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SOCI-2 PM 3-02

September 30, 1998 Project 311-038.1C

Ms. Tina Berry
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

Re: Underground Storage Tank Removal Activities

76 Service Station 54301935 Washington Avenue at Castro StreetSan Leandro, California

Dear Ms. Berry:

On behalf of Tosco Marketing Company (Tosco), Pacific Environmental Group, Inc. (PEG) has prepared this letter to document environmental assessment performed in association with station upgrade activities at the site referenced above.

The station upgrade activities performed at the site included the replacement of the underground waste oil storage tank with an aboveground waste oil storage tank, the replacement of the product dispensers and associated underground product piping, the installation of spill containment sumps on the existing underground fuel storage tanks, and the installation of an electronic leak detection monitoring system.

#### UNDERGROUND WASTE OIL STORAGE TANK REMOVAL.

On July 31, 1998, one underground waste oil storage tank was removed from the site by Henderson Construction, Inc. (Henderson) of Stockton, California. The removal of the waste oil tank was observed by PEG, and by Mr. Karl Busche of the San Leandro Fire Department (SLFD). The removed waste oil tank was hauled by Ecology Control Industries (ECI) to their facility in Richmond, California, on July 31, 1998. The tank was subsequently inerted and sold as scrap metal.

The removed waste oil tank was of 275-gallon capacity and single-walled steel construction. Upon removal, the tank was noted to be moderately to severely rusty. Several corroded holes, approximately 1-inch in diameter were noted on the bottom of the removed tank.

Additional excavation to remove hydrocarbon-impacted soils was performed in the area of the removed waste oil tank. The final waste oil tank excavation was 9 feet in length, 7 feet in width, and 10 feet deep. Groundwater was not encountered in the waste oil tank excavation.

On July 31, 1998, two soil samples, designated WO-1 and WO-2, were collected from the waste oil tank excavation, at depths of 8-1/2 and 10 feet below ground surface (bgs), respectively (Figure 1, Attachment A). The resulting samples were analyzed for the presence of total purgeable petroleum hydrocarbons calculated as gasoline (TPPH-g), benzene, toluene, ethylbenzene, and xylenes (BTEX compounds), methyl tert-butyl ether (MtBE), total extractable petroleum hydrocarbons calculated as diesel (TEPH-d), total oil and grease (TOG), halogenated volatile organic compounds (HVOCs), and total cadmium, chromium, nickel, lead, and zinc. The results of these analyses are presented in Table 1. The certified analytical reports and chain-of-custody documentation are presented in Attachment B.

Upon completion of excavation activities in the area of the removed waste oil storage tank, maximum residual concentrations of petroleum hydrocarbons included 150 parts per million (ppm) TPPH-g, 1.7 ppm benzene, 10 ppm toluene, 2.7 ppm ethylbenzene, 16 ppm xylenes, 6.5 ppm MtBE, 930 ppm TEPH-d, and 1,600 ppm TOG in the soil sample collected at the maximum extent of excavation. The analytical laboratory noted an atypical chromatograph pattern for the TEPH-d quantification.

#### REMOVAL OF PRODUCT DISPENSERS AND UNDERGROUND PIPING

Henderson removed the four product dispensers and underground product piping from the site on July 20 and 27, 1998, respectively. The removed product piping was of single-walled fiberglass construction.

On July 31, 1998, at the direction of Mr. Karl Busche of the SLFD, PEG collected four soil samples, designated D-1 through D-4, from beneath the removed product dispensers. The locations of these soil samples are shown on Figure 1. Sample collection depths are indicated in Table 1. Field and laboratory procedures are described in Attachment A.

Soil samples D-1 through D-4 were analyzed for the presence of TPPH-g, BTEX compounds, MtBE, and total lead. The results of these analyses are presented in Table 1. The certified analytical reports and chain-of-custody documentation are presented as Attachment B.

Additional excavation to remove hydrocarbon-impacted soils was not performed in the area of the removed product dispensers or underground product piping. Upon completion of excavation and soil sampling activities, maximum residual concentrations of petroleum hydrocarbons included 4.1 parts per million (ppm) TPPH-g and 0.26 ppm

5VOC?

MtBE in soil samples collected at the maximum extent of excavation. The analytical laboratory noted an atypical chromatograph pattern for the TPPH-g quantification.

#### INSTALLATION OF SPILL CONTAINMENT SUMPS

In August 1998, spill containment sumps were installed at the tops of the existing underground fuel storage tanks by Henderson. Because the tanks were not removed, and native soils were not exposed, soil sampling was not performed in the area of the fuel tanks.

#### STOCKPILED SOIL CHARACTERIZATION

Approximately 30 cubic yards of soil generated from the area of the removed product piping were stockpiled briefly on site for characterization prior to disposal. On July 31, 1998, four soil samples, designated SP-1(A) through SP-1(D), were collected from these stockpiled soils. The four soil samples were composited four-into-one at the analytical laboratory prior to analysis, resulting in the analysis of a single composite soil sample, SP-1(A-D). Sample SP-1(A-D) was analyzed for the presence of TPPH-g, BTEX compounds, MtBE, and total lead. The results of these analyses are presented in Table 1. The certified analytical reports and chain-of-custody are presented in Attachment B.

The soils excavated from the area of the removed product piping were transported to a temporary holding area at the Forward, Inc. (Forward) disposal facility in Manteca, California. These stockpiled soils were transported to Forward by Denbeste Transportation, Inc. (Denbeste) of Windsor, California. Upon evaluation of the analytical data for stockpiled soil composite sample SP-1(A-D), these stockpiled soils were transferred to an appropriate area within the Forward facility for disposal.

Approximately 20 cubic yards of soil generated in the area of the removed waste oil tank were stockpiled on site for characterization prior to disposal. On July 31, 1998, four soil samples, designated SP-2(A) through SP-2(D), were collected from these stockpiled soils. The four soil samples were composited four-into-one at the analytical laboratory prior to analysis, resulting in the analysis of a single composite soil sample, SP-2(A-D) Sample SP-2(A-D) was analyzed for the presence of TPPH-g, BTEX compounds, MtBE, TEPH-d, TOG, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and total cadmium, chromium, nickel, lead, and zinc. The results of these analyses are presented in Table 1. The certified analytical reports and chain-of-custody are presented in Attachment B.

Upon evaluation of the analytical data for stockpiled soil composite sample SP-2(A-D), the stockpiled soils were transported to the Safety Kleen, Inc., formerly Laidlaw Environmental Services, Inc., facility in Aragonite, Utah for disposal. The stockpiled

soils were transported to the disposal facility by Denbeste Transportation, Inc. of Windsor, California, under Uniform Hazardous Waste Manifest.

#### COMPLETION OF SERVICE STATION UPGRADE ACTIVITIES

Upon completion of the removal of the waste oil tank, the excavation was backfilled, compacted and re-paved by Henderson. A 250-gallon, double-walled steel aboveground waste oil tank was subsequently installed by Henderson Construction.

Upon completion of the removal of the product dispensers and associated underground product piping, new product piping and dispensers were installed by Henderson in the same locations as the removed piping and dispensers. Spill containment boxes were fitted beneath the new product dispensers during installation.

Upon completion of the installation of the spill containment sumps on the existing underground fuel tanks, the fuel tanks were covered with pea gravel and the area overlying the fuel tanks was re-paved.

A leak detection monitoring system was also installed by Henderson during the installation and modification of service station improvements at the site.

Should you have any questions regarding the contents of this letter, please feel free to call.

Sincerely,

Pacific Environmental Group, Inc.

Timothy L. Ripp Project Geologist

RG 6745

Attachments: Table 1 - Soil Analytical Data

Figure 1 - Site Map

Attachment A - Field and Laboratory Procedures

Attachment B - Certified Analytical Reports and Chain-of-Custody

No. 6745

Documentation

Mr. Karl Busche, San Leandro Fire Department

Mr. Tom Peacock, Alameda County Health Care Services Agency

#### Table 1 Soil Analytical Data

#### 76 Service Station 5430 1935 Washington Avenue at Castro Street San Leandro, California

Sample	Sample Depth	Date	TPPH as Gasoline	Benzene	Toluene	Ethyl- Benzene	Total Xylenes	TEPH as Diesel	MtBE	Oil and Grease	TTLC Cadmium	TTLC	TTLC Nickel	TTLC Lead	TTLC Zinc
ID	(feet)	Sampled	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm
D-1	3	07/31/98	ND	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	10	NA
D-2	3-1/2	07/31/98	4.1(4)	ND	ND	ND	ND	NA	0.26	NA	NA	NA	NA	6.2	NA
D-3	3	07/31/98	ND	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	6.6	NA
D-4	3	07/31/98	ND	ND	ND	ND	ND	NA	ИD	NA	NA	NA	NA	6.8	NA
WO-1 <sup>(1)</sup>	8-1/2	07/31/98	500		33	9.8	54	-	20		ND	32	41	87	69
WO-2 <sup>(1)</sup>	10	07/31/98	150	7	10	9.8 2.7	16		6.5		ND	32	39	23	42
SP-1(A-D)	NA	07/31/98	ND	ND	ND	ND	ND	NA	ND	NA	NA	NA.	NA	15	NA
P-2(A-D)(2,3)	NA	07/31/98	1,500	17 <sup>(7)</sup>	140	32	180	2,100(4)	110	7,100	ND	33	41	280 <sup>(5,6)</sup>	88

TPPH	= Total purgeable petroleum hydrocarbons
TEPH	= Total extractable petroleum hydrocarbons
MtBE	<ul> <li>Methyl tert-butyl ether</li> </ul>
TTLC	<ul> <li>Total threshold limit concentration</li> </ul>
ppm	= Parts per million
ND	= Not detected
NA	= Not applicable

(2)

(4)

= Sample did not contain detectable concentrations of halogenated votatile organic compounds by EPA Method 8010. (1)

= Sample contained 14 ppm benzene, 210 ppm toluene, 57 ppm ethylbenzene and 330 ppm xylenes, but did not contain detectable concentrations of other volatile organic compounds by EPA Method 8240.

