

EXHIBIT C



LEVINE-FRICKE  
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS  
54 JUL 12 PM 3:10

August 30, 1993

Mr. Doug Humphrey, Director of Engineering  
Oro Loma Sanitary District  
2600 Grant Avenue  
San Lorenzo, California 94580

Subject: Quarterly Ground-Water Monitoring Results, Oro Loma  
Sanitary District Treatment Plant, 2600 Grant Avenue,  
San Lorenzo, California

Dear Doug:

This letter transmits the subject results for the Oro Loma  
Sanitary District Treatment Plant in San Lorenzo, California  
("the Site") for July 1 through September 30, 1993.

Quarterly ground-water monitoring is conducted at the Site in  
accordance with recommendations made by Levine-Fricke in our  
report, "Soil and Ground-Water Quality Investigation in the  
Vicinity of Two Aboveground Diesel Fuel Storage Tanks at the  
Oro Loma Sanitary District Treatment Plant, 2600 Grant Avenue,  
San Lorenzo, California", which was submitted to Alameda  
County Health Care Services on March 23, 1993.

In accordance with these recommendations, a ground-water  
sample was collected from monitoring well MW-1 on July 29,  
1993 (Figure 1). Before collecting the sample, the depth from  
the top of the well casing to ground water was measured to the  
nearest 0.01 foot using an electronic water level recorder;  
the measured depth to ground water on that date was 2.85 feet.

The well was then purged with a centrifugal pump. During well  
purging, pH, specific conductance, and water temperature were  
monitored using portable field instruments, and recorded on a  
water quality sampling form, attached. The well was purged  
until three well volumes were removed and/or the parameters  
stabilized to within 10% of the previous measurement. The  
hose for the centrifugal pump was steam cleaned before use in  
the well. Purged ground water was pumped into the treatment  
plant headworks.

A ground-water sample was then collected, using a clean Teflon  
bailer fitted with a new length of rope. For analysis for  
benzene, toluene, ethylbenzene, and total xylenes (BTEX; EPA  
Method 8020), ground water collected in the bailer was gently  
poured into precleaned, laboratory-supplied, 40-ml glass  
volatile organic analysis vials and checked for trapped air by

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inverting and tapping the vial. If an air bubble was observed, the sample was discarded and a new vial was filled with fresh ground water from the well. For analysis for total petroleum hydrocarbons as diesel (TPHd; Modified EPA Method 8015), a one-liter amber glass bottle was filled with ground water from the bailer.

The samples were then stored in an ice-chilled cooler and submitted under chain-of-custody protocols to American Environmental Network, of Pleasant Hill, California, a state-certified analytical laboratory. For quality assurance and quality control purposes a field prepared bailer blank and a laboratory prepared trip blank were submitted to the laboratory with the ground-water samples.

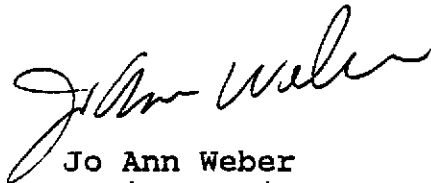
The samples were analyzed for TPHd using Modified EPA Method 8015 and for BTEX using EPA Method 8020. The field bailer blank and trip blank were analyzed using EPA Method 8020.

Analysis indicated 0.72 parts per million of TPHd in the ground-water sample; BTEX compounds were not detected above laboratory detection limits in the ground-water sample or blanks. These results are similar to previous results from well MW-1 (see Table 1). A copy of the laboratory analytical certificates for the quarterly monitoring is attached.

The next quarterly ground-water monitoring is scheduled for November 1993. Please call Jo Ann Weber or Kenton Gee if you have any questions or comments.

All hydrogeological information, conclusions, and recommendations have been prepared under the supervision of and reviewed by a Levine-Fricke California Registered Geologist.

Sincerely,



Jo Ann Weber  
Senior Project  
Hydrogeologist



Donald T. Bradshaw, R.G.  
Senior Associate  
Hydrogeologist

### Attachments:

Table 1                      Water Quality Sampling Sheet  
Figure 1                      Laboratory Certificates

**TABLE 1**

**HISTORICAL GROUND-WATER QUALITY RESULTS IN  
GROUND-WATER MONITORING WELLS  
Oro Loma Sanitary District, San Lorenzo, California**  
  
(concentrations reported in parts per million [ppm])

Sample Number	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHd
<b>Ground-Water Samples</b>						
MW-1	28-Jan-93	<0.0005	<0.0005	<0.0005	<0.0005	0.59
MW-1	29-Jul-93	<0.0005	<0.0005	<0.0005	<0.002	0.72
<b>Field and Trip Blanks:</b>						
MW-1-FB	29-Jul-93	<0.0005	<0.0005	<0.0005	<0.002	NR
Trip Blank	29-Jul-93	<0.0005	<0.0005	<0.0005	<0.002	NR

**NOTES:**

NA not applicable  
 NR analyses not requested  
 TPHd total petroleum hydrocarbons as diesel

