

R089

February 26, 2003

Alameda County  
MAY 06 2003  
Environmental Health

Mr. Kelly Engineer  
1791 Pine Street  
Concord, California 94520

RE: Groundwater Sampling Letter Report  
3820 San Leandro Street, Oakland, California  
ACC Project Number 6651-001.00

Dear Mr. Engineer:

ACC Environmental Consultants, Inc., (ACC) has prepared this letter report to document results of groundwater sampling at 3820 San Leandro Street, Oakland, California (Site). The project objectives were to obtain groundwater samples from three onsite monitoring wells, analyze the water samples for constituents of concern, and report the findings.

On your behalf, ACC will forward a copy of this report to Mr. Barney Chan of the Alameda County Health Care Services Agency (ACHCSA) for review.

## **BACKGROUND**

The Site consists of a gasoline and diesel fueling station (Guy's Diesel) located at 3820 San Leandro Street in Oakland, California (Figure 1). In his letter dated June 12, 2000, Mr. Chan of the ACHCSA requested that groundwater monitoring and sampling be performed at the Site, and that the groundwater samples be analyzed for total petroleum hydrocarbons as gasoline (TPHg) and diesel (TPHd), benzene, toluene, ethylbenzene and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE). In addition, one groundwater sample was analyzed for all fuel oxygenates in accordance with regulations recently enacted by the Regional Water Quality Control Board (RWQCB).

In January 2003, ACC obtained and reviewed a copy of the August 10, 1998 Soil and Groundwater Investigation Report, prepared by Brunsing Associates, Inc. (Brunsing) for Mr. Kelly Engineer. According to Brunsing, two diesel fuel and two gasoline fuel underground storage tanks (USTs) were removed by American Consulting Remediation and Construction (ACRC) in January 1998. UST removal activities were summarized in ACRC's Tank Closure Report. Excavated soil removed during the UST removal was profiled and disposed at Forward Landfill. Brunsing advanced six exploratory soil borings (B1, B2, B5, B6, and B7) and installed three groundwater monitoring wells. The monitoring wells were subsequently developed and sampled on July 6, 1998. The six exploratory soil borings were completed to depths of 7.0 to 16.5 feet below ground surface (bgs) and the three groundwater monitoring wells were completed to depths of 21.0 to 21.5 feet bgs. The three wells are screened from 5 to 20 feet bgs.

**FIELD PROCEDURES**

**Groundwater Sampling**

ACC performed groundwater sampling at the Site on January 15, 2003. The locations of the three monitoring wells are illustrated on Figure 2. Prior to groundwater sampling, the depth to the surface of the water table in each well was measured from the top of the well casing using an electronic water level meter. The water level measurements were recorded to the nearest 0.01 foot. The wells were constructed of 2-inch diameter polyvinyl chloride (PVC) with locked well caps, and appeared to be in good condition. The total depth of each of the wells was approximately 20 feet below ground surface (bgs), and the depth to groundwater was measured to be approximately 11 feet below the top of the well casing.

**TABLE 1 - GROUNDWATER DEPTH INFORMATION**

Well No.	Well Elevation* (above MSL)	Date Measured	Depth to Groundwater	Groundwater Elevation
MW-1	27.54	07/06/98**	7.77	19.77
		09/10/00	N/A	N/A
		04/10/01	7.34	20.20
		07/17/01	9.00	18.54
		01/15/03	6.94	20.60
MW-2	25.97	07/06/98**	8.15	17.82
		09/10/00	N/A	N/A
		04/10/01	7.32	18.65
		07/17/01	8.96	17.01
		01/15/03	7.25	18.72
MW-3	26.52	07/06/98**	8.42	18.10
		09/10/00	N/A	N/A
		04/10/01	7.73	18.79
		07/17/01	8.42	18.10
		01/15/03	7.60	18.92

Notes: All measurements in feet  
 \*Well elevation measured to top of casing  
 \*\*Groundwater elevations recorded by BACE Environmental

**Groundwater Gradient**

Groundwater elevations were calculated from data collected from the wells on January 15, 2003. The calculated groundwater flow direction and gradient values are south at 0.038 feet per foot. Historic values are summarized in Table 2.

**TABLE 2 - GROUNDWATER GRADIENT AND FLOW DIRECTION**

Date Monitored	Gradient (foot/foot)	Direction
07/06/98	0.04	South
09/10/00	N/A	N/A
04/10/01	0.038	South
07/17/01	0.020	East
01/15/03	0.038	South

After water level measurements were collected, wells MW-1, MW-2 and MW-3 were purged by hand using a designated disposable polyethylene bailer for each well. The wells were considered to be purged when approximately four volumes were removed from each well. The removed purge water was stored onsite in a steel 55-gallon drum.

After the groundwater level had recovered to a minimum of approximately 80 percent of its static level in wells MW-1 and MW-2 and 60 percent in well MW-3, water samples were obtained using designated disposable polyethylene bailers. Three 40-milliliter VOA vials and one amber glass liter were filled to overflowing with the water collected from the three wells. The samples were preserved in a pre-chilled, insulated container and submitted to STL Chromalab, Inc. (Chromalab), a state-certified analytical laboratory, following chain of custody protocol.

#### **Analytical Results**

Groundwater samples from wells MW-1, MW-2 and MW-3 were submitted to Chromalab for analysis of TPHg, TPHd, BTEX, and MTBE.

Analytical results from the groundwater samples are summarized in Tables 1. Copies of the analytical results and chain of custody record are attached.