= Sample did not contain detectable concentrations of semi-volatile organic compounds by EPA Method 8270.

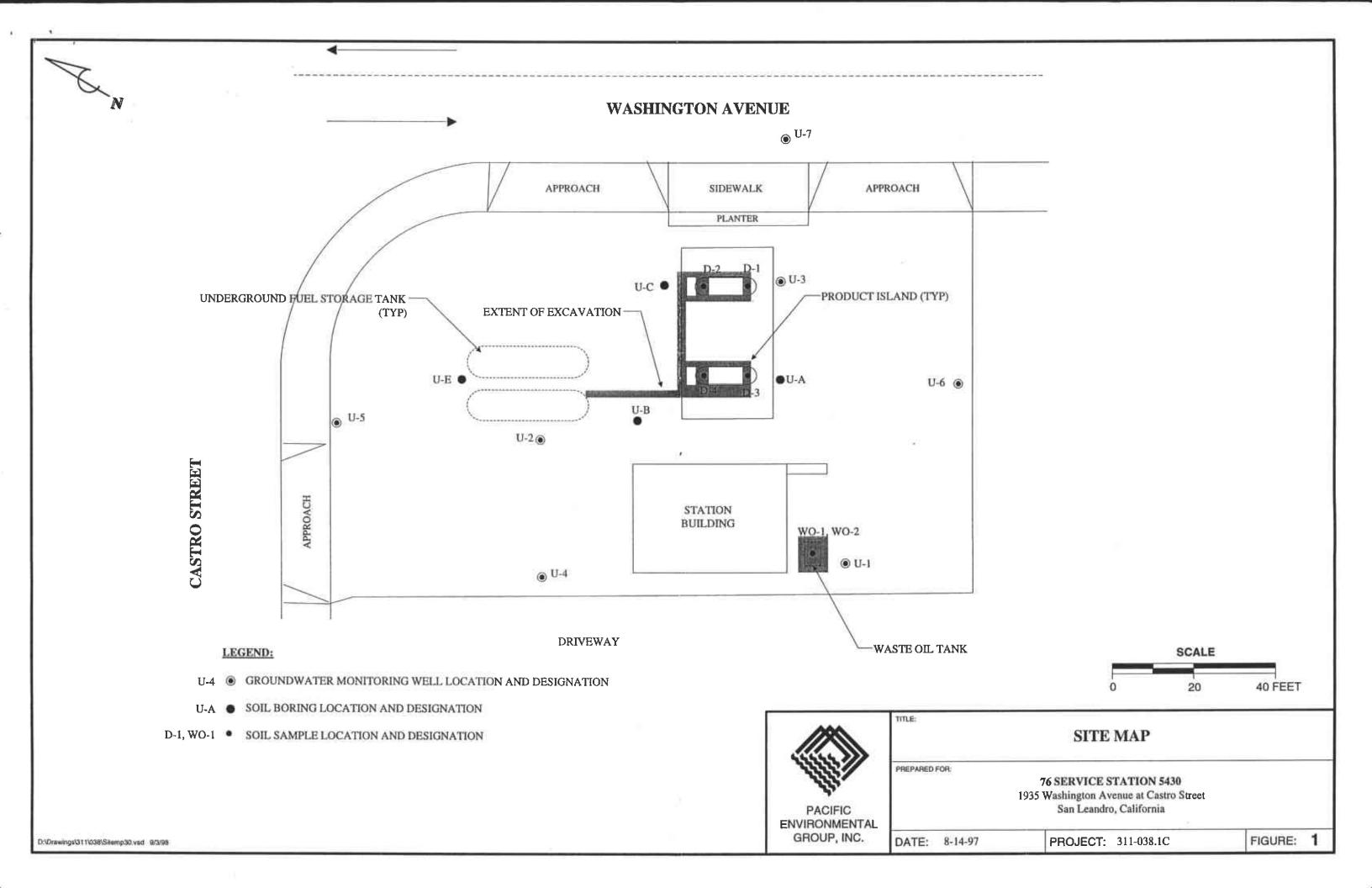
Atypical chromatograph pattern reported by analytical laboratory.

= Sample extract by soluble threshold limit concentration (STLC) method contained 6.3 to 8.4 ppm lead. (5) (6)

= Sample extract by toxicity chracteristic leaching potential (TCLP) method contained 8.4 ppm lead.

= Sample extract by toxicity chracteristic leaching potential (TCLP) method contained 0.31 ppm benzene. (7)

Detection limits are indicated in certified analytical reports.



# ATTACHMENT A FIELD AND LABORATORY PROCEDURES

## ATTACHMENT A FIELD AND LABORATORY PROCEDURES

## Collection of Soil Samples

Soil samples were collected from undisturbed soil, or soil removed from an excavation by a backhoe bucket, using 2-inch diameter brass sample liners. The soil samples were retained in the brass liners and capped with Teflon® sheets and plastic end caps. The samples were then labeled, placed in sealed plastic bags, and transported on ice to the analytical laboratory, accompanied by the appropriate chain-of-custody documentation.

#### Laboratory Analyses

Soil samples to be analyzed for total purgeable petroleum hydrocarbons calculated as gasoline (TPPH-g), benzene, toluene, ethylbenzene, xylenes (BTEX compounds), and methyl tert-butyl ether (MtBE) were extracted by the purge-and-trap technique, EPA Method 5030. Soil samples to be analyzed for total extractable petroleum hydrocarbons calculated as diesel (TEPH-d), were extracted by sonnication, EPA Method 3550. Analyses for TPPH-g and TEPH-d were performed by EPA Method 8015 (modified). Analyses for BTEX compounds and MtBE were performed by EPA Method 8020. These analytical methods utilize gas chromatography, and flame- or photo-ionization detection.

Selected samples were also analyzed for the presence of halogenated volatile organic compounds (HVOCs) by EPA Method 8010, volatile organic compounds by EPA Method 8240, or semi-volatile organic compounds by EPA Method 8270. These analytical methods use extraction by EPA Method 5030 or EPA Method 3550, and utilize gas chromatography or mass spectrometry for detection.

Selected samples were also analyzed for total oil and grease (TOG) by EPA Methods 5520 E&F. Sample extraction was performed by sonnication, EPA Method 3550. The sample extract was then processed with a silica gel cleanup, according to EPA Method 5520 F. Analysis was performed by the gravimetric method, EPA Method 5520 E.

Samples to be analyzed for the presence of metals were extracted by acid digestion, EPA Method 3050. This extraction method is used to determine the total threshold limit

concentration (TTLC) within a sample. Analyses for metals analytes were performed using inductively coupled plasma, by EPA Method 6010.

All laboratory analyses were performed by a California State-certified analytical laboratory.

## ATTACHMENT B

## CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954

(650) 364-9600 (925) 988-9600 (916) 921-9600 (707) 792-1865 FAX (916) 921-0100 FAX (707) 792-0342

Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110

Tim Ripp

Attention:

Client Proj. ID: 311-038.1C/5430, Castro St.

Sampled: 07/31/98 Received: 08/03/98

Lab Proj. ID: 9808085

Analyzed: see below

Reported: 08/18/98

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9808085-01 Sample Desc : <b>SOLID,D-1</b>				
Lead by ICP	mg/Kg	08/05/98	5.0	10
Lab No: 9808085-02 Sample Desc : <b>SOLID,D-2</b>		· .		
Lead by ICP	mg/Kg	08/05/98	5.0	6.2
Lab No: 9808085-03 Sample Desc : <b>SOLID,D-3</b>				
Lead by ICP	mg/Kg	08/05/98	5.0	6.6
Lab No: 9808085-04 Sample Desc : <b>SOLID,D-4</b>				
Lead by ICP	mg/Kg	08/05/98	5.0	6.8
Lab No: 9808085-05 Sample Desc : <b>SOLID,WO-1</b>				
Cadmium by ICP Chromium by ICP Lead by ICP Nickel by ICP TRPH (SM 5520 E&F) Zinc by ICP	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	08/05/98 08/05/98 08/05/98 08/05/98 08/10/98 08/05/98	0.50 0.50 5.0 2.5 50 0.50	N.D. 32 87 41 6000 69
Lab No: 9808085-06 Sample Desc : <b>SOLID,WO-2</b>	,			
Cadmium by ICP Chromium by ICP	mg/Kg <b>mg/Kg</b>	08/05/98 <b>08/05/98</b>	0.50 <b>0.50</b>	N.D. <b>32</b>

Analyses reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher Project Manager



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FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342

Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110

Client Proj. ID: 311-038.1C/5430, Castro St.

Sampled: 07/31/98 Received: 08/03/98

Lab Proj. ID: 9808085

Analyzed: see below

Attention: Tim Ripp

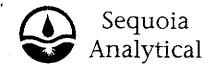
Reported: 08/18/98

## LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lead by ICP Nickel by ICP TRPH (SM 5520 E&F) Zinc by ICP	mg/Kg mg/Kg mg/Kg mg/Kg	08/05/98 08/05/98 08/10/98 08/05/98	5.0 2.5 50 0.50	23 39 1600 42
Lab No: 9808085-07 Sample Desc : <b>SOLID,SP-1(A-D)comp</b>	-			
Lead by ICP	mg/Kg	08/05/98	5.0	15
Lab No: 9808085-08 Sample Desc : SOLID,SP-2(A-D)comp				
Cadmium by ICP Chromium by ICP Lead by ICP Nickel by ICP TRPH (SM 5520 E&F) Zinc by ICP	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	08/05/98 08/05/98 08/05/98 08/05/98 08/10/98 08/05/98	0.50 0.50 5.0 2.5 50 0.50	N.D. 33 280 41 7100 88

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



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Bispurgel

Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110

Client Proj. ID: Sample Descript: D-1

311-038.1C/5430, Castro St.

