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By Alameda County Environmental Health at 3:18 pm, Mar 10, 2014

March 5, 2014

SUBMITTED ELECTRONICALLY

Mr. Mark E. Detterman, P.G., CEG
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Re: Fourth Quarter 2013 Groundwater Monitoring Report –
Former Petroleum Underground Storage Tank (UST) Site
David D. Bohannon Organization Property Located at
575 Paseo Grande - San Lorenzo, CA

Dear Mr. Detterman:

Enclosed for your review is the *Fourth Quarter 2013 Groundwater Monitoring Report* prepared by Stantec Consulting Services Inc. (Stantec) on behalf of David D. Bohannon Organization (Bohannon). The report summarizes recent groundwater monitoring and sampling conducted by Stantec at 575 Paseo Grande in San Lorenzo, California (the Site). Fourth quarter 2013 groundwater monitoring and sampling was conducted pursuant to the Alameda County Environmental Health (ACEH) letter to Bohannon dated August 31, 2012.

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. If you have any questions regarding the enclosed report, please contact me at (650) 345-8222.

Sincerely,

A handwritten signature in blue ink that reads 'Scott E. Bohannon'.

Scott E. Bohannon, Senior Vice President

cc: Mr. Chris Maxwell, Stantec Consulting Services Inc.
Mr. Brian Westhoff, Stantec Consulting Services Inc.
Mr. Andrew A. Bassak, Manatt, Phelps, and Phillips LLP

Fourth Quarter 2013 Groundwater Monitoring Report

575 Paseo Grande
San Lorenzo, California
PN: 185702534



Prepared for:

David D. Bohannon Organization

Prepared by:

Stantec Consulting Services Inc.
3017 Kilgore Road, Suite 100
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March 5, 2014

2013 GROUNDWATER MONITORING REPORT

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2013 GROUNDWATER MONITORING REPORT

Abbreviations and Acronyms

ACEH	Alameda County Environmental Health
Amsl	above mean sea level
Bohannon	David D. Bohannon Organization
BTEX	benzene, toluene, ethylbenzene, and total xylenes
DO	dissolved oxygen
ft/ft	feet per foot
LCS	laboratory control spike
MB	method blank
mL/min	milliliters per minute
MRL	method reporting limit
MS	matrix spike
ORP	oxidation/reduction potential
QA/QC	quality assurance and quality control
RPD	relative percent difference
SECOR	SECOR International Incorporated
Stantec	Stantec Consulting Services Inc.
TPHg	total petroleum hydrocarbons as gasoline
µg/L	micrograms per liter
U.S. EPA	United States Environmental Protection Agency
UST	underground storage tank

2013 GROUNDWATER MONITORING REPORT

Introduction
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1.0 Introduction

Stantec Consulting Services Inc. (Stantec; formerly SECOR) presents this groundwater monitoring report for the fourth quarter of 2013 which describes results of groundwater monitoring and sampling conducted on December 11, 2013 and 12, 2013, for the property located at 575 Paseo Grande, San Lorenzo, California (the Site; see Figure 1). This sampling event was conducted by Stantec pursuant to a letter from Alameda County Environmental Health (ACEH) to David D. Bohannon Organization (Bohannon), dated November 18, 2013, requesting quarterly groundwater monitoring and sampling to monitor post-remediation trends at the Site. The scope of work for the fourth quarter 2013 included measuring the depth-to-water and collecting groundwater samples in groundwater monitoring wells MW-1 through MW-7 and observation wells POBS-A1, POBS-B1, POBS-B2, and NOBS-B1 (see Figure 2). Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene, and total xylenes, (collectively BTEX). Site background information including a summary of previous Site investigations and remedial actions is included in Appendix A of this report.

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Groundwater Monitoring
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2.0 Groundwater Monitoring

Site-wide groundwater monitoring and sampling was performed on December 11 and 12, 2013, and consisted of sounding wells for depth-to-water and sampling monitoring wells MW-1 through MW-7 and observation wells POBS-A1, POBS-B1, POBS-B2, and NOBS-B1. Well gauging data is reported on Table 2. Field data sheets are provided in Appendix B. Laboratory analytical data is reported on Table 3 and included in Appendix C. The following summarizes the data collected by Stantec in December 2013.

2.1 WATER LEVEL GAUGING

Prior to purging and sampling, the depth-to-water was measured from the top of each well casing using a water-level indicator graduated to 0.01 foot. Depth-to-groundwater measurements and surveyed wellhead top-of-casing elevations were used to calculate groundwater surface elevations in wells MW-1 through MW-7. Table 2 presents historical monitoring well groundwater elevation data for the Site.

The average depth-to-water measured at the Site on December 11, 2013 was 6.26 feet below the top of well casing with an average water-table elevation of 22.56 feet above mean sea level (amsl). A potentiometric surface map illustrating the interpreted groundwater surface elevation and flow direction on December 11, 2013 is presented on Figure 3. The hydraulic gradient across the Site was approximately 0.002 feet per foot (ft/ft) toward the southwest.

2.2 GROUNDWATER SAMPLING

On December 11 and 12, 2013, wells were purged and sampled using a low-flow purging method consisting of dedicated well tubing attached to a variable speed peristaltic pump set to extract groundwater at a rate of approximately 200 milliliters per minute (mL/min). Temperature, conductivity, pH, dissolved oxygen (DO) content, and oxidation/reduction potential (ORP) were monitored using a flow-through cell during purging to confirm stable water conditions prior to sampling. Copies of field data sheets are attached as Appendix B.

Samples were collected from each well using the dedicated tubing to limit the potential for cross-contamination between wells. Samples were placed in laboratory-supplied sample containers, labeled, and stored on ice pending delivery to TestAmerica, a California state accredited laboratory located in Pleasanton, California. The groundwater samples were analyzed for gasoline range organics (C5-C12) and BTEX by United States Environmental Protection Agency (U.S. EPA) Method 8260B.

2.2.1 Quality Assurance/Quality Control Procedures

Analytical data were evaluated for accuracy and precision based on field and laboratory quality assurance and quality control (QA/QC) performance.

2013 GROUNDWATER MONITORING REPORT

Groundwater Monitoring
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Duplicate Sample

One duplicate sample was collected during the fourth quarter 2013 sampling event from observation well MW-4. The analysis of field duplicate samples is a measure of both field and analytical precision. The relative percent difference (RPD) between primary and duplicate sample concentrations for the December 2013 sampling event was less than 26 percent for all petroleum hydrocarbon analytes.

Holding Times

The laboratory QA/QC includes checking adherence to holding times. Holding times are established by the U.S. EPA and refer to the maximum allowable time to pass between sample collection and analysis by the laboratory. All analyses were performed within the holding times specified by the U.S. EPA.

Control Spikes and Method Blanks

The laboratory control spike (LCS) and matrix spike (MS) recovery results and method blank (MB) results were used to assess accuracy of the analytical data. The analytical program included eight LCS and LCS duplicate pairs, one MS and MS duplicate pair, and four MBs. The spike recovery results were within the prescribed range of acceptable limits for analytical accuracy in all cases. The data are included in Appendix C.

2013 GROUNDWATER MONITORING REPORT

Results
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3.0 Results

The following presents a discussion of results of the December 2013 groundwater monitoring conducted at the Site.

3.1 GROUNDWATER ANALYTICAL RESULTS

Petroleum hydrocarbon chemical data for the December 2013 event are shown in Table 3 and illustrated on Figure 4. Laboratory analytical reports are included in Appendix C. Historical concentration trends for TPHg and benzene in select groundwater monitoring wells including MW-1, MW-2, MW-3, MW-4, and observation wells POBS-A1, POBS-B1, POBS-B2, and NOBS-B1 are included in Appendix D.

TPHg and BTEX concentrations continued to be below the laboratory method reporting limits (MRLs) in on-Site monitoring well MW-1 and in off-Site monitoring wells MW-5, MW-6, and MW-7.

Concentrations of TPHg and benzene in on-Site monitoring well MW-2 are consistent with previous sampling events for 2012 and remain well below historical concentrations for well MW-2. Ethylbenzene, and total xylenes were not detected above the MRLs during the December 2013 sampling of monitoring well MW-2.

The concentrations of petroleum hydrocarbons in the primary and duplicate samples from off-Site monitoring well MW-4 are similar to the duplicate sample collected during the same December 2013 event. TPHg and benzene were detected in the primary sample at 6,900 µg /L and 190 µg /L, respectively, compared to 7,700 µg /L and 240 µg /L. Toluene and ethylbenzene were similarly detected in the primary sample at 17 µg/L and 3.3 µg/L, respectively, compared to 22 µg/L and 4.2 µg/L in the duplicate sample. Total xylenes detected were similar with the primary sample reported at 16 µg/L and the duplicate at 20 µg/L.

The concentrations of TPHg and benzene from observation well POBS-A1 from the sample collected in December 2013 are detected at 2,600 µg /L and 1,200 µg /L and are consistent with previous sampling events in November 2012. Toluene was detected at 28 µg/L and total xylenes were 15 µg/L, while ethylbenzene was not detected above MRLs.

As of fourth quarter 2013, more than 99% of TPHg, benzene, toluene, ethylbenzene and xylenes have been removed since observation of maximum historical concentration in fourth quarter 2004 from monitoring well MW-3, located downgradient of observation well POBS-A1. Concentrations in MW-3, which are near non-detect, are consistent with other post remediation data but considerably lower than historical levels.

2013 GROUNDWATER MONITORING REPORT

Conclusions
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4.0 Conclusions

The following presents a discussion of the key results of the fourth quarter 2013 monitoring and sampling event conducted in December 2013:

- ❑ Detectable concentrations observed in the fourth quarter 2013 wells were within historic ranges for monitoring wells MW-2, MW-3, and POBS-A1, and below MRLs in monitoring wells MW-1, MW-5, MW-6, MW-7, POBS-B1, POBS-B2, and NOBS-B1.
- ❑ TPHg and BTEX concentrations at off-site monitoring well MW-4 are similar to concentrations detected in 2012.

2013 GROUNDWATER MONITORING REPORT

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Limitations and Certifications

This report was prepared in accordance with the scope of work outlined in Stantec's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the site. It was prepared for the exclusive use of David D. Bohannon Organization for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Stantec. To the extent that this report is based on information provided to Stantec by third parties, Stantec may have made efforts to verify this third party information, but Stantec cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the site existing at the time of the field investigation. No other warranties, expressed or implied are made by Stantec.

Prepared by:



Victoria Blanchard
Geologic Staff

Reviewed by:



Chris Maxwell
Principal Geologist

Information, conclusions, and recommendations provided by Stantec in this document have been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

Licensed Reviewer:



Brian Westhoff, P.G.
Senior Geologist



Tables

TABLE 1
Well Construction Details
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Well	Date Installed	Top of Casing Elevation (ft amsl) ¹	Total Depth (ft bgs)	Casing Diameter (inches)	Screen Slot Size (inches)	Screen Length (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
MW-1	5/10/1996	29.77	15.5	2	0.02	9.75	5.5	15.25
MW-2	5/10/1996	29.54	15.5	2	0.02	9.75	5.5	15.25
MW-3	5/10/1996	29.34	14.5	2	0.02	9.75	4.5	14.25
MW-4	10/2/2000	28.64	15	2	0.02	9	6	15
MW-5	10/2/2000	28.56	15	2	0.02	9	6	15
MW-6	10/2/2000	27.70	15	2	0.02	9	6	15
MW-7	10/2/2000	28.22	15	2	0.02	9	6	15
PIW-A1	5/4/2004	32.46	18	4	0.02	10	8	18
PIW-A2	5/4/2004	32.57	18	4	0.02	10	8	18
PIW-A3	5/4/2004	31.74	18	4	0.02	10	8	18
PIW-A4	5/6/2004	32.35	18	4	0.02	10	8	18
PIW-B1	5/3/2004	32.11	25.5	4	0.02	6	19.5	25.5
PIW-B2	5/3/2004	32.37	26	4	0.02	6	20	26
PIW-B3	5/4/2004	31.91	26	4	0.02	6	20	26
PIW-B4	5/4/2004	32.18	26	4	0.02	6	20	26
POBS-A1	5/6/2004	29.84	18	1	0.02	10	8	18
POBS-B1	5/6/2004	29.95	26	1	0.02	6	20	26
POBS-B2	5/6/2004	29.21	26	2	0.02	6	20	26
NIW-A1	5/5/2004	31.53	18	4	0.02	10	8	18
NIW-A2	5/5/2004	30.80	18	4	0.02	10	8	18
NIW-B1	5/5/2004	29.91	26	4	0.02	6	20	26
NIW-B2	5/5/2004	31.04	26	4	0.02	6	20	26
NOBS-B1	5/7/2004	28.54	26	2	0.02	6	20	26
DP-1	9/30/2005	32.53	20.5	8	0.02	10	4.75	14.75
DP-2	9/29/2005	32.35	20	8	0.02	10	4.25	14.25
DP-3	9/29/2005	32.22	20	8	0.02	10	4.50	14.50
DP-4	9/28/2005	32.07	20	8	0.02	10	4.25	14.25
DP-5	9/28/2005	32.24	20.25	8	0.02	9.75	4.75	14.50
DP-6	9/29/2005	31.66	20.25	8	0.02	10	4.50	14.50
DP-7	9/29/2005	31.34	20.25	8	0.02	10	4.50	14.50

Abbreviations:

ft amsl = feet above mean sea level
ft bgs = feet below ground surface
in = inches
NA = Not Available or Not Known

Notes:

- 1) Top of casing elevations surveyed by Mid Coast Engineers on September 24, 2012; North American Vertical Datum of 1988, NAVD 88.
- 2) Well construction information in Table 1 was updated in September 2012 for GeoTracker® compliance.

TABLE 2
Historical Groundwater Elevations
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Well	Date Sampled	TOC Elevation¹ (ft amsl)	DTW (ft BTOC)	Groundwater Elevation (ft amsl)
MW-1	05/17/96	27.11	5.65	21.46
	10/08/96		7.47	19.64
	04/01/97		6.27	20.84
	06/12/97		6.90	20.21
	09/10/97		7.48	19.63
	06/08/99		6.44	20.67
	09/13/99		7.56	19.55
	12/21/99		7.41	19.70
	03/17/00		5.35	21.76
	12/05/00		6.99	19.99
	02/28/01	26.98	5.71	21.27
	08/22/01		7.39	19.59
	05/22/02		6.25	20.73
	08/29/02		7.23	19.75
	12/02/02		7.13	19.85
	03/04/03		5.77	21.21
	12/18/03		6.37	20.61
	04/13/04		6.13	20.85
	12/02/04		6.93	20.05
	05/27/05		5.90	21.08
08/24/06	6.79	20.19		
01/13/10	6.59	20.39		
05/03/12	5.92	21.06		
09/18/12	29.77	7.32	22.45	
11/15/12		7.08	22.69	
12/11/13		7.04	22.73	
MW-2	05/17/96	26.73	5.56	21.17
	10/08/96		7.15	19.58
	04/01/97		6.61	20.12
	06/12/97		6.76	19.97
	09/10/97		7.19	19.54
	06/08/99		6.45	20.28
	09/13/99		7.46	19.27
	12/21/99		7.26	19.47
	03/17/00		5.56	21.17
	12/05/00		7.01	19.72
	02/28/01	26.73	5.81	20.92
	08/22/01		7.42	19.31
	05/22/02		6.40	20.33
	08/29/02		7.26	19.47
	12/02/02		7.02	19.71
	03/04/03		5.91	20.82
	12/18/03		6.47	20.26
	04/13/04		6.28	20.45
	12/02/04		6.80	19.93
	05/27/05		6.11	20.62
08/24/06	6.90	19.83		
01/13/10	6.53	20.20		
05/03/12	6.17	20.56		
09/18/12	29.54	7.37	22.17	
11/15/12		7.12	22.42	
12/11/13		7.01	22.53	

TABLE 2
Historical Groundwater Elevations
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Well	Date Sampled	TOC Elevation¹ (ft amsl)	DTW (ft BTOC)	Groundwater Elevation (ft amsl)
MW-3	05/17/96	26.15	4.39	21.76
	10/08/96		6.82	19.33
	04/01/97		5.53	20.62
	06/12/97		6.18	19.97
	09/10/97		6.81	19.34
	06/08/99		5.74	20.41
	09/13/99		6.88	19.27
	12/21/99		6.66	19.49
	03/17/00		4.51	21.64
	12/05/00		26.55	6.84
	02/28/01	5.44		21.11
	08/22/01	7.29		19.26
	05/22/02	6.22		20.33
	08/29/02	7.26		19.29
	12/02/02	6.85		19.70
	03/04/03	5.72		20.83
	12/18/03	6.15		20.40
	04/13/04	5.97		20.58
	12/02/04	6.64		19.91
	05/27/05	5.74	20.81	
	08/23/06	6.69	19.86	
	01/13/10	6.08	20.47	
05/03/12	5.72	20.83		
09/18/12	29.34	7.18	22.16	
11/15/12		6.90	22.44	
12/11/13		6.77	22.57	
MW-4	12/05/00	25.87	6.28	19.59
	02/28/01		4.99	20.88
	08/22/01		6.73	19.14
	05/22/02		5.50	20.37
	08/29/02		6.55	19.32
	12/02/02		6.28	19.59
	03/04/03		5.28	20.59
	12/18/03		5.85	20.02
	04/13/04		5.50	20.37
	12/02/04		6.05	19.82
	05/27/05		5.46	20.41
	08/24/06		6.15	19.72
	01/13/10		5.78	20.09
	05/03/12		5.38	20.49
	06/08/12		5.87	20.00
	09/18/12	28.64	6.65	21.99
	11/15/12		6.38	22.26
12/11/13	6.20		22.44	
MW-5	12/05/00	25.77	6.25	19.52
	02/28/01		4.95	20.82
	08/22/01		6.69	19.08
	05/22/02		5.50	20.27
	08/29/02		6.54	19.23
	12/02/02		6.37	19.40
	03/04/03		5.41	20.36
	12/18/03		5.65	20.12

TABLE 2
Historical Groundwater Elevations
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Well	Date Sampled	TOC Elevation ¹ (ft amsl)	DTW (ft BTOC)	Groundwater Elevation (ft amsl)
MW-5	04/13/04	28.56	5.37	20.40
	12/02/04		6.03	19.74
	05/27/05		5.46	20.31
	08/24/06		6.17	19.60
	01/13/10		5.72	20.05
	05/03/12		5.52	20.25
	09/18/12		6.67	21.89
	11/15/12		6.39	22.17
	12/11/13		6.29	22.27
MW-6	12/05/00	24.89	5.68	19.21
	02/28/01	27.70	4.35	20.54
	08/22/01		6.15	18.74
	05/22/02		4.91	19.98
	08/29/02		5.96	18.93
	12/02/02		5.70	19.19
	03/04/03		4.69	20.20
	12/18/03		5.05	19.84
	04/13/04		4.87	20.02
	12/02/04		5.42	19.47
	05/27/05		4.75	20.14
	08/24/06		5.57	19.32
	01/13/10		5.17	19.72
	05/03/12		4.82	20.07
	09/18/12		6.10	21.60
11/15/12	5.79		21.91	
12/11/13	5.61	22.09		
MW-7	12/05/00	25.43	6.43	19.00
	02/28/01	28.22	4.76	20.67
	08/22/01		6.95	18.48
	05/22/02		5.55	19.88
	08/29/02		NM	--
	12/02/02		6.43	19.00
	03/04/03		5.10	20.33
	12/18/03		5.65	19.78
	04/13/04		5.27	20.16
	12/02/04		6.15	19.28
	05/27/05		5.12	20.31
	08/24/06		6.28	19.15
	01/13/10		5.97	19.46
	05/04/12		5.20	20.23
	09/18/12		6.60	21.62
	11/15/12		6.07	22.15
12/11/13	4.90		23.32	

Notes:

- DTW = Depth to water
- ft amsl = feet above mean sea level
- ft BTOC = feet below top of casing
- NM = Not measured
- TOC = Top of casing
- 1) Top of casing elevations surveyed by Mid Coast Engineers on September 24, 2012; North American Vertical Datum of 1988, NAVD 88. Previous surveys in May 1996 and December 2000 referenced National Geodetic Vertical Datum, NGVD 29.

