



**RECEIVED**

9:40 am, Aug 22, 2011

Alameda County  
Environmental Health

Reference: Groundwater Monitoring Report  
Rodding Cleaning Services  
2585 Nicholson Street, San Leandro, CA  
Fuel Leak Case No. RO00000020  
Versar Project No. 104422.4422.007

**PERJURY STATEMENT**

As the Responsible Party (RP) for this Site, I declare under penalty of perjury that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

A handwritten signature in cursive script that reads 'Fred Schifferle'.

Fred Schifferle - Manager, Sketchley Trust  
Responsible Party

• SACRAMENTO AREA OFFICE •

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



July 27, 2011

Mr. Fred Schifferle  
Manager  
Sketchley Trust  
2000 Clayton Road  
Building D  
Concord, California 94520-2425

Reference: Groundwater Monitoring Report June 2011  
2585 Nicholson Street in San Leandro, California  
ES# 305582  
Versar Project No. 104422.4422.006

Dear Mr. Schifferle:

Versar, Inc. (Versar) has prepared this groundwater monitoring report on behalf the Sketchley Trust, documenting 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 investigated soils and groundwater beneath the Site, and performed extensive groundwater monitoring. The results of the groundwater monitoring and data evaluation had determined constituents identified in groundwater appear to be naturally degrading over time, and to pose no risk to Site occupants in an industrial setting.

In a letter dated July 30, 2010, the Alameda County Health Care Services (ACHCS) revised the groundwater monitoring program at the Site to include the sampling of all groundwater monitoring wells and the addition of MTBE analysis on a semi-annual cycle.

## **June 2011 Results**

Depth to groundwater measurements were recorded from monitoring wells MW-1, MW-2, MW-4 and MW-5 before being purged of three casing volumes and sampled on June 15, 2011; well MW-3 is blocked by materials and is not accessible. Current and historic analytical results from all Site monitoring wells are presented in Table 1 of Attachment I. Groundwater elevation data is presented in Table 2 of Attachment I. Monitoring well purge tables documenting field measurements during sampling are presented in Attachment II.

The groundwater samples from MW-1, MW-2, MW-4 and MW-5 were analyzed for total petroleum hydrocarbons (TPHg) and benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl-t-butyl ether (MTBE) by EPA Method 8260B. Laboratory analytical data sheets are

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included in Attachment III. 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.

As shown in Table 1, analytical results for TPHg and benzene in MW-1 in June 2011 have slightly decreased this monitoring event. TPHg concentrations over time appear to trend downward. TPHg was detected in well MW-2 at a concentration of 400 µg/L, above the San Francisco Bay Regional Water Quality Control Board (RWQCB) environmental screening level (ESL) of 210 µg/L.

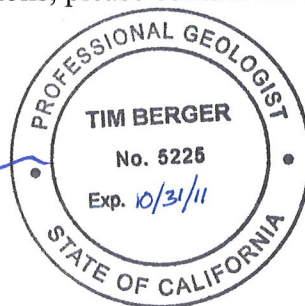
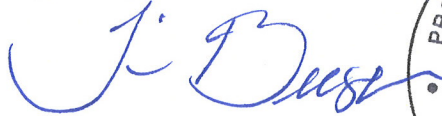
Based on its upgradient position, Versar does not consider the TPHg presence in well MW-2 to be related to the Rodding Cleaning release at this time. Additionally, analytical laboratory notations associated with the TPHg results for well MW-2 and MW-4 indicate the quantitation relate to compounds atypical of gasoline.

No other constituents of concern were detected above the ESLs in the other sampled monitoring wells. The measured direction of groundwater flow appears to be southeasterly, at a gradient of 0.001; the groundwater flow direction and gradient and analytical results from June 15, 2011 are presented in Figure 3 and Figure 4, respectively, in Attachment I.

Monitoring well MW-3 was inaccessible for sampling because it is under a storage roll off container. Well MW-5 no longer has a well plug or well box lid; the casing top may also be damaged resulting in erroneous depth to water measurements.

Versar appreciates this opportunity to provide professional environmental services to Bank of America. If you have any questions, please contact me at (916) 863-9323 and [tberger@versar.com](mailto:tberger@versar.com).

Prepared by:



Tim Berger, P.G.  
Program Manager  
Southwest Region

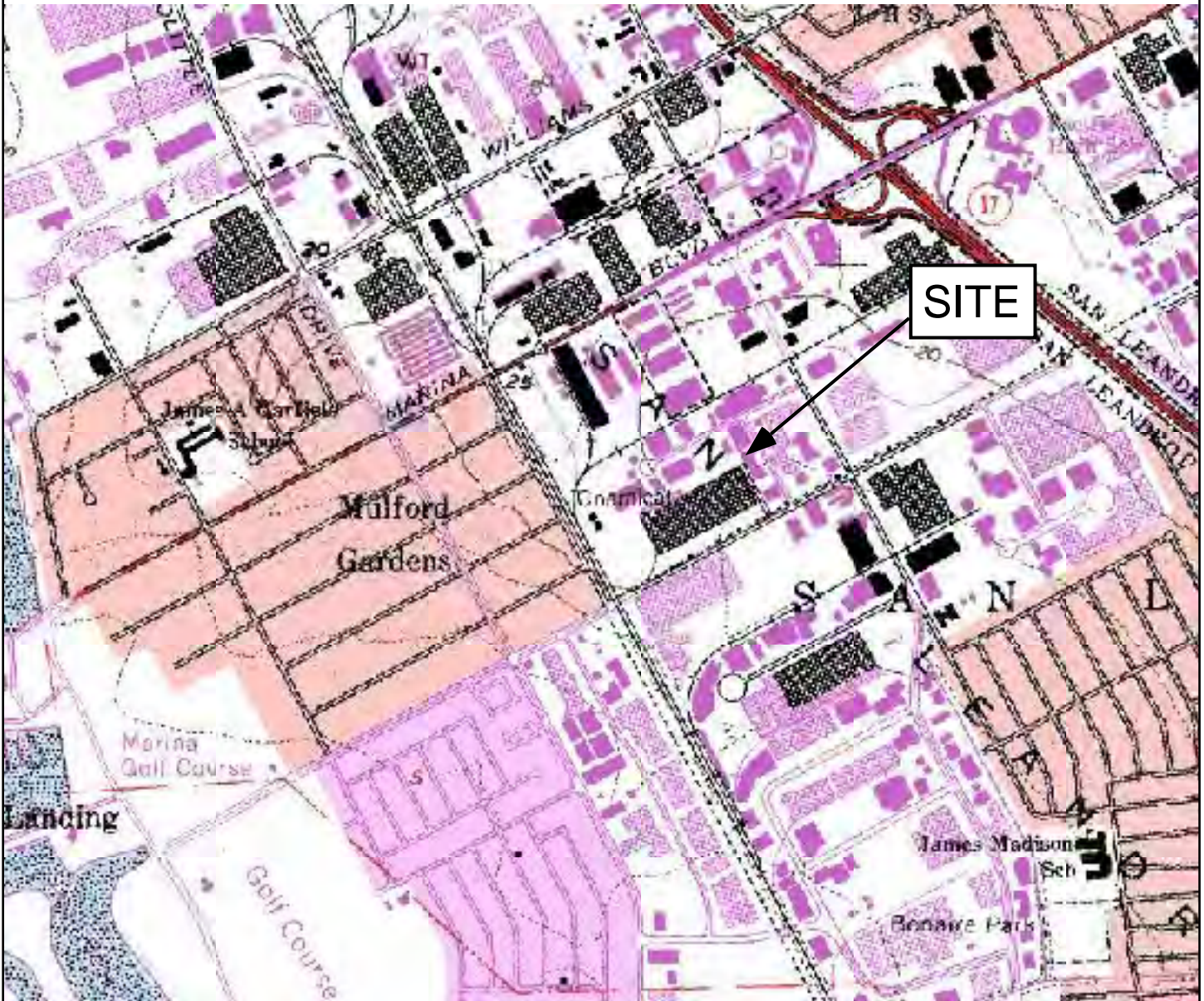
Attachment I - Figures and Tables  
Attachment II - Monitoring Well Purge Table  
Attachment III - Laboratory Analytical Data Reports  
Attachment IV - Decontamination and Groundwater Monitoring Well Sampling Procedures

