene	ND	0.0022	1.00	
1,1,1-Trichloroethane	ND	0.0011	1.00	
1,1,2-Trichloroethane	ND	0.0011	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.011	1.00	
Trichloroethene	ND	0.0022	1.00	
Trichlorofluoromethane	ND	0.011	1.00	
1,2,3-Trichloropropane	ND	0.0022	1.00	
1,2,4-Trimethylbenzene	ND	0.0022	1.00	
1,3,5-Trimethylbenzene	ND	0.0022	1.00	
Vinyl Acetate	ND	0.011	1.00	
Vinyl Chloride	ND	0.0011	1.00	
p/m-Xylene	ND	0.0022	1.00	
o-Xylene	ND	0.0011	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0022	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.022	1.00	
Diisopropyl Ether (DIPE)	ND	0.0011	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0011	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0011	1.00	
Ethanol	ND	0.55	1.00	
TPPH	ND	0.055	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
	Units:	mg/kg
Project: Jet Boat Property		Page 6 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	112	79-139	
1,2-Dichloroethane-d4	140	71-155	
1,4-Bromofluorobenzene	97	80-120	
Toluene-d8	102	80-120	
Toluene-d8-TPPH	104	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
		Units:	mg/kg
Project: Jet Boat Property			Page 7 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-5-(0.1')	**14-06-0704-9-D**	**06/05/14 13:55**	**Solid**	**GC/MS UU**	**06/05/14**	**06/16/14 13:47**	**140616L003**

Comment(s): - TPPH represents total purgeable petroleum hydrocarbons, approximate carbon range C4-C12.

Parameter	Result	RL	DF	Qualifiers
Acetone	0.073	0.055	1.00	
Benzene	ND	0.0011	1.00	
Bromobenzene	ND	0.0011	1.00	
Bromochloromethane	ND	0.0022	1.00	
Bromodichloromethane	ND	0.0011	1.00	
Bromoform	ND	0.0055	1.00	
Bromomethane	ND	0.022	1.00	
2-Butanone	ND	0.022	1.00	
n-Butylbenzene	ND	0.0011	1.00	
sec-Butylbenzene	ND	0.0011	1.00	
tert-Butylbenzene	ND	0.0011	1.00	
Carbon Disulfide	ND	0.011	1.00	
Carbon Tetrachloride	ND	0.0011	1.00	
Chlorobenzene	ND	0.0011	1.00	
Chloroethane	ND	0.0022	1.00	
Chloroform	ND	0.0011	1.00	
Chloromethane	ND	0.022	1.00	
2-Chlorotoluene	ND	0.0011	1.00	
4-Chlorotoluene	ND	0.0011	1.00	
Dibromochloromethane	ND	0.0022	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0055	1.00	
1,2-Dibromoethane	ND	0.0011	1.00	
Dibromomethane	ND	0.0011	1.00	
1,2-Dichlorobenzene	ND	0.0011	1.00	
1,3-Dichlorobenzene	ND	0.0011	1.00	
1,4-Dichlorobenzene	ND	0.0011	1.00	
Dichlorodifluoromethane	ND	0.0022	1.00	
1,1-Dichloroethane	ND	0.0011	1.00	
1,2-Dichloroethane	ND	0.0011	1.00	
1,1-Dichloroethene	ND	0.0011	1.00	
c-1,2-Dichloroethene	ND	0.0011	1.00	
t-1,2-Dichloroethene	ND	0.0011	1.00	
1,2-Dichloropropane	ND	0.0011	1.00	
1,3-Dichloropropane	ND	0.0011	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
	Units:	mg/kg
Project: Jet Boat Property		Page 8 of 24

Parameter	Result	RL	DF	Qualifiers
2,2-Dichloropropane	ND	0.0055	1.00	
1,1-Dichloropropene	ND	0.0022	1.00	
c-1,3-Dichloropropene	ND	0.0011	1.00	
t-1,3-Dichloropropene	ND	0.0022	1.00	
Ethylbenzene	ND	0.0011	1.00	
2-Hexanone	ND	0.022	1.00	
Isopropylbenzene	ND	0.0011	1.00	
p-Isopropyltoluene	ND	0.0011	1.00	
Methylene Chloride	ND	0.011	1.00	
4-Methyl-2-Pentanone	ND	0.022	1.00	
Naphthalene	ND	0.011	1.00	
n-Propylbenzene	ND	0.0022	1.00	
Styrene	ND	0.0011	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0011	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0022	1.00	
Tetrachloroethene	ND	0.0011	1.00	
Toluene	ND	0.0011	1.00	
1,2,3-Trichlorobenzene	ND	0.0022	1.00	
1,2,4-Trichlorobenzene	ND	0.0022	1.00	
1,1,1-Trichloroethane	ND	0.0011	1.00	
1,1,2-Trichloroethane	ND	0.0011	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.011	1.00	
Trichloroethene	ND	0.0022	1.00	
Trichlorofluoromethane	ND	0.011	1.00	
1,2,3-Trichloropropane	ND	0.0022	1.00	
1,2,4-Trimethylbenzene	ND	0.0022	1.00	
1,3,5-Trimethylbenzene	ND	0.0022	1.00	
Vinyl Acetate	ND	0.011	1.00	
Vinyl Chloride	ND	0.0011	1.00	
p/m-Xylene	ND	0.0022	1.00	
o-Xylene	ND	0.0011	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0022	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.022	1.00	
Diisopropyl Ether (DIPE)	ND	0.0011	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0011	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0011	1.00	
Ethanol	ND	0.55	1.00	
TPPH	ND	0.055	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
	Units:	mg/kg
Project: Jet Boat Property		Page 9 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	106	79-139	
1,2-Dichloroethane-d4	104	71-155	
1,4-Bromofluorobenzene	92	80-120	
Toluene-d8	99	80-120	
Toluene-d8-TPPH	98	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
		Units:	mg/kg
Project: Jet Boat Property			Page 10 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-5-(1.0')	**14-06-0704-10-D**	**06/05/14 14:10**	**Solid**	**GC/MS UU**	**06/05/14**	**06/16/14 14:13**	**140616L003**

Comment(s): - TPPH represents total purgeable petroleum hydrocarbons, approximate carbon range C4-C12.

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	0.056	1.00	
Benzene	ND	0.0011	1.00	
Bromobenzene	ND	0.0011	1.00	
Bromochloromethane	ND	0.0023	1.00	
Bromodichloromethane	ND	0.0011	1.00	
Bromoform	ND	0.0056	1.00	
Bromomethane	ND	0.023	1.00	
2-Butanone	ND	0.023	1.00	
n-Butylbenzene	ND	0.0011	1.00	
sec-Butylbenzene	ND	0.0011	1.00	
tert-Butylbenzene	ND	0.0011	1.00	
Carbon Disulfide	ND	0.011	1.00	
Carbon Tetrachloride	ND	0.0011	1.00	
Chlorobenzene	ND	0.0011	1.00	
Chloroethane	ND	0.0023	1.00	
Chloroform	ND	0.0011	1.00	
Chloromethane	ND	0.023	1.00	
2-Chlorotoluene	ND	0.0011	1.00	
4-Chlorotoluene	ND	0.0011	1.00	
Dibromochloromethane	ND	0.0023	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0056	1.00	
1,2-Dibromoethane	ND	0.0011	1.00	
Dibromomethane	ND	0.0011	1.00	
1,2-Dichlorobenzene	ND	0.0011	1.00	
1,3-Dichlorobenzene	ND	0.0011	1.00	
1,4-Dichlorobenzene	ND	0.0011	1.00	
Dichlorodifluoromethane	ND	0.0023	1.00	
1,1-Dichloroethane	ND	0.0011	1.00	
1,2-Dichloroethane	ND	0.0011	1.00	
1,1-Dichloroethene	ND	0.0011	1.00	
c-1,2-Dichloroethene	ND	0.0011	1.00	
t-1,2-Dichloroethene	ND	0.0011	1.00	
1,2-Dichloropropane	ND	0.0011	1.00	
1,3-Dichloropropane	ND	0.0011	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
	Units:	mg/kg
Project: Jet Boat Property		Page 11 of 24

Parameter	Result	RL	DF	Qualifiers
2,2-Dichloropropane	ND	0.0056	1.00	
1,1-Dichloropropene	ND	0.0023	1.00	
c-1,3-Dichloropropene	ND	0.0011	1.00	
t-1,3-Dichloropropene	ND	0.0023	1.00	
Ethylbenzene	ND	0.0011	1.00	
2-Hexanone	ND	0.023	1.00	
Isopropylbenzene	ND	0.0011	1.00	
p-Isopropyltoluene	ND	0.0011	1.00	
Methylene Chloride	ND	0.011	1.00	
4-Methyl-2-Pentanone	ND	0.023	1.00	
Naphthalene	ND	0.011	1.00	
n-Propylbenzene	ND	0.0023	1.00	
Styrene	ND	0.0011	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0011	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0023	1.00	
Tetrachloroethene	ND	0.0011	1.00	
Toluene	ND	0.0011	1.00	
1,2,3-Trichlorobenzene	ND	0.0023	1.00	
1,2,4-Trichlorobenzene	ND	0.0023	1.00	
1,1,1-Trichloroethane	ND	0.0011	1.00	
1,1,2-Trichloroethane	ND	0.0011	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.011	1.00	
Trichloroethene	ND	0.0023	1.00	
Trichlorofluoromethane	ND	0.011	1.00	
1,2,3-Trichloropropane	ND	0.0023	1.00	
1,2,4-Trimethylbenzene	ND	0.0023	1.00	
1,3,5-Trimethylbenzene	ND	0.0023	1.00	
Vinyl Acetate	ND	0.011	1.00	
Vinyl Chloride	ND	0.0011	1.00	
p/m-Xylene	ND	0.0023	1.00	
o-Xylene	ND	0.0011	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0023	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.023	1.00	
Diisopropyl Ether (DIPE)	ND	0.0011	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0011	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0011	1.00	
Ethanol	ND	0.56	1.00	
TPPH	ND	0.056	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
	Units:	mg/kg
Project: Jet Boat Property		Page 12 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	110	79-139	
1,2-Dichloroethane-d4	107	71-155	
1,4-Bromofluorobenzene	93	80-120	
Toluene-d8	99	80-120	
Toluene-d8-TPPH	99	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
		Units:	mg/kg
Project: Jet Boat Property			Page 13 of 24

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-10-(0.1')	**14-06-0704-18-D**	**06/05/14 12:30**	**Solid**	**GC/MS UU**	**06/05/14**	**06/16/14 14:39**	**140616L003**

Comment(s): - TPPH represents total purgeable petroleum hydrocarbons, approximate carbon range C4-C12.

Parameter	Result	RL	DF	Qualifiers
Acetone	0.072	0.054	1.00	
Benzene	ND	0.0011	1.00	
Bromobenzene	ND	0.0011	1.00	
Bromochloromethane	ND	0.0021	1.00	
Bromodichloromethane	ND	0.0011	1.00	
Bromoform	ND	0.0054	1.00	
Bromomethane	ND	0.021	1.00	
2-Butanone	ND	0.021	1.00	
n-Butylbenzene	ND	0.0011	1.00	
sec-Butylbenzene	ND	0.0011	1.00	
tert-Butylbenzene	ND	0.0011	1.00	
Carbon Disulfide	ND	0.011	1.00	
Carbon Tetrachloride	ND	0.0011	1.00	
Chlorobenzene	ND	0.0011	1.00	
Chloroethane	ND	0.0021	1.00	
Chloroform	ND	0.0011	1.00	
Chloromethane	ND	0.021	1.00	
2-Chlorotoluene	ND	0.0011	1.00	
4-Chlorotoluene	ND	0.0011	1.00	
Dibromochloromethane	ND	0.0021	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0054	1.00	
1,2-Dibromoethane	ND	0.0011	1.00	
Dibromomethane	ND	0.0011	1.00	
1,2-Dichlorobenzene	ND	0.0011	1.00	
1,3-Dichlorobenzene	ND	0.0011	1.00	
1,4-Dichlorobenzene	ND	0.0011	1.00	
Dichlorodifluoromethane	ND	0.0021	1.00	
1,1-Dichloroethane	ND	0.0011	1.00	
1,2-Dichloroethane	ND	0.0011	1.00	
1,1-Dichloroethene	ND	0.0011	1.00	
c-1,2-Dichloroethene	ND	0.0011	1.00	
t-1,2-Dichloroethene	ND	0.0011	1.00	
1,2-Dichloropropane	ND	0.0011	1.00	
1,3-Dichloropropane	ND	0.0011	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
	Units:	mg/kg
Project: Jet Boat Property		Page 14 of 24

Parameter	Result	RL	DF	Qualifiers
2,2-Dichloropropane	ND	0.0054	1.00	
1,1-Dichloropropene	ND	0.0021	1.00	
c-1,3-Dichloropropene	ND	0.0011	1.00	
t-1,3-Dichloropropene	ND	0.0021	1.00	
Ethylbenzene	ND	0.0011	1.00	
2-Hexanone	ND	0.021	1.00	
Isopropylbenzene	ND	0.0011	1.00	
p-Isopropyltoluene	ND	0.0011	1.00	
Methylene Chloride	ND	0.011	1.00	
4-Methyl-2-Pentanone	ND	0.021	1.00	
Naphthalene	ND	0.011	1.00	
n-Propylbenzene	ND	0.0021	1.00	
Styrene	ND	0.0011	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0011	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0021	1.00	
Tetrachloroethene	ND	0.0011	1.00	
Toluene	ND	0.0011	1.00	
1,2,3-Trichlorobenzene	ND	0.0021	1.00	
1,2,4-Trichlorobenzene	ND	0.0021	1.00	
1,1,1-Trichloroethane	ND	0.0011	1.00	
1,1,2-Trichloroethane	ND	0.0011	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.011	1.00	
Trichloroethene	ND	0.0021	1.00	
Trichlorofluoromethane	ND	0.011	1.00	
1,2,3-Trichloropropane	ND	0.0021	1.00	
1,2,4-Trimethylbenzene	ND	0.0021	1.00	
1,3,5-Trimethylbenzene	ND	0.0021	1.00	
Vinyl Acetate	ND	0.011	1.00	
Vinyl Chloride	ND	0.0011	1.00	
p/m-Xylene	ND	0.0021	1.00	
o-Xylene	ND	0.0011	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0021	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.021	1.00	
Diisopropyl Ether (DIPE)	ND	0.0011	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0011	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0011	1.00	
Ethanol	ND	0.54	1.00	
TPPH	ND	0.054	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
	Units:	mg/kg
Project: Jet Boat Property		Page 15 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	109	79-139	
1,2-Dichloroethane-d4	108	71-155	
1,4-Bromofluorobenzene	93	80-120	
Toluene-d8	98	80-120	
Toluene-d8-TPPH	97	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Project: Jet Boat Property

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 5035
Method: GC/MS / EPA 8260B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-779-1544**	**N/A**	**Solid**	**GC/MS R**	**06/11/14**	**06/11/14 13:14**	**140611L008**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	0.050	1.00	
Benzene	ND	0.0010	1.00	
Bromobenzene	ND	0.0010	1.00	
Bromochloromethane	ND	0.0020	1.00	
Bromodichloromethane	ND	0.0010	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.020	1.00	
2-Butanone	ND	0.020	1.00	
n-Butylbenzene	ND	0.0010	1.00	
sec-Butylbenzene	ND	0.0010	1.00	
tert-Butylbenzene	ND	0.0010	1.00	
Carbon Disulfide	ND	0.010	1.00	
Carbon Tetrachloride	ND	0.0010	1.00	
Chlorobenzene	ND	0.0010	1.00	
Chloroethane	ND	0.0020	1.00	
Chloroform	ND	0.0010	1.00	
Chloromethane	ND	0.020	1.00	
2-Chlorotoluene	ND	0.0010	1.00	
4-Chlorotoluene	ND	0.0010	1.00	
Dibromochloromethane	ND	0.0020	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0050	1.00	
1,2-Dibromoethane	ND	0.0010	1.00	
Dibromomethane	ND	0.0010	1.00	
1,2-Dichlorobenzene	ND	0.0010	1.00	
1,3-Dichlorobenzene	ND	0.0010	1.00	
1,4-Dichlorobenzene	ND	0.0010	1.00	
Dichlorodifluoromethane	ND	0.0020	1.00	
1,1-Dichloroethane	ND	0.0010	1.00	
1,2-Dichloroethane	ND	0.0010	1.00	
1,1-Dichloroethene	ND	0.0010	1.00	
c-1,2-Dichloroethene	ND	0.0010	1.00	
t-1,2-Dichloroethene	ND	0.0010	1.00	
1,2-Dichloropropane	ND	0.0010	1.00	
1,3-Dichloropropane	ND	0.0010	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
	Units:	mg/kg
Project: Jet Boat Property		Page 17 of 24

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	0.0020	1.00	
c-1,3-Dichloropropene	ND	0.0010	1.00	
t-1,3-Dichloropropene	ND	0.0020	1.00	
Ethylbenzene	ND	0.0010	1.00	
2-Hexanone	ND	0.020	1.00	
Isopropylbenzene	ND	0.0010	1.00	
p-Isopropyltoluene	ND	0.0010	1.00	
Methylene Chloride	ND	0.010	1.00	
4-Methyl-2-Pentanone	ND	0.020	1.00	
Naphthalene	ND	0.010	1.00	
n-Propylbenzene	ND	0.0020	1.00	
Styrene	ND	0.0010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0010	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0020	1.00	
Tetrachloroethene	ND	0.0010	1.00	
Toluene	ND	0.0010	1.00	
1,2,3-Trichlorobenzene	ND	0.0020	1.00	
1,2,4-Trichlorobenzene	ND	0.0020	1.00	
1,1,1-Trichloroethane	ND	0.0010	1.00	
1,1,2-Trichloroethane	ND	0.0010	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.010	1.00	
Trichloroethene	ND	0.0020	1.00	
Trichlorofluoromethane	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0020	1.00	
1,2,4-Trimethylbenzene	ND	0.0020	1.00	
1,3,5-Trimethylbenzene	ND	0.0020	1.00	
Vinyl Acetate	ND	0.010	1.00	
Vinyl Chloride	ND	0.0010	1.00	
p/m-Xylene	ND	0.0020	1.00	
o-Xylene	ND	0.0010	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0020	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.020	1.00	
Diisopropyl Ether (DIPE)	ND	0.0010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0010	1.00	
Ethanol	ND	0.50	1.00	
TPPH	ND	0.050	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
	Units:	mg/kg
Project: Jet Boat Property		Page 18 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	104	79-139	
1,2-Dichloroethane-d4	123	71-155	
1,4-Bromofluorobenzene	101	80-120	
Toluene-d8	102	80-120	
Toluene-d8-TPPH	105	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Project: Jet Boat Property