Sampled: 07/31/98

Matrix: SOLID

Received: 08/03/98 Extracted: 08/13/98

Attention: Tim Ripp

Analysis Method: 8015Mod/8020 Lab Number: 9808085-01

Analyzed: 08/13/98 Reported: 08/18/98

QC Batch Number: GC081398BTEXEXA

Instrument ID: GCHP22

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

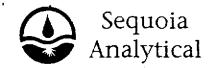
Analyte	Detection Limit mg/Kg	Sample Results mg/Kg	
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	1.0 0.025 0.0050 0.0050 0.0050 0.0050	N.D. N.D. N.D. N.D. N.D. N.D.	
Surrogates Trifluorotoluene 4-Bromofluorobenzene	<b>Control Limits %</b> 70 130 60 140	% Recovery 91 106	

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL ELAP #1210

Tod Granicher Project Manager

- Page:



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Pacific Environmental Group 2025 Gateway Place, Suite 440

Client Proj. ID: Sample Descript: D-2 Matrix: SOLID

311-038.1C/5430, Castro St.

Sampled: 07/31/98 Received: 08/03/98

San Jose, CA 95110

Extracted: 08/13/98

Attention: Tim Ripp

Analysis Method: 8015Mod/8020 Lab Number: 9808085-02

Analyzed: 08/13/98 Reported: 08/18/98

QC Batch Number: GC081398BTEXEXA

Instrument ID: GCHP22

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte		ection Limit ng/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	•••••••••••••••••••••••••••••••••••••••	1.0 0.025 0.0050 0.0050 0.0050 0.0050	
Surrogates Trifluorotoluene 4-Bromofluorobenzene	<b>Cont</b> r 70 60	rol Limits % 130 140	% Recovery 91 103

Analytes reported as N.D. were not present above the stated limit of detection.

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Tod Granicher Project Manager



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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110

Client Proj. ID: 311-038.1C/5430, Castro St.

Sampled: 07/31/98 Received: 08/03/98

Sample Descript: D-3 Matrix: SOLID

Extracted: 08/07/98

Analysis Method: 8015Mod/8020 Lab Number: 9808085-03

Analyzed: 08/11/98 Reported: 08/18/98

Attention: Tim Ripp QC Batch Number: GC080798BTEXEXD

Instrument ID: GCHP07

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Lin mg/Kg	nit	Sample Results mg/Kg	
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	1.0 0.025 0.0050 0.0050 0.0050 0.0050		N.D. N.D. N.D. N.D. N.D. N.D.	
Surrogates Trifluorotoluene 4-Bromofluorobenzene	Control Limits 70 60	% 130 140	% Recovery 76 71	

Analytes reported as N.D. were not present above the stated limit of detection.

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Tod Granicher Project Manager



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Pacific Environmental Group
2025 Gateway Place, Suite 44
San Jose, CA 95110 2025 Gateway Place, Suite 440

Client Proj. ID: 311-038.1C/5430, Castro St. Sample Descript: D-4

Sampled: 07/31/98

Attention: Tim Ripp

Matrix: SOLID

Received: 08/03/98 Extracted: 08/13/98 Analyzed: 08/13/98 Reported: 08/18/98

Analysis Method: 8015Mod/8020

Lab Number: 9808085-04

QC Batch Number: GC081398BTEXEXA Instrument ID: GCHP22

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg	
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	1.0 0.025 0.0050 0.0050 0.0050 0.0050	N.D. N.D. N.D. N.D. N.D. N.D.	
Surrogates Trifluorotoluene 4-Bromofluorobenzene	<b>Control Limits %</b> 70 130 60 140	% Recovery 92 107	

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher Project Manager



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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110

Sample Descript: WO-1

Lab Number: 9808085-05

311-038.1C/5430, Castro St.

Sampled: 07/31/98 Received: 08/03/98

Attention: Tim Ripp

Matrix: SOLID Analysis Method: EPA 8010

Client Proj. ID:

Extracted: 08/06/98 Analyzed: 08/14/98 Reported: 08/18/98

QC Batch Number: GC080698OVOAEXA Instrument ID: GCHP09

## Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Bromodichloromethane Bromoform Bromomethane Carbon Tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane Dibromochloromethane 1.2-Dichlorobenzene 1.3-Dichlorobenzene 1.4-Dichlorobenzene 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethene trans-1,2-Dichloroethene trans-1,2-Dichloropropene trans-1,3-Dichloropropene Methylene chloride 1,1.2,2-Tetrachloroethane 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethene 1,1,2-Trichloroethane Trichloroethene Trichloroethene Trichloroethene Trichloroethene Trichloroethene Trichloroethene Trichlorofluoromethane Trichlorofluoromethane Trichlorofluoromethane	500 500 1000 500 1000 500 1000 500 5	N.D. N.D. N.D. N.D. N.D. N.D. N.D. N.D.
Surrogates 1-Chloro-2-fluorobenzene 4-Bromofluorobenzene	1000  Control Limits %  60 130  60 140	N.D. <b>% Recovery</b> 34 Q 76

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -ELAP #1210

Tod Granicher Project Manager



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(650) 364-9600 (925) 988-9600 (916) 921-9600 (707) 792-1865

FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342

Pacific Environmental Group 2025 Gateway Place, Suite 440

Client Proj. ID: Sample Descript: WO-1

311-038.1C/5430, Castro St.

Sampled: 07/31/98

San Jose, CA 95110

Attention: Tim Ripp

Matrix: SOLID

Received: 08/03/98 Extracted: 08/07/98

Analysis Method: 8015Mod/8020 Lab Number: 9808085-05

Analyzed: 08/12/98 Reported: 08/18/98

QC Batch Number: GC080798BTEXEXD Instrument ID: GCHP22

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	De	tection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	•••••••••••••••••••••••••••••••••••••••	0.62 0.12 0.12 0.12 0.12	500 20 1.4 33 9.8 54 GAS
Surrogates Trifluorotoluene 4-Bromofluorobenzene	<b>Co</b> n 70 60	trol Limits % 130 140	% Recovery 220 Q 7 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954

(650) 364-9600 (925) 988-9600 (916) 921-9600 (707) 792-1865

FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342

Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110

Client Proj. ID: 311-038.1C/5430, Castro St.

Sample Descript: WO-1

Matrix: SOLID

Analysis Method: EPA 8015 Mod Lab Number: 9808085-05

Sampled: 07/31/98 Received: 08/03/98 Extracted: 08/05/98 Analyzed: 08/06/98 Reported: 08/18/98

QC Batch Number: GC0805980HBPEXA

Instrument ID: GCHP4B

Attention: Tim Ripp

## Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	S	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	400	•••••	. 2800
Unidentified HC	***************************************	****************	. C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50	150 %	Recovery Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -ELAP #1210

**Tod Granicher** Project Manager

\_ Page:



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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110 Client Proj. ID: 311-03 Sample Descript: WO-2

311-038.1C/5430, Castro St.

Sampled: 07/31/98 Received: 08/03/98

Attention: Tim Ripp

Matrix: SOLID Analysis Method: EPA 8010 Lab Number: 9808085-06 Extracted: 08/06/98 Analyzed: 08/14/98 Reported: 08/18/98

QC Batch Number: GC080698OVOAEXA

Instrument ID: GCHP09

## Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Bromodichloromethane	50	N.D.
Bromoform	50	N.D. N.D.
Bromomethane	100	
Carbon Tetrachloride	50	N.D.
Chlorobenzene	50 50	N.D.
Chioroethane	100	N.D.
Chloroform	50	N.D. N.D.
Chloromethane	100	N.D. N.D.
Dibromochloromethane	50	N.D. N.D.
1,2-Dichlorobenzene	50	N.D. N.D.
1.3-Dichlorobenzene	50	N.D. N.D.
1,4-Dichlorobenzene	50	N.D. N.D.
1,1-Dichloroethane	50	N.D.
1,2-Dichloroethane	50	N.D. N.D.
1,1-Dichloroethene	50 50	N.D.
cis-1,2-Dichloroethene	50	N.D.
trans-1,2-Dichloroethene	50	N.D.
1,2-Dichloropropane	50	N.D.
cis-1,3-Dichloropropene	50	N.D.
trans-1,3-Dichloropropene	50	N.D.
Methylene chloride	500	N.D.
1,1,2,2-Tetrachloroethane	50	N.D.
Tetrachloroethene	50	N.D.
1,1,1-Trichloroethane	50	N.D.
1,1,2-Trichloroethane	50	N.D.
Trichloroethene	50	N.D.
Trichlorofluoromethane	50	N.D.
Vinyl chloride	100	N.D.
Surrogates	Control Limits %	% Recovery
1-Chloro-2-fluorobenzene	60 130	
4-Bromofluorobenzene	60 140	81 74

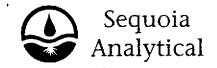
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher Project Manager

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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110

Client Proj. ID: Sample Descript: 102-2

311-038.1C/5430, Castro St.

Sampled: 07/31/98 Received: 08/03/98 Extracted: 08/07/98

Matrix: SOLID Analysis Method: 8015Mod/8020

Analyzed: 08/12/98 Reported: 08/18/98

Attention: Tim Ripp Lab Number: 9808085-06

QC Batch Number: GC080798BTEXEXD Instrument ID: GCHP22

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte		rection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:		20 0.50 0.10 0.10 0.10 0.10	6.5 
Surrogates Trifluorotoluene 4-Bromofluorobenzene	<b>Con</b> 70 60	trol Limits % 130 140	% Recovery 153 Q 6 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Client Proj. ID: 311-038.1C/5430, Castro St. Sample Descript: WO-2

Sampled: 07/31/98 Received: 08/03/98

San Jose, CA 95110

Attention: Tim Ripp

Matrix: SOLID

Received: 08/03/98 Extracted: 08/05/98 Apalyzed: 08/06/08

Analysis Method: EPA 8015 Mod Lab Number: 9808085-06

Analyzed: 08/06/98 Reported: 08/18/98

QC Batch Number: GC0805980HBPEXA Instrument ID: GCHP4B

## Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sa	mple Results mg/Kg
TEPH as Diesel Chromatogram Pattern: Unidentified HC	200		930 C <del>9</del> -C24
Surrogates n-Pentacosane (C25)	Control Limits % 50	% F	Recovery Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher Project Manager



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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110

Client Proj. ID: Sample Descript: SP-1(A-D)comp Matrix: SOLID

311-038.1C/5430, Castro St.

