



December 14, 2004

Mr. Fred Schifferle  
 Vice President  
 Bank of America, N.A.  
 Building D  
 2000 Clayton Road  
 Concord, California 94520-2425

Alameda County  
 EEC 2-8-2004  
 Environmental Services

Reference: Groundwater Monitoring Report November 2004  
 2585 Nicholson Street in San Leandro, California  
 ES# 305582  
 Versar Project No. 104422.4422.005

Dear Mr. Schifferle:

Versar, Inc. (Versar) has prepared this groundwater monitoring report on behalf of Bank of America, N.A. (Bank of America) summarizing work performed at the property located at 2585 Nicholson Street in San Leandro, California (Site). Figures 1 and 2 in Attachment I, present the Site location and Site layout, respectively.

### Background

A release of petroleum constituents was discovered at the Site during removal of underground storage tanks (USTs) in 1991. Subsequently, Versar and others have performed an investigation of soils and groundwater beneath the Site, and extensive groundwater monitoring. The results of the groundwater monitoring and data evaluation has determined the constituents identified in groundwater are naturally degrading over time, and pose no risk to Site occupants under an industrial setting.

The Alameda County Health Care Services (ACHCS) is currently considering granting closure for the Site. In the interim, the groundwater monitoring program has been reduced to one well (MW-1) on a semi-annual basis.

### November 2004 Results

Monitoring well MW-1 was sampled on November 4, 2004. The methodology and protocol followed for the collection of the groundwater sample during this groundwater sampling event are presented in Attachment IV, Decontamination and Groundwater Monitoring Well Sampling Procedures. A monitoring well purge table documenting field measurements during sampling is presented in Attachment II. The groundwater sample from MW-1 was analyzed for total petroleum hydrocarbons (TPHg) and benzene, toluene, ethylbenzene, and xylenes (BTEX) by

3202-03/104422.4422.005/Dec'04

• SACRAMENTO AREA OFFICE •

7844 MADISON AVENUE, SUITE 167 • FAIR OAKS, CA 95628 • TELEPHONE (916) 962-1612 FAX (916) 962-2678

Mr. Fred Schifferle  
December 14, 2004  
Page 2 of 2

EPA Methods 8015 Modified and 8021, respectively. Laboratory analytical data sheets are included in Attachment III. Current and historic analytical results from all Site monitoring wells are presented in Table 1 of Attachment I.

As shown in Table 1, analytical results from MW-1 in November 2004 are lower than the previous April 2004 results. The April and November 2004 data suggest that residual concentrations of petroleum are not degrading sufficiently to obtain low risk closure of the site. Versar suggests an application of Oxygen Releasing Compound (ORC) to MW-1 and the adjacent area to expedite closure of the site. If you have any questions, please feel free to call me at (916) 863-9323.

Prepared by:



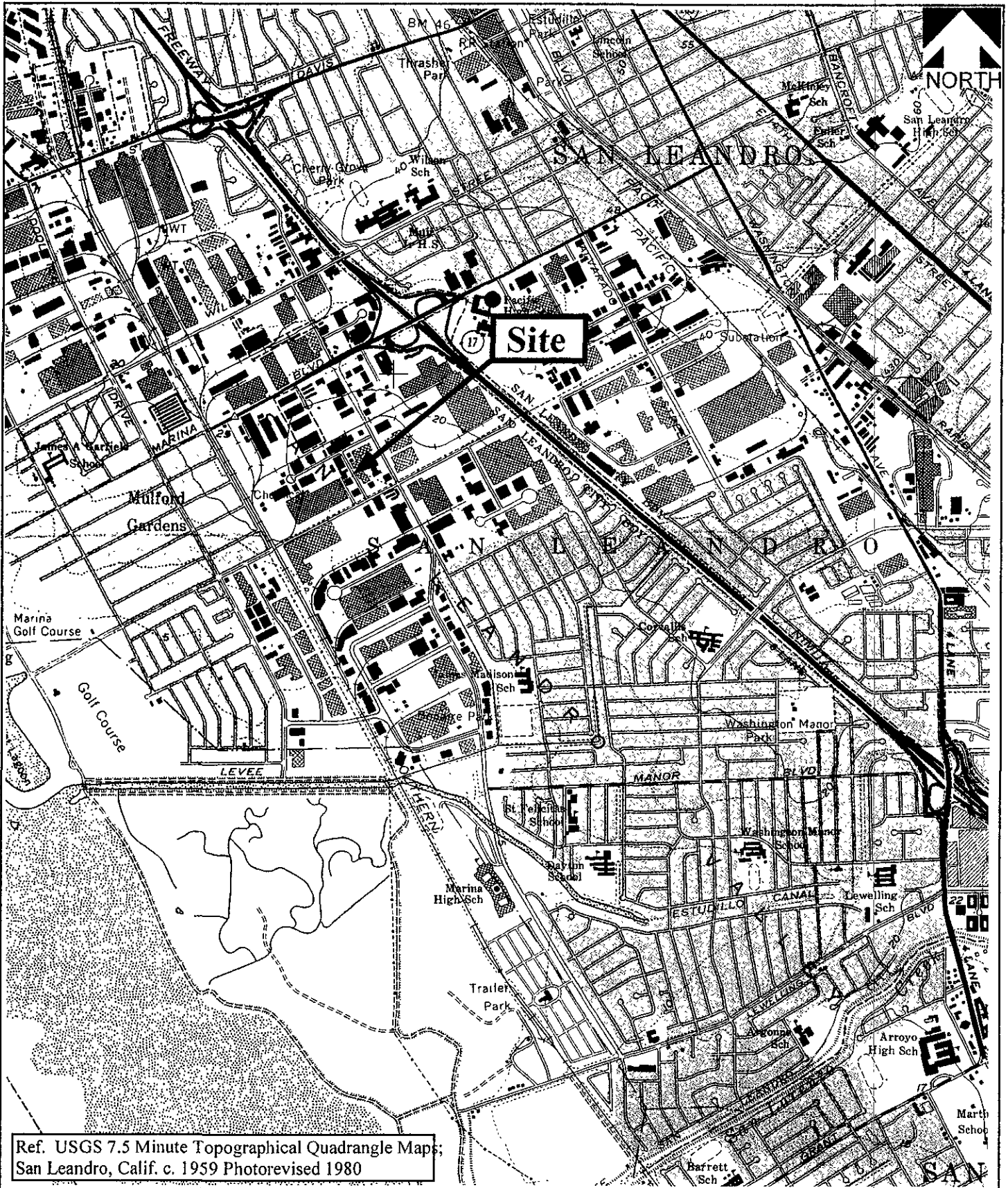
Tim Berger, R.G.  
Program Manager  
Southwest Region

Attachment I - Figures and Tables  
Attachment II - Monitoring Well Purge Table  
Attachment III - Laboratory Analytical Data Reports  
Attachment IV - Decontamination and Groundwater Monitoring Well Sampling Procedures

cc: Amir Gholami (Alameda County)  
Susan Hugo (Alameda County)  
Mike Bakaldin (City of San Leandro)  
Donna Proffitt, R.G.

## **ATTACHMENT I**

### Figures and Tables



Ref. USGS 7.5 Minute Topographical Quadrangle Maps;  
 San Leandro, Calif. c. 1959 Photorevised 1980

Dr. By: Dale Anderson
Date: 11/03
Scale: 1 inch=2,000 feet
Versar Project No. 4422-001
Path/File P:\BOFAISANLEANREPORT\Fig1

**Versar**  
 7844 Madison Avenue  
 Suite 167  
 Fair Oaks, CA 95628  
 (916) 962-1612

**SITE LOCATION**  
 2585 Nicholson Street  
 San Leandro, California

Figure  
 1



Republic Avenue

Nicholson Street

Commercial Building

<b>MW-1</b>
TPH-G: 5,500 ug/L
B: 1,100 ug/L
T: 28 ug/L
E: 97 ug/L
X: 72.8 ug/L

MW-2

Crane Works, Inc.