cc: Mark E. Detterman - Alameda County Environmental Health (Electronic)  
John Kemp - City of San Leandro Environmental Services  
Randy Muller - Bank of America  
Mesha Lewis - US Trust/Bank of America



**ATTACHMENT I**

**Figures and Tables**



Ref. USGS 7.5 Minute Topographical Quadrangle Maps;  
San Leandro, Calif. c. 1959 Photorevised 1998

Dr. By: TWB
Date: 6/20/08
Scale: 1 inch=2,000 feet
Versar Project No. 4422-006
Path/File : P:\BOFA\SANLEAN\REPORT\Fig1



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

Figure  
1



Republic Avenue

Nicholson Street

Commercial Building

Crane Works, Inc.

Concrete Paving

AC Paving

AC Paving

Fence

MW-3

MW-1

MW-2

MW-4

MW-5

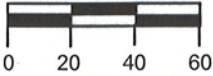
**LEGEND:**



Monitoring Well Location and Designation

MW-1

(Scale - Feet)

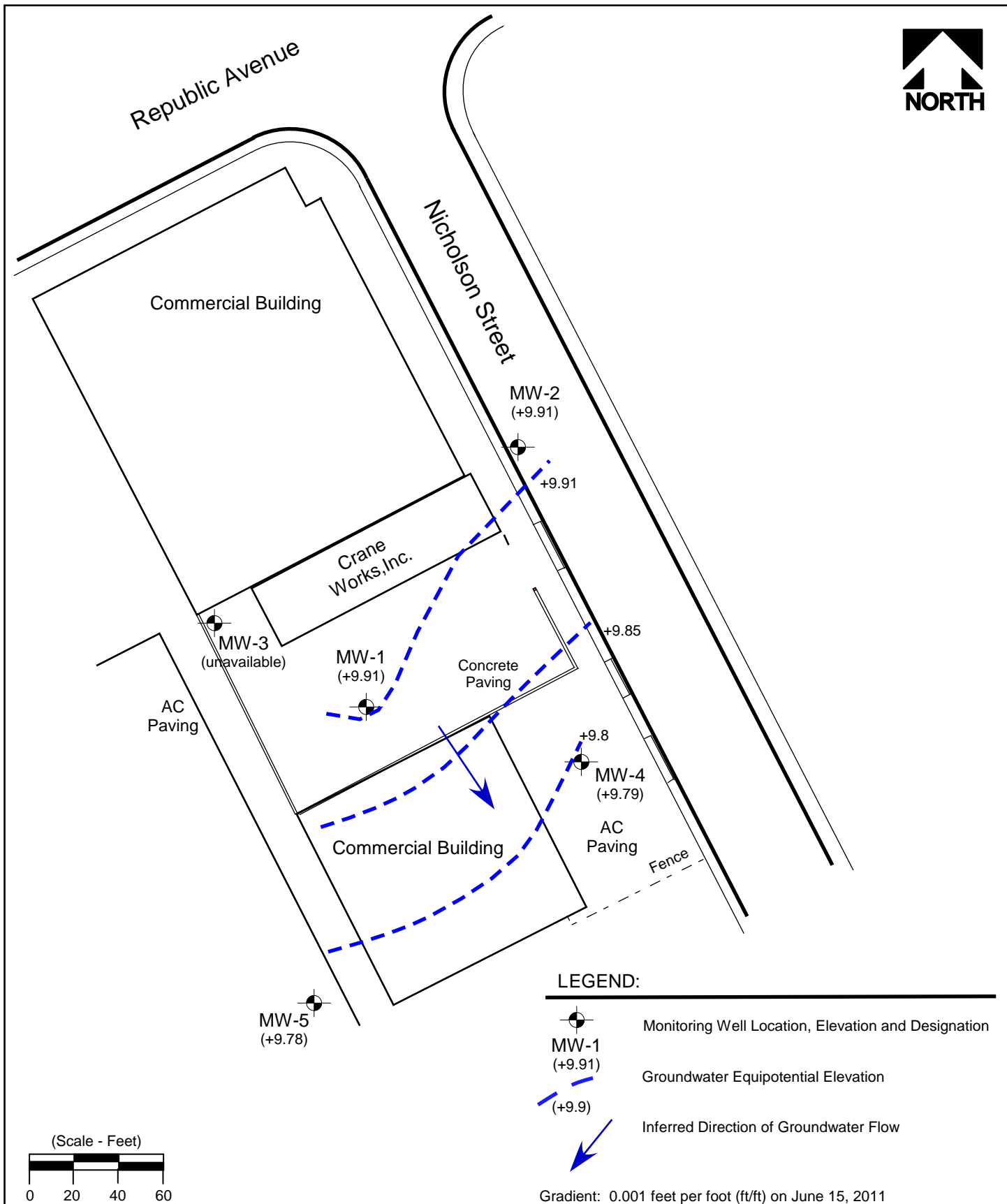


Dr. By: TWB
Date: 06/20/2008
Scale: 1 inch = 60 feet
Versar Project No. 4422-006
Path/File : P:\BFA\SanLeandro\Report\Fig2

