

Barbara Jakub
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

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4:11 pm, Jun 18, 2012

Alameda County
Environmental Health

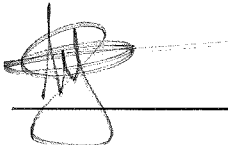
Re: BPS Reprographics (Formerly City Blue Print)
RWQCB Case #01-0210
1700 Jefferson St
Oakland CA, 94612

Dear Barbara Jakub,

BPS had directed MACTEC to provide, on our behalf, professional environmental consulting services to the best of their ability. To the best of my knowledge the information in this report is accurate and all local Agency and/or Regional Water Quality Control Board regulations and guidelines have been followed.

This report was prepared by MACTEC and BPS has relied on their advice and assistance. I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,



Authorized Representative

Attachment: Report



engineering and constructing a better tomorrow

October 13, 2008

Mr. David Blain
BPS Reprographic Services
945 Bryant Street
San Francisco, California 94103

Subject: **Groundwater Remediation and Monitoring Report
Third Quarter 2008
BPS Reprographic Services Facility
1700 Jefferson Street
Oakland, California
MACTEC Project No. 4088087514 01**

Dear Mr. Blain:

MACTEC Engineering and Consulting, Inc. (MACTEC) presents this quarterly status letter-report on the groundwater monitoring and remedial activities at the BPS Reprographic Services (BPS) facility located at 1700 Jefferson Street in Oakland, California (Plate 1). The First Quarter 2008 groundwater monitoring event was performed on March 26, 2008, and results were presented in a letter report dated May 5, 2008. The Second Quarter 2008 groundwater monitoring event was performed on June 2, 2008 and results were presented in a letter report dated July 22, 2008. The Third Quarter 2008 groundwater monitoring event was performed on September 10, 2008. Information presented in this letter-report represent the Third Quarter 2008 (July 1, 2008 through September 30, 2008) groundwater conditions at the subject site, and was prepared to satisfy the quarterly groundwater monitoring requirements of the Alameda County Department of Health Care Services (ACHCS).

BACKGROUND

Three underground gasoline storage tanks were removed from the property in 1987, and a preliminary soil and groundwater investigation indicated that a release of fuel into the subsurface had occurred. Subsequent investigation indicated the presence of free phase hydrocarbons (FPH) in groundwater beneath the site and a local groundwater gradient direction that ranges from north-northwest to west.

The existing groundwater monitoring wells (MW-1, MW-3, MW-5, and MW-6) and extraction wells (MW-1A and MW-4) are shown on Plate 1. Groundwater extraction and treatment began in 1992. The treatment system consisted of an oil-water separator that removed the FPH, a 3,000-gallon bioreactor tank for treatment by hydrocarbon reducing microbes, and three granular activated carbon vessels. The treated water was discharged under a wastewater discharge permit from the East Bay Municipal Utility District to the sanitary sewer. During its operation, the treatment system processed approximately 1,385,490 gallons of groundwater and an estimated 5,062 pounds of FPH were recovered.

By 1999, the oil-water separator was no longer recovering FPH, and FPH was no longer present in any of the groundwater monitoring wells. In June 1999, as approved by the ACHCS, groundwater extraction and treatment ceased. In September 1999, MACTEC implemented *in-situ* bioremediation using ORC™ in treatment wells MW-1A, MW-3, MW-4, and MW-5. The ORC™ is contained in fabric "socks" and releases oxygen over time to encourage aerobic microbes to metabolize the hydrocarbons. As described in the Groundwater Monitoring Plan, the ORC™ socks were removed from the treatment wells two weeks before each quarterly groundwater monitoring event, and then replaced after sampling was complete. *In-situ* bioremediation continued until the Fourth Quarter 2002. In late 2002 and early 2003, MACTEC removed the ORC™ socks from the monitoring wells, as requested by the ACHCS in their letter dated September 27, 2002. Since then, the ORC has not been replaced; however, quarterly monitoring has continued.

THIRD QUARTER 2008 GROUNDWATER SAMPLING AND ANALYSIS

On September 10, 2008, MACTEC conducted quarterly groundwater monitoring of MW-1, MW-3, MW-5, and MW-6 (Plate 1) using a non-purge method, in accordance with the SFBRWQCB January 31, 1997 letter *Utilization of Non-Purge Approach for Sampling of Monitoring Wells Impacted by Petroleum Hydrocarbons, BTEX and MTBE*, file No. 1123.64.

Table 1 presents groundwater field parameters, including dissolved oxygen (DO), collected prior to sampling. During the Third Quarter 2008 event, the DO concentrations ranged from 0.3 milligrams per liter (mg/L) in MW-3 to 0.6 mg/L in MW-1. MACTEC will continue to monitor DO in these wells.

Prior to sampling, MACTEC measured the depth to groundwater within each well casing from the top of casing (TOC) of wells MW-1, MW-3, MW-5, and MW-6 using an electronic water level indicator. The groundwater elevation at each well is calculated by subtracting the measured depth to water from the surveyed top of well casing elevation. Current and historical groundwater measurements and groundwater elevations are tabulated in Table 2 and a time history plot of groundwater elevations are displayed on Plate 2. As presented in Table 2, the elevation of the groundwater surface decreased an average of 0.44 feet across the site, as compared to last quarter's measurements. MACTEC will continue to monitor groundwater elevations at Site wells.

The groundwater elevation contours shown on Plate 3 were drawn using the September 10, 2008 groundwater measurements from wells MW-1, MW-3, MW-5, and MW-6. Based on the groundwater elevations, the groundwater gradient is approximately 0.0017 feet per foot (ft/ft). The direction of flow is towards the west.

Immediately after sample collection, MACTEC labeled and stored the samples in a cooler with ice. The groundwater samples were kept chilled until submitted to Test America Analytical Testing Corporation (Test America), a California state-certified laboratory (CA ELAP Certificate #1214), under chain-of-custody protocol for the following analyses:

- Total petroleum hydrocarbons as gasoline (TPHg) in accordance with EPA Method 8015 modified.

- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) in accordance with EPA Method 8020.
- Methyl tertiary butyl ether (MTBE) in accordance with EPA Method 8020, with confirmation of detections by EPA Method 8260.
- Ethylene dichloride (EDC) by EPA Method 8260.

The Third Quarter 2008 analytical results for TPHg, BTEX, MTBE, and EDC are displayed on Plate 4. Historical analytical results for TPHg, BTEX, and MTBE collected from August 1, 1991 to September 29, 1999, are shown in Table 3. Analytical results collected since September 29, 1999, are shown in Table 4 and presented graphically on Plates 5a, 5b, and 5c. The certified analytical reports (CARs) for this quarter's monitoring event are presented in Appendix A.

DISCUSSION

As shown in Table 4 and Plates 5a, 5b, and 5c, the Third Quarter 2008 monitoring event concentrations of TPHg and BTEX are within the range of historical concentrations of these compounds. The range of chemical concentrations detected in samples collected during the Third Quarter 2008 event are as follows:

- TPHg ranged from non-detect with a detection limit of 0.05 milligrams per liter (mg/L; MW-6) to 45 mg/L (MW-5).
- Benzene ranged from non-detect with a detection limit of 0.5 micrograms per liter ($\mu\text{g/L}$; MW-6) to 13,000 $\mu\text{g/L}$ (MW-5).
- Toluene ranged from non-detect with a detection limit of 0.5 micrograms per liter ($\mu\text{g/L}$; MW-6) to 3,700 $\mu\text{g/L}$ (MW-5).
- Ethylbenzene ranged from non-detect with a detection limit of 0.5 $\mu\text{g/L}$ (MW-6) to 1,200 $\mu\text{g/L}$ (MW-5).
- Total Xylenes ranged from non-detect with a detection limit of 2.5 micrograms per liter ($\mu\text{g/L}$; MW-6) to 2,200 $\mu\text{g/L}$ (MW-1 and MW-5).
- MTBE was not detected in samples from any of the groundwater monitoring wells this quarter, with detection limits ranging from 2.5 $\mu\text{g/L}$ (MW-6) to 1,200 $\mu\text{g/L}$ (MW-5).
- EDC was detected in MW-1 at a concentration of 200 $\mu\text{g/L}$ and in MW-5 at a concentration of 420 $\mu\text{g/L}$.

An overview of recent concentration trends observed in each monitoring well is presented below.

In MW-1, chemical concentrations peaked during the Second Quarter 2003 monitoring event, decreased to unusually low levels during the Third Quarter 2005, and increased again through the First Quarter 2006

(Plate 5a). Since then concentrations have remained relatively stable with seasonal fluctuations. The Third Quarter 2008 concentrations of TPHg and BTEX in MW-1 have increased since the Second Quarter 2008 concentrations, and remain within their respective recent historical ranges.

In MW-3, chemical concentrations peaked in 2003; decreased significantly in mid-2005, and subsequently increased (Plate 5b). Since then, concentrations have remained relatively stable. The Third Quarter 2008 concentrations of TPHg and BTEX in MW-3 have increased, with the exception of Toluene, which has decreased, since the Second Quarter 2008. Chemical concentrations remain within their respective recent historical ranges.

Chemical concentrations in MW-5 decreased to historical lows during the First and Second Quarter 2006 (Plate 5c). Subsequently, TPHg and BTEX concentrations have increased, but remain within their respective recent historical ranges. The Third Quarter 2008 TPHg concentration remains the same as the Second Quarter 2008 concentration. Third Quarter 2008 concentrations of BTEX in MW-5 have decreased since the Second Quarter 2008 concentrations with the exception of Benzene, which remains the same. Chemical concentrations remain within their respective recent historical ranges, with the exception of Benzene, which has increased to a level it has not been at since Third Quarter 1999.

Typically, groundwater collected from MW-6 contains no detectable concentrations of TPHg or BTEX compounds. However, First Quarter 2008 monitoring data from MW-6 indicated Toluene and Xylenes were detected at 0.68 and 0.88 $\mu\text{g/L}$, respectively. For the Second and Third Quarter 2008 monitoring events no detectable concentrations of TPHg or BTEX compounds were present. MW-6 will continue to be monitored for these analytes.

Beginning with the Fourth Quarter 2002 event, EDC was added to the list of analytes monitored at MW-1 and MW-5. The current concentrations of EDC detected in MW-1 and MW-5 (200 $\mu\text{g/L}$ and 420 $\mu\text{g/L}$, respectively) are similar to concentrations detected during previous quarters. EDC concentrations in both wells remain within their respective historical concentration ranges.

RECOMMENDATIONS

MACTEC recommends continued groundwater monitoring at the Site to satisfy the quarterly groundwater monitoring requirements of the ACHCS, and continued evaluation of monitoring parameters for more favorable conditions under which to make a monitoring frequency reduction request. MACTEC recommends that BPS send a copy of this report to the ACHCS:

October 13, 2008
4088087514 01
Mr. David Blain
BPS Reprographic Services
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Mr. Don Hwang
Alameda County
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California, 94502-6577

While under contract to BPS, MACTEC will continue to provide quarterly groundwater monitoring and reporting as required by ACHCS.

If you have any questions, please contact David S. Nanstad at (415) 278-2118.

Yours very truly,

MACTEC ENGINEERING AND CONSULTING, INC.

