

URS Greiner Woodward Clyde

A Division of URS Corporation

ENVIRONMENTAL
PROTECTION

99 SEP -1 PM 3:14

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Oakland, CA 94607-4014
Tel: 510.893.3600
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Offices Worldwide

August 27, 1999

Mr. Nicholas A. Loukianoff
Shorenstein Company, L.P.
555 California Street
San Francisco, CA 94104

Subject: Letter Report Addressing Task 1 of our Cost Proposal dated August 6, 1999 - Assessment of Handling and Disposal of Contaminated Soil at Property T9 in Oakland, California (Proposal No. 975100004202)
Project No. 51099670600

Dear Mr. Loukianoff:

In response to Task 1 of the subject scope of work, URS Greiner Woodward Clyde (URSGWC) is pleased to provide this letter report for the subject property in Oakland, California.

BACKGROUND

At Parcel T9 (1155 Clay Street), Woodward-Clyde observed the excavation of contaminated fill material and documented these activities in a report dated November 27, 1991. Contaminated fill was removed from across the site. One area of diesel-impacted native soil was excavated to a maximum depth of approximately 34 feet below street level. This area was then backfilled with approximately 8 feet of lean cement followed by approximately 4 feet of compacted soil. Confirmation soil samples were collected on a regular grid across the site to confirm that the contaminated fill had been removed from the site. Based on available data, native soil below the fill material is not believed to be contaminated, with the possible exception of the southwest corner (40 feet by 25 feet) where gasoline may be present from a depth of 6 to 11 feet City of Oakland Datum (C.O.O.D.), and

The site is currently enclosed by a fence with sloped sides down to the elevation of the former excavation.

DESCRIPTION OF FIELD ACTIVITIES

The three existing groundwater monitoring wells (W-3, W-4 and W-5) located on the western end of the subject property (adjacent to Jefferson Street) were sampled on August 13, 1999. Groundwater level measurements and total well depths were recorded for each of the monitoring wells prior to purging and sample collection. A photo-

ionization detector (PID) was used to evaluate the potential presence of volatile organic compounds (VOCs) in the headspace of each well prior to purging and sampling. PID readings collected from each of the wells indicated VOC concentrations below the level of detection.

Water levels were measured at each well location from the top of casing (TOC) prior to purging. Water levels for each well are presented in the following table.

Well Identification	Water Level (feet below TOC)	Relative Water Table Elevation
W-3	17.91	NA
W-4	13.83	NA
W-5	24.9	8.1 (1)

Notes: NA = relative level data unavailable for these well locations.

(1) Relative elevation for W-5 calculated from approximate elevation indicated on original well construction diagram and top of curb elevation on Shorenstein construction drawing. The top of casing elevation for well W-5 was visually estimated to be approximately 11 inches below the pavement on Jefferson Street.

During purging, groundwater parameters including temperature, conductivity, pH, turbidity, dissolved oxygen and redox potential were monitored at regular intervals. Groundwater samples were collected following stabilization of the groundwater parameters. Samples were collected in appropriately preserved, laboratory supplied and individually labeled sample containers. Following sample collection, the samples were stored on ice in a cooler for transport under standard chain-of-custody procedures to Chromalab Inc. Environmental Services in Pleasanton, California.

The field well data, including approximate purge water volumes, water parameter measurements and sampling times are presented in an attachment. Groundwater samples were submitted to the laboratory for the following analyses:

- Total petroleum hydrocarbons (TPH), quantified as diesel and gasoline;
- Benzene, toluene, ethylbenzene and xylenes (BTEX); and
- Heavy metals.

A duplicate groundwater sample (GWDUP01) was collected following sampling at well location W-3. The duplicate sample was handled similar to that of the regular sample and submitted for the same suite of analyses as listed above. The duplicate sample is used for quality assurance/quality control (QA/QC) purposes. An assessment of the laboratory QA/QC is presented below.

Groundwater samples were collected from two of the three monitoring wells (i.e., W-3 and W-5) due to monitoring well W-4 purging dry (approximately 2 gallons purged). The groundwater level in well W-4 was measured approximately 2 hours after purging and indicated an insufficient volume of water for sample collection.

GROUNDWATER SAMPLING RESULTS

Results for groundwater samples submitted to Chromalab Inc. are presented in Table 1. The complete laboratory report is provided as an attachment.

Total Petroleum Hydrocarbons (TPH)

Results for TPH-gasoline in groundwater were below the laboratory's level of detection for wells W-3 and W-5. TPH-diesel results for W-3 were reported below the laboratory's level of detection. Sample W-5 reported a TPH-diesel concentration of 240 µg/L. There are no City of Oakland Risk-Based Corrective Action (RBCA) Tier 1 Risk-Based Screening Levels (RBSLs) for TPH in groundwater since constituents like BTEX are used as risk indicators for fuel hydrocarbons.

BTEX

Results for BTEX were below the level of laboratory detection for groundwater samples collected from wells W-3 and W-5.

Heavy Metals

Results for heavy metals were predominantly below the level of detection for groundwater samples from wells W-3 and W-5. Background concentrations of barium, chromium, nickel and zinc were reported in sample W-3. Background concentrations of barium, chromium, vanadium and zinc were reported in the groundwater sample collected from W-5. There are no relevant City of Oakland Risk-Based Corrective Action (RBCA) Tier 1 Risk-Based Screening Levels (RBSLs) for metals in groundwater since groundwater at the site is not used for drinking water. Results for dissolved lead were below the level of reporting for both groundwater samples.

Quality Assurance/Quality Control Review

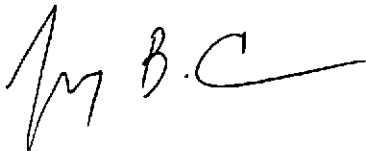
A QA/QC review of the analytical data provided by Chromalab Inc. was undertaken to confirm the accuracy and precision of the laboratory results for use in this report. Review of surrogate recoveries for organic analyses (i.e., trifluorotoluene, 4-Bromofluorobenzene-FID and o-terphenyl) reported acceptable recoveries ranging from 85.6 % to 102.1 %. The field duplicate sample reported relative percent differences (RPDs) ranging from 0 % to 24 % for the four metals detected in the sample. These RPD results are considered acceptable. RPDs could not be calculated for the organic analyses as the results were below the level of laboratory detection. Based on this review, the data is of acceptable precision and accuracy for use in this groundwater assessment.