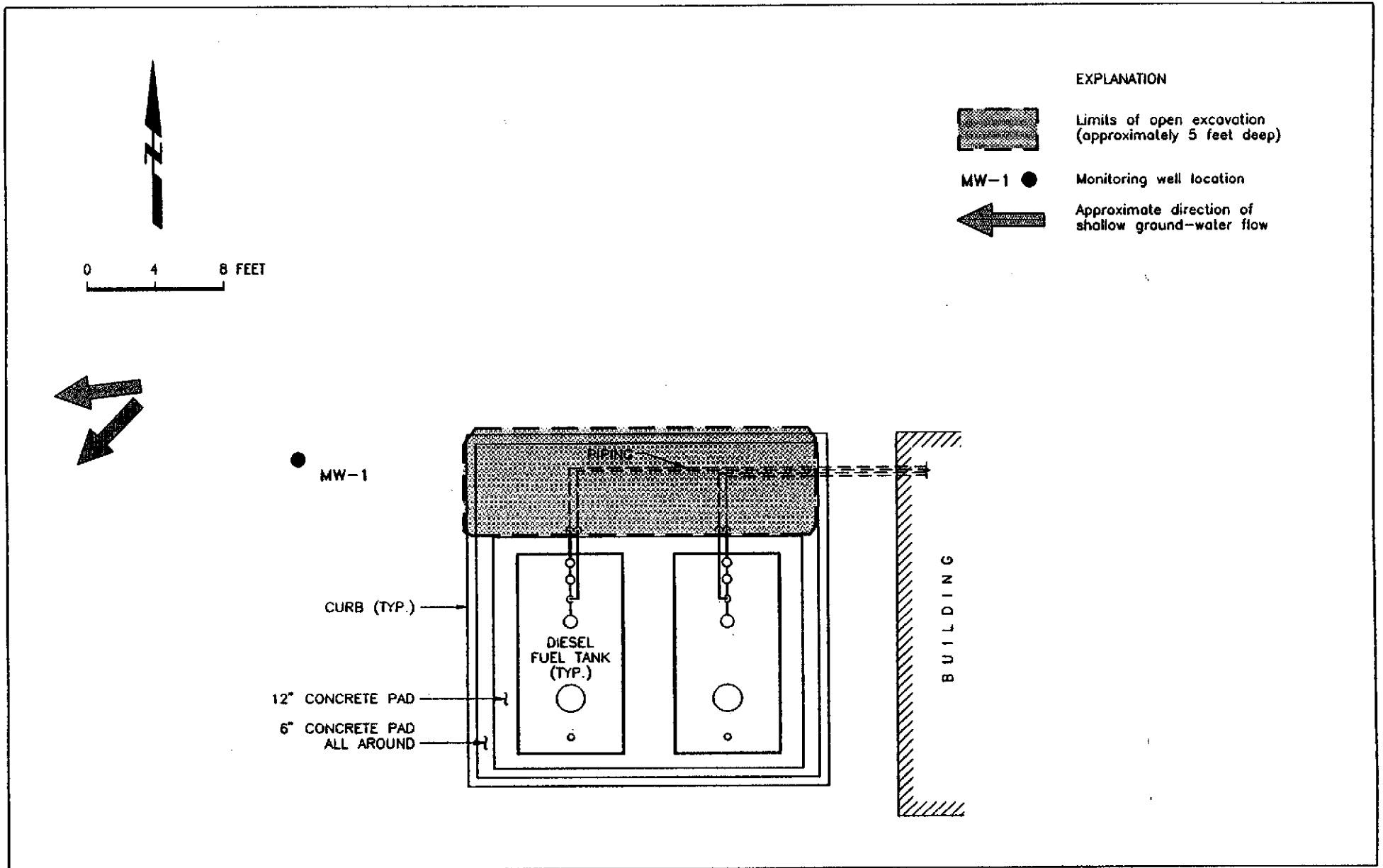


Figure 1 : LOCATION OF MONITORING WELL, ORO LOMA SANITARY DISTRICT

# WATER-QUALITY SAMPLING INFORMATION

Project Name OBO. LOMA SANITARY DISTRICT Project No. 2793.02  
 Date 7-29-93 Sample No. MW-1  
MW-1-FB

Samplers Name JGB  
 Sampling Location SAN LORENZO  
 Sampling Method CENT. PUMP/TEFLON BAILER  
 Analyses Requested TPH(d), EPA 8020  
 Number and Types of Sample Bottles used 3 VOA, 2 one liter amber  
 Method of Shipment COURIER