David S. Nanstad, REA
Senior Engineer

DSN-BPS

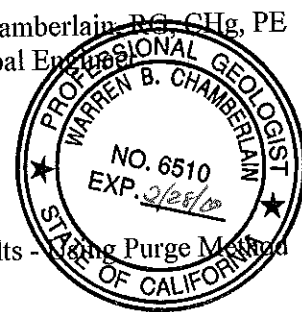
Attachments: Table 1 – Groundwater Parameters
Table 2 – Groundwater Elevation Data
Table 3 – Historical Groundwater Monitoring Analytical Results - *Using Purge Method*
Table 4 – Groundwater Monitoring Analytical Results

Plate 1 – Site Map
Plate 2 – Groundwater Elevation Data
Plate 3 – Groundwater Contours
Plate 4 – TPHg, BTEX, MTBE and EDC Concentrations in Groundwater
Plate 5a – MW-1 BTEX and DO Results
Plate 5b – MW-3 BTEX and DO Results
Plate 5c – MW-5 BTEX and DO Results

Appendix A – Laboratory Reports
Appendix B – Groundwater Sampling Forms

Warren B. Chamberlain

Warren B. Chamberlain, R.G., CHg, PE
Senior Principal Engineer



TABLES

Table 1. Groundwater Parameters
BPS Reprographic Services Facility
1700 Jefferson St.
Oakland CA

Dissolved Oxygen (mg/L)	MW-1	MW-3	MW-5	MW-6
9/29/1999	2.9	1.7	0.4	1.8
11/5/1999	4.0	10.3	4.0	2.8
11/22/1999	1.8	2.4	2.0	3.2
1/28/2000	2.9	8.4	3.6	2.2
2/11/2000	2.5	2.3	1.8	3.5
5/12/2000	2.0	7.4	2.4	1.7
5/30/2000	1.9	2.6	1.8	3.2
9/1/2000	2.9	3.4	2.3	2.7
9/15/2000	2.0	1.8	2.2	3.8
11/9/2000	NA	5.0	5.3	NA
11/17/2000	3.1	4.2	3.4	6.0
3/15/2001	2.0	7.0	1.4	2.1
4/2/2001	1.0	0.8	2.0	1.0
6/1/2001	0.2	0.2	6.6	0.3
6/28/2001	0.3	0.6	0.5	0.7
8/16/2001	0.5	6.5	1.6	0.8
8/30/2001	0.3	0.4	0.2	0.5
12/14/2001	0.0	3.8	2.2	0.2
12/26/2001	0.2	0.3	0.2	0.2
4/10/2002	0.6	0.6	0.2	0.4
4/23/2002	0.3	0.4	0.9	0.5
6/3/2002	0.4	5.2	4.3	0.7
6/14/2002	0.3	0.3	0.4	0.3
8/5/2002	0.3	0.3	0.4	0.4
8/14/2002	1.0	0.9	NA ¹	0.6
12/6/2002	0.9	1.0	NA ²	1.2
12/27/2002	0.3	1.1	NA ²	NA ¹
4/1/2003	7.7	7.7	NA ²	7.2
7/1/2003	6.3	7.2	0.6	0.9
9/24/2003	0.2	0.3	0.6	0.6
12/29/2003	0.4	0.5	0.4	0.4
5/18/2004	0.4	0.7	0.5	1.1
6/30/2004	4.6	1.0	1.2	1.8
9/23/2004	0.4	0.2	0.3	4.3
12/28/2004	0.4	0.1	0.5	0.5
3/16/2005	0.6	0.6	0.8	0.6
6/23/2005	0.6	0.6	0.7	1.1
9/9/2005	1.5	2.0	1.1	0.9
12/2/2005	0.8	0.7	0.9	0.9
3/24/2006	1.1	1.1	0.7	1.2
6/29/2006	0.6	1.0	1.5	1.1
9/13/2006	7.9	7.0	0.4	0.6
12/27/2006	1.3	1.3	1.9	1.9
3/30/2007	2.0	1.5	1.6	1.7
7/2/2007	6.3	7.8	5.7	0.2
10/2/2007	0.6	0.3	0.7	0.7
12/13/2007	0.5	0.5	0.6	1.3
3/26/2008	0.6	0.4	0.2	0.4
6/2/2008	0.5	0.3	0.5	0.6
9/10/2008				

Table 1. Groundwater Parameters
BPS Reprographic Services Facility
1700 Jefferson St.
Oakland CA

REDOX (mv/lt)	MW-1	MW-3	MW-5	MW-6
5/30/2000	-322	197	-128	203
9/15/2000	-269	3	-89	206
11/17/2000	64	178	296	230
4/2/2001	-194	26	-36	102
6/28/2001	-310	-283	-360	107
8/30/2001	NA ¹	NA ¹	NA ¹	NA ¹
12/26/2001	12	11	11	11
4/23/2002	3	62	-299	158
6/14/2002	0	245	-215	254
8/20/2002	-294	-315	-238	228
12/27/2002	-315	-357	NA ²	-12
4/1/2003 ^b	-82	-75	NA ²	172
7/1/2003 ^b	212	230	NA ²	227
9/24/2003 ^b	-166	-300	-183	50
12/29/2003 ^b	-329	-198	-269	114
5/18/2004	-309	-189	-248	115
6/30/2004	-270	-343	-165	104
9/23/2004	-314	-284	-162	96
12/28/2004	-303	101	-110	127
3/16/2005	-36	-50	-162	177
6/23/2005	-225	-42	-117	109
9/9/2005	-30	-52	-152	98
12/2/2005	-26	-141	-108	20
3/24/2006	-179	-118	-112	87
6/29/2006	-202	-182	-151	6
9/13/2006	-270	-257	-222	36
12/27/2006	-329	-265	-305	36
3/30/2007	-324	-340	243	-61
7/2/2007	-317	-292	169	-93
10/2/2007	13	-305	-217	16
12/13/2007	-283	-322	-240	106
3/26/2008	-172	-34	-91	229
6/2/2008	-119	-56	-74	203
9/10/2008	-176	-136	-151	180
Temperature (deg F)	MW-1	MW-3	MW-5	MW-6
9/29/1999	67.0	72.6	67.7	73.8
11/22/1999	66.4	62.9	65.0	69.8
2/11/2000	61.3	63.2	62.0	68.5
5/30/2000	77.7	74.8	76.3	76.2
9/15/2000	64.4	64.3	64.7	67.0
11/17/2000	54.5	58.1	68.1	65.9
4/2/2001	63.5	64.9	66.2	66.4
6/28/2001	73.0	71.2	74.7	74.3
8/30/2001	74.8	77.6	78.3	78.7
12/26/2001	65.7	65.8	65.8	65.1
4/23/2002	64.4	69.8	37.1	71.6
6/14/2002	66.7	67.5	66.7	68.0
8/20/2002	64.6	67.6	66.2	68.0
12/27/2002	41.7	42.5	NA ²	41.7
4/1/2003 ^b	64.6	67.6	NA ²	68.0
7/1/2003 ^b	79.4	80.3	NA ²	81.9
9/24/2003 ^b	65.1	67.1	65.7	68.5