Mr. Nick Loukianoff
August 27, 1999
Page 4 of 4

LIMITATIONS

This report was prepared in general accordance with the accepted standard of practice that exists in northern California at the time the investigation was performed. No other warranties are expressed or implied. Judgements leading to conclusions and recommendations are generally made with an incomplete knowledge of the subsurface conditions present. More extensive studies including additional subsurface investigation can tend to reduce the inherent uncertainties associated with inferring subsurface conditions.

We sincerely appreciate the opportunity to assist you with this important project. Please feel free to call either of the undersigned if you have any questions regarding this letter report.



Jay B. Clare, P.E.
Senior Project Engineer

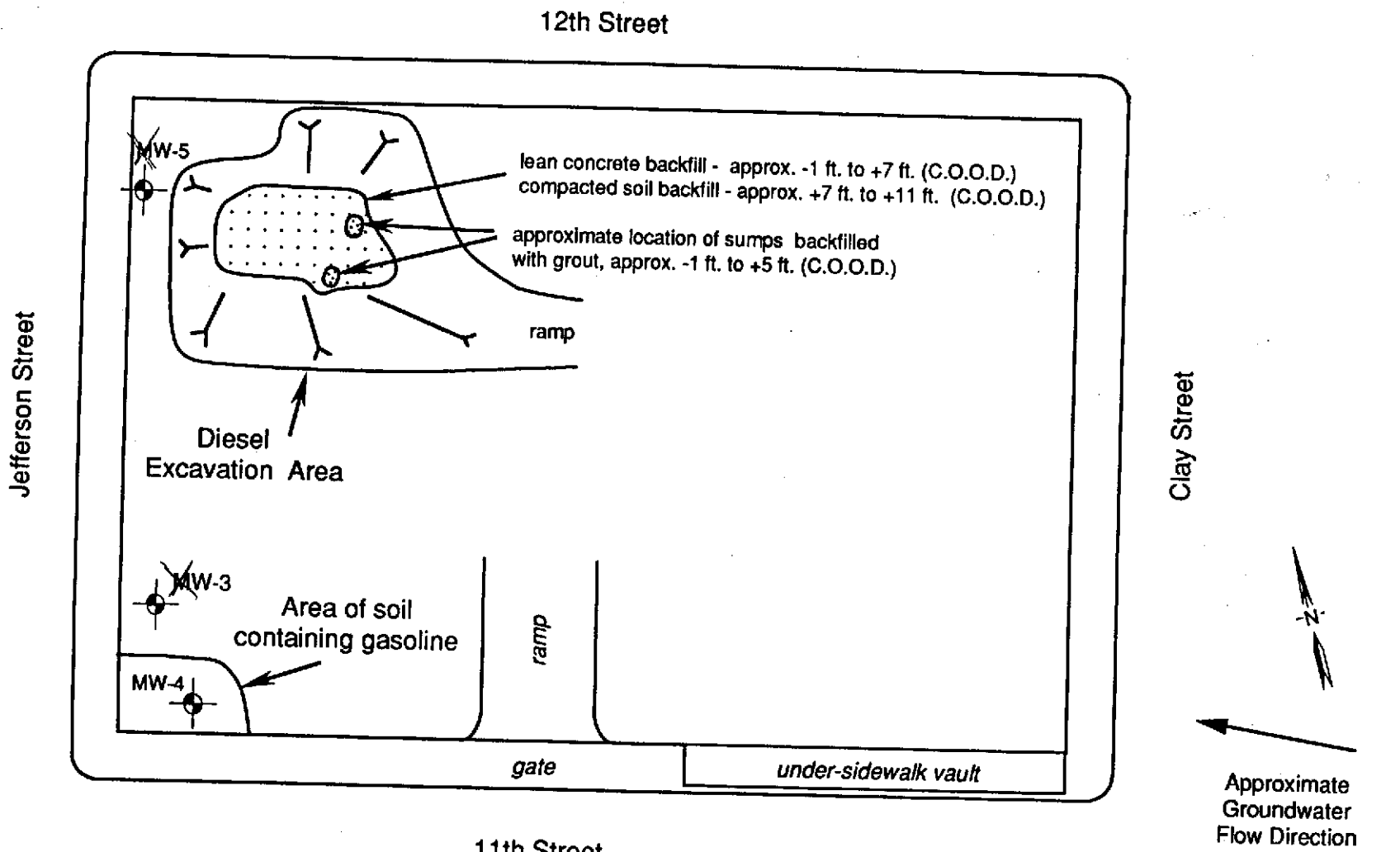


Albert Ridley
Senior Consultant

Attachments:

Table 1 - Summary of Analytical Results
Groundwater Sampling Data Sheets
Analytical Laboratory Report

cc: Alex Greenwood, City of Oakland
Andrew Clark-Clough, City of Oakland
David Ralph, City of Oakland
Bob Lyons, City of Oakland
Larry Seto, Alameda County Department of Environmental Health



Legend

⊙ monitoring wells

SCALE

0 50 feet

Project No. 90C0039B	Soil Remediation, 1155 Clay Street	End-of-Project Conditions - June 1991	Figure 7
Woodward-Clyde Consultants			

TABLE 1
SUMMARY OF GROUNDWATER LABORATORY ANALYSIS RESULTS

Sample ID	Reporting Limit	W-3	W-5	GWDUP01
Sampling Date		8/13/99	8/13/99	8/13/99
Depth to Water [ft TOC]		17.9	24.9	-
BTEX and TPH by EPA Method 8015/8020 (ug/L)				
TPH-Gasoline	50	ND	ND	ND
TPH-Diesel	50	ND	240	ND
Benzene	0.5	ND	ND	ND
Toluene	0.5	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND
Xylenes	0.5	ND	ND	ND
Title 22 Metals by EPA Method 6010 (mg/L)				
Antimony	0.005	ND	ND	ND
Arsenic	0.005	ND	ND	ND
Barium	0.005	0.06	0.096	0.077
Beryllium	0.005	ND	ND	ND
Cadmium	0.002	ND	ND	ND
Chromium	0.005	0.011	0.015	0.013
Cobalt	0.005	ND	ND	ND
Copper	0.005	ND	ND	ND
Lead	0.005	ND	ND	ND
Mercury	0.005	ND	ND	ND
Molybdenum	0.005	ND	ND	ND
Nickel	0.005	0.014	ND	0.014
Selenium	0.005	ND	ND	ND
Silver	0.005	ND	ND	ND
Thallium	0.005	ND	ND	ND
Vanadium	0.005	ND	0.013	ND
Zinc	0.01	0.02	0.029	0.024