TABLE 3
Groundwater Analytical Results - December 2013 and Historical
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Well	Date Sampled	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Chromium (µg/L)	Dissolved Inorganic Lead (µg/L)
Groundwater Monitoring Wells									
MW-1	05/17/96	1,100	<0.5	8.7	7.4	17	--	<10	<50
	10/08/96	120	<0.5	<0.5	2.7	<0.5	--	--	--
	04/01/97	550	<0.5	<0.5	7.6	6.6	--	--	--
	06/12/97	160	<0.5	<0.5	2.9	1.7	--	--	--
	09/10/97	640	2.2	3.8	7.4	16	--	--	--
	06/08/99	<50	<0.5	<0.5	<0.5	<0.5	<10	<10	<20
	09/13/99	<50	<0.5	<0.5	<0.5	1.1	--	--	<5
	12/21/99	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	03/17/00	<50	<0.5	<0.5	<0.5	0.79	<5	--	<5
	12/05/00	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	02/28/01	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	08/22/01	<50	<0.5	<0.5	<0.5	<0.5	<5	--	<5
	05/22/02	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	08/29/02	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	12/02/02	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	03/04/03	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	12/18/03	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	04/13/04	<50	<0.5	<0.5	<0.5	<0.5	<1.0	--	--
	06/18/04	150	1.5	<0.5	2.7	2.4	--	--	--
	05/27/05	<50	1.6	<0.5	<0.5	<0.5	--	--	--
08/24/06	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	
01/13/10	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	
05/03/12	<50	<0.5	<0.5	<0.5	<0.5	<1.0	--	--	
11/15/12	<50	<0.5	<0.5	<0.5	<0.5	<0.5-1.0	--	--	
12/12/13	<50	<0.5	<0.5	<0.5	<0.5	<1.0	--	--	
MW-2	05/17/96	23,000	900	330	650	1,500	--	<10	<50
	10/08/96	8,400	530	<50	400	360	--	--	--
	04/01/97	7,600	470	64	210	250	--	--	--
	06/12/97	8,200	440	52	190	190	--	--	--
	09/10/97	8,500	390	51	220	240	--	--	--
	06/08/99	2,100	240	8	33	40	<10	<10	33
	09/13/99	1,300	120	<5	<5	15	--	--	--
	12/21/99	1,400	110	5.6	11	17	--	--	<5
	03/17/00	1,200	180	19	28	31	<50	--	<5
	12/05/00	800	75	1.8	11	14	--	--	--
	02/28/01	1,200	120	7.1	19	27	--	--	--
	08/22/01	990	75	3.5	8.9	8.1	<5	--	<5
	05/22/02	1,700	230	12	12	25	--	--	--
	08/29/02	1,000	66	2.6	12	12	--	--	--
	12/02/02	1,100	76	8.7	11	17	--	--	--
	03/04/03	1,100	130	4.5	22	24	--	--	--
	12/18/03	910	55	4.1	3.3	3.7	--	--	--
	04/13/04	2,700	350	15	18	24	--	--	--
	10/05/04	2,000	120	5.5	<2.5	8.3	--	--	--
	05/27/05	5,700	450	53	240	71	--	--	--
08/24/06	1,400	90	4.7	16	21	--	--	--	
01/13/10	130^J	1.2	<0.5	<0.5	<1.0	--	--	--	
05/03/12	350	22	<0.5	2.1	<1.0	--	--	--	
09/18/12	410	4.7	<0.5	<0.5	<1.0	--	--	--	
11/15/12	350	3.2	<0.5	<0.5	<0.5	<0.5-1.0	--	--	
12/12/13	410	20	1.1	<0.5	<0.5	<1.0	--	--	
MW-3	05/17/96	6,700	140	45	210	180	--	<10	<50
	10/08/96	1,800	2,700	240	910	970	--	--	--
	04/01/97	27,000	520	50	520	450	--	--	--
	06/12/97	29,000	2,700	160	940	500	--	--	--
	09/10/97	290,000	1,800	3,200	2,800	6,900	--	--	--
	06/08/99	1,700	320	6.4	15	<0.5	<10	<10	24
	09/13/99	5,400	1,000	<20	<20	<20	--	--	--

TABLE 3
Groundwater Analytical Results - December 2013 and Historical
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Well	Date Sampled	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Chromium (µg/L)	Dissolved Inorganic Lead (µg/L)
MW-3	12/21/99	8,800	1,400	63	17	23	--	--	<5
	03/17/00	1,500	190	<5	7.6	<5	<50	--	<5
	12/05/00	5,400	790	20	7.4	10	--	--	--
	02/28/01	3,600	850	15	25	10	--	--	--
	08/22/01	8,100	1,600	28	44	17	<50	--	<5
	05/22/02	5,400	1,000	32	13	21	--	--	--
	08/29/02	6,700	1,700	55	49	38	--	--	--
	12/02/02	5,700	650	17	37	33	--	--	--
	03/04/03	5,000	650	18	42	27	--	--	--
	12/18/03	5,200	910	25	20	21	--	--	--
	04/13/04	3,900	1,200	19	<5.0	<10	--	--	--
	06/18/04	4,300	1,600	40	81	26	--	--	--
	08/27/04	6,900	2,100	59	220	<50	--	--	--
	10/05/04	9,800	2,500	52	160	38	--	--	--
	12/02/04	8,300	2,400	41	200	29	--	--	--
	12/14/04	15,000	3,600	140	560	210	--	--	--
	05/27/05	5,500	840	36	210	41	--	--	--
	08/23/06	1,700	190	5.3	51	<10	--	--	--
01/13/10	<50	2	<0.5	<0.5	<1.0	--	--	--	
05/03/12	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	
09/18/12	480/440	110/100	2.6/2.4	0.66/0.62	1.2/1.1	--	--	--	
11/16/12	66	2.0	<0.5	<0.5	<0.5-1.0	--	--	--	
12/12/13	110	7.0	<0.5	<0.5	<1.0	--	--	--	
MW-4	12/05/00	3,900	320	13	41	31	--	--	<5
	02/28/01	3,400	250	14	44	22	--	--	<5
	08/22/01	4,800	260	12	27	9	<50	--	<5
	05/22/02	5,100	320	29	74	50	--	--	--
	08/29/02	3,700	260	<5	30	28	--	--	--
	12/02/02	5,100	250	8.9	26	22	--	--	--
	03/04/03	4,500	170	18	63	47	--	--	--
	12/18/03	2,900	160	8.3	8	<5	--	--	--
	04/13/04	7,400	290	29	110	100	--	--	--
	06/18/04	2,700	140	12	36	16	--	--	--
	08/27/04	460	19	1.2	1.1	1.5	--	--	--
	10/05/04	460	19	<1.0	<1.0	<1.0	--	--	--
	12/02/04	2,800	120	5.4	8.3	5.3	--	--	--
	05/27/05	7,300	350	37	100	50	--	--	--
	08/24/06	2,400	59	8.2	19	14	--	--	--
	01/14/10	400 ^J	1.6	<0.5	<0.5	<1.0	--	--	--
	05/03/12	6,800	190	26	15	25	--	--	--
	06/08/12	3,400	83	11	7.1	11	<0.50	--	--
09/18/12	1,400	25	4.2	1.2	3.6	--	--	--	
11/15/12	4,000	69	6.4	<2.5	<2.5-5.0	--	--	--	
12/11/13	6,900	190	17	3.3	16	--	--	--	
DUP	12/11/13	7,700	240	22	4.2	20	--	--	--
MW-5	12/05/00	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5
	02/28/01	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5
	08/22/01	<50	<0.5	<0.5	<0.5	<0.5	<5	--	<5
	05/22/02	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	08/29/02	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	12/02/02	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	03/04/03	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	12/18/03	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	04/13/04	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	12/02/05	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	05/27/05	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	08/24/06	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
01/14/10	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	

TABLE 3
Groundwater Analytical Results - December 2013 and Historical
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Well	Date Sampled	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Chromium (µg/L)	Dissolved Inorganic Lead (µg/L)
MW-5	05/03/12	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	11/15/12	<50	<0.5	<0.5	<0.5	<0.5-1.0	--	--	--
	12/11/13	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
MW-6	12/05/00	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5
	02/28/01	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5
	08/22/01	<50	<0.5	<0.5	<0.5	<0.5	<5	--	<5
	05/22/02	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	08/29/02	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	12/02/02	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	03/04/03	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	12/18/03	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	04/13/04	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	12/02/04	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	05/27/05	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	08/24/06	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	01/13/10	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	05/03/12	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	11/15/12	<50	<0.5	<0.5	<0.5	<0.5-1.0	--	--	--
12/11/13	<50	<0.5	<0.5	<0.5	<1.0	--	--	--	
MW-7	12/05/00	<50	<0.5	<0.5	<0.5	1.5	--	--	<5
	02/28/01	<50	<0.5	<0.5	<0.5	6.7	--	--	<5
	08/22/01	<50	<0.5	<0.5	<0.5	<0.5	<5	--	<5
	05/22/02	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	12/02/02	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	03/04/03	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	12/18/03	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	04/13/04	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	12/02/04	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	05/27/05	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	08/24/06	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	01/13/10	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	05/04/12	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	11/15/12	<50	<0.5	<0.5	<0.5	<0.5-1.0	--	--	--
	12/11/13	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
Peroxide Treatment Area - A Zone Injection Wells									
PIW-A1	05/13/04	6,800	460	50	31	300	--	--	--
	06/18/04	240	10	2.1	4	11	--	--	--
	08/27/04	220	14	1.2	2	5	--	--	--
	10/05/04	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	12/02/04	640	63	12.0	15	29	--	--	--
PIW-A2	05/13/04	20,000	1,500	460	760	2,600	--	--	--
	06/18/04	2,800	150	14	6.5	90	--	--	--
	08/27/04	500	34	3	4.4	12	--	--	--
	12/02/04	350	6.1	1.2	2.4	5.4	--	--	--
PIW-A3	12/14/04	1,500	220	28	55	99	--	--	--
Peroxide Treatment Area - B Zone Injection Wells									
PIW-B1	05/13/04	1,900	28	<5.0	11	51	--	--	--
	06/18/04	270	22	1	2.2	2.7	--	--	--
	08/27/04	230	11	0.85	1.7	4.3	--	--	--
	12/02/02	66	<0.5	<0.5	<0.5	<1.0	--	--	--
PIW-B3	05/13/04	3,300	420	17	7.8	44	--	--	--
	06/18/04	180	1.2	<0.5	<0.5	2.4	--	--	--
	08/27/04	230	20.0	0.93	3.3	2.9	--	--	--
	12/02/04	64	0.75	<0.5	<0.5	<1.0	--	--	--

TABLE 3
Groundwater Analytical Results - December 2013 and Historical
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Well	Date Sampled	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Chromium (µg/L)	Dissolved Inorganic Lead (µg/L)
Peroxide Treatment Area - A Zone Observation Wells									
POBS-A1	05/13/04	16,000	2,200	220	480	980	--	--	--
	06/18/04	11,000	2,200	150	120	820	--	--	--
	08/27/04	23,000	2,900	140	180	470	--	--	--
	10/05/04	13,000	2,400	83	130	94	--	--	--
	12/02/04	17,000	3,500	240	210	730	--	--	--
	12/14/04	13,000	2,700	200	220	510	--	--	--
	05/27/05	9,600	1,200	62	110	180	--	--	--
	08/24/06	8,500	1,700	58	120	100	--	--	--
	01/13/10	7,300 ^J	1,100	29	53	42	--	--	--
	05/04/12	540	110	2.0	1.4	<1.0	--	--	--
	09/18/12	2,600	1,100	27	8.3	18	--	--	--
	11/16/12	4,700/4,700	1,600/1,700	36/35	6.6/6.3	28.1/27.1	--	--	--
12/12/13	2,600	1,200	28	<5.0	15	--	--	--	
Peroxide Treatment Area - B Zone Observation Wells									
POBS-B1	05/13/04	11,000	250	71	160	590	--	--	--
	06/18/04	3,500	9.8	<0.5	0.8	13	--	--	--
	08/27/04	500	1.4	<0.5	<0.5	<1.0	--	--	--
	12/02/04	190	2.6	<0.5	<0.5	<1.0	--	--	--
	05/27/05	68	17.0	<0.5	1.6	0.52	--	--	--
	08/24/06	50	1.1	<0.5	<0.5	<1.0	--	--	--
	05/04/12	<50	0.80	<0.5	<0.5	<1.0	--	--	--
	09/18/12	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	11/16/12	<50	<0.5	<0.5	<0.5	<0.5-1.0	--	--	--
	12/12/13	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
POBS-B2	05/13/04	4,500	150	23	11	120	--	--	--
	06/18/04	97	7.4	0.8	1.6	1.7	--	--	--
	08/27/04	240	36.0	1.6	6.7	4.2	--	--	--
	12/02/04	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	05/27/05	97	33.0	0.56	1.3	0.74	--	--	--
	08/24/06	57	<0.5	<0.5	<0.5	<1.0	--	--	--
	05/03/12	83	8.8	<0.5	<0.5	<1.0	--	--	--
	09/18/12	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	11/16/12	<50	<0.5	<0.5	<0.5	<0.5-1.0	--	--	--
	12/12/13	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
Nitrate Injection Area - A Zone Injection Wells									
NIW-A1	05/13/04	9,300	1,800	59	250	96	--	--	--
	06/18/04	3,100	340	22	93	55	--	--	--
	08/27/04	250	13	1.4	6	5.7	--	--	--
	10/05/04	1,700	150	<5.0	24	12	--	--	--
	12/02/04	1,400	28	6.2	10	23	--	--	--
	05/27/05	14,000	1,300	61.0	680	300	--	--	--
NIW-A2	05/13/04	970	18	<2.5	<2.5	4	--	--	--
	06/18/04	200	6.4	1.7	2.1	3.5	--	--	--
	08/27/04	<500	6.3	<5.0	<5.0	<10	--	--	--
	12/02/04	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	05/27/05	550	14.0	0.7	1.8	0.93	--	--	--
Nitrate Injection Area - B Zone Injection Wells									
NIW-B1	05/13/04	170	6.5	1.1	2.4	8.0	--	--	--
	06/18/04	160	2.9	0.7	2.6	2.5	--	--	--
	08/27/04	110	6.9	<0.5	1.4	2.0	--	--	--
	12/02/04	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
NIW-B2	05/13/04	260	8.9	1.5	4	8.4	--	--	--
	06/18/04	120	1.0	<0.5	1.1	<1.0	--	--	--
	08/27/04	120	4.4	<0.5	1.1	1.6	--	--	--

TABLE 3
Groundwater Analytical Results - December 2013 and Historical
David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, CA

Well	Date Sampled	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Chromium (µg/L)	Dissolved Inorganic Lead (µg/L)
NIW-B2	12/02/04	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
Nitrate Injection Area - Observation Wells									
NOBS-B1	05/13/04	120	4.6	0.8	2.3	5.4	--	--	--
	06/18/04	88	1.9	0.7	1.7	<1.0	--	--	--
	08/27/04	180	5.5	0.53	0.99	1.6	--	--	--
	12/02/04	<50	2.0	<0.5	<0.5	<1.0	--	--	--
	08/24/06	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	05/03/12	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	09/18/12	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	11/15/12	<50	<0.5	<0.5	<0.5	<1.0	--	--	--
	12/11/13	<50	<0.5	<0.5	<0.5	<1.0	--	--	--

Abbreviations:

µg/L = micrograms per liter

MTBE = methyl tert-butyl ether

TPH-G = Total Petroleum Hydrocarbons, Gasoline Range

-- = water sample not analyzed for specified constituents

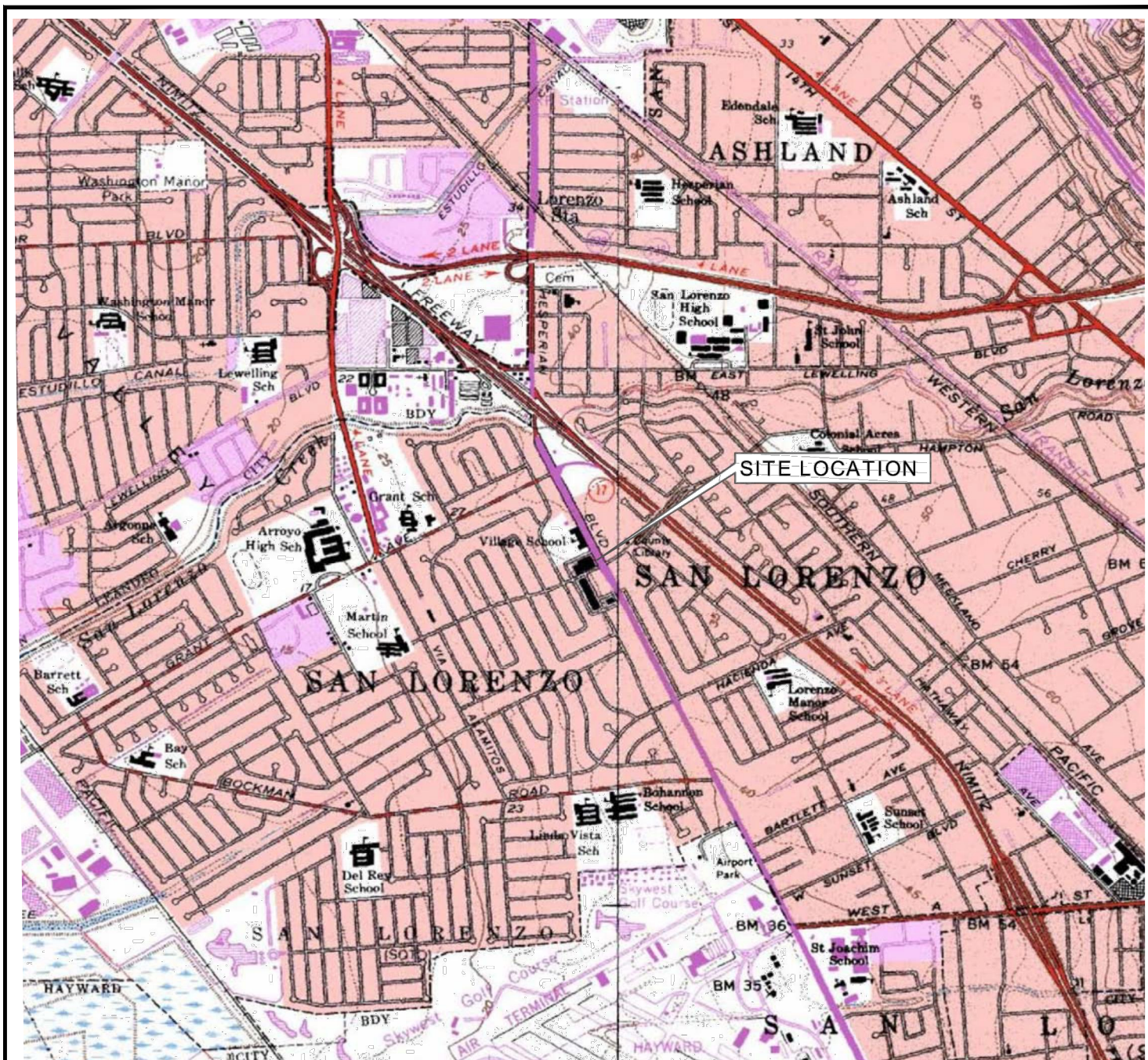
DUP = Duplicate

Notes:

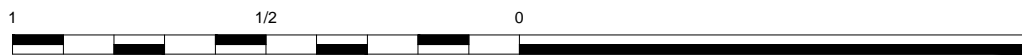
Bold indicates detected concentration.