Table 1. Groundwater Parameters
BPS Reprographic Services Facility
1700 Jefferson St.
Oakland CA

Temperature (deg F)	MW-1	MW-3	MW-5	MW-6
12/29/2003 ^b	65.0	67.5	67.1	68.0
5/18/2004	69.0	69.0	63.0	68.0
6/30/2004	65.8	68.0	69.1	70.0
9/23/2004	67.6	69.3	68.9	74.5
12/28/2004	60.3	60.4	59.2	62.6
3/16/2005	63.3	66.0	64.4	66.0
6/23/2005	64.4	66.7	65.8	66.9
9/9/2005	69.0	70.3	69.8	71.0
12/2/2005	61.5	63.7	62.2	62.1
3/24/2006	63.7	66.4	65.3	62.6
6/29/2006	69.3	68.2	71.2	72.1
9/13/2006	64.8	66.6	65.7	68.5
12/26/2006	59.7	60.4	61.2	57.9
3/30/2007	64.0	65.8	66.0	64.4
7/2/2007	65.1	66.6	66.6	66.0
10/2/2007	68.0	67.3	66.0	71.6
12/13/2007	60.1	62.4	61.5	61.3
3/26/2008	66.6	64.9	64.1	66.6
6/2/2008	65.5	66.4	69.1	70.9
9/10/2008	69.0	68.9	69.0	70.6
pH	MW-1	MW-3	MW-5	MW-6
9/29/1999	8.4	8.5	8.4	8.4
11/22/1999	6.9	8.4	6.8	6.8
2/11/2000	6.8	6.9	6.8	6.7
5/30/2000	7.0	7.4	7.5	7.6
9/15/2000	7.1	7.5	6.8	6.6
11/17/2000	7.4	7.7	7.1	7.3
4/2/2001	7.0	6.6	7.1	7.0
6/28/2001	6.9	6.7	6.8	6.8
8/30/2001	7.9	7.9	7.9	8.4
12/26/2001	6.2	6.9	7.1	6.7
4/23/2002	6.9	7.0	6.9	6.9
6/14/2002	7.1	7.2	7.1	6.9
8/20/2002	NA ¹	6.9	NA ¹	6.9
12/27/2002	6.3	6.4	NA ²	6.5
4/1/2003 ^b	6.9	7.1	NA ²	6.7
7/1/2003 ^b	7.4	7.6	NA ²	7.7
9/24/2003 ^b	7.1	7.3	7.3	7.2
12/29/2003 ^b	6.7	6.5	6.8	6.7
5/18/2004	6.7	6.5	6.7	6.5
6/30/2004	6.6	6.6	6.3	NA ¹
9/23/2004	6.7	6.6	6.5	6.5
12/28/2004	6.5	5.3	6.6	6.8
3/16/2005	6.3	5.7	5.8	6.2
6/23/2005	6.4	6.1	6.5	6.6
9/9/2005	6.5	6.1	6.1	7.0
12/2/2005	6.5	5.9	7.6	7.1
3/24/2006	7.1	7.6	6.8	7.4
6/29/2006	6.5	6.1	7.3	7.0
9/13/2006	6.9	7.4	6.6	8.3
12/27/2006	6.3	5.2	6.0	6.0
3/30/2007	6.5	5.5	6.4	6.3
7/2/2007	6.3	6.1	6.7	6.5
10/2/2007	6.1	5.9	6.4	6.7
12/13/2007	6.9	6.8	7.1	6.8
3/26/2008	6.9	6.0	6.8	6.9
6/2/2008	6.9	6.5	7.0	6.9
9/10/2008	6.6	6.3	6.7	6.6

Table 1. Groundwater Parameters
BPS Reprographic Services Facility
1700 Jefferson St.
Oakland CA

Specific Conductance (µS/cm)	MW-1	MW-3	MW-5	MW-6
9/29/1999	976	880	1,577	966
11/22/1999	1,004	1,500	1,352	1,038
2/11/2000	992	1,327	1,275	1,149
5/30/2000	845	1,020	758	924
9/15/2000	800	917	989	1,009
11/17/2000	785	970	742	886
4/2/2001	725	365	839	821
6/28/2001	1080	704	876	1021
8/30/2001	924	1015	975	931
12/26/2001	848	496	333	891
4/23/2002	922	601	848	977
6/14/2002	932	767	810	961
8/20/2002	1015	809	891	985
12/27/2002	956	791	NA ²	903
4/1/2003 ^b	1128	800	NA ²	1021
7/1/2003 ^b	1020	690	NA ²	970
9/24/2003 ^b	951	697	987	890
12/29/2003 ^b	1143	396	993	934
5/18/2004	1060	692	922	1037
6/30/2004	1006	725	970	962
9/23/2004	1027	656	966	1007
12/28/2004	875	69	807	873
3/16/2005	899	69	831	872
6/23/2005	799	102	718	814
9/9/2005	852	103	817	881
12/2/2005	891	39	750	811
3/24/2006	1156	208	996	1042
6/29/2006	1113	658	795	932
9/13/2006	1088	591	873	650
12/27/2006	996	145	775	847
3/30/2007	1063	303	919	918
7/2/2007	887	337.8	949	776
10/2/2007	1133	364.4	930	1033
12/13/2007	1033	490	839	394.3
3/26/2008	1208	242	670	1080
6/2/2008	1415	490	1096	1150
9/10/2008	1376	585	1068	1121