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 5035
Method: GC/MS / EPA 8260B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-779-1549**	**N/A**	**Solid**	**GC/MS R**	**06/13/14**	**06/13/14 13:33**	**140613L003**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0010	1.00	
Bromobenzene	ND	0.0010	1.00	
Bromochloromethane	ND	0.0020	1.00	
Bromodichloromethane	ND	0.0010	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.020	1.00	
2-Butanone	ND	0.020	1.00	
n-Butylbenzene	ND	0.0010	1.00	
sec-Butylbenzene	ND	0.0010	1.00	
tert-Butylbenzene	ND	0.0010	1.00	
Carbon Disulfide	ND	0.010	1.00	
Carbon Tetrachloride	ND	0.0010	1.00	
Chlorobenzene	ND	0.0010	1.00	
Chloroethane	ND	0.0020	1.00	
Chloroform	ND	0.0010	1.00	
Chloromethane	ND	0.020	1.00	
2-Chlorotoluene	ND	0.0010	1.00	
4-Chlorotoluene	ND	0.0010	1.00	
Dibromochloromethane	ND	0.0020	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0050	1.00	
1,2-Dibromoethane	ND	0.0010	1.00	
Dibromomethane	ND	0.0010	1.00	
1,2-Dichlorobenzene	ND	0.0010	1.00	
1,3-Dichlorobenzene	ND	0.0010	1.00	
1,4-Dichlorobenzene	ND	0.0010	1.00	
Dichlorodifluoromethane	ND	0.0020	1.00	
1,1-Dichloroethane	ND	0.0010	1.00	
1,2-Dichloroethane	ND	0.0010	1.00	
1,1-Dichloroethene	ND	0.0010	1.00	
c-1,2-Dichloroethene	ND	0.0010	1.00	
t-1,2-Dichloroethene	ND	0.0010	1.00	
1,2-Dichloropropane	ND	0.0010	1.00	
1,3-Dichloropropane	ND	0.0010	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	
1,1-Dichloropropene	ND	0.0020	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
	Units:	mg/kg
Project: Jet Boat Property		Page 20 of 24

Parameter	Result	RL	DF	Qualifiers
c-1,3-Dichloropropene	ND	0.0010	1.00	
t-1,3-Dichloropropene	ND	0.0020	1.00	
Ethylbenzene	ND	0.0010	1.00	
2-Hexanone	ND	0.020	1.00	
Isopropylbenzene	ND	0.0010	1.00	
p-Isopropyltoluene	ND	0.0010	1.00	
Methylene Chloride	ND	0.010	1.00	
4-Methyl-2-Pentanone	ND	0.020	1.00	
Naphthalene	ND	0.010	1.00	
n-Propylbenzene	ND	0.0020	1.00	
Styrene	ND	0.0010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0010	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0020	1.00	
Tetrachloroethene	ND	0.0010	1.00	
Toluene	ND	0.0010	1.00	
1,2,3-Trichlorobenzene	ND	0.0020	1.00	
1,2,4-Trichlorobenzene	ND	0.0020	1.00	
1,1,1-Trichloroethane	ND	0.0010	1.00	
1,1,2-Trichloroethane	ND	0.0010	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.010	1.00	
Trichloroethene	ND	0.0020	1.00	
Trichlorofluoromethane	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0020	1.00	
1,2,4-Trimethylbenzene	ND	0.0020	1.00	
1,3,5-Trimethylbenzene	ND	0.0020	1.00	
Vinyl Acetate	ND	0.010	1.00	
Vinyl Chloride	ND	0.0010	1.00	
p/m-Xylene	ND	0.0020	1.00	
o-Xylene	ND	0.0010	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0020	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.020	1.00	
Diisopropyl Ether (DIPE)	ND	0.0010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0010	1.00	
Ethanol	ND	0.50	1.00	
TPPH	ND	0.050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	102	79-139	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
		Units:	mg/kg
Project: Jet Boat Property			Page 21 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	122	71-155	
1,4-Bromofluorobenzene	100	80-120	
Toluene-d8	102	80-120	
Toluene-d8-TPPH	105	87-111	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-779-1550**	**N/A**	**Solid**	**GC/MS R**	**06/13/14**	**06/13/14 14:00**	**140613L026**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	5.0	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	104	79-139	
1,2-Dichloroethane-d4	123	71-155	
1,4-Bromofluorobenzene	100	80-120	
Toluene-d8	101	80-120	
Toluene-d8-TPPH	103	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Project: Jet Boat Property

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 5035
Method: GC/MS / EPA 8260B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-779-1553**	**N/A**	**Solid**	**GC/MS UU**	**06/16/14**	**06/16/14 12:55**	**140616L003**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	0.050	1.00	
Benzene	ND	0.0010	1.00	
Bromobenzene	ND	0.0010	1.00	
Bromochloromethane	ND	0.0020	1.00	
Bromodichloromethane	ND	0.0010	1.00	
Bromoform	ND	0.0050	1.00	
Bromomethane	ND	0.020	1.00	
2-Butanone	ND	0.020	1.00	
n-Butylbenzene	ND	0.0010	1.00	
sec-Butylbenzene	ND	0.0010	1.00	
tert-Butylbenzene	ND	0.0010	1.00	
Carbon Disulfide	ND	0.010	1.00	
Carbon Tetrachloride	ND	0.0010	1.00	
Chlorobenzene	ND	0.0010	1.00	
Chloroethane	ND	0.0020	1.00	
Chloroform	ND	0.0010	1.00	
Chloromethane	ND	0.020	1.00	
2-Chlorotoluene	ND	0.0010	1.00	
4-Chlorotoluene	ND	0.0010	1.00	
Dibromochloromethane	ND	0.0020	1.00	
1,2-Dibromo-3-Chloropropane	ND	0.0050	1.00	
1,2-Dibromoethane	ND	0.0010	1.00	
Dibromomethane	ND	0.0010	1.00	
1,2-Dichlorobenzene	ND	0.0010	1.00	
1,3-Dichlorobenzene	ND	0.0010	1.00	
1,4-Dichlorobenzene	ND	0.0010	1.00	
Dichlorodifluoromethane	ND	0.0020	1.00	
1,1-Dichloroethane	ND	0.0010	1.00	
1,2-Dichloroethane	ND	0.0010	1.00	
1,1-Dichloroethene	ND	0.0010	1.00	
c-1,2-Dichloroethene	ND	0.0010	1.00	
t-1,2-Dichloroethene	ND	0.0010	1.00	
1,2-Dichloropropane	ND	0.0010	1.00	
1,3-Dichloropropane	ND	0.0010	1.00	
2,2-Dichloropropane	ND	0.0050	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
	Units:	mg/kg
Project: Jet Boat Property		Page 23 of 24

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	0.0020	1.00	
c-1,3-Dichloropropene	ND	0.0010	1.00	
t-1,3-Dichloropropene	ND	0.0020	1.00	
Ethylbenzene	ND	0.0010	1.00	
2-Hexanone	ND	0.020	1.00	
Isopropylbenzene	ND	0.0010	1.00	
p-Isopropyltoluene	ND	0.0010	1.00	
Methylene Chloride	ND	0.010	1.00	
4-Methyl-2-Pentanone	ND	0.020	1.00	
Naphthalene	ND	0.010	1.00	
n-Propylbenzene	ND	0.0020	1.00	
Styrene	ND	0.0010	1.00	
1,1,1,2-Tetrachloroethane	ND	0.0010	1.00	
1,1,2,2-Tetrachloroethane	ND	0.0020	1.00	
Tetrachloroethene	ND	0.0010	1.00	
Toluene	ND	0.0010	1.00	
1,2,3-Trichlorobenzene	ND	0.0020	1.00	
1,2,4-Trichlorobenzene	ND	0.0020	1.00	
1,1,1-Trichloroethane	ND	0.0010	1.00	
1,1,2-Trichloroethane	ND	0.0010	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.010	1.00	
Trichloroethene	ND	0.0020	1.00	
Trichlorofluoromethane	ND	0.010	1.00	
1,2,3-Trichloropropane	ND	0.0020	1.00	
1,2,4-Trimethylbenzene	ND	0.0020	1.00	
1,3,5-Trimethylbenzene	ND	0.0020	1.00	
Vinyl Acetate	ND	0.010	1.00	
Vinyl Chloride	ND	0.0010	1.00	
p/m-Xylene	ND	0.0020	1.00	
o-Xylene	ND	0.0010	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0020	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.020	1.00	
Diisopropyl Ether (DIPE)	ND	0.0010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0010	1.00	
Ethanol	ND	0.50	1.00	
TPPH	ND	0.050	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
	Units:	mg/kg
Project: Jet Boat Property		Page 24 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	105	79-139	
1,2-Dichloroethane-d4	106	71-155	
1,4-Bromofluorobenzene	93	80-120	
Toluene-d8	98	80-120	
Toluene-d8-TPPH	97	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
		Units:	mg/kg
Project: Jet Boat Property			Page 1 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-1-(1.0')	**14-06-0704-1-F**	**06/05/14 16:05**	**Solid**	**GC/MS R**	**06/05/14**	**06/12/14 16:11**	**140612L025**

Comment(s): - TPPH represents total purgeable petroleum hydrocarbons, approximate carbon range C4-C12.

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	2.3	2500	
Chlorobenzene	ND	2.3	2500	
1,2-Dibromoethane	ND	2.3	2500	
1,2-Dichlorobenzene	ND	2.3	2500	
1,3-Dichlorobenzene	ND	2.3	2500	
1,4-Dichlorobenzene	ND	2.3	2500	
1,2-Dichloroethane	ND	2.3	2500	
Ethylbenzene	ND	2.3	2500	
Naphthalene	ND	23	2500	
Toluene	ND	2.3	2500	
p/m-Xylene	ND	4.6	2500	
o-Xylene	ND	2.3	2500	
Methyl-t-Butyl Ether (MTBE)	ND	4.6	2500	
Tert-Butyl Alcohol (TBA)	ND	46	2500	
Diisopropyl Ether (DIPE)	ND	2.3	2500	
Ethyl-t-Butyl Ether (ETBE)	ND	2.3	2500	
Tert-Amyl-Methyl Ether (TAME)	ND	2.3	2500	
TPPH	4600	120	2500	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	100	79-139	
1,2-Dichloroethane-d4	117	71-155	
1,4-Bromofluorobenzene	106	80-120	
Toluene-d8	106	80-120	
Toluene-d8-TPPH	108	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 5035
Method: GC/MS / EPA 8260B
Units: mg/kg

Project: Jet Boat Property

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-1-(2.0')	**14-06-0704-2-D**	**06/05/14 16:10**	**Solid**	**GC/MS R**	**06/05/14**	**06/12/14 18:06**	**140612L025**

Comment(s): - TPPH represents total purgeable petroleum hydrocarbons, approximate carbon range C4-C12.

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.90	1000	
Chlorobenzene	ND	0.90	1000	
1,2-Dibromoethane	ND	0.90	1000	
1,2-Dichlorobenzene	ND	0.90	1000	
1,3-Dichlorobenzene	ND	0.90	1000	
1,4-Dichlorobenzene	ND	0.90	1000	
1,2-Dichloroethane	ND	0.90	1000	
Ethylbenzene	ND	0.90	1000	
Naphthalene	ND	9.0	1000	
Toluene	ND	0.90	1000	
p/m-Xylene	4.0	1.8	1000	
o-Xylene	14	0.90	1000	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	1000	
Tert-Butyl Alcohol (TBA)	ND	18	1000	
Diisopropyl Ether (DIPE)	ND	0.90	1000	
Ethyl-t-Butyl Ether (ETBE)	ND	0.90	1000	
Tert-Amyl-Methyl Ether (TAME)	ND	0.90	1000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	94	79-139	
1,2-Dichloroethane-d4	111	71-155	
1,4-Bromofluorobenzene	111	80-120	
Toluene-d8	104	80-120	
Toluene-d8-TPPH	106	87-111	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-1-(2.0')	**14-06-0704-2-D**	**06/05/14 16:10**	**Solid**	**GC/MS UU**	**06/05/14**	**06/17/14 15:02**	**140617L006**

Comment(s): - TPPH represents total purgeable petroleum hydrocarbons, approximate carbon range C4-C12.

Parameter	Result	RL	DF	Qualifiers
TPPH	4500	110	2500	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Toluene-d8-TPPH	99	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
		Units:	mg/kg
Project: Jet Boat Property			Page 3 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-2-(0.9')	**14-06-0704-3-C**	**06/05/14 15:52**	**Solid**	**GC/MS R**	**06/05/14**	**06/12/14 20:20**	**140612L011**

Comment(s): - TPPH represents total purgeable petroleum hydrocarbons, approximate carbon range C4-C12.

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0012	1.00	
Chlorobenzene	ND	0.0012	1.00	
1,2-Dibromoethane	ND	0.0012	1.00	
1,2-Dichlorobenzene	ND	0.0012	1.00	
1,3-Dichlorobenzene	ND	0.0012	1.00	
1,4-Dichlorobenzene	ND	0.0012	1.00	
1,2-Dichloroethane	ND	0.0012	1.00	
Ethylbenzene	ND	0.0012	1.00	
Naphthalene	ND	0.012	1.00	
Toluene	0.0028	0.0012	1.00	
p/m-Xylene	ND	0.0024	1.00	
o-Xylene	ND	0.0012	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0024	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.024	1.00	
Diisopropyl Ether (DIPE)	ND	0.0012	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0012	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0012	1.00	
TPPH	0.32	0.061	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	113	79-139	
1,2-Dichloroethane-d4	140	71-155	
1,4-Bromofluorobenzene	94	80-120	
Toluene-d8	102	80-120	
Toluene-d8-TPPH	104	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
		Units:	mg/kg
Project: Jet Boat Property			Page 4 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-2-(1.5')	**14-06-0704-4-C**	**06/05/14 15:54**	**Solid**	**GC/MS R**	**06/05/14**	**06/12/14 18:59**	**140612L011**

Comment(s): - TPPH represents total purgeable petroleum hydrocarbons, approximate carbon range C4-C12.

Parameter	Result	RL	DF	Qualifiers
Benzene	0.0013	0.0012	1.00	
Chlorobenzene	ND	0.0012	1.00	
1,2-Dibromoethane	ND	0.0012	1.00	
1,2-Dichlorobenzene	ND	0.0012	1.00	
1,3-Dichlorobenzene	ND	0.0012	1.00	
1,4-Dichlorobenzene	ND	0.0012	1.00	
1,2-Dichloroethane	ND	0.0012	1.00	
Ethylbenzene	ND	0.0012	1.00	
Naphthalene	ND	0.012	1.00	
Toluene	0.0063	0.0012	1.00	
p/m-Xylene	0.0030	0.0024	1.00	
o-Xylene	0.0019	0.0012	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0024	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.024	1.00	
Diisopropyl Ether (DIPE)	ND	0.0012	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0012	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0012	1.00	
TPPH	0.17	0.061	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	113	79-139	
1,2-Dichloroethane-d4	143	71-155	
1,4-Bromofluorobenzene	100	80-120	
Toluene-d8	103	80-120	
Toluene-d8-TPPH	106	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
		Units:	mg/kg
Project: Jet Boat Property			Page 5 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-3-(0.8')	**14-06-0704-5-C**	**06/05/14 15:40**	**Solid**	**GC/MS R**	**06/05/14**	**06/12/14 19:26**	**140612L011**

Comment(s): - TPPH represents total purgeable petroleum hydrocarbons, approximate carbon range C4-C12.

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0012	1.00	
Chlorobenzene	ND	0.0012	1.00	
1,2-Dibromoethane	ND	0.0012	1.00	
1,2-Dichlorobenzene	ND	0.0012	1.00	
1,3-Dichlorobenzene	ND	0.0012	1.00	
1,4-Dichlorobenzene	ND	0.0012	1.00	
1,2-Dichloroethane	ND	0.0012	1.00	
Ethylbenzene	ND	0.0012	1.00	
Naphthalene	ND	0.012	1.00	
Toluene	0.0028	0.0012	1.00	
p/m-Xylene	ND	0.0024	1.00	
o-Xylene	ND	0.0012	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0024	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.024	1.00	
Diisopropyl Ether (DIPE)	ND	0.0012	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0012	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0012	1.00	
TPPH	0.46	0.059	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	120	79-139	
1,2-Dichloroethane-d4	149	71-155	
1,4-Bromofluorobenzene	87	80-120	
Toluene-d8	99	80-120	
Toluene-d8-TPPH	101	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
		Units:	mg/kg
Project: Jet Boat Property			Page 6 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-3-(2.0')	**14-06-0704-6-B**	**06/05/14 15:41**	**Solid**	**GC/MS R**	**06/05/14**	**06/13/14 16:45**	**140613L003**

Comment(s): - TPPH represents total purgeable petroleum hydrocarbons, approximate carbon range C4-C12.

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0012	1.00	
Chlorobenzene	ND	0.0012	1.00	
1,2-Dibromoethane	ND	0.0012	1.00	
1,2-Dichlorobenzene	ND	0.0012	1.00	
1,3-Dichlorobenzene	ND	0.0012	1.00	
1,4-Dichlorobenzene	ND	0.0012	1.00	
1,2-Dichloroethane	ND	0.0012	1.00	
Ethylbenzene	ND	0.0012	1.00	
Naphthalene	ND	0.012	1.00	
Toluene	ND	0.0012	1.00	
p/m-Xylene	ND	0.0024	1.00	
o-Xylene	ND	0.0012	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0024	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.024	1.00	
Diisopropyl Ether (DIPE)	ND	0.0012	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0012	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0012	1.00	
TPPH	0.093	0.060	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	117	79-139	
1,2-Dichloroethane-d4	144	71-155	
1,4-Bromofluorobenzene	99	80-120	
Toluene-d8	102	80-120	
Toluene-d8-TPPH	104	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
		Units:	mg/kg
Project: Jet Boat Property			Page 7 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-9-(1.0')	**14-06-0704-17-D**	**06/05/14 14:30**	**Solid**	**GC/MS R**	**06/05/14**	**06/12/14 21:40**	**140612L025**

Comment(s): - TPPH represents total purgeable petroleum hydrocarbons, approximate carbon range C4-C12.

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.98	1000	
Chlorobenzene	ND	0.98	1000	
1,2-Dibromoethane	ND	0.98	1000	
1,2-Dichlorobenzene	ND	0.98	1000	
1,3-Dichlorobenzene	ND	0.98	1000	
1,4-Dichlorobenzene	ND	0.98	1000	
1,2-Dichloroethane	ND	0.98	1000	
Ethylbenzene	ND	0.98	1000	
Naphthalene	ND	9.8	1000	
Toluene	ND	0.98	1000	
p/m-Xylene	ND	2.0	1000	
o-Xylene	ND	0.98	1000	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1000	
Tert-Butyl Alcohol (TBA)	ND	20	1000	
Diisopropyl Ether (DIPE)	ND	0.98	1000	
Ethyl-t-Butyl Ether (ETBE)	ND	0.98	1000	
Tert-Amyl-Methyl Ether (TAME)	ND	0.98	1000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	103	79-139	
1,2-Dichloroethane-d4	120	71-155	
1,4-Bromofluorobenzene	108	80-120	
Toluene-d8	104	80-120	
Toluene-d8-TPPH	106	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 5035
Method: GC/MS / EPA 8260B
Units: mg/kg

Project: Jet Boat Property

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-9-(1.0')	**14-06-0704-17-D**	**06/05/14 14:30**	**Solid**	**GC/MS R**	**06/05/14**	**06/13/14 18:33**	**140613L026**

Comment(s): - TPPH represents total purgeable petroleum hydrocarbons, approximate carbon range C4-C12.