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

**SITE LAYOUT MAP**  
2585 Nicholson Street  
San Leandro, California

Figure  
2



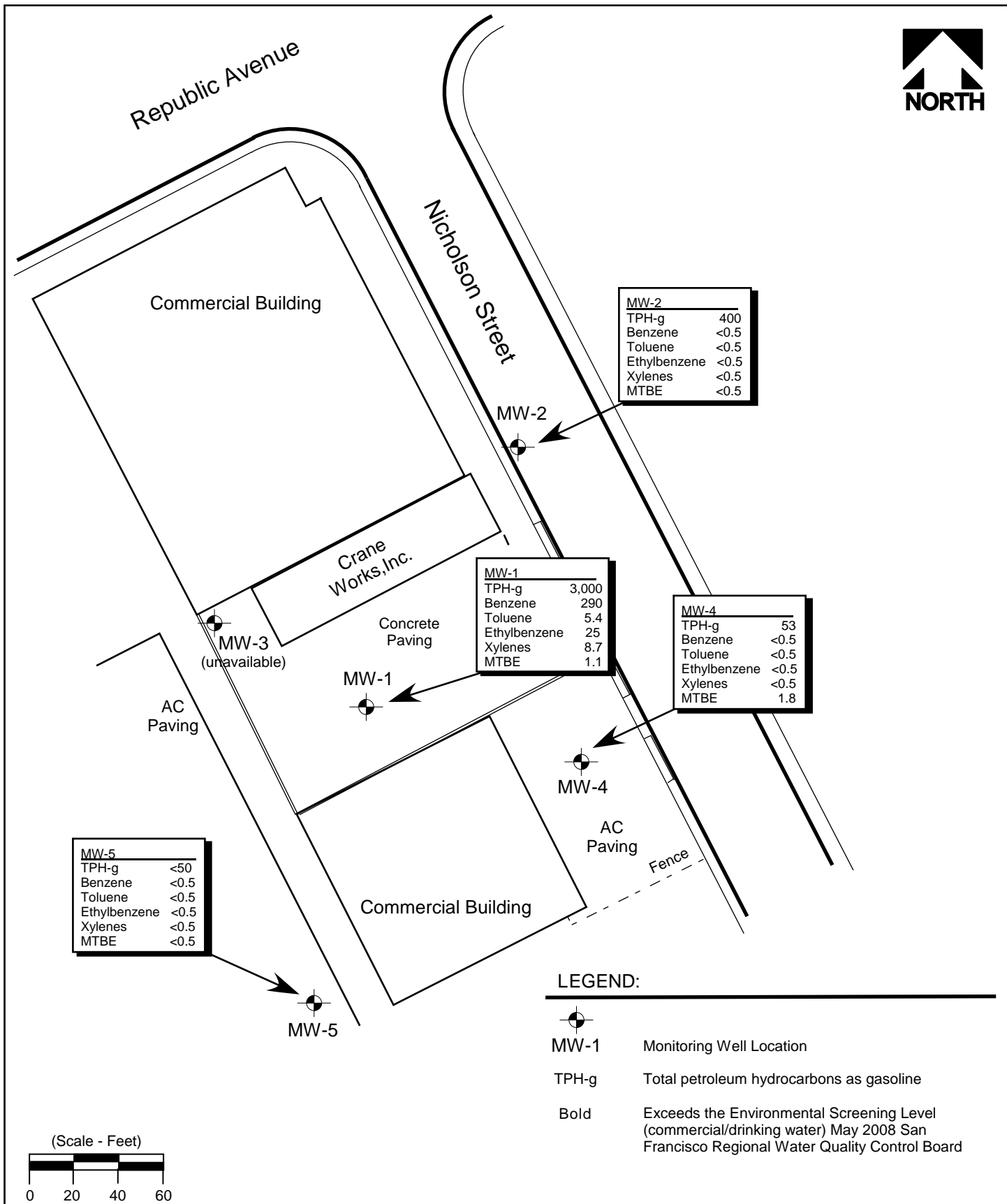
Dr. By: NH
Date: 7/15/2011
Scale: 1 inch = 60 feet
Versar Project No. 4422-004
Path/File : P:\BOFA\SanLean\Report\Fig3

 **VERSAR**  
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## GROUNDWATER FLOW DIRECTION & GRADIENT

2585 Nicholson Street  
San Leandro, California

Figure  
3



Dr. By: NH  
 Date: 7/15/2011  
 Scale: 1 inch = 60 feet  
 Versar Project No. 4422-004  
 Path/File : P:\BOFA\SanLean\Report\Fig4