Notes:

GWDUP01 = Duplicate of W-3

ft bTOC = feet below top of casing

ND = Not detected (i.e., below the laboratory level of detection)

FIELD WELL DATA SHEET
URS GREINER WOODWARD-CLYDE
 500 12th Street, Suite 200 Oakland, CA 94607

Project No: 510996706000	Task No: 00000	Project Name: Shorestein	8/13/99
Site Location: <u>CORNER OF 11th & JEFFERSON</u>		Sampler(s): P. Scherbak	
Well ID: <u>W-3</u>	(1) Depth to Water (ft): <u>17.91</u>	(2) Total Well Depth (feet): <u>24.92</u>	
Screen Interval (feet):	Depth to Water after Purge (ft)	OVM (ppm) = <u>0.0</u>	
Well Diameter (inch): <u>2"</u>	Measurements Referenced to:	(X) TOC	Other:

CALCULATIONS:

Length of the water column: $\frac{\quad}{2}$ ft - $\frac{\quad}{1}$ ft = $\frac{\quad}{3}$ ft

80% of the water level: $\frac{\quad}{1}$ ft + $(\frac{\quad}{3} \text{ ft} \times 0.2) = \frac{\quad}{\quad}$ ft

Estimated Purge Volume (EPV): = $\frac{\quad}{3}$ ft X $\frac{\quad}{\text{gal/in. ft}}$ X $\frac{\quad}{\text{Casing Volumes}}$ = $\frac{\quad}{\quad}$ Gallons

- () Low-Flow/Micro Purging
 () Purge at least 3 well volumes

Well Diameter	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () Bailer
 Disposable Bailer
 () Electric Submergible Pump
 () Peristaltic Pump
 Other: _____

Sampling Equipment:

- () Bailer
 Disposable Bailer
 () Extraction Port
 Other: _____

Type of Water Quality Kit Used:

- () Orion
 () YSI 3500
 YSI 6000

Time (24 hrs)	Temperature (°C or °F)	Conductivity (uS/cm)	pH (units)	Turbidity (NTU)	DO (mg/l)	ORP (mv)	Volume (gallons)	Notes: Color, Smell (Flow Rate)
1235	22.32	686	6.56	1415	5.17	363.8	10	Turbid/Brown
1245	21.01	669	6.61	1410	8.47	365.7	15	no odor.
1300	20.15	656	6.56	1409	6.17	346.6	20	
1340	21.03	655	6.60	1408	6.19	343.2	25	

Did Well Dewater? If yes, _____ gallons	Time: _____	Gallons Actually Purged: _____
Sample ID: <u>W-3</u>	Sampling Time: <u>1330</u>	Number of Bottles: <u>2x 500ml Amber</u>
Sample Analysed For: MRP _____ BIO _____ BOTH _____		<u>4x 40ml VOA</u>
		<u>1x 250ml Plastic.</u>
Duplicate Sample ID: <u>W-3 GWDUP01.</u>	Sampling Time: <u>1340</u>	Number of Bottles: <u>AS ABOVE.</u>
Duplicate Sample Analysed For: MRP _____ BIO _____ BOTH _____		

Notes:

[Signature]
 08/13/99

FIELD WELL DATA SHEET
URS GREINER WOODWARD-CLYDE
 500 12th Street, Suite 200 Oakland, CA 94607

Project No: 510996706000	Task No: 00000	Project Name: Shorenstein	8/13/99
Site Location: CORNER OF 11th & JEFFERSON		Sampler(s): P. Scherbak	
Well ID: W-4	(1) Depth to Water (ft): 13.83	(2) Total Well Depth (feet): 17.39	
Screen Interval (feet):	Depth to Water after Purge (ft) —	OVM (ppm) = 0.0	
Well Diameter (inch): 2"	Measurements Referenced to:	(X) TOC	Other:

CALCULATIONS:

Length of the water column: $\frac{2}{2}$ ft - $\frac{1}{1}$ ft = $\frac{1}{3}$ ft

80% of the water level: $\frac{1}{1}$ ft + ($\frac{1}{3}$ ft X 0.2) = $\frac{1}{3}$ ft

Estimated Purge Volume (EPV): = $\frac{3}{3}$ ft X $\frac{3}{3}$ gal/in. ft. = $\frac{3}{3}$ Casing Volumes = Gallons

- () Low-Flow/Micro Purging
- () Purge at least 3 well volumes

Well Diameter.	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:	Sampling Equipment:
() Bailer	() Bailer
(X) Disposable Bailer	() Disposable Bailer
() Electric Submergible Pump	() Extraction Port
() Peristaltic Pump	Other: _____
Other: _____	

Type of Water Quality Kit Used:

- () Orion
- () YSI 3500
- () YSI 6000

Time (24 hrs)	Temperature (°C or °F)	Conductivity (uS/cm)	pH (units)	Turbidity (NTU)	DO (mg/l)	ORP (mv)	Volume (gallons)	Notes: Color, Smell (Flow Rate)
								see note below

Did Well Dewater? If yes, <u>2</u> gallons	Time: <u>12:10</u>	Gallons Actually Purged:
Sample ID: NO SAMPLE COLLECTED!	Sampling Time:	Number of Bottles:
Sample Analysed For: MRP ___ BIO ___ BOTH ___		
Duplicate Sample ID:	Sampling Time:	Number of Bottles:
Duplicate Sample Analysed For: MRP ___ BIO ___ BOTH ___		

Notes: Extremely slow recovery - no sample collected.
Groundwater did not recover enough volume to collect sample.
Rechecked well @ 1545, prior to leaving site.