J = the chromatograph for this sample does not match the chromatographic pattern of the specified standard

Figures



CALIFORNIA




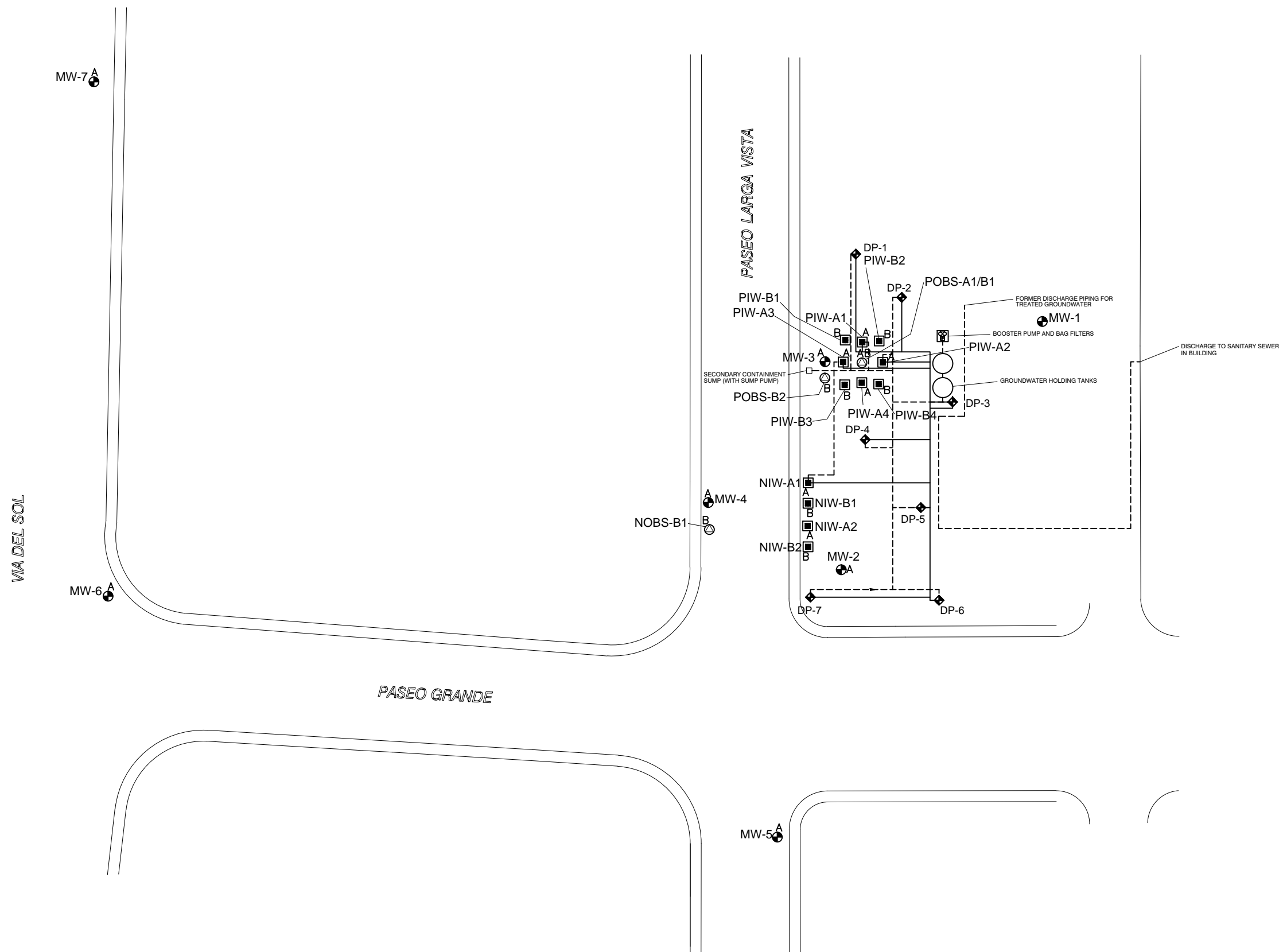
SCALE IN MILE



SCALE IN FEET

Image courtesy of the U.S. Geological Survey and Microsoft TerraService OpenGIS Map Server

	FOR: DAVID D. BOHANNON ORGANIZATION 575 PASEO GRANDE SAN LORENZO, CALIFORNIA		FIGURE: 1	
	JOB NUMBER: 185702534.200.0003	DRAWN BY: JMA/STA	CHECKED BY: VB	APPROVED BY: CRM

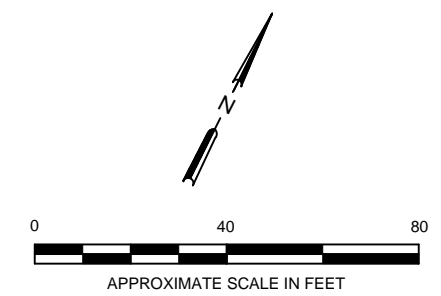


LEGEND

- GROUNDWATER EXTRACTION PIPING (ABOVEGROUND)
- SOIL VAPOR EXTRACTION PIPING (ABOVEGROUND)
- MW-1 MONITORING WELL
- PIW-B3 INJECTION WELL
- ◆ DP-1 DUAL PHASE EXTRACTION WELL (8" PVC - BY STANTEC, 2005)
- NOBS-B1 OBSERVATION WELL

WELL DESIGNATION

- A = INDICATES WELL IN THE A-ZONE
- B = INDICATES WELL IN THE B-ZONE



	FOR: DAVID D. BOHANNON ORGANIZATION 575 PASEO GRANDE SAN LORENZO, CALIFORNIA		SITE PLAN		FIGURE: 2
	JOB NUMBER: 185702534.200.0003	DRAWN BY: JMA/STA	CHECKED BY: VB	APPROVED BY: CRM	DATE: 02/18/14

LEGEND

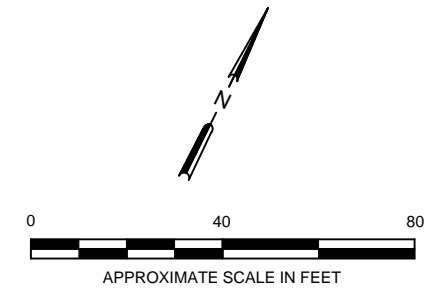
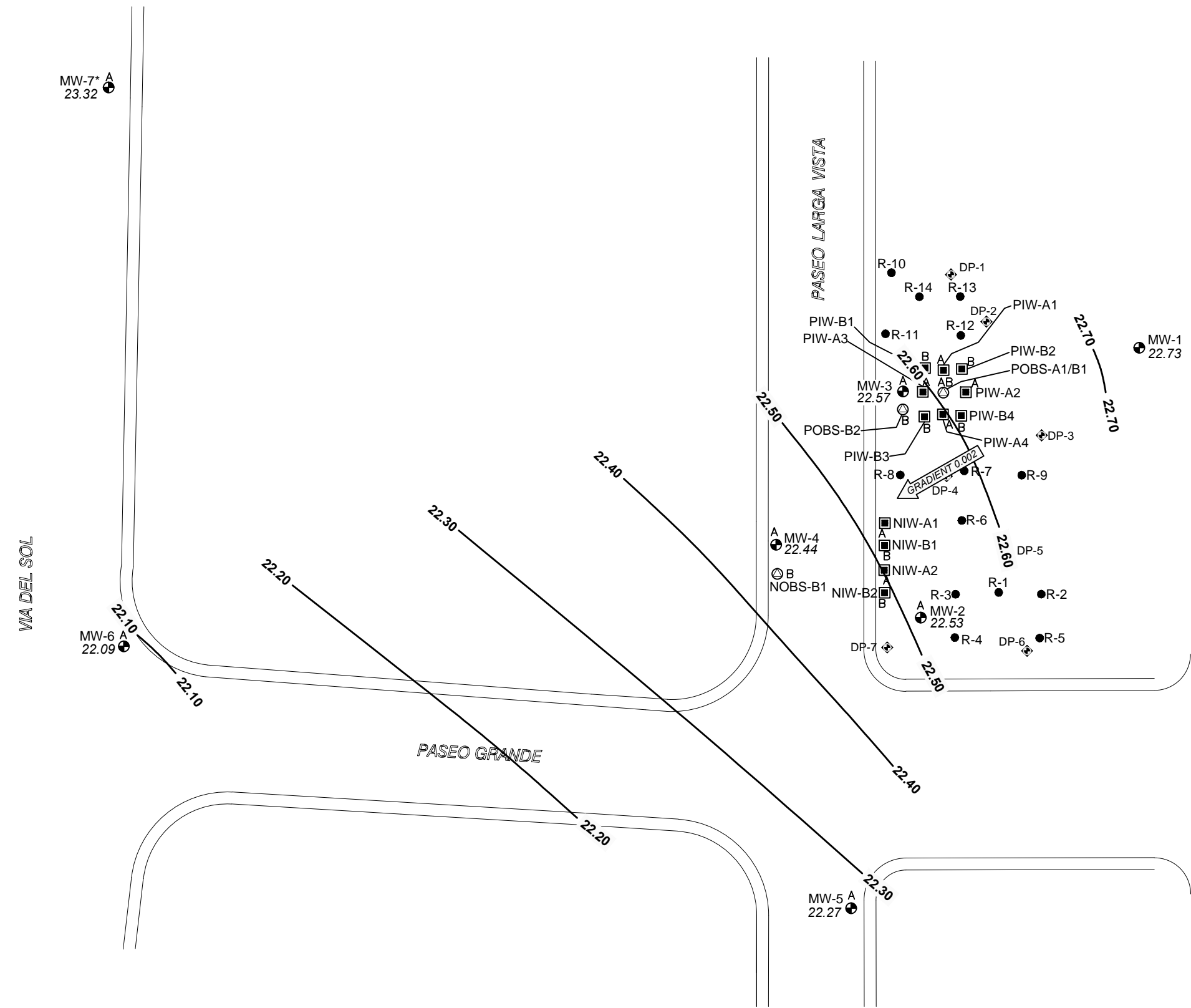
	MW-6	MONITORING WELL
	PIW-B3	INJECTION WELL
	DP-1	DUAL PHASE EXTRACTION WELL (8" PVC - BY SECOR, 2005)
	NOBS-B1	OBSERVATION WELL
	R-1	SOIL BORING - BY SECOR (ABANDONED JULY, 2005)
	- - -22.5	GROUNDWATER SURFACE ELEVATION CONTOUR (DASHED WHERE INFFERED)
	22.73	GROUNDWATER ELEVATION (FEET ABOVE MSL)
	0.002 FV/Ft	HYDRAULIC GRADIENT

WELL DESIGNATION

A = INDICATES WELL IN THE A-ZONE
 B = INDICATES WELL IN THE B-ZONE

NOTES

1) AN ASTERISK (*) INDICATES THAT THE GROUNDWATER ELEVATION IS INCONSISTENT WITH THE TRENDS FOR THE SITE AND WAS NOT USED FOR CONTOURING.



	FOR: DAVID D. BOHANNON ORGANIZATION	GROUNDWATER POTENTIOMETRIC SURFACE MAP DECEMBER 11, 2013		FIGURE: 3	
	575 PASEO GRANDE SAN LORENZO, CALIFORNIA			JOB NUMBER: 185702534.200.0003	DRAWN BY: JMA/STA

LEGEND

- MW-6 MONITORING WELL
- PIW-B3 INJECTION WELL
- ◆ DP-1 DUAL PHASE EXTRACTION WELL (8" PVC - BY SECOR, 2005)
- ⊙ NOBS-B1 OBSERVATION WELL
- R-1 SOIL BORING - BY SECOR (ABANDONED JULY, 2005)

WELL DESIGNATION

- A = INDICATES WELL IN THE A-ZONE
- B = INDICATES WELL IN THE B-ZONE

TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

MW-7	MW-7 ^A
TPH-G	<50
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Total Xylenes	<1.0

MW-3	
TPH-G	110
Benzene	7.0
Toluene	<0.5
Ethylbenzene	<0.5
Total Xylenes	<1.0

POBS-B2	
TPH-G	<50
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Total Xylenes	<1.0

MW-4	
TPH-G	6,900
Benzene	190
Toluene	17
Ethylbenzene	3.3
Total Xylenes	16

DUP	
TPH-G	7,700
Benzene	240
Toluene	22
Ethylbenzene	4.2
Total Xylenes	20

NOBS-B1	
TPH-G	<50
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Total Xylenes	<1.0

MW-6	MW-6 ^A
TPH-G	<50
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Total Xylenes	<1.0

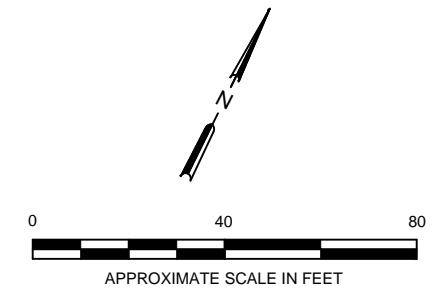
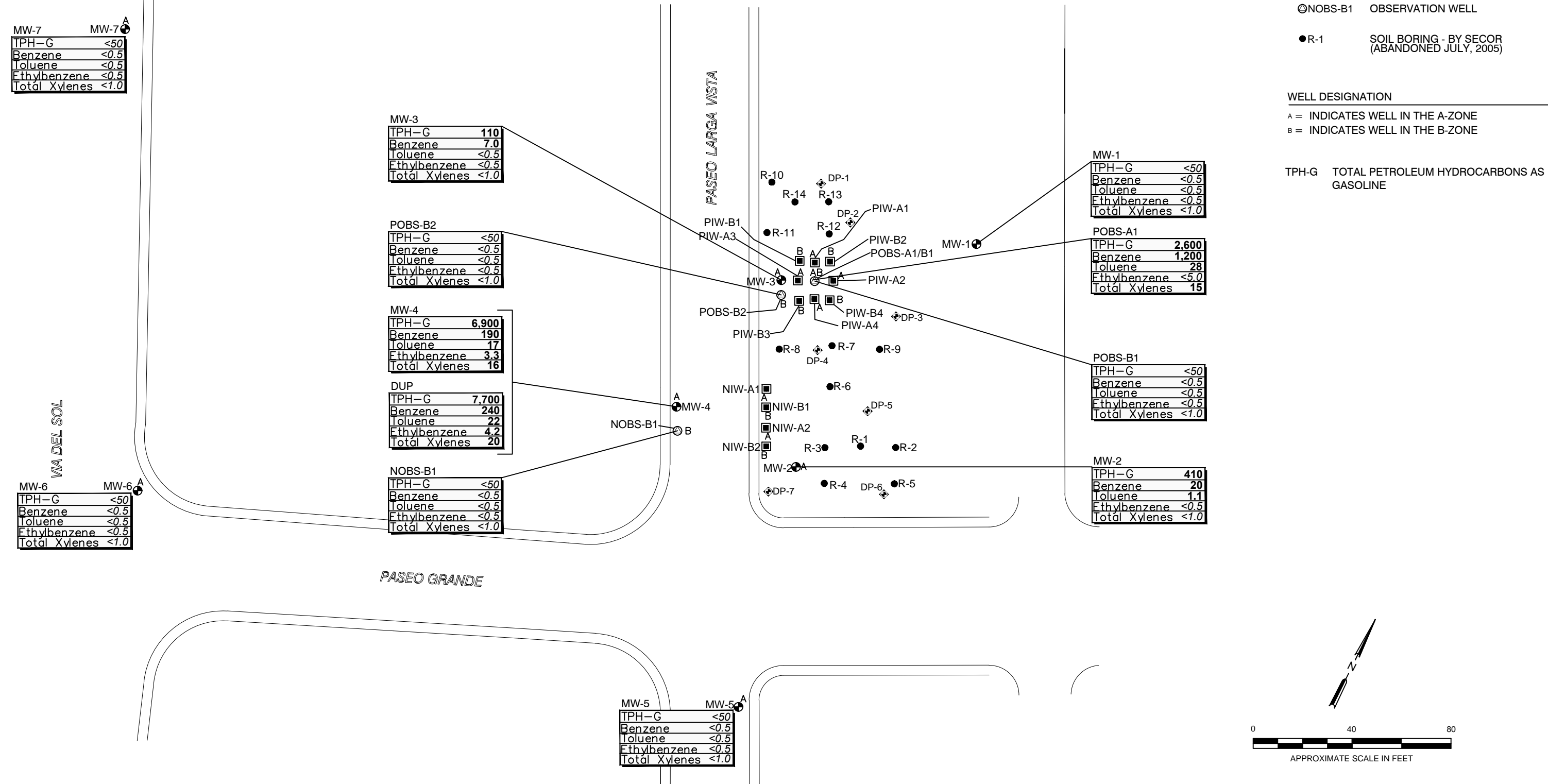
MW-5	MW-5 ^A
TPH-G	<50
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Total Xylenes	<1.0

MW-1	
TPH-G	<50
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Total Xylenes	<1.0

POBS-A1	
TPH-G	2,600
Benzene	1,200
Toluene	28
Ethylbenzene	<5.0
Total Xylenes	15

POBS-B1	
TPH-G	<50
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Total Xylenes	<1.0

MW-2	
TPH-G	410
Benzene	20
Toluene	1.1
Ethylbenzene	<0.5
Total Xylenes	<1.0



	FOR: DAVID D. BOHANNON ORGANIZATION 575 PASEO GRANDE SAN LORENZO, CALIFORNIA	PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUNDWATER DECEMBER 11 AND 12, 2013		SHEET: 4
	JOB NUMBER: 185702534.200.0003	DRAWN BY: JMA/STA	CHECKED BY: VB	APPROVED BY: CRM

Appendix A

Summary of Previous Site Investigations and Remedial Actions

APPENDIX A
Summary of Previous Site Investigations and Remedial Actions

David D. Bohannon Organization
575 Paseo Grande, San Lorenzo, California

Over the last 25 years, the Site has been used as an asphalt-paved parking area located in a C1 commercial zone. The Site was a gasoline station prior to 1969. Little information is known about the Site history related to its use as a gasoline service station. In anticipation of property redevelopment, investigation activities were conducted in March 1995 to determine if former underground service station equipment remained on-Site. The work was conducted by Twining Laboratories, Inc. as documented in their letter report dated April 15, 1995. The investigation included a magnetometer survey followed by an exploratory excavation. In summary, the work conducted identified underground gasoline service station equipment which included what appeared to be the former tank pit, approximately 110 feet of fuel delivery system piping, and a grease sump and/or hydraulic lift pit in an area which may have been the former service garage. Field evidence and one soil sample indicated the potential for soil contamination along the piping runs, around the grease sump, and around the inferred location of the former tank pit. Characterization of the magnitude and extent of potential soil contamination were not performed during the initial activities.