## GROUNDWATER ANALYTICAL RESULTS

2585 Nicholson Street  
 San Leandro, California

Figure  
4



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

Monitoring Well No.	Date	Chemicals of Concern (in µg/L)									
		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)	MTBE (µg/L)
ESL		210	210	210	210	210	1	150	300	1,800	13
MW-1	Jun-92	<b>10,000</b>	ND	--	--	--	<b>110</b>	81	62	280	--
	Nov-92	<b>9,800</b>	ND	--	--	--	<b>23</b>	14	22	96	--
	Apr-93	<b>18,000</b>	<b>560</b>	ND	ND	<b>370</b>	<b>42</b>	47	50	190	--
	Jul-93	<b>27,000</b>	ND	ND	ND	ND	<b>40</b>	45	63	190	--
	Dec-93	<b>7,800</b>	<b>3,800</b>	ND	ND	ND	<b>13</b>	16	20	77	--
	Mar-94	<b>280,000</b>	<b>620</b>	ND	ND	<b>3,300</b>	<b>970</b>	<b>880</b>	<b>620</b>	1,700	--
	Jun-94	<b>8,500</b>	ND	ND	ND	ND	<b>23</b>	13	8.5	19	--
	Sep-94	<b>2,400</b>	52	ND	ND	ND	<b>5.3</b>	2.6	2.5	6	--
	Dec-94	<b>4,800</b>	<b>1,300</b>	ND	ND	<b>1,000</b>	<b>32</b>	32	16	50	--
	Apr-95	<b>74,000</b>	<b>3,700</b>	ND	ND	<b>570</b>	<b>320</b>	<b>350</b>	<b>350</b>	940	--
	Sep-95	<b>33,000</b>	<b>46,000</b>	ND	ND	<b>4,900</b>	<b>140</b>	<b>270</b>	260	1,100	--
	May-99	<b>8,100</b>	ND	ND	--	--	<b>1,400</b>	31	82	360	--
	Jul-99	<b>3,500</b>	<b>1,700</b>	--	--	--	<b>252</b>	23	43	179	--
	Oct-99	<b>4,900</b>	--	--	--	--	<b>270</b>	34	<5	370	--
	Jan-00	<b>22,400</b>	<500	--	--	--	<b>1,300</b>	<b>402</b>	<b>483</b>	<b>2,490</b>	--
	Apr-00	<b>13,000</b>	--	--	--	--	<b>1,130</b>	<b>226</b>	<b>335</b>	1,410	--
	Jul-00	<b>28,400</b>	<50	<500	--	--	<b>1,470</b>	<b>190</b>	299	967	--
	Oct-00	<b>12,900</b>	--	--	--	<1,000	<b>1,000</b>	<b>197</b>	<b>353</b>	1,400	--
	Jan-01	<b>17,800</b>	--	--	--	--	<b>957</b>	146	<b>353</b>	1,060	--
	Apr-01	<b>13,000</b>	<50	--	--	--	<b>1,200</b>	170	<b>450</b>	1,300	--
	Oct-01	<b>1,800</b>	--	--	--	--	<b>210</b>	20	47	82	--
	Apr-02	<b>3,800</b>	--	--	--	--	<b>380</b>	37	80	120	--
	Jan-03	<b>14,000</b>	--	--	--	--	<b>1,200</b>	130	250	310	--
	Nov-03	<b>13,000</b>	--	--	--	--	<b>1,900</b>	92	210	190	--
	Apr-04	<b>9,600</b>	--	--	--	--	<b>1,200</b>	68	<b>410</b>	260	--
	Nov-04	<b>5,500</b>	--	--	--	--	<b>1,100</b>	28	97	72.8	--
	May-05	<b>2,000</b>	--	--	--	--	<b>130</b>	5.5	14	9.1	--
	May-08	<b>5,200</b>	--	--	--	--	<b>690</b>	63	76	51	--
	Nov-08	<b>3,100</b>	--	--	--	--	<b>560</b>	10	45	15	--
	May-09	<b>3,600</b>	--	--	--	--	<b>420</b>	12	42	11	--
	Nov-09	<b>930</b>	--	--	--	--	<b>150</b>	<2.5	9.4	2.5	--
	May-10	<b>2,100</b>	--	--	--	--	<b>190</b>	9.2	17	6.2	--
	Dec-10	<b>3,700</b>	--	--	--	--	<b>460</b>	8.5	45	15	1.8
	Jul-11	<b>3,000</b>	--	--	--	--	<b>290</b>	5.4	25	8.7	1.1
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	--	--	--	--	--	--	--	--	--	--
	May-05	--	--	--	--	--	--	--	--	--	--
	May-08	--	--	--	--	--	--	--	--	--	--
	Nov-08	--	--	--	--	--	--	--	--	--	--
	May-09	--	--	--	--	--	--	--	--	--	--
	Nov-09	--	--	--	--	--	--	--	--	--	--
	May-10	<b>220</b>	--	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5
	Jun-11	<b>400</b>	--	--	--	--	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	Apr-99	ND	<b>540</b>	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	<b>163</b>	<50	--	--	--	0.8	<0.5	<0.5	<0.5	--
	Apr-00	90	--	--	--	--	0.7	<0.5	<0.5	<0.5	--
	Jul-00	<400	--	--	--	--	<b>2.0</b>	<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	--	--	--	--	--	--	--	--	--	--
	May-05	--	--	--	--	--	--	--	--	--	--
	May-08	--	--	--	--	--	--	--	--	--	--
	Nov-08	--	--	--	--	--	--	--	--	--	--
	May-09	--	--	--	--	--	--	--	--	--	--
	Nov-09	--	--	--	--	--	--	--	--	--	--
	May-10	--	--	--	--	--	--	--	--	--	--
	Jun-11	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--	--	--
	May-05	--	--	--	--	--	--	--	--	--	--
	May-08	--	--	--	--	--	--	--	--	--	--
	Nov-08	--	--	--	--	--	--	--	--	--	--
	May-09	--	--	--	--	--	--	--	--	--	--
	Nov-09	--	--	--	--	--	--	--	--	--	--
	May-10	74	--	--	--	--	<0.5	<0.5	<0.5	<0.5	1.2
	Jun-11	53	--	--	--	--	<0.5	<0.5	<0.5	<0.5	1.8
MW-5	Apr-99	<b>270</b>	ND	ND	--	--	ND	ND	ND	ND	--
	Jul-99	<b>570</b>	<100	--	--	--	<1.0	<1.0	<1.0	<1.0	--
	Oct-99	<b>540</b>	--	--	--	--	<1.0	<1.0	<1.0	<1.0	--
	Jan-00	<b>231</b>	--	--	--	--	<b>1.9</b>	<0.5	<0.5	<0.5	--
	Apr-00	<b>353</b>	--	--	--	--	<b>3.5</b>	<0.5	<0.5	<0.5	--
	Jul-00	<400	--	--	--	--	<0.5	<0.5	<0.5	<0.5	--
	Oct-00	156	--	--	--	--	<b>1.0</b>	<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	--	--	--	--	--	--	--	--	--	--
	May-05	--	--	--	--	--	--	--	--	--	--
	May-08	--	--	--	--	--	--	--	--	--	--
	Nov-08	--	--	--	--	--	--	--	--	--	--
	May-09	--	--	--	--	--	--	--	--	--	--
	Nov-09	--	--	--	--	--	--	--	--	--	--
	May-10	<50	--	--	--	--	<0.5	<0.5	<0.5		

Table 2  
Groundwater Elevation Data  
2585 Nicholson Street  
San Leandro, California

