

PACIFIC  
ENVIRONMENTAL  
GROUP, INC.

ENVIRONMENTAL  
PROTECTION

96 DEC 30 PM 3:48

December 23, 1996  
Project 310-058.5A

Ms. Susan Keach  
Oro Loma Sanitary District  
2600 Grant Avenue  
San Lorenzo, California 94580

Re: Wastewater Discharge Permit 024 - November 1996 Sewer Report  
Unocal Service Station 5760  
376 Lewelling Boulevard at Usher Street  
San Lorenzo, California

Dear Ms. Keach:

On behalf of Unocal Corporation, Pacific Environmental Group, Inc. (PACIFIC) is operating a groundwater extraction (GWE) and treatment system at the site referenced above. This letter transmits treatment system operational data for the period from October 15 through November 27, 1996. Operational parameters are summarized in the table below.

<i>Current System Status:</i>	<i>Operational</i>
<i>Reporting Period:</i>	10/15/96 - 11/27/96
<i>Period Temperature:</i>	71.6
<i>Period pH reading:</i>	7.2
<i>Period Volume Discharged:</i>	87,985 gallons
<i>Total Discharged to Date:</i>	331,692 gallons
<i>Average Flow Rate:</i>	1.5 gallons per minute
<i>Analytical Reports:</i>	Attached

Field measurements and the analytical results indicate that the GWE system is currently in compliance with all conditions of the discharge permit following carbon replacement.

December 23, 1996

Page 2

Monthly analyses include total petroleum hydrocarbons and benzene, toluene, ethylbenzene and xylenes (BTEX compounds); quarterly analyses include chemical oxygen demand, pH, and total suspended solids. Operational and analytical data are included in Tables 1 and 2, and certified analytical reports and chain-of-custody documentation are included as Attachment A. If you have any questions regarding this project or require further information, please do not hesitate to call.

Sincerely,

**Pacific Environmental Group, Inc.**



Suzanne McClurkin-Nelson  
Staff Scientist

Attachments: Table 1 - Treatment System Metered Volume  
Table 2 - Groundwater Treatment System Analytical Data  
Attachment A - Certified Analytical Reports and Chain-of-Custody Documentation

cc: Ms. Tina Berry, Unocal Corporation  
Mr. Richard Hiatt, Regional Water Quality Control Board - S.F. Bay Region  
~~Ms. Amy Leach, Alameda County Health Care Service~~

Table 1  
**Treatment System Metered Volume**

Unocal Service Station 5760  
 376 Lewelling Boulevard at Usher Street  
 San Lorenzo, California

Date Sampled	Flow Meter Reading (gallons)	Flow Meter Net Volume (gallons)	Cumulative System Discharge To Date (gallons)	Average Total System Discharge (gpm)	Average Total System Discharge (gpd)
10/18/95 a	76	0	0	N/A	N/A
10/30/95	4,040	3,964	3,964	0.2	330
11/30/95	7,751	3,711	7,675	0.1	120
12/27/95	15,031	7,280	14,955	0.2	270
01/22/96	19,350	4,319	19,274	0.1	166
02/13/96	28,980	9,630	28,904	0.3	438
03/11/96 b	82,320	53,340	82,244	1.4	1,976
04/05/96	82,660	340	82,584	0.01	14
05/15/96 c	132,610	49,950	132,534	0.87	1,249
07/02/96 d	142,690	10,080	142,614	N/A	N/A
07/17/96 e,f	194,730	52,040	194,654	2.4	3,469
10/15/96 g	243,783	49,053	243,707	N/A	N/A
11/11/96	298,271	54,488	298,195	1.4	2,018
11/27/96	331,768	33,497	331,692	1.5	2,094

gpm = Gallons per minute

gpd = Gallons per day

N/A = Not applicable or not available

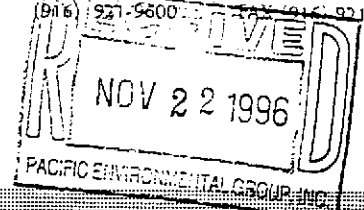
- a. GWE continuous system operation began on October 18, 1995.
- b. GWE system found down 3/11/96; carbon changeout performed 3/25/96.
- c. GWE system shut down in May for primary carbon replacement.
- d. System restarted July 2, 1996.
- e. System temporarily shut down to address operational problems.
- f. Carbon changeout to primary on 10/13/96; primary & secondary switched.
- g. System restarted 10/15/96 following carbon changeout.