Note:

Baseline dissolved oxygen measurement taken on 09/29/99, prior to initial installation of oxygen releasing compound

mg/l = milligrams per liter

mvolts = millivolts

deg F = degrees Fahrenheit

µS/cm = micro-ohms per centimeter

NA = Not Available

1 = indicates data not available due to equipment malfunction

2 = not available due to ORC socks stuck in well on these dates

a = indicates dissolved oxygen and temperature readings collected on this date above typical range and should be considered suspect

b = indicates this data collected post purge

Checked 

Accepted 

Table 2. Groundwater Elevation Data
BPS Reprographic Services Facility
1700 Jefferson St
Oakland CA

Date Sampled	MW-1		MW-3		MW-5		MW-6		Average Change Since Preceding Quarter
	TOC Elev.	32.36	TOC Elev.	31.77	TOC Elev.	30.56	TOC Elev.	31.26	
	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	
3/6/1996	NM	--	24.79	6.98	23.53	7.03	NA	--	
6/11/1996	FP	--	25.60	6.17	23.78	6.78	25.16	6.10	-0.53
9/19/1996	FP	--	26.09	5.68	24.48	6.08	25.76	5.50	-0.60
12/23/1996	FP	--	FP	--	24.83	5.73	25.88	5.38	-0.23
3/27/1997	FP	--	FP	--	23.82	6.74	24.78	6.48	1.06
6/4/1997	26.41	5.95	25.11	6.66	23.92	6.64	24.60	6.66	0.04
9/26/1997	26.80	5.56	25.41	6.36	24.29	6.27	24.80	6.46	-0.32
12/22/1997	26.00	6.36	24.91	6.86	24.02	6.54	24.71	6.55	0.42
3/31/1998	26.06	6.30	24.05	7.72	22.78	7.78	23.75	7.51	0.75
6/18/1998	25.60	6.76	23.71	8.06	22.51	8.05	23.22	8.04	0.40
8/28/1998	25.45	6.91	23.70	8.07	22.74	7.82	22.23	9.03	0.23
12/2/1998	24.92	7.44	23.60	8.17	23.16	7.40	23.72	7.54	-0.32
3/10/1999	24.90	7.46	22.65	9.12	22.82	7.74	23.54	7.72	0.37
6/30/1999	25.53	6.83	23.07	8.70	22.41	8.15	23.04	8.22	-0.04
9/29/1999	24.23	8.13	23.03	8.74	22.81	7.75	23.42	7.84	0.14
11/22/1999	24.33	8.03	23.68	8.09	22.88	7.68	23.64	7.62	-0.26
2/11/2000	24.38	7.98	23.74	8.03	22.74	7.82	23.67	7.59	0.00
5/30/2000	23.57	8.79	22.97	8.80	21.73	8.83	22.82	8.44	0.86
9/15/2000	23.85	8.51	23.12	8.65	22.14	8.42	23.10	8.16	-0.28
11/16/2000	24.14	8.22	23.40	8.37	22.39	8.17	23.41	7.85	-0.28
4/2/2001	23.40	8.96	23.40	8.37	22.07	8.49	23.33	7.93	0.29
6/28/2001	23.58	8.78	23.17	8.60	22.15	8.41	23.15	8.11	0.04
8/30/2001	24.00	8.36	23.35	8.42	22.35	8.21	23.35	7.91	-0.25
12/26/2001	24.18	8.18	23.54	8.23	22.49	8.07	23.27	7.99	-0.11
4/23/2002	NA	NA	22.89	8.88	21.07	9.49	22.89	8.37	0.82
6/14/2002	23.41	8.95	22.85	8.92	21.80	8.76	22.81	8.45	-0.20
8/20/2002	23.85	8.51	23.11	8.66	22.14	8.42	23.15	8.11	-0.31
12/27/2002	24.10	8.26	23.34	8.43	*NA	*NA	23.41	7.85	-0.24
4/1/2003	23.75	8.61	22.90	8.87	*NA	*NA	23.16	8.10	0.35
7/1/2003	23.50	8.86	22.80	8.97	*NA	*NA	22.75	8.51	0.25
9/24/2003	23.82	8.54	23.15	8.62	22.21	8.35	23.16	8.10	-0.27
12/29/2003	24.07	8.29	23.45	8.32	22.56	8.00	23.47	7.79	-0.30
5/18/2004	23.64	8.72	22.98	8.79	21.85	8.71	22.87	8.39	0.55
6/30/2004	23.64	8.72	23.04	8.73	22.00	8.56	22.43	8.83	0.06
9/23/2004	23.98	8.38	23.32	8.45	22.36	8.20	23.30	7.96	-0.46
12/28/2004	24.07	8.29	28.71	3.06**	22.42	8.14	23.42	7.84	-1.42
3/16/2005	23.80	8.56	23.70	8.07	22.11	8.45	23.60	7.66	1.35
6/23/2005	22.90	9.46	22.40	9.37	21.20	9.36	22.27	8.99	1.11
9/9/2005	23.27	9.09	22.63	9.14	21.68	8.88	22.55	8.71	-0.34
12/2/2005	23.75	8.61	23.03	8.74	22.19	8.37	23.05	8.21	-0.47
3/24/2006	23.05	9.31	22.57	9.20	21.01	9.55	22.50	8.76	0.72
6/29/2006	22.56	9.80	21.93	9.84	20.78	9.78	21.85	9.41	0.50
9/13/2006	23.00	9.36	22.35	9.42	21.35	9.21	22.31	8.95	-0.47
12/27/2006	23.47	8.89	22.82	8.95	21.82	8.74	22.85	8.41	-0.49
3/30/2007	23.51	8.85	22.91	8.86	21.70	8.86	22.88	8.38	-0.01
7/2/2007	23.39	8.97	22.88	8.89	21.81	8.75	22.75	8.51	0.04
10/2/2007	23.87	8.49	23.20	8.57	22.22	8.34	23.17	8.09	-0.41
12/13/2007	24.05	8.31	23.40	8.37	22.31	8.25	23.37	7.89	-0.17
3/26/2008	23.56	8.80	23.00	8.77	21.77	8.79	22.97	8.29	0.46
6/2/2008	23.70	8.66	23.08	8.69	22.04	8.52	23.07	8.19	-0.15
9/10/2008	24.07	8.29	23.55	8.22	22.52	8.04	23.49	7.77	-0.44