	Groundwater Monitoring Well					Hydraulic gradient magnitude (ft/ft)	General gradient direction
	MW-1	MW-2	MW-3	MW-4	MW-5		
Well casing elevation (feet amsl)	<b>15.27</b>	<b>13.69</b>	<b>15.88</b>	<b>15.25</b>	<b>16.46</b>	---	---
Apr 1999	Depth to groundwater (feet bgs)	5.33	3.76	5.88	5.40	6.64	Southeast
	Groundwater Elevation (feet amsl)	<b>9.94</b>	<b>9.93</b>	<b>10.00</b>	<b>9.85</b>	<b>9.82</b>	
Jul 1999	Depth to groundwater (feet bgs)	5.85	4.19	6.37	5.84	7.11	Southeast
	Groundwater Elevation (feet amsl)	<b>9.42</b>	<b>9.50</b>	<b>9.51</b>	<b>9.41</b>	<b>9.35</b>	
Oct 1999	Depth to groundwater (feet bgs)	5.45	4.06	5.79	5.60	6.68	Easterly
	Groundwater Elevation (feet amsl)	<b>9.82</b>	<b>9.63</b>	<b>10.09</b>	<b>9.65</b>	<b>9.78</b>	
Jan 2000	Depth to groundwater (feet bgs)	5.13	3.70	5.63	5.25	6.43	Easterly
	Groundwater Elevation (feet amsl)	<b>10.14</b>	<b>9.99</b>	<b>10.25</b>	<b>10.00</b>	<b>10.03</b>	
Apr 2000	Depth to groundwater (feet bgs)	4.95	3.61	5.41	5.06	6.15	Easterly
	Groundwater Elevation (feet amsl)	<b>10.32</b>	<b>10.08</b>	<b>10.47</b>	<b>10.19</b>	<b>10.31</b>	
Jul 2000	Depth to groundwater (feet bgs)	5.74	4.06	6.27	5.77	7.11	South southeast
	Groundwater Elevation (feet amsl)	<b>9.53</b>	<b>9.63</b>	<b>9.61</b>	<b>9.48</b>	<b>9.35</b>	
Oct 2000	Depth to groundwater (feet bgs)	5.35	3.85	5.75	5.28	6.56	--
	Groundwater Elevation (feet amsl)	<b>9.92</b>	<b>9.84</b>	<b>10.13</b>	<b>9.97</b>	<b>9.90</b>	
Jan 2001	Depth to groundwater (feet bgs)	5.70	4.00	6.21	5.73	6.70	South southeast
	Groundwater Elevation (feet amsl)	<b>9.57</b>	<b>9.69</b>	<b>9.67</b>	<b>9.52</b>	<b>9.76</b>	
Apr 2001	Depth to groundwater (feet bgs)	5.38	3.80	5.90	5.40	6.65	Southeast
	Groundwater Elevation (feet amsl)	<b>9.89</b>	<b>9.89</b>	<b>9.98</b>	<b>9.85</b>	<b>9.81</b>	
Oct 2001	Depth to groundwater (feet bgs)	5.79	--	--	--	--	--
	Groundwater Elevation (feet amsl)	<b>9.48</b>	--	--	--	--	
Apr 2002	Depth to groundwater (feet bgs)	5.41	--	--	--	--	--
	Groundwater Elevation (feet amsl)	<b>9.86</b>	--	--	--	--	
Jan 2003	Depth to groundwater (feet bgs)	5.83	--	--	--	--	--
	Groundwater Elevation (feet amsl)	<b>9.44</b>	--	--	--	--	
Nov 2003	Depth to groundwater (feet bgs)	5.47	--	--	--	--	--
	Groundwater Elevation (feet amsl)	<b>9.80</b>	--	--	--	--	
Apr 2004	Depth to groundwater (feet bgs)	5.40	--	--	--	--	--
	Groundwater Elevation (feet amsl)	<b>9.87</b>	--	--	--	--	
Nov 2004	Depth to groundwater (feet bgs)	5.60	--	--	--	--	--
	Groundwater Elevation (feet amsl)	<b>9.67</b>	--	--	--	--	
May 2005	Depth to groundwater (feet bgs)	5.27	--	--	--	--	--
	Groundwater Elevation (feet amsl)	<b>10.00</b>	--	--	--	--	
May 2008	Depth to groundwater (feet bgs)	5.60	--	--	--	--	--
	Groundwater Elevation (feet amsl)	<b>9.67</b>	--	--	--	--	
Nov 2008	Depth to groundwater (feet bgs)	5.73	--	--	5.75	7.10	Southerly
	Groundwater Elevation (feet amsl)	<b>9.54</b>	--	--	<b>9.50</b>	<b>9.36</b>	
May 2009	Depth to groundwater (feet bgs)	5.47	--	--	5.56	6.85	Southerly
	Groundwater Elevation (feet amsl)	<b>9.80</b>	--	--	<b>9.69</b>	<b>9.61</b>	
Dec 2009	Depth to groundwater (feet bgs)	4.90	3.50	--	5.00	6.12	Northeasterly
	Groundwater Elevation (feet amsl)	<b>10.37</b>	<b>10.19</b>	--	<b>10.25</b>	<b>10.34</b>	
May 2010	Depth to groundwater (feet bgs)	5.20	3.61	--	5.25	6.50	Southeast
	Groundwater Elevation (feet amsl)	<b>10.07</b>	<b>10.08</b>	--	<b>10.00</b>	<b>9.96</b>	
Dec 2010	Depth to groundwater (feet bgs)	5.12	3.70	--	5.22	6.41	Northeasterly
	Groundwater Elevation (feet amsl)	<b>10.15</b>	<b>9.99</b>	--	<b>10.03</b>	<b>10.05</b>	
June 2011	Depth to groundwater (feet bgs)	5.36	3.78	--	5.46	6.68	Southeasterly
	Groundwater Elevation (feet amsl)	<b>9.91</b>	<b>9.91</b>	--	<b>9.79</b>	<b>9.78</b>	