Parameter	Result	RL	DF	Qualifiers
TPPH	4400	120	2500	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	101	79-139	
1,2-Dichloroethane-d4	119	71-155	
1,4-Bromofluorobenzene	105	80-120	
Toluene-d8	99	80-120	
Toluene-d8-TPPH	101	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 5035
Method: GC/MS / EPA 8260B
Units: mg/kg

Project: Jet Boat Property

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-779-1547**	**N/A**	**Solid**	**GC/MS R**	**06/12/14**	**06/12/14 14:50**	**140612L011**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0010	1.00	
Chlorobenzene	ND	0.0010	1.00	
1,2-Dibromoethane	ND	0.0010	1.00	
1,2-Dichlorobenzene	ND	0.0010	1.00	
1,3-Dichlorobenzene	ND	0.0010	1.00	
1,4-Dichlorobenzene	ND	0.0010	1.00	
1,2-Dichloroethane	ND	0.0010	1.00	
Ethylbenzene	ND	0.0010	1.00	
Naphthalene	ND	0.010	1.00	
Toluene	ND	0.0010	1.00	
p/m-Xylene	ND	0.0020	1.00	
o-Xylene	ND	0.0010	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0020	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.020	1.00	
Diisopropyl Ether (DIPE)	ND	0.0010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0010	1.00	
TPPH	ND	0.050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	104	79-139	
1,2-Dichloroethane-d4	122	71-155	
1,4-Bromofluorobenzene	99	80-120	
Toluene-d8	102	80-120	
Toluene-d8-TPPH	104	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 5035
Method: GC/MS / EPA 8260B
Units: mg/kg

Project: Jet Boat Property

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-779-1548**	**N/A**	**Solid**	**GC/MS R**	**06/12/14**	**06/12/14 15:17**	**140612L025**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.10	50.0	
Chlorobenzene	ND	0.10	50.0	
1,2-Dibromoethane	ND	0.10	50.0	
1,2-Dichlorobenzene	ND	0.10	50.0	
1,3-Dichlorobenzene	ND	0.10	50.0	
1,4-Dichlorobenzene	ND	0.10	50.0	
1,2-Dichloroethane	ND	0.10	50.0	
Ethylbenzene	ND	0.10	50.0	
Naphthalene	ND	1.0	50.0	
Toluene	ND	0.10	50.0	
p/m-Xylene	ND	0.20	50.0	
o-Xylene	ND	0.10	50.0	
Methyl-t-Butyl Ether (MTBE)	ND	0.20	50.0	
Tert-Butyl Alcohol (TBA)	ND	2.0	50.0	
Diisopropyl Ether (DIPE)	ND	0.10	50.0	
Ethyl-t-Butyl Ether (ETBE)	ND	0.10	50.0	
Tert-Amyl-Methyl Ether (TAME)	ND	0.10	50.0	
TPPH	ND	2.5	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	104	79-139	
1,2-Dichloroethane-d4	121	71-155	
1,4-Bromofluorobenzene	100	80-120	
Toluene-d8	102	80-120	
Toluene-d8-TPPH	105	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 5035
Method: GC/MS / EPA 8260B
Units: mg/kg

Project: Jet Boat Property

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-779-1549**	**N/A**	**Solid**	**GC/MS R**	**06/13/14**	**06/13/14 13:33**	**140613L003**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.0010	1.00	
Chlorobenzene	ND	0.0010	1.00	
1,2-Dibromoethane	ND	0.0010	1.00	
1,2-Dichlorobenzene	ND	0.0010	1.00	
1,3-Dichlorobenzene	ND	0.0010	1.00	
1,4-Dichlorobenzene	ND	0.0010	1.00	
1,2-Dichloroethane	ND	0.0010	1.00	
Ethylbenzene	ND	0.0010	1.00	
Naphthalene	ND	0.010	1.00	
Toluene	ND	0.0010	1.00	
p/m-Xylene	ND	0.0020	1.00	
o-Xylene	ND	0.0010	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.0020	1.00	
Tert-Butyl Alcohol (TBA)	ND	0.020	1.00	
Diisopropyl Ether (DIPE)	ND	0.0010	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.0010	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.0010	1.00	
TPPH	ND	0.050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	102	79-139	
1,2-Dichloroethane-d4	122	71-155	
1,4-Bromofluorobenzene	100	80-120	
Toluene-d8	102	80-120	
Toluene-d8-TPPH	105	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Project: Jet Boat Property

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 5035
Method: GC/MS / EPA 8260B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-779-1550**	**N/A**	**Solid**	**GC/MS R**	**06/13/14**	**06/13/14 14:00**	**140613L026**

Parameter	Result	RL	DF	Qualifiers
TPPH	ND	5.0	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	104	79-139	
1,2-Dichloroethane-d4	123	71-155	
1,4-Bromofluorobenzene	100	80-120	
Toluene-d8	101	80-120	
Toluene-d8-TPPH	103	87-111	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-779-1554**	**N/A**	**Solid**	**GC/MS UU**	**06/17/14**	**06/17/14 14:36**	**140617L006**

Parameter	Result	RL	DF	Qualifiers
TPPH	ND	5.0	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	97	79-139	
1,2-Dichloroethane-d4	97	71-155	
1,4-Bromofluorobenzene	96	80-120	
Toluene-d8	98	80-120	
Toluene-d8-TPPH	97	87-111	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: Jet Boat Property		Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Jet-Boat-4-(0.1')	**Sample**	**Solid**	**GC 46**	**06/11/14**	**06/12/14 02:23**	**140611S08**
Jet-Boat-4-(0.1')	**Matrix Spike**	**Solid**	**GC 46**	**06/11/14**	**06/12/14 01:47**	**140611S08**
Jet-Boat-4-(0.1')	**Matrix Spike Duplicate**	**Solid**	**GC 46**	**06/11/14**	**06/12/14 02:05**	**140611S08**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	ND	400.0	374.1	94	356.6	89	64-130	5	0-15	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: Jet Boat Property			Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Jet-Boat-11	**Sample**	**Aqueous**	**ICP/MS 04**	**06/16/14**	**06/16/14 20:35**	**140616S02**
Jet-Boat-11	**Matrix Spike**	**Aqueous**	**ICP/MS 04**	**06/16/14**	**06/16/14 20:18**	**140616S02**
Jet-Boat-11	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 04**	**06/16/14**	**06/16/14 20:22**	**140616S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Cadmium	ND	0.1000	0.1008	101	0.09769	98	84-114	3	0-8	
Chromium	ND	0.1000	0.1041	104	0.1007	101	73-133	3	0-11	
Lead	ND	0.1000	0.1089	109	0.1082	108	79-121	1	0-10	
Nickel	ND	0.1000	0.1101	110	0.1094	109	68-122	1	0-10	
Zinc	0.01669	0.1000	0.1027	86	0.1082	91	43-145	5	0-39	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 3050B
	Method:	EPA 6020
Project: Jet Boat Property		Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Jet-Boat-4-(0.1')	**Sample**	**Solid**	**ICP/MS 04**	**06/11/14**	**06/12/14 16:46**	**140611S02A**
Jet-Boat-4-(0.1')	**Matrix Spike**	**Solid**	**ICP/MS 04**	**06/11/14**	**06/12/14 16:18**	**140611S02A**
Jet-Boat-4-(0.1')	**Matrix Spike Duplicate**	**Solid**	**ICP/MS 04**	**06/11/14**	**06/12/14 16:22**	**140611S02A**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	7.917	32	5.586	22	1-97	35	0-39	
Arsenic	5.896	25.00	29.72	95	30.23	97	72-132	2	0-13	
Cadmium	ND	25.00	26.88	108	26.91	108	85-121	0	0-12	
Chromium	94.30	25.00	117.5	93	120.1	103	20-182	2	0-15	
Copper	49.99	25.00	73.69	95	72.83	91	25-157	1	0-22	
Lead	5.847	25.00	32.14	105	31.73	104	62-134	1	0-23	
Nickel	164.7	25.00	190.0	4X	186.9	4X	46-154	4X	0-15	Q
Selenium	ND	25.00	26.45	106	27.02	108	54-132	2	0-14	
Silver	ND	12.50	13.02	104	13.22	106	78-126	2	0-15	
Thallium	ND	25.00	24.95	100	24.67	99	79-115	1	0-11	
Zinc	59.13	25.00	86.06	108	89.77	123	23-173	4	0-18	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5030C
		Method:	GC/MS / EPA 8260B
Project: Jet Boat Property			Page 4 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-06-0989-5	**Sample**	**Aqueous**	**GC/MS R**	**06/17/14**	**06/17/14 19:21**	**140617S024**
14-06-0989-5	**Matrix Spike**	**Aqueous**	**GC/MS R**	**06/17/14**	**06/17/14 19:47**	**140617S024**
14-06-0989-5	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS R**	**06/17/14**	**06/17/14 20:14**	**140617S024**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	50.00	39.50	79	41.70	83	74-122	5	0-21	
Carbon Tetrachloride	ND	50.00	38.89	78	42.63	85	60-144	9	0-21	
Chlorobenzene	ND	50.00	42.65	85	45.02	90	73-120	5	0-22	
1,2-Dibromoethane	ND	50.00	47.58	95	49.11	98	80-122	3	0-20	
1,2-Dichlorobenzene	ND	50.00	42.38	85	40.77	82	70-120	4	0-26	
1,2-Dichloroethane	ND	50.00	42.48	85	45.24	90	64-142	6	0-20	
1,1-Dichloroethene	ND	50.00	39.46	79	41.10	82	52-136	4	0-21	
Ethylbenzene	ND	50.00	43.48	87	43.43	87	77-125	0	0-24	
Toluene	ND	50.00	40.83	82	44.94	90	72-126	10	0-23	
Trichloroethene	ND	50.00	40.17	80	42.75	86	74-128	6	0-22	
Vinyl Chloride	ND	50.00	47.10	94	51.38	103	67-133	9	0-20	
p/m-Xylene	ND	100.0	86.48	86	89.37	89	63-129	3	0-25	
o-Xylene	ND	50.00	44.72	89	46.87	94	62-128	5	0-24	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	38.60	77	45.51	91	68-134	16	0-21	
Tert-Butyl Alcohol (TBA)	18.00	250.0	233.2	86	264.8	99	65-143	13	0-30	
Diisopropyl Ether (DIPE)	ND	50.00	36.80	74	39.06	78	61-139	6	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	39.72	79	42.56	85	64-136	7	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	42.33	85	44.47	89	67-133	5	0-20	
Ethanol	ND	500.0	345.0	69	447.3	89	34-178	26	0-58	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
Project: Jet Boat Property		Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Jet-Boat-4-(0.1')	**Sample**	**Solid**	**GC/MS R**	**06/05/14**	**06/13/14 14:58**	**140613S012**
Jet-Boat-4-(0.1')	**Matrix Spike**	**Solid**	**GC/MS R**	**06/05/14**	**06/13/14 15:25**	**140613S012**
Jet-Boat-4-(0.1')	**Matrix Spike Duplicate**	**Solid**	**GC/MS R**	**06/05/14**	**06/13/14 15:51**	**140613S012**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	0.05000	0.04723	94	0.03645	73	31-145	26	0-41	
Carbon Tetrachloride	ND	0.05000	0.04671	93	0.03685	74	49-133	24	0-48	
Chlorobenzene	ND	0.05000	0.04078	82	0.03039	61	54-126	29	0-50	
1,2-Dibromoethane	ND	0.05000	0.05144	103	0.03882	78	57-133	28	0-39	
1,2-Dichlorobenzene	ND	0.05000	0.03114	62	0.02209	44	38-128	34	0-62	
1,2-Dichloroethane	ND	0.05000	0.05966	119	0.04616	92	80-120	26	0-20	4
1,1-Dichloroethene	ND	0.05000	0.06139	123	0.04882	98	55-133	23	0-41	
Ethylbenzene	ND	0.05000	0.04179	84	0.03037	61	32-146	32	0-61	
Toluene	0.001129	0.05000	0.04663	91	0.03532	68	39-141	28	0-52	
Trichloroethene	ND	0.05000	0.04240	85	0.03385	68	57-129	22	0-47	
Vinyl Chloride	ND	0.05000	0.05807	116	0.04737	95	47-137	20	0-58	
p/m-Xylene	ND	0.1000	0.08310	83	0.06062	61	70-130	31	0-30	3,4
o-Xylene	ND	0.05000	0.04331	87	0.03158	63	70-130	31	0-30	3,4
Methyl-t-Butyl Ether (MTBE)	ND	0.05000	0.06321	126	0.04622	92	61-145	31	0-33	
Tert-Butyl Alcohol (TBA)	ND	0.2500	0.2271	91	0.1695	68	44-152	29	0-54	
Diisopropyl Ether (DIPE)	ND	0.05000	0.05781	116	0.04324	86	59-137	29	0-36	
Ethyl-t-Butyl Ether (ETBE)	ND	0.05000	0.06078	122	0.04607	92	56-140	28	0-36	
Tert-Amyl-Methyl Ether (TAME)	ND	0.05000	0.05629	113	0.04290	86	57-141	27	0-35	
Ethanol	ND	0.5000	0.5128	103	0.3173	63	8-170	47	0-77	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Freshwater Environmental Services	Date Received:	06/10/14
78 Sunny Brae Center	Work Order:	14-06-0704
Arcata, CA 95521-6742	Preparation:	EPA 5035
	Method:	GC/MS / EPA 8260B
Project: Jet Boat Property		Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Jet-Boat-1-(1.0')	**Sample**	**Solid**	**GC/MS R**	**06/05/14**	**06/12/14 16:11**	**140612S012**
Jet-Boat-1-(1.0')	**Matrix Spike**	**Solid**	**GC/MS R**	**06/05/14**	**06/12/14 16:45**	**140612S012**
Jet-Boat-1-(1.0')	**Matrix Spike Duplicate**	**Solid**	**GC/MS R**	**06/05/14**	**06/12/14 17:12**	**140612S012**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	125.0	106.6	85	114.6	92	31-145	7	0-41	
Chlorobenzene	ND	125.0	107.9	86	114.6	92	54-126	6	0-50	
1,2-Dibromoethane	ND	125.0	110.0	88	115.9	93	57-133	5	0-39	
1,2-Dichlorobenzene	ND	125.0	108.2	87	113.9	91	38-128	5	0-62	
1,2-Dichloroethane	ND	125.0	120.2	96	128.0	102	80-120	6	0-20	
Ethylbenzene	ND	125.0	108.8	87	117.2	94	32-146	7	0-61	
Toluene	ND	125.0	110.2	88	117.2	94	39-141	6	0-52	
p/m-Xylene	ND	250.0	221.6	89	239.4	96	70-130	8	0-30	
o-Xylene	ND	125.0	114.9	92	122.1	98	70-130	6	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	125.0	117.7	94	120.0	96	61-145	2	0-33	
Tert-Butyl Alcohol (TBA)	ND	625.0	514.8	82	547.7	88	44-152	6	0-54	
Diisopropyl Ether (DIPE)	ND	125.0	117.6	94	121.7	97	59-137	3	0-36	
Ethyl-t-Butyl Ether (ETBE)	ND	125.0	119.2	95	126.2	101	56-140	6	0-36	
Tert-Amyl-Methyl Ether (TAME)	ND	125.0	111.6	89	120.4	96	57-141	8	0-35	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
Project: Jet Boat Property			Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Jet-Boat-4-(0.1')	**Sample**	**Solid**	**GC/MS R**	**06/05/14**	**06/13/14 14:58**	**140613S012**
Jet-Boat-4-(0.1')	**Matrix Spike**	**Solid**	**GC/MS R**	**06/05/14**	**06/13/14 15:25**	**140613S012**
Jet-Boat-4-(0.1')	**Matrix Spike Duplicate**	**Solid**	**GC/MS R**	**06/05/14**	**06/13/14 15:51**	**140613S012**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	0.05000	0.04723	94	0.03645	73	31-145	26	0-41	
Chlorobenzene	ND	0.05000	0.04078	82	0.03039	61	54-126	29	0-50	
1,2-Dibromoethane	ND	0.05000	0.05144	103	0.03882	78	57-133	28	0-39	
1,2-Dichlorobenzene	ND	0.05000	0.03114	62	0.02209	44	38-128	34	0-62	
1,2-Dichloroethane	ND	0.05000	0.05966	119	0.04616	92	80-120	26	0-20	4
Ethylbenzene	ND	0.05000	0.04179	84	0.03037	61	32-146	32	0-61	
Toluene	0.001129	0.05000	0.04663	91	0.03532	68	39-141	28	0-52	
p/m-Xylene	ND	0.1000	0.08310	83	0.06062	61	70-130	31	0-30	3,4
o-Xylene	ND	0.05000	0.04331	87	0.03158	63	70-130	31	0-30	3,4
Methyl-t-Butyl Ether (MTBE)	ND	0.05000	0.06321	126	0.04622	92	61-145	31	0-33	
Tert-Butyl Alcohol (TBA)	ND	0.2500	0.2271	91	0.1695	68	44-152	29	0-54	
Diisopropyl Ether (DIPE)	ND	0.05000	0.05781	116	0.04324	86	59-137	29	0-36	
Ethyl-t-Butyl Ether (ETBE)	ND	0.05000	0.06078	122	0.04607	92	56-140	28	0-36	
Tert-Amyl-Methyl Ether (TAME)	ND	0.05000	0.05629	113	0.04290	86	57-141	27	0-35	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: Jet Boat Property			Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
Jet-Boat-11	**Sample**	**Aqueous**	**ICP/MS 04**	**06/16/14 00:00**	**06/16/14 20:35**	**140616S02**
Jet-Boat-11	**PDS**	**Aqueous**	**ICP/MS 04**	**06/16/14 00:00**	**06/16/14 20:25**	**140616S02**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Cadmium	ND	0.1000	0.09079	91	75-125	
Chromium	ND	0.1000	0.09412	94	75-125	
Lead	ND	0.1000	0.1014	101	75-125	
Nickel	ND	0.1000	0.1013	101	75-125	
Zinc	0.01669	0.1000	0.1045	88	75-125	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 3050B
		Method:	EPA 6020
Project: Jet Boat Property			Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
Jet-Boat-4-(0.1')	**Sample**	**Solid**	**ICP/MS 04**	**06/11/14 00:00**	**06/12/14 16:46**	**140611S02A**
Jet-Boat-4-(0.1')	**PDS**	**Solid**	**ICP/MS 04**	**06/11/14 00:00**	**06/12/14 16:25**	**140611S02A**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Antimony	ND	25.00	25.99	104	75-125	
Arsenic	5.896	25.00	30.91	100	75-125	
Cadmium	ND	25.00	26.44	106	75-125	
Chromium	94.30	25.00	117.6	93	75-125	
Copper	49.99	25.00	74.17	97	75-125	
Lead	5.847	25.00	30.94	100	75-125	
Nickel	164.7	25.00	188.9	4X	75-125	Q
Selenium	ND	25.00	25.90	104	75-125	
Silver	ND	12.50	12.65	101	75-125	
Thallium	ND	25.00	24.48	98	75-125	
Zinc	59.13	25.00	84.69	102	75-125	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Freshwater Environmental Services	Date Received: 06/10/14
78 Sunny Brae Center	Work Order: 14-06-0704
Arcata, CA 95521-6742	Preparation: EPA 3510C
	Method: EPA 8015B (M)
Project: Jet Boat Property	Page 1 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-278-635	**LCS**	**Aqueous**	**GC 46**	**06/11/14**	**06/12/14 06:27**	**140611B17**
099-15-278-635	**LCSD**	**Aqueous**	**GC 46**	**06/11/14**	**06/12/14 06:44**	**140611B17**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	2000	1871	94	1894	95	75-117	1	0-13	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: Jet Boat Property			Page 2 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-420-947	**LCS**	**Solid**	**GC 46**	**06/11/14**	**06/12/14 01:29**	**140611B08**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Motor Oil	400.0	416.4	104	75-123	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: Jet Boat Property			Page 3 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
096-06-003-4446	**LCS**	**Aqueous**	**ICP/MS 04**	**06/16/14**	**06/16/14 20:15**	**140616L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Cadmium	0.1000	0.1002	100	80-120	
Chromium	0.1000	0.09815	98	80-120	
Lead	0.1000	0.09931	99	80-120	
Nickel	0.1000	0.09832	98	80-120	
Zinc	0.1000	0.1041	104	80-120	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 3050B
		Method:	EPA 6020
Project: Jet Boat Property			Page 4 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-621-519	**LCS**	**Solid**	**ICP/MS 03**	**06/11/14**	**06/11/14 19:57**	**140611L02A**
099-15-621-519	**LCSD**	**Solid**	**ICP/MS 03**	**06/11/14**	**06/11/14 20:00**	**140611L02A**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Antimony	25.00	25.20	101	25.09	100	80-120	73-127	0	0-20	
Arsenic	25.00	25.22	101	24.59	98	80-120	73-127	3	0-20	
Cadmium	25.00	25.89	104	25.59	102	80-120	73-127	1	0-20	
Chromium	25.00	23.40	94	23.89	96	80-120	73-127	2	0-20	
Copper	25.00	25.99	104	25.85	103	80-120	73-127	1	0-20	
Lead	25.00	25.44	102	25.19	101	80-120	73-127	1	0-20	
Nickel	25.00	24.57	98	24.55	98	80-120	73-127	0	0-20	
Selenium	25.00	24.11	96	23.81	95	80-120	73-127	1	0-20	
Silver	12.50	12.86	103	12.70	102	80-120	73-127	1	0-20	
Thallium	25.00	24.63	99	24.30	97	80-120	73-127	1	0-20	
Zinc	25.00	25.84	103	26.01	104	80-120	73-127	1	0-20	