Analysis Method: 8015Mod/8020

Lab Number: 9808085-07

Sampled: 07/31/98

Received: 08/03/98 Extracted: 08/13/98 Analyzed: 08/13/98 Reported: 08/18/98

QC Batch Number: GC081398BTEXEXA

Instrument ID: GCHP22

Attention: Tim Ripp

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg	
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	1.0 0.025 0.0050 0.0050 0.0050 0.0050	N.D. N.D. N.D. N.D. N.D. N.D.	
Surrogates Trifluorotoluene 4-Bromofluorobenzene	Control Limits % 70 130 60 140	% Recovery 90 109	

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher Project Manager

- Page:



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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110

Attention: Tim Ripp

Client Proj. ID: 311-038.1C/5430, Castro St.

Sample Descript: SP-2(A-D)comp

Matrix: SOLID Analysis Method: EPA 8240 Lab Number: 9808085-08 Sampled: 07/31/98 Received: 08/03/98 Extracted: 08/06/98 Analyzed: 08/07/98 Reported: 08/18/98

QC Batch Number: MS0804988240EXA Instrument ID: F3

## Volatile Organics (EPA 8240)

Analyte	ι	Detection Limit ug/Kg	Sa	imple Results ug/Kg
Acetone		16500		N.D.
Benzene	*************	3300		14000
Bromodichloromethane		3300		N.D.
Bromoform		3300		N.D.
Bromomethane		3300		N.D.
2-Butanone		16500		N.D.
Carbon disulfide		3300		N.D.
Carbon tetrachloride		3300		N.D.
Chlorobenzene		3300		N.D.
Chloroethane		3300		N.D.
2-Chloroethyl vinyl ether		16500		N.D.
Chloroform		3300		N.D.
Chloromethane		3300		N.D.
Dibromochioromethane		3300		N.D.
1,1-Dichloroethane		3300		N.D.
1,2-Dichloroethane		3300		N.D.
1,1-Dichloroethene		3300		N.D.
cis-1,2-Dichloroethene		3300		N.D.
trans-1,2-Dichloroethene		3300		N.D.
1,2-Dichloropropane		3300		N.D.
cis-1,3-Dichloropropene		3300		N.D.
trans-1,3-Dichloropropene		3300		N.D.
Ethylbenzene		3300		57000
2-Hexanone		16500		N.D.
Methylene chloride		8250		N.D.
4-Methyl-2-pentanone		16500		N.D.
Styrene		3300		N.D.
1,1,2,2-Tetrachloroethane		3300		N.D.
Tetrachloroethene		3300		N.D.
Toluene	***********	3300		210000
1,1,1-Trichloroethane		3300		N.D.
1,1,2-Trichloroethane		3300		N.D.
Trichloroethene		3300		N.D.
Trichlorofluoromethane		3300		N.D.
Vinyl acetate		8250		N.D.
Vinyl chloride		3300		N.D.
Total Xylenes	*****************	3300	*******************	330000



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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110

Sample Descript: SP-2(A-D)comp

Client Proj. ID: 311-038.1C/5430, Castro St.

Sampled: 07/31/98 Received: 08/03/98 Extracted: 08/06/98

Attention: Tim Ripp

Matrix: SOLID

Analysis Method: EPA 8240 Lab Number: 9808085-08

Analyzed: 08/07/98 Reported: 08/18/98

QC Batch Number: MS0804988240EXA

Instrument ID: F3

Analyte

**Detection Limit** ug/Kg

Sample Results ug/Kg

Surrogates 1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene

Control Limits % 70 121 81 117 74 121

% Recovery Q Q Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110

Matrix: SOLID

Client Proj. ID: 311-038.1C/5430, Castro St. Sample Descript: SP-2(A-D)comp

Sampled: 07/31/98 Received: 08/03/98 Extracted: 08/06/98 Analysis Method: EPA 8270 Analyzed: 08/12/98 Lab Number: 9808085-08 Reported: 08/18/98

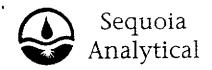
Attention: Tim Ripp QC Batch Number: MS0806988270EXB

Instrument ID: F4

## Semivolatile Organics (EPA 8270)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Acenaphthene	12500	N.D.
Acenaphthylene	12500	N.D.
Anthracene	12500	N.D.
Benzoic Acid	25000	N.D.
Benzo(a)anthracene	12500	N.D.
Benzo(b)fluoranthene	12500	N.D.
Benzo(k)fluoranthene	12500	N.D.
Benzo(g,h,i)perylene	12500	N.D.
Benzo(a)pyrene	12500	N.D.
Benzyl alcohol	12500	N.D.
Bis(2-chloroethoxy)methane	12500	N.D.
Bis(2-chloroethyl)ether	12500	N.D.
Bis(2-chloroisopropyl)ether	12500	N.D.
Bis(2-ethylhexyl)phthalate	25000	N.D.
4-Bromophenyl phenyl ether	12500	N.D.
Butyl benzyl phthalate	12500	N.D.
4-Chloroaniline	25000	N.D.
2-Chloronaphthalene	12500	N.D.
4-Chloro-3-methylphenoi	12500	N.D.
2-Chlorophenol	12500	N.D.
4-Chlorophenyl phenyl ether	12500	N.D.
Chrysene	12500	N.D.
Dibenzo(a,h)anthracene	12500	N.D.
Dibenzofuran	12500	N.D.
Di-n-butyl phthalate	25000	N.D.
1,2-Dichlorobenzene	12500	N.D.
1,3-Dichlorobenzene	12500	N.D.
1,4-Dichlorobenzene	12500	N.D.
3,3'-Dichlorobenzidine	25000	N.D.
2,4-Dichlorophenol	12500	N.D.
Diethyl phthalate	12500	N.D.
2,4-Dimethylphenol	12500	N.D.
Dimethyl phthalate	12500	N.D.
4.6-Dinitro-2-methylphenol	25000	N.D.
2,4-Dinitrophenol	25000	N.D.
2,4-Dinitrotoluene	12500	N.D.
2,6-Dinitrotoluene	12500	N.D.
Di-n-octyl phthalate Fluoranthene	12500	N.D.
riooranthene	12500	N.D.

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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110

Client Proj. ID: 311-038.1C/5430, Castro St.

Sample Descript: SP-2(A-D)comp

Matrix: SOLID Analysis Method: EPA 8270 Lab Number: 9808085-08

Sampled: 07/31/98 Received: 08/03/98 Extracted: 08/06/98 Analyzed: 08/12/98 Reported: 08/18/98

QC Batch Number: MS0806988270EXB

Instrument ID: F4

Attention: Tim Ripp

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Fluorene	12500	N.D.
Hexachlorobenzene	12500	N.D.
Hexachlorobutadiene	12500	N.D.
Hexachlorocyclopentadiene	25000	N.D.
Hexachloroethane	12500	N.D.
Indeno(1,2,3-cd)pyrene	12500	N.D.
isophorone	12500	N.D.
2-Methylnaphthalene	12500	N.D.
2-Methylphenol	12500	N.D.
4-Methylphenol	12500	N.D.
Naphthalene	12500	N.D.
2-Nitroaniline	25000	N.D.
3-Nitroaniline	25000	N.D.
4-Nitroaniline	25000	N.D.
Nitrobenzene	12500	N.D.
2-Nitrophenol	12500	N.D.
4-Nitropheno!	25000	N.D.
N-Nitrosodiphenylamine	12500	N.D.
N-Nitroso-di-n-propylamine	12500	N.D.
Pentachlorophenol	25000	N.D.
Phenanthrene	12500	N.D.
Phenol	12500	N.D.
Pyrene	12500	N.D.
1,2,4-Trichlorobenzene	12500	N.D.
2,4,5-Trichlorophenol	25000	N.D.
2,4,6-Trichlorophenol	12500	N.D.
Surrogates	Control Limits %	% Recovery
2-Fluorophenol	25 121	Q
Phenol-d5	24 113	õ
Nitrobenzene-d5	23 120	õ
2-Fluorobiphenyl	30 115	Õ
2,4,6-Tribromophenol	19 122	ñ
p-Terphenyl-d14	18 137	<b>a</b> a a a a
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Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL -ELAP #1210

Tod Granicher Project Manager

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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110 Client Proj. ID: 311-038.1C/5430, Castro St. Sample Descript: SP-2(A-D)comp

Sampled: 07/31/98 Received:-08/03/98 Extracted: 08/07/98

Attention: Tim Ripp

Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808085-08

Analyzed: 08/12/98 Reported: 08/18/98

QC Batch Number: GC080798BTEXEXD

Instrument ID: GCHP18

#### Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	•	tection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:		6.2	20
Surrogates Trifluorotoluene 4-Bromofluorobenzene	<b>Con</b> 70 60	itrol Limits % 130 140	% Recovery 138 Q Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110

Client Proj. ID: Sample Descript: SP-2(A-D)comp

311-038.1C/5430, Castro St.

Sampled: 07/31/98 Received: 08/03/98 Extracted: 08/05/98

Attention: Tim Ripp

Matrix: SOLID

Analysis Method: EPA 8015 Mod

Analyzed: 08/06/98

Lab Number: 9808085-08

Reported: 08/18/98

QC Batch Number: GC0805980HBPE\A

Instrument ID: GCHP4A

## Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	S	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern: Unidentified HC	200	•••••	Co Co.
Surrogates n-Pentacosane (C25)	Control Limits % 50	150	Recovery Q

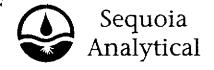
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Pacific Environmental Group 2025 Gateway Place, Ste. 440

San Jose, CA 95110
Attention: Tim Ripp

Client Project ID: 311-038.1C/5430, Castro St.