Notes and Abbreviations:  
ft/ft = feet per foot  
amsl = above mean sea level



**ATTACHMENT II**

**Monitoring Well Purge Table**



# PURGE TABLE

PROJECT NO. 104422.4422.007

SITE NAME: Bank of America - San Leandro

LOCATION: 2585 Nicholson Street San Leandro, CA

WELL I. D.: MW-1

DATE PURGED: 6/15/2011

PURGED/SAMPLED BY: Nicole Hastings

DATE SAMPLED: 6/15/2011

MASTER LOCK NUMBER: NA

TIME SAMPLED: 1230DEPTH TO BOTTOM (feet): 18.0DEPTH TO WATER (feet): 5.36WATER COLUMN HEIGHT (feet): 12.64CALCULATED PURGE (gallons): 56.7CASING VOLUME (gallons): 18.9ACTUAL PURGE (gallons): 60DEVELOPMENT \_\_\_\_\_ QUARTERLY \_\_\_\_\_ BIANNUAL X OTHER \_\_\_\_\_SAMPLE TYPE: Groundwater X Surface Water \_\_\_\_\_ Other \_\_\_\_\_CASING DIAMETER: 2" ~~X~~ 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 F)	pH (units)	CONDUCTIVITY (uS/cm)	DISOLVED OXYGEN (mg/L)	REDOX ORP	TURBIDITY (NTU)
0	1130	68.38	7.37	619	8.70	<42.8>	low
10	1136	61.34	6.98	610	1.39	<113.5>	low
20	1143	61.47	7.00	616	1.17	<116.1>	low
30	1149	61.54	7.05	621	1.01	<118.8>	low
40	1155	61.83	7.17	614	0.80	<80.6>	low
50	1201	61.87	7.18	615	0.68	<71.6>	low
60	1207	61.93	7.18	618	0.62	<68.8>	low
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

## SAMPLE INFORMATION

SAMPLE DEPTH TO WATER (feet): 5.5 ANALYSES: TPH-g, BTEX, MTBE  
 80% RECHARGE: X NO 80% = \_\_\_\_\_ SAMPLE TURBIDITY: low  
 ODOR: yes SAMPLE BOTTLE/PRESERVATIVE: HCL

### PURGING EQUIPMENT

\_\_\_\_ Centrifugal Pump      \_\_\_\_ Bailer (Teflon)  
X Submersible Pump      \_\_\_\_ Bailer (PVC or disposable)  
 \_\_\_\_ Peristaltic Pump      \_\_\_\_ Bailer (Stainless Steel)  
 \_\_\_\_ Purge Pump  
 Other: \_\_\_\_\_

### SAMPLING EQUIPMENT

\_\_\_\_ Centrifugal Pump      \_\_\_\_ Bailer (Teflon)  
 \_\_\_\_ Submersible Pump      X Bailer (PVC or disposable)  
 \_\_\_\_ Peristaltic Pump      \_\_\_\_ Bailer (Stainless Steel)  
 \_\_\_\_ Purge Pump  
 Other: \_\_\_\_\_

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



VERSAR

PURGE TABLE

PROJECT NO. 104422.4422.007

SITE NAME: Bank of America - San Leandro

LOCATION: 2585 Nicholson Street San Leandro, CA

WELL I. D.: MW-2

DATE PURGED: 6/15/2011

PURGED/SAMPLED BY: Nicole Hastings

DATE SAMPLED: 6/15/2011

MASTER LOCK NUMBER: NA

TIME SAMPLED: 1105

DEPTH TO BOTTOM (feet): 14.15

DEPTH TO WATER (feet): 3.78

WATER COLUMN HEIGHT (feet): 10.37

CALCULATED PURGE (gallons): 4.8

CASING VOLUME (gallons): 1.6

ACTUAL PURGE (gallons): 5

DEVELOPMENT \_\_\_\_\_ QUARTERLY \_\_\_\_\_ BIANNUAL X OTHER \_\_\_\_\_

SAMPLE TYPE: Groundwater X Surface Water \_\_\_\_\_ Other \_\_\_\_\_

CASING DIAMETER: 2" X 3" \_\_\_\_\_ 4" \_\_\_\_\_ 5" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_ Other \_\_\_\_\_
Casing Volume (gallons per foot): (0.16) (0.38) (0.66) (1.02) (1.50) (2.60)

FIELD MEASUREMENTS

Table with 8 columns: VOLUME (gal), TIME (2400hr), TEMP (degrees F), pH (units), CONDUCTIVITY (uS/cm), DISOLVED OXYGEN (mg/L), REDOX ORP, TURBIDITY (NTU). Rows 0-5 show data points.

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER (feet): 3.80 ANALYSES: TPH-g, BTEX, MTBE
80% RECHARGE: X NO 80% = \_\_\_\_\_ SAMPLE TURBIDITY: low
ODOR: ND SAMPLE BOTTLE/PRESERVATIVE: HCL

PURGING EQUIPMENT

Centrifugal Pump \_\_\_\_\_ Bailer (Teflon) \_\_\_\_\_
Submersible Pump X Bailer (PVC or disposable) \_\_\_\_\_
Peristaltic Pump \_\_\_\_\_ Bailer (Stainless Steel) \_\_\_\_\_
Purge Pump \_\_\_\_\_
Other: \_\_\_\_\_

SAMPLING EQUIPMENT

Centrifugal Pump \_\_\_\_\_ Bailer (Teflon) \_\_\_\_\_
Submersible Pump \_\_\_\_\_ Bailer (PVC or disposable) X
Peristaltic Pump \_\_\_\_\_ Bailer (Stainless Steel) \_\_\_\_\_
Purge Pump \_\_\_\_\_
Other: \_\_\_\_\_

Comments: \_\_\_\_\_



# PURGE TABLE

PROJECT NO. 104422.4422.007

SITE NAME: Bank of America - San Leandro	LOCATION: 2585 Nicholson Street San Leandro, CA
WELL I. D.: <u>MW-4</u>	DATE PURGED: 6/15/2011
PURGED/SAMPLED BY: Nicole Hastings	DATE SAMPLED: 6/15/2011
MASTER LOCK NUMBER: NA	TIME SAMPLED: <u>1020</u>
DEPTH TO BOTTOM (feet): <u>13.90</u>	DEPTH TO WATER (feet): <u>5.46</u>
WATER COLUMN HEIGHT (feet): <u>8.44</u>	CALCULATED PURGE (gallons): <u>3.9</u>
CASING VOLUME (gallons): <u>1.3</u>	ACTUAL PURGE (gallons): <u>4</u>