FIELD WELL DATA SHEET
URS GREINER WOODWARD-CLYDE
 500 12th Street, Suite 200 Oakland, CA 94607

Project No: 510996706000	Task No: 00000	Project Name: Shorenstein	8/13/99
Site Location: CORNER OF 11th & JEFFERSON		Sampler(s): P. Scherbak	
Well ID: W-5	(1) Depth to Water (ft): 24.90	(2) Total Well Depth (feet): 32.5'	
Screen Interval (feet):	Depth to Water after Purge (ft)	OVM (ppm) = 0.0	
Well Diameter (inch): 4"	Measurements Referenced to:	(X) TOC	Other:

CALCULATIONS:

Length of the water column: $\frac{\quad}{2}$ ft - $\frac{\quad}{1}$ ft = $\frac{\quad}{3}$ ft

80% of the water level: $\frac{\quad}{1}$ ft + ($\frac{\quad}{3}$ ft X 0.2) = $\frac{\quad}{\quad}$ ft

Estimated Purge Volume (EPV): = $\frac{\quad}{3}$ ft X $\frac{\quad}{\text{gal/lin. ft.}}$ X $\frac{\quad}{\text{Casing Volumes}}$ = $\frac{\quad}{\quad}$ Gallons

- () Low-Flow/Micro Purging
 () Purge at least 3 well volumes

Well Diameter	LD	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.936	5.81

Purging Equipment:

- () _____ Bailer
 () Disposable Bailer
Cenofas (X) Electric Submersible Pump
 () Peristaltic Pump
 Other: _____

Sampling Equipment:

- () _____ Bailer
 (X) Disposable Bailer
 () Extraction Port
 Other: _____

Type of Water Quality Kit Used:

- () Orion
 () YSI 3500
 (X) YSI 6000

Time (24 hrs)	Temperature (°C or °F)	Conductivity (uS/cm)	pH (units)	Turbidity (NTU)	DO (mg/l)	ORP (mv)	Volume (gallons)	Notes: Color, Smell (Flow Rate)
1508	20.14	267	6.79	305.6	7.4	259.9		
1511	20.11	267	6.58	1407.7	7.21	272.4		
1514	20.26	122	6.57	1133	6.77	299.4		
1517	20.27	221	6.59	860	6.43	321.1		
1520	20.27	223	6.58	737	6.38	331.5		
1523	20.24	227	6.59	715.1	6.34	337.0		

Did Well Dewater? If yes, _____ gallons	Time: _____	Gallons Actually Purged: _____
Sample ID: W-5	Sampling Time: 1530	Number of Bottles: 2x 500ml Amber, 4x 40ml VOA, 1x 250ml Plastic.
Sample Analysed For: MRP _____ BIO _____ BOTH _____		
Duplicate Sample ID:	Sampling Time:	Number of Bottles:
Duplicate Sample Analysed For: MRP _____ BIO _____ BOTH _____		

Notes: 35-40 gallons purged from well prior to sampling.

[Signature]
08/13/99

URS Greiner Woodward Clyde- Oakland

500 12th Street, Suite 200

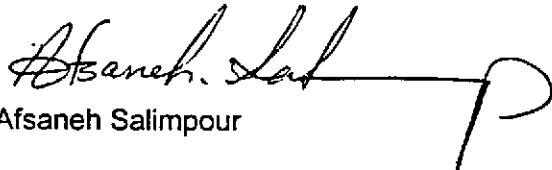
Oakland, CA 94607-4014

Attn.: Paul Scherbak

Attached is our report for your samples received on Friday August 13, 1999.
This report has been reviewed and approved for release. Reproduction of this report
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after September 12, 1999
unless you have requested otherwise. We appreciate the opportunity to be of service to you.
If you have any questions, please call me at (925) 484-1919.

Sincerely,

A handwritten signature in black ink, appearing to read "Afsaneh Salimpour", with a long horizontal flourish extending to the right.

Afsaneh Salimpour

Gas/BTEX

URS Greiner Woodward Clyde- Oakland



500 12th Street, Suite 200
Oakland, CA 94607-4014

Attn: Paul Scherbak

Phone: (510) 893-3600 Fax: (510) 874-3268

Project #: 510996706000

Project:

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
W-3	Water	08/13/1999 13:30	1
W-5	Water	08/13/1999 15:30	2
GWDUP01	Water	08/13/1999	3

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8015M
8020

Attn.: Paul Scherbak

Prep Method: 5030

Gas/BTEX

Sample ID: W-3	Lab Sample ID: 1999-08-0209-001
Project: 510996706000	Received: 08/13/1999 17:53
Sampled: 08/13/1999 13:30	Extracted: 08/19/1999 10:35
Matrix: Water	QC-Batch: 1999/08/19-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	08/19/1999 10:35	
Benzene	ND	0.50	ug/L	1.00	08/19/1999 10:35	
Toluene	ND	0.50	ug/L	1.00	08/19/1999 10:35	
Ethyl benzene	ND	0.50	ug/L	1.00	08/19/1999 10:35	
Xylene(s)	ND	0.50	ug/L	1.00	08/19/1999 10:35	
Surrogate(s)						
Trifluorotoluene	99.3	58-124	%	1.00	08/19/1999 10:35	
4-Bromofluorobenzene-FID	85.6	50-150	%	1.00	08/19/1999 10:35	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8015M
8020

Attn.: Paul Scherbak

Prep Method: 5030

Gas/BTEX

Sample ID: W-5	Lab Sample ID: 1999-08-0209-002
Project: 510996706000	Received: 08/13/1999 17:53
Sampled: 08/13/1999 15:30	Extracted: 08/19/1999 10:08
Matrix: Water	QG-Batch: 1999/08/19-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	08/19/1999 10:08	
Benzene	ND	0.50	ug/L	1.00	08/19/1999 10:08	
Toluene	ND	0.50	ug/L	1.00	08/19/1999 10:08	
Ethyl benzene	ND	0.50	ug/L	1.00	08/19/1999 10:08	
Xylene(s)	ND	0.50	ug/L	1.00	08/19/1999 10:08	
Surrogate(s)						
Trifluorotoluene	102.1	58-124	%	1.00	08/19/1999 10:08	
4-Bromofluorobenzene-FID	91.0	50-150	%	1.00	08/19/1999 10:08	