QC Sample Group: 9808085

Reported: Aug 26, 1998

## QUALITY CONTROL DATA REPORT

Matrix: Method: Analyst:	Solid EPA 8010 L. Kim		
ANALYTE	1,1-DCE	TCE	Chlorobenzene

QC Batch #: GC0806980VOAEXA

•	9807J08-01		
Date Prepared:	8/3/98	8/3/98	8/3/98
Date Analyzed:	8/8/98	8/8/98	8/8/98
Instrument I.D.#:	GCHP09	GCHP09	GCHP09
Sample Conc., mg/Kg:	N.D.	N.D.	N.D.
Conc. Spiked, mg/Kg:			
Conc. Spiked, mg/kg:	50	50	50
Matrix Spike, mg/Kg:	29	44	35
% Recovery:	58	88	70
Matrix			
Spike Duplicate, mg/Kg:	30	46	37
% Recovery:	60	92	74
Relative % Difference:	3.4	4.4	5.6
		7,7	5.0
RPD Control Limits:	0-25	0-25	0-25

LCS Batch#: LCS080698A

Date Prepared:	8/6/98	8/6/98	8/6/98
Date Analyzed:	8/8/98	8/8/98	8/8/98
Instrument I.D.#:	GCHP09	GCHP09	GCHP09
Conc. Spiked, mg/Kg:	50	50	50
Recovery, mg/Kg:	36	51	39
LCS % Recovery:	72	102	78

Percent Recovery Control Limits:

MS/	/MSD ·	65-135	70-130	70-130	
L	CS	65-135	70-130	70-130	

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

Tod Granicher Project Manager

SEQUOIA ANALYTICAL

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Pacific Environmental Group 2025 Gateway Place, Ste. 440

San Jose, CA 95110

Client Project ID: 311-038.1C/5430, Castro St.

Attention: Tim Ripp

QC Sample Group: 9808085

Reported: Aug 26, 1998

#### QUALITY CONTROL DATA REPORT

Matrix:

Solid

Method: Analyst:

**EPA 8015M GWARDLE** 

ANALYTE

Diesel

QC Batch #: GC0805980HBPEXA

Sample No.: DS9807!26-9

Date Prepared:

7/31/98

Date Analyzed:

8/3/98

Instrument I.D.#:

GCHP4B

Sample Conc., mg/Kg:

N.D.

Conc. Spiked, mg/Kg:

17

Matrix Spike, mg/Kg:

13

% Recovery:

76

Matrix

Spike Duplicate, mg/Kg:

15

% Recovery:

88

Relative % Difference:

15

RPD Control Limits:

0-50

LCS Batch#: BLK080598AS

Date Prepared:

8/5/98

Date Analyzed:

8/5/98

Instrument I.D.#:

GCHP4B

Conc. Spiked, mg/Kg:

17

Recovery, mg/Kg:

13

LCS % Recovery:

76

Percent Recovery Control Limits:

MS/MSD

50-150

LCS

60-140

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

Please Note:

SEQUOIA ANALYTICAL

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix

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Project Manager

interference, the LCS recovery is to be used to validate the batch.



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Pacific Environmental Group 2025 Gateway Place, Ste. 440

San Jose, CA 95110 Attention: Tim Ripp Client Project ID: 311-038.1C/5430, Castro St.

QC Sample Group: 9808085

Reported: Aug 26, 1998

#### QUALITY CONTROL DATA REPORT

Matrix:	Solid		<del> </del>		
Method:	EPA 8020				
Analyst:	G. Peshina				
milely et.	G. resima				
ANALYTE	Benzene	Toluene	Ethylbenzene	Xylenes	
QC Batch #:	GC081398BTE	KEXA			
Sample No.: 9	9808085-02				
Date Prepared:	8/13/98	8/13/98	8/13/98	8/13/98	
Date Analyzed:	8/14/98	8/14/98	8/14/98	8/14/98	
Instrument I.D.#:	GCHP-22	GCHP-22	GCHP-22	GCHP-22	
Sample Conc., mg/Kg:-	N.D.	N.D.	N.D.	N.D.	
Conc. Spiked, mg/Kg:	0.20	0.20	0.20	0.60	
Matrix Spike, mg/Kg:	0.17	0.17	0.18	0.55	
% Recovery:	85	85	90	92	
•				<b>52</b>	
Matrix					
Spike Duplicate, mg/Kg:	0.17	0.17	0.18	0.55	
% Recovery:	85	85	90	92	
Relative % Difference:	0.0	0.0	0.0	0.0	
RPD Control Limits:	0-25	0-25	0-25	0-25	
LCS Batch#: 0	GSLCS081398A				
Date Prepared:	8/13/98	8/13/98	8/13/98	8/13/98	
Date Analyzed:	8/13/98	8/13/98	8/13/98	8/13/98	
Instrument I.D.#:	GCHP-22	GCHP-22	GCHP-22	GCHP-22	
Conc. Spiked, mg/Kg;	0.20	0.20	0.20	0.60	
Recovery, mg/Kg:	0.20	0.20	0.20	0.62	
LCS % Recovery:	100	100	100	103	•
Percent Recovery Contr	ol Limits:				
MS/MSD	60-140	60-140	60-140	60-140	
LCS	70-130	70-130	70-130	70-130	

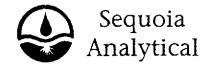
Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

Please Note:

SEQUOIA ANALYTICAL

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

Tod Granicher Project Manager



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Pacific Environmental Group 2025 Gateway Place, Ste. 440

San Jose, CA 95110

Attention: Tim Ripp

Client Project ID: 311-038.1C/5430, Castro St.

QC Sample Group: 9808085

Reported: Aug 26, 1998

#### QUALITY CONTROL DATA REPORT

Matrix:

Solid

Method:

**EPA 8015** 

Analyst:

G. GAMBOA

ANALYTE

Gasoline

QC Batch #: GC080798BTEXEXD

Sample No.: GS9808085-3

Date Prepared:

8/7/98

8/9/98

Date Analyzed: Instrument I.D.#:

GCHP22

Sample Conc., mg/Kg:

N.D.

Conc. Spiked, mg/Kg:

5.0

Matrix Spike, mg/Kg: % Recovery:

5.4 108

Matrix

Spike Duplicate, mg/Kg:

5.4

% Recovery:

108

Relative % Difference:

0.0

**RPD Control Limits:** 

0-25

LCS Batch#: GSBLK080798D

Date Prepared:

8/7/98

Date Analyzed: instrument I.D.#:

8/9/98 GCHP22

Conc. Spiked, mg/Kg:

5.0

Recovery, mg/Kg:

5.4

LCS % Recovery:

108

Percent Recovery Control Limits:

MS/MSD

SEQUOIA ANALYTICAL

70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

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Pacific Environmental Group 2025 Gateway Place, Suite 440

Client Project ID:

311-038.1C/5430, Castro St.

San Jose, CA 95110

Matrix:

SOLID

Attention: Tim Ripp

Work Order #:

9808085

-01-08

Reported:

Aug 25, 1998

## QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloroethene	Trichlorgethene	Benzene	Toluene	Oh.1
		-	Delizerie	ibidene	Chloro-
QC Batch#:	MS0804988240EXA	MS0804988240EXA	MS0804988240EXA	14C0004000040EV4	benzene
Analy. Method:	EPA 8240	EPA 8240	EPA 8240	MS0804988240EXA	MS0804988240EXA
Prep. Method:	N.A.	N.A.	<del>-</del>	EPA 8240	EPA 8240
1.00.000	14.12	N.A.	N.A.	<u>N.A.</u>	N.A.
Analyst:	L. Zhu	L. Zhu	L. Zhu	L. Zhu	L. Žhu
MS/MSD #:	9807 2001	9807!2001	9807(2001	9807(2001	980712001
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	8/4/98	8/4/98	8/4/98	8/4/98	8/4/98
Analyzed Date:	8/5/98	8/5/98	8/5/98	8/5/98	8/5/98
Instrument I.D.#:	F3	F3	F3	F3	F3
Conc. Spiked:	2500 μg/Kg	2500 μg/Kg	2500 μg/Kg	2500 μg/Kg	2500 μg/Kg
Result:	44				
MS % Recovery:	88 88	47	49	50	49
Wio % Hecovery.		94	98	100	98
Dup. Result:	44	47	49	49	50
MSD % Recov.:	88	94	98	98	100
RPD:					
RPD Limit:	0.0	0.0	0.0	2.0	2.0
NEO LIMIE	0-25	0-25	0-25	0-25	0-25
LCS #:	LCS080798	LCS080798	LCS080798	LCS080798	LCS080798
Prepared Date:	8/7/98	8/7/98	8/7/98	8/7/98	8/7/98
Analyzed Date:	8/7/98	8/7/98	8/7/98	8/7/98	8/7/98 8/7/98
Instrument I.D.#:	F3	F3	F3	F3	6)7/96 F3
Conc. Spiked:	$2500\mu\mathrm{g/Kg}$	2500 μg/Kg	2500 µg/Kg	2500 μg/Kg	rο 2500 μg /Kg
LCS Result:	2300	0400			
LCS % Recov.:	2300 92	2400	2500	2500	2500
200 /6 Hecov	32	96	100	100	100
MS/MSD	00.440				•
LCS	60-140	60-140	60-140	60-140	60-140
Control Limits	65-135	70-130	70-130	70-130	70-130
COMO LIMITS					

**SEQUOIA ANALYTICAL** 

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\*\* MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference



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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110 Client Project ID.

311-038.1C/5430, Castro St.