In June 1995, SECOR International Incorporated (SECOR) conducted additional activities at the Site which included removal of the former underground storage tank (UST) system piping and the former grease sump, and characterization soil sampling along the pipelines and around the former grease sump and former tank pit areas. This work was summarized in SECOR's document entitled, "*Preliminary Characterization Report*," to ACEH dated June 29, 1995 (SECOR, 1995). The characterization data from this investigation indicated that there were two areas of concern at the Site: 1) the former grease sump area; and 2) the former gasoline distribution system area. SECOR subsequently conducted excavation activities in these two areas. The soil excavated from the former sump area was transported off-Site for disposal. The soil generated from the UST excavation was treated by means of aeration and later transported off-Site for disposal. Three groundwater monitoring wells (MW-1, MW-2, and MW-3) were installed during the investigation activities to evaluate the degree to which the groundwater had been affected. The results of the soil characterization and groundwater monitoring activities are reported in SECOR's documents entitled, "*Report of Interim Remedial Actions*" (RIRA; SECOR, 1996), dated June 4, 1996, and "*Fourth Quarter 1996 Monitoring and Sampling Report*," dated November 26, 1996.

In June 1999, a utility trench survey was conducted around the Site, and a passive soil vapor survey was performed downgradient from the Site. The results of the utility trench and passive soil vapor surveys are documented in SECOR's document entitled, "*Third Quarter Groundwater Monitoring Results and Plume Definition Investigation Report*," dated October 22, 1999 (3Q99 GWM Report, SECOR, 1999).

On December 5, 2000, four additional groundwater monitoring wells (MW-4 through MW-7) were installed at the Site. Soil and groundwater sampling was conducted to evaluate possible off-Site migration of petroleum-related constituents originating from the Site, and to collect data to direct further subsurface investigations and/or remediation at the Site, if necessary. The work was conducted in general accordance with SECOR's documents entitled, "*Work Plan for Additional Groundwater Monitoring Well Installation*," dated October 22, 1999, and "*Addendum to the Work Plan for Additional Groundwater*

APPENDIX A SUMMARY OF PREVIOUS SITE INVESTIGATIONS AND REMEDIAL ACTIONS

Monitoring Well Installation,” dated December 2, 1999. The Work Plan was approved with comments in correspondence from the ACEH in a letter dated November 4, 1999. Historically, two of the on-Site wells (MW-2 and MW-3) and one well immediately downgradient to the west (MW-4) contain elevated concentrations of petroleum hydrocarbons. Wells further off-Site to the west (MW-6 and MW-7) and south (MW-5) typically do not contain detectable levels of petroleum hydrocarbons, with exception of MW-7, which reported low concentrations of total xylenes (up to 6.7 micrograms per liter [$\mu\text{g}/\text{L}$]) in the first two sampling events (December 2000 and February 2001). The well has since been non-detect for all constituents.

In January 2003, SECOR performed an additional limited subsurface investigation as described in the document entitled, “*Remedial Action Work Plan*,” dated October 25, 2002, and submitted to ACEH. The Work Plan was approved by ACEH in a letter dated October 28, 2002. Based on field observations, soil boring logs, and laboratory analytical results, SECOR concluded that: 1) perched groundwater was encountered within fill materials at approximately 5 to 8 feet below ground surface (bgs); 2) water-bearing zones were encountered in silt and sand at depths of 13- to 15-foot bgs (A zone), in sand from 16- to 19-foot bgs (B zone), and in silty sand at 22.5 feet bgs (C zone); and 3) soil sample analytical results suggest that the majority of chemical impact exists in silty clay from approximately 8- to 13.5-foot bgs within and adjacent to the former gasoline UST and pump island excavation. The findings of the investigation were presented in the document entitled, “*Limited Subsurface Investigation Report and Work Plan for Additional Soil and Groundwater Assessment*,” dated February 19, 2003, and prepared by SECOR (SECOR, 2003a).

At the request of ACEH, a sensitive receptor survey was performed for the Site. The survey consisted of identifying the locations and depths of subsurface utilities near the Site and reviewing data provided by the California Department of Water Resources (DWR) for potential groundwater production wells. The survey results are presented in SECOR’s document entitled, “*Sensitive Receptor Survey and Conduit Study*,” dated June 30, 2003 (Receptor Study; SECOR, 2003b). The report indicates that no groundwater production wells are likely to be affected by hydrocarbons in the soil and groundwater at the Site.

Chemical Injection and Dual-Phase Extraction (DPE) Pilot Testing

The October 2002 *Remedial Action Workplan* (RAW) proposed nitrate injections to stimulate biological degradation of hydrocarbons in the groundwater. Based on the data collected in January 2003, additional remediation of soil was also recommended. An addendum to the RAW was submitted by SECOR in December 2003 proposing hydrogen peroxide injections for chemical oxidation of soils in addition to nitrate injections. The RAW addendum was approved by ACEH in a letter to Bohannon dated December 15, 2003.

In May 2004, EFI Global began the pilot groundwater remediation program. Four wells were installed on-Site for the purposes of injecting nitrate solution into groundwater upgradient of well MW-4 (NIW-A1, NIW-A2, NIW-B1, and NIW-B2). Eight wells were installed on-Site for injection of peroxide solution into soil and groundwater upgradient of well MW-3 (PIW-A1 to PIW-A4 and PIW-B1 to PIW-B4). Four wells were installed to observe the effects of the injection program (NOBS-B1, POBS-A1, POBS-B1, and POBS-B2).

APPENDIX A SUMMARY OF PREVIOUS SITE INVESTIGATIONS AND REMEDIAL ACTIONS

Injection and observation well installations were completed during May 2004 in accordance with the approved RAW, and initial chemical injections were completed during May/June 2004. Soil boring logs for these wells are provided in Appendix A. The well installation activities were described in the document entitled, "*Semi-Annual (First Half 2004) Groundwater Monitoring and Pilot Remedial Progress Report*," prepared by EFI Global (EFI Global, 2004b).

Additional injections were completed in July 2004 (Phase Two) and October 2004 (Phase Three). Progress groundwater sampling for Phases Two and Three was conducted in August 2004 and December 2004, respectively. Following Phase Three injections, EFI Global conducted a single-day DPE test (February 2005) and a five-day DPE test (April 2005) in the area of the former gasoline UST. The results of the Phase Three progress sampling (December 2004) and single-day DPE test (February 2005) are reported in the document entitled, "*Semi-Annual (Second Half 2004) Groundwater Monitoring and Pilot Remedial Progress Report*," (EFI Global, 2005).

Site-wide groundwater monitoring was conducted in May 2005. In June 2005, SECOR advanced 14 soil borings at locations intended to provide additional delineation of the target area for full-scale DPE system implementation. SECOR obtained an operation permit from the Bay Area Air Quality Management District (BAAQMD) in July 2005 and installed seven additional remediation wells in September 2005. SECOR conducted additional Site-wide groundwater monitoring during August 2006. The results of the five-day DPE test (April 2005) and subsequent groundwater monitoring activities are presented in SECOR's document entitled, "*Groundwater Monitoring and Remediation Progress Report*," dated April 23, 2007 (SECOR, 2007).

Full-Scale DPE Operations and Remedial Progress Sampling

During December 2008, additional DPE system infrastructure was added and full-scale DPE system operation commenced during January/February 2009. Full-scale DPE operations consisted of soil vapor and groundwater extraction and treatment from 11 Site extraction wells and former chemical injection wells. Full-scale DPE operated through December 2009 at which point remedial progress groundwater monitoring was conducted during January 2010. DPE system operations and results of remedial progress groundwater monitoring are described in the Stantec's document entitled, "*Report of Dual-Phase Extraction System Operations, Soil Vapor Sampling, and Risk Analysis*," (DPE Report; Stantec, 2011). The results of groundwater monitoring and DPE system performance data indicated that the DPE system significantly reduced concentrations of total petroleum hydrocarbons in the gasoline range (TPHg) and benzene, toluene, ethylbenzene and total xylenes (BTEX) in monitoring wells downgradient of the Site below historical concentrations and to near the laboratory reporting limit (LRL) concentrations in monitoring wells immediately downgradient of the former UST on-Site. DPE system treatment equipment was removed from the Site in December 2009; however, all wells used for extraction and aboveground conveyance piping remain on-Site.

Soil vapor sample well installation and subsequent soil vapor sampling was conducted at four locations on-Site during March and April 2011. The purpose of the soil vapor sampling was to evaluate the potential for vapors associated with residual petroleum hydrocarbons in soil and/or groundwater to be present at concentrations that could pose a risk to conceptual future occupants of a Site building (if the

APPENDIX A SUMMARY OF PREVIOUS SITE INVESTIGATIONS AND REMEDIAL ACTIONS

Site was to be redeveloped with commercial and/or residential structures). Results from the soil vapor sampling indicated that concentrations of petroleum hydrocarbons present in shallow soil vapor at the Site were below available screening criteria such as California Environmental Protection Agency (Cal-EPA) California Human Health Screening Levels (CHHSLs) and Environmental Screening Levels (ESLs) published by the California Regional Water Quality Control Board (RWQCB), San Francisco Bay Region. A Site-specific vapor intrusion risk analysis was performed using the Johnson & Ettinger (J&E) model and the concentrations of all chemicals detected in soil vapor at the Site were inputted into the model. The J&E model results indicated that residual concentrations of chemicals in shallow soil vapor at the Site do not pose a risk to human health considering commercial/industrial or residential land uses. A detailed description of soil vapor sampling and results of the risk analysis are included in the DPE Report (Stantec, 2011).

At the request of ACEH, Stantec performed additional groundwater monitoring during the second and third quarters of 2012 to monitor petroleum hydrocarbon concentrations in Site monitoring wells after the completion of full-scale DPE system operations. The monitoring results are reported in the documents entitled, “*Second Quarter 2012 (Semi-Annual) Groundwater Monitoring Report*,” dated July 27, 2012 (Stantec, 2012a) and the “*Third Quarter 2012 Groundwater Monitoring Report*,” dated December 21, 2012 (Stantec, 2012b). Monitoring results for the second and third quarters of 2012 showed concentrations of petroleum hydrocarbons downgradient of the Site in monitoring wells MW-5, MW-6, and MW-7 remain below laboratory MRLs and concentrations in on-Site monitoring wells MW-1 and MW-2 remain stable or near the laboratory MRLs. Groundwater in POBS-A1 within the former UST area showed a rebound in TPHg and BTEX concentrations during the third quarter 2012; however, concentrations in well MW-3 located immediately downgradient of POBS-A1 were near the MRLs.

References

- EFI Global, 2004a. Semi-Annual (Second Half 2003) Groundwater Monitoring Report, 575 Paseo Grande, San Lorenzo, California. June 21, 2004.
- EFI Global, 2004b. Semi-Annual (First Half 2004) Groundwater Monitoring and Pilot Remedial Progress Report, 575 Paseo Grande, San Lorenzo, California. August 2004.
- EFI Global, 2005. Semi-Annual (Second Half 2004) Groundwater Monitoring and Pilot Remedial Progress Report, 575 Paseo Grande, San Lorenzo, California. April 2005.
- Regional Water Quality Control Board (RWQCB), 2008. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater. California Regional Water Quality Control Board, San Francisco Bay Region. Interim Final - November 2007, Revised May 2008.
- SECOR International Incorporated (SECOR), 1995. Preliminary Characterization Report, Former Gasoline Service Station Property at the Northeast Corner of Paseo Grande and Paseo Largavista, San Lorenzo, California. June 29, 1995.
- SECOR, 1996. Report of Interim Remedial Actions, Former Gasoline Service Station, 575 Paseo Grande, San Lorenzo, California. June 4, 1996.
- SECOR, 1999. Third Quarter 1999 Groundwater Monitoring Results and Plume Definition Investigation Report, 575 Paseo Grande, San Lorenzo, California. October 22, 1999.
- SECOR, 2003a. Limited Subsurface Investigation Report and Work Plan for Additional Soil and Groundwater Assessment, David D. Bohannon Organization Property, 575 Paseo Grande, San Lorenzo, California. February 19, 2003.
- SECOR, 2003b. Sensitive Receptor Survey and Conduit Study, The Bohannon Development Company Property, 575 Paseo Grande, San Lorenzo, California. June 30, 2003.
- Stantec Consulting Corporation, 2011. Report of Dual-Phase Extraction System Operations, Soil Vapor Sampling, and Risk Analysis, David D. Bohannon Organization. November 22, 2011.
- Stantec Consulting Services Inc., 2012a. Second Quarter 2012 (Semi-Annual) Groundwater Monitoring Report, David D. Bohannon Organization, 575 Paseo Grande, San Lorenzo, California. July 27, 2012.
- Stantec Consulting Services Inc., 2012b. Third Quarter 2012 Groundwater Monitoring Report, David D. Bohannon Organization, 575 Paseo Grande, San Lorenzo, California. December 21, 2012.

Appendix B
Field Data Sheets for December 2013
Groundwater Monitoring Event

Stantec

HYDROLOGIC DATA SHEET

Date: 12-11-13

Project: Bohannon

Technician: C. Melancon

Project #: 185702534 200.0001

TOC = Top of Well Casing Elevation
 DTP = Depth to Free Product (FP or NAPL) Below TOC
 DTW = Depth to Groundwater Below TOC
 DTB = Depth to Bottom of Well Casing Below TOC

DIA = Well Casing Diameter
 ELEV = Groundwater Elevation
 DUP = Duplicate

WELL OR LOCATION	TIME	MEASUREMENT			COMMENTS
		DTW	DTB	Dia	
MW-1	1035	7.04		2	
MW-2	1040	7.01		2	
MW-3	1045	6.77		2	
MW-4	935	6.20	15.3	2	
MW-5	1010	6.29		2	
MW-6	1005	5.61		2	DTW = 5.50 at 1200 (stabilized)
MW-7	955	4.90		2	
POBS-A1	1055	7.23		1	
POBS-B1	1100	7.32		1	
POBS-B2	1050	6.65	25.9	2	
NOBS-B1	940	6.12		2	
					Draw inventory: 5 - total
					3 drums purge water labels - 97, 2001, 2013
					1 drum of used bag filters (labeled it)
					1 drum soil sludge $\frac{1}{2}$ full (from bag filters?) - labeled it

Groundwater Sampling Data Sheet

Project #: <u>185702534</u> Task No:		Project Name: <u>Bohannon</u>		Date: <u>12/12/13</u>
Site Location: <u>San Lorenzo</u>				
Well ID: <u>MW-1</u>			Sampler(s): <u>C. Melayson</u>	
Screen Interval (ft): <u>5-15</u>		Depth to Water (DTW) (ft): <u>7.07</u>		Sample DTW (ft): <u>7.18</u>
Tube/Pump Depth (ft): <u>10'</u>			Well Diameter (inch): <u>2</u>	
Measurements Referred to: TOC				
OVM (ppm) = <u> </u>				

CALCULATIONS:

Length of the water column: _____ ft - _____ ft = _____ ft
DTB DTW Water Col

80% of the water level: _____ ft + (_____ ft X 0.2) = _____ ft
DTW Water Col Recharge water level

Estimated Purge Volume (EPV): = _____ ft X _____ X $\frac{3}{1}$ = _____ Gallons
Water col gal/lin. ft. Casing Volumes

- (X) Low-Flow/Micro Purging
 () Purge at least 3 well volumes

Volume of Schedule 40 PVC Pipe		
Well Diameter.	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () _____ Bailer
 () Disposable Bailer
 () Electric Submersible Pump
 (X) Peristaltic Pump
 () Other: _____

Sampling Equipment:

- () _____ Bailer
 (X) Pump Discharge
 () Disposable Bailer
 () Peristaltic Pump & Dedicated Tubing
 () Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
 () Myron L
 () Horriba
 () Hanna
 () Other: _____

Begin Purge at 1100

Time (24 hrs)	Volume (G/L)	Temp. (°C/°F)	DTW	Specific Conductivity (µS/cm)	pH (units)	Color	Odor	DO (mg/L)	Redox Potential (mV)
(every 3-5 min)		(± 10%)		(± 10%)	(± 0.2)			(± 10%)	(± 20%)
<u>1105</u>	<u>1.5</u>	<u>21.36</u>	<u>7.27</u>	<u>1161</u>	<u>7.25</u>	<u>Clear</u>	<u>none</u>	<u>0.56</u>	<u>-56.5</u>
<u>1110</u>	<u>2.5</u>	<u>21.36</u>	<u>7.18</u>	<u>1246</u>	<u>7.16</u>	<u>"</u>	<u>"</u>	<u>0.50</u>	<u>-46.1</u>
<u>1115</u>	<u>3.5</u>	<u>21.52</u>	<u>7.18</u>	<u>1272</u>	<u>7.13</u>	<u>"</u>	<u>"</u>	<u>0.48</u>	<u>-39.8</u>
<u>1120</u>	<u>4.5</u>	<u>21.64</u>	<u>7.18</u>	<u>1279</u>	<u>7.13</u>	<u>"</u>	<u>"</u>	<u>0.50</u>	<u>-36.1</u>
<u>1125</u>	<u>5.5</u>	<u>21.72</u>	<u>7.18</u>	<u>1283</u>	<u>7.13</u>	<u>"</u>	<u>"</u>	<u>0.50</u>	<u>-33.9</u>
<u>1130</u>	<u>6.5</u>	<u>21.78</u>	<u>7.18</u>	<u>1286</u>	<u>7.13</u>	<u>"</u>	<u>"</u>	<u>0.50</u>	<u>-32.7</u>

Liters / Gallons Purged: <u>6.5</u>			Pump Rate in L or G/min: <u>200 ml/min.</u>		
Sampling Time: <u>1130</u>			Duplicate Sample ID: _____ Sample Time: _____		
Sample Analyzed For: <u>SEE WORK ORDER</u>			Duplicate Sample Analyzed For: <u>SEE WORK ORDER</u>		
(√) Analyte(s):	Preservative:	Bottles:	(√) Analyte(s):	Preservative:	Bottles:
(X) TPH-g, BTEX, MTBE	HCl	3 X 40 mL VOAs	() TOC	H ₂ SO ₄	2 X 40 mL Amber VOAs
() TPH-d & TPH-mo	HCl	2 x 0.5 L Ambers	() Methane	HCl	3 X 40 mL VOAs
() NO ₂ , NO ₃ & SO ₄	None	1 X 500 mL Poly	() Naphthalene, Phenol	None	2 x 1 L Ambers
() Total Manganese	HNO ₃	1 X 250 mL Poly	() Alkalinity, TDS	None	1 X 500 mL Poly
() Dissolved Iron	Field-filtered, HNO ₃	1 X 250 mL Poly	() Phosphorus, TKN	H ₂ SO ₄	1 x 500 mL Poly
() Ferrous Iron	HCl	2 X Amber VOAs	() VOCs	HCl	3 X 40 mL VOAs
() SVOCs	None	2 x 1 L Ambers	() Other		