1220 Quarry Lane * Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8015M
8020

Attn.: Paul Scherbak

Prep Method: 5030

Gas/BTEX

Sample ID: GWDUP01	Lab Sample ID: 1999-08-0209-003
Project: 510996706000	Received: 08/13/1999 17:53
Sampled: 08/13/1999	Extracted: 08/19/1999 11:02
Matrix: Water	QG-Batch: 1999/08/19-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	08/19/1999 11:02	
Benzene	ND	0.50	ug/L	1.00	08/19/1999 11:02	
Toluene	ND	0.50	ug/L	1.00	08/19/1999 11:02	
Ethyl benzene	ND	0.50	ug/L	1.00	08/19/1999 11:02	
Xylene(s)	ND	0.50	ug/L	1.00	08/19/1999 11:02	
Surrogate(s)						
Trifluorotoluene	100.0	58-124	%	1.00	08/19/1999 11:02	
4-Bromofluorobenzene-FID	90.5	50-150	%	1.00	08/19/1999 11:02	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8015M
8020

Attn.: Paul Scherbak

Prep Method: 5030

Batch QC Report Gas/BTEX

Method Blank

Water

QC Batch # 1999/08/19-01.01

MB: 1999/08/19-01.01-001

Date Extracted: 08/19/1999 06:39

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	08/19/1999 06:39	
Benzene	ND	0.5	ug/L	08/19/1999 06:39	
Toluene	ND	0.5	ug/L	08/19/1999 06:39	
Ethyl benzene	ND	0.5	ug/L	08/19/1999 06:39	
Xylene(s)	ND	0.5	ug/L	08/19/1999 06:39	
Surrogate(s)					
Trifluorotoluene	97.2	58-124	%	08/19/1999 06:39	
4-Bromofluorobenzene-FID	85.2	50-150	%	08/19/1999 06:39	

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8020
8015M

Attn: Paul Scherbak

Prep Method: 5030

Batch QC Report

Gas/BTEX

Laboratory Control Spike (LCS/LCSD)

Water

QC Batch # 1999/08/19-01.01

LCS: 1999/08/19-01.01-002

Extracted: 08/19/1999 07:06

Analyzed: 08/19/1999 07:06

LCSD: 1999/08/19-01.01-003

Extracted: 08/19/1999 07:58

Analyzed: 08/19/1999 07:58

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]			RPD		Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	RPD [%]	Recovery	RPD	LCS	LCSD		
Gasoline	503	561	500	500	100.6	112.2	10.9	75-125	20				
Benzene	109	110	100.0	100.0	109.0	110.0	0.9	77-123	20				
Toluene	105	107	100.0	100.0	105.0	107.0	1.9	78-122	20				
Ethyl benzene	106	108	100.0	100.0	106.0	108.0	1.9	70-130	20				
Xylene(s)	313	317	300	300	104.3	105.7	1.3	75-125	20				
Surrogate(s)													
Trifluorotoluene	527	539	500	500	105.4	107.8		58-124					
4-Bromofluorobenzene-Fi	495	533	500	500	99.0	106.6		50-150					

1220 Quarry Lane * Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8015M
8020

Attn.: Paul Scherbak

Prep Method: 5030

Batch QC Report

Gas/BTEX

Matrix Spike (MS / MSD)

Water

QC Batch # 1999/08/19-01.01

Sample ID: MW-1

Lab Sample ID: 1999-08-0210-001

MS: 1999/08/19-01.01-004 Extracted: 08/19/1999 13:23 Analyzed: 08/19/1999 13:23 Dilution: 1.0

MSD: 1999/08/19-01.01-005 Extracted: 08/19/1999 14:18 Analyzed: 08/19/1999 14:18 Dilution: 1.0

Compound	Conc [ug/L]			Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Gasoline	497	544	ND	500	500	99.4	108.8	9.0	65-135	20		
Benzene	109	108	ND	100.0	100.0	109.0	108.0	0.9	65-135	20		
Toluene	107	106	ND	100.0	100.0	107.0	106.0	0.9	65-135	20		
Ethyl benzene	106	105	ND	100.0	100.0	106.0	105.0	0.9	65-135	20		
Xylene(s)	316	313	ND	300	300	105.3	104.3	1.0	65-135	20		
Surrogate(s)												
Trifluorotoluene	517	506		500	500	103.4	101.2		58-124			
4-Bromofluorobenzene-	493	514		500	500	98.6	102.8		50-150			

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

Soluble CAM 17 Metals

URS Greiner Woodward Clyde- Oakland

✉ 500 12th Street, Suite 200
Oakland, CA 94607-4014

Attn: Paul Scherbak

Phone: (510) 893-3600 Fax: (510) 874-3268

Project #: 510996706000

Project:

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
W-3	Water	08/13/1999 13:30	1
W-5	Water	08/13/1999 15:30	2
GWDUP01	Water	08/13/1999	3

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 6010B
7470A

Attn.: Paul Scherbak

Prep Method: 3010A
7470A

Soluble CAM 17 Metals

Sample ID: W-3	Lab Sample ID: 1999-08-0209-001
Project: 510996706000	Received: 08/13/1999 17:53
Sampled: 08/13/1999 13:30	Extracted: 08/19/1999 06:56
Matrix: Water	QC-Batch: 1999/08/19-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	0.0050	mg/L	1.00	08/19/1999 10:57	
Arsenic	ND	0.0050	mg/L	1.00	08/19/1999 10:57	
Barium	0.060	0.0050	mg/L	1.00	08/19/1999 10:57	
Beryllium	ND	0.0050	mg/L	1.00	08/19/1999 10:57	
Cadmium	ND	0.0020	mg/L	1.00	08/19/1999 10:57	
Chromium	0.011	0.0050	mg/L	1.00	08/19/1999 10:57	
Cobalt	ND	0.0050	mg/L	1.00	08/19/1999 10:57	
Copper	ND	0.0050	mg/L	1.00	08/19/1999 10:57	
Lead	ND	0.0050	mg/L	1.00	08/19/1999 10:57	
Molybdenum	ND	0.0050	mg/L	1.00	08/19/1999 10:57	
Nickel	0.014	0.0050	mg/L	1.00	08/19/1999 10:57	
Selenium	ND	0.0050	mg/L	1.00	08/19/1999 10:57	
Silver	ND	0.0050	mg/L	1.00	08/19/1999 10:57	
Thallium	ND	0.0050	mg/L	1.00	08/19/1999 10:57	
Vanadium	ND	0.0050	mg/L	1.00	08/19/1999 10:57	
Zinc	0.020	0.010	mg/L	1.00	08/19/1999 10:57	
Mercury	ND	0.00020	mg/L	1.00	08/19/1999 12:34	