Concrete Paving

MW-3

Drum Location

MW-1

AC Paving

MW-4

Commercial Building

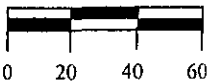
AC Paving

Fence Legend

MW-5

	Extraction and Observation Well Location
TPH-G:	Total Petroleum Hydrocarbons as Gasoline
B:	Benzene
T:	Toluene
E:	Ethybenzene
X:	Total Xylenes
ND:	Not detected at or above the methods reporting limit.
ug/L:	Micrograms per liter

(Scale - Feet)



Dr. By: HACKMAN
Date: 11/10/04
Scale: 1 inch = 60 feet
Versar Project No. 4422-001
Path/File: P:\BDF\SanLeandro\Report\Fig2

**Versar**  
 7844 Madison Avenue  
 Suite 167  
 Fair Oaks, CA 95628  
 (916) 962-1612

**Laboratory Analytical Results  
 For Groundwater Samples  
 April 2004  
 2585 Nicholson Street  
 San Leandro, California**

Figure 2

Table 1  
Analytical Results for Groundwater Samples  
2585 Nicholson Street  
San Leandro, California

Monitoring Well No.	Date	Chemicals of Concern								
		TPH-G (µg/L)	TPH-D (µg/L)	TPH-MO (µg/L)	TPH-K (µg/L)	TPH-SS (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW-1	Jun-92	10,000	ND	--	--	--	110	81	62	280
	Nov-92	9,800	ND	--	--	--	23	14	22	96
	Apr-93	18,000	560	ND	ND	370	42	47	50	190
	Jul-93	27,000	ND	ND	ND	ND	40	45	63	190
	Dec-93	7,800	3,800	ND	ND	ND	13	16	20	77
	Mar-94	280,000	620	ND	ND	3,300	970	880	620	1,700
	Jun-94	8,500	ND	ND	ND	ND	23	13	8.5	19
	Sep-94	2,400	52	ND	ND	ND	5.3	2.6	2.6	6
	Dec-94	4,800	1,300	ND	ND	1,000	32	32	16	50
	Apr-95	74,000	3,700	ND	ND	570	320	350	350	940
	Sep-95	33,000	46,000	ND	ND	4,900	140	370	260	1,100
	May-99	8,100	ND	ND	--	--	1,400	31	82	360
	Jul-99	3,500	1,700	--	--	--	252	23	43	179
	Oct-99	4,900	--	--	--	--	270	34	<5	370
	Jan-00	22,400	<500	--	--	--	1,300	402	483	2,490
	Apr-00	13,000	--	--	--	--	1,130	226	335	1,410
	Jul-00	28,400	<50	<500	--	--	1,470	190	299	967
	Oct-00	12,900	--	--	--	<1,000	1,800	197	353	1,400
	Jan-01	17,800	--	--	--	--	957	146	353	1,060
	Apr-01	13,000	<50	--	--	--	1,200	170	450	1,300
Oct-01	1,800	--	--	--	--	210	20	47	82	
Apr-02	3,800	--	--	--	--	380	37	80	120	
Jan-03	14,000	--	--	--	--	1,200	130	250	310	
Nov-03	13,000	--	--	--	--	1,900	92	210	190	
Apr-04	9,600	--	--	--	--	1,200	68	410	260	
Nov-04	5,500	--	--	--	--	1,100	28	97	72.8	
MW-2	Apr-99	ND	ND	ND	--	--	ND	ND	ND	ND
	Jul-99	<100	<100	--	--	--	<1.0	<1.0	<1.0	<1.0
	Oct-99	<100	--	--	--	--	<1.0	<1.0	<1.0	<1.0