Notes:

Groundwater Sampling Data Sheet

Project #: <u>185702534</u> Task No:		Project Name: Bohannon		Date: <u>12/12/13</u>
Site Location: San Lorenzo				
Well ID: <u>MW-2</u>			Sampler(s): <u>C. Melucon</u>	
Screen Interval (ft): <u>5-15</u>		Depth to Water (DTW) (ft): <u>7.02</u>	Sample DTW (ft): <u>7.26</u>	
Tube/Pump Depth (ft): <u>10'</u>		Well Diameter (inch): <u>2</u>	Measurements Referenced to: TOC	
			OVM (ppm) = <u> </u>	

CALCULATIONS:

Length of the water column: _____ ft - _____ DTB _____ ft = _____ DTW _____ ft = _____ Water Col

80% of the water level: _____ ft + (_____ ft X 0.2) = _____ ft
DTW Water Col Recharge water level

Estimated Purge Volume (EPV): = _____ ft X _____ gal/in. ft. X 3 = _____ Gallons
Water col Casing Volumes

- (X) Low-Flow/Micro Purging
() Purge at least 3 well volumes

Well Diameter.	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () _____ Bailer
() Disposable Bailer
() Electric Submersible Pump
(X) Peristaltic Pump
() Other: _____

Sampling Equipment:

- () _____ Bailer
(X) Pump Discharge
() Disposable Bailer
() Peristaltic Pump & Dedicated Tubing
() Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
() Myron L
() Horriba
() Hanna
() Other: _____

Begin Purge at 1015

Time (24 hrs) (every 3-5 min)	Volume (G/L)	Temp. (C/F) (± 10%)	DTW	Specific Conductivity (µS/cm) (± 10%)	pH (units) (± 0.2)	Color	Odor	DO (mg/L) (± 10%)	Redox Potential (mV) (± 20%)
<u>1020</u>	<u>1.5</u>	<u>21.74</u>	<u>7.35</u>	<u>1415</u>	<u>6.94</u>	<u>2/clear</u>	<u>Mod.</u>	<u>1.87</u>	<u>-118.3</u>
<u>1025</u>	<u>2.5</u>	<u>21.92</u>	<u>7.26</u>	<u>1409</u>	<u>6.92</u>	<u>"</u>	<u>"</u>	<u>0.64</u>	<u>-125.7</u>
<u>1030</u>	<u>3.5</u>	<u>22.02</u>	<u>7.26</u>	<u>1402</u>	<u>6.92</u>	<u>"</u>	<u>"</u>	<u>0.51</u>	<u>-126.2</u>
<u>1035</u>	<u>4.5</u>	<u>22.05</u>	<u>7.26</u>	<u>1394</u>	<u>6.92</u>	<u>"</u>	<u>"</u>	<u>0.48</u>	<u>-128.1</u>
<u>1040</u>	<u>5.5</u>	<u>22.11</u>	<u>7.26</u>	<u>1392</u>	<u>6.92</u>	<u>"</u>	<u>"</u>	<u>0.46</u>	<u>-126.0</u>
<u>1045</u>	<u>6.5</u>	<u>22.15</u>	<u>7.26</u>	<u>1390</u>	<u>6.92</u>	<u>"</u>	<u>"</u>	<u>0.45</u>	<u>-126.2</u>

Liters / Gallons Purged: <u>6.5</u>		Pump Rate in L or G/min: <u>200 ml/min</u>	
Sampling Time: <u>1050</u>		Duplicate Sample ID: _____ Sample Time: _____	
Sample Analyzed For: SEE WORK ORDER		Duplicate Sample Analyzed For: SEE WORK ORDER	
(√) Analyte(s):	Preservative:	Bottles:	(√) Analyte(s):
(X) TPH-g, BTEX, MTBE	HCl	3 X 40 mL VOAs	() TOC
() TPH-d & TPH-mo	HCl	2 x 0.5 L Ambers	() Methane
() NO ₂ , NO ₃ & SO ₄	None	1 X 500 mL Poly	() Naphthalene, Phenol
() Total Manganese	HNO ₃	1 X 250 mL Poly	() Alkalinity, TDS
() Dissolved Iron	Field-filtered, HNO ₃	1 X 250 mL Poly	() Phosphorus, TKN
() Ferrous Iron	HCl	2 X Amber VOAs	() VOCs
() SVOCs	None	2 x 1 L Ambers	() Other: _____

Notes:

Groundwater Sampling Data Sheet

Project #: <u>1857-0252934</u> Task No:		Project Name: <u>Bohannon</u>		Date: <u>12/12/13</u>
Site Location: <u>San Lorenzo</u>				
Well ID: <u>MW-3</u>			Sampler(s): <u>C. Melancon</u>	
Screen Interval (ft): <u>5-15</u>		Depth to Water (DTW) (ft): <u>6.81</u>	Sample DTW (ft): <u>7.76</u>	
Tube/Pump Depth (ft): <u>10</u>		Well Diameter (inch): <u>2</u>	Measurements Referenced to: <u>TOC</u>	
			OVM (ppm) = <u> </u>	

CALCULATIONS:

Length of the water column: _____ ft - _____ ft = _____ ft
DTB DTW Water Col

80% of the water level: _____ ft + (_____ ft X 0.2) = _____ ft
DTW Water Col Recharge water level

Estimated Purge Volume (EPV): = _____ ft X _____ X 3 = _____ Gallons
Water col gal/in. ft. Casing Volumes

- (X) Low-Flow/Micro Purging
 () Purge at least 3 well volumes

Volume of Schedule 40 PVC Pipe		
Well Diameter.	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () _____ Bailer
 () Disposable Bailer
 () Electric Submersible Pump
 (X) Peristaltic Pump
 () Other: _____

Sampling Equipment:

- () _____ Bailer
 (X) Pump Discharge
 () Disposable Bailer
 () Peristaltic Pump & Dedicated Tubing
 () Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
 () Myron L
 () Horriba
 () Hanna
 () Other: _____

Begin Purge at 815

Time (24 hrs) (every 3-5 min)	Volume (G/L)	Temp. (°C / °F) (± 10%)	DTW	Specific Conductivity (µS/cm) (± 10%)	pH (units) (± 0.2)	Color	Odor	DO (mg/L) (± 10%)	Redox Potential (mV) (± 20%)
<u>820</u>	<u>1.5</u>	<u>18.55</u>	<u>7.20</u>	<u>823</u>	<u>6.90</u>	<u>clear</u>	<u>mod.</u>	<u>2.63</u>	<u>-61.8</u>
<u>825</u>	<u>2.5</u>	<u>18.40</u>	<u>7.59</u>	<u>817</u>	<u>6.86</u>	<u>"</u>	<u>"</u>	<u>1.10</u>	<u>-57.8</u>
<u>830</u>	<u>3.0</u>	<u>16.96</u>	<u>7.73</u>	<u>794</u>	<u>6.84</u>	<u>"</u>	<u>"</u>	<u>0.91</u>	<u>-63.2</u>
<u>835</u>	<u>3.5</u>	<u>15.94</u>	<u>7.74</u>	<u>778</u>	<u>6.83</u>	<u>"</u>	<u>"</u>	<u>0.79</u>	<u>-68.6</u>
<u>840</u>	<u>4.0</u>	<u>16.50</u>	<u>7.76</u>	<u>790</u>	<u>6.84</u>	<u>"</u>	<u>"</u>	<u>0.67</u>	<u>-76.7</u>
<u>845</u>	<u>4.5</u>	<u>15.85</u>	<u>7.76</u>	<u>778</u>	<u>6.84</u>	<u>"</u>	<u>"</u>	<u>0.66</u>	<u>-77.3</u>
<u>850</u>	<u>5.0</u>	<u>15.71</u>	<u>7.76</u>	<u>776</u>	<u>6.84</u>	<u>"</u>	<u>"</u>	<u>0.66</u>	<u>-76.6</u>

Liters / Gallons Purged: <u>5.0</u>	Pump Rate in L or G/min: <u>100 ml/min</u>
Sampling Time: <u>850</u>	Duplicate Sample ID: _____ Sample Time: _____
Sample Analyzed For: SEE WORK ORDER	Duplicate Sample Analyzed For: SEE WORK ORDER
(√) Analyte(s): (X) TPH-g, BTEX, MTBE HCl 3 X 40 mL VOAs () TPH-d & TPH-mo HCl 2 x 0.5 L Ambers () NO ₂ , NO ₃ & SO ₄ None 1 X 500 mL Poly () Total Manganese HNO ₃ 1 X 250 mL Poly () Dissolved Iron Field-filtered, HNO ₃ 1 X 250 mL Poly () Ferrous Iron HCl 2 X Amber VOAs () SVOCs None 2 x 1 L Ambers	(√) Analyte(s): () TOC H ₂ SO ₄ 2 X 40 mL Amber VOAs () Methane HCl 3 X 40 mL VOAs () Naphthalene, Phenol None 2 x 1 L Ambers () Alkalinity, TDS None 1 X 500 mL Poly () Phosphorus, TKN H ₂ SO ₄ 1 x 500 mL Poly () VOCs HCl 3 X 40 mL VOAs () Other: _____

Notes:

Groundwater Sampling Data Sheet

Project #: <u>185702934</u> Task No: <u>200.0001</u>		Project Name: <u>Bohannon</u>		Date: <u>12/11/13</u>
Site Location: <u>San Lorenzo</u>				
Well ID: <u>MW-4</u>			Sampler(s): <u>C. Melancon</u>	
Screen Interval (ft): <u>5-15</u>		Depth to Water (DTW) (ft): <u>6.22</u>		Sample DTW (ft): <u>6.33</u>
Tube/Pump Depth (ft): <u>10-</u>			Well Diameter (inch): <u>2</u>	
Measurements Referenced to: TOC				
OVM (ppm) = <u>—</u>				

CALCULATIONS:

Length of the water column: _____ ft - _____ ft = _____ ft
DTB DTW Water Col

80% of the water level: _____ ft + (_____ ft X 0.2) = _____ ft
DTW Water Col Recharge water level

Estimated Purge Volume (EPV): = _____ ft X _____ X 3 = _____ Gallons
Water col gal/lin. ft. Casing Volumes

- (X) Low-Flow/Micro Purging
 () Purge at least 3 well volumes

Well Diameter.	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () _____ Bailer
 () Disposable Bailer
 () Electric Submersible Pump
 (X) Peristaltic Pump
 () Other: _____

Sampling Equipment:

- () _____ Bailer
 (X) Pump Discharge
 () Disposable Bailer
 () Peristaltic Pump & Dedicated Tubing
 () Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
 () Myron L
 () Horriba
 () Hanna
 () Other: _____

Begin Purge at 1410

Time (24 hrs)	Volume (G/L)	Temp. (C/F)	DTW	Specific Conductivity (µS/cm)	pH (units)	Color	Odor	DO (mg/L)	Redox Potential (mV)
(every 3-5 min)		(± 10%)		(± 10%)	(± 0.2)			(± 10%)	(± 20%)
<u>1415</u>	<u>1.5</u>	<u>20.19</u>	<u>6.40</u>	<u>1026</u>	<u>6.87</u>	<u>clear</u>	<u>wd.</u>	<u>0.50</u>	<u>-95.7</u>
<u>1420</u>	<u>2.5</u>	<u>20.15</u>	<u>6.33</u>	<u>1026</u>	<u>6.88</u>	<u>"</u>	<u>"</u>	<u>0.46</u>	<u>-96.5</u>
<u>1425</u>	<u>3.5</u>	<u>20.20</u>	<u>6.33</u>	<u>1027</u>	<u>6.85</u>	<u>"</u>	<u>"</u>	<u>0.43</u>	<u>-101.2</u>
<u>1430</u>	<u>4.5</u>	<u>20.34</u>	<u>6.33</u>	<u>1029</u>	<u>6.85</u>	<u>"</u>	<u>"</u>	<u>0.41</u>	<u>-104.8</u>
<u>1435</u>	<u>5.5</u>	<u>20.32</u>	<u>6.33</u>	<u>1029</u>	<u>6.85</u>	<u>"</u>	<u>"</u>	<u>0.42</u>	<u>-105.5</u>
<u>1440</u>	<u>6.5</u>	<u>20.31</u>	<u>6.33</u>	<u>1032</u>	<u>6.85</u>	<u>"</u>	<u>"</u>	<u>0.37</u>	<u>-106.6</u>

Liters / Gallons Purged: <u>6.5</u>	Pump Rate in L or G/min: <u>200 well/min.</u>				
Sampling Time: <u>1440</u>	Duplicate Sample ID: <u>DUP</u> Sample Time: _____				
Sample Analyzed For: SEE WORK ORDER	Duplicate Sample Analyzed For: SEE WORK ORDER				
(√) Analyte(s):	Preservative:	Bottles:	(√) Analyte(s):	Preservative:	Bottles:
(X) TPH-g, BTEX, MTBE	HCl	3 X 40 mL VOAs	() TOC	H ₂ SO ₄	2 X 40 mL Amber VOAs
() TPH-d & TPH-mo	HCl	2 x 0.5 L Ambers	() Methane	HCl	3 X 40 mL VOAs
() NO ₂ , NO ₃ & SO ₄	None	1 X 500 mL Poly	() Naphthalene, Phenol	None	2 x 1 L Ambers
() Total Manganese	HNO ₃	1 X 250 mL Poly	() Alkalinity, TDS	None	1 X 500 mL Poly
() Dissolved Iron	Field-filtered, HNO ₃	1 X 250 mL Poly	() Phosphorus, TKN	H ₂ SO ₄	1 x 500 mL Poly
() Ferrous Iron	HCl	2 X Amber VOAs	() VOCs	HCl	3 X 40 mL VOAs
() SVOCs	None	2 x 1 L Ambers	() Other _____		

Notes:

Groundwater Sampling Data Sheet

Project #: <u>185702534</u> Task No: <u>200.0001</u>		Project Name: <u>Bohannon</u>		Date: <u>12/11/13</u>
Site Location: <u>San Lorenzo</u>				
Well ID: <u>MW-5</u>		Sampler(s): <u>C. Melancon</u>		
Screen Interval (ft): <u>5-15</u>	Depth to Water (DTW) (ft): <u>6.28</u>	Sample DTW (ft): <u>6.42</u>		
Tube/Pump Depth (ft): <u>10</u>	Depth to Bottom (DTB) (ft): _____	Measurements Referenced to: <u>TOC</u>		
	Well Diameter (inch): <u>2</u>	OVM (ppm) = _____		

CALCULATIONS:

Length of the water column: _____ ft - _____ ft = _____ ft
DTB DTW Water Col

80% of the water level: _____ ft + (_____ ft X 0.2) = _____ ft
DTW Water Col Recharge water level

Estimated Purge Volume (EPV): = _____ ft X _____ gal/in. ft. X 3 = _____ Gallons
Water col Casing Volumes

- (X) Low-Flow/Micro Purging
 () Purge at least 3 well volumes

Volume of Schedule 40 PVC Pipe		
Well Diameter.	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () _____ Bailer
 () Disposable Bailer
 () Electric Submersible Pump
 (X) Peristaltic Pump
 () Other: _____

Sampling Equipment:

- () _____ Bailer
 (X) Pump Discharge
 () Disposable Bailer
 () Peristaltic Pump & Dedicated Tubing
 () Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
 () Myron L
 () Horriba
 () Hanna
 () Other: _____

Begin Purge at 1240

Time (24 hrs)	Volume (G/L)	Temp. (C) (F)	DTW	Specific Conductivity (µS/cm)	pH (units)	Color	Odor	DO (mg/L)	Redox Potential (mV)
(every 3-5 min)		(± 10%)		(± 10%)	(± 0.2)			(± 10%)	(± 20%)
<u>1245</u>	<u>1.5</u>	<u>21.50</u>	<u>6.45</u>	<u>848</u>	<u>7.38</u>	<u>2/egr</u>	<u>none</u>	<u>2.27</u>	<u>56.0</u>
<u>1250</u>	<u>3.0</u>	<u>21.71</u>	<u>6.48</u>	<u>854</u>	<u>7.31</u>	<u>"</u>	<u>"</u>	<u>1.05</u>	<u>42.7</u>
<u>1255</u>	<u>4.0</u>	<u>21.64</u>	<u>6.42</u>	<u>810</u>	<u>7.30</u>	<u>"</u>	<u>"</u>	<u>0.84</u>	<u>39.8</u>
<u>1300</u>	<u>5.0</u>	<u>21.73</u>	<u>6.42</u>	<u>908</u>	<u>7.29</u>	<u>"</u>	<u>"</u>	<u>0.67</u>	<u>36.9</u>
<u>1305</u>	<u>6.0</u>	<u>21.74</u>	<u>6.42</u>	<u>911</u>	<u>7.29</u>	<u>"</u>	<u>"</u>	<u>0.62</u>	<u>36.3</u>

Liters / Gallons Purged: <u>6.0</u>	Pump Rate in L or G/min: <u>200 ml/min</u>
Sampling Time: <u>1310</u>	Duplicate Sample ID: _____ Sample Time: _____
Sample Analyzed For: SEE WORK ORDER	Duplicate Sample Analyzed For: SEE WORK ORDER
(√) Analyte(s): _____ Preservative: _____ Bottles: _____	(√) Analyte(s): _____ Preservative: _____ Bottles: _____
(X) TPH-g, BTEX, MTBE HCl 3 X 40 mL VOAs	() TOC H ₂ SO ₄ 2 X 40 mL Amber VOAs
() TPH-d & TPH-mo HCl 2 x 0.5 L Ambers	() Methane HCl 3 X 40 mL VOAs
() NO ₂ , NO ₃ & SO ₄ None 1 X 500 mL Poly	() Naphthalene, Phenol None 2 x 1 L Ambers
() Total Manganese HNO ₃ 1 X 250 mL Poly	() Alkalinity, TDS None 1 X 500 mL Poly
() Dissolved Iron Field-filtered, HNO ₃ 1 X 250 mL Poly	() Phosphorus, TKN H ₂ SO ₄ 1 x 500 mL Poly
() Ferrous Iron HCl 2 X Amber VOAs	() VOCs HCl 3 X 40 mL VOAs
() SVOCs None 2 x 1 L Ambers	() Other: _____

Notes:

Groundwater Sampling Data Sheet

Project #: <u>185702534</u> Task No: <u>200.0001</u> Bohannon		Project Name:	Date: <u>12/11/13</u>
Site Location: San Lorenzo			
Well ID: <u>MW-6</u>		Sampler(s): <u>C. Melancon</u>	
Screen Interval (ft): <u>5-15</u>	Depth to Water (DTW) (ft): <u>5.50</u>	Sample DTW (ft): <u>5.69</u>	
Tube/Pump Depth (ft): <u>10'</u>	Depth to Bottom (DTB) (ft):	Measurements Referenced to: TOC	
	Well Diameter (inch): <u>2</u>	OVM (ppm) = <u>—</u>	

CALCULATIONS:

Length of the water column: _____ ft - _____ ft = _____ ft
DTB DTW Water Col

80% of the water level: _____ ft + (_____ ft X 0.2) = _____ ft
DTW Water Col Recharge water level