13.00  
 2.85  


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 10.15  
 .65  


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 5075  
 60900  


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 6.5975

<p><b>GROUND WATER</b></p> <p>Well No. <u>MW-1</u></p> <p>Well Diameter (in.) <u>4 in</u></p> <p>Depth to Water, Static (ft) <u>2.85</u></p> <p>Water in Well Box <u>NO</u></p> <p>Well Depth (ft) <u>13.0</u></p> <p>Height of Water Column in Well <u>10.15</u></p> <p>Water Volume in Well <u>6.5975 ≈ 7</u></p>	<p><b>SURFACE WATER</b></p> <p>Stream Width _____</p> <p>Stream Depth _____</p> <p>Stream Velocity _____</p> <p>Rained recently? _____</p> <p>Other _____</p> <p>2-inch casing = 0.16 gal/ft</p> <p style="border: 1px solid black; padding: 2px;">4-inch casing = 0.65 gal/ft</p> <p>5-inch casing = 1.02 gal/ft</p> <p>6-inch casing = 1.47 gal/ft</p>
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LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
910								calibrated pH Kit
914								start
918		7	24.2	7.38	1401			turbid
920		9						dewatered/pump off
925	5.10							start
928		14	23.6	7.43	1605			turbid
930		16						dewatered/pump off
938	5.00							start
940		21	23.5	7.50	1599			turbid
950								sample MW-1-FB
955								sample MW-1
1002	3.27							

Suggested Method for Purging Well \_\_\_\_\_

# American Environmental Network

## Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 94523-001

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LEVINE-FRICKE  
1900 POWELL STREET  
12TH FLOOR  
EMERYVILLE, CA 94608

ATTN: JOANN WEBER

CLIENT PROJECT ID: 2793.02  
C.O.C. SERIAL NO: 11740  
PROJ. NAME: ORO LOMA

REPORT DATE: 08/10/93

DATE SAMPLED: 07/29/93  
DATE RECEIVED: 07/29/93

ADDITIONAL ANALYSIS  
REQUESTED: 08/03/93

AEN JOB NO: 9307279

### PROJECT SUMMARY:

On July 29, 1993, this laboratory received three (3) water samples.

Client requested one (1) sample be analyzed for organic parameters. Two (2) samples were place on hold. On August 3, 1993, client requested remaining samples be taken off hold and be analyzed for organic parameters. Sample identification, methodologies, results and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

If you have any questions, please contact Client Services at (510) 930-9090.

  
Larry Klein  
General Manager

Results FAXed 08/06/93

# COPY

## LEVINE-FRICKE

SAMPLE ID: MW-1  
CLIENT PROJ. ID: 2793.02  
DATE SAMPLED: 07/29/93  
DATE RECEIVED: 07/29/93  
REPORT DATE: 08/10/93

AEN LAB NO: 9307279-01C  
AEN JOB NO: 9307279  
DATE ANALYZED: 08/02/93  
INSTRUMENT: F

BTEX (WATER MATRIX)  
METHOD: EPA 8020 (5030)

COMPOUND	CAS #	CONCENTRATION (ug/L)	REPORTING LIMIT (ug/L)
Benzene	71-43-2	ND	0.5
Toluene	108-88-3	ND	0.5
Ethylbenzene	100-41-4	ND	0.5
Xylenes, Total	1330-20-7	ND	2

ND = Not Detected

## LEVINE-FRICKE

SAMPLE ID: TRIP BLANK  
CLIENT PROJ. ID: 2793.02  
DATE SAMPLED: 07/29/93  
DATE RECEIVED: 07/29/93  
REPORT DATE: 08/10/93

AEN LAB NO: 9307279-03A  
AEN JOB NO: 9307279  
DATE ANALYZED: 08/04/93  
INSTRUMENT: F

BTEX (WATER MATRIX)  
METHOD: EPA 8020 (5030)

COMPOUND	CAS #	CONCENTRATION (ug/L)	REPORTING LIMIT (ug/L)
Benzene	71-43-2	ND	0.5
Toluene	108-88-3	ND	0.5
Ethylbenzene	100-41-4	ND	0.5
Xylenes, Total	1330-20-7	ND	2

ND = Not Detected



INSTRUMENT: F  
CLIENT PROJ. ID: 2793.02

AEN JOB NO: 9307279  
AEN LAB NO: DAILY BLANK  
DATE ANALYZED: 08/02/93

BTXE AND HYDROCARBONS (METHOD BLANK)  
METHOD: EPA 8020, 5030 GCFID

	CAS #	CONCENTRATION (ug/L)	REPORTING LIMIT (ug/L)
Benzene	71-43-2	ND	0.5
Toluene	108-88-3	ND	0.5
Ethylbenzene	100-41-4	ND	0.5
Xylenes, Total	1330-20-7	ND	2
PURGEABLE HYDROCARBONS AS:			
Gasoline		ND mg/L	0.05 mg/L

ND = Not Detected

## QUALITY CONTROL DATA

CLIENT PROJ. ID: 2793.02

AEN JOB NO: 9307279

INSTRUMENT: F

SURROGATE STANDARD RECOVERY SUMMARY  
 METHOD: EPA 8020  
 (WATER MATRIX)

Date Analyzed	SAMPLE IDENTIFICATION		SURROGATE RECOVERY (PERCENT)
	Client Id.	Lab Id.	Fluorobenzene
08/02/93	MW-1	01C	87.1
08/04/93	MW-1-FB	02A	80.0
08/04/93	TRIP BLANK	03A	81.4
08/02/93		0802-METHOD BLANK	87.4
08/04/93		0804-METHOD BLANK	85.4

## CURRENT QC LIMITS

<u>ANALYTE</u>	<u>PERCENT RECOVERY</u>
Fluorobenzene	(70-115)