**TABLE 1 - GROUNDWATER SAMPLE ANALYTICAL RESULTS  
 PETROLEUM HYDROCARBONS**

Sample ID	Date	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
MW-1	07/06/98	4,100	< 100	36	53	< 5.0	20	80
	09/10/00	1,000 <sup>g</sup>	1,800 <sup>ndp</sup>	4.8	< 0.50	6.2	1.2	< 5.0
	04/10/01	1,100	N/A	12	7.7	< 2.5	< 2.5	73
	07/17/01	920	320 <sup>ndp</sup>	6.2	1.1	< 0.50	< 0.50	49
	01/15/03	360 <sup>g</sup>	86 <sup>ndp</sup>	5.5	< 0.50	4.3	1.3	19
MW-2	07/06/98	6,400	< 100	190	14	13	12	210
	09/10/00	760 <sup>g</sup>	270 <sup>edr</sup>	19	< 0.50	< 0.50	< 0.50	110
	04/10/01	320	N/A	3.6	1.1	1.2	0.79	< 5.0
	07/17/01	440 <sup>g</sup>	68 <sup>ndp</sup>	6.0	< 0.50	6.2	< 0.50	< 5.0
	01/15/03	750 <sup>g</sup>	250 <sup>ndp</sup>	13	< 0.50	< 0.50	< 0.50	78
MW-3	07/06/98	36,000	< 100	6,700	72	6.2	530	13,000
	09/10/00	20,000 <sup>g</sup>	4,200 <sup>ndp</sup>	9,200	70	710	79	6,400
	04/10/01	15,000	N/A	4,500	27	320	140	8,800
	07/17/01	28,000 <sup>g</sup>	8,000 <sup>ndp</sup>	7,000	< 50	270	75	15,000
	01/15/03	40,000 <sup>g</sup>	11,000 <sup>ndp</sup>	10,000	110	680	210	20,000

Notes: µg/L = micrograms per liter (approximately equivalent to parts per billion)  
 < Indicates the sample tested below the indicated laboratory reporting limit  
 g = hydrocarbon reported does not match the laboratory's gasoline standard  
 edr = hydrocarbon is in the early diesel range and does not match the laboratory's diesel standard  
 ndp = hydrocarbon reported does not match the laboratory diesel standard  
 N/A = sample not analyzed for this constituent

## DISCUSSION

This investigation was performed to determine if groundwater at the Site has been impacted by a former release from the onsite USTs. The groundwater sample from well MW-3 reported the highest concentrations of petroleum hydrocarbons and related constituents, with 40,000 parts per billion (ppb) TPHg and 10,000 ppb benzene. TPHd was reported at a concentration of 11,000 ppb in the sample from well MW-3, and MTBE was reported at 20,000 ppb. Concentrations of constituents of concern were significantly less in wells MW-1 and MW-2, indicating that the release(s) may be localized in the vicinity of well MW-3. Low concentrations of BTEX constituents relative to the TPHg concentration suggest a recent release. No fuel oxygenates other than MTBE were detected above laboratory reporting limits.

## CONCLUSIONS

Based on groundwater sample analytical results, ACC has made the following conclusions:

- Groundwater at the Site is being impacted by releases of petroleum hydrocarbons as TPHg, TPHd, BTEX, and MTBE;
- The majority of impacted groundwater appears to be located in the vicinity of well MW-2; and
- No fuel oxygenates other than MTBE were detected above laboratory reporting limits.

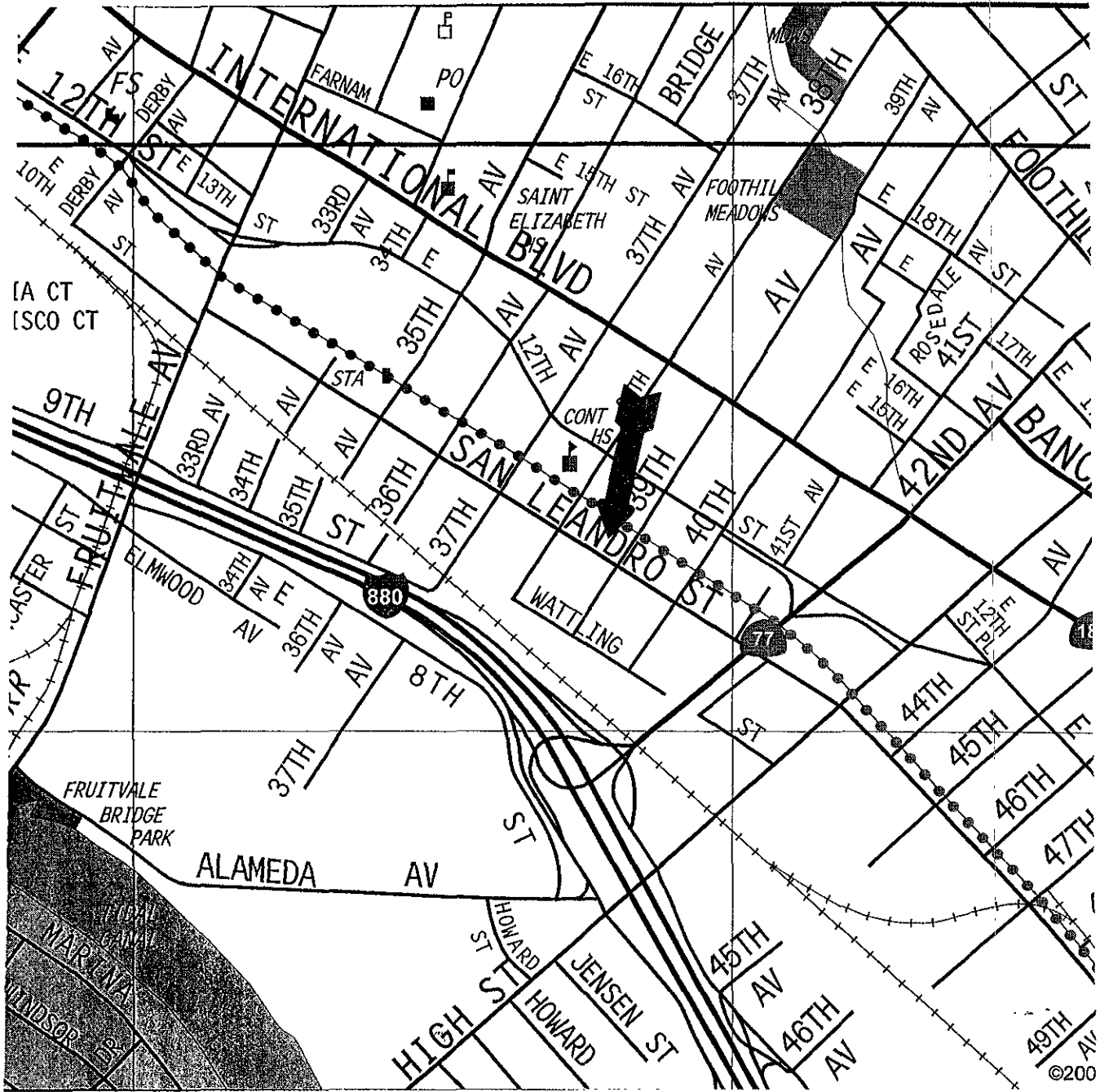
If you have any questions regarding this report or the findings of the work, please contact me at (510) 638-8400, extension 109.