Estimated Purge Volume (EPV): = _____ ft X _____ gal/in. ft. X 3 = _____ Gallons
Water col Casing Volumes

- (X) Low-Flow/Micro Purging
 () Purge at least 3 well volumes

Volume of Schedule 40 PVC Pipe		
Well Diameter.	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () _____ Bailer
 () Disposable Bailer
 () Electric Submersible Pump
 (X) Peristaltic Pump
 () Other: _____

Sampling Equipment:

- () _____ Bailer
 (X) Pump Discharge
 () Disposable Bailer
 () Peristaltic Pump & Dedicated Tubing
 () Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
 () Myron L
 () Horriba
 () Hanna
 () Other: _____

Begin Purge at 1200

Time (24 hrs) (every 3-5 min)	Volume (G/L)	Temp. (C/F) (± 10%)	DTW	Specific Conductivity (µS/cm) (± 10%)	pH (units) (± 0.2)	Color	Odor	DO (mg/L) (± 10%)	Redox Potential (mV) (± 20%)
<u>1205</u>	<u>1.5</u>	<u>19.95</u>	<u>5.70</u>	<u>920</u>	<u>7.17</u>	<u>clear</u>	<u>none</u>	<u>4.85</u>	<u>68.7</u>
<u>1210</u>	<u>3.0</u>	<u>20.15</u>	<u>5.69</u>	<u>927</u>	<u>7.10</u>	<u>"</u>	<u>"</u>	<u>1.86</u>	<u>62.6</u>
<u>1215</u>	<u>4.5</u>	<u>20.23</u>	<u>5.69</u>	<u>928</u>	<u>7.09</u>	<u>"</u>	<u>"</u>	<u>1.15</u>	<u>59.2</u>
<u>1220</u>	<u>6.0</u>	<u>20.27</u>	<u>5.69</u>	<u>929</u>	<u>7.09</u>	<u>"</u>	<u>"</u>	<u>0.97</u>	<u>57.5</u>
<u>1225</u>	<u>7.5</u>	<u>20.26</u>	<u>5.69</u>	<u>928</u>	<u>7.08</u>	<u>"</u>	<u>"</u>	<u>0.92</u>	<u>57.2</u>

Liters / Gallons Purged: <u>7.5</u>	Pump Rate in L or G/min: <u>300 ml/min</u>
Sampling Time: <u>1230</u>	Duplicate Sample ID: _____ Sample Time: _____
Sample Analyzed For: SEE WORK ORDER	Duplicate Sample Analyzed For: SEE WORK ORDER
(√) Analyte(s): _____ Preservative: _____ Bottles: _____	(√) Analyte(s): _____ Preservative: _____ Bottles: _____
(X) TPH-g, BTEX, MTBE HCl 3 X 40 mL VOAs	() TOC H ₂ SO ₄ 2 X 40 mL Amber VOAs
() TPH-d & TPH-mo HCl 2 x 0.5 L Ambers	() Methane HCl 3 X 40 mL VOAs
() NO ₂ , NO ₃ & SO ₄ None 1 X 500 mL Poly	() Naphthalene, Phenol None 2 x 1 L Ambers
() Total Manganese HNO ₃ 1 X 250 mL Poly	() Alkalinity, TDS None 1 X 500 mL Poly
() Dissolved Iron Field-filtered, HNO ₃ 1 X 250 mL Poly	() Phosphorus, TKN H ₂ SO ₄ 1 x 500 mL Poly
() Ferrous Iron HCl 2 X Amber VOAs	() VOCs HCl 3 X 40 mL VOAs
() SVOCs None 2 x 1 L Ambers	() Other _____

Notes:

Groundwater Sampling Data Sheet

Project #: <u>185702534</u> Task No: <u>200.0001</u> Bohannon		Project Name:	Date: <u>12/11/13</u>
Site Location: San Lorenzo			
Well ID: <u>MW-7</u>		Sampler(s): <u>C. Melaycon</u>	
Screen Interval (ft): <u>5-15</u>	Depth to Water (DTW) (ft): <u>4.90</u>	Sample DTW (ft): <u>4.97</u>	
Tube/Pump Depth (ft): <u>10</u>	Depth to Bottom (DTB) (ft):	Measurements Referenced to: TOC	
	Well Diameter (inch): <u>2</u>	OVM (ppm) = <u> </u>	

CALCULATIONS:

Length of the water column: _____ ft - _____ ft = _____ ft
DTB DTW Water Col

80% of the water level: _____ ft + (_____ ft X 0.2) = _____ ft
DTW Water Col Recharge water level

Estimated Purge Volume (EPV): = _____ ft X _____ gal/in. ft. X 3 = _____ Gallons
Water col Casing Volumes

- (X) Low-Flow/Micro Purging
 () Purge at least 3 well volumes

Volume of Schedule 40 PVC Pipe		
Well Diameter.	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () _____ Bailer
 () Disposable Bailer
 () Electric Submersible Pump
 (X) Peristaltic Pump
 () Other: _____

Sampling Equipment:

- () _____ Bailer
 (X) Pump Discharge
 () Disposable Bailer
 () Peristaltic Pump & Dedicated Tubing
 () Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
 () Myron L
 () Horriba
 () Hanna
 () Other: _____

Begin Purge at 1120

Time (24 hrs) (every 3-5 min)	Volume (G (L))	Temp. (°C) (°F) (± 10%)	DTW	Specific Conductivity (µS/cm) (± 10%)	pH (units) (± 0.2)	Color	Odor	DO (mg/L) (± 10%)	Redox Potential (mV) (± 20%)
<u>1125</u>	<u>2</u>	<u>15.54</u>	<u>4.98</u>	<u>99</u>	<u>8.25</u>	<u>Clear</u>	<u>none</u>	<u>6.26</u>	<u>53.1</u>
<u>1130</u>	<u>3.5</u>	<u>15.79</u>	<u>4.97</u>	<u>96</u>	<u>8.81</u>	"	"	<u>6.61</u>	<u>46.6</u>
<u>1135</u>	<u>4.5</u>	<u>15.81</u>	<u>4.97</u>	<u>95</u>	<u>8.82</u>	"	"	<u>5.32</u>	<u>44.0</u>
<u>1140</u>	<u>5.5</u>	<u>15.84</u>	<u>4.97</u>	<u>96</u>	<u>8.82</u>	"	"	<u>4.23</u>	<u>40.6</u>
<u>1145</u>	<u>6.5</u>	<u>15.85</u>	<u>4.97</u>	<u>95</u>	<u>8.81</u>	"	"	<u>4.12</u>	<u>39.7</u>
<u>1150</u>	<u>7.5</u>	<u>15.86</u>	<u>4.97</u>	<u>96</u>	<u>8.81</u>	"	"	<u>3.99</u>	<u>38.5</u>

Liters / Gallons Purged: <u>7.5</u>	Pump Rate in L or G/min: <u>200 mL/min.</u>
Sampling Time: <u>1150</u>	Duplicate Sample ID: _____ Sample Time: _____
Sample Analyzed For: SEE WORK ORDER	Duplicate Sample Analyzed For: SEE WORK ORDER
(√) Analyte(s): (X) TPH-g, BTEX, MTBE HCl 3 X 40 mL VOAs () TPH-d & TPH-mo HCl 2 x 0.5 L Ambers () NO ₂ , NO ₃ & SO ₄ None 1 X 500 mL Poly () Total Manganese HNO ₃ 1 X 250 mL Poly () Dissolved Iron Field-filtered, HNO ₃ 1 X 250 mL Poly () Ferrous Iron HCl 2 X Amber VOAs () SVOCs None 2 x 1 L Ambers	(√) Analyte(s): () TOC H ₂ SO ₄ 2 X 40 mL Amber VOAs () Methane HCl 3 X 40 mL VOAs () Naphthalene, Phenol None 2 x 1 L Ambers () Alkalinity, TDS None 1 X 500 mL Poly () Phosphorus, TKN H ₂ SO ₄ 1 x 500 mL Poly () VOCs HCl 3 X 40 mL VOAs () Other: _____

Notes: TB-1 (1100)

Groundwater Sampling Data Sheet

Project #: <u>185702534</u> Task No:	Project Name: <u>Bohannon</u>	Date: <u>12/12/13</u>
Site Location: <u>San Lorenzo</u>		
Sampler(s): <u>C. Melancon</u>		
Well ID: <u>POBS-A1</u>	Depth to Water (DTW) (ft): <u>7.31</u>	Sample DTW (ft):
Screen Interval (ft):	Depth to Bottom (DTB) (ft):	Measurements Referenced to: <u>TOC</u>
Tube/Pump Depth (ft): <u>5' from TD</u>	Well Diameter (inch): <u>2</u>	OVM (ppm) = <u>—</u>

CALCULATIONS:

Length of the water column: _____ ft - _____ ft = _____ ft
DTB DTW Water Col

80% of the water level: _____ ft + (_____ ft X 0.2) = _____ ft
DTW Water Col Recharge water level

Estimated Purge Volume (EPV): = _____ ft X _____ X $\frac{3}{1}$ = _____ Gallons
Water col gal/lin. ft. Casing Volumes

- (X) Low-Flow/Micro Purging
 () Purge at least 3 well volumes

Well Diameter.	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () _____ Bailer
 () Disposable Bailer
 () Electric Submersible Pump
 (X) Peristaltic Pump
 () Other: _____

Sampling Equipment:

- () _____ Bailer
 (X) Pump Discharge
 () Disposable Bailer
 () Peristaltic Pump & Dedicated Tubing
 () Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
 () Myron L
 () Horriba
 () Hanna
 () Other: _____

Begin Purge at 935

Time (24 hrs)	Volume (G/L)	Temp. (C/F)	DTW	Specific Conductivity (µS/cm)	pH (units)	Color	Odor	DO (mg/L)	Redox Potential (mV)
(every 3-5 min)		(± 10%)		(± 10%)	(± 0.2)			(± 10%)	(± 20%)
<u>940</u>	<u>1.5</u>	<u>19.42</u>	<u>7.75</u>	<u>1699</u>	<u>6.76</u>	<u>Clear</u>	<u>Faint</u>	<u>0.43</u>	<u>-111.4</u>
<u>945</u>	<u>2.5</u>	<u>19.15</u>	<u>7.82</u>	<u>1711</u>	<u>6.75</u>	<u>"</u>	<u>"</u>	<u>0.38</u>	<u>-119.6</u>
<u>950</u>	<u>3.5</u>	<u>18.68</u>	<u>7.95</u>	<u>1627</u>	<u>6.76</u>	<u>"</u>	<u>Med</u>	<u>0.42</u>	<u>-122.6</u>
<u>955</u>	<u>4.0</u>	<u>17.85</u>	<u>7.80</u>	<u>1577</u>	<u>6.76</u>	<u>"</u>	<u>"</u>	<u>0.46</u>	<u>-122.4</u>
<u>1000</u>	<u>4.5</u>	<u>17.28</u>	<u>7.80</u>	<u>1528</u>	<u>6.76</u>	<u>"</u>	<u>"</u>	<u>0.49</u>	<u>-122.6</u>
<u>1005</u>	<u>5.0</u>	<u>17.23</u>	<u>7.80</u>	<u>1522</u>	<u>6.76</u>	<u>"</u>	<u>"</u>	<u>0.49</u>	<u>-122.5</u>

Liters / Gallons Purged:	Pump Rate in L or G /min:				
Sampling Time: <u>1010</u>	Duplicate Sample ID: _____ Sample Time: _____				
Sample Analyzed For: <u>SEE WORK ORDER</u>	Duplicate Sample Analyzed For: <u>SEE WORK ORDER</u>				
(√) Analyte(s):	Preservative:	Bottles:	(√) Analyte(s):	Preservative:	Bottles:
(X) TPH-g, BTEX, MTBE	HCl	3 X 40 mL VOAs	() TOC	H ₂ SO ₄	2 X 40 mL Amber VOAs
() TPH-d & TPH-mo	HCl	2 x 0.5 L Ambers	() Methane	HCl	3 X 40 mL VOAs
() NO ₂ , NO ₃ & SO ₄	None	1 X 500 mL Poly	() Naphthalene, Phenol	None	2 x 1 L Ambers
() Total Manganese	HNO ₃	1 X 250 mL Poly	() Alkalinity, TDS	None	1 X 500 mL Poly
() Dissolved Iron	Field-filtered, HNO ₃	1 X 250 mL Poly	() Phosphorus, TKN	H ₂ SO ₄	1 x 500 mL Poly
() Ferrous Iron	HCl	2 X Amber VOAs	() VOCs	HCl	3 X 40 mL VOAs
() SVOCs	None	2 x 1 L Ambers	() Other: _____		

Notes:

Groundwater Sampling Data Sheet

Project #: <u>185702534</u> Task No:		Project Name: Bohannon		Date: <u>12/12/13</u>
Site Location: San Lorenzo				
Well ID: <u>POBS-B1</u>			Sampler(s): <u>C. Melancon</u>	
Screen Interval (ft):		Depth to Water (DTW) (ft): <u>7.39</u>		Sample DTW (ft): <u>7.54</u>
Tube/Pump Depth (ft): <u>5' R₄₄ TO</u>		Depth to Bottom (DTB) (ft):		Measurements Referenced to: TOC
Well Diameter (inch): <u>2</u>			OVM (ppm) = <u>-</u>	

CALCULATIONS:

Length of the water column: _____ ft - _____ ft = _____ ft
DTB DTW Water Col

80% of the water level: _____ ft + (_____ ft X 0.2) = _____ ft
DTW Water Col Recharge water level

Estimated Purge Volume (EPV): = _____ ft X _____ X 3 = _____ Gallons
Water col gal/lin. ft. Casing Volumes

- (X) Low-Flow/Micro Purging
 () Purge at least 3 well volumes

Volume of Schedule 40 PVC Pipe		
Well Diameter.	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () _____ Bailer
 () Disposable Bailer
 () Electric Submersible Pump
 (X) Peristaltic Pump
 () Other: _____

Sampling Equipment:

- () _____ Bailer
 (X) Pump Discharge
 () Disposable Bailer
 () Peristaltic Pump & Dedicated Tubing
 () Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
 () Myron L
 () Horriba
 () Hanna
 () Other: _____

Begin Purge at 855

Time (24 hrs) (every 3-5 min)	Volume (G/L)	Temp. (°C/°F) (± 10%)	DTW	Specific Conductivity (µS/cm) (± 10%)	pH (units) (± 0.2)	Color	Odor	DO (mg/L) (± 10%)	Redox Potential (mV) (± 20%)
<u>900</u>	<u>1.5</u>	<u>18.09</u>	<u>7.62</u>	<u>1250</u>	<u>6.96</u>	<u>clear</u>	<u>Faint</u>	<u>0.67</u>	<u>-53.4</u>
<u>905</u>	<u>2.5</u>	<u>18.08</u>	<u>7.54</u>	<u>1303</u>	<u>6.94</u>	<u>"</u>	<u>"</u>	<u>0.54</u>	<u>-25.4</u>
<u>910</u>	<u>3.5</u>	<u>18.15</u>	<u>7.54</u>	<u>1311</u>	<u>6.93</u>	<u>"</u>	<u>"</u>	<u>0.49</u>	<u>-11.2</u>
<u>915</u>	<u>4.5</u>	<u>18.27</u>	<u>7.54</u>	<u>1316</u>	<u>6.93</u>	<u>"</u>	<u>"</u>	<u>0.48</u>	<u>-3.9</u>
<u>920</u>	<u>5.0</u>	<u>18.61</u>	<u>7.54</u>	<u>1325</u>	<u>6.93</u>	<u>"</u>	<u>None</u>	<u>0.47</u>	<u>-2.1</u>
<u>925</u>	<u>5.5</u>	<u>18.71</u>	<u>7.54</u>	<u>1328</u>	<u>6.93</u>	<u>"</u>	<u>"</u>	<u>0.47</u>	<u>-0.3</u>

Liters / Gallons Purged: <u>5.5</u>		Pump Rate in L or G/min: <u>200 mL/min</u>	
Sampling Time: <u>930</u>		Duplicate Sample ID: _____ Sample Time: _____	
Sample Analyzed For: SEE WORK ORDER		Duplicate Sample Analyzed For: SEE WORK ORDER	
(√) Analyte(s):	Preservative:	Bottles:	(√) Analyte(s):
(X) TPH-g, BTEX, MTBE	HCl	3 X 40 mL VOAs	() TOC
() TPH-d & TPH-mo	HCl	2 x 0.5 L Ambers	() Methane
() NO ₂ , NO ₃ & SO ₄	None	1 X 500 mL Poly	() Naphthalene, Phenol
() Total Manganese	HNO ₃	1 X 250 mL Poly	() Alkalinity, TDS
() Dissolved Iron	Field-filtered, HNO ₃	1 X 250 mL Poly	() Phosphorus, TKN
() Ferrous Iron	HCl	2 X Amber VOAs	() VOCs
() SVOCs	None	2 x 1 L Ambers	() Other: _____

Notes:

Groundwater Sampling Data Sheet

Project #: <u>185702534</u> Task No: <u>200.0001</u> Bohannon		Project Name:	Date: <u>12/12/13</u>
Site Location: San Lorenzo			
Well ID: <u>POBS-82</u>		Sampler(s): <u>C. Melancon</u>	
Depth to Water (DTW) (ft): <u>6.67</u>	Depth to Bottom (DTB) (ft): <u>25.9</u>	Sample DTW (ft): <u>7.97</u>	Measurements Referenced to: TOC
Screen Interval (ft): <u>16-26</u>	Well Diameter (inch): <u>2</u>	OVM (ppm) = <u>—</u>	
Tube/Pump Depth (ft): <u>21</u>			

CALCULATIONS:

Length of the water column: _____ ft - _____ ft = _____ ft
DTB DTW Water Col

80% of the water level: _____ ft + (_____ ft X 0.2) = _____ ft
DTW Water Col Recharge water level

Estimated Purge Volume (EPV): = _____ ft X _____ gal/in. ft. X 3 = _____ Gallons
Water col Casing Volumes

- (X) Low-Flow/Micro Purging
 () Purge at least 3 well volumes

Well Diameter.	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () _____ Bailer
 () Disposable Bailer
 () Electric Submersible Pump
 (X) Peristaltic Pump
 () Other: _____

Sampling Equipment:

- () _____ Bailer
 (X) Pump Discharge
 () Disposable Bailer
 () Peristaltic Pump & Dedicated Tubing
 () Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
 () Myron L
 () Horriba
 () Hanna
 () Other: _____