Note: All measurements shown in feet.
 TOC Elev. = top of casing elevation
 NM = not monitored
 FP = free product
 -- = no data collected
 NA = not available

Checked *[Signature]*
 Approved *[Signature]*

Table 2. Groundwater Elevation Data
BPS Reprographic Services Facility
1700 Jefferson St
Oakland CA

10/1/2008
Final
Tables3Q08.xls

* This data not available due to ORC socks stuck in well
** This data is suspect due to probable equipment malfunction or operator error.

Table 3. Groundwater Monitoring Analytical Results - Using Purge Method
 8/1/1991 to 9/29/1999

	Date Sampled																										
	8/1/1991	9/30/1992	3/30/1993	1/13/1994	4/13/1994	6/29/1994	12/8/1994	4/3/1995	6/27/1995	9/19/1995	12/13/1995	3/6/1996	6/11/1996	9/19/1996	12/23/1996	3/27/1997	6/4/1997	9/26/1997	12/23/1997	3/31/1998	6/18/1998	8/28/1998	12/2/1998	3/10/1999	6/30/1999	9/29/1999 ¹	
TPHg (mg/L)																											
MW-1	FP	FP	FP	FP	FP	FP	FP	NA	NA	NA	NA	NA	FP	FP	FP	FP	68	59	41	44	32	26	26	26	18	21	
MW-1A	350	FP	FP	FP	170	95	190	67	53	52	62	200	140	100	FP	66	54	73	66	51	50	15	41	10	18	NA	
MW-3	74	FP	FP	FP	FP	39	4,600	51	20	6.2	19	7	16	6	FP	FP	85	47	32	32	16	17	3.2	9.6	7.9	5.0	
MW-4	86	FP	FP	FP	58	16	92	35	13	14	11	110	260	95	FP	37	24	41	48	NA	25	48	10	11	8.8	NA	
MW-5	120	51	74	80	63	64	59	51	41	50	45	51	48	48	45	44	35	36	39	48	17	16	15	23	7.7	11	
MW-6	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	
Benzene (µg/L)																											
MW-1	FP	FP	FP	FP	FP	FP	FP	NA	NA	NA	NA	NA	FP	FP	FP	FP	2,200	6,000	6,800	8,300	1,100	8,600	9,200	8,200	7,000	9,200	
MW-1A	17,000	FP	FP	FP	17,000	16,000	13,000	11,000	11,000	8,900	9,900	14,000	18,000	16,000	FP	12,000	11,000	10,000	10,000	9,100	11,000	1,100	8,500	2,300	6,400	NA	
MW-3	1,600	FP	FP	FP	FP	3,200	1,500	1,100	270	70	220	120	170	45	FP	FP	8,500	610	640	690	180	84	39	86	31	120	
MW-4	1,500	FP	FP	FP	1,500	1,300	1,700	1,200	1,300	2,200	630	2,600	6,600	9,900	FP	2,600	2,600	2,900	6,000	NA	2,000	9,700	1,700	2,300	1,800	NA	
MW-5	20,000	13,000	16,000	19,000	14,000	29,000	13,000	15,000	12,000	1,600	13,000	15,000	12,000	12,000	12,000	11,000	8,900	7,900	13,000	10,000	9,500	5,400	8,400	14,000	5,200	9,600	
MW-6	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.30)	
Toluene (µg/L)																											
MW-1	FP	FP	FP	FP	FP	FP	FP	NA	NA	NA	NA	NA	FP	FP	FP	FP	14,000	4,500	3,000	3,000	3,700	3,800	2,300	4,300	5,900	5,800	10,000
MW-1A	31,000	FP	FP	FP	31,000	21,000	21,000	13,000	9,900	9,200	11,000	22,000	28,000	22,000	FP	15,000	12,000	16,000	16,000	11,000	15,000	830	11,000	1,900	7,800	NA	
MW-3	4,600	FP	FP	FP	FP	2,900	4,200	2,300	550	140	480	170	270	30	FP	FP	13,000	6,000	5,300	3,800	1,500	1,100	85	540	330	340	
MW-4	6,200	FP	FP	FP	2,500	790	4,100	3,400	1,600	2,100	470	3,600	19,000	19,000	FP	6,900	3,200	5,000	11,000	NA	460	11,000	610	2,100	3,000	NA	
MW-5	14,000	5,900	5,000	8,200	3,500	5,400	3,800	2,200	2,100	2,700	2,100	2,800	2,900	4,500	2,200	1,100	560	270	500	400	310	160	120	300	270	710	
MW-6	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.30)	
Ethylbenzene (µg/L)																											
MW-1	FP	FP	FP	FP	FP	FP	FP	NA	NA	NA	NA	NA	FP	FP	FP	FP	1,500	1,600	1,400	1,100	550	730	820	870	950	1,200	
MW-1A	3,000	FP	FP	FP	2,100	1,500	1,400	910	500	710	790	2,700	2,800	2,100	FP	1,400	1,000	1,400	1,400	1,100	870	31	720	1,600	660	NA	
MW-3	670	FP	FP	FP	FP	580	6,000	580	190	68	140	49	68	15	FP	FP	2,400	930	800	870	490	430	25	250	200	230	
MW-4	1,000	FP	FP	FP	520	51	310	280	77	110	14	780	3,700	2,000	FP	540	140	350	580	NA	ND(15)	890	ND(15)	88	150	NA	
MW-5	1,900	1,400	1,800	1,400	1,500	2,800	1,800	2,800	1,400	2,000	16,000	2,000	2,000	2,300	2,700	1,900	1,500	1,500	1,900	2,000	420	1,100	1,500	1,800	1,100	1,100	
MW-6	--	--	--	--	--	--	--	--	--	--	--	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.5	ND(0.5)	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.30)	
Xylenes (µg/L)																											
MW-1	FP	FP	FP	FP	FP	FP	FP	NA	NA	NA	NA	NA	FP	FP	FP	FP	11,000	8,600	6,600	4,300	3,000	2,100	2,800	3,500	2,500	5,500	
MW-1A	22,000	FP	FP	FP	14,000	12,000	11,000	9,800	6,300	6,800	5,300	22,000	19,000	14,000	FP	100	7,200	8,500	12,000	6,800	5,800	3,000	6,700	2,300	4,100	NA	
MW-3	4,300	FP	FP	FP	FP	4,300	95,000	4,800	1,700	500	1,700	440	1,500	300	FP	FP	16,000	5,900	5,900	5,200	3,700	3,800	360	2,300	1,800	1,300	
MW-4	7,300	FP	FP	FP	3,200	3,400	5,400	5,800	1,800	2,100	1,800	10,000	28,000	13,000	FP	5,500	3,500	4,800	8,200	NA	6,400	5,000	2,300	1,600	2,700	NA	
MW-5	4,900	2,600	2,700	2,700	2,100	4,500	2,900	4,500	1,600	2,100	1,900	2,400	2,700	4,000	6,500	2,800	1,700	1,300	1,700	2,200	850	900	840	1,100	690	1,100	
MW-6	--	--	--	--	--	--	--	--	--	--	--	--	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(0.60)	ND(0.60)	ND(0.60)	ND(0.60)	ND(0.60)	ND(0.60)	
MTBE (µg/L)																											
MW-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	FP	FP	ND(500)	ND(500)	300	420	ND(50)	ND(50)	ND(50)	ND(50)	ND(25)	ND(250)	
MW-1A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	FP	FP	ND(500)	ND(500)	1,900	300	ND(50)	ND(50)	ND(50)	ND(50)	ND(25)	NA	
MW-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	FP	FP	ND(500)	ND(100)	ND(300)	350	ND(25)	ND(50)	ND(50)	ND(25)	ND(25)	10	
MW-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,400	ND(300)	ND(500)	270	NA	ND(50)	ND(50)	ND(50)	ND(25)	NA	
MW-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	600	300	ND(100)	ND(500)	ND(1000)	350	ND(10)	ND(50)	ND(50)	ND(50)	ND(25)	ND(100)
MW-6	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	