Sincerely,

A handwritten signature in black ink that reads "David R. DeMent". The signature is written in a cursive style with a large initial "D" and "D".

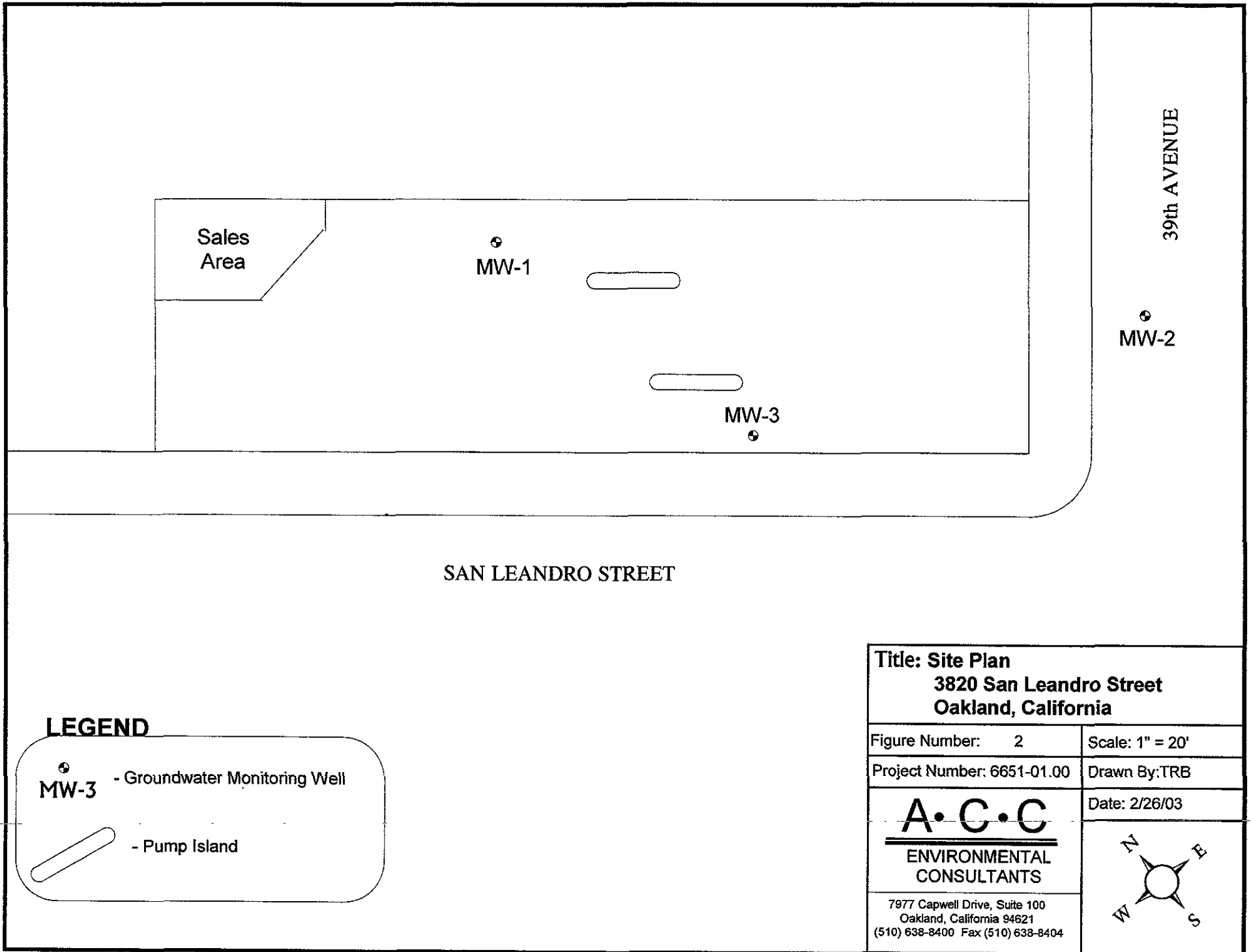
David R. DeMent, RG, REA II  
Environmental Division Manager

cc: Mr. Barney Chan, ACHCSA




Source: Thomas Guide Digital Edition 2002

<b>Title: Location Map</b> <b>3820 San Leandro Street</b> <b>Oakland, California</b>	
Figure Number: 1	Scale: None
Project No: 6651-001.00	Drawn By: TRB
<b>A • C • C</b> <b>ENVIRONMENTAL</b> <b>CONSULTANTS</b>	Date: 2/26/03
7977 Capwell Drive, Suite 100 Oakland, California 94621 (510) 638-8400 Fax: (510) 638-8404	