Table 2  
Groundwater Treatment System Analytical Data

Unocal Service Station 5760  
376 Lewelling Boulevard at Usher Street  
San Lorenzo, California

Date Sampled						Permit Compliance Parameters		
	TPPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	COD (mg/L)	TSS (mg/L)	pH (units)
<b>Influent Samples</b>								
10/30/95	33,000	480	1,400	900	7,100	N/A	N/A	N/A
11/30/95	15,000	190	310	210	3,700	N/A	N/A	N/A
12/27/95	1,100	16	23	<2.0	300	N/A	N/A	N/A
02/13/96 b	32,000	460	1,100	1,500	7,700	N/A	N/A	N/A
04/05/96	25,000	280	1,400	900	6,400	N/A	N/A	N/A
05/15/96	22,000	240	1,200	850	4,700	N/A	N/A	N/A
07/02/96	22,000	230	1,300	950	4,700	N/A	N/A	N/A
10/15/96 e	4,900	94	14	210	1,600	N/A	N/A	N/A
11/11/96	15,000	130	560	550	4,500	N/A	N/A	N/A
<b>Effluent Samples</b>								
10/04/95	<50	<0.50	<0.50	<0.50	<0.50	<20	<1.0	8.89 a
10/30/95	<50	<0.50	<0.50	<0.50	<0.50	NS	NS	NS
11/30/95	<50	<0.50	<0.50	<0.50	<0.50	NS	NS	NS
12/27/95	<50	<0.50	<0.50	<0.50	<0.50	NS	NS	7.05 a
02/13/96 b	<50	<0.50	<0.50	<0.50	<0.50	<20	9.0	6.83 a
04/05/96 c	83	<0.50	0.80	<0.50	2.0	<20	11	6.83 a
05/15/96 c	<50	1.8	1.6	<0.50	5.8	<20	12	6.86 a
07/02/96 d	<50	<0.50	<0.50	<0.50	<0.50	15	2.0	7.09 a
10/15/96 e	<50	<0.50	<0.50	<0.50	0.54	NS	NS	8.74 a
11/11/96	<50	<0.50	<0.50	<0.50	<0.50	NS	NS	7.55 a
11/27/96	<50	<0.50	<0.50	<0.50	<0.50	<20	<1.0	7.2
TPPH = Total purgeable petroleum hydrocarbons COD = Chemical oxygen demand TSS = Total suspended solids µg/L = Micrograms per liter mg/L = Milligrams per liter N/A = Not applicable NS = Not sampled < = Denotes any potential concentrations fell below the shown detection limit for the analysis. a. The pH reading was measured by field instruments, not by laboratory analysis. b. GWE system was found down 1/17/96 and two pumps were pulled for repair and replaced 2/13/96. c. Carbon replacement of primary on 3/25/96 (switched to secondary); new primary replaced in May. d. System restarted July 2, 1996; de-activated July 17 to schedule carbon replacement to current primary. e. System restarted 10/15/96 following carbon changeout.								

**ATTACHMENT A**  
**CERTIFIED ANALYTICAL REPORT**  
**AND CHAIN-OF-CUSTODY DOCUMENTATION**



Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Client Proj. ID: 310-058.5A/ 5760, San Lorenzo Sample Descript: Effl Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9611721-01	Sampled: 11/11/96 Received: 11/12/96 Analyzed: 11/15/96 Reported: 11/20/96
Attention: Andrew Lahane		

QC Batch Number: GC111596BTEX21A  
Instrument ID: GCHP21

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	92

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Tod Granicher  
Project Manager



Pacific Environmental Group	Client Proj. ID: 310-058.5A/ 5760, San Lorenzo	Sampled: 11/11/96
2025 Gateway Place, Suite 440	Sample Descript: Infl	Received: 11/12/96
San Jose, CA 95110	Matrix: LIQUID	
Attention: Andrew Lahane	Analysis Method: 8015Mod/8020	Analyzed: 11/18/96
	Lab Number: 9611721-02	Reported: 11/20/96