DEVELOPMENT \_\_\_\_\_ QUARTERLY \_\_\_\_\_ BIENNIAL X OTHER \_\_\_\_\_

SAMPLE TYPE: Groundwater X Surface Water \_\_\_\_\_ Other \_\_\_\_\_

CASING DIAMETER: 2" X 3" \_\_\_\_\_ 4" \_\_\_\_\_ 5" \_\_\_\_\_ 6" \_\_\_\_\_ 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 <del>F</del> )	pH (units)	CONDUCTIVITY ( <del>u</del> S/cm)	DISOLVED OXYGEN (mg/L)	REDOX ORP	TURBIDITY (NTU)
<u>0</u>	<u>1002</u>	<u>69.93</u>	<u>7.38</u>	<u>968</u>	<u>13.36</u>	<u>21.2</u>	<u>low</u>
<u>1</u>	<u>1003</u>	<u>68.34</u>	<u>7.06</u>	<u>955</u>	<u>3.93</u>	<u>43.8</u>	<u>low</u>
<u>2</u>	<u>1005</u>	<u>68.72</u>	<u>7.01</u>	<u>949</u>	<u>3.21</u>	<u>54.7</u>	<u>low</u>
<u>3</u>	<u>1006</u>	<u>67.96</u>	<u>6.95</u>	<u>941</u>	<u>3.01</u>	<u>65.8</u>	<u>low</u>
<u>4</u>	<u>1008</u>	<u>67.65</u>	<u>6.93</u>	<u>938</u>	<u>2.99</u>	<u>68.7</u>	<u>low</u>

## SAMPLE INFORMATION

SAMPLE DEPTH TO WATER (feet): 5.49 ANALYSES: TPH-g, BTEX, MTBE

80% RECHARGE: X NO 80% = \_\_\_\_\_ SAMPLE TURBIDITY: low

ODOR: NO SAMPLE BOTTLE/PRESERVATIVE: HCL

### PURGING EQUIPMENT

\_\_\_\_ Centrifugal Pump      \_\_\_\_ Bailer (Teflon)

X Submersible Pump      \_\_\_\_ Bailer (PVC or disposable)

\_\_\_\_ Peristaltic Pump      \_\_\_\_ Bailer (Stainless Steel)

\_\_\_\_ Purge Pump

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

### SAMPLING EQUIPMENT

\_\_\_\_ Centrifugal Pump      \_\_\_\_ Bailer (Teflon)

\_\_\_\_ Submersible Pump      X Bailer (PVC or disposable)

\_\_\_\_ Peristaltic Pump      \_\_\_\_ Bailer (Stainless Steel)

\_\_\_\_ Purge Pump

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

Comments: \_\_\_\_\_

\_\_\_\_\_



# PURGE TABLE

PROJECT NO. 104422.4422.007

SITE NAME: Bank of America - San Leandro

LOCATION: 2585 Nicholson Street San Leandro, CA

WELL I. D.: MW-5

DATE PURGED: 6/15/2011

PURGED/SAMPLED BY: Nicole Hastings

DATE SAMPLED: 6/15/2011

MASTER LOCK NUMBER: NA

TIME SAMPLED: 930DEPTH TO BOTTOM (feet): 13.68DEPTH TO WATER (feet): 10.68WATER COLUMN HEIGHT (feet): 7.00CALCULATED PURGE (gallons): 3.4CASING VOLUME (gallons): 1.12ACTUAL PURGE (gallons): 4

DEVELOPMENT \_\_\_\_\_ QUARTERLY \_\_\_\_\_ BIENNIAL X OTHER \_\_\_\_\_

SAMPLE TYPE: Groundwater X Surface Water \_\_\_\_\_ Other \_\_\_\_\_

CASING DIAMETER: 2" X 3" \_\_\_\_\_ 4" \_\_\_\_\_ 5" \_\_\_\_\_ 6" \_\_\_\_\_ 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 <del>F</del> )	pH (units)	CONDUCTIVITY ( <del>u</del> S/cm)	DISOLVED OXYGEN (mg/L)	REDOX ORP	TURBIDITY (NTU)
<u>0</u>	<u>904</u>	<u>67.06</u>	<u>7.47</u>	<u>420</u>	<u>4.36</u>	<u>107.5</u>	<u>low</u>
<u>1</u>	<u>906</u>	<u>65.60</u>	<u>6.85</u>	<u>662</u>	<u>2.97</u>	<u>23.5</u>	<u>low</u>
<u>2</u>	<u>907</u>	<u>65.59</u>	<u>6.78</u>	<u>703</u>	<u>2.72</u>	<u>13.5</u>	<u>low</u>
<u>3</u>	<u>909</u>	<u>65.54</u>	<u>6.73</u>	<u>759</u>	<u>2.37</u>	<u>8.1</u>	<u>low</u>
<u>4</u>	<u>911</u>	<u>65.50</u>	<u>6.75</u>	<u>773</u>	<u>2.24</u>	<u>5.0</u>	<u>low</u>
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

## SAMPLE INFORMATION

SAMPLE DEPTH TO WATER (feet): 10.68 ANALYSES: TPH-g, BTEX, MTBE

80% RECHARGE: X NO 80% = \_\_\_\_\_ SAMPLE TURBIDITY: low

ODOR: No SAMPLE BOTTLE/PRESERVATIVE: HCL

### PURGING EQUIPMENT

\_\_\_\_ Centrifugal Pump      \_\_\_\_ Bailer (Teflon)

X Submersible Pump      \_\_\_\_ Bailer (PVC or disposable)

\_\_\_\_ Peristaltic Pump      \_\_\_\_ Bailer (Stainless Steel)

\_\_\_\_ Purge Pump

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

### SAMPLING EQUIPMENT

\_\_\_\_ Centrifugal Pump      \_\_\_\_ Bailer (Teflon)

\_\_\_\_ Submersible Pump      X Bailer (PVC or disposable)

\_\_\_\_ Peristaltic Pump      \_\_\_\_ Bailer (Stainless Steel)

\_\_\_\_ Purge Pump

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

Comments: \_\_\_\_\_

\_\_\_\_\_



**ATTACHMENT III**

**Laboratory Analytical Data Report**





Report Number : 77801

Date : 06/20/2011

## Laboratory Results

Nicole Hastings  
Versar, Inc.  
7844 Madison Avenue Suite 167  
Fair Oaks, CA 95628

Subject : 5 Water Samples  
Project Name : B of A San Leandro  
Project Number : 104422.4422.007