Matrix:

SOLID

Attention: Tim Ripp

Work Order #:

9808085-01-08

Reported: Aug 25, 1998

### **QUALITY CONTROL DATA REPORT**

Analyte:	Phenol	2-Chlorophenol	1,4-Dichloro-	N-Nitroso-Di-	
QC Batch#: Analy. Method: Prep. Method:		MS0806988270EXB EPA 8270 EPA 3550	benzene MS0806988270EXB EPA 8270 EPA 3550	N-propylamine MS0806988270EXB EPA 8270 EPA 3550	
Analyst:     MS/MSD #:     Sample Conc.:     Prepared Date:     Analyzed Date: Instrument I.D.#:     Conc. Spiked:	BLK080698 N.D. 7/31/98 8/3/98 F4	B. Pitamah BLK080698 N.D. 7/31/98 8/3/98 F4 3300 μg/Kg	B. Pitamah BLK080698 N.D. 7/31/98 8/3/98 F4 3300 μg/Kg	B. Pitamah BLK080698 N.D. 7/31/98 8/3/98 F4 3300 μg/Kg	
Result: MS % Recovery: Dup. Result: MSD % Recov.:	1800 55 1560 47	1770 54 1510 46	1800 55 1510 46	1840 56 1570 48	
RPD: RPD Limit:	14 0-40	16 0-40	18 0-40	16 0-40	

LCS #:

Prepared Date: Analyzed Date: Instrument I.D.#: Conc. Spiked:

> LCS Result: LCS % Recov.:

MS/MSD LCS				
Control Limits	26-90	25-102	28-104	41-126

SEQUOIA ANALYTICAL

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Page 1 of 3

9808085.PPP <2>



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Pacific Environmental Group 2025 Gateway Place, Suite 440 Client Project ID:

311-038.1C/5430, Castro St.

Matrix:

SOLID

San Jose, CA 95110 Attention: Tim Ripp

Work Order #:

9808085-01-08

Reported: Aug 25, 1998

## **QUALITY CONTROL DATA REPORT**

Analyte:	1,2,4-Trichloro-	4-Chloro-3-	Acenaphthene	4-Nitrophenol	<u> </u>
	benzene	Methylphenol			
	MS0806988270EXB	MS0806988270EXB	MS0806988270EXB	MS0806988270EXB	
Analy. Method:		EPA 8270	EPA 8270	EPA 8270	
Prep. Method:	EPA 3550	EPA 3550	EPA 3550	EPA 3550	
Analyst:	B. Pitamah	B. Pitamah	B. Pitamah	B. Pitamah	
MS/MSD #:		BLK080698	BLK080698	BLK080698	
Sample Conc.:		N.D.	N.D.	N.D.	
Prepared Date:		7/31/98	7/31/98	7/31/98	
Analyzed Date:		8/3/98	8/3/98	8/3/98	
Instrument I.D.#:	<i>(</i> )	-, -, -, F4	F4	F4	
Conc. Spiked:	3300 μg/Kg	3300 µg/Kg	3300 μg/Kg	3300 µg/Kg	
Result:	1940	1660	1780	1590	
MS % Recovery:	59	50	54	48	
Dup. Result:	1690	1470	1550	1610	
MSD % Recov.:	51	45	47	49	e .
RPD:	14	10			
			, .		
RPD Limit:	14 0-40	12 0-40	14 0-40	1.3 0-40	

LCS #:

Prepared Date: Analyzed Date: Instrument I.D.#: Conc. Spiked:

> LCS Result: LCS % Recov.:

			0:10;	11-11-
Control Limits	38-107	26-103	31-137	11-114
LCS				
MS/MSD				-

SEQUOIA ANALYTICAL

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and a



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Pacific Environmental Group 2025 Gateway Place, Suite 440

Client Project ID:

311-038.1C/5430, Castro St.

Matrix:

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San Jose, CA 95110 Attention: Tim Ripp

Work Order #:

9808085-01-08

Reported: Aug 25, 1998

## QUALITY CONTROL DATA REPORT

Analyte:	2,4-Dinitro-	Pentachloro-	Pyrene	
	toluene	phenol		
	MS0806988270EXB	MS0806988270EXB	MS0806988270EXB	
Analy. Method:		EPA 8270	EPA 8270	
Prep. Method:	EPA 3550	EPA 3550	EPA 3550	
Analyst:	B. Pitamah	B. Pitamah	B. Pitamah	
MS/MSD #:		BLK080698	BLK080698	
Sample Conc.:		N.D.	N.D.	
Prepared Date:		7/31/98	7/31/98	
Analyzed Date:		8/3/98	8/3/98	
nstrument I.D.#:	F4	F4	F4	
Conc. Spiked:	3300 µg/Kg	3300 µg/Kg	3300 μg/Kg	
Result:	1710	1720	1680	
MS % Recovery:	52	52	51	
Dup. Result:	1670	1540	1470	
MSD % Recov.:		47	45	
RPD:	2.4	11	13	
RPD Limit:	<del>-</del>	0-40	0-40	

LCS #:

Prepared Date: Analyzed Date: Instrument I.D.#: Conc. Spiked:

> LCS Result: LCS % Recov.:

MS/MSD LCS Control Limits

28-89

17-109

35-142

**SEQUOIA ANALYTICAL** 

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Page 3 of 3



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Pacific Environmental Group 2025 Gateway Place, Suite 440

San Jose, CA 95110 Attention: Tim Ripp

Client Project ID:

311-038.1C/5430, Castro St.

Matrix: SOLID

Work Order #:

9808085-01-08

Reported: Aug 25, 1998

## QUALITY CONTROL DATA REPORT

Analyte: Total Recoverable

Petroleum Hydrocarbons

QC Batch#: SP0807985520EXA Analy. Method: SM 5520EF Prep. Method: SM 5520EF

Analyst:

H. Olonan

BS/BSD #:

BLK080798 Sample Conc.: N.D. Prepared Date: 8/7/98 8/10/98

Analyzed Date: Instrument I.D.#: Conc. Spiked:

MANUAL 150 mg/Kg

Result:

120

BS % Recovery:

80

Dup. Result:

150

BSD % Recov.:

100

RPD:

22

RPD Limit:

0-30

LCS #:

Prepared Date: Analyzed Date: Instrument I.D.#:

Conc. Spiked:

LCS Result: LCS % Recov.:

MS/MSD

60-140

LCS

70-130

Control Limits

SEQUOIA ANALYTICAL

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Tod Granicher Project Manager

\*\* MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9808085.PPP <5>



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Pacific Environmental Group 2025 Gateway Place, Suite 440 Client Project ID:

311-038.1C/5430, Castro St.

Matrix:

SOLID

San Jose, CA 95110 Attention: Tim Ripp

Work Order #:

9808085-01-08

Reported:

Aug 25, 1998

## **QUALITY CONTROL DATA REPORT**

Analyte:	Dan Illian	<u> </u>			······································
Allalyte.	Beryllium	Cadmium	Chromium	Nickel	
QC Batch#:	ME0805986010MDE	ME0805986010MDE	ME0805986010MDE	ME0805986010MDE	
Analy, Method:		EPA 6010	EPA 6010	EPA 6010	
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050	
Analyst:		C. Caoile	C. Caoile	C. Caoile	
MS/MSD #:		9807J1301	9807J1301	9807J1301	
Sample Conc.:		N.D.	31	32	
Prepared Date:	, ,	8/5/98	8/5/98	8/5/98	
Analyzed Date:		8/5/98	8/5/98	8/5/98	
Instrument I.D.#:		MTJA5	MTJA5	MTJA5	
Conc. Spiked:	50 mg/K <b>g</b>	50 mg/Kg	50 mg/Kg	50 mg/Kg	
Result:	/ <del>-</del>	43	73	76	
MS % Recovery:	86	86	84	88	
Dup. Result:	43	43	72	73	
MSD % Recov.:	86	86	82	82	
RPD:	0.0	0.0	1.4	4.0	
RPD Limit:	0-20	0-20	0-20	0-20	
LCS #:	LCS080598	LCS080598	LC\$080598	LCS080598	
Prepared Date:	8/5/98	8/5/98	8/5/98	8/5/98	
Analyzed Date:	8/5 <b>/98</b>	8/5/98	8/5/98	8/5/ <b>9</b> 8	
instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5	
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg	
LCS Result:	48	<b>4</b> 6	47	47	
LCS % Recov.:	96	92	94	47 94	
	<b>55</b>	34	<del>31</del>	<b>3⁴</b>	
MS/MSD	80-120	80-120	80-120	80-120	
LCS	80-120	80-120	80-120	80-120	
Control Limits			~~ ·~~	00 120	

# SEQUOIA ANALYTICAL

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<sup>\*\*</sup> MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference



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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110 Attention: Tim Ripp Client Proj. ID: 311-038.1C/5430, Castro St.

Received: 08/03/98

Lab Proj. ID: 9808085

Reported: 08/18/98

#### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

#### 8240 Note:

Sample 9808085-08 was diluted 33 times due to high xylenes. The surrogates were diluted out.

TPGBMS: Sample 085-5,6,8 TFT high by matrix effect & 4-BFB diluted low.

#### 8270 Note:

Sample 9808085-08 was diluted 50 times due late eluting hydrocarbons.

8010: Extraction surrogate for sample 5 is diluted out. Result for CH2CL2 and T-1,2-DCE is estimated. Both samples are high in BTEX and gas concentration.