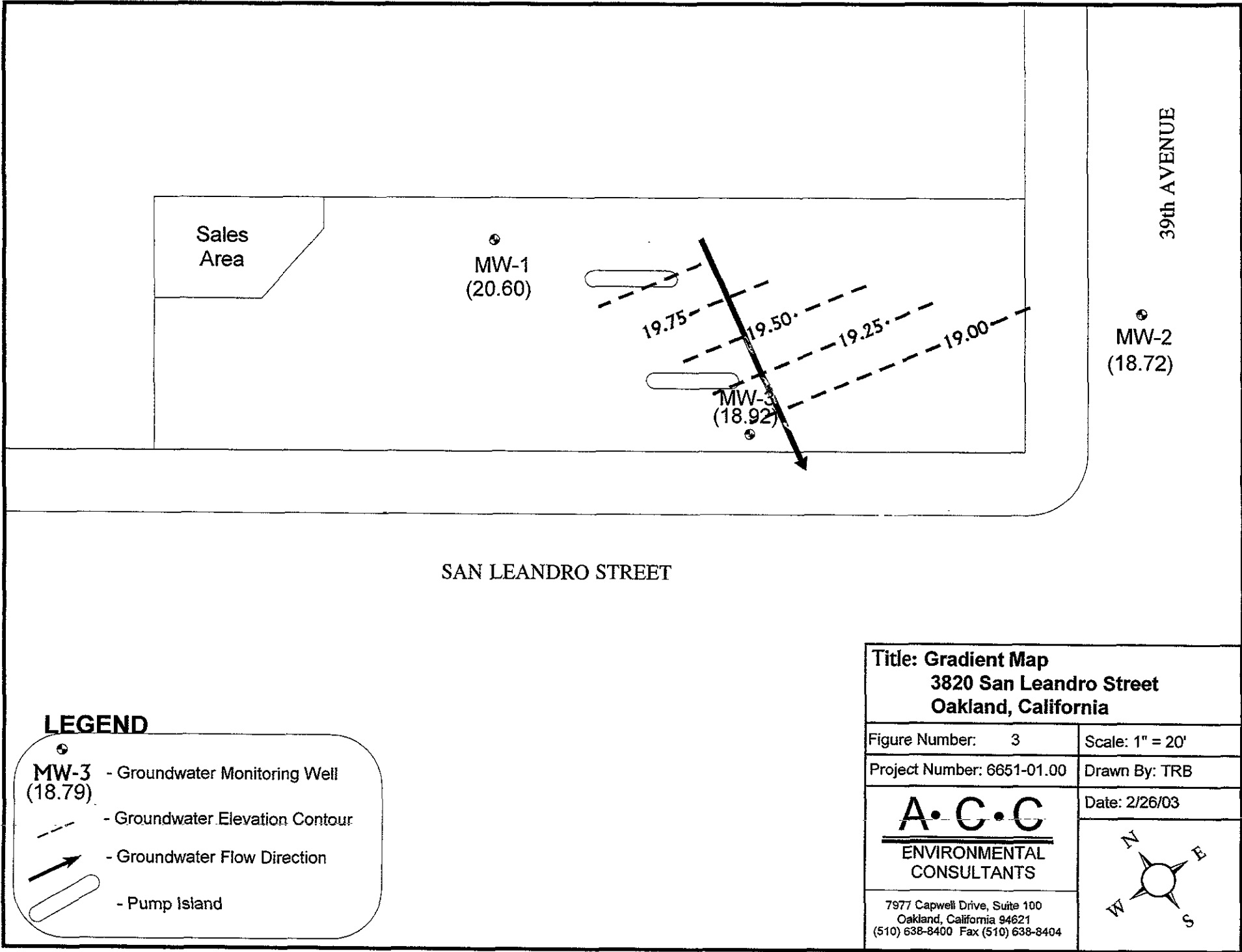


**LEGEND**


 - Groundwater Monitoring Well  
 MW-3


 - Pump Island

<b>Title: Site Plan</b> <b>3820 San Leandro Street</b> <b>Oakland, California</b>	
Figure Number: 2	Scale: 1" = 20'
Project Number: 6651-01.00	Drawn By: TRB
<b>A • C • C</b> <b>ENVIRONMENTAL</b> <b>CONSULTANTS</b>	Date: 2/26/03
	
7977 Capwell Drive, Suite 100 Oakland, California 94621 (510) 638-8400 Fax (510) 638-8404	



Sales Area

MW-1  
(20.60)

MW-3  
(18.92)

MW-2  
(18.72)

19.75

19.50





19.25

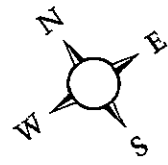
19.00

39th AVENUE

SAN LEANDRO STREET

**LEGEND**

-  MW-3 (18.79) - Groundwater Monitoring Well
-  - Groundwater Elevation Contour
-  - Groundwater Flow Direction
-  - Pump Island

<b>Title: Gradient Map</b> <b>3820 San Leandro Street</b> <b>Oakland, California</b>	
Figure Number: 3	Scale: 1" = 20'
Project Number: 6651-01.00	Drawn By: TRB
<b>A · C · C</b> <b>ENVIRONMENTAL</b> <b>CONSULTANTS</b>	
7977 Capwell Drive, Suite 100 Oakland, California 94621 (510) 638-8400 Fax (510) 638-8404	
	
Date: 2/26/03	



JOB NAME: <u>Guy's Gas/Diesel</u>	PURGE METHOD: <u>Manual Bail</u>
SITE ADDRESS: <u>3820 San Leandro Street</u>	SAMPLED BY: <u>FJG/DRD</u>
JOB #: <u>61051-001.00</u>	LABORATORY: <u>STL-SF</u>
DATE: <u>1/15/03</u>	ANALYSIS: <u>TPH/BTEX/TPH/MTBE</u>
Onsite Drum Inventory SOIL: <u>@60%</u>	MONITORING <input checked="" type="checkbox"/> DEVELOPING <input type="checkbox"/>
EMPTY: WATER: <u>@60%</u>	SAMPLING <input checked="" type="checkbox"/>