	Jan-00	118	--	--	--	--	0.7	<0.5	<0.5	<0.5
	Apr-00	<50	--	--	--	--	0.5	<0.5	<0.5	<0.5
	Jul-00	<400	--	--	--	--	0.8	<0.5	<0.5	<0.5
	Oct-00	<50	--	--	--	--	<0.5	<0.5	<0.5	<1.0
	Jan-01	104	--	--	--	--	<0.5	<0.5	<0.5	<0.5
	Apr-01	160	--	--	--	--	<0.5	<0.5	<0.5	<0.5
	Oct-01	--	--	--	--	--	--	--	--	--
	Apr-02	--	--	--	--	--	--	--	--	--
	Jan-03	--	--	--	--	--	--	--	--	--
	Nov-03	--	--	--	--	--	--	--	--	--
	Apr-04	--	--	--	--	--	--	--	--	--
Nov-04	--	--	--	--	--	--	--	--	--	
MW-3	Apr-99	ND	540	ND	--	--	ND	ND	ND	ND
	Jul-99	300	<100	--	--	--	<1.0	<1.0	<1.0	<1.0
	Oct-99	230	--	--	--	--	<1.0	<1.0	<1.0	<1.0
	Jan-00	163	<50	--	--	--	0.8	<0.5	<0.5	<0.5
	Apr-00	90	--	--	--	--	0.7	<0.5	<0.5	<0.5
	Jul-00	<400	--	--	--	--	2.0	<0.5	<0.5	<0.5
	Oct-00	<50	--	--	--	--	<0.5	<0.5	<0.5	<1.0
	Jan-01	62	--	--	--	--	<0.5	<0.5	<0.5	<0.5
	Apr-01	62	--	--	--	--	<0.5	<0.5	<0.5	<0.5
	Oct-01	--	--	--	--	--	--	--	--	--
	Apr-02	--	--	--	--	--	--	--	--	--
	Jan-03	--	--	--	--	--	--	--	--	--
	Nov-03	--	--	--	--	--	--	--	--	--
	Apr-04	--	--	--	--	--	--	--	--	--
Nov-04	--	--	--	--	--	--	--	--	--	
MW-4	Apr-99	110	ND	ND	--	--	ND	ND	ND	ND
	Jul-99	120	<100	--	--	--	<1.0	<1.0	<1.0	<1.0
	Oct-99	<100	--	--	--	--	<1.0	<1.0	<1.0	<1.0
	Jan-00	106	--	--	--	--	0.9	<0.5	<0.5	<0.5
	Apr-00	99	--	--	--	--	1.0	<0.5	<0.5	<0.5
	Jul-00	--	--	--	--	--	--	--	--	--
	Oct-00	139	--	--	--	--	0.6	<0.5	<0.5	<1.0
	Jan-01	85	--	--	--	--	<0.5	<0.5	<0.5	<0.5
	Apr-01	130	--	--	--	--	<0.5	<0.5	<0.5	<0.5
	Oct-01	--	--	--	--	--	--	--	--	--
	Apr-02	--	--	--	--	--	--	--	--	--
	Jan-03	--	--	--	--	--	--	--	--	--
	Nov-03	--	--	--	--	--	--	--	--	--
	Apr-04	--	--	--	--	--	--	--	--	--
Nov-04	--	--	--	--	--	--	--	--	--	
MW-5	Apr-99	270	ND	ND	--	--	ND	ND	ND	ND
	Jul-99	570	<100	--	--	--	<1.0	<1.0	<1.0	<1.0
	Oct-99	540	--	--	--	--	<1.0	<1.0	<1.0	<1.0
	Jan-00	231	--	--	--	--	1.9	<0.5	<0.5	<0.5
	Apr-00	353	--	--	--	--	3.5	<0.5	<0.5	<0.5
	Jul-00	<400	--	--	--	--	<0.5	<0.5	<0.5	<0.5
	Oct-00	156	--	--	--	--	1.0	<0.5	<0.5	<1.0
	Jan-01	<50	--	--	--	--	<0.5	<0.5	<0.5	<0.5
	Apr-01	200	--	--	--	--	<0.5	<0.5	<0.5	<0.5
	Oct-01	--	--	--	--	--	--	--	--	--
	Apr-02	--	--	--	--	--	--	--	--	--
	Jan-03	--	--	--	--	--	--	--	--	--
	Nov-03	--	--	--	--	--	--	--	--	--
	Apr-04	--	--	--	--	--	--	--	--	--
Nov-04	--	--	--	--	--	--	--	--	--	