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 6010B
7470A

Attn.: Paul Scherbak

Prep Method: 3010A
7470A

Soluble CAM 17 Metals

Sample ID: W-5	Lab Sample ID: 1999-08-0209-002
Project: 510996706000	Received: 08/13/1999 17:53
Sampled: 08/13/1999 15:30	Extracted: 08/19/1999 06:56
Matrix: Water	QC-Batch: 1999/08/19-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	0.0050	mg/L	1.00	08/19/1999 11:08	
Arsenic	ND	0.0050	mg/L	1.00	08/19/1999 11:08	
Barium	0.096	0.0050	mg/L	1.00	08/19/1999 11:08	
Beryllium	ND	0.0050	mg/L	1.00	08/19/1999 11:08	
Cadmium	ND	0.0020	mg/L	1.00	08/19/1999 11:08	
Chromium	0.015	0.0050	mg/L	1.00	08/19/1999 11:08	
Cobalt	ND	0.0050	mg/L	1.00	08/19/1999 11:08	
Copper	ND	0.0050	mg/L	1.00	08/19/1999 11:08	
Lead	ND	0.0050	mg/L	1.00	08/19/1999 11:08	
Molybdenum	ND	0.0050	mg/L	1.00	08/19/1999 11:08	
Nickel	ND	0.0050	mg/L	1.00	08/19/1999 11:08	
Selenium	ND	0.0050	mg/L	1.00	08/19/1999 11:08	
Silver	ND	0.0050	mg/L	1.00	08/19/1999 11:08	
Thallium	ND	0.0050	mg/L	1.00	08/19/1999 11:08	
Vanadium	0.013	0.0050	mg/L	1.00	08/19/1999 11:08	
Zinc	0.029	0.010	mg/L	1.00	08/19/1999 11:08	
Mercury	ND	0.00020	mg/L	1.00	08/19/1999 12:38	

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 6010B
7470A

Attn.: Paul Scherbak

Prep Method: 3010A
7470A

Soluble CAM 17 Metals

Sample ID: GWDUP01	Lab Sample ID: 1999-08-0209-003
Project: 510996706000	Received: 08/13/1999 17:53
Sampled: 08/13/1999	Extracted: 08/19/1999 06:56
Matrix: Water	QC-Batch: 1999/08/19-02.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Antimony	ND	0.0050	mg/L	1.00	08/19/1999 11:12	
Arsenic	ND	0.0050	mg/L	1.00	08/19/1999 11:12	
Barium	0.077	0.0050	mg/L	1.00	08/19/1999 11:12	
Beryllium	ND	0.0050	mg/L	1.00	08/19/1999 11:12	
Cadmium	ND	0.0020	mg/L	1.00	08/19/1999 11:12	
Chromium	0.013	0.0050	mg/L	1.00	08/19/1999 11:12	
Cobalt	ND	0.0050	mg/L	1.00	08/19/1999 11:12	
Copper	ND	0.0050	mg/L	1.00	08/19/1999 11:12	
Lead	ND	0.0050	mg/L	1.00	08/19/1999 11:12	
Molybdenum	ND	0.0050	mg/L	1.00	08/19/1999 11:12	
Nickel	0.014	0.0050	mg/L	1.00	08/19/1999 11:12	
Selenium	ND	0.0050	mg/L	1.00	08/19/1999 11:12	
Silver	ND	0.0050	mg/L	1.00	08/19/1999 11:12	
Thallium	ND	0.0050	mg/L	1.00	08/19/1999 11:12	
Vanadium	ND	0.0050	mg/L	1.00	08/19/1999 11:12	
Zinc	0.024	0.010	mg/L	1.00	08/19/1999 11:12	
Mercury	ND	0.00020	mg/L	1.00	08/19/1999 12:39	

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 6010B
7470A

Attn.: Paul Scherbak

Prep Method: 3010A
7470A

Batch QC Report
Soluble CAM 17 Metals

Method Blank	Water	QC Batch # 1999/08/19-01.16
MB: 1999/08/19-01.16-011		Date Extracted: 08/19/1999 07:00

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Mercury	ND	0.0002	mg/L	08/19/1999 12:30	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 6010B
7470A

Attn.: Paul Scherbak

Prep Method: 3010A
7470A

Batch QC Report Soluble CAM 17 Metals

Method Blank

Water

QC Batch # 1999/08/19-02.15

MB: 1999/08/19-02.15-018

Date Extracted: 08/19/1999 06:56

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Antimony	ND	0.0050	mg/L	08/19/1999 10:45	
Arsenic	ND	0.0050	mg/L	08/19/1999 10:45	
Barium	ND	0.0050	mg/L	08/19/1999 10:45	
Beryllium	ND	0.0050	mg/L	08/19/1999 10:45	
Cadmium	ND	0.0020	mg/L	08/19/1999 10:45	
Chromium	ND	0.0050	mg/L	08/19/1999 10:45	
Cobalt	ND	0.0050	mg/L	08/19/1999 10:45	
Copper	ND	0.0050	mg/L	08/19/1999 10:45	
Lead	ND	0.0050	mg/L	08/19/1999 10:45	
Molybdenum	ND	0.0050	mg/L	08/19/1999 10:45	
Nickel	ND	0.0050	mg/L	08/19/1999 10:45	
Selenium	ND	0.0050	mg/L	08/19/1999 10:45	
Silver	ND	0.0050	mg/L	08/19/1999 10:45	
Thallium	ND	0.0050	mg/L	08/19/1999 10:45	
Vanadium	ND	0.0050	mg/L	08/19/1999 10:45	
Zinc	ND	0.010	mg/L	08/19/1999 10:45	