SEQUOIA ANALYTICAL

rage	of _		<del></del>		L#	BOR	ΑΤО	RY S	SER	VICE	: AG	REE	MEI	NT		С	há	in-	of-	Cu	sto	dy Re	cord
					EVICE ST							Соп	sultan	t Proje	ct Nun			311	-0	38	·1C		
Columbia	Tosco S	Site Addres	ss <u>193</u>	35 W	ASHINGT	'A WO	Æ.	@ උ	ASTA	20 S	<u>, , , , , , , , , , , , , , , , , , , </u>	Consultant Name PEG											
Services	Tosco C	Contact (Na	eme)	MS	AUIT,	BER	<b>YSY</b>					Address 2025 GATEWAY PLACE, STE 440, SAN JOSE,						JoS€,c					
	1			(92	25) 277	-23	21					Project Contact (Name) TIM RIPP 95110 (Phone) (408) 441-7500 (Fax) (408) 441-77539					500						
1-800-695-7222		Project Cod										(Pho	ле)(4	<u>(08)</u>	44	<u>/- 7</u>	500	)	<i>∦</i> Fa	(x)	108) 4.	41-1753	9
TOSCO					Y ANAL	TTICA	<u>L</u> .	RE	7M00	<u>р</u> с	117	Sample Collected By (Narph)  Collection Date 78198  Signature					2_1						
.0000		ory Work (			- 211							Colle	ection	Date 4	1/34	19	<u> </u>	Si	gnature	/	[[]] <sub>2</sub>	Z N	WW,
	AWO _	1 = G			311-	038.	IC.	<del>,</del>				Meti	nod of	Shipm	ent	LAE	, C	ouE	IER	<u> </u>	<u>//</u>		
			MATRI	TYPE						<del>,</del>	<del>,</del>	An	alyses	То Ве	Perfo	rmed						• •	
Sample ID Number	.ab Sample Number	Number of Containers	oil A=Air /ater C=Charcoal	G=Grab C=Composite D=Discrete	Sampie Date	Sample Time	Sample Preservation	(+ TPH GAS+M+B4/602 + 8015 modified)	TPH (8015 modified) FC GAS XDIESEL OIL	(+MTBE /602) (8260)	Id Grease CZF (413.1):(413.2)	Sable Halocarbons	able Aromatics ) (602)	Volatile Organics (8260)(624) 8240	Volatile Organics (625)	Lead		Confirmation	The Cd, Cr, Ni, Pb, Zn		980	808	క్
	् चु			<del>                                     </del>		Sam	L		HPH Sp	8TE) (8021	<u> </u>	Purge (8021	Purge (8021	Volatí (8260	Sell Sell	Total	ТЯРН (418.1	MTBE (8260	777. Pg			Remarks	
D-1		IEA	S	Þ	07/31/78		( <u>(3</u> )	$\times$	<u> </u>							$\times$					~=	TS DUE	
D-2:	2	_ _(_	$\Box$		(		$\coprod$	$\times$		:			i		ļ	$\times$						IPP, PEG	
b-3	3			L C				$\times$	•							$\overline{\times}$					02 0	8/17/48.	
<u> </u>	ч			)				$\overline{\mathbf{x}}$								X			ii				
wo-1	5	1	1		7			×	×		X	×											
W0-2	6	1		1	<del></del>			×	$\overline{\mathbf{x}}$		X	X											3 2
SP-1 (A-15)	7	4EA	7	c	- }		-	×			, -	/				_					<del></del>		
	<u>.</u>	17	7.		<del></del>		<del>                                     </del>			-				+	<del>1</del>	$\times$					COMP	4->1	
SP-2 (A-b)	0	1 2	_\V_	С	Ψ.		1	×	$\times$		×	-		$\times$	$\times$				$\times$		COMP.	4->1	
																	_						<del> </del>
Special Instructions/Commer	nts:						;				JSE C												
Dellverable Requirements: [	% Tiert ⊏	1 Tier II - I	C) Tipi	· III					1		tion of eratur									•	Seals Location		
Relucivished By (Signature)	· , , , , , , , , , , , , , , , , , , ,	Orbanization		Dale	98 0700	Received	d By (S			voies			ization	7:∞	Date			Al Si	YAL YS	IS TA	T <i>(Cirele (</i> 10 Busine	Choice)	
relinguished By (Signature)		Organicallo PEG	n /	/ Dafe/	Time	Received	By (Si	gaature	)			Organi	zalion		Date/			H	JSH TA	AT · Si	urcharges	Apply	
Relinquished By (Sonature)	1	Organization DES	n		348 1100 1998	Received	<b>B</b> y (B)	4 De		V6		PE( Organi 2=2	zation	-	Date/	148 Time 3/9				☐ 72 ☐ 48	Hours Hours Hours		
o be completed upon receipt of 1) Were the analyses reque	of report:	,	Custod				لکی ۱ne س	hat an	alvene	are sli			<u>- 07</u>		_	3.9		(	7; Y				
Was the report issued will proved by:	hin the req	uested tur	naroun	d time?	☐ Yes □	No II	no, wh	at was	the tu	rnarou	nd time	?									<del></del>		

		)। जन्म		ANALYTICAL SAMPLE REC	EIPT LUG			
CLIENT NAME: REC. BY (PRINT)	Pe) Josh			WORKORDER: DATE OF LOG-IN:	9508058 8-4-98	-		-
CIRCLE THE APPROPRIA	ATE RESPONSE	LAB			, .			
1. Custody Seal(s)	Present / Absent Intact / Broken*	SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION		DATE SAMP.	REMARKS. CONDITION (ETC.)
		1	A	01	14corp	2	7/3(	
2. Custody Seal #:	Put in Remarks Section	2		20		1		
3. Chain-of-Custody	Present / Absent*	3		03				
Traffic Reports or Packing List:	Present Absent	4		84				
_		_5		wo - 1				
5. Airbill:	Airbill / Sticker Present //Absent)	6	JL_	W0-Z				
6. Airbill #:	1 Tosom Wildow	7	D	5P-1 A				•
O. All Dill IF.			B	13				j
7. Sample Tags:	Rresent / Absent			(				
Sample Tags #s: (	Listed / Not Listed on Chain-of-Custody	J	2	1 0			_	
8. Sample Condition:	Intact / Broken* /	8	A	5P Z A				
•	Leaking*		B	3				
<ol><li>Does information on custody reports, traffic</li></ol>			C			_{		
reports and sample tags agree?	Yes / No*		0	4 P	,	+	+	
10. Proper Preservatives		· · · · · · · · · · · · · · · · · · ·						
used:	Yes/ No*						CF/	
11. Date Rec! at Lab:	8-3.58					8-5-	78	
12. Time Rec. at Lab:	(4:41							
13, Temp Rec. at Lab:	15°C				-HT 1			
						**************		

\*If Circled, contact Project Manager and attach record of resolution.

Revision 6/18/97

Page \_\_\_\_\_ of \_\_\_\_



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954

(650) 364-9600 (925) 988-9600 (916) 921-9600 (707) 792-1865 FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342

Pacific Environmental Group 2025 Gateway Place, Suite 440

Client Proj. ID: 311-038.1C/5430, Castro St.

Sampled: 07/31/98 Received: 08/03/98

San Jose, CA 95110

Lab Proj. ID: 9808B07

Analyzed: see below

Attention:

Tim Ripp

Reported: 08/21/98

#### LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9808B07-01 Sample Desc : <b>SOLID,SP-2(A-D)comp</b>				
Lead: STLC Extraction	mg/L	08/21/98	0.10	8.4

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954

(650) 364-9600 (925) 988-9600 (916) 921-9600 (707) 792-1865

FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342

Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110

Client Proj. ID: 311-038.1C/5430, Castro St.

Sample Descript: SP-2(A-D)comp Matrix: SOLID

Analysis Method: 8015Mod/8020

Lab Number: 9808B07-01

Sampled: 07/31/98 Received: 08/03/98 Extracted: 08/19/98 Analyzed: 08/21/98 Reported: 08/21/98

QC Batch Number: GC081998BTEX30A

Instrument ID: GCHP30

Attention: Tim Ripp

# Total Purgeable Petroleum Hydrocarbons w/BTEX: TCLP Extraction

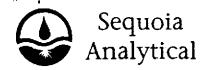
Analyte **Detection Limit** Sample Results ug/L ug/L Benzene 10 310 Surrogates Control Limits % % Recovery Trifluorotoluene

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher Project Manager

Page;



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954

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FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342

Pacific Environmental Group 2025 Gateway Place, Suite 4450

San Jose, CA 95110 Attention: Tim Ripp

Client Project ID: 311-038.1C/5430, Castro St.

QC Sample Group: 9808b07

Reported: Sep 10, 1998

#### QUALITY CONTROL DATA REPORT

Matrix:

Liauid

Method:

**EPA 8015** 

Analyst:

DB

**ANALYTE** 

Gasoline

QC Batch #: GC081998BTEX30A

Sample No.: GW9808686-02

Date Prepared:

8/19/98

Date Analyzed:

8/19/98

Instrument I.D.#;

GCHP30

Sample Conc., ug/L:

N.D.

Conc. Spiked, ug/L:

250

Matrix Spike, ug/L:

260

% Recovery:

104

Matrix

Spike Duplicate, ug/L:

240

% Recovery:

96

Relative % Difference:

8.0

**RPD Control Limits:** 

0-25

LCS Batch#: GWLCS081998A

Date Prepared:

8/19/98

Date Analyzed:

8/19/98

Instrument I.D.#:

GCHP30

Conc. Spiked, ug/L:

250

LCS Recovery, ug/L:

250

LCS % Recovery:

100

Percent Recovery Control Limits:

MS/MSD

60-140 70-130

LCS

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

Please Note:

SEQUOIA ANALYTICAL

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

Tod Granicher Project Manager



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954 (650) 364-9600 (925) 988-9600 (916) 921-9600 (707) 792-1865 FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342

Pacific Environmental Group 2025 Gateway Place, Suite 440 Client Project ID:

311-038.1C/5430, Castro St.

Matrix:

Liquid

San Jose, CA 95110 Attention: Tim Ripp

Work Order #:

9808B07 01

Reported:

Sep 11, 1998

## **QUALITY CONTROL DATA REPORT**

Analyte:	Beryllium	Cadmium	Chromium	Nickel	
QC Batch#: M	E0821986010MDB	ME0821986010MDB	ME0821986010MDB	ME0821986010MDB	
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	
Prep. Method:	EPA 3010	EPA 3010	EPA 3010	EPA 3010	
Analyst:	C. Caoile	C. Caoile	C. Caoile	C. Caoile	
MS/MSD #:	9808B3702	9808B3702	9808B3702	9808B3702	
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	
Prepared Date:	B/20/98	8/20/98	8/20/98	8/20/98	
Analyzed Date:	8/21/98	8/21/98	8/21/98	8/21/98	
strument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5	
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L	
Result:	1.1	1.1	1.1	1.1	
/IS % Recovery:	110	110	110	110	
Dup. Result:	1.1	1.1	1.1	1.0	
MSD % Recov.:	110	110	110	100	
RPD:	0.0	0.0	0.0	9.5	
RPD Limit:	0-20	0-20	0-20	0-20	

LCS #:	BLK082098	BLK082098	BLK082098	BLK082098
Prepared Date:	8/20/98	8/20/98	8/20/98	8/20/98
Analyzed Date:	8/21/98	8/21/98	8/21/98	8/21/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
LCS Result:	1.1	1.1	1.0	1.0
LCS % Recov.:	110	110	100	100
MS/MSD	80-120	80-120	80-120	80-120
LCS Control Limits	80-120	80-120	80-120	80-120

**SEQUOIA ANALYTICAL** 

Tod Granicher Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.