Notes and Abbreviations:  
 TPH-G = total petroleum hydrocarbons as gasoline  
 TPH-D = total petroleum hydrocarbons as diesel  
 TPH-K = total petroleum hydrocarbons as kerosene  
 TPH-SS = total petroleum hydrocarbons as stoddard solvent  
 µg/L = micrograms per liter, equivalent to parts per billion (ppb)  
 mg/L = milligrams per liter, equivalent to parts per million (ppm)  
 ND = not detected at or above the methods reporting limit  
 -- = not analyzed

**ATTACHMENT II**  
Monitoring Well Purge Table



# PURGE TABLE

PROJECT NO. 104422.4422.005

SITE NAME: Former BOFA - San Leandro

LOCATION: 2585 Nicholson St, San Leandro, CA 94577

WELL I.D.: MW-1

DATE PURGED: 11/4/2004

PURGED/SAMPLED BY: Scott Hackman

DATE SAMPLED: 11/4/2004

MASTER LOCK NUMBER: NA

TIME SAMPLED: 1050

DEPTH TO BOTTOM (feet): 17.33'

DEPTH TO WATER (feet): 5.60WATER COLUMN HEIGHT (feet): 11.73CALCULATED PURGE (gallons): 52.8CASING VOLUME (gallons): 17.6ACTUAL PURGE (gallons): 53DEVELOPMENT \_\_\_\_\_ QUARTERLY X BIENNIAL \_\_\_\_\_ OTHER \_\_\_\_\_SAMPLE TYPE: Groundwater X Surface Water \_\_\_\_\_ Other \_\_\_\_\_CASING DIAMETER: 2" \_\_\_\_\_ 3" \_\_\_\_\_ 4" \_\_\_\_\_ 5" \_\_\_\_\_ 6" X 8" \_\_\_\_\_ Other \_\_\_\_\_

Casing Volume (gallons per foot): (0.16) (0.38) (0.66) (1.02) (1.50) (2.60)

## FIELD MEASUREMENTS

VOLUME (gal)	TIME (2400hr)	TEMP (degrees C)	pH (units)	CONDUCTIVITY (mS/cm)	DISOLVED OXYGEN (mg/L)	REDOX (mV)	DTW (feet)
<u>8</u>	<u>1022</u>	<u>16.8</u>	<u>6.83</u>	<u>1.00</u>	<u>7.94</u>	<u>meter</u>	<u>5.71</u>
<u>16</u>	<u>1026</u>	<u>18.0</u>	<u>6.90</u>	<u>0.981</u>	<u>7.85</u>	<u>Broken</u>	<u>5.75</u>
<u>24</u>	<u>1030</u>	<u>18.3</u>	<u>6.95</u>	<u>0.973</u>	<u>7.84</u>	<u>Fe-</u>	<u>5.53</u>
<u>32</u>	<u>1034</u>	<u>18.6</u>	<u>7.02</u>	<u>0.642</u> ✓	<u>7.50</u> ✓	<u>REDOX</u>	<u>5.96</u>
<u>40</u>	<u>1039</u>	<u>18.7</u>	<u>7.05</u>	<u>0.648</u>	<u>7.59</u>		<u>6.33</u>
<u>48</u>	<u>1044</u>	<u>18.6</u>	<u>7.08</u>	<u>0.651</u>	<u>7.61</u>		<u>6.98</u>
<u>53</u>	<u>1050</u>	<u>18.6</u>	<u>7.11</u>	<u>0.652</u>	<u>7.65</u>		<u>7.40</u>

## SAMPLE INFORMATION

SAMPLE DEPTH TO WATER (feet): 7.40 ANALYSES: TPH-g, BTEX80% RECHARGE: X YES NO 80% = 7.95 SAMPLE TURBIDITY: 50ODOR: Yes - Strong SAMPLE BOTTLE/PRESERVATIVE: 3 HCL VOAS

### PURGING EQUIPMENT

Centrifugal Pump     Bailer (Teflon)  
 Submersible Pump     Bailer (PVC or disposable)  
 Peristaltic Pump     Bailer (Stainless Steel)  
 Purge Pump

Other: \_\_\_\_\_

### SAMPLING EQUIPMENT

Centrifugal Pump     Bailer (Teflon)  
 Submersible Pump     Bailer (PVC or disposable)  
 Peristaltic Pump     Bailer (Stainless Steel)  
 Purge Pump

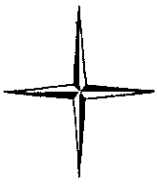
Other: \_\_\_\_\_

Comments: Sheen

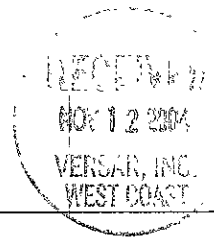


**ATTACHMENT III**

Laboratory Analytical Data Reports



# SunStar Laboratories, Inc.



10 November 2004

Scott Hackman  
Versar -- Fair Oaks  
7844 Madison Ave #167  
Fair Oaks, CA 95628  
RE: BOFA-San Leandio

Enclosed are the results of analyses for samples received by the laboratory on 11/05/04 08:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ben Beauchaine  
Laboratory Supervisor

SunStar Laboratories, Inc.  
 3002 Dow Ave., Ste. 212  
 Tustin, CA 92780  
 714-505-4010