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To: URS Greiner Woodward Clyde- Oakland

Test Method: 7470A
6010B

Attn: Paul Scherbak

Prep Method: 7470A
3010A

Batch QC Report

Soluble CAM 17 Metals

Laboratory Control Spike (LCS/LCSD)

Water

QC Batch # 1999/08/19-01.16

LCS: 1999/08/19-01.16-012

Extracted: 08/19/1999 07:00

Analyzed: 08/19/1999 12:32

LCSD: 1999/08/19-01.16-013

Extracted: 08/19/1999 07:00

Analyzed: 08/19/1999 12:33

Compound	Conc. [mg/L]		Exp. Conc. [mg/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Mercury	0.0220	0.0223	0.0200	0.0200	110.0	111.5	1.4	85-115	20		

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 7470A
6010B

Attn: Paul Scherbak

Prep Method: 7470A
3010A

Batch QC Report

Soluble CAM 17 Metals

Laboratory Control Spike (LCS/LCSD)

Water

QC Batch # 1999/08/19-02.15

LCS: 1999/08/19-02.15-019

Extracted: 08/19/1999 06:56

Analyzed: 08/19/1999 10:49

LCSD: 1999/08/19-02.15-020

Extracted: 08/19/1999 06:56

Analyzed: 08/19/1999 10:53

Compound	Conc. [mg/L]		Exp. Conc. [mg/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Antimony	0.489	0.487	0.500	0.500	97.8	97.4	0.4	80-120	20		
Arsenic	0.505	0.501	0.500	0.500	101.0	100.2	0.8	80-120	20		
Barium	0.492	0.497	0.500	0.500	98.4	99.4	1.0	80-120	20		
Beryllium	0.492	0.495	0.500	0.500	98.4	99.0	0.6	80-120	20		
Cadmium	0.494	0.498	0.500	0.500	98.8	99.6	0.8	80-120	20		
Chromium	0.510	0.511	0.500	0.500	102.0	102.2	0.2	80-120	20		
Cobalt	0.495	0.494	0.500	0.500	99.0	98.8	0.2	80-120	20		
Copper	0.490	0.490	0.500	0.500	98.0	98.0	0.0	80-120	20		
Lead	0.492	0.491	0.500	0.500	98.4	98.2	0.2	80-120	20		
Molybdenum	0.494	0.495	0.500	0.500	98.8	99.0	0.2	80-120	20		
Nickel	0.490	0.493	0.500	0.500	98.0	98.6	0.6	80-120	20		
Selenium	0.493	0.495	0.500	0.500	98.6	99.0	0.4	80-120	20		
Silver	0.494	0.497	0.500	0.500	98.8	99.4	0.6	80-120	20		
Thallium	0.504	0.506	0.500	0.500	100.8	101.2	0.4	80-120	20		
Vanadium	0.489	0.493	0.500	0.500	97.8	98.6	0.8	80-120	20		
Zinc	0.482	0.484	0.500	0.500	96.4	96.8	0.4	80-120	20		

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 7470A
6010B

Attn.: Paul Scherbak

Prep Method: 3010A
7470A

Batch QC Report

Soluble CAM 17 Metals

Matrix Spike (MS / MSD)

Water

QC Batch # 1999/08/19-01.16

Sample ID: W-3

Lab Sample ID: 1999-08-0209-001

MS: 1999/08/19-01.16-015 Extracted: 08/19/1999 07:00 Analyzed: 08/19/1999 12:35 Dilution: 1.0

MSD: 1999/08/19-01.16-016 Extracted: 08/19/1999 07:00 Analyzed: 08/19/1999 12:36 Dilution: 1.0

Compound	Conc [mg/L]			Exp. Conc. [mg/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Mercury	0.0218	0.0218	ND	0.0200	0.0200	109.0	109.0	0.0	85-115	20		

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 7470A
6010B

Attn.: Paul Scherbak

Prep Method: 3010A
7470A

Batch QC Report Soluble CAM 17 Metals

Matrix Spike (MS / MSD)

Water

QC Batch # 1999/08/19-02.15

Sample ID: W-3

Lab Sample ID: 1999-08-0209-001

MS: 1999/08/19-02.15-022 Extracted: 08/19/1999 06:56 Analyzed: 08/19/1999 11:01 Dilution: 1.0

MSD: 1999/08/19-02.15-023 Extracted: 08/19/1999 06:56 Analyzed: 08/19/1999 11:05 Dilution: 1.0

Compound	Conc [mg/L]		Sample	Exp. Conc. [mg/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD		MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Antimony	0.484	0.486	ND	0.500	0.500	96.8	97.2	0.4	75-125	20		
Arsenic	0.486	0.484	ND	0.500	0.500	97.2	96.8	0.4	75-125	20		
Barium	0.543	0.542	0.0604	0.500	0.500	96.5	96.3	0.2	75-125	20		
Beryllium	0.493	0.493	ND	0.500	0.500	98.6	98.6	0.0	75-125	20		
Cadmium	0.484	0.483	ND	0.500	0.500	96.8	96.6	0.2	75-125	20		
Chromium	0.514	0.514	0.0114	0.500	0.500	100.5	100.5	0.0	75-125	20		
Cobalt	0.475	0.477	ND	0.500	0.500	95.0	95.4	0.4	75-125	20		
Copper	0.483	0.485	ND	0.500	0.500	96.6	97.0	0.4	75-125	20		
Lead	0.467	0.469	ND	0.500	0.500	93.4	93.8	0.4	75-125	20		
Molybdenum	0.494	0.495	ND	0.500	0.500	98.8	99.0	0.2	75-125	20		
Nickel	0.486	0.487	0.0136	0.500	0.500	94.5	94.7	0.2	75-125	20		
Selenium	0.497	0.505	ND	0.500	0.500	99.4	101.0	1.6	75-125	20		
Silver	0.492	0.490	ND	0.500	0.500	98.4	98.0	0.4	75-125	20		
Thallium	0.480	0.480	ND	0.500	0.500	96.0	96.0	0.0	75-125	20		
Vanadium	0.496	0.494	ND	0.500	0.500	99.2	98.8	0.4	75-125	20		
Zinc	0.486	0.485	0.0198	0.500	0.500	93.2	93.0	0.2	75-125	20		