TPHg = total petroleum hydrocarbons as gasoline
 MTBE = methyl t-butyl ether
 (mg/l) milligrams per liter
 (µg/l) micrograms per liter

ND = Not detected above the reporting limit in parenthesis
 NA = Not analyzed
 FP = Free Product - well not sampled
 -- = Well did not exist at date indicated

¹ A sample was collected on this date both post and pre purge. Sample results collected pre purge are shown on Table 3.
 Sample results collected post purge are shown on Table 4.



Checked 
 Approved 

Table 4. Groundwater Monitoring Analytical Results
BPS Reprographic Services Facility
1700 Jefferson St
Oakland CA

	Date Sampled																	
	9/29/1999 ⁶	11/22/1999	2/11/2000	5/30/2000	9/15/2000	11/16/2000	4/2/2001	6/28/2001	8/30/2001	12/26/2001	4/24/2002	6/14/2002	8/20/2002	12/27/2002	4/1/2003	7/1/2003 ⁵	9/25/2003 ⁵	12/29/2003 ⁵
TPHg (mg/L)																		
MW-1	14	24	19	19	20	18	19	39	31	34	35	35	26	28	16	61	59	46
MW-3	4.1	3.1	0.54	0.49	1.5	1.3	0.17	4.9	3.1	0.95	300	4.6	4.9	4	5.9	12	10	7.3
MW-5	10	30	23	19	24	1.8	15	3.6	34	1.9	9.4	1.7	3.2	*6.2	NA ⁴	NA ⁴	43	26
MW-6	ND<0.5	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	0.066	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Benzene (µg/L)																		
MW-1	6,200	4,900	4,100	5,700	4,100	3,500	4,700	5,200	5,600	5,300	4,900	5400	4100	4,500	4,500	7,700	7600	6600
MW-3	180	6.5	8.3	11	28	20	9	150	42	8	11	130	330	110	370	200	150	160
MW-5	14,000	11,000	12,000	9,900	3,800	470	7,400	300	8,300	300	2,300	110	320	*2200	NA ⁴	NA ⁴	12,000	7700
MW-6	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<0.30	ND<0.30	ND<0.50	ND<0.50	3.6	ND<0.50	ND<0.50	ND<0.50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Toluene (µg/L)																		
MW-1	5,900	5,000	4,800	8,400	5,700	4,300	5,200	4,200	5,100	5,200	6,000	6,800	4700	5,000	6000	11,000	9400	7900
MW-3	340	33	20	5.6	14	34	6.2	240	48	5.2	4.8	470	170	280	150	460	300	250
MW-5	470	3,400	4,500	6,900	3,000	220	3,000	11	3,000	110	130	ND<2.5	8.6	*140	NA ⁴	NA ⁴	2800	1900
MW-6	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<0.30	ND<0.30	2.9	ND<0.50	3.6	ND<0.50	ND<0.50	ND<0.50	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Ethylbenzene (µg/L)																		
MW-1	620	730	530	730	540	640	570	660	560	630	740	870	620	660	680	1200	1000	960
MW-3	130	27	2.4	0.45	2.6	25	1.4	38	26	1.1	0.72	91	40	57	44	130	120	79
MW-5	1,100	1,500	1,200	1,200	460	39	1000	16	1,400	55	300	7.2	22	*160	NA ⁴	NA ⁴	1500	910
MW-6	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<0.30	ND<0.30	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Total Xylenes (µg/L)																		
MW-1	3,500	3,500	2,800	3,500	2,700	3,200	2,600	3,900	2,500	2,400	3,100	3500	2700	3,000	3100	6700	4800	4000
MW-3	580	260	28	17	160	28	8.1	160	210	7	1.4	390	150	260	230	390	280	210
MW-5	600	2,500	1,300	2,600	1,200	100	2,200	15	2,600	120	270	ND<2.5	19	*250	NA ⁴	NA ⁴	3000	210
MW-6	ND<0.6	ND<0.6	ND<0.6	ND<0.6	ND<0.6	ND<0.60	ND<0.30	2.7	ND<0.50	8.7	ND<0.50	ND<0.50	ND<0.50	ND<0.5	ND<0.5	ND<2.5	ND<2.5	ND<0.5
MTBE (µg/L)																		
MW-1	ND<250	ND<100	6.6	ND<5.0 ¹	ND<12 ^{1,2}	ND<40 ^{1,2}	50 ¹	8.5 ¹	ND<100 ^{1,2}	ND<120	ND<120	ND<250	ND<120	ND<120	ND<120	ND<250	ND<1200	ND<250
MW-3	14	ND<1.0	31	ND<5.0 ¹	ND<5 ¹	ND<5 ¹	77 ¹	ND<2 ¹	ND<1.2 ¹	ND<0.50 ¹	ND<0.50 ¹	ND<0.50 ¹	ND<5 ¹	19	ND<1.0 ¹	ND<5 ¹	ND<2.5 ¹	ND<2.5 ¹