## Chain of Custody Record

Client: VERSOR INC  
 Address: 7844 Madison Ave, 167 Fair Oaks, CA 95625  
 Phone: 916-863-9342 Fax: 916-762-2675  
 Project Manager: Scott Hackman

Date: 11-4-2004 Page: 1 Of 1  
 Project Name: BOFA - San Leandro  
 Collector: Scott Hackman Client Project #: 4422.005  
 Batch #: T401313 EDF #:

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	Laboratory ID #	Comments/Preservative	Total # of containers
MW-1	11-4-04	1050	Water	4 HDL VOLS					X	X				01		
Drum-1	11-4-04	1100	Water	4 HDL VOLS					X	X				02		
Relinquished by: (signature) <i>Scott Hackman</i>			Date / Time <u>11/4/04 / 1330</u>		Received by: (signature) <i>John H...</i>			Date / Time <u>11-4-04 1:30</u>		Total # of containers				8	Notes E-mail results to hackms@verstar.com	
Relinquished by: (signature) GSO			Date / Time <u>110504 8:30</u>		Received by: (signature) <i>John H...</i>			Date / Time <u>110504 8:30</u>		Chain of Custody seals Y/N/NA						
Relinquished by: (signature)			Date / Time		Received by: (signature)			Date / Time		Seals intact? Y/N/NA						
Relinquished by: (signature)			Date / Time		Received by: (signature)			Date / Time		Received good condition <input checked="" type="checkbox"/>				42		
Turn around time: <u>Standard</u>																

Versar -- Fair Oaks  
7844 Madison Ave #167  
Fair Oaks CA, 95628


Project: BOFA-San Leandro  
Project Number: 4422.005  
Project Manager: Scott Hackman

Reported:  
11/10/04 09:06

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	T401313-01	Water	11/04/04 10:50	11/05/04 08:30
Drum-1	T401313-02	Water	11/04/04 11:00	11/05/04 08:30

SunStar Laboratories, Inc.



Ben Beauchaine, Laboratory Supervisor

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Versar -- Fair Oaks 7844 Madison Ave #167 Fair Oaks CA, 95628	Project: BOFA-San Leandro Project Number: 4422.005 Project Manager: Scott Hackman	Reported: 11/10/04 09:06
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**MW-1**  
**T401313-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

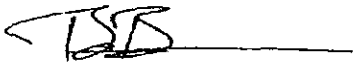
**Purgeable Petroleum Hydrocarbons by EPA 8015m**

C6-C12 (GRO)	5500	500	ug/l	10	4110508	11/05/04	11/08/04	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		84.8 %	65-135		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8021B**

Benzene	1100	1.0	ug/l	1	4110508	"	11/08/04	EPA 8021B	
Toluene	28	1.0	"	"	"	"	"	"	
Ethylbenzene	97	1.0	"	"	"	"	"	"	
m,p-Xylene	63	2.0	"	"	"	"	"	"	
o-Xylene	9.8	1.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.6 %	65-135		"	"	"	"	

SunStar Laboratories, Inc.



Ben Beauchaine, Laboratory Supervisor

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Versar -- Fair Oaks  
7844 Madison Ave #167  
Fair Oaks CA, 95628

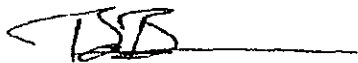
Project: BOFA-San Leandro  
Project Number: 4422.005  
Project Manager: Scott Hackman

Reported:  
11/10/04 09:06

**Drum-1**  
**T401313-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SunStar Laboratories, Inc.</b>									
<b>Purgeable Petroleum Hydrocarbons by EPA 8015m</b>									
C6-C12 (GRO)	1100	50	ug/l	1	4110508	11/05/04	11/08/04	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		84.8 %	65-135		"	"	"	"	
<b>Volatile Organic Compounds by EPA Method 8021B</b>									
Benzene	250	1.0	ug/l	1	4110508	"	11/08/04	EPA 8021B	
Toluene	5.0	1.0	"	"	"	"	"	"	
Ethylbenzene	9.3	1.0	"	"	"	"	"	"	
m,p-Xylenc	4.8	2.0	"	"	"	"	"	"	
o-Xylene	2.4	1.0	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		82.6 %	65-135		"	"	"	"	

SunStar Laboratories, Inc.