Total number of LCS compounds: 11
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5030C
		Method:	GC/MS / EPA 8260B
Project: Jet Boat Property			Page 5 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-767-6569	**LCS**	**Aqueous**	**GC/MS R**	**06/17/14**	**06/17/14 17:33**	**140617L037**
099-12-767-6569	**LCSD**	**Aqueous**	**GC/MS R**	**06/17/14**	**06/17/14 18:00**	**140617L037**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	43.99	88	N/A	N/A	80-120	73-127	N/A	0-200	
Carbon Tetrachloride	50.00	45.70	91	N/A	N/A	67-139	55-151	N/A	0-200	
Chlorobenzene	50.00	43.92	88	N/A	N/A	78-120	71-127	N/A	0-200	
1,2-Dibromoethane	50.00	47.03	94	N/A	N/A	80-120	73-127	N/A	0-200	
1,2-Dichlorobenzene	50.00	43.64	87	N/A	N/A	63-129	52-140	N/A	0-249	
1,2-Dichloroethane	50.00	45.30	91	N/A	N/A	70-130	60-140	N/A	0-200	
1,1-Dichloroethene	50.00	46.77	94	N/A	N/A	66-126	56-136	N/A	0-200	
Ethylbenzene	50.00	44.47	89	N/A	N/A	80-123	73-130	N/A	0-200	
Toluene	50.00	43.57	87	N/A	N/A	80-120	73-127	N/A	0-200	
Trichloroethene	50.00	44.72	89	N/A	N/A	80-122	73-129	N/A	0-200	
Vinyl Chloride	50.00	49.50	99	N/A	N/A	70-130	60-140	N/A	0-200	
p/m-Xylene	100.0	88.78	89	N/A	N/A	75-123	67-131	N/A	0-200	
o-Xylene	50.00	45.49	91	N/A	N/A	74-122	66-130	N/A	0-200	
Methyl-t-Butyl Ether (MTBE)	50.00	45.47	91	N/A	N/A	69-129	59-139	N/A	0-200	
Tert-Butyl Alcohol (TBA)	250.0	234.5	94	N/A	N/A	69-129	59-139	N/A	0-200	
Diisopropyl Ether (DIPE)	50.00	44.39	89	N/A	N/A	68-128	58-138	N/A	0-200	
Ethyl-t-Butyl Ether (ETBE)	50.00	45.20	90	N/A	N/A	63-135	51-147	N/A	0-200	
Tert-Amyl-Methyl Ether (TAME)	50.00	44.70	89	N/A	N/A	67-133	56-144	N/A	0-200	
Ethanol	500.0	388.2	78	N/A	N/A	42-168	21-189	N/A	0-200	
TPPH	1000	980.7	98	982.3	98	65-135	53-147	0	0-30	

Total number of LCS compounds: 20
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
Project: Jet Boat Property			Page 6 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-779-1544	**LCS**	**Solid**	**GC/MS R**	**06/11/14**	**06/11/14 11:51**	**140611L008**
099-12-779-1544	**LCSD**	**Solid**	**GC/MS R**	**06/11/14**	**06/11/14 12:18**	**140611L008**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	0.05000	0.04443	89	0.04392	88	80-120	73-127	1	0-20	
Carbon Tetrachloride	0.05000	0.04880	98	0.04742	95	65-137	53-149	3	0-20	
Chlorobenzene	0.05000	0.04283	86	0.04281	86	80-120	73-127	0	0-20	
1,2-Dibromoethane	0.05000	0.04662	93	0.04625	92	80-120	73-127	1	0-20	
1,2-Dichlorobenzene	0.05000	0.04253	85	0.04341	87	80-120	73-127	2	0-20	
1,2-Dichloroethane	0.05000	0.05243	105	0.05063	101	80-120	73-127	3	0-20	
1,1-Dichloroethene	0.05000	0.05295	106	0.05149	103	68-128	58-138	3	0-20	
Ethylbenzene	0.05000	0.04363	87	0.04430	89	80-120	73-127	2	0-20	
Toluene	0.05000	0.04500	90	0.04511	90	80-120	73-127	0	0-20	
Trichloroethene	0.05000	0.04374	87	0.04282	86	80-120	73-127	2	0-20	
Vinyl Chloride	0.05000	0.05938	119	0.05447	109	67-127	57-137	9	0-20	
p/m-Xylene	0.1000	0.08812	88	0.08843	88	75-125	67-133	0	0-25	
o-Xylene	0.05000	0.04483	90	0.04521	90	75-125	67-133	1	0-25	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.05115	102	0.04669	93	70-124	61-133	9	0-20	
Tert-Butyl Alcohol (TBA)	0.2500	0.2073	83	0.2243	90	73-121	65-129	8	0-20	
Diisopropyl Ether (DIPE)	0.05000	0.04928	99	0.04796	96	69-129	59-139	3	0-20	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.05024	100	0.04878	98	70-124	61-133	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.04679	94	0.04705	94	74-122	66-130	1	0-20	
Ethanol	0.5000	0.4609	92	0.4706	94	51-135	37-149	2	0-27	
TPPH	1.000	0.7233	72	0.9276	93	65-135	53-147	25	0-30	

Total number of LCS compounds: 20
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
Project: Jet Boat Property			Page 7 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-779-1549	**LCS**	**Solid**	**GC/MS R**	**06/13/14**	**06/13/14 12:12**	**140613L003**
099-12-779-1549	**LCSD**	**Solid**	**GC/MS R**	**06/13/14**	**06/13/14 12:39**	**140613L003**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	0.05000	0.04278	86	0.04631	93	80-120	73-127	8	0-20	
Carbon Tetrachloride	0.05000	0.04390	88	0.04997	100	65-137	53-149	13	0-20	
Chlorobenzene	0.05000	0.04305	86	0.04441	89	80-120	73-127	3	0-20	
1,2-Dibromoethane	0.05000	0.04630	93	0.04646	93	80-120	73-127	0	0-20	
1,2-Dichlorobenzene	0.05000	0.04095	82	0.04458	89	80-120	73-127	8	0-20	
1,2-Dichloroethane	0.05000	0.04719	94	0.04953	99	80-120	73-127	5	0-20	
1,1-Dichloroethene	0.05000	0.04518	90	0.05043	101	68-128	58-138	11	0-20	
Ethylbenzene	0.05000	0.04245	85	0.04528	91	80-120	73-127	6	0-20	
Toluene	0.05000	0.04305	86	0.04235	85	80-120	73-127	2	0-20	
Trichloroethene	0.05000	0.04367	87	0.04530	91	80-120	73-127	4	0-20	
Vinyl Chloride	0.05000	0.04696	94	0.05049	101	67-127	57-137	7	0-20	
p/m-Xylene	0.1000	0.08485	85	0.07977	80	75-125	67-133	6	0-25	
o-Xylene	0.05000	0.04336	87	0.04621	92	75-125	67-133	6	0-25	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.04719	94	0.04786	96	70-124	61-133	1	0-20	
Tert-Butyl Alcohol (TBA)	0.2500	0.1929	77	0.2197	88	73-121	65-129	13	0-20	
Diisopropyl Ether (DIPE)	0.05000	0.04660	93	0.05114	102	69-129	59-139	9	0-20	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.04615	92	0.05243	105	70-124	61-133	13	0-20	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.04364	87	0.04769	95	74-122	66-130	9	0-20	
Ethanol	0.5000	0.4086	82	0.4727	95	51-135	37-149	15	0-27	
TPPH	1.000	0.7428	74	0.7701	77	65-135	53-147	4	0-30	

Total number of LCS compounds: 20
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
Project: Jet Boat Property			Page 8 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-779-1550	**LCS**	**Solid**	**GC/MS R**	**06/13/14**	**06/13/14 12:12**	**140613L026**
099-12-779-1550	**LCSD**	**Solid**	**GC/MS R**	**06/13/14**	**06/13/14 12:39**	**140613L026**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	0.05000	0.04278	86	0.04631	93	80-120	73-127	8	0-20	
Carbon Tetrachloride	0.05000	0.04390	88	0.04997	100	65-137	53-149	13	0-20	
Chlorobenzene	0.05000	0.04305	86	0.04441	89	80-120	73-127	3	0-20	
1,2-Dibromoethane	0.05000	0.04630	93	0.04646	93	80-120	73-127	0	0-20	
1,2-Dichlorobenzene	0.05000	0.04095	82	0.04458	89	80-120	73-127	8	0-20	
1,2-Dichloroethane	0.05000	0.04719	94	0.04953	99	80-120	73-127	5	0-20	
1,1-Dichloroethene	0.05000	0.04518	90	0.05043	101	68-128	58-138	11	0-20	
Ethylbenzene	0.05000	0.04245	85	0.04528	91	80-120	73-127	6	0-20	
Toluene	0.05000	0.04305	86	0.04235	85	80-120	73-127	2	0-20	
Trichloroethene	0.05000	0.04367	87	0.04530	91	80-120	73-127	4	0-20	
Vinyl Chloride	0.05000	0.04696	94	0.05049	101	67-127	57-137	7	0-20	
p/m-Xylene	0.1000	0.08485	85	0.07977	80	75-125	67-133	6	0-25	
o-Xylene	0.05000	0.04336	87	0.04621	92	75-125	67-133	6	0-25	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.04719	94	0.04786	96	70-124	61-133	1	0-20	
Tert-Butyl Alcohol (TBA)	0.2500	0.1929	77	0.2197	88	73-121	65-129	13	0-20	
Diisopropyl Ether (DIPE)	0.05000	0.04660	93	0.05114	102	69-129	59-139	9	0-20	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.04615	92	0.05243	105	70-124	61-133	13	0-20	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.04364	87	0.04769	95	74-122	66-130	9	0-20	
Ethanol	0.5000	0.4086	82	0.4727	95	51-135	37-149	15	0-27	
TPPH	1.000	0.7428	74	0.7701	77	65-135	53-147	4	0-30	

Total number of LCS compounds: 20
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
Project: Jet Boat Property			Page 9 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-779-1553	**LCS**	**Solid**	**GC/MS UU**	**06/16/14**	**06/16/14 11:37**	**140616L003**
099-12-779-1553	**LCSD**	**Solid**	**GC/MS UU**	**06/16/14**	**06/16/14 12:03**	**140616L003**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	0.05000	0.05060	101	0.05451	109	80-120	73-127	7	0-20	
Carbon Tetrachloride	0.05000	0.04399	88	0.04630	93	65-137	53-149	5	0-20	
Chlorobenzene	0.05000	0.05366	107	0.05803	116	80-120	73-127	8	0-20	
1,2-Dibromoethane	0.05000	0.04864	97	0.05295	106	80-120	73-127	8	0-20	
1,2-Dichlorobenzene	0.05000	0.05481	110	0.06002	120	80-120	73-127	9	0-20	
1,2-Dichloroethane	0.05000	0.05056	101	0.05451	109	80-120	73-127	8	0-20	
1,1-Dichloroethene	0.05000	0.05442	109	0.05789	116	68-128	58-138	6	0-20	
Ethylbenzene	0.05000	0.05241	105	0.05643	113	80-120	73-127	7	0-20	
Toluene	0.05000	0.05229	105	0.05659	113	80-120	73-127	8	0-20	
Trichloroethene	0.05000	0.04938	99	0.05245	105	80-120	73-127	6	0-20	
Vinyl Chloride	0.05000	0.04787	96	0.05209	104	67-127	57-137	8	0-20	
p/m-Xylene	0.1000	0.1110	111	0.1194	119	75-125	67-133	7	0-25	
o-Xylene	0.05000	0.05199	104	0.05631	113	75-125	67-133	8	0-25	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.04671	93	0.05025	100	70-124	61-133	7	0-20	
Tert-Butyl Alcohol (TBA)	0.2500	0.2350	94	0.2565	103	73-121	65-129	9	0-20	
Diisopropyl Ether (DIPE)	0.05000	0.05131	103	0.05462	109	69-129	59-139	6	0-20	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.04506	90	0.04831	97	70-124	61-133	7	0-20	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.04268	85	0.04620	92	74-122	66-130	8	0-20	
Ethanol	0.5000	0.7246	145	0.7592	152	51-135	37-149	5	0-27	ME,X
TPPH	1.000	0.8340	83	0.8220	82	65-135	53-147	1	0-30	

Total number of LCS compounds: 20
Total number of ME compounds: 1
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
Project: Jet Boat Property			Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-779-1547	**LCS**	**Solid**	**GC/MS R**	**06/12/14**	**06/12/14 13:29**	**140612L011**
099-12-779-1547	**LCSD**	**Solid**	**GC/MS R**	**06/12/14**	**06/12/14 13:56**	**140612L011**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	0.05000	0.04845	97	0.05207	104	80-120	73-127	7	0-20	
Chlorobenzene	0.05000	0.04657	93	0.05088	102	80-120	73-127	9	0-20	
1,2-Dibromoethane	0.05000	0.04969	99	0.05370	107	80-120	73-127	8	0-20	
1,2-Dichlorobenzene	0.05000	0.04559	91	0.05104	102	80-120	73-127	11	0-20	
1,2-Dichloroethane	0.05000	0.05578	112	0.05990	120	80-120	73-127	7	0-20	
Ethylbenzene	0.05000	0.04930	99	0.05356	107	80-120	73-127	8	0-20	
Toluene	0.05000	0.05029	101	0.05365	107	80-120	73-127	6	0-20	
p/m-Xylene	0.1000	0.09805	98	0.1067	107	75-125	67-133	8	0-25	
o-Xylene	0.05000	0.04932	99	0.05357	107	75-125	67-133	8	0-25	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.05252	105	0.05826	117	70-124	61-133	10	0-20	
Tert-Butyl Alcohol (TBA)	0.2500	0.2343	94	0.2526	101	73-121	65-129	8	0-20	
Diisopropyl Ether (DIPE)	0.05000	0.05079	102	0.05704	114	69-129	59-139	12	0-20	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.05110	102	0.05798	116	70-124	61-133	13	0-20	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.04955	99	0.05398	108	74-122	66-130	9	0-20	
TPPH	1.000	1.037	104	0.9720	97	65-135	53-147	6	0-30	

Total number of LCS compounds: 15
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
Project: Jet Boat Property			Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-779-1548	**LCS**	**Solid**	**GC/MS R**	**06/12/14**	**06/12/14 13:29**	**140612L025**
099-12-779-1548	**LCSD**	**Solid**	**GC/MS R**	**06/12/14**	**06/12/14 13:56**	**140612L025**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	0.05000	0.04845	97	0.05207	104	80-120	73-127	7	0-20	
Chlorobenzene	0.05000	0.04657	93	0.05088	102	80-120	73-127	9	0-20	
1,2-Dibromoethane	0.05000	0.04969	99	0.05370	107	80-120	73-127	8	0-20	
1,2-Dichlorobenzene	0.05000	0.04559	91	0.05104	102	80-120	73-127	11	0-20	
1,2-Dichloroethane	0.05000	0.05578	112	0.05990	120	80-120	73-127	7	0-20	
Ethylbenzene	0.05000	0.04930	99	0.05356	107	80-120	73-127	8	0-20	
Toluene	0.05000	0.05029	101	0.05365	107	80-120	73-127	6	0-20	
p/m-Xylene	0.1000	0.09805	98	0.1067	107	75-125	67-133	8	0-25	
o-Xylene	0.05000	0.04932	99	0.05357	107	75-125	67-133	8	0-25	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.05252	105	0.05826	117	70-124	61-133	10	0-20	
Tert-Butyl Alcohol (TBA)	0.2500	0.2343	94	0.2526	101	73-121	65-129	8	0-20	
Diisopropyl Ether (DIPE)	0.05000	0.05079	102	0.05704	114	69-129	59-139	12	0-20	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.05110	102	0.05798	116	70-124	61-133	13	0-20	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.04955	99	0.05398	108	74-122	66-130	9	0-20	
TPPH	1.000	1.037	104	0.9720	97	65-135	53-147	6	0-30	

Total number of LCS compounds: 15
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
Project: Jet Boat Property			Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-779-1549	**LCS**	**Solid**	**GC/MS R**	**06/13/14**	**06/13/14 12:12**	**140613L003**
099-12-779-1549	**LCSD**	**Solid**	**GC/MS R**	**06/13/14**	**06/13/14 12:39**	**140613L003**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	0.05000	0.04278	86	0.04631	93	80-120	73-127	8	0-20	
Chlorobenzene	0.05000	0.04305	86	0.04441	89	80-120	73-127	3	0-20	
1,2-Dibromoethane	0.05000	0.04630	93	0.04646	93	80-120	73-127	0	0-20	
1,2-Dichlorobenzene	0.05000	0.04095	82	0.04458	89	80-120	73-127	8	0-20	
1,2-Dichloroethane	0.05000	0.04719	94	0.04953	99	80-120	73-127	5	0-20	
Ethylbenzene	0.05000	0.04245	85	0.04528	91	80-120	73-127	6	0-20	
Toluene	0.05000	0.04305	86	0.04235	85	80-120	73-127	2	0-20	
p/m-Xylene	0.1000	0.08485	85	0.07977	80	75-125	67-133	6	0-25	
o-Xylene	0.05000	0.04336	87	0.04621	92	75-125	67-133	6	0-25	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.04719	94	0.04786	96	70-124	61-133	1	0-20	
Tert-Butyl Alcohol (TBA)	0.2500	0.1929	77	0.2197	88	73-121	65-129	13	0-20	
Diisopropyl Ether (DIPE)	0.05000	0.04660	93	0.05114	102	69-129	59-139	9	0-20	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.04615	92	0.05243	105	70-124	61-133	13	0-20	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.04364	87	0.04769	95	74-122	66-130	9	0-20	
TPPH	1.000	0.7428	74	0.7701	77	65-135	53-147	4	0-30	