	PURGE VOL.	PURGE WATER READINGS						OBSERVATIONS
	(Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	D.O.	
<b>WELL:</b> <u>MW-1</u>								<input type="checkbox"/> Froth
DEPTH OF BORING: <u>20.06</u>	<u>2.1</u>	<u>7.11</u>	<u>19.8</u>	<u>0.723</u>	<u>0.03</u>	<u>44</u>	<u>1.40</u>	<input type="checkbox"/> Sheen
DEPTH TO WATER: <u>6.94</u>	<u>4.2</u>	<u>6.98</u>	<u>19.6</u>	<u>0.726</u>	<u>0.03</u>	<u>263</u>	<u>1.40</u>	<input type="checkbox"/> Odor Type _____
WATER COLUMN: <u>13.12</u>	<u>6.3</u>	<u>6.95</u>	<u>19.7</u>	<u>0.746</u>	<u>0.03</u>	<u>199</u>	<u>1.30</u>	<input type="checkbox"/> Free Product
WELL DIAMETER: <u>2"</u>	<u>8.4</u>	<u>6.88</u>	<u>19.8</u>	<u>0.733</u>	<u>0.03</u>	<u>209</u>	<u>1.20</u>	<input type="checkbox"/> Amount _____ Type _____
WELL VOLUME: <u>2.1</u>								<input type="checkbox"/> Other
COMMENTS: <u>Purge: 15:30</u> <u>Sample: 16:30</u>								
<b>WELL:</b> <u>MW-2</u>								<input type="checkbox"/> Froth
DEPTH OF BORING: <u>20.05</u>	<u>2.0</u>	<u>6.85</u>	<u>18.4</u>	<u>0.83</u>	<u>0.03</u>	<u>268</u>	<u>1.40</u>	<input type="checkbox"/> Sheen
DEPTH TO WATER: <u>7.25</u>	<u>4.0</u>	<u>6.85</u>	<u>19.0</u>	<u>0.82</u>	<u>0.03</u>	<u>190</u>	<u>1.23</u>	<input type="checkbox"/> Odor Type _____
WATER COLUMN: <u>12.80</u>	<u>6.0</u>	<u>6.84</u>	<u>19.2</u>	<u>0.85</u>	<u>0.03</u>	<u>379</u>	<u>1.32</u>	<input type="checkbox"/> Free Product
WELL DIAMETER: <u>2"</u>	<u>8.0</u>	<u>6.84</u>	<u>19.1</u>	<u>0.86</u>	<u>0.03</u>	<u>289</u>	<u>1.32</u>	<input type="checkbox"/> Amount _____ Type _____
WELL VOLUME: <u>2.0</u>								<input type="checkbox"/> Other
COMMENTS: <u>Purge: 16:00</u> <u>Sample: 17:00</u>								
<b>WELL:</b> <u>MW-3</u>								<input type="checkbox"/> Froth
DEPTH OF BORING: <u>19.49</u>	<u>2.0</u>	<u>6.80</u>	<u>19.5</u>	<u>1.62</u>	<u>0.06</u>	<u>72</u>	<u>1.32</u>	<input checked="" type="checkbox"/> Sheen
DEPTH TO WATER: <u>6.94</u>	<u>4.0</u>	<u>6.78</u>	<u>19.9</u>	<u>1.64</u>	<u>0.07</u>	<u>172</u>	<u>1.64</u>	<input checked="" type="checkbox"/> Odor Type <u>slight gas</u>
WATER COLUMN: <u>13.12</u>	<u>6.0</u>	<u>6.78</u>	<u>20.0</u>	<u>1.63</u>	<u>0.07</u>	<u>999</u>	<u>1.13</u>	<input type="checkbox"/> Free Product
WELL DIAMETER: <u>2"</u>	<u>8.0</u>	<u>6.78</u>	<u>20.0</u>	<u>1.63</u>	<u>0.07</u>	<u>999</u>	<u>1.13</u>	<input type="checkbox"/> Amount _____ Type _____
WELL VOLUME: <u>2.1</u>								<input type="checkbox"/> Other
COMMENTS: <u>Purge: 15:30</u> <u>Sample: 16:45</u>								

**ACC Environmental Consultants**

January 23, 2003

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Attn.: Ed Giacometti  
Project#: 6551-001.00  
Project: 3820 San Leandro Street

Dear Mr. Giacometti,

Attached is our report for your samples received on 01/16/2003 16:30  
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  
03/02/2003 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.

You can also contact me via email. My email address is: [vvancil@stl-inc.com](mailto:vvancil@stl-inc.com)

Sincerely,



Vincent Vancil  
Project Manager

**Gas/BTEX Compounds by 8015M/8021**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100

Oakland, CA 94621

Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00

3820 San Leandro Street

Received: 01/16/2003 16:30

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
MW-1	01/15/2003 17:00	Water	1
MW-2	01/15/2003 16:45	Water	2
MW-3	01/15/2003 16:30	Water	3

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

01/22/2003 16:01

**Gas/BTEX Compounds by 8015M/8021**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

Prep(s):	5030	Test(s):	8015M
	5030		8021B
Sample ID:	MW-1	Lab ID:	2003-01-0274-1
Sampled:	01/15/2003 17:00	Extracted:	1/17/2003 16:50
Matrix:	Water	QC Batch#:	2003/01/17-01/01

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	750	50	ug/L	1.00	01/17/2003 16:50	g
Benzene	13	0.50	ug/L	1.00	01/17/2003 16:50	
Toluene	ND	0.50	ug/L	1.00	01/17/2003 16:50	
Ethyl benzene	ND	0.50	ug/L	1.00	01/17/2003 16:50	
Xylene(s)	ND	0.50	ug/L	1.00	01/17/2003 16:50	
MTBE	78	5.0	ug/L	1.00	01/17/2003 16:50	
<b>Surrogates(s)</b>						
4-Bromofluorobenzene	93.1	50-150	%	1.00	01/17/2003 16:50	
4-Bromofluorobenzene-FID	78.5	50-150	%	1.00	01/17/2003 16:50	

**Gas/BTEX Compounds by 8015M/8021**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

Prep(s): 5030  
5030  
Sample ID: MW-2  
Sampled: 01/15/2003 16:45  
Matrix: Water  
Test(s): 8015M  
8021B  
Lab ID: 2003-01-0274 - 2  
Extracted: 1/22/2003 10:55  
QC Batch#: 2003/01/22-01.01

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	40000	10000	ug/L	200.00	01/22/2003 10:55	g
Benzene	10000	100	ug/L	200.00	01/22/2003 10:55	
Toluene	110	100	ug/L	200.00	01/22/2003 10:55	
Ethyl benzene	680	100	ug/L	200.00	01/22/2003 10:55	
Xylene(s)	210	100	ug/L	200.00	01/22/2003 10:55	
MTBE	20000	1000	ug/L	200.00	01/22/2003 10:55	
<b>Surrogates(s)</b>						
Trifluorotoluene	109.0	58-124	%	200.00	01/22/2003 10:55	
4-Bromofluorobenzene-FID	80.2	50-150	%	200.00	01/22/2003 10:55	