Ben Beauchaine, Laboratory Supervisor

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Versar -- Fair Oaks  
7844 Madison Ave #167  
Fair Oaks CA, 95628

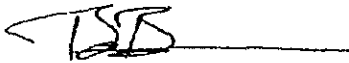
Project: BOFA-San Leandro  
Project Number: 4422.005  
Project Manager: Scott Hackman

Reported:  
11/10/04 09:06

**Purgeable Petroleum Hydrocarbons by EPA 8015m - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 4110508 - EPA 5030 GC</b>										
<b>Blank (4110508-BLK1)</b> Prepared: 11/05/04 Analyzed: 11/08/04										
C6-C12 (GRO)	ND	50	ug/l							
Surrogate: 4-Bromofluorobenzene	44.3		"	50.0		88.6	65-135			
<b>LCS (4110508-BS1)</b> Prepared: 11/05/04 Analyzed: 11/09/04										
C6-C12 (GRO)	5500	50	ug/l	5500		100	75-125			
Surrogate: 4-Bromofluorobenzene	45.2		"	50.0		90.4	65-135			
<b>Matrix Spike (4110508-MS1)</b> Source: T401311-01 Prepared: 11/05/04 Analyzed: 11/09/04										
C6-C12 (GRO)	5070	50	ug/l	5500	ND	92.2	65-135			
Surrogate: 4-Bromofluorobenzene	46.7		"	50.0		93.4	65-135			
<b>Matrix Spike Dup (4110508-MSD1)</b> Source: T401311-01 Prepared: 11/05/04 Analyzed: 11/09/04										
C6-C12 (GRO)	5210	50	ug/l	5500	ND	94.7	65-135	2.72	20	
Surrogate: 4-Bromofluorobenzene	46.5		"	50.0		93.0	65-135			

SunStar Laboratories, Inc.



Ben Beauchaine, Laboratory Supervisor

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Versar -- Fair Oaks  
 7844 Madison Ave #167  
 Fair Oaks CA, 95628

Project: BOFA-San Leandro  
 Project Number: 4422.005  
 Project Manager: Scott Hackman

Reported:  
 11/10/04 09:06

**Volatile Organic Compounds by EPA Method 8021B - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4110508 - EPA 5030 GC**

**Blank (4110508-BLK1)**

Prepared: 11/05/04 Analyzed: 11/08/04

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
m,p-Xylene	ND	2.0	"							
o-Xylene	ND	1.0	"							

Surrogate: 4-Bromofluorobenzene	37.7		"	50.0		75.4	65-135			
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**LCS (4110508-BS1)**

Prepared: 11/05/04 Analyzed: 11/09/04

Benzene	83.1	1.0	ug/l	80.0		104	70-130			
Toluene	354	1.0	"	399		88.7	70-130			
Ethylbenzene	87.9	1.0	"	94.0		93.5	70-130			
m,p-Xylene	289	2.0	"	327		88.4	70-130			
o-Xylene	109	1.0	"	130		83.8	70-130			

Surrogate: 4-Bromofluorobenzene	38.6		"	50.0		77.2	65-135			
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**Matrix Spike (4110508-MS1)**

Source: T401311-01

Prepared: 11/05/04 Analyzed: 11/09/04

Benzene	81.1	1.0	ug/l	80.0	ND	101	70-130			
Toluene	351	1.0	"	399	ND	88.0	70-130			
Ethylbenzene	86.2	1.0	"	94.0	ND	91.7	70-130			
m,p-Xylene	293	2.0	"	327	ND	89.6	70-130			
o-Xylene	108	1.0	"	130	ND	83.1	70-130			

Surrogate: 4-Bromofluorobenzene	39.1		"	50.0		78.2	65-135			
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**Matrix Spike Dup (4110508-MSD1)**

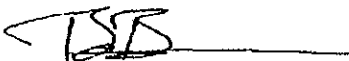
Source: T401311-01

Prepared: 11/05/04 Analyzed: 11/09/04

Benzene	82.2	1.0	ug/l	80.0	ND	103	70-130	1.35	20	
Toluene	358	1.0	"	399	ND	89.7	70-130	1.97	20	
Ethylbenzene	88.9	1.0	"	94.0	ND	94.6	70-130	3.08	20	
m,p-Xylene	300	2.0	"	327	ND	91.7	70-130	2.36	20	
o-Xylene	110	1.0	"	130	ND	84.6	70-130	1.83	20	

Surrogate: 4-Bromofluorobenzene	38.5		"	50.0		77.0	65-135			
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Ben Beauchaine, Laboratory Supervisor

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Versar -- Fair Oaks  
7844 Madison Ave #167  
Fair Oaks CA, 95628

Project: BOFA-San Leandro  
Project Number: 4422.005  
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Reported:  
11/10/04 09:06

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

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SunStar Laboratories, Inc.