Begin Purge at 740

Time (24 hrs)	Volume (G/L)	Temp. (C °F)	DTW	Specific Conductivity (µS/cm)	pH (units)	Color	Odor	DO (mg/L)	Redox Potential (mV)
(every 3-5 min)		(± 10%)		(± 10%)	(± 0.2)			(± 10%)	(± 20%)
<u>745</u>	<u>1.5</u>	<u>17.33</u>	<u>8.12</u>	<u>295</u>	<u>7.16</u>	<u>Clear</u>	<u>Faint</u>	<u>4.33</u>	<u>-120.1</u>
<u>750</u>	<u>2.5</u>	<u>16.79</u>	<u>8.50</u>	<u>836</u>	<u>7.06</u>	<u>"</u>	<u>"</u>	<u>2.44</u>	<u>-104.8</u>
<u>755</u>	<u>3.0</u>	<u>15.73</u>	<u>8.15</u>	<u>882</u>	<u>7.04</u>	<u>"</u>	<u>"</u>	<u>1.47</u>	<u>-92.5</u>
<u>800</u>	<u>3.5</u>	<u>15.86</u>	<u>8.02</u>	<u>901</u>	<u>7.03</u>	<u>"</u>	<u>"</u>	<u>1.15</u>	<u>-85.6</u>
<u>805</u>	<u>4.0</u>	<u>15.90</u>	<u>7.98</u>	<u>909</u>	<u>7.03</u>	<u>"</u>	<u>"</u>	<u>0.95</u>	<u>-80.7</u>
<u>810</u>	<u>4.5</u>	<u>16.00</u>	<u>7.97</u>	<u>915</u>	<u>7.02</u>	<u>"</u>	<u>"</u>	<u>0.87</u>	<u>-78.8</u>

Liters / Gallons Purged: <u>4.5</u>	Pump Rate in L or G/min: <u>100 ml/min.</u>
Sampling Time: <u>810</u>	Duplicate Sample ID: _____ Sample Time: _____
Sample Analyzed For: SEE WORK ORDER	Duplicate Sample Analyzed For: SEE WORK ORDER
(√) Analyte(s): _____ Preservative: _____ Bottles: _____	(√) Analyte(s): _____ Preservative: _____ Bottles: _____
(X) TPH-g, BTEX, MTBE HCl 3 X 40 mL VOAs	() TOC H ₂ SO ₄ 2 X 40 mL Amber VOAs
() TPH-d & TPH-mo HCl 2 x 0.5 L Ambers	() Methane HCl 3 X 40 mL VOAs
() NO ₂ , NO ₃ & SO ₄ None 1 X 500 mL Poly	() Naphthalene, Phenol None 2 x 1 L Ambers
() Total Manganese HNO ₃ 1 X 250 mL Poly	() Alkalinity, TDS None 1 X 500 mL Poly
() Dissolved Iron Field-filtered, HNO ₃ 1 X 250 mL Poly	() Phosphorus, TKN H ₂ SO ₄ 1 x 500 mL Poly
() Ferrous Iron HCl 2 X Amber VOAs	() VOCs HCl 3 X 40 mL VOAs
() SVOCs None 2 x 1 L Ambers	() Other _____

Notes:

Groundwater Sampling Data Sheet

Project #: <u>185702534</u> Task No: <u>200.0001</u>		Project Name: <u>Bohannon</u>		Date: <u>12/11/13</u>
Site Location: <u>San Lorenzo</u>				
Well ID: <u>NOBS-B1</u>		Sampler(s): <u>C. Mcaycon</u>		Depth to Water (DTW) (ft): <u>6.10</u>
Screen Interval (ft): _____		Depth to Bottom (DTB) (ft): _____		Sample DTW (ft): <u>6.18</u>
Tube/Pump Depth (ft): <u>5' from TD</u>		Well Diameter (inch): <u>2</u>		Measurements Referenced to: <u>TOC</u>
				OVM (ppm) = _____

CALCULATIONS:

Length of the water column: _____ ft - _____ ft = _____ ft
DTB DTW Water Col

80% of the water level: _____ ft + (_____ ft X 0.2) = _____ ft
DTW Water Col Recharge water level

Estimated Purge Volume (EPV) = _____ ft X _____ gal/lin. ft X 3 = _____ Gallons
Water col Casing Volumes

- (X) Low-Flow/Micro Purging
 () Purge at least 3 well volumes

Volume of Schedule 40 PVC Pipe		
Well Diameter.	I.D	gal/linear ft.
1.25	1.38	0.08
2	2.067	0.17
3	3.068	0.38
4	4.026	0.66
6	6.065	1.5
8	7.981	2.6
10	10.02	4.12
12	11.938	5.81

Purging Equipment:

- () _____ Bailer
 () Disposable Bailer
 () Electric Submersible Pump
 (X) Peristaltic Pump
 () Other: _____

Sampling Equipment:

- () _____ Bailer
 (X) Pump Discharge
 () Disposable Bailer
 () Peristaltic Pump & Dedicated Tubing
 () Other: _____

Type of Water Quality Kit Used:

- (X) YSI 556
 () Myron L
 () Horriba
 () Hanna
 () Other: _____

Begin Purge at 1330

Time (24 hrs)	Volume (G/L)	Temp. (C/F)	DTW	Specific Conductivity (µS/cm)	pH (units)	Color	Odor	DO (mg/L)	Redox Potential (mV)
(every 3-5 min)		(± 10%)		(± 10%)	(± 0.2)			(± 10%)	(± 20%)
<u>1335</u>	<u>1.5</u>	<u>20.40</u>	<u>6.20</u>	<u>1047</u>	<u>7.23</u>	<u>Clear</u>	<u>None</u>	<u>0.98</u>	<u>85.8</u>
<u>1340</u>	<u>3.0</u>	<u>20.40</u>	<u>6.21</u>	<u>1054</u>	<u>7.07</u>	<u>"</u>	<u>"</u>	<u>0.53</u>	<u>71.3</u>
<u>1345</u>	<u>4.0</u>	<u>20.38</u>	<u>6.18</u>	<u>1057</u>	<u>7.04</u>	<u>"</u>	<u>"</u>	<u>0.45</u>	<u>64.7</u>
<u>1350</u>	<u>5.0</u>	<u>20.40</u>	<u>6.18</u>	<u>1059</u>	<u>7.03</u>	<u>"</u>	<u>"</u>	<u>0.41</u>	<u>59.9</u>
<u>1355</u>	<u>6.0</u>	<u>20.41</u>	<u>6.18</u>	<u>1058</u>	<u>7.03</u>	<u>"</u>	<u>"</u>	<u>0.37</u>	<u>56.3</u>

Liters / Gallons Purged: <u>6.0</u>		Pump Rate in L or G/min: <u>200 ml/min.</u>	
Sampling Time: <u>1400</u>		Duplicate Sample ID: _____ Sample Time: _____	
Sample Analyzed For: <u>SEE WORK ORDER</u>		Duplicate Sample Analyzed For: <u>SEE WORK ORDER</u>	
(√) Analyte(s):	Preservative:	Bottles:	(√) Analyte(s):
(X) TPH-g, BTEX, MTBE	HCl	3 X 40 mL VOAs	() TOC
() TPH-d & TPH-mo	HCl	2 x 0.5 L Ambers	() Methane
() NO ₂ , NO ₃ & SO ₄	None	1 X 500 mL Poly	() Naphthalene, Phenol
() Total Manganese	HNO ₃	1 X 250 mL Poly	() Alkalinity, TDS
() Dissolved Iron	Field-filtered, HNO ₃	1 X 250 mL Poly	() Phosphorus, TKN
() Ferrous Iron	HCl	2 X Amber VOAs	() VOCs
() SVOCs	None	2 x 1 L Ambers	() Other: _____
			() TOC
			H ₂ SO ₄
			HCl
			2 X 40 mL Amber VOAs
			3 X 40 mL VOAs
			None
			2 x 1 L Ambers
			None
			1 X 500 mL Poly
			H ₂ SO ₄
			1 x 500 mL Poly
			HCl
			3 X 40 mL VOAs

Notes:



CHAIN OF CUSTODY RECORD

Stantec Walnut Creek Office
 1340 Treat Blvd., Suite 300
 Walnut Creek, CA 94597
 TEL: (916) 861-0400 FAX: (916) 861-0430

Stantec Company Contact(s) for Invoice:
 Project Manager: *Chris Maxwell*
 email: *chris.maxwell@stantec.com*

Stantec Project #

DATE: *12-12-13*

185702534

PAGE:

1 OF *1*

Project Name: *Bohannon*
 Address: *575 Paseo Grande
 San Lorenzo CA*

Sampler(s) Printed Name: *Charles Melaycon*
 Sampler(s) Signature:

Laboratory: *Test America*
 Lab Use Only:

Turn-around Time (Business Days):
 10 DAYS 5 DAYS 72 H 48 H 24 H <24 H
 OTHER

REQUESTED ANALYSIS

Special Instructions or Notes: _____
 Temperature Upon Receipt (C): _____

TPH₃/BTEX 8260B

LAB USE ONLY	Field Sample Identification	SAMPLING		MAT-RIX	No. of Cont.	Pre-serve	Laboratory Notes
		DATE	TIME				
	TB-1	<i>12-11-13</i>	<i>11:00</i>	<i>W</i>	<i>2</i>	<i>HCL</i>	<i>X</i>
	MW-7		<i>11:50</i>		<i>3</i>		
	MW-6		<i>12:30</i>				
	MW-5		<i>13:10</i>				
	NOBS-B1		<i>14:00</i>				
	MW-4		<i>14:40</i>				
	POBS-B2	<i>12-12-13</i>	<i>8:10</i>				
	MW-3		<i>8:50</i>				
	POBS-B1		<i>9:30</i>				
	POBS-A1		<i>10:10</i>				
	MW-2		<i>10:50</i>				
	MW-1		<i>11:30</i>				
	DUP	<i>12-11-13</i>	<i>-</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>

Relinquished by: (Signature)	Date: <i>12-12-13</i>	Time: <i>12:50</i>	Received by: (Signature) <i>John Miller</i>	Time: <i>4:00</i>
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Time:

Appendix C
Laboratory Analytical Report and
Chain of Custody for the
December 2013 Groundwater
Monitoring Event

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

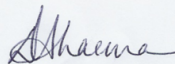
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-54312-1
Client Project/Site: Bohannon San Lorenzo

For:
Stantec Consulting Corp.
1340 Treat Blvd
Suite 300
Walnut Creek, California 94597

Attn: Mr. Chris Maxwell



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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Job ID: 720-54312-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-54312-1

Comments

No additional comments.

Receipt

The samples were received on 12/12/2013 12:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0° C.

GC/MS VOA

No analytical or quality issues were noted.

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Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: TB-1

Lab Sample ID: 720-54312-1

No Detections.

Client Sample ID: MW-7

Lab Sample ID: 720-54312-2

No Detections.

Client Sample ID: MW-6

Lab Sample ID: 720-54312-3

No Detections.

Client Sample ID: MW-5

Lab Sample ID: 720-54312-4

No Detections.

Client Sample ID: NOBS-B1

Lab Sample ID: 720-54312-5

No Detections.

Client Sample ID: MW-4

Lab Sample ID: 720-54312-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	190		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	3.3		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
Toluene	17		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	16		5.0		ug/L	5		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	6900		250		ug/L	5		8260B/CA_LUFT MS	Total/NA

Client Sample ID: POBS-B2

Lab Sample ID: 720-54312-7

No Detections.

Client Sample ID: MW-3

Lab Sample ID: 720-54312-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	7.0		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	110		50		ug/L	1		8260B/CA_LUFT MS	Total/NA

Client Sample ID: POBS-B1

Lab Sample ID: 720-54312-9

No Detections.

Client Sample ID: POBS-A1

Lab Sample ID: 720-54312-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1200		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Toluene	28		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: POBS-A1 (Continued)

Lab Sample ID: 720-54312-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	15		10		ug/L	10		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	2600		500		ug/L	10		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-2

Lab Sample ID: 720-54312-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	20		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Toluene	1.1		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	410		50		ug/L	1		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-1

Lab Sample ID: 720-54312-12

No Detections.

Client Sample ID: DUP

Lab Sample ID: 720-54312-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	240		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	4.2		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
Toluene	22		2.5		ug/L	5		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	20		5.0		ug/L	5		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	7700		250		ug/L	5		8260B/CA_LUFT MS	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client Sample Results

Client: Stantec Consulting Corp.
 Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: TB-1

Lab Sample ID: 720-54312-1

Date Collected: 12/11/13 11:00

Matrix: Water

Date Received: 12/12/13 12:50

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			12/13/13 19:18	1
Ethylbenzene	ND		0.50		ug/L			12/13/13 19:18	1
Toluene	ND		0.50		ug/L			12/13/13 19:18	1
Xylenes, Total	ND		1.0		ug/L			12/13/13 19:18	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			12/13/13 19:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		67 - 130		12/13/13 19:18	1
1,2-Dichloroethane-d4 (Surr)	99		72 - 130		12/13/13 19:18	1
Toluene-d8 (Surr)	102		70 - 130		12/13/13 19:18	1

Client Sample Results

Client: Stantec Consulting Corp.
 Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: MW-7
Date Collected: 12/11/13 11:50
Date Received: 12/12/13 12:50

Lab Sample ID: 720-54312-2
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			12/13/13 19:47	1
Ethylbenzene	ND		0.50		ug/L			12/13/13 19:47	1
Toluene	ND		0.50		ug/L			12/13/13 19:47	1
Xylenes, Total	ND		1.0		ug/L			12/13/13 19:47	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			12/13/13 19:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 130		12/13/13 19:47	1
1,2-Dichloroethane-d4 (Surr)	100		72 - 130		12/13/13 19:47	1
Toluene-d8 (Surr)	101		70 - 130		12/13/13 19:47	1

Client Sample Results

Client: Stantec Consulting Corp.
 Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: MW-6
Date Collected: 12/11/13 12:30
Date Received: 12/12/13 12:50

Lab Sample ID: 720-54312-3
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			12/13/13 21:15	1
Ethylbenzene	ND		0.50		ug/L			12/13/13 21:15	1
Toluene	ND		0.50		ug/L			12/13/13 21:15	1
Xylenes, Total	ND		1.0		ug/L			12/13/13 21:15	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			12/13/13 21:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 130		12/13/13 21:15	1
1,2-Dichloroethane-d4 (Surr)	104		72 - 130		12/13/13 21:15	1
Toluene-d8 (Surr)	102		70 - 130		12/13/13 21:15	1



Client Sample Results

Client: Stantec Consulting Corp.
 Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: MW-5
Date Collected: 12/11/13 13:10
Date Received: 12/12/13 12:50

Lab Sample ID: 720-54312-4
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			12/13/13 21:45	1
Ethylbenzene	ND		0.50		ug/L			12/13/13 21:45	1
Toluene	ND		0.50		ug/L			12/13/13 21:45	1
Xylenes, Total	ND		1.0		ug/L			12/13/13 21:45	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			12/13/13 21:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 130		12/13/13 21:45	1
1,2-Dichloroethane-d4 (Surr)	92		72 - 130		12/13/13 21:45	1
Toluene-d8 (Surr)	100		70 - 130		12/13/13 21:45	1

Client Sample Results

Client: Stantec Consulting Corp.
 Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: NOBS-B1

Lab Sample ID: 720-54312-5

Date Collected: 12/11/13 14:00

Matrix: Water

Date Received: 12/12/13 12:50

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			12/13/13 22:14	1
Ethylbenzene	ND		0.50		ug/L			12/13/13 22:14	1
Toluene	ND		0.50		ug/L			12/13/13 22:14	1
Xylenes, Total	ND		1.0		ug/L			12/13/13 22:14	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			12/13/13 22:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		67 - 130		12/13/13 22:14	1
1,2-Dichloroethane-d4 (Surr)	102		72 - 130		12/13/13 22:14	1
Toluene-d8 (Surr)	101		70 - 130		12/13/13 22:14	1

Client Sample Results

Client: Stantec Consulting Corp.
 Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: MW-4
Date Collected: 12/11/13 14:40
Date Received: 12/12/13 12:50

Lab Sample ID: 720-54312-6
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	190		2.5		ug/L			12/13/13 22:43	5
Ethylbenzene	3.3		2.5		ug/L			12/13/13 22:43	5
Toluene	17		2.5		ug/L			12/13/13 22:43	5
Xylenes, Total	16		5.0		ug/L			12/13/13 22:43	5
Gasoline Range Organics (GRO) -C5-C12	6900		250		ug/L			12/13/13 22:43	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	112		67 - 130		12/13/13 22:43	5
1,2-Dichloroethane-d4 (Surr)	114		72 - 130		12/13/13 22:43	5
Toluene-d8 (Surr)	105		70 - 130		12/13/13 22:43	5

Client Sample Results

Client: Stantec Consulting Corp.
 Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: POBS-B2

Lab Sample ID: 720-54312-7

Date Collected: 12/12/13 08:10

Matrix: Water

Date Received: 12/12/13 12:50

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			12/13/13 23:13	1
Ethylbenzene	ND		0.50		ug/L			12/13/13 23:13	1
Toluene	ND		0.50		ug/L			12/13/13 23:13	1
Xylenes, Total	ND		1.0		ug/L			12/13/13 23:13	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			12/13/13 23:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 130		12/13/13 23:13	1
1,2-Dichloroethane-d4 (Surr)	93		72 - 130		12/13/13 23:13	1
Toluene-d8 (Surr)	101		70 - 130		12/13/13 23:13	1

Client Sample Results

Client: Stantec Consulting Corp.
 Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: MW-3
Date Collected: 12/12/13 08:50
Date Received: 12/12/13 12:50

Lab Sample ID: 720-54312-8
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	7.0		0.50		ug/L			12/16/13 22:53	1
Ethylbenzene	ND		0.50		ug/L			12/16/13 22:53	1
Toluene	ND		0.50		ug/L			12/16/13 22:53	1
Xylenes, Total	ND		1.0		ug/L			12/16/13 22:53	1
Gasoline Range Organics (GRO)	110		50		ug/L			12/16/13 22:53	1

-C5-C12

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		67 - 130		12/16/13 22:53	1
1,2-Dichloroethane-d4 (Surr)	102		72 - 130		12/16/13 22:53	1
Toluene-d8 (Surr)	99		70 - 130		12/16/13 22:53	1



Client Sample Results

Client: Stantec Consulting Corp.
 Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: POBS-B1

Lab Sample ID: 720-54312-9

Date Collected: 12/12/13 09:30

Matrix: Water

Date Received: 12/12/13 12:50

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			12/16/13 23:19	1
Ethylbenzene	ND		0.50		ug/L			12/16/13 23:19	1
Toluene	ND		0.50		ug/L			12/16/13 23:19	1
Xylenes, Total	ND		1.0		ug/L			12/16/13 23:19	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			12/16/13 23:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	88		67 - 130		12/16/13 23:19	1
1,2-Dichloroethane-d4 (Surr)	118		72 - 130		12/16/13 23:19	1
Toluene-d8 (Surr)	123		70 - 130		12/16/13 23:19	1

Client Sample Results

Client: Stantec Consulting Corp.
 Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: POBS-A1

Lab Sample ID: 720-54312-10

Date Collected: 12/12/13 10:10

Matrix: Water

Date Received: 12/12/13 12:50

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1200		5.0		ug/L			12/16/13 23:45	10
Ethylbenzene	ND		5.0		ug/L			12/16/13 23:45	10
Toluene	28		5.0		ug/L			12/16/13 23:45	10
Xylenes, Total	15		10		ug/L			12/16/13 23:45	10
Gasoline Range Organics (GRO) -C5-C12	2600		500		ug/L			12/16/13 23:45	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 130		12/16/13 23:45	10
1,2-Dichloroethane-d4 (Surr)	100		72 - 130		12/16/13 23:45	10
Toluene-d8 (Surr)	93		70 - 130		12/16/13 23:45	10

Client Sample Results

Client: Stantec Consulting Corp.
 Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: MW-2
Date Collected: 12/12/13 10:50
Date Received: 12/12/13 12:50