**Gas/BTEX Compounds by 8015M/8021**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: MW-3	Lab ID: 2003-01-0274-3
Sampled: 01/15/2003 16:30	Extracted: 1/17/2003 16:18
Matrix: Water	QC Batch#: 2003/01/17-01-05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	360	50	ug/L	1.00	01/17/2003 16:18	g
Benzene	5.5	0.50	ug/L	1.00	01/17/2003 16:18	
Toluene	ND	0.50	ug/L	1.00	01/17/2003 16:18	
Ethyl benzene	4.3	0.50	ug/L	1.00	01/17/2003 16:18	
Xylene(s)	1.3	0.50	ug/L	1.00	01/17/2003 16:18	
MTBE	19	5.0	ug/L	1.00	01/17/2003 16:18	
<b>Surrogates(s)</b>						
Trifluorotoluene	107.5	58-124	%	1.00	01/17/2003 16:18	
4-Bromofluorobenzene-FID	90.8	50-150	%	1.00	01/17/2003 16:18	

**Gas/BTEX Compounds by 8015M/8021**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

**Batch QC Report**

Prep(s): 5030

Method Blank

MB: 2003/01/17-01.01-003

Water

Test(s): 8015M

QC Batch #: 2003/01/17-01.01

Date Extracted: 01/17/2003 08:28

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	01/17/2003 08:28	
Benzene	ND	0.5	ug/L	01/17/2003 08:28	
Toluene	ND	0.5	ug/L	01/17/2003 08:28	
Ethyl benzene	ND	0.5	ug/L	01/17/2003 08:28	
Xylene(s)	ND	0.5	ug/L	01/17/2003 08:28	
MTBE	ND	5.0	ug/L	01/17/2003 08:28	
<b>Surrogates(s)</b>					
Trifluorotoluene	101.0	58-124	%	01/17/2003 08:28	
4-Bromofluorobenzene-FID	93.1	50-150	%	01/17/2003 08:28	

**Gas/BTEX Compounds by 8015M/8021**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

**Batch QC Report**

Prep(s): 5030  
Method Blank  
MB: 2003/01/17-01.05-008

Water

Test(s): 8015M  
QC Batch # 2003/01/17-01.05  
Date Extracted: 01/17/2003 11:27

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	01/17/2003 11:27	
Benzene	ND	0.5	ug/L	01/17/2003 11:27	
Toluene	ND	0.5	ug/L	01/17/2003 11:27	
Ethyl benzene	ND	0.5	ug/L	01/17/2003 11:27	
Xylene(s)	ND	0.5	ug/L	01/17/2003 11:27	
MTBE	ND	5.0	ug/L	01/17/2003 11:27	
<b>Surrogates(s)</b>					
Trifluorotoluene	100.2	58-124	%	01/17/2003 11:27	
4-Bromofluorobenzene-FID	90.5	50-150	%	01/17/2003 11:27	



**Gas/BTEX Compounds by 8015M/8021**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

**Batch QC Report**

Prep(s): 5030

Test(s): 8015M

Method: Blank

Water

QC Batch #: 2003/01/22-01.01

MB: 2003/01/22-01.01-003

Date Extracted: 01/22/2003 08:14

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	01/22/2003 08:14	
Benzene	ND	0.5	ug/L	01/22/2003 08:14	
Toluene	ND	0.5	ug/L	01/22/2003 08:14	
Ethyl benzene	ND	0.5	ug/L	01/22/2003 08:14	
Xylene(s)	ND	0.5	ug/L	01/22/2003 08:14	
MTBE	ND	5.0	ug/L	01/22/2003 08:14	
<b>Surrogates(s)</b>					
Trifluorotoluene	103.6	58-124	%	01/22/2003 08:14	
4-Bromofluorobenzene-FID	89.6	50-150	%	01/22/2003 08:14	

**Gas/BTEX Compounds by 8015M/8021**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

**Batch QC Report**

Prep(s): 5030

Test(s): 8021B

**Laboratory Control Spike**

**Water**

**QC Batch # 2003/01/17-01.01**

LCS 2003/01/17-01.01-004

Extracted: 01/17/2003

Analyzed: 01/17/2003 08:57

LCSD 2003/01/17-01.01-005

Extracted: 01/17/2003

Analyzed: 01/17/2003 09:26

Compound	Conc. ug/L		Exp. Conc.	Recovery		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	101	105	100.0	101.0	105.0	3.9	77-123	20		
Toluene	98.1	101	100.0	98.1	101.0	2.9	78-122	20		
Ethyl benzene	102	107	100.0	102.0	107.0	4.8	70-130	20		
Xylene(s)	297	307	300	99.0	102.3	3.3	75-125	20		
<b>Surrogates(s)</b>										
Trifluorotoluene	485	530	500	97.0	106.0		58-124			

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

01/22/2003 16:01

**Gas/BTEX Compounds by 8015M/8021**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

**Batch QC Report**

Prep(s): 5030

Test(s): 8015M

Laboratory Control Spike

Water

QC Batch # 2003/01/17-01.01

LCS 2003/01/17-01.01-006

Extracted: 01/17/2003

Analyzed: 01/17/2003 09:54

LCSD 2003/01/17-01.01-007

Extracted: 01/17/2003

Analyzed: 01/17/2003 10:23

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD %	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Gasoline	518	498	500	103.6	99.6	3.9	75-125	20		
<b>Surrogates(s)</b>										
4-Bromofluorobenzene-FID	407	398	500	81.4	79.6		50-150			

**Gas/BTEX Compounds by 8015M/8021**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

**Batch QC Report**

Prep(s): 5030

Test(s): 8021B

**Laboratory Control Spike**

**Water**

**QC Batch # 2003/01/17-01:05**

LCS 2003/01/17-01.05-004

Extracted: 01/17/2003

Analyzed: 01/17/2003 09:18

LCSD 2003/01/17-01.05-005

Extracted: 01/17/2003

Analyzed: 01/17/2003 09:51

Compound	Conc. ug/L		Exp. Conc.	Recovery		RPD	Ctrl. Limits %			Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS	LCSD
Benzene	100	102	100.0	100.0	102.0	2.0	77-123	20			
Toluene	100.0	102	100.0	100.0	102.0	2.0	78-122	20			
Ethyl benzene	96.0	98.9	100.0	96.0	98.9	3.0	70-130	20			
Xylene(s)	288	295	300	96.0	98.3	2.4	75-125	20			
<b>Surrogates(s)</b>											
Trifluorotoluene	481	504	500	96.2	100.8		58-124				