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Ben Beauchaine, Laboratory Supervisor

**ATTACHMENT IV**  
Decontamination and Groundwater Monitoring Well Sampling Procedures

## **1.0 DECONTAMINATION PROCEDURES**

The decontamination procedures for non-dedicated field equipment and well development/purging equipment are given below. These procedures are followed during all field activities.

- a. Non-dedicated well development, purging, and sampling equipment is carefully pre-cleaned prior to each use, as follows:
  - a. Carefully brush off any loose foreign debris with a soft bristle brush.
  - b. Rinse the equipment thoroughly in clean water.
  - c. Wash the equipment in a non-phosphate detergent bath.
  - d. Rinse thoroughly in clean water.
  - e. Rinse thoroughly with deionized water.
  - f. Air dry in a dust-free environment.
  - g. Store in unused plastic bags or other suitable cover until use.
2. Clean disposable gloves are worn by all field personnel when handling decontaminated equipment.

## **2.0 COLLECTION OF SAMPLES**

### **2.1 Groundwater Sampling**

Groundwater samples are collected for laboratory analysis using the procedures given below.

1. Open the well and measure the organic vapor concentration with a flame-ionization detector (FID) or photoionization detector (PID).
2. Measure the water levels (if any) in the well using a decontaminated measuring device. All measurements must be made to the nearest 0.01 foot, and measured relative to the top of the casing. Record the depth of the water in the field notebook.

3. Inspect the disposable bailer to ensure that the bottom valve assembly is working correctly.
4. Begin purging the well by inserting a bailer into the PVC monitoring well casing and carefully lower it into the well. Take care to avoid agitating and aerating the fluid column in the well.
5. Slowly withdraw the bailer and transfer the water samples to a sampling containers.
6. Measure the temperature, pH, conductivity, and turbidity. Record these and all subsequent measurements in the field notebook.
7. Continue purging the well (a minimum of three well volumes) until the temperature, pH, conductivity, and turbidity have stabilized, or the well is dry.
8. When the water has recovered to 80 percent of the original level, carefully lower a new disposable bailer into the well and recover groundwater samples.
9. Fill the appropriate sample containers by releasing water from the bailer via the bottom emptying device with a minimum of agitation. The most volatile parameters are collected first, proceeding to the least volatile parameters.
10. Place the purge water in a DOT-approved 55-gallon drums.

### **3.0 ANALYSIS OF SAMPLES**

Samples are submitted to a California state-certified laboratory for analysis.

### **4.0 SAMPLE HANDLING**

#### **4.1 Sample Containers, Preservation, and Holding Times**

All samples are collected, placed in containers, preserved, and analyzed within the time constraints with applicable local, provincial, and federal procedures. All sample containers are precleaned in accordance with prescribed EPA methods. A custody seal is placed around all sample container lids to prevent leaks and unauthorized tampering with individual samples following collection and prior to the time of analysis.

## 4.2 Sample Tracking and Management

All samples are tracked using a standard chain-of-custody form. The chain of custody record includes the following information:

1. Sample number
2. Signature of collector
3. Date and time of collection
4. Sample collection location
5. Sample type
6. Signature of persons involved in the chain-of-possession
7. Inclusive dates of possession
8. Analytical parameters
9. Pertinent field observations

The custody record is completed using waterproof ink. Corrections are made by drawing a line through, initialing the error, and then entering the correct information.

Custody of the samples begins at the time of sample collection and are maintained by the sampling team supervisor until samples are relinquished for shipment to the laboratory, or until samples are hand-delivered to the designated laboratory sample custodian. Partial sample sets being accumulated for hand-delivery to the laboratory are stored in coolers with chain-of-custody records sealed in plastic bags and placed in the cooler with the sample sets.