Total number of LCS compounds: 15
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
Project: Jet Boat Property			Page 4 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-779-1550	**LCS**	**Solid**	**GC/MS R**	**06/13/14**	**06/13/14 12:12**	**140613L026**
099-12-779-1550	**LCSD**	**Solid**	**GC/MS R**	**06/13/14**	**06/13/14 12:39**	**140613L026**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	0.05000	0.04278	86	0.04631	93	80-120	73-127	8	0-20	
Chlorobenzene	0.05000	0.04305	86	0.04441	89	80-120	73-127	3	0-20	
1,2-Dibromoethane	0.05000	0.04630	93	0.04646	93	80-120	73-127	0	0-20	
1,2-Dichlorobenzene	0.05000	0.04095	82	0.04458	89	80-120	73-127	8	0-20	
1,2-Dichloroethane	0.05000	0.04719	94	0.04953	99	80-120	73-127	5	0-20	
Ethylbenzene	0.05000	0.04245	85	0.04528	91	80-120	73-127	6	0-20	
Toluene	0.05000	0.04305	86	0.04235	85	80-120	73-127	2	0-20	
p/m-Xylene	0.1000	0.08485	85	0.07977	80	75-125	67-133	6	0-25	
o-Xylene	0.05000	0.04336	87	0.04621	92	75-125	67-133	6	0-25	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.04719	94	0.04786	96	70-124	61-133	1	0-20	
Tert-Butyl Alcohol (TBA)	0.2500	0.1929	77	0.2197	88	73-121	65-129	13	0-20	
Diisopropyl Ether (DIPE)	0.05000	0.04660	93	0.05114	102	69-129	59-139	9	0-20	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.04615	92	0.05243	105	70-124	61-133	13	0-20	
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.04364	87	0.04769	95	74-122	66-130	9	0-20	
TPPH	1.000	0.7428	74	0.7701	77	65-135	53-147	4	0-30	

Total number of LCS compounds: 15
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 5035
		Method:	GC/MS / EPA 8260B
Project: Jet Boat Property			Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-779-1554	**LCS**	**Solid**	**GC/MS UU**	**06/17/14**	**06/17/14 13:18**	**140617L006**
099-12-779-1554	**LCSD**	**Solid**	**GC/MS UU**	**06/17/14**	**06/17/14 13:44**	**140617L006**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	0.05000	0.04857	97	0.04955	99	80-120	73-127	2	0-20	
Chlorobenzene	0.05000	0.05329	107	0.05323	106	80-120	73-127	0	0-20	
1,2-Dibromoethane	0.05000	0.04847	97	0.04888	98	80-120	73-127	1	0-20	
1,2-Dichlorobenzene	0.05000	0.05488	110	0.05386	108	80-120	73-127	2	0-20	
1,2-Dichloroethane	0.05000	0.04729	95	0.04861	97	80-120	73-127	3	0-20	
Ethylbenzene	0.05000	0.05213	104	0.05222	104	80-120	73-127	0	0-20	
Toluene	0.05000	0.05108	102	0.05207	104	80-120	73-127	2	0-20	
p/m-Xylene	0.1000	0.1085	109	0.1090	109	75-125	67-133	0	0-25	
o-Xylene	0.05000	0.05098	102	0.05129	103	75-125	67-133	1	0-25	
Methyl-t-Butyl Ether (MTBE)	0.05000	0.04075	82	0.04149	83	70-124	61-133	2	0-20	
Tert-Butyl Alcohol (TBA)	0.2500	0.2150	86	0.2259	90	73-121	65-129	5	0-20	
Diisopropyl Ether (DIPE)	0.05000	0.04804	96	0.04871	97	69-129	59-139	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	0.05000	0.03469	69	0.03525	71	70-124	61-133	2	0-20	ME
Tert-Amyl-Methyl Ether (TAME)	0.05000	0.03054	61	0.03205	64	74-122	66-130	5	0-20	X
TPPH	1.000	0.8563	86	0.8078	81	65-135	53-147	6	0-30	

Total number of LCS compounds: 15
Total number of ME compounds: 1
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Glossary of Terms and Qualifiers

Work Order: 14-06-0704 Page 1 of 1

Qualifiers	Definition
*	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 suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
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.
BV	Sample received 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.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
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.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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CHAIN OF CUSTODY RECORD

WO.# / LAB USE ONLY: **14-06-0704**

DATE: 06/05/14

PAGE: 1 OF 3

LABORATORY CLIENT: Freshwater Environmental Services

ADDRESS: 78 Sunny Brae Center

CITY: Arcata STATE: CA ZIP: 95521

TEL: 707 498-0793 E-MAIL: stan@freshwaterenvironmentalservices.com

CLIENT PROJECT NAME / NUMBER: Jet Boat Property

P.O. NO.:

PROJECT CONTACT: Stan Thiesen

SAMPLER(S): (PRINT) Stan Thiesen

TURNAROUND TIME:

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

☐ COELT EDF GLOBAL ID: NA LOG CODE: NA

SPECIAL INSTRUCTIONS:

Please Homogenize TPH-Motor Oil and Metals prior to Analysis.
Oxygenates include: Methyl tert-butyl ether (MTBE), Tert-amyl methyl ether (TAME), Ethyl tertiary butyl ether (ETBE), Di-isopropyl ether (DIPE), and Tert-butyl alcohol (TBA).
Scavengers include: 1,2-Dichloroethane, 1,3-Dichlorobenzene, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dibromoethane (EDB), and Chlorobenzene.

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Gas/BTEX/MTBE/Oxygenates/Pb Scavengers/Naphthalene (8260B)	Gas/BTEX/MTBE/Oxygenates/VOCs (8260B)	TPH-Motor Oil (8015B with silica gel)	Metals (Cd, Cr, Pb, Ni, Zn) (6020)	Terra Core Prep (5035)	Metals (As, Cd, Cr, Cu, Pb, Ni, Sb, Se, Ag, Tl, Zn) (6020)	Chromium VI (7196A)	Mercury (7471A)	Chromium VI (218.6)	Mercury (1631E)	MS/MSD
1	Jet-Boat-1-(1.0')	6/5/2014	16:05	Soil	9	0	9	NA	X				X						X
2	Jet-Boat-1-(2.0')	6/5/2014	16:10	Soil	3	0	3	NA	X				X						
3	Jet-Boat-2-(0.9')	6/5/2014	15:52	Soil	3	0	3	NA	X				X						
4	Jet-Boat-2-(1.5')	6/5/2014	15:54	Soil	3	0	3	NA	X				X						
5	Jet-Boat-3-(0.8')	6/5/2014	15:40	Soil	3	0	3	NA	X				X						
6	Jet-Boat-3-(2.0')	6/5/2014	15:41	Soil	3	0	3	NA	X				X						
7	Jet-Boat-4-(0.1')	6/5/2014	13:00	Soil	10	1	9	NA		X	X	X	X						X
8	Jet-Boat-4-(1.1')	6/5/2014	13:35	Soil	4	1	3	NA		X	X	X	X						
9	Jet-Boat-5-(0.1')	6/5/2014	13:55	Soil	4	1	3	NA		X	X	X	X						
10	Jet-Boat-5-(1.0')	6/5/2014	14:10	Soil	4	1	3	NA		X	X	X	X						

Relinquished by: (Signature) Stan Thiesen	Received by: (Signature/Affiliation)	Date: 6-9-14	Time: 12:15
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature) (Fedex)	Received by: (Signature/Affiliation) UCT	Date: 6/10/14	Time: 1100

06/01/10 Revision

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 06-0704

DATE: 06/05/14

PAGE: 2 OF 3

LABORATORY CLIENT: Freshwater Environmental Services

ADDRESS: 78 Sunny Brae Center

CITY: Arcata STATE: CA ZIP: 95521

TEL: 707 498-0793 E-MAIL: stan@freshwaterenvironmentalservices.com

CLIENT PROJECT NAME / NUMBER: Jet Boat Property

P.O. NO.:

PROJECT CONTACT: Stan Thiesen

SAMPLER(S): (PRINT) Stan Thiesen

TURNAROUND TIME:

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

☐ COELT EDF GLOBAL ID: NA LOG CODE: NA

SPECIAL INSTRUCTIONS:

Please Homogenize TPH-Motor Oil and Metals prior to Analysis.
Oxygenates include: Methyl tert-butyl ether (MTBE), Tert-amyl methyl ether (TAME), Ethyl tertiary butyl ether (ETBE), Di-isopropyl ether (DIPE), and Tert-butyl alcohol (TBA).
Scavengers include: 1,2-Dichloroethane, 1,3-Dichlorobenzene, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dibromoethane (EDB), and Chlorobenzene.

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Gas/BTEX/MTBE/Oxygenates/Pb Scavengers/Naphthalene (8260B)	Gas/BTEX/MTBE/Oxygenates/VOCs (8260B)	TPH-Motor Oil (8015B with silica gel)	Metals (Cd, Cr, Pb, Ni, Zn) (6020)	Terra Core Prep (5035)	Metals (As, Cd, Cr, Cu, Pb, Ni, Sb, Se, Ag, Tl, Zn) (6020)	Chromium VI (7196A)	Mercury (7471A)	Chromium VI (218.6)	Mercury (1631E)
11	Jet-Boat-6-(0.1'-0.2')	6/5/2014	10:40	Soil	1	1	0	NA			X	X						
12	Jet-Boat-6-(1.0')	6/5/2014	10:52	Soil	1	1	0	NA			X	X						
13	Jet-Boat-7-(0.1'-0.2')	6/5/2014	11:10	Soil	1	1	0	NA			X	X						
14	Jet-Boat-7-(0.9')	6/5/2014	11:25	Soil	1	1	0	NA			X	X						
15	Jet-Boat-8-(0.0'-0.3')	6/5/2014	11:40	Soil	1	1	0	NA			X	X						
16	Jet-Boat-8-(0.9'-1.0')	6/5/2014	11:50	Soil	1	1	0	NA			X	X						
17	Jet-Boat-9-(1.0')	6/5/2014	14:30	Soil	3	0	3	NA	X				X					
18	Jet-Boat-10-(0.1')	6/5/2014	12:30	Soil	4	1	3	NA		X	X	X	X					
19	Jet-Boat-11	6/5/2014	13:45	Water	6	2	4	NA		X	X	X						
20	Jet-Boat-Metals-(0.75')	6/5/2014	10:05	Soil	1	1	0	NA						X				

Relinquished by: (Signature) Stan Thiesen	Received by: (Signature/Affiliation)	Date: 6-9-14	Time: 12:15
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature) (Fedex)	Received by: (Signature/Affiliation) ECF	Date: 6/10/14	Time: 1100

06/01/10 Revision

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

WO.# / LAB USE ONLY: 06-0704

DATE: 06/05/14

PAGE: 3 OF 3

LABORATORY CLIENT: Freshwater Environmental Services

ADDRESS: 78 Sunny Brae Center

CITY: Arcata STATE: CA ZIP: 95521

TEL: 707 498-0793 E-MAIL: stan@freshwaterenvironmentalservices.com

CLIENT PROJECT NAME / NUMBER: Jet Boat Property

P.O. NO.:

PROJECT CONTACT: Stan Thiesen

SAMPLER(S): (PRINT) Stan Thiesen

TURNAROUND TIME:
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

☐ COELT EDF GLOBAL ID: NA LOG CODE: NA

SPECIAL INSTRUCTIONS:
Please hold this container as there was excess soil added. Use only if needed.

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Gas/BTEX/MTBE/Oxygenates/Pb Scavengers/Naphthalene (8260B)	Gas/BTEX/MTBE/Oxygenates/VOCs (8260B)	TPH-Motor Oil (8015B with silica gel)	Metals (Cd, Cr, Pb, Ni, Zn) (6020)	Terra Core Prep (5035)	Metals (As, Cd, Cr, Cu, Pb, Ni, Sb, Se, Ag, Tl, Zn) (6020)	Chromium VI (7196A)	Mercury (7471A)	Chromium VI (218.6)	Mercury (1631E)	HOLD
21	Jet-Boat-4-(0.1')-(HOLD)	6/5/2014	13:00	Soil	1	0	1	NA		X									X
	Temp-Blank-1																		
	Temp-Blank-2																		

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Stan Thiesen		6-9-14	12:15
(Fedex)	[illegible] CT	6/10/14	1100

0704

From: (707) 839-0091
Stan Thiesen
Freshwater Environmental
78 Sunny Brae Center

Arcata, CA 95521

Origin ID: EKAA

FedEx Express

J1410140207032G

Ship Date: 09JUN14
ActWgt: 50.0 LB
CAD: 4822189/INET3490

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # YTEP Jet-Boat
Invoice #
PO #
Dept #

SHIP TO: (714) 895-5494

BILL SENDER

Don Burley
Calscience Environmental Laboratory
7440 Lincoln Way

Garden Grove, CA 92841

TUE - 10 JUN 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7702 3798 6693

DSR
92841

Page 1 of 1

From: (707) 839-0091
Stan Thiesen
Freshwater Environmental
78 Sunny Brae Center

Arcata, CA 95521

Origin ID: EKAA

FedEx Express

J1410140207032G

Ship Date: 09JUN14
ActWgt: 50.0 LB
CAD: 4822189/INET3490

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # YTEP Jet-Boat
Invoice #
PO #
Dept #

SHIP TO: (714) 895-5494

BILL SENDER

Don Burley
Calscience Environmental Laboratory
7440 Lincoln Way

Garden Grove, CA 92841

TUE - 10 JUN 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7702 3793 3222

DSR
92841
CA-US
SNA

92 APVA

522G5/9B04/F220

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WORK ORDER #: 14-06-0704

SAMPLE RECEIPT FORM

Cooler 1 of 2

CLIENT: Freshwater Env'l. Services DATE: 06/10/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.7 °C - 0.3 °C (CF) = 2.4 °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 Checked by: SRC

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Checked by: SRC

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: SRC

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☑(7)TerraCores® ☐_____

Aqueous: ☐VOA ☑(3)VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☑(2)500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☑250PB**n$_4$** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: SRC

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

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered Scanned by: SRC

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WORK ORDER #: 14-06-0704

SAMPLE RECEIPT FORM

Cooler 2 of 2

CLIENT: Freshwater Env'l. Services DATE: 06/10/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.9 °C - 0.3 °C (CF) = 2.6 °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 Checked by: SMG

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: SMG

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: SMG

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☑4ozCGJ ☑8ozCGJ (-7) ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☑TerraCores® (3) ☐_____

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: SMG

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

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered Scanned by: SMG

APPENDIX C
Laboratory Report and Chain-of-Custody Record - 2

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Supplemental Report 2

Additional requested analyses are reported as a stand-alone report.

WORK ORDER NUMBER: 14-06-0704

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Freshwater Environmental Services

Client Project Name: Jet Boat Property

Attention: Stan Thiesen
78 Sunny Brae Center
Arcata, CA 95521-6742

Approved for release on 06/26/2014 by:
Don Burley
Project Manager

ResultLink

Email your PM

Eurofins Calscience, 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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Contents

Client Project Name: Jet Boat Property
Work Order Number: 14-06-0704

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Work Order Narrative

Work Order: 14-06-0704 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/10/14. They were assigned to Work Order 14-06-0704.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Sample Summary

Client:	Freshwater Environmental Services	Work Order:	14-06-0704
	78 Sunny Brae Center	Project Name:	Jet Boat Property
	Arcata, CA 95521-6742	PO Number:	
		Date/Time Received:	06/10/14 11:00
		Number of Containers:	66
Attn:	Stan Thiesen		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
Jet-Boat-Metals-(0.75')	14-06-0704-20	06/05/14 10:05	1	Solid

Return to Contents

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Project: Jet Boat Property

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: N/A
Method: EPA 7196A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-Metals-(0.75')	**14-06-0704-20-A**	**06/05/14 10:05**	**Solid**	**UV 9**	**06/23/14**	**06/23/14 12:12**	**E0623CRL1**

Parameter	Result	RL	DF	Qualifiers
Chromium, Hexavalent	ND	0.80	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-001-5069**	**N/A**	**Solid**	**UV 9**	**06/23/14**	**06/23/14 12:12**	**E0623CRL1**

Parameter	Result	RL	DF	Qualifiers
Chromium, Hexavalent	ND	0.80	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	N/A
		Method:	Chromium (III) by Calc
		Units:	mg/kg
Project: Jet Boat Property			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-Metals-(0.75')	**14-06-0704-20-AA/A**	**06/05/14 10:05**	**Solid**	**N/A**	**N/A**	**06/25/14 17:21**	

Parameter	Result	RL	DF	Qualifiers
Chromium (III)	16	2.0	2.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Project: Jet Boat Property

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 3050B
Method: EPA 6020
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-Metals-(0.75')	**14-06-0704-20-AA**	**06/05/14 10:05**	**Solid**	**ICP/MS 03**	**06/21/14**	**06/24/14 17:32**	**140621L02**

Parameter	Result	RL	DF	Qualifiers
Barium	94.3	1.00	1.00	
Beryllium	ND	1.00	1.00	
Cobalt	7.53	1.00	1.00	
Molybdenum	ND	1.00	1.00	
Vanadium	31.6	2.00	1.00	
Aluminum	17900	25.0	1.00	
Magnesium	7460	25.0	1.00	
Manganese	403	2.50	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-621-523**	**N/A**	**Solid**	**ICP/MS 03**	**06/21/14**	**06/24/14 02:00**	**140621L02**

Parameter	Result	RL	DF	Qualifiers
Barium	ND	1.00	1.00	
Beryllium	ND	1.00	1.00	
Cobalt	ND	1.00	1.00	
Molybdenum	ND	1.00	1.00	
Vanadium	ND	2.00	1.00	
Aluminum	ND	25.0	1.00	
Magnesium	ND	25.0	1.00	
Manganese	ND	2.50	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Project: Jet Boat Property

Date Received: 06/10/14
Work Order: 14-06-0704
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-Metals-(0.75')	**14-06-0704-20-B**	**06/05/14 10:05**	**Solid**	**Mercury 05**	**06/23/14**	**06/23/14 16:48**	**140623L04**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0820	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-272-329**	**N/A**	**Solid**	**Mercury 05**	**06/23/14**	**06/23/14 14:52**	**140623L04**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	N/A
		Method:	EPA 7196A
Project: Jet Boat Property			Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Jet-Boat-Metals-(0.75')	**Sample**	**Solid**	**UV 9**	**06/23/14**	**06/23/14 12:12**	**E0623CRS1**
Jet-Boat-Metals-(0.75')	**Matrix Spike**	**Solid**	**UV 9**	**06/23/14**	**06/23/14 12:12**	**E0623CRS1**
Jet-Boat-Metals-(0.75')	**Matrix Spike Duplicate**	**Solid**	**UV 9**	**06/23/14**	**06/23/14 12:12**	**E0623CRS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	ND	20.00	16.80	84	16.00	80	75-125	5	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 3050B
		Method:	EPA 6020
Project: Jet Boat Property			Page 2 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-06-1495-5	**Sample**	**Solid**	**ICP/MS 03**	**06/21/14**	**06/24/14 02:29**	**140621S02**
14-06-1495-5	**Matrix Spike**	**Solid**	**ICP/MS 03**	**06/21/14**	**06/24/14 02:17**	**140621S02**
14-06-1495-5	**Matrix Spike Duplicate**	**Solid**	**ICP/MS 03**	**06/21/14**	**06/24/14 02:20**	**140621S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Barium	126.3	25.00	149.6	4X	145.3	4X	50-152	4X	0-41	Q
Beryllium	ND	25.00	28.75	115	28.43	114	61-121	1	0-13	
Cobalt	6.356	25.00	35.84	118	31.60	101	40-166	13	0-14	
Molybdenum	2.643	25.00	27.57	100	27.05	98	69-123	2	0-13	
Vanadium	49.40	25.00	68.80	78	73.01	94	28-178	6	0-28	
Aluminum	11980	25.00	11470	4X	12270	4X	80-120	4X	0-20	Q
Magnesium	6567	25.00	6492	4X	6400	4X	80-120	4X	0-20	Q
Manganese	262.5	25.00	379.7	4X	305.0	4X	80-120	4X	0-20	Q