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

01/22/2003 16:01

**Gas/BTEX Compounds by 8015M/8021**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

**Batch QC Report**

Prep(s): 5030

Test(s): 8015M

Laboratory Control Spike

Water

QC Batch # 2003/01/17-01.05

LCS 2003/01/17-01.05-006

Extracted: 01/17/2003

Analyzed: 01/17/2003 10:23

LCSD 2003/01/17-01.05-007

Extracted: 01/17/2003

Analyzed: 01/17/2003 10:55

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD %	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Gasoline	513	541	500	102.6	108.2	5.3	75-125	20		
<b>Surrogates(s)</b>										
4-Bromofluorobenzene-FID	460	477	500	92.0	95.4		50-150	0		

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01/22/2003 16:01

**Gas/BTEX Compounds by 8015M/8021**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

**Batch QC Report**

Prep(s): 5030

Test(s): 8021B

**Laboratory Control Spike**

**Water**

**QC Batch # 2003/01/22-01.01**

LCS 2003/01/22-01.01-004

Extracted: 01/22/2003

Analyzed: 01/22/2003 08:44

LCSD 2003/01/22-01.01-005

Extracted: 01/22/2003

Analyzed: 01/22/2003 09:13

Compound	Conc. ug/L		Exp. Conc.	Recovery		RPD	Ctrl. Limits %			Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS	LCSD
Benzene	107	110	100.0	107.0	110.0	2.8	77-123	20			
Toluene	104	106	100.0	104.0	106.0	1.9	78-122	20			
Ethyl benzene	108	111	100.0	108.0	111.0	2.7	70-130	20			
Xylene(s)	317	326	300	105.7	108.7	2.8	75-125	20			
<b>Surrogates(s)</b>											
Trifluorotoluene	539	553	500	107.8	110.6		58-124				

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01/22/2003 16:01

**Gas/BTEX Compounds by 8015M/8021**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

**Batch QC Report**

Prep(s): 5030

Test(s): 8015M

**Laboratory Control Spike**

**Water**

**QC Batch # 2003/01/22-01.01**

LCS 2003/01/22-01.01-006

Extracted: 01/22/2003

Analyzed: 01/22/2003 09:41

LCSD 2003/01/22-01.01-007

Extracted: 01/22/2003

Analyzed: 01/22/2003 10:10

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	530	527	500	106.0	105.4	0.6	75-125	20		
<b>Surrogates(s)</b>										
4-Bromofluorobenzene-FID	400	396	500	80.0	79.2		50-150			

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STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

01/22/2003 16:01

**Gas/BTEX Compounds by 8015M/8021**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100

Oakland, CA 94621

Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00

3820 San Leandro Street

Received: 01/16/2003 16:30

---

**Legend and Notes**

---

**Result Flag**

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.



**Diesel**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100

Oakland, CA 94621

Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00

3820 San Leandro Street

Received: 01/16/2003 16:30

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
MW-1	01/15/2003 17:00	Water	1
MW-2	01/15/2003 16:45	Water	2
MW-3	01/15/2003 16:30	Water	3

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

01/23/2003 16:17

**Diesel**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

---

Prep(s):	3510/8015M	Test(s):	8015M
Sample ID:	MW-1	Lab ID:	2003-01-0274 - 1
Sampled:	01/15/2003 17:00	Extracted:	1/17/2003 06:09
Matrix:	Water	QC Batch#:	2003/01/17-01:10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	250	50	ug/L	1.00	01/20/2003 13:38	ndp
<b>Surrogates(s)</b>						
o-Terphenyl	86.3	60-130	%	1.00	01/20/2003 13:38	

**Diesel**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

Prep(s): 3510/8015M Test(s): 8015M  
Sample ID: MW-2 Lab ID: 2003-01-0274-2  
Sampled: 01/15/2003 16:45 Extracted: 1/17/2003 06:09  
Matrix: Water QC Batch#: 2003/01/17-01:10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	11000	50	ug/L	1.00	01/20/2003 14:53	ndp
<b>Surrogates(s)</b>						
o-Terphenyl	76.1	60-130	%	1.00	01/20/2003 14:53	

**Diesel**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

---

Prep(s): 3510/8015M	Test(s): 8015M
Sample ID: MW-3	Lab ID: 2003-01-0274 - 3
Sampled: 01/15/2003 16:30	Extracted: 1/17/2003 06:09
Matrix: Water	QC Batch#: 2003/01/17-01.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	86	50	ug/L	1.00	01/20/2003 14:15	ndp
<b>Surrogates(s)</b>						
o-Terphenyl	66.5	60-130	%	1.00	01/20/2003 14:15	

**Diesel**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

**Batch QC Report**

Prep(s): 3510/8015M

Method Blank

MB: 2003/01/17-01.10-003

Water

Test(s): 8015M

QC Batch # 2003/01/17-01.10

Date Extracted: 01/17/2003 06:09

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	ND	50	ug/L	01/17/2003 14:15	
<b>Surrogates(s)</b> o-Terphenyl	96.0	60-130	%	01/17/2003 14:15	

**Diesel**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100  
Oakland, CA 94621  
Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00  
3820 San Leandro Street

Received: 01/16/2003 16:30

**Batch QC Report**

Prep(s): 3510/8015M

Test(s): 8015M

**Laboratory Control Spike**

**Water**

**QC Batch # 2003/01/17-01.10**

LCS 2003/01/17-01.10-001

Extracted: 01/17/2003

Analyzed: 01/17/2003 10:17

LCSD 2003/01/17-01.10-002

Extracted: 01/17/2003

Analyzed: 01/17/2003 10:56

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD %	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Diesel	1190	1350	1250	95.2	108.0	12.6	60-130	25		
<i>Surrogates(s)</i> o-Terphenyl	21.3	22.0	20.0	106.7	110.0		60-130	0		