Dear Ms. Hastings,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Joel Kiff



Report Number : 77801

Date : 06/20/2011

Project Name : **B of A San Leandro**

Project Number : **104422.4422.007**

Sample : **MW-1**

Matrix : Water

Lab Number : 77801-01

Sample Date :06/15/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
<b>Benzene</b>	<b>290</b>	0.50	ug/L	EPA 8260B	06/16/11 06:22
<b>Toluene</b>	<b>5.4</b>	0.50	ug/L	EPA 8260B	06/16/11 06:22
<b>Ethylbenzene</b>	<b>25</b>	0.50	ug/L	EPA 8260B	06/16/11 06:22
<b>Total Xylenes</b>	<b>8.7</b>	0.50	ug/L	EPA 8260B	06/16/11 06:22
<b>Methyl-t-butyl ether (MTBE)</b>	<b>1.1</b>	0.50	ug/L	EPA 8260B	06/16/11 06:22
<b>TPH as Gasoline</b>	<b>3000</b>	50	ug/L	EPA 8260B	06/16/11 06:22
1,2-Dichloroethane-d4 (Surr)	95.5		% Recovery	EPA 8260B	06/16/11 06:22
Toluene - d8 (Surr)	97.5		% Recovery	EPA 8260B	06/16/11 06:22



Report Number : 77801

Date : 06/20/2011

Project Name : **B of A San Leandro**

Project Number : **104422.4422.007**

Sample : **MW-2**

Matrix : Water

Lab Number : 77801-02

Sample Date :06/15/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	06/16/11 02:39
Toluene	< 0.50	0.50	ug/L	EPA 8260B	06/16/11 02:39
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	06/16/11 02:39
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	06/16/11 02:39
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	06/16/11 02:39
<b>TPH as Gasoline</b>	<b>400</b>	50	ug/L	EPA 8260B	06/16/11 02:39
(Note: Primarily compounds not found in typical Gasoline)					
1,2-Dichloroethane-d4 (Surr)	99.2		% Recovery	EPA 8260B	06/16/11 02:39
Toluene - d8 (Surr)	99.1		% Recovery	EPA 8260B	06/16/11 02:39



Report Number : 77801

Date : 06/20/2011

Project Name : **B of A San Leandro**

Project Number : **104422.4422.007**

Sample : **MW-4**

Matrix : Water

Lab Number : 77801-03

Sample Date :06/15/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	06/16/11 03:16
Toluene	< 0.50	0.50	ug/L	EPA 8260B	06/16/11 03:16
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	06/16/11 03:16
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	06/16/11 03:16
<b>Methyl-t-butyl ether (MTBE)</b>	<b>1.8</b>	0.50	ug/L	EPA 8260B	06/16/11 03:16
<b>TPH as Gasoline</b>	<b>53</b>	50	ug/L	EPA 8260B	06/16/11 03:16
(Note: Primarily compounds not found in typical Gasoline)					
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	06/16/11 03:16
Toluene - d8 (Surr)	99.1		% Recovery	EPA 8260B	06/16/11 03:16



Report Number : 77801

Date : 06/20/2011

Project Name : **B of A San Leandro**

Project Number : **104422.4422.007**

Sample : **MW-5**

Matrix : Water

Lab Number : 77801-04

Sample Date :06/15/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	06/16/11 03:54
Toluene	< 0.50	0.50	ug/L	EPA 8260B	06/16/11 03:54
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	06/16/11 03:54
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	06/16/11 03:54
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	06/16/11 03:54
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	06/16/11 03:54
1,2-Dichloroethane-d4 (Surr)	99.3		% Recovery	EPA 8260B	06/16/11 03:54
Toluene - d8 (Surr)	98.2		% Recovery	EPA 8260B	06/16/11 03:54



Report Number : 77801

Date : 06/20/2011

Project Name : **B of A San Leandro**

Project Number : **104422.4422.007**

Sample : **TRIP BLANK**

Matrix : Water

Lab Number : 77801-05

Sample Date :06/15/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	06/15/11 23:33
Toluene	< 0.50	0.50	ug/L	EPA 8260B	06/15/11 23:33
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	06/15/11 23:33
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	06/15/11 23:33
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	06/15/11 23:33
1,2-Dichloroethane-d4 (Surr)	98.8		% Recovery	EPA 8260B	06/15/11 23:33
Toluene - d8 (Surr)	98.9		% Recovery	EPA 8260B	06/15/11 23:33

Report Number : 77801

Date : 06/20/2011

**QC Report : Method Blank Data**

Project Name : **B of A San Leandro**

Project Number : **104422.4422.007**

<u>Parameter</u>	<u>Measured Value</u>	<u>Method Reporting Limit</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>
Benzene	< 0.50	0.50	ug/L	EPA 8260B	06/15/2011
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	06/15/2011
Toluene	< 0.50	0.50	ug/L	EPA 8260B	06/15/2011
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	06/15/2011
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	06/15/2011
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	06/15/2011
1,2-Dichloroethane-d4 (Surr)	99.3		%	EPA 8260B	06/15/2011
Toluene - d8 (Surr)	99.2		%	EPA 8260B	06/15/2011

<u>Parameter</u>	<u>Measured Value</u>	<u>Method Reporting Limit</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>
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**QC Report : Matrix Spike/ Matrix Spike Duplicate**

Project Name : **B of A San Leandro**

Project Number : **104422.4422.007**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	77795-03	<0.50	40.0	40.0	39.2	38.4	ug/L	EPA 8260B	6/15/11	98.1	96.1	2.03	80-120	25
Ethylbenzene	77795-03	<0.50	40.0	40.0	42.1	41.1	ug/L	EPA 8260B	6/15/11	105	103	2.34	80-120	25
Methyl-t-butyl ether	77795-03	<0.50	40.2	40.2	38.9	36.4	ug/L	EPA 8260B	6/15/11	96.8	90.5	6.79	69.7-121	25
P + M Xylene	77795-03	<0.50	40.0	40.0	41.3	40.8	ug/L	EPA 8260B	6/15/11	103	102	1.10	76.8-120	25
Toluene	77795-03	<0.50	40.0	40.0	39.2	39.0	ug/L	EPA 8260B	6/15/11	98.1	97.4	0.706	80-120	25



**QC Report : Laboratory Control Sample (LCS)**Project Name : **B of A San Leandro**Project Number : **104422.4422.007**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.2	ug/L	EPA 8260B	6/15/11	96.0	80-120
Ethylbenzene	40.2	ug/L	EPA 8260B	6/15/11	104	80-120
Methyl-t-butyl ether	40.4	ug/L	EPA 8260B	6/15/11	95.2	69.7-121
P + M Xylene	40.2	ug/L	EPA 8260B	6/15/11	103	76.8-120
TPH as Gasoline	503	ug/L	EPA 8260B	6/15/11	96.7	70.0-130
Toluene	40.2	ug/L	EPA 8260B	6/15/11	96.9	80-120







**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.

1. 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 purge pump 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 sampling containers.



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.