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: Jet Boat Property			Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-06-1393-2	**Sample**	**Solid**	**Mercury 05**	**06/23/14**	**06/23/14 16:10**	**140623S04**
14-06-1393-2	**Matrix Spike**	**Solid**	**Mercury 05**	**06/23/14**	**06/23/14 16:12**	**140623S04**
14-06-1393-2	**Matrix Spike Duplicate**	**Solid**	**Mercury 05**	**06/23/14**	**06/23/14 16:14**	**140623S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	1.032	124	1.055	126	71-137	2	0-14	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 3050B
		Method:	EPA 6020
Project: Jet Boat Property			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
14-06-1495-5	**Sample**	**Solid**	**ICP/MS 03**	**06/21/14 00:00**	**06/24/14 02:29**	**140621S02**
14-06-1495-5	**PDS**	**Solid**	**ICP/MS 03**	**06/21/14 00:00**	**06/24/14 02:23**	**140621S02**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Barium	126.3	25.00	149.5	4X	75-125	Q
Beryllium	ND	25.00	28.15	113	75-125	
Cobalt	6.356	25.00	29.88	94	75-125	
Molybdenum	2.643	25.00	29.02	106	75-125	
Vanadium	49.40	25.00	73.51	96	75-125	
Aluminum	11980	25.00	11960	4X	75-125	Q
Magnesium	6567	25.00	6533	4X	75-125	Q
Manganese	262.5	25.00	282.1	4X	75-125	Q

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	N/A
		Method:	EPA 7196A
Project: Jet Boat Property			Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-05-001-5069	**LCS**	**Solid**	**UV 9**	**06/23/14**	**06/23/14 12:12**	**E0623CRL1**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chromium, Hexavalent	20.00	16.40	82	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Freshwater Environmental Services		Date Received:	06/10/14
78 Sunny Brae Center		Work Order:	14-06-0704
Arcata, CA 95521-6742		Preparation:	EPA 3050B
		Method:	EPA 6020
Project: Jet Boat Property			Page 2 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-621-523	**LCS**	**Solid**	**ICP/MS 03**	**06/21/14**	**06/24/14 02:04**	**140621L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Barium	25.00	24.76	99	80-120	
Beryllium	25.00	26.83	107	80-120	
Cobalt	25.00	25.06	100	80-120	
Molybdenum	25.00	25.24	101	80-120	
Vanadium	25.00	25.17	101	80-120	
Aluminum	25.00	22.29	89	80-120	
Magnesium	25.00	23.90	96	80-120	
Manganese	25.00	25.01	100	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Freshwater Environmental Services	Date Received: 06/10/14
78 Sunny Brae Center	Work Order: 14-06-0704
Arcata, CA 95521-6742	Preparation: EPA 7471A Total
	Method: EPA 7471A
Project: Jet Boat Property	Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-272-329	**LCS**	**Solid**	**Mercury 05**	**06/23/14**	**06/23/14 15:01**	**140623L04**
099-16-272-329	**LCSD**	**Solid**	**Mercury 05**	**06/23/14**	**06/23/14 15:03**	**140623L04**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.8350	0.9011	108	0.8989	108	85-121	0	0-10	

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 14-06-0704 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
Chromium (III) by Calc	N/A	309	N/A	1
EPA 6020	EPA 3050B	598	ICP/MS 03	1
EPA 7196A	N/A	687	UV 9	1
EPA 7471A	EPA 7471A Total	776	Mercury 05	1

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Glossary of Terms and Qualifiers

Work Order: 14-06-0704 Page 1 of 1

Qualifiers	Definition
*	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 suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
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.
BV	Sample received 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.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
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.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Donald Burley

From: Stan Thiesen <stan@freshwaterenvironmentalservices.com>
Sent: Friday, June 20, 2014 1:55 PM
To: Donald Burley
Subject: RE: Jet Boat Property / CEL 14-06-0704

Don,

I have reviewed the revised report and it looks fine except that I missed indicating on the COC that Jet-Boat-Metals-(0.75') be analyzed for Chromium (III), Chromium (VI), and mercury. Can you run this sample for these analytes?

Also to compare metals results from previous projects can you report concentrations of the following from Jet-Boat-Metals-(0.75'):

- aluminum
- barium
- beryllium
- cobalt
- magnesium
- manganese
- molybdenum
- vanadium

Thanks, Stan

Stan Thiesen, PG
Geologist
Cell: 707 498-0793
Freshwater Environmental Services

From: Donald Burley [mailto:DonaldBurley@eurofinsUS.com]
Sent: Thursday, June 19, 2014 3:49 PM
To: Stan Thiesen
Subject: Jet Boat Property / CEL 14-06-0704

Stan,

Revised report attached. Thanks.

Don

Eurofins Calscience, Inc.
7440 Lincoln Way
Garden Grove, CA 92841
USA
Phone: +1 714 895 5494

Email: DonaldBurley@eurofinsUS.com

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

WO.# (LAB USE ONLY): 14-06-0704

DATE: 06/05/14

PAGE: 1 OF 3

LABORATORY CLIENT: Freshwater Environmental Services

ADDRESS: 78 Sunny Brae Center

CITY: Arcata STATE: CA ZIP: 95521

TEL: 707 498-0793 E-MAIL: stan@freshwaterenvironmentalservices.com

CLIENT PROJECT NAME / NUMBER: Jet Boat Property

P.O. NO.:

PROJECT CONTACT: Stan Thiesen

SAMPLER(S): (PRINT) Stan Thiesen

TURNAROUND TIME:

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

☐ COELT EDF GLOBAL ID: NA LOG CODE: NA

SPECIAL INSTRUCTIONS:

Please Homogenize TPH-Motor Oil and Metals prior to Analysis.
Oxygenates include: Methyl tert-butyl ether (MTBE), Tert-amyl methyl ether (TAME), Ethyl tertiary butyl ether (ETBE), Di-isopropyl ether (DIPE), and Tert-butyl alcohol (TBA).
Scavengers include: 1,2-Dichloroethane, 1,3-Dichlorobenzene, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dibromoethane (EDB), and Chlorobenzene.

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Gas/BTEX/MTBE/Oxygenates/Pb Scavengers/Naphthalene (8260B)	Gas/BTEX/MTBE/Oxygenates/VOCs (8260B)	TPH-Motor Oil (8015B with silica gel)	Metals (Cd, Cr, Pb, Ni, Zn) (6020)	Terra Core Prep (5035)	Metals (As, Cd, Cr, Cu, Pb, Ni, Sb, Se, Ag, Tl, Zn) (6020)	Chromium VI (7196A)	Mercury (7471A)	Chromium VI (218.6)	Mercury (1631E)	MS/MSD
1	Jet-Boat-1-(1.0')	6/5/2014	16:05	Soil	9	0	9	NA	X				X						X
2	Jet-Boat-1-(2.0')	6/5/2014	16:10	Soil	3	0	3	NA	X				X						
3	Jet-Boat-2-(0.9')	6/5/2014	15:52	Soil	3	0	3	NA	X				X						
4	Jet-Boat-2-(1.5')	6/5/2014	15:54	Soil	3	0	3	NA	X				X						
5	Jet-Boat-3-(0.8')	6/5/2014	15:40	Soil	3	0	3	NA	X				X						
6	Jet-Boat-3-(2.0')	6/5/2014	15:41	Soil	3	0	3	NA	X				X						
7	Jet-Boat-4-(0.1')	6/5/2014	13:00	Soil	10	1	9	NA		X	X	X	X						X
8	Jet-Boat-4-(1.1')	6/5/2014	13:35	Soil	4	1	3	NA		X	X	X	X						
9	Jet-Boat-5-(0.1')	6/5/2014	13:55	Soil	4	1	3	NA		X	X	X	X						
10	Jet-Boat-5-(1.0')	6/5/2014	14:10	Soil	4	1	3	NA		X	X	X	X						

Relinquished by: (Signature) Stan Thiesen	Received by: (Signature/Affiliation)	Date: 6-9-14	Time: 12:15
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature) (Fedex)	Received by: (Signature/Affiliation) LECT	Date: 6/10/14	Time: 1100

06/01/10 Revision

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

WO.# / LAB USE ONLY: 06-0704

DATE: 06/05/14

PAGE: 2 OF 3

LABORATORY CLIENT: Freshwater Environmental Services	CLIENT PROJECT NAME / NUMBER: Jet Boat Property
ADDRESS: 78 Sunny Brae Center	P.O. NO.:
CITY: Arcata STATE: CA ZIP: 95521	PROJECT CONTACT: Stan Thiesen
TEL: 707 498-0793 E-MAIL: stan@freshwaterenvironmentalservices.com	SAMPLER(S): (PRINT) Stan Thiesen

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

☐ COELT EDF | GLOBAL ID: NA | LOG CODE: NA

SPECIAL INSTRUCTIONS:

Please Homogenize TPH-Motor Oil and Metals prior to Analysis.
Oxygenates include: Methyl tert-butyl ether (MTBE), Tert-amyl methyl ether (TAME), Ethyl tertiary butyl ether (ETBE), Di-isopropyl ether (DIPE), and Tert-butyl alcohol (TBA).
Scavengers include: 1,2-Dichloroethane, 1,3-Dichlorobenzene, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dibromoethane (EDB), and Chlorobenzene.

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Gas/BTEX/MTBE/Oxygenates/Pb Scavengers/Naphthalene (8260B)	Gas/BTEX/MTBE/Oxygenates/VOCs (8260B)	TPH-Motor Oil (8015B with silica gel)	Metals (Cd, Cr, Pb, Ni, Zn) (6020)	Terra Core Prep (5035)	Metals (As, Cd, Cr, Cu, Pb, Ni, Sb, Se, Ag, Tl, Zn) (6020)	Chromium VI (7196A)	Mercury (7471A)	Chromium VI (218.6)	Mercury (1631E)
11	Jet-Boat-6-(0.1'-0.2')	6/5/2014	10:40	Soil	1	1	0	NA			X	X						
12	Jet-Boat-6-(1.0')	6/5/2014	10:52	Soil	1	1	0	NA			X	X						
13	Jet-Boat-7-(0.1'-0.2')	6/5/2014	11:10	Soil	1	1	0	NA			X	X						
14	Jet-Boat-7-(0.9')	6/5/2014	11:25	Soil	1	1	0	NA			X	X						
15	Jet-Boat-8-(0.0'-0.3')	6/5/2014	11:40	Soil	1	1	0	NA			X	X						
16	Jet-Boat-8-(0.9'-1.0')	6/5/2014	11:50	Soil	1	1	0	NA			X	X						
17	Jet-Boat-9-(1.0')	6/5/2014	14:30	Soil	3	0	3	NA	X				X					
18	Jet-Boat-10-(0.1')	6/5/2014	12:30	Soil	4	1	3	NA		X	X	X	X					
19	Jet-Boat-11	6/5/2014	13:45	Water	6	2	4	NA		X	X	X						
20	Jet-Boat-Metals-(0.75')	6/5/2014	10:05	Soil	1	1	0	NA						X				

Relinquished by: (Signature) Stan Thiesen	Received by: (Signature/Affiliation)	Date: 6-9-14	Time: 12:15
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature) (Fedex)	Received by: (Signature/Affiliation) ECF	Date: 6/10/14	Time: 1100

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
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TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

WO.# / LAB USE ONLY: 06-0704

DATE: 06/05/14

PAGE: 3 OF 3

LABORATORY CLIENT: Freshwater Environmental Services	CLIENT PROJECT NAME / NUMBER: Jet Boat Property
ADDRESS: 78 Sunny Brae Center	P.O. NO.:
CITY: Arcata STATE: CA ZIP: 95521	PROJECT CONTACT: Stan Thiesen
TEL: 707 498-0793 E-MAIL: stan@freshwaterenvironmentalservices.com	SAMPLER(S): (PRINT) Stan Thiesen

TURNAROUND TIME:
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

☐ COELT EDF | GLOBAL ID: NA | LOG CODE: NA

SPECIAL INSTRUCTIONS:
Please hold this container as there was excess soil added. Use only if needed.

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Gas/BTEX/MTBE/Oxygenates/Pb Scavengers/Naphthalene (8260B)	Gas/BTEX/MTBE/Oxygenates/VOCs (8260B)	TPH-Motor Oil (8015B with silica gel)	Metals (Cd, Cr, Pb, Ni, Zn) (6020)	Terra Core Prep (5035)	Metals (As, Cd, Cr, Cu, Pb, Ni, Sb, Se, Ag, Tl, Zn) (6020)	Chromium VI (7196A)	Mercury (7471A)	Chromium VI (218.6)	Mercury (1631E)	HOLD
21	Jet-Boat-4-(0.1')-(HOLD)	6/5/2014	13:00	Soil	1	0	1	NA		X									X
	Temp-Blank-1																		
	Temp-Blank-2																		

Relinquished by: (Signature) Stan Thiesen	Received by: (Signature/Affiliation)	Date: 6-9-14	Time: 12:15
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature) (Fedex)	Received by: (Signature/Affiliation) CT	Date: 6/10/14	Time: 1100

06/01/10 Revision

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0704

From: (707) 839-0091
Stan Thiesen
Freshwater Environmental
78 Sunny Brae Center

Arcata, CA 95521

Origin ID: EKAA

FedEx Express

J14101402070326

Ship Date: 09JUN14
ActWgt: 50.0 LB
CAD: 4822189/INET3490

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # YTEP Jet-Boat
Invoice #
PO #
Dept #

SHIP TO: (714) 895-5494 BILL SENDER

Don Burley
Calscience Environmental Laboratory
7440 Lincoln Way

Garden Grove, CA 92841

TRK# 0201 7702 3798 6693

TUE - 10 JUN 10:30A
PRIORITY OVERNIGHT
DSR
92841

Page 1 of 1

From: (707) 839-0091
Stan Thiesen
Freshwater Environmental
78 Sunny Brae Center

Arcata, CA 95521

Origin ID: EKAA

FedEx Express

J14101402070326

Ship Date: 09JUN14
ActWgt: 50.0 LB
CAD: 4822189/INET3490

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # YTEP Jet-Boat
Invoice #
PO #
Dept #

SHIP TO: (714) 895-5494 BILL SENDER

Don Burley
Calscience Environmental Laboratory
7440 Lincoln Way

Garden Grove, CA 92841

TRK# 0201 7702 3793 3222

TUE - 10 JUN 10:30A
PRIORITY OVERNIGHT
DSR
92841
CA-US
SNA

92 APVA

522G5/8BC4/F220

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WORK ORDER #: 14-06-0704

SAMPLE RECEIPT FORM

Cooler 1 of 2

CLIENT: Freshwater Env'l. Services DATE: 06/10/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.7 °C - 0.3 °C (CF) = 2.4 °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 Checked by: 826

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Checked by: 826

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 862

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☑TerraCores® (3) ☐_____

Aqueous: ☐VOA ☐VOA**h** (3) ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ (2) ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n$_4$** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 862

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

Preservative: h: HCL n: HNO_3 na$_2$:$Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered Scanned by: SW

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WORK ORDER #: 14-06-0704

SAMPLE RECEIPT FORM

Cooler 2 of 2

CLIENT: Freshwater Env'l. Services DATE: 06/10/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.9 °C - 0.3 °C (CF) = 2.6 °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 Checked by: SMG

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: SMG

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: SMG

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☑4ozCGJ ☑8ozCGJ (-7) ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☑TerraCores® (3) ☐_____

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** SMG

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

Preservative: h: HCL n: HNO_3 na$_2$:$Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered **Scanned by:** SMG

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APPENDIX D
Laboratory Report and Chain-of-Custody Record - 3

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WORK ORDER NUMBER: 14-08-0818

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Freshwater Environmental Services

Client Project Name: Jet Boat Property

Attention: Stan Thiesen
78 Sunny Brae Center
Arcata, CA 95521-6742

Approved for release on 08/19/2014 by:
Don Burley
Project Manager

ResultLink

Email your PM

Eurofins Calscience, 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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Client Project Name: Jet Boat Property
Work Order Number: 14-08-0818

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Work Order Narrative

Work Order: 14-08-0818 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/12/14. They were assigned to Work Order 14-08-0818.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Sample Summary

Client:	Freshwater Environmental Services	Work Order:	14-08-0818
	78 Sunny Brae Center	Project Name:	Jet Boat Property
	Arcata, CA 95521-6742	PO Number:	
		Date/Time Received:	08/12/14 10:15
		Number of Containers:	7
Attn:	Stan Thiesen		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
Jet-Boat-12-(0.0'-0.25')	14-08-0818-1	08/08/14 10:20	1	Solid
Jet-Boat-12-(1.0')	14-08-0818-2	08/08/14 10:35	1	Solid
Jet-Boat-13-(0.0'-0.25)	14-08-0818-3	08/08/14 10:40	1	Solid
Jet-Boat-13-(1.0')	14-08-0818-4	08/08/14 10:55	1	Solid
Jet-Boat-14-(0.1-0.25')	14-08-0818-5	08/08/14 11:15	1	Solid
Jet-Boat-14-(1.0')	14-08-0818-6	08/08/14 11:30	1	Solid
Jet-Boat-15-(0.1'-0.25')	14-08-0818-7	08/08/14 11:00	1	Solid

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Project: Jet Boat Property

Date Received: 08/12/14
Work Order: 14-08-0818
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-12-(0.0'-0.25')	**14-08-0818-1-AA**	**08/08/14 10:20**	**Solid**	**GC 45**	**08/14/14**	**08/14/14 20:33**	**140814B02**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	160	25	1.00	SG,HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	85	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-12-(1.0')	**14-08-0818-2-AA**	**08/08/14 10:35**	**Solid**	**GC 45**	**08/14/14**	**08/14/14 20:50**	**140814B02**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	52	25	1.00	SG,HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	89	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-13-(0.0'-0.25)	**14-08-0818-3-AA**	**08/08/14 10:40**	**Solid**	**GC 45**	**08/14/14**	**08/14/14 21:08**	**140814B02**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	170	25	1.00	SG,HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	88	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-13-(1.0')	**14-08-0818-4-AA**	**08/08/14 10:55**	**Solid**	**GC 45**	**08/14/14**	**08/14/14 21:26**	**140814B02**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	35	25	1.00	SG,HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	77	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Project: Jet Boat Property