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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Tim Ripp

Client Proj. ID: 311-038.1C/5430, Castro St.

Received: 08/03/98

Lab Proj. ID: 9808B07

Reported: 08/21/98

## LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of \_\_\_\_\_\_ pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

**SEQUOIA ANALYTICAL** 

Tod Granicher Project Manager

Page: 1

Page	of _	1			LA	BORA	TOF	RY SI	ERV	ICE .	AGF	REE	MEN	Т		CI						ly Re	
Columbia Molytical Services 1-800-695-7222 TOSCO	Tosco Sil Tosco Sil Tosco Co Tosco Pr Laborato	e Number e Address ontact (Na (Ph oject Code ry Name_	s 1935 me) ione) e # SEC	5 WA MS . (92) WOIA	JICE STA SHINGTO TINA 5) 277 ANALY	BER -Z32	E.( 1RY 21	Q CA				Consi Addre Proje (Phor Samp	ultant for the control of the contro	Varne LOZ S lact (N DS)	P 5 61 1ame) 441 By (N	EG 47E 71 - 7: (and)	<u>M</u> _ 500	Y F RIP Pari sig	PLAC Fax nature	E,		10,5NN	
Sample ID Number	Lab Sampie Number	Number of Containers	MATRIX Charcoal			Sample Time	Sample Preservation	8TEX + TPH GAS+M+BE (8021/602 + 8015 modified)	TPH (8015 modified) FC GAS XDIESEL OIL	BTEX + MTBE (8021/602) (8260)	Oil and Grease CK F (5520) (413.1) (413.2)		Purgeable Aromatics 68 (8021) (602)				TRPH (418.1)	MTBE Confirmation (8260)	TRC G, Co, Ni, Pb, Zn		980	FO E	
D-1 7 D-2 7 D-3 7 D-4 7 W0-1 8 W0-2 7 SP-1 (A-b)	2 3 4 5 6 7 8	IEA	S (	<del> </del>	0-7/31/98		1001	× × × × × × × × ×			XXX	XX		×		XXXX			XXX		TIM R	TS DUE 1PP, PEI 18/17/48 14->1	<del></del>
Special Instructions/Comm  Deliverable Requirements: Relinfulsted By (Signature)  Relinguished By (Signature)  Relinguished By (Signature)	N Tier I	Organizati Organizati Organizati	ion ion	Option Option	of ine 3/98 0700 of 100	Receiv	ed By (	Signatur	9)	LAB L Condi Tempo Notes	lion o eratur	Organ Organ Organ Organ Organ	ple	77:00 100	Date S	e/Time	<u> </u>	ks	Sic	SIS JA ARD - AI - S  - 5 - 7:		Choice)	)



680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8 1455 McDowell Blvd. North, Ste. D. Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954

(650) 364-9600 (925) 988-9600 (916) 921-9600 (707) 792-1865 FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342

Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110

Attention:

Tim Ripp

Client Proj. ID:

311-038.1C/5430, Castro St.

Sampled: 07/31/98 Received: 08/03/98

Lab Proj. ID: 9808E71

Analyzed: see below

Reported: 08/26/98

## LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9808E71-01 Sample Desc : <b>SOLID,SP-2(A-D)comp</b>				
Lead: STLC Extraction Lead: TCLP Extraction	mg/L mg/L	08/26/98 08/26/98	0.10 0.10	6.3 6.4

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954 (650) 364-9600 (925) 988-9600 (916) 921-9600 (707) 792-1865 FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342

Pacific Environmental Group 2025 Gateway Place, Suite 440

Client Project ID:

311-038.1C/5430, Castro St.

Matrix:

LIQUID

San Jose, CA 95110 Attention: Tim Ripp

Work Order #:

9808E71 01

Reported:

Sep 11, 1998

## **QUALITY CONTROL DATA REPORT**

Analyte:	Beryllium	Cadmium	Chromium	Nickel	
QC Batch#:	ME0825986010MDA	ME0825986010MDA	ME0825986010MDA	ME0825986010MDA	
Analy. Method:		EPA 6010	EPA 6010	EPA 6010	
Prep. Method:		EPA 3010	EPA 3010	EPA 3010	
·					
Analyst:	C. Caoile	C. Caoile	C. Caoile	C. Caoile	
N.D.	9808D7302	9808D7302	9808D7302	9808D7302	
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	
Prepared Date:	8/25/98	8/25/98	8/25/98	8/25/98	
Analyzed Date:		8/25/98	8/25/98	8/25/98	
Instrument I.D.#:		MTJA5	MTJA5	MTJA5	
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L	
Result:	-	1.0	1.0	1.0	
MS % Recovery:	100	100	100	100	
Dup. Result:	1.0	1.0	1.0	1.0	
MSD % Recov.:		100	100	100	
75 75 7.000 7	100	100	100	100	
RPD:	0.0	0.0	0.0	0.0	
RPD Limit:	0-20	0-20	0-20	0-20	
LCS #:	BLK081598	BLK081598	BLK081598	BLK081598	
Prepared Date:	8/25/98	8/25/98	8/25/98	8/25/98	
Analyzed Date:	8/25/98	8/25/98	8/25/98	8/25/98	
instrument I.D.#:		MTJA5	MTJA5	MTJA5	
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L	
LCS Result:		4.0			
LCS Result:	-	1.0	1.0	1.0	
LC3 % Recov.:	100	100	100	100	
MS/MSD	80-120	80-120	80-120	90 100	
LCS	80-120	80-120 80-120		80-120	•
Control Limits	00-120	DU-120	80-120	80-120	;
COMBOI LIMINS					1

#### **SEQUOIA ANALYTICAL**

Tod Granicher Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.



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Pacific Environmental Group 2025 Gateway Place, Suite 440 Client Project ID:

311-038.1C/5430, Castro St.

Matrix:

LIQUID

San Jose, CA 95110 Attention: Tim Ripp

Work Order #:

9808E71 (

01

Reported:

Sep 11, 1998

## **QUALITY CONTROL DATA REPORT**

Analyte:	Beryllium	Cadmium	Chromium	Nickel	
QC Batch#: M	E0825986010MDB	ME0825986010MDB	ME0825986010MDB	ME0825986010MDB	
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	
Prep. Method:	EPA 3010	EPA 3010	EPA 3010	EPA 3010	
Analyst:	C. Caoile	C. Caoile	C. Caoile	C. Caoile	
Ń.D.	9808F2302	9808F2302	9808F2302	9808F2302	
Sample Conc.:	N.D.	0.012	0.051	N.D.	
Prepared Date:	8/25/98	8/25/98	8/25/98	8/25/98	
Analyzed Date:	8/26/98	8/26/98	8/26/98	8/26/98	
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5	
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L	
Result:	1.0	1.0	1.1	1.0	
MS % Recovery:	100	100	110	100	
Dup. Result:	1.0	1,0	1.1	1.0	
MSD % Recov.:	100	100	110	100	
RPD:	0.0	0.0	0.0	0.0	
RPD Limit:	0-20	0-20	0-20	0-20	•
2000-000-000-000-000-000-000-000-000-00					

LCS #:	BLK082598	BLK082598	BLK082598	BLK082598	
Prepared Date:	8/25/98	8/25/98	8/25/98	8/25/98	
Analyzed Date:	8/26/98	8/26/98	8/26/98	8/26/98	
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5	
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L	
LCS Result:	1.0	1.0	1.0	1.0	
LCS % Recov.:	100	100	100	100	
MS/MSD	80-120	20.400	20 (20)		
LCS		80-120	80-120	80-120	
Control Limits	80-120	80-120	80-120	80-120	

**SEQUOIA ANALYTICAL** 

Tod Granicher Project Manager The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If

the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

Please Note:

\*\* MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference



Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954

(650) 364-9600 (925) 988-9600 (916) 921-9600 (707) 792-1865

FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342

Pacific Environmental Group
2025 Gateway Place, Suite 44
San Jose, CA 95110
Attention: Tim Ripp 2025 Gateway Place, Suite 440 San Jose, CA 95110 Attention: Tim Ripp

Client Proj. ID: 311-038.1C/5430, Castro St.

Received: 08/03/98

Lab Proj. ID: 9808E71

Reported: 08/26/98

#### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of \_\_\_\_ pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data,

SEQUOIA ANALYTICAL

Tod Granicher Project Manager

	Of _		ber 7	6 SE		ABO											Jna	un-	-01-	Cu	REDWOOD Istody Re	CC	
Columbia	Tosco Sile Number 76 SERVICE S-TATION 5430 Tosco Sile Address 1935 WASHINGTON AVE. @CASTRO ST.											Consultant Project Number 311-038.10											
tholytical												Consultant Name PEG											
(Phone) (925) 277 - 2321											Address 2025 GATEWAY PLACE, STE 440, SAN JOS												
1-800-695-7222	Tosco Project Codo #												Project Contact (Name) TIM RIPP 9511										
í	Tosco Project Code #												Address 2025 GATEWAY PLACE, STE 440, SAN JoSe Project Contact (Name) TIM RIPP 9511 (Phone) (408) 441-7500 (Fax) (408) 441-7539 Sample Collected By (Nample) // ZUDY ZUDY ZUDY ZUDY ZUDY ZUDY ZUDY ZUDY										
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