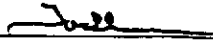
QC Batch Number: GC111896BTEX02A  
Instrument ID: GCHP2

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	2000	15000
Benzene	20	130
Toluene	20	560
Ethyl Benzene	20	550
Xylenes (Total)	20	4500
Chromatogram Pattern:		Gas
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	77

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
\_\_\_\_\_  
Tod Granicher  
Project Manager



Sequoia  
Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8

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Walnut Creek, CA 94598  
Sacramento, CA 95834

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(510) 988-9600  
(916) 921-9600

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Pacific Environmental Group  
2025 Gateway Place, Suite 440  
San Jose, CA 95110  
Attention: Andrew Lahane

Client Proj. ID: 310-058.5A/ 5760, San Lorenzo  
Lab Proj. ID: 9611721

Received: 11/12/96  
Reported: 11/20/96

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 7 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





# Sequoia Analytical

680 Chesapeake Drive Redwood City, CA 94063 (415) 364-9600 FAX (415) 364-9233  
 404 N. Wiget Lane Walnut Creek, CA 94598 (510) 988-9600 FAX (510) 988-9673  
 819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

Pacific Environmental Group  
 2025 Gateway Place, Suite 440  
 San Jose, CA 95110  
 Attention: Andrew Lahane

Client Project ID: 310-058.5A / 5760, San Lorenzo  
 Matrix: LIQUID

Work Order #: 9611721 01, 02

Reported: Nov 21, 1996

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC111596BTEX21A	GC111596BTEX21A	GC111596BTEX21A	GC111596BTEX21A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	G. Fish	G. Fish	G. Fish	G. Fish
MS/MSD #:	961138812	961138812	961138812	961138812
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/15/96	11/15/96	11/15/96	11/15/96
Analyzed Date:	11/15/96	11/15/96	11/15/96	11/15/96
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.4	8.8	8.9	27
MS % Recovery:	94	88	89	90
Dup. Result:	9.2	8.7	8.9	27
MSD % Recov.:	92	87	89	90
RPD:	2.2	1.1	0.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK111596	BLK111596	BLK111596	BLK111596
Prepared Date:	11/15/96	11/15/96	11/15/96	11/15/96
Analyzed Date:	11/15/96	11/15/96	11/15/96	11/15/96
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.4	8.7	8.9	27
LCS % Recov.:	94	87	89	90

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

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.

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

9611721.PPP <1>





Pacific Environmental Group Client Project ID: 310-058.5A / 5760, San Lorenzo  
2025 Gateway Place, Suite 440 Matrix: LIQUID  
San Jose, CA 95110  
Attention: Andrew Lahane Work Order #: 9611721 01, 02 Reported: Nov 21, 1996

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC111896BTEX02A	GC111896BTEX02A	GC111896BTEX02A	GC111896BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	Y. Arteaga	Y. Arteaga	Y. Arteaga	Y. Arteaga
MS/MSD #:	961138818	961138818	961138818	961138818
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/18/96	11/18/96	11/18/96	11/18/96
Analyzed Date:	11/18/96	11/18/96	11/18/96	11/18/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	9.3	9.0	25
MS % Recovery:	100	93	90	83
Dup. Result:	11	9.6	9.2	26
MSD % Recov.:	110	96	92	87
RPD:	9.5	3.2	2.2	3.9
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK111896	BLK111896	BLK111896	BLK111896
Prepared Date:	11/18/96	11/18/96	11/18/96	11/18/96
Analyzed Date:	11/18/96	11/18/96	11/18/96	11/18/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	11	9.8	9.4	26
LCS % Recov.:	110	98	94	87

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

**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.

**SEQUOIA ANALYTICAL**

*Joe*  
Tod Granicher  
Project Manager

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

9611721.PPP <2>

Consultant Company: <u>W. L. ...</u>		Project Name: <u>...</u>	
Address: <u>...</u>		UNOCAL Project Manager: <u>...</u>	
City: <u>...</u>	State: <u>...</u>	Zip Code: <u>...</u>	AFE #:
Telephone: <u>...</u>		FAX #: <u>...</u>	
Report To: <u>...</u>		Sampler: <u>...</u>	
		Site #, City, State: <u>...</u>	
		QC Data: <input checked="" type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A	