Date Received: 08/12/14
Work Order: 14-08-0818
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-14-(0.1-0.25')	**14-08-0818-5-AA**	**08/08/14 11:15**	**Solid**	**GC 45**	**08/14/14**	**08/14/14 22:02**	**140814B02**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	490	120	5.00	SG,HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	127	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-14-(1.0')	**14-08-0818-6-AA**	**08/08/14 11:30**	**Solid**	**GC 45**	**08/14/14**	**08/14/14 21:43**	**140814B02**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	25	1.00	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	68	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-15-(0.1'-0.25')	**14-08-0818-7-AA**	**08/08/14 11:00**	**Solid**	**GC 45**	**08/14/14**	**08/14/14 22:19**	**140814B02**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	1400	250	10.0	SG,HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	108	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-420-1031**	**N/A**	**Solid**	**GC 45**	**08/14/14**	**08/14/14 19:22**	**140814B02**

Parameter	Result	RL	DF	Qualifiers
TPH as Motor Oil	ND	25	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	85	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Date Received: 08/12/14
Work Order: 14-08-0818
Preparation: EPA 3050B
Method: EPA 6020
Units: mg/kg

Project: Jet Boat Property

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-12-(0.0'-0.25')	**14-08-0818-1-AA**	**08/08/14 10:20**	**Solid**	**ICP/MS 03**	**08/13/14**	**08/14/14 21:25**	**140813L02**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	70.3	2.00	1.00	
Lead	10.8	1.00	1.00	
Nickel	78.4	1.00	1.00	
Zinc	73.4	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-12-(1.0')	**14-08-0818-2-AA**	**08/08/14 10:35**	**Solid**	**ICP/MS 03**	**08/13/14**	**08/14/14 21:29**	**140813L02**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	51.6	2.00	1.00	
Lead	10.5	1.00	1.00	
Nickel	102	1.00	1.00	
Zinc	99.0	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-13-(0.0'-0.25)	**14-08-0818-3-AA**	**08/08/14 10:40**	**Solid**	**ICP/MS 03**	**08/13/14**	**08/14/14 21:42**	**140813L02**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	16.8	2.00	1.00	
Lead	6.73	1.00	1.00	
Nickel	26.1	1.00	1.00	
Zinc	62.4	5.00	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Date Received: 08/12/14
Work Order: 14-08-0818
Preparation: EPA 3050B
Method: EPA 6020
Units: mg/kg

Project: Jet Boat Property

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-13-(1.0')	**14-08-0818-4-AA**	**08/08/14 10:55**	**Solid**	**ICP/MS 03**	**08/13/14**	**08/14/14 21:45**	**140813L02**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	37.4	2.00	1.00	
Lead	35.7	1.00	1.00	
Nickel	55.1	1.00	1.00	
Zinc	82.5	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-14-(0.1-0.25')	**14-08-0818-5-AA**	**08/08/14 11:15**	**Solid**	**ICP/MS 03**	**08/13/14**	**08/14/14 21:48**	**140813L02**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	62.4	2.00	1.00	
Lead	13.0	1.00	1.00	
Nickel	129	1.00	1.00	
Zinc	104	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-14-(1.0')	**14-08-0818-6-AA**	**08/08/14 11:30**	**Solid**	**ICP/MS 03**	**08/13/14**	**08/14/14 21:51**	**140813L02**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	64.7	2.00	1.00	
Lead	6.15	1.00	1.00	
Nickel	114	1.00	1.00	
Zinc	50.3	5.00	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Date Received: 08/12/14
Work Order: 14-08-0818
Preparation: EPA 3050B
Method: EPA 6020
Units: mg/kg

Project: Jet Boat Property

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Jet-Boat-15-(0.1'-0.25')	**14-08-0818-7-AA**	**08/08/14 11:00**	**Solid**	**ICP/MS 03**	**08/13/14**	**08/14/14 21:54**	**140813L02**

Comment(s): - The sample was homogenized prior to preparation / analysis.

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	83.3	2.00	1.00	
Lead	16.4	1.00	1.00	
Nickel	208	1.00	1.00	
Zinc	106	5.00	1.00	

Method Blank	**099-15-621-565**	**N/A**	**Solid**	**ICP/MS 03**	**08/13/14**	**08/14/14 19:53**	**140813L02**

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	1.00	1.00	
Chromium	ND	2.00	1.00	
Lead	ND	1.00	1.00	
Nickel	ND	1.00	1.00	
Zinc	ND	5.00	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Freshwater Environmental Services		Date Received:	08/12/14
78 Sunny Brae Center		Work Order:	14-08-0818
Arcata, CA 95521-6742		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: Jet Boat Property			Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Jet-Boat-12-(0.0'-0.25')	**Sample**	**Solid**	**GC 45**	**08/14/14**	**08/14/14 20:33**	**140814S02**
Jet-Boat-12-(0.0'-0.25')	**Matrix Spike**	**Solid**	**GC 45**	**08/14/14**	**08/14/14 19:57**	**140814S02**
Jet-Boat-12-(0.0'-0.25')	**Matrix Spike Duplicate**	**Solid**	**GC 45**	**08/14/14**	**08/14/14 20:14**	**140814S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	161.7	400.0	446.6	71	467.1	76	64-130	5	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Freshwater Environmental Services		Date Received:	08/12/14
78 Sunny Brae Center		Work Order:	14-08-0818
Arcata, CA 95521-6742		Preparation:	EPA 3050B
		Method:	EPA 6020
Project: Jet Boat Property			Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Jet-Boat-12-(0.0'-0.25')	**Sample**	**Solid**	**ICP/MS 03**	**08/13/14**	**08/14/14 21:25**	**140813S02A**
Jet-Boat-12-(0.0'-0.25')	**Matrix Spike**	**Solid**	**ICP/MS 03**	**08/13/14**	**08/14/14 21:13**	**140813S02A**
Jet-Boat-12-(0.0'-0.25')	**Matrix Spike Duplicate**	**Solid**	**ICP/MS 03**	**08/13/14**	**08/14/14 21:16**	**140813S02A**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Cadmium	ND	25.00	28.19	113	28.40	114	85-121	1	0-12	
Chromium	70.30	25.00	81.42	44	78.97	35	20-182	3	0-15	
Lead	10.84	25.00	40.76	120	40.27	118	62-134	1	0-23	
Nickel	78.45	25.00	102.9	98	101.4	92	46-154	1	0-15	
Zinc	73.37	25.00	118.7	182	114.3	164	23-173	4	0-18	3

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS

Freshwater Environmental Services		Date Received:	08/12/14
78 Sunny Brae Center		Work Order:	14-08-0818
Arcata, CA 95521-6742		Preparation:	EPA 3050B
		Method:	EPA 6020
Project: Jet Boat Property			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
Jet-Boat-12-(0.0'-0.25')	**Sample**	**Solid**	**ICP/MS 03**	**08/13/14 00:00**	**08/14/14 21:25**	**140813S02A**
Jet-Boat-12-(0.0'-0.25')	**PDS**	**Solid**	**ICP/MS 03**	**08/13/14 00:00**	**08/14/14 21:19**	**140813S02A**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Cadmium	ND	25.00	26.90	108	75-125	
Chromium	70.30	25.00	95.66	101	75-125	
Lead	10.84	25.00	37.24	106	75-125	
Nickel	78.45	25.00	102.8	98	75-125	
Zinc	73.37	25.00	100.3	108	75-125	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Freshwater Environmental Services		Date Received:	08/12/14
78 Sunny Brae Center		Work Order:	14-08-0818
Arcata, CA 95521-6742		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: Jet Boat Property			Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-420-1031	**LCS**	**Solid**	**GC 45**	**08/14/14**	**08/14/14 19:39**	**140814B02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Motor Oil	400.0	366.4	92	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521-6742

Project: Jet Boat Property

Date Received: 08/12/14
Work Order: 14-08-0818
Preparation: EPA 3050B
Method: EPA 6020

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-621-565	**LCS**	**Solid**	**ICP/MS 03**	**08/13/14**	**08/14/14 19:56**	**140813L02**
099-15-621-565	**LCSD**	**Solid**	**ICP/MS 03**	**08/13/14**	**08/14/14 20:00**	**140813L02**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Cadmium	25.00	26.66	107	26.67	107	80-120	0	0-20	
Chromium	25.00	26.65	107	25.97	104	80-120	3	0-20	
Lead	25.00	26.34	105	26.74	107	80-120	2	0-20	
Nickel	25.00	26.57	106	26.71	107	80-120	1	0-20	
Zinc	25.00	28.43	114	27.64	111	80-120	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 14-08-0818 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6020	EPA 3050B	598	ICP/MS 03	1
EPA 8015B (M)	EPA 3550B	682	GC 45	1

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Glossary of Terms and Qualifiers

Work Order: 14-08-0818 Page 1 of 1

Qualifiers	Definition
*	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 suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
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.
BV	Sample received 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.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
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.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 14-08-0818

DATE: 08/11/14

PAGE: 1 OF 1

LABORATORY CLIENT: Freshwater Environmental Services	CLIENT PROJECT NAME / NUMBER: Jet Boat Property
ADDRESS: 78 Sunny Brae Center	P.O. NO.:
CITY: Arcata STATE: CA ZIP: 95521	PROJECT CONTACT: Stan Thiesen
TEL: 707 498-0793 E-MAIL: stan@freshwaterenvironmentalservices.com	SAMPLER(S): (PRINT) Orrin Plocher

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

☐ COELT EDF | GLOBAL ID: NA | LOG CODE: NA

SPECIAL INSTRUCTIONS:

Please Homogenize TPH-Motor Oil/Metals prior to Analysis.

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH-Motor Oil (8015B with silica gel)	Metals (Cd, Cr, Pb, Ni, Zn) (6020)	MS/MSD
1	Jet-Boat-12-(0.0'-0.25')	8/8/2014	10:20	Soil	1	1			X	X	X
2	Jet-Boat-12-(1.0')	8/8/2014	10:35	Soil	1	1			X	X	
3	Jet-Boat-13-(0.0'-0.25')	8/8/2014	10:40	Soil	1	1			X	X	
4	Jet-Boat-13-(1.0')	8/8/2014	10:55	Soil	1	1			X	X	
5	Jet-Boat-14-(0.1'-0.25')	8/8/2014	11:15	Soil	1	1			X	X	
6	Jet-Boat-14-(1.0')	8/8/2014	11:30	Soil	1	1			X	X	
7	Jet-Boat-15-(0.1'-0.25')	8/8/2014	11:00	Soil	1	1			X	X	
—	TEMP-BLANK										

Relinquished by: (Signature) Orrin Plocher	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature) (Fedex)	Received by: (Signature/Affiliation) EC	Date: 8/12/14	Time: 1015

06/01/10 Revision

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0818

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From: (707) 839-0091
Stan Thiesen
Freshwater Environmental
78 Sunny Brae Center

Arcata, CA 95521

Origin ID: EKAA

FedEx Express

J14201406190Suv

Ship Date: 11AUG14
ActWgt: 20.0 LB
CAD: 4822189/INET3550

Dims: 16 X 15 X 15 IN

Delivery Address Bar Code

Ref # YTEP Jet-Boat
Invoice #
PO #
Dept #

SHIP TO: (714) 895-5494

BILL SENDER

Don Burley
Calscience Environmental Laboratory
7440 Lincoln Way

Garden Grove, CA 92841

TRK# 0201 7708 0665 4002

TUE - 12 AUG 10:30A
PRIORITY OVERNIGHT

92 APVA

DSR
92841
CA-US
SNA

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WORK ORDER #: 14-08-0818

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Freshwater Env'l. Services DATE: 08/12/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.5 °C - 0.3 °C (CF) = 3.2 °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 Checked by: 836

CUSTODY SEALS INTACT:

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Checked by: 836

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 836

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☑ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Teclar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☑4ozCGJ (C1) ☑8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** 836

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** 659

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** 659

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APPENDIX E
Approved Cultural Resources Management Permit

Yurok Tribe Cultural Resources Management Permit Application

FOR OFFICIAL USE ONLY
Date Received: 2-28-14
Staff Received: " " "
Copy Sent To: _____Tribal Heritage Preservation Officer (THPO)
_____Native American Graves Protection and Repatriation Act (NAGPRA) Coordinator
_____Tribal Archaeologist
_____Permit Applicant

Instructions: Complete and return this application form and necessary supporting documentation to the Yurok Tribal Office in Klamath. All information requested must be completed before the application will be considered. Use separate pages if more space is needed to complete a section and attach.

1. Name of Applicant (Yurok Tribal Department, Corporation, Lead Agency, Individual, or Other Entity)
Suzanne Fluharty, YTEP

2. Mailing Address
PO Box 1027, Klamath CA 95548

3. Telephone Number
707-460-3248 ext 1013

4. Email Address
sfluharty@yuroktribe.nsn.us

5. Fax Number
707-482-1722

6. Location of Proposed Work:

a. Description of lands involved using the best available location information (complete all boxes possible). **The Jet Boat Tours (APN: 140-50-25)**

i. Latitude and Longitude	ii. UTM Coordinates ZONE 10	iii. PLSS (township, range, and section)	iv. APN (parcel) Number	v. Assignment/ allotment	vi. Physical Address
lat 41.538744 long -124.049133	x: 412471.6 y: 4598868.5	T 13N; R 1E; sec 10	140-50-25	NA	17635 Hwy 101 Klamath, CA 95548

b. Attach a map and other relevant supporting documentation identifying the location of proposed work, defined as the Area of Potential Effect, which should include all areas proposed for use in the project, such as staging, implementation, cleanup, or otherwise included in the Proposed Work described below. Location should preferably be mapped on a 1:24,000, 7.5-Minute Series U.S. Geological Survey (USGS) Topographic Quadrangle map. Additional supporting Documentation that may be attached could include photos, parcel maps, site plans, surveys, and engineer drawings.

7. Nature of Proposed Work:

a. Please check all that apply:

☐ trenching	☐ road construction	☐ boring	☐ drilling	☐ plowing
☐ excavation	☐ road grading	☐ digging	☐ tunneling	☐ topsoil stripping
☒ auguring	☐ backfilling	☐ blasting	☐ land leveling	☐ install utility pole
☐ quarrying	☐ ground clearing	☐ grading	☐ vegetation removal	☐ other (explain below)

b. Please describe in detail the proposed work, particularly as related to ground-disturbing activities, including the depth and width of each activity as checked in 7a.

In order to complete a Phase II Environmental Site Assessment (ESA) of the current environmental conditions at The Jet Boat Tours property (APN: 140-50-25), YTEP would like to complete field exploration and soil sampling at three localized and identified areas:

1) The Above Ground Storage Tank and associated area for storage and delivery of boat fuel,
   - 3 borings following fuel hose between storage shed and dock
2) The existing Smoke House and associated area, currently used for paint, oils, and chemical storage,
   - 2 borings inside Smoke House
3) The south end of the property, beyond the location of the new septic field where distressed and discolored vegetation is evident from possible used petroleum products being dumped.
   - 3 borings by utility pole, approx. 10 feet north of but generally following south property line

In total, 8 borings- all made with 6 " hand auger & small hand trowel to a depth no greater than 5 ft.

8. Date of Proposed Work:

From: 04/ 01/ 2014 (M D Y) To: 09/ 31/2014 (M D Y)

9. Time of Proposed Work:

10:00 AM to
5:00 PM

10. Permit Applicant Contact Information:

a. Name: Suzanne Fluharty

b. Title: Environmental Specialist

c. Organization: Yurok Tribe Environmental Program (YTEP)

d. Telephone number(s): 707-482-1822 ext 1013

e. Email Address: sfluharty@yuroktribe.nsn.us

f. Mailing Address: POBox 1027, Klamath CA 95548

10. Landowner(s) Contact Information:

a. Name(s): Yurok Economic Development Corporation/ Tonya Sangrey, Director

b. Telephone number(s): 707.482.0657

c. Email Address(es): TSangrey@yuroktribe.nsn.us

d. Mailing Address(es): 144 Klamath Blvd, Klamath, CA 95548

Please complete the following additional project contact information as applicable:

12. Project Manager:

a. Name: Suzanne Fluharty

b. Title: Environmental Specialist

c. Organization: YTEP

d. Telephone number(s): 707-482-1822 ext 1013

e. Email Address: sfluharty@yuroktribe.nsn.us

f. Mailing Address: PO Box 1027 Klamath CA 95548

13. Project Contractor:

a. Name: Stan Thiesen & Orrin Plocher

b. Title: Geologist / Environmental Compliance Inspector

c. Organization: Freshwater Environmental Services (FES)

d. Telephone number(s): 707-839-0091

e. Email Address: stan@freshwaterenvironmentalservices.com
orrin@freshwaterenvironmentalservices.com

f. Mailing Address: 78 Sunny Brae, Arcata, CA 95521

14. Project Inspector:

a. Name: Suzanne Fluharty

b. Title: Environmental Specialist

c. Organization: YTEP

d. Telephone number(s): 707-482-1822 ext 1013

e. Email Address: sfluharty@yuroktribe.nsn.us

f. Mailing Address: PO Box 1027 Klamath CA 95548

15. Project Subcontractor:

a. Name: None

b. Title:

c. Organization:

d. Telephone number(s):

e. Email Address:

f. Mailing Address:

15. Does this proposed project involve Federal funds, proposed to occur on federal lands, or could otherwise be defined as an "undertaking" according to Section 301 (7) of the National Historic Preservation Act of 1966 as amended through 2006?
Check applicable: [X] Yes [ ] No

16. To your knowledge, is the proposed project in an area that likely contains cultural resources?
Check applicable: [X] Yes [ ]
Site is in close proximity but across Highway 101 from cultural resource area and has been extensively impacted by road bed construction and prior commercial development.

Certification

I, SUZANNE FLUHARTY **certify that I have read the Cultural Resources**
(Permit Applicant)
Protection Ordinance, understand work may not begin until the proposed project is permitted, and agree to the terms and conditions that may be applied to the permit, and have the full consent of all pertaining landowners to conduct the proposed work. SF
(Initial)

I certify and declare under penalty of perjury that I have read and understand all items on this application and have had the opportunity to consult legal counsel in regard to this Permit. I further declare under penalty of perjury that all information contained herein is true and correct to the best of my knowledge and belief and agree to submit to the jurisdiction of the Yurok Tribal Court for all actions arising out of, or related to, the project associated with this Permit. SF
(Initial)

Signature of Permit Applicant	Date
Suzanne Fluharty	Feb 26, 2014

Please deliver this Application to the Yurok Tribal Office in Klamath, CA
P.O. Box 1027
Klamath, CA 95548
(707) 482-1377 – Fax
Attention: Yurok Tribal Heritage Preservation Officer

Yurok Tribe Cultural Resources Management Permit Application

FOR OFFICIAL USE ONLY

Application Staff Review and Recommendations (Staff has 15 calendar days to review unless requiring input from Culture and/or NAGPRA Committees, then Staff has 15 calendar days from Committee decision date):

Application Reviewed (provide signature)	Reviewing Tribal Staff	Recommendations (attach additional sheets as necessary)
Robert B. McLeod 2-28-14	Tribal Heritage Preservation Officer (THPO)	Monitor required-see concurrence letter
RMS 2-28-14 3/5/14	Native American Graves Protection and Repatriation Act (NAGPRA) Coordinator	Must follow Inadvertant Discovery Policy " "
3/5/14	Tribal Archaeologist	" "

If all reviewing Tribal staff determine that the proposed project will have no impact to cultural resources and provide no recommendations that suggest conditions and/or mitigation measures then the Tribal Chair may authorize the Permit Application without Council Consent.