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Diesel

URS Greiner Woodward Clyde- Oakland



500 12th Street, Suite 200
Oakland, CA 94607-4014

Attn: Paul Scherbak

Phone: (510) 893-3600 Fax: (510) 874-3268

Project #: 510996706000

Project:

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
W-3	Water	08/13/1999 13:30	1
W-5	Water	08/13/1999 15:30	2
GWDUP01	Water	08/13/1999	3

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland
Attn.: Paul Scherbak

Test Method: 8015m
Prep Method: 3510/8015M

Diesel

Sample ID: W-3	Lab Sample ID: 1999-08-0209-001
Project: 510996706000	Received: 08/13/1999 17:53
Sampled: 08/13/1999 13:30	Extracted: 08/17/1999 09:53
Matrix: Water	QC-Batch: 1999/08/17-02.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	05/18/1999 08:15	
<i>Surrogate(s)</i> o-Terphenyl	94.8	60-130	%	1.00	05/18/1999 08:15	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: **URS Greiner Woodward Clyde- Oakland**
Attn.: Paul Scherbak

Test Method: 8015m
Prep Method: 3510/8015M

Diesel

Sample ID: W-5	Lab Sample ID: 1999-08-0209-002
Project: 510996706000	Received: 08/13/1999 17:53
Sampled: 08/13/1999 15:30	Extracted: 08/18/1999 09:41
Matrix: Water	QC-Batch: 1999/08/18-01.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	240	50	ug/L	1.00	08/18/1999 15:55	ndp
<i>Surrogate(s)</i> o-Terphenyl	92.8	60-130	%	1.00	08/18/1999 15:55	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8015m

Attn.: Paul Scherbak

Prep Method: 3510/8015M

Diesel

Sample ID: GWDUP01	Lab Sample ID: 1999-08-0209-003
Project: 510996706000	Received: 08/13/1999 17:53
Sampled: 08/13/1999	Extracted: 08/17/1999 09:53
Matrix: Water	QC-Batch: 1999/08/17-02.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	08/18/1999 08:58	
Surrogate(s) o-Terphenyl	86.7	60-130	%	1.00	08/18/1999 08:58	

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland
Attn.: Paul Scherbak

Test Method: 8015m
Prep Method: 3510/8015M

Batch QC Report Diesel

Method Blank	Water	QC Batch # 1999/08/17-02.10
MB: 1999/08/17-02.10-001		Date Extracted: 08/17/1999 09:53

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	08/17/1999 13:20	
<i>Surrogate(s)</i> o-Terphenyl	89.0	60-130	%	08/17/1999 13:20	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8015m

Attn.: Paul Scherbak

Prep Method: 3510/8015M

Batch QC Report

Diesel

Method Blank

Water

QC Batch # 1999/08/18-01.10

MB: 1999/08/18-01.10-001

Date Extracted: 08/18/1999 09:00

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	08/18/1999 18:00	
<i>Surrogate(s)</i> o-Terphenyl	97.0	60-130	%	08/18/1999 18:00	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8015m

Attn: Paul Scherbak

Prep Method: 3510/8015M

Batch QC Report

Diesel

Laboratory Control Spike (LCS/LCSD)

Water

QC Batch # 1999/08/17-02.10

LCS: 1999/08/17-02.10-002

Extracted: 08/17/1999 09:53

Analyzed: 08/17/1999 13:05

LCSD: 1999/08/17-02.10-003

Extracted: 08/17/1999 09:53

Analyzed: 08/17/1999 13:41

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Diesel	1130	1110	1250	1250	90.4	88.8	1.8	60-130	25		
Surrogate(s) o-Terphenyl	21.8	21.7	20.0	20.0	109.0	108.5		60-130			

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-08-0209

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8015m

Attn: Paul Scherbak

Prep Method: 3510/8015M

Batch QC Report

Diesel

Laboratory Control Spike (LCS/LCSD)

Water

QC Batch # 1999/08/18-01.10

LCS: 1999/08/18-01.10-002

Extracted: 08/18/1999 09:00

Analyzed: 08/18/1999 15:45

LCSD: 1999/08/18-01.10-003

Extracted: 08/18/1999 09:00

Analyzed: 08/18/1999 16:17

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]			Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	RPD [%]	Recovery	RPD	LCS	LCSD
Diesel	1030	1000	1250	1250	82.4	80.0	3.0	60-130	25		
<i>Surrogate(s)</i> o-Terphenyl	19.2	18.3	20.0	20.0	96.0	91.5		60-130			

1220 Quarry Lane * Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

To: URS Greiner Woodward Clyde- Oakland
Attn: Paul Scherbak

Test Method: 8015m
Prep Method: 3510/8015M

Legend & Notes

Diesel

Analyte Flags

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

99-08-0209

47440

Woodward-Clyde Consultants

500 13th Street, Suite 200 • Oakland, CA 94612-1714
510/893-3600

Chain of Custody Record

PROJECT NO.
510716706000

SAMPLERS: (Signature)
[Signature]

DATE TIME SAMPLE NUMBER

Sample Matrix
(S)oil, (W)ater, (A)ir

EPA Method 8015-1
THI-DIESEL
EPA Method 8015-2
THI-GASOLINE
EPA Method 8015-3
THI-BTEX
EPA Method 8015-4
THI-METALS*

ANALYSES

Number of Containers

REMARKS
(Sample preservation, handling procedures, etc.)

08/13/1330	W-3	W	✓	✓	✓	✓	7
08/13/1530	W-5	W	✓	✓	✓	✓	7
08/13/1340	CW DUPOI	W	✓	✓	✓	✓	7

* LAB FILTRATION FOR METALS ANALYSIS PLEASE

EACH SAMPLE INCLUDES
4x 40ml VOA HCL
2x 500ml Amber.
1x 250ml Plastic
→ unpreserved
(requires lab filtration).

5.0°C

TOTAL NUMBER OF CONTAINERS 21

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

METHOD OF SHIPMENT:

CHROMALAB COURIER.

SHIPPED BY: (Signature)

CARRIER: (Signature)

RECEIVED FOR LAB BY: (Signature)

DATE/TIME

8/13/99 1753
Dennis Hamilton