Turnaround  10 Work Days  5 Work Days  3 Work Days  
 Time:  2 Work Days  1 Work Day  2-8 Hours

CODE:  Misc.  Detect.  Eval.  Remed.  Demol.  Closure

Drinking Water  Waste Water  Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	[Redacted]										Comments
1. <u>...</u>	<u>...</u>	<u>...</u>	<u>...</u>	<u>...</u>	<u>...</u>	[Redacted]										
2. <u>...</u>	<u>...</u>	<u>...</u>	<u>...</u>	<u>...</u>	<u>...</u>	[Redacted]										
3.						[Redacted]										
4.						[Redacted]										
5.						[Redacted]										
6.						[Redacted]										
7.						[Redacted]										
8.						[Redacted]										
9.						[Redacted]										
10.						[Redacted]										

Relinquished By: <u>...</u>	Date: <u>11/11/96</u>	Time: <u>11:00</u>	Received By: <u>...</u>	Date: <u>11/11/96</u>	Time: <u>10:00</u>
Relinquished By: <u>...</u>	Date: <u>11/12/96</u>	Time: <u>09:00</u>	Received By: <u>...</u>	Date: <u>11/12/96</u>	Time: <u>09:00</u>
Relinquished By: <u>...</u>	Date: <u>...</u>	Time: <u>...</u>	Received By Lab: <u>...</u>	Date: <u>11/12/96</u>	Time: <u>10:00</u>

Were Samples Received in Good Condition?  Yes  No      Samples on Ice?  Yes  No      Method of Shipment \_\_\_\_\_      Page \_\_\_ of \_\_\_

To be completed upon receipt of report:

1) Were the analyses requested on the Chain of Custody reported?  Yes  No    If no, what analyses are still needed?

2) Was the report issued within the requested turnaround time?  Yes  No    If no, what was the turnaround time?

Approved by: \_\_\_\_\_ Signature: \_\_\_\_\_ Company: \_\_\_\_\_ Date: \_\_\_\_\_

Pink - Client

Yellow - Laboratory

White - Laboratory



123 13 015

Pacific Environmental Group	Client Proj. ID: 310-058.5A, 5760, San Lorenzo	Sampled: 11/27/96
2025 Gateway Place, Suite 440	Sample Descript: Effl	Received: 12/02/96
San Jose, CA 95110	Matrix: LIQUID	
Attention: Andrew Lehane	Analysis Method: 8015Mod/8020	Analyzed: 12/06/96
	Lab Number: 9612007-01	Reported: 12/12/96

QC Batch Number: GC120696BTEX20A  
 Instrument ID: GCHP20

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	82

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
 \_\_\_\_\_  
 Tod Granicher  
 Project Manager





# Sequoia Analytical

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FAX (510) 988-9673  
FAX (916) 921-0100

Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110	Client Proj. ID: 310-058.5A, 5760, San Lorenzo Lab Proj. ID: 9612007	Sampled: 11/27/96 Received: 12/02/96 Analyzed: see below Reported: 12/12/96
Attention: Andrew Lehane		

## LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No:	9612007-01			
Sample Desc:	LIQUID, Effl			
Chemical Oxygen Demand	mg/L	12/11/96	20	N.D.
pH	pH Units	12/02/96	N/A	7.2
Total Suspended Solids	mg/L	12/07/96	1.0	N.D.

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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Page:

DEC 20 04:25PM SEQUOIA ANALYTICAL 1



Pacific Environmental Group  
2025 Gateway Place, Suite 440  
San Jose, CA 95110  
Attention: Andrew Lehane