Council Action (if applicable):

Permit Application	Council Agenda Number	Date of Council Session	With Conditions (if yes, explain below)
☐ Approved ☐ Denied			☐ Yes ☐ No

Permit Conditions: _____

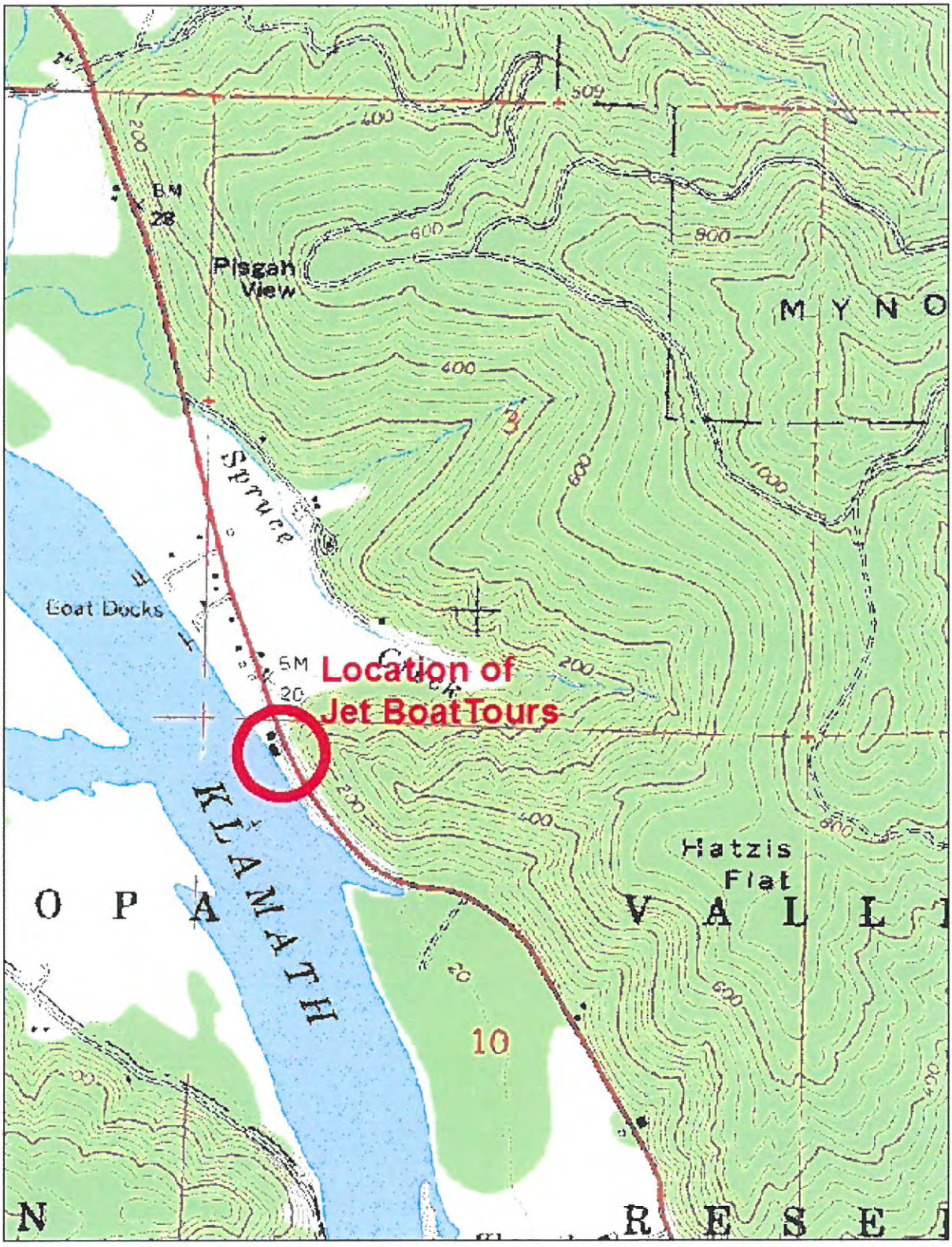
_____

_____

Signature of Tribal Chair	Date
P.O.R.	3/7/14

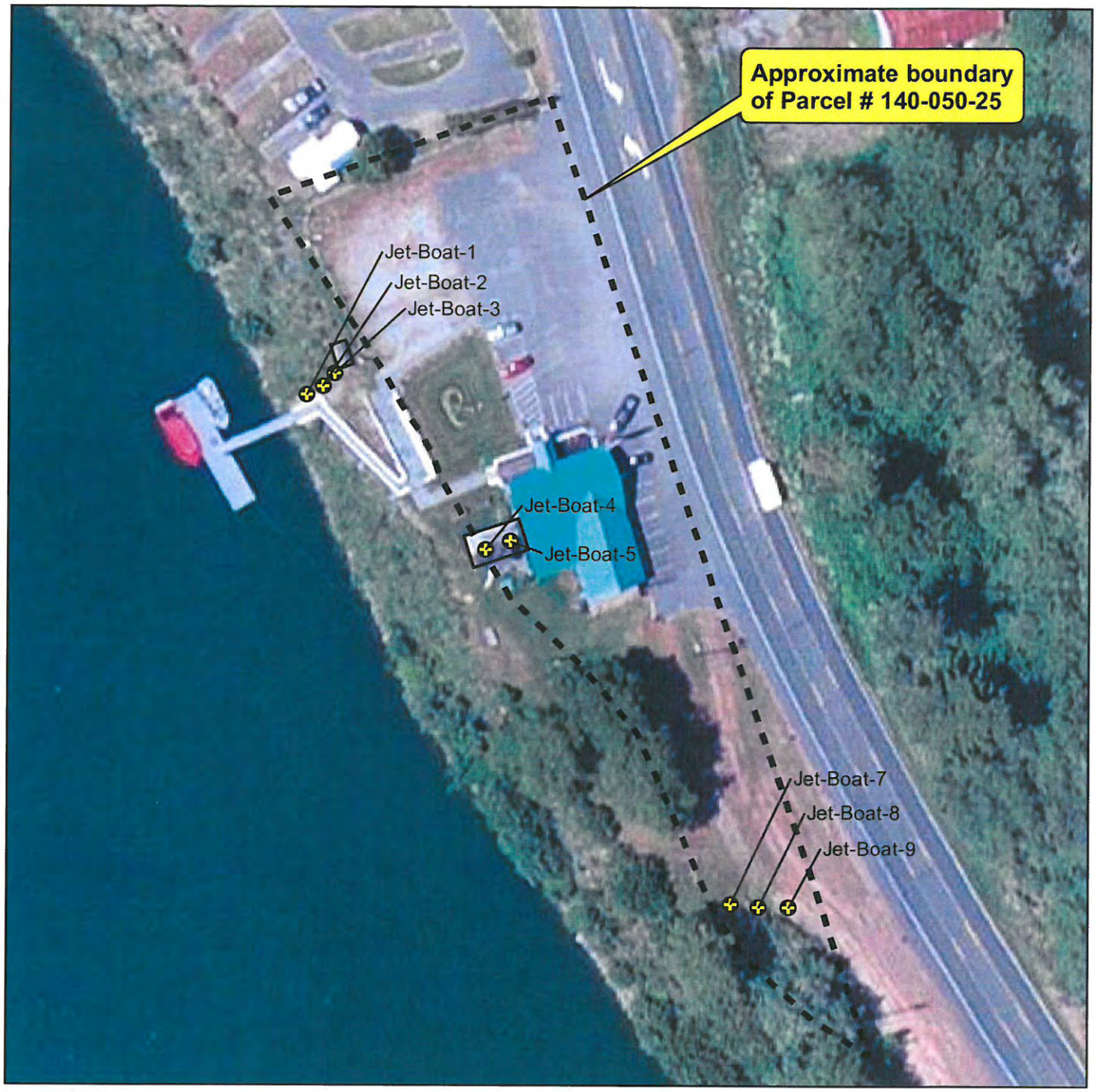
Requa USGS Quad

Location of Jet Boat Tours
Property APN: 140-50-25



Summary: This map locates the parcel and sampling design for an ASTM Phase II environmental assessment in connection with possibly contaminated soils resulting from:
1) Petroleum storage and leaking hose and fittings,
2) Paint, oil, and chemical storage in Smoke House,
3) Disposal of used oil & petroleum products in vegetation.

Subject:	Jet Boat Tours Property
Author:	Suzanne Fluharty
Date:	23 January 2014
APN #	140-50-25



N
W E
S
Feet
0 20 40 80 120

LEGEND

Proposed boring locations..

Base Image Data Source: terraserver
Image Date June 30, 2010.

ALL LOCATIONS APPROXIMATE

Yurok Tribe
Environmental Program

Figure 5
Proposed Boring Locations
Jet Boat Tours Property
Klamath, California

Freshwater Environmental Services

Date: 2-25-14

By: SJT

YUROK TRIBE

190 Klamath Blvd.
PO Box 1027
Klamath, CA. 95548
Phone: (707) 482-1350 Fax: (707) 482-1377

Feb. 26, 2014
To: Robert McConnell
Yurok Tribal Heritage Preservation Officer
PO Box 1027
Klamath, CA 95548

RE: Yurok Tribe Environmental Program
Determination of No Adverse Effect
Phase II Brownfields Testing at Jet Boat Tours Property

Legal Description of Project Area:
Township 13 N, Range 1 E, Section 10 of the USGS 7.5' Requa, Del Norte , CA quadrangle.

Dear Mr. McConnell,

Please accept this letter as notification that Yurok Tribe Environmental Program, acting on behalf of US Environmental Protection Agency, determines that the proposed project, "*Phase II Brownfields Testing at the Jet Boat Tours Property*" will result in **No Adverse Effect** per 36CFR800 for the National Historic Preservation Act (NHPA). Due to the proximity to a known cultural site we will have an approved Cultural Resources Monitor on site during all ground disturbing activities.

The Yurok Tribe Environmental Program will be conducting site assessment activities on the property. The ground disturbing activities are limited to soil sampling. Soil samples will be obtained with the use of a hand auger at eight (8) locations total. Two (2) samples will be collected from within the footprint of the existing smokehouse. Three (3) samples will be collected from two (2) locations (each):

1. downslope of the fuel storage tank, and
2. along the south boundary of the property.

Depths of 0-1.5 feet below ground surface (bgs) and again at 3 to 4.5' bgs will be reached using a hand auger. The hand auger to be used has a 3.25" bucket. Borehole diameters are anticipated to be approximately six (6) inches. See attached project maps.

Please indicate your concurrence with the NHPA determination by signing below:

Concurrence: Robert McConnell Date: 2-28-14
Please contact me if require additional information regarding this determination

Sincerely,

Suzanne Fluharty, Environmental Specialist
Yurok Tribe Environmental Program

APPENDIX F

Best Management Practices for Small Docks and Vessel Fueling Operations (Provided by YTEP)

Small Dock and Vessel Fueling Operations

Best Management Practices (BMPs)

Diesel fuel, gasoline, oil, antifreeze and other vehicle fluids are toxic to the environment. It is much easier to prevent them from entering ground and surface waters and possibly impacting our fish than it is to remedy the aftereffects. Facilities should develop and implement a spill prevention and control plan. It must document the location of storage, types of containment, dangers associated with a major release of material from the tanks, types of emergency equipment available at each site, and procedures for notifying the appropriate regulatory and emergency agencies.

Fueling Areas

The applicable regulations are promulgated under the oil pollution prevention section of the Clean Water Act regulations (40 CFR 112), also referred to as the Spill Prevention, Control and Counter Measures or SPCC rule. This regulation does not apply to the Jet Boat Tours facilities because the associated AST has a holding capacity estimated at 500 gallons and the SPCC rule applies to facilities with aboveground oil storage capacity greater than 1,320 gallons. However it is prudent that any facility that could reasonably be expected to discharge oil to U.S. waters consider following the rule as guidance for their operating procedures.

Aboveground storage tanks (ASTs) can impact groundwater, but a more immediate threat is to surface water such as streams and rivers. As such, ASTs regulations focus on preventing, controlling and cleaning up accidental spills.

Structural precautions should stop runoff from passing through the fueling areas and prevent contaminants from entering the river system. Consider the following options for preventing pollution:

- Curbs or berms and sloped pavement constructed around the perimeter of the fueling area.
- A cover over the fueling area to help prevent runoff from washing away pollutants.
- Design the containment area to completely contain *at least 110% of the tank's volume.*
- Post signs instructing fuel pump operators-
    - Do not to overfill gas tanks,
    - Do not leave vessel unattended while fueling.
    - Do not top off your fuel tanks.
- Grease, oil, and gasoline spilled on land should be collected and put into the appropriate waste container. Uncollectible residues may be absorbed with "spill-dry" or a similar product and should be disposed of by a waste transporter permitted to handle such wastes.
- A floating containment boom large enough to enclose the area of surface water where a spill may reasonably occur should be kept at hand.

Fueling Procedures

Ship fueling presents special challenges because of the potential for immediate dangers of water pollution. Fueling must be use control measures and practices designed to minimize spills and ensure prompt containment and cleanup if they occur. Fuel spills damage the environment *as well as degrading dock flotation materials.* Train workers in the proper fueling procedures and how to respond

quickly to spills if they do happen so that with the proper equipment pollution can be minimized. Here are the basics for all vessel fueling operations:

- Make sure that dispensing hoses are equipped with automatic shutoff valves and that these valves work.
- Use 'fuel socks/collars' when fueling at the dock to catch drips, from the vent overflow and fuel intake. Petroleum absorbent socks or collars should be stored on docks and available for use anywhere fueling takes place.
- Do not overfill fuel tanks; know the capacity of the tanks before you begin fueling in order to prevent unintentionally overfilling the tank.
- Do not top off fuel tanks. Stop filling the fuel tank when the pump shuts off the first time. "Topping off" increases the chance of spills, especially on warm days when the fuel in the tank will expand and has the potential of overflowing. Besides the risk of fuel washing down into the river, the vapors contribute to air pollution.
- While fueling, examine the surrounding water for the presence of a visible sheen. If a visible sheen is observed, it must be cleaned up immediately.
- Make routine maintenance a part of the fueling procedure. Check for fluid leaks and immediately repair and clean up any leaks that are found.
- Small outboard motors can be removed to upland areas for refueling.

Engine Maintenance and Repair

These operations can be a cause of easily preventable spills.

- **Recycle used motor oil.** In California it is classified as a hazardous waste, so it must be kept from our rivers and streams. When selecting a container to hold used oil, avoid plastic bottles or containers once used for bleach, cleaners, or other automobile fluids such as antifreeze. Also avoid paint cans and other metal containers or containers used for gasoline as residues could contaminate the used oil. Also do not mix other lubricants such as brake fluid or transmission fluid with the used oil. The recycling center may not accept used oil if it is contaminated.
- Oil filters should be crushed or punctured and hot-drained by placing the filter in a funnel over an appropriate waste collection container to allow the excess petroleum product to drain into the container. Drained filters should be collected and recycled when possible. Only filters that have been crushed or hot-drained to remove all excess oil may be disposed of as solid waste.
- Conduct maintenance and repair operations over land, avoid repairs conducted over water.
- Use suction-style oil pumps to drain crankcase oil and use absorbent pads to remove oil from bilges.
- Prevent oil and grease from leaking onto the open ground. Waste engine oil, transmission fluid, hydraulic oil, and gear oil should be stored in a clearly marked non-leaking container on an impermeable surface, and covered in a manner that will prevent storm water from contacting the container until hauled from premises.
- Pressure or steam cleaning should be restricted to an area with an impermeable surface (such as sealed asphalt or sealed concrete) and with a berm which allows the waste water to be contained and collected. Waste water from pressure cleaning can generate industrial waste and if detergents or solvents are used are prohibited to be discharged to surface waters.

Spill Preparation and Procedures

Owners/operators of vessels must ensure that any crew responsible for conducting fueling operations are trained in methods for containment and clean up. If proper fueling procedures are followed, spills are unlikely to occur. However, a facility must be prepared for the unexpected. A well thought out spill

prevention and control plan prepared in accordance with good engineering practices can lessen environmental impacts. It must document the location of storage, types of containment, dangers associated with a major release of material from the tanks, types of emergency equipment available at each site, and procedures for notifying the appropriate regulatory and emergency agencies. The following procedures will minimize environmental damage from accidental spills:

- Develop an Emergency Response Contingency Plan and conduct periodic review sessions to keep your employees updated.
- Post summary of the Contingency Plan. The summary should include the name(s) of clean-up coordinators, the location of clean-up materials, and whom to contact in case of a spill.
- Keep supplies such as rubber mats, drain plugs or temporary berms in the fueling area so storm drains can be blocked immediately if a spill occurs. If plugs are used, train employees in advance on when and how to use them properly.
- Assign a person to periodically test the clean-up equipment and maintain its inventory.
- For small spills, cover the fuel with a chemical spill pillow or absorbent material that can be swept or picked up, such as vermiculite or activated charcoal. The absorbent materials used to clean up diesel fuel or solvents must be disposed of properly. **Do not place them in the dumpster.**
- Workers should clean up every spill, no matter how small, immediately and without exception. Instruct workers never to wash spilled materials down a storm drain or sanitary sewer, and never to allow spilled fuel to evaporate (since pollutants will remain on the ground and can be washed into the storm drain, and ultimately into local water courses, with the next rain).

Reporting Spills

Any person, company, or organization responsible for a release or spill to assure that any oil or hazardous substance spill is properly addressed in a manner that prevents further damage to the environment and human health. EPA has determined that the quantities of discharges that may be harmful to public health or the environment under regulation for oil spill reporting does not depend on the specific amount of oil spilled, but on the presence of a visible sheen created by the spilled oil.

Discharges of oil from a properly functioning vessel engine are not deemed to be harmful and, therefore, do not need to be reported, however, oil accumulated in a vessel's bilge is not exempt.

Any person in charge of vessels or facilities that discharge oil is required to report the spill to the federal government. Notify the federal National Response Center (NRC) (call **800-424-8802)** and CA Office of Emergency Response at **800-852-7550** if the amount:

- Violates applicable water quality standards / Clean Water Act (CWA) 40 CFR 110.6
- Causes a film or "sheen" upon, or discoloration of the surface of the water or adjoining shorelines; or
- Causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

Small Dock Maintenance

Private docks occupy public waters and extend across lands where their impacts many alter and or harm the local ecology. There are increased costs with all of these options, but they may be offset by longer life expectancy for the dock.

Increase light transmission through the structure to promote native aquatic plant growth that helps maintain local aquatic life and the fish that depends on them. One effective approach is to insure planks are spaced between 1/2 inches and an inch.

Limit impacts from Painting and Seasonal Upkeep

- Minimize or avoid painting, staining, or use of solvents, or soaps when walkways and floats are over water or marshland. Painting or staining do not appear to add any life expectancy to these structures and cleaning with sea water is as effective as the use of soaps or solvents (Maine State Planning Office, 1997).
- Avoid the use of oil-based preservatives such as creosote or pentachlorophenols. Use of these treatments for docks is illegal in most states.
- Avoid the use of Chromated-Copper-Arsenate (CCA) treated materials in fresh water. The wood preservation industry no longer manufactures CCA-treated materials for use in freshwater situations and their use is not acceptable.