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

01/23/2003 16:17

**Diesel**

ACC Environmental Consultants

Attn.: Ed Giacometti

7977 Capwell Drive, Suite 100

Oakland, CA 94621

Phone: (510) 638-8400 Fax: (510) 638-8404

Project: 6551-001.00

3820 San Leandro Street

Received: 01/16/2003 16:30

---

**Legend and Notes**

---

**Result Flag**

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

2003-01-0274

Report To						Analysis Request																	
Attn: ED GIACOMETTI																							
Company: ACC ENVIRONMENTAL CONSULTANTS																							
Address: 7977 CAPWELL DRIVE, OAKLAND, CA																							
P: (510) 638-8400 x 114		E: egiacometti@accenv.com																					
Bill To: ACC ENVIRONMENTAL		Sampled By: Ed Giacometti																					
Attn: ED		Phone ext: 114																					
Sample ID	Date	Time	Mat rix	Pres erv.	TPH EPA - <input type="checkbox"/> 8015/8021 <input type="checkbox"/> 8260B <input checked="" type="checkbox"/> Gas w/ <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE	Purgeable Aromatics BTEX EPA - <input type="checkbox"/> 8021 <input type="checkbox"/> 8260B	TEPH EPA 8015M <input type="checkbox"/> Silica Gel <input checked="" type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other	Fuel Tests EPA 8260B: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> Five Oxygenates <input type="checkbox"/> DCA, EDB <input type="checkbox"/> Ethanol	Purgeable Halocarbons (HVOcs) EPA 8021	Volatile Organics GC/MS (VOCs) <input type="checkbox"/> EPA 8260B <input type="checkbox"/> 624	Semivolatiles GC/MS <input type="checkbox"/> EPA 8270 <input type="checkbox"/> 625	Oil and Grease <input type="checkbox"/> Petroleum (EPA 1664) <input type="checkbox"/> Total	Pesticides <input type="checkbox"/> EPA 8081 <input type="checkbox"/> 608 <input type="checkbox"/> PCBs <input type="checkbox"/> EPA 8082 <input type="checkbox"/> 608	PNAs by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310	CAM17 Metals (EPA 60101/7470/7471)	Metals: <input type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA <input type="checkbox"/> Other:	W.E.T (STLC) TCLP	Hexavalent Chromium pH (24h hold time for H <sub>2</sub> O)	Spec Cond. <input type="checkbox"/> Alkalinity TSS <input type="checkbox"/> TDS	Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO <sub>4</sub> <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> PO <sub>4</sub>	Odor	Number of Containers	
MW-1		17:00	H <sub>2</sub> O	HE/Cold	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>															X	5
MW-2		16:45	H <sub>2</sub> O	HE/Cold	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>															X	5
MW-3		16:30	H <sub>2</sub> O	HE/Cold	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																5

Project Info.		Sample Receipt		1) Relinquished by:		2) Relinquished by:		3) Relinquished by:	
Project Name:	3820 San Leandro Street	# of Containers:		Signature	<i>Ed Giacometti</i>	Signature		Signature	<i>1630</i>
Project#:	6551-001.00	Head Space:		ED GIACOMETTI	1/16/03			B. Morrison	1/16/03
PO#:		Temp:	4.0°C	Printed Name		Printed Name		Printed Name	STL SP
Credit Card#:		Conforms to record:		ACC ENVIRONMENTAL CONSULTANTS		Company		Company	
TAT	Std 5 Day	72h	48h	24h	Other:	1) Received by:	2) Received by:	3) Received by:	
Report:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Level 3	<input type="checkbox"/> Level 4	<input type="checkbox"/> EDD	<input type="checkbox"/> State Tank Fund EDF	Signature	Signature	Signature	<i>16:30</i>
Special Instructions / Comments:						Printed Name	Printed Name	Printed Name	MIATE VILLANOV
						Company	Company	Company	STL SP



**STL San Francisco**

**Sample Receipt Checklist**

Submission #: 2003- 01 - 0274

Checklist completed by: (initials) CR Date: 01/17/03

Courier name:  STL San Francisco  Client \_\_\_\_\_

- |  |   |
|--|---|
| Custody seals intact on shipping container/samples                     | Yes _____ No _____ Not Present <input checked="" type="checkbox"/>            |
| Chain of custody present?  | Yes <input checked="" type="checkbox"/> No _____                              |
| Chain of custody signed when relinquished and received?                | Yes <input checked="" type="checkbox"/> No _____                              |
| Chain of custody agrees with sample labels?                            | Yes <input checked="" type="checkbox"/> No _____                              |
| Samples in proper container/bottle?                                    | Yes <input checked="" type="checkbox"/> No _____                              |
| Sample containers intact?  | Yes <input checked="" type="checkbox"/> No _____                              |
| Sufficient sample volume for indicated test?                           | Yes <input checked="" type="checkbox"/> No _____                              |
| All samples received within holding time?                              | Yes <input checked="" type="checkbox"/> No _____                              |
| Container/Temp Blank temperature in compliance ( $4^{\circ}C \pm 2$ )? | Temp: <u>4.0</u> $^{\circ}C$ Yes <input checked="" type="checkbox"/> No _____ |
| Water - VOA vials have zero headspace?                                 | No VOA vials submitted _____ Yes <input checked="" type="checkbox"/> No _____ |

(if bubble is present, refer to approximate bubble size and itemize in comments as S (small ~O), M (medium ~ O) or L (large ~ O))

Water - pH acceptable upon receipt?  Yes  No

pH adjusted- Preservative used:  HNO<sub>3</sub>  HCl  H<sub>2</sub>SO<sub>4</sub>  NaOH  ZnOAc

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments: Unsure if client is asking for the analysis of "ODOR" or if this is just a comment that the sample is "ODOROUS"

**Project Management [Routing for instruction of indicated discrepancy(ies)]**

Project Manager: (initials) \_\_\_\_\_ Date: \_\_\_\_\_/\_\_\_\_\_/03

Client contacted:  Yes  No

Summary of discussion:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Corrective Action (per PM/Client):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_