Client Project ID: 310-058.5A / 5760, San Lorenzo  
Matrix: LIQUID

Work Order #: 9612007 01

Reported: Dec 17, 1996

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC120696BTEX20A	GC120696BTEX20A	GC120696BTEX20A	GC120696BTEX20A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa
MS/MSD #:	9611H7220	9611H7220	9611H7220	9611H7220
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/6/96	12/6/96	12/6/96	12/6/96
Analyzed Date:	12/6/96	12/6/96	12/6/96	12/6/96
Instrument I.D.#:	GCHP20	GCHP20	GCHP20	GCHP20
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.2	8.6	8.4	25
MS % Recovery:	92	86	84	83
Dup. Result:	9.3	8.5	8.5	23
MSD % Recov.:	93	85	85	77
RPD:	1.1	1.2	1.2	8.3
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK120696	BLK120696	BLK120696	BLK120696
Prepared Date:	12/6/96	12/6/96	12/6/96	12/6/96
Analyzed Date:	12/6/96	12/6/96	12/6/96	12/6/96
Instrument I.D.#:	GCHP20	GCHP20	GCHP20	GCHP20
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.1	8.4	8.5	26
LCS % Recov.:	91	84	85	87

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

**SEQUOIA ANALYTICAL**

*Tod*  
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.

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

9612007.PPP <1>





Pacific Environmental Group  
2025 Gateway Place, Suite 440  
San Jose, CA 95110  
Attention: Andrew Lehane

Client Project ID: 310-058.5A / 5760, San Lorenzo  
Matrix: LIQUID  
Work Order #: 9612007 01

Reported: Dec 17, 1996

### QUALITY CONTROL DATA REPORT

<b>Analyte:</b>	Chemical Oxygen Demand
<b>QC Batch#:</b>	IN121196410400A
<b>Analy. Method:</b>	EPA 410.4
<b>Prep. Method:</b>	N.A.

**Analyst:** C. Hirotsu  
**MS/MSD #:** 961211303  
**Sample Conc.:** 21  
**Prepared Date:** 12/11/96  
**Analyzed Date:** 12/11/96  
**Instrument I.D.#:** MANUAL  
**Conc. Spiked:** 100 mg/L

**Result:** 130  
**MS % Recovery:** 109

**Dup. Result:** 120  
**MSD % Recov.:** 99

**RPD:** 8.0  
**RPD Limit:** 0-20

**LCS #:** LCS121196  
**Prepared Date:** 12/11/96  
**Analyzed Date:** 12/11/96  
**Instrument I.D.#:** MANUAL  
**Conc. Spiked:** 100 mg/L  
**LCS Result:** 105  
**LCS % Recov.:** 105

<b>MS/MSD</b>	75-125
<b>LCS</b>	80-120
<b>Control Limits</b>	

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.

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

9612007.PPP <2>





Pacific Environmental Group  
2025 Gateway Place, Suite 440  
San Jose, CA 95110  
Attention: Andrew Lehane

Client Project ID: 310-058.5A / 5760, San Lorenzo  
Matrix: LIQUid

Work Order #: 9612007 01

Reported: Dec 17, 1996

### QUALITY CONTROL DATA REPORT

<b>Analyte:</b>	pH	Total Suspended Solids
<b>QC Batch:</b>	IN120296150100A	IN120796160200B
<b>Analy. Method:</b>	EPA 150.1	EPA 160.2
<b>Prep Method:</b>	N.A.	N.A.

**Analyst:** C. Bryant K. Sims

**Duplicate Sample #:** 9611H4901 961226301

**Prepared Date:** 12/2/96 12/7/96  
**Analyzed Date:** 12/2/96 12/7/96  
**Instrument I.D.#:** MANUAL MANUAL

**Sample Concentration:** 7.4 28

**Dup. Sample Concentration:** 7.5 24

**RPD:** 1.3 15  
**RPD Limit:** 0-20 0-20

SEQUOIA ANALYTICAL

  
Tod Granicher  
Project Manager

\*\* RPD=Relative % Difference

9612007.PPP <3>





SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME:  
REC. BY (PRINT)

PEG / PH

WORKORDER:  
DATE OF LOG-IN:

9612007  
12/2/96

CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC.)
1. Custody Seal(s)	Present / <u>Absent</u> Intact / Broken*	1	A-C	EFFI	VQA (3)	liquid	11-27-96	
2. Custody Seal #:	Put in Remarks Section	1	D	↓	1/2L N	↓	↓	
3. Chain-of-Custody	<u>Present</u> / Absent*	1	E	↓	1L plain	↓	↓	
4. Traffic Reports or Packing List:	Present / <u>Absent</u>							
5. Airbill:	Airbill / Sticker Present / <u>Absent</u>							
6. Airbill #:								
7. Sample Tags:	<u>Present</u> / Absent							
Sample Tags #s:	<u>Listed</u> / Not Listed on Chain-of-Custody							
8. Sample Condition:	<u>Intact</u> / Broken* / Leaking*							
9. Does information on custody reports, traffic reports and sample tags agree?	<u>Yes</u> / No*							
10. Proper Preservatives used:	<u>Yes</u> / No*							
11. Date Rec. at Lab:	<u>12/02/96</u>							
12. Time Rec. at Lab:	<u>12:15</u>							
13. Temp Rec. at Lab:	<u>9°C</u>							

*FILE 12-02-96*

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

Consultant Company: <u>Pac. Env Group Inc</u>		Project Name: <u>310-058.5A</u>	
Address: <u>2025 GATEWAY PL</u> <u>1440</u>		UNOCAL Project Manager: <u>Tink Berry</u> <u>96/2007</u>	
City: <u>San Jose</u>	State: <u>CA</u>	Zip Code: <u>95110</u>	AFE #:
Telephone: <u>(408) 441-7500</u>	FAX #: <u>408 441-7539</u>	Site #, City, State: <u>5760</u> <u>San Lorenzo</u>	
Report To: <u>Andrew Lehane</u>	Sampler: <u>Drew</u>	QC Data: <input checked="" type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A	

Turnaround <input checked="" type="checkbox"/> 10 Work Days <input type="checkbox"/> 5 Work Days <input type="checkbox"/> 3 Work Days	<input type="checkbox"/> Drinking Water <input checked="" type="checkbox"/> Waste Water <input type="checkbox"/> Other	<b>Analyses Requested</b> (Diagonal lines in original)
Time: <input type="checkbox"/> 2 Work Days <input type="checkbox"/> 1 Work Day <input type="checkbox"/> 2-8 Hours		
CODE: <input type="checkbox"/> Misc. <input type="checkbox"/> Detect. <input type="checkbox"/> Eval. <input checked="" type="checkbox"/> Remed. <input type="checkbox"/> Demol. <input type="checkbox"/> Closure		

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Analyses Requested										Comments		
1. <u>EFF1</u>	<u>11/27/96 11:30</u>	<u>H<sub>2</sub>O</u>	<u>3</u>	<u>VOA</u>	<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
2. <u>EFF1</u>	<u>↓ ↓</u>	<u>↓</u>	<u>1</u>	<u>200<sup>ml</sup> H<sub>2</sub>O<sup>4</sup></u>	<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
3. <u>EFF1</u>	<u>↓ ↓</u>	<u>↓</u>	<u>1</u>	<u>500<sup>ml</sup> NP</u>	<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
4.																		
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		

Relinquished By: <u>Don Johnson</u>	Date: <u>11/27/96</u>	Time: <u>17:30</u>	Received By: <u>D. Alarcón</u>	Date: <u>11/27/96</u>	Time: <u>17:30</u>
Relinquished By: <u>D. Alarcón</u>	Date: <u>12/2/96</u>	Time: <u>12:21</u>	Received By: <u>Greg Johnson</u>	Date: <u>12/2/96</u>	Time: <u>10:21</u>
Relinquished By: <u>Greg Johnson</u>	Date: <u>12/2/96</u>	Time: <u>12:15</u>	Received By Lab: <u>FWC</u>	Date: <u>12-02-96</u>	Time: <u>12:15</u>

Were Samples Received in Good Condition?  Yes  No     
 Samples on Ice?  Yes  No     
 Method of Shipment \_\_\_\_\_     
 Page \_\_\_ of \_\_\_

To be completed upon receipt of report:

1) Were the analyses requested on the Chain of Custody reported?  Yes  No If no, what analyses are still needed? \_\_\_\_\_  
 2) Was the report issued within the requested turnaround time?  Yes  No If no, what was the turnaround time? \_\_\_\_\_

Approved by: \_\_\_\_\_ Signature: \_\_\_\_\_ Company: \_\_\_\_\_ Date: \_\_\_\_\_

Pink - Client  
 Yellow - Laboratory  
 White - Laboratory