Lab Sample ID: 720-54312-11
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	20		0.50		ug/L			12/17/13 00:11	1
Ethylbenzene	ND		0.50		ug/L			12/17/13 00:11	1
Toluene	1.1		0.50		ug/L			12/17/13 00:11	1
Xylenes, Total	ND		1.0		ug/L			12/17/13 00:11	1
Gasoline Range Organics (GRO) -C5-C12	410		50		ug/L			12/17/13 00:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	111		67 - 130		12/17/13 00:11	1
1,2-Dichloroethane-d4 (Surr)	100		72 - 130		12/17/13 00:11	1
Toluene-d8 (Surr)	89		70 - 130		12/17/13 00:11	1



Client Sample Results

Client: Stantec Consulting Corp.
 Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: MW-1

Lab Sample ID: 720-54312-12

Date Collected: 12/12/13 11:30

Matrix: Water

Date Received: 12/12/13 12:50

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			12/17/13 00:36	1
Ethylbenzene	ND		0.50		ug/L			12/17/13 00:36	1
Toluene	ND		0.50		ug/L			12/17/13 00:36	1
Xylenes, Total	ND		1.0		ug/L			12/17/13 00:36	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			12/17/13 00:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 130		12/17/13 00:36	1
1,2-Dichloroethane-d4 (Surr)	100		72 - 130		12/17/13 00:36	1
Toluene-d8 (Surr)	100		70 - 130		12/17/13 00:36	1

Client Sample Results

Client: Stantec Consulting Corp.
 Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: DUP

Lab Sample ID: 720-54312-13

Date Collected: 12/11/13 00:00

Matrix: Water

Date Received: 12/12/13 12:50

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	240		2.5		ug/L			12/17/13 14:24	5
Ethylbenzene	4.2		2.5		ug/L			12/17/13 14:24	5
Toluene	22		2.5		ug/L			12/17/13 14:24	5
Xylenes, Total	20		5.0		ug/L			12/17/13 14:24	5
Gasoline Range Organics (GRO) -C5-C12	7700		250		ug/L			12/17/13 14:24	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	123		67 - 130		12/17/13 14:24	5
1,2-Dichloroethane-d4 (Surr)	120		72 - 130		12/17/13 14:24	5
Toluene-d8 (Surr)	105		70 - 130		12/17/13 14:24	5

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-150067/5

Matrix: Water

Analysis Batch: 150067

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			12/13/13 16:51	1
Ethylbenzene	ND		0.50		ug/L			12/13/13 16:51	1
Toluene	ND		0.50		ug/L			12/13/13 16:51	1
Xylenes, Total	ND		1.0		ug/L			12/13/13 16:51	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			12/13/13 16:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 130		12/13/13 16:51	1
1,2-Dichloroethane-d4 (Surr)	101		72 - 130		12/13/13 16:51	1
Toluene-d8 (Surr)	102		70 - 130		12/13/13 16:51	1

Lab Sample ID: LCS 720-150067/6

Matrix: Water

Analysis Batch: 150067

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	26.8		ug/L		107	79 - 130
Ethylbenzene	25.0	27.4		ug/L		109	80 - 120
Toluene	25.0	27.0		ug/L		108	78 - 120
m-Xylene & p-Xylene	50.0	54.3		ug/L		109	70 - 142
o-Xylene	25.0	27.7		ug/L		111	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	98		72 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: LCS 720-150067/8

Matrix: Water

Analysis Batch: 150067

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	525		ug/L		105	62 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	106		67 - 130
1,2-Dichloroethane-d4 (Surr)	99		72 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: LCSD 720-150067/7

Matrix: Water

Analysis Batch: 150067

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	25.0	26.8		ug/L		107	79 - 130	0	20
Ethylbenzene	25.0	26.4		ug/L		106	80 - 120	3	20

TestAmerica Pleasanton

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-150067/7

Matrix: Water

Analysis Batch: 150067

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	25.0	26.4		ug/L		105	78 - 120	2	20
m-Xylene & p-Xylene	50.0	52.4		ug/L		105	70 - 142	4	20
o-Xylene	25.0	27.0		ug/L		108	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	102		72 - 130
Toluene-d8 (Surr)	105		70 - 130

Lab Sample ID: LCSD 720-150067/9

Matrix: Water

Analysis Batch: 150067

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	500	537		ug/L		107	62 - 120	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	108		67 - 130
1,2-Dichloroethane-d4 (Surr)	106		72 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: 720-54312-2 MS

Matrix: Water

Analysis Batch: 150067

Client Sample ID: MW-7

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		25.0	26.5		ug/L		106	60 - 140
Ethylbenzene	ND		25.0	26.4		ug/L		106	60 - 140
Toluene	ND		25.0	26.4		ug/L		106	60 - 140
m-Xylene & p-Xylene	ND		50.0	52.5		ug/L		105	60 - 140
o-Xylene	ND		25.0	26.8		ug/L		107	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	99		67 - 130
1,2-Dichloroethane-d4 (Surr)	96		72 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: 720-54312-2 MSD

Matrix: Water

Analysis Batch: 150067

Client Sample ID: MW-7

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		25.0	26.8		ug/L		107	60 - 140	1	20
Ethylbenzene	ND		25.0	26.4		ug/L		106	60 - 140	0	20
Toluene	ND		25.0	26.4		ug/L		106	60 - 140	0	20
m-Xylene & p-Xylene	ND		50.0	52.4		ug/L		105	60 - 140	0	20
o-Xylene	ND		25.0	26.8		ug/L		107	60 - 140	0	20

TestAmerica Pleasanton

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: 720-54312-2 MSD
Matrix: Water
Analysis Batch: 150067

Client Sample ID: MW-7
Prep Type: Total/NA

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	96		72 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: MB 720-150132/5
Matrix: Water
Analysis Batch: 150132

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.50		ug/L			12/16/13 18:35	1
Ethylbenzene	ND		0.50		ug/L			12/16/13 18:35	1
Toluene	ND		0.50		ug/L			12/16/13 18:35	1
Xylenes, Total	ND		1.0		ug/L			12/16/13 18:35	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			12/16/13 18:35	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	88		67 - 130		12/16/13 18:35	1
1,2-Dichloroethane-d4 (Surr)	93		72 - 130		12/16/13 18:35	1
Toluene-d8 (Surr)	101		70 - 130		12/16/13 18:35	1

Lab Sample ID: LCS 720-150132/6
Matrix: Water
Analysis Batch: 150132

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	25.0	25.8		ug/L		103	79 - 130
Ethylbenzene	25.0	26.9		ug/L		107	80 - 120
Toluene	25.0	20.7		ug/L		83	78 - 120
m-Xylene & p-Xylene	50.0	53.7		ug/L		107	70 - 142
o-Xylene	25.0	27.8		ug/L		111	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	97		72 - 130
Toluene-d8 (Surr)	81		70 - 130

Lab Sample ID: LCS 720-150132/8
Matrix: Water
Analysis Batch: 150132

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Gasoline Range Organics (GRO) -C5-C12	500	468		ug/L		94	62 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	89		67 - 130

TestAmerica Pleasanton

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-150132/8

Matrix: Water

Analysis Batch: 150132

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	97		72 - 130
Toluene-d8 (Surr)	105		70 - 130

Lab Sample ID: LCSD 720-150132/7

Matrix: Water

Analysis Batch: 150132

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

<i>Analyte</i>	<i>Spike Added</i>	<i>LCSD Result</i>	<i>LCSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
Benzene	25.0	25.4		ug/L		101	79 - 130	2	20
Ethylbenzene	25.0	24.1		ug/L		97	80 - 120	11	20
Toluene	25.0	24.4		ug/L		98	78 - 120	16	20
m-Xylene & p-Xylene	50.0	51.1		ug/L		102	70 - 142	5	20
o-Xylene	25.0	26.9		ug/L		108	70 - 130	3	20

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene	99		67 - 130
1,2-Dichloroethane-d4 (Surr)	91		72 - 130
Toluene-d8 (Surr)	81		70 - 130

Lab Sample ID: LCSD 720-150132/9

Matrix: Water

Analysis Batch: 150132

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

<i>Analyte</i>	<i>Spike Added</i>	<i>LCSD Result</i>	<i>LCSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
Gasoline Range Organics (GRO) -C5-C12	500	472		ug/L		94	62 - 120	1	20

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	96		72 - 130
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: MB 720-150209/4

Matrix: Water

Analysis Batch: 150209

Client Sample ID: Method Blank

Prep Type: Total/NA

<i>Analyte</i>	<i>MB Result</i>	<i>MB Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Benzene	ND		0.50		ug/L			12/17/13 09:17	1
Ethylbenzene	ND		0.50		ug/L			12/17/13 09:17	1
Toluene	ND		0.50		ug/L			12/17/13 09:17	1
Xylenes, Total	ND		1.0		ug/L			12/17/13 09:17	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			12/17/13 09:17	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
4-Bromofluorobenzene	106		67 - 130		12/17/13 09:17	1
1,2-Dichloroethane-d4 (Surr)	107		72 - 130		12/17/13 09:17	1

TestAmerica Pleasanton

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: MB 720-150209/4
Matrix: Water
Analysis Batch: 150209

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	101		70 - 130		12/17/13 09:17	1

Lab Sample ID: LCS 720-150209/5
Matrix: Water
Analysis Batch: 150209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							Benzene	25.0
Ethylbenzene	25.0	27.1		ug/L		108	80 - 120	
Toluene	25.0	25.5		ug/L		102	78 - 120	
m-Xylene & p-Xylene	50.0	54.2		ug/L		108	70 - 142	
o-Xylene	25.0	27.9		ug/L		112	70 - 130	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	99		67 - 130
1,2-Dichloroethane-d4 (Surr)	100		72 - 130
Toluene-d8 (Surr)	99		70 - 130

Lab Sample ID: LCS 720-150209/7
Matrix: Water
Analysis Batch: 150209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							Gasoline Range Organics (GRO) -C5-C12	500

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	108		67 - 130
1,2-Dichloroethane-d4 (Surr)	113		72 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: LCSD 720-150209/6
Matrix: Water
Analysis Batch: 150209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	Limit
							Benzene	25.0		
Ethylbenzene	25.0	25.6		ug/L		102	80 - 120	6	20	
Toluene	25.0	26.3		ug/L		105	78 - 120	3	20	
m-Xylene & p-Xylene	50.0	50.3		ug/L		101	70 - 142	7	20	
o-Xylene	25.0	25.5		ug/L		102	70 - 130	9	20	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	95		67 - 130
1,2-Dichloroethane-d4 (Surr)	103		72 - 130
Toluene-d8 (Surr)	102		70 - 130

TestAmerica Pleasanton

QC Sample Results

Client: Stantec Consulting Corp.
 Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-150209/8

Matrix: Water

Analysis Batch: 150209

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	500	506		ug/L		101	62 - 120	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	107		67 - 130
1,2-Dichloroethane-d4 (Surr)	106		72 - 130
Toluene-d8 (Surr)	102		70 - 130

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

GC/MS VOA

Analysis Batch: 150067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-54312-1	TB-1	Total/NA	Water	8260B/CA_LUFT MS	
720-54312-2	MW-7	Total/NA	Water	8260B/CA_LUFT MS	
720-54312-2 MS	MW-7	Total/NA	Water	8260B/CA_LUFT MS	
720-54312-2 MSD	MW-7	Total/NA	Water	8260B/CA_LUFT MS	
720-54312-3	MW-6	Total/NA	Water	8260B/CA_LUFT MS	
720-54312-4	MW-5	Total/NA	Water	8260B/CA_LUFT MS	
720-54312-5	NOBS-B1	Total/NA	Water	8260B/CA_LUFT MS	
720-54312-6	MW-4	Total/NA	Water	8260B/CA_LUFT MS	
720-54312-7	POBS-B2	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-150067/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-150067/8	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-150067/7	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-150067/9	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-150067/5	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 150132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-54312-8	MW-3	Total/NA	Water	8260B/CA_LUFT MS	
720-54312-9	POBS-B1	Total/NA	Water	8260B/CA_LUFT MS	
720-54312-10	POBS-A1	Total/NA	Water	8260B/CA_LUFT MS	
720-54312-11	MW-2	Total/NA	Water	8260B/CA_LUFT MS	
720-54312-12	MW-1	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-150132/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-150132/8	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-150132/7	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-150132/9	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-150132/5	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 150209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-54312-13	DUP	Total/NA	Water	8260B/CA_LUFT MS	

TestAmerica Pleasanton

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

GC/MS VOA (Continued)

Analysis Batch: 150209 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-150209/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-150209/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-150209/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-150209/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-150209/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: TB-1

Date Collected: 12/11/13 11:00

Date Received: 12/12/13 12:50

Lab Sample ID: 720-54312-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	150067	12/13/13 19:18	PDR	TAL PLS

Client Sample ID: MW-7

Date Collected: 12/11/13 11:50

Date Received: 12/12/13 12:50

Lab Sample ID: 720-54312-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	150067	12/13/13 19:47	PDR	TAL PLS

Client Sample ID: MW-6

Date Collected: 12/11/13 12:30

Date Received: 12/12/13 12:50

Lab Sample ID: 720-54312-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	150067	12/13/13 21:15	PDR	TAL PLS

Client Sample ID: MW-5

Date Collected: 12/11/13 13:10

Date Received: 12/12/13 12:50

Lab Sample ID: 720-54312-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	150067	12/13/13 21:45	PDR	TAL PLS

Client Sample ID: NOBS-B1

Date Collected: 12/11/13 14:00

Date Received: 12/12/13 12:50

Lab Sample ID: 720-54312-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	150067	12/13/13 22:14	PDR	TAL PLS

Client Sample ID: MW-4

Date Collected: 12/11/13 14:40

Date Received: 12/12/13 12:50

Lab Sample ID: 720-54312-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		5	150067	12/13/13 22:43	PDR	TAL PLS

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: POBS-B2

Lab Sample ID: 720-54312-7

Date Collected: 12/12/13 08:10

Matrix: Water

Date Received: 12/12/13 12:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	150067	12/13/13 23:13	PDR	TAL PLS

Client Sample ID: MW-3

Lab Sample ID: 720-54312-8

Date Collected: 12/12/13 08:50

Matrix: Water

Date Received: 12/12/13 12:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	150132	12/16/13 22:53	ASC	TAL PLS

Client Sample ID: POBS-B1

Lab Sample ID: 720-54312-9

Date Collected: 12/12/13 09:30

Matrix: Water

Date Received: 12/12/13 12:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	150132	12/16/13 23:19	ASC	TAL PLS

Client Sample ID: POBS-A1

Lab Sample ID: 720-54312-10

Date Collected: 12/12/13 10:10

Matrix: Water

Date Received: 12/12/13 12:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		10	150132	12/16/13 23:45	ASC	TAL PLS

Client Sample ID: MW-2

Lab Sample ID: 720-54312-11

Date Collected: 12/12/13 10:50

Matrix: Water

Date Received: 12/12/13 12:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	150132	12/17/13 00:11	ASC	TAL PLS

Client Sample ID: MW-1

Lab Sample ID: 720-54312-12

Date Collected: 12/12/13 11:30

Matrix: Water

Date Received: 12/12/13 12:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	150132	12/17/13 00:36	ASC	TAL PLS

TestAmerica Pleasanton

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Client Sample ID: DUP

Lab Sample ID: 720-54312-13

Date Collected: 12/11/13 00:00

Matrix: Water

Date Received: 12/12/13 12:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		5	150209	12/17/13 14:24	YYB	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-14

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTM S	8260B / CA LUFT MS	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919



Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Bohannon San Lorenzo

TestAmerica Job ID: 720-54312-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-54312-1	TB-1	Water	12/11/13 11:00	12/12/13 12:50
720-54312-2	MW-7	Water	12/11/13 11:50	12/12/13 12:50
720-54312-3	MW-6	Water	12/11/13 12:30	12/12/13 12:50
720-54312-4	MW-5	Water	12/11/13 13:10	12/12/13 12:50
720-54312-5	NOBS-B1	Water	12/11/13 14:00	12/12/13 12:50
720-54312-6	MW-4	Water	12/11/13 14:40	12/12/13 12:50
720-54312-7	POBS-B2	Water	12/12/13 08:10	12/12/13 12:50
720-54312-8	MW-3	Water	12/12/13 08:50	12/12/13 12:50
720-54312-9	POBS-B1	Water	12/12/13 09:30	12/12/13 12:50
720-54312-10	POBS-A1	Water	12/12/13 10:10	12/12/13 12:50
720-54312-11	MW-2	Water	12/12/13 10:50	12/12/13 12:50
720-54312-12	MW-1	Water	12/12/13 11:30	12/12/13 12:50
720-54312-13	DUP	Water	12/11/13 00:00	12/12/13 12:50

150624



720-54312

CHAIN OF CUSTODY RECORD

Stantec Walnut Creek Office
 1340 Treat Blvd., Suite 300
 Walnut Creek, CA 94597
 TEL: (916) 861-0400 FAX: (916) 861-0430

Stantec Company Contact(s) for Invoice: Project Manager: <i>Chris Maxwell</i> email: <i>chris.maxwell@stantec.com</i>	Stantec Project # <i>185702534</i>	DATE: <i>12-12-13</i> PAGE: <i>1 OF 1</i>
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Project Name: *Bohannon*
 Address: *575 Paseo Grande
 San Lorenzo CA*

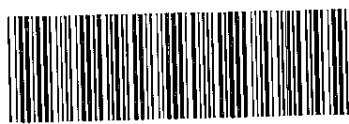
Sampler(s) Printed Name: *Charles Meloycon*
 Laboratory: *Test America*
 Sampler(s) Signature: *[Signature]*
 Lab Use Only:

Turn-around Time (Business Days):
 10 DAYS 5 DAYS 72 H 48 H 24 H <24 H
 OTHER

REQUESTED ANALYSIS

Special Instructions or Notes: _____
 Temperature Upon Receipt (C): _____

TPH₉/BTEX 8260B



720-54312 Chain of Custody

LAB USE ONLY	Field Sample Identification	SAMPLING		MAT-RIX	No. of Cont.	Pre-serve	Laboratory Notes
		DATE	TIME				
	TB-1	12-11-13	1100	W	2	HCL	X
	MW-7		1150		3		
	MW-6		1230				
	MW-5		1310				
	NOBS-B1		1400				
	MW-4	↓	1440				
	POBS-B2	12-12-13	810				
	MW-3	↓	850				
	POBS-B1	↓	930				
	POBS-A1	↓	1010				
	MW-2	↓	1050				
	MW-1	↓	1130				
	DUP	12-11-13	-	↓	↓	↓	↓

Relinquished by (Signature): <i>[Signature]</i>	Date: <i>12-12-13</i>	Time: <i>1250</i>	Received by (Signature): <i>[Signature]</i>	Date: <i>12/12/13</i>	Time: <i>13 50</i>	Temp: <i>4°C</i>
Relinquished by (Signature): _____	Date: _____	Time: _____	Received by (Signature): _____	Date: _____	Time: _____	Temp: _____
Relinquished by (Signature): _____	Date: _____	Time: _____	Received by (Signature): _____	Date: _____	Time: _____	Temp: _____

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 720-54312-1

Login Number: 54312

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Gonzales, Justinn

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Appendix D

Chemical Concentration Trends in Groundwater