MW-5	ND<100	ND<100	6.6	ND<200	ND<10 ^{1,2}	ND<5 ¹	ND<50 ¹	4.4 ¹	ND<50 ¹	ND<10 ¹	ND<50	ND<0.50 ¹	ND<0.50 ¹	*ND(25)	NA ⁴	NA ⁴	ND<1200	ND<2.5 ¹
MW-6	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	5 ^{1,3}	17 ¹	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5
Ethylene Dichloride (µg/L)																		
MW-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	370	ND<120	400	7500	360
MW-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<12	NR	NR	NR	NR
MW-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	*220	NA ⁴	NA ⁴	610	410
MW-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<0.5	NR	NR	NR	NR

mg/L = milligrams per liter
 µg/L = micrograms per liter
 ND = Not detected above the reporting limit following the less than sign
 NA = Not Available
 MTBE = methyl t-butyl ether
 NR = Not Required per ACHCS direction indicating if analyte not detected during 12/27/02 sampling event then the analyte does not need continued monitoring/MW-1 and MW-5 are the only wells currently sampled for Ethylene Dichloride (see report text for details)
 1 Result of MTBE confirmation by EPA Method 8260.
 2 Reporting limits elevated due to matrix interference.
 3 Detection limit = 5 µg/L, backup sample analyzed after hold time had a result of ND<5 µg/L.
 4 Data from April 1 and July 1, 2003 sampling event not available due to ORC sock obstruction in well (see report for details)
 5 Samples collected post purge on this date, all other samples collected without purging (see report for details)
 6 A sample was collected on this date both post and pre purge. The sample results collected post purge are shown on Table 3.
 7 EDC Detected at same concentration as detection limit.

* = Fourth Quarter 2002 analytical data for MW-5 collected on January 3, 2003


Table 4. Groundwater Monitoring Analytical Results
BPS Reprographic Services Facility
1700 Jefferson St
Oakland CA


	Date Sampled																			
	5/18/2004	6/30/2004	9/23/2004	12/28/2004	3/16/2005	6/23/2005	9/9/2005	12/2/2005	3/24/2006	6/29/2006	9/13/2006	12/27/2006	3/30/2007	7/2/2007	10/2/2007	12/13/2007	3/26/2008	6/2/2008	9/10/2008	
TPHg (mg/L)																				
MW-1	23	24	24	22	21	30	7.1	19	29	23	20	31	30	14	19	18	28	20	24	
MW-3	1.5	2.0	3.4	3.9	0.97	0.85	3.9	0.76	0.59	1.1	1.3	3	3.1	2.6	1.9	2.9	2.3	2.3	2.9	
MW-5	15	18	42	41	37	27	46	21	ND<10	1.2	5.8	16	31	33	36	34	28	43	45	
MW-6	ND<0.05	ND<0.05	ND<0.05	0.059	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	
Benzene (µg/L)																				
MW-1	4,100	3,500	3,800	3,400	4,100	5,400	840	3,600	6,200	4,800	4,500	6,000	5,000	2,500	3,400	3,500	4,900	3,300	4,200	
MW-3	77	81	140	340	1.4	56	470	14	83	130	260	250	250	250	170	250	340	270	300	
MW-5	5,000	5,700	12,000	10,000	11,000	7,700	10,000	5,900	2,800	240	1,600	4,300	10,000	9,400	11,000	11,000	7,700	13,000	13,000	
MW-6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	
Toluene (µg/L)																				
MW-1	4,700	3,600	3,900	3,400	4,200	5,500	950	3,500	6,000	4,000	3,900	5,300	4,600	2,000	2,700	2,700	4,900	3,300	4,200	
MW-3	72	37	95	37	1.8	7.3	100	8	41	38	71	160	260	250	140	170	95	250	180	
MW-5	1,300	1,600	3,900	3,800	3,800	1,700	2,700	1,500	450	11	210	610	1,400	1,400	2,100	2,600	1,900	3,800	3,700	
MW-6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.84	0.68	ND<0.5	
Ethylbenzene (µg/L)																				
MW-1	450	390	470	380	470	520	120	410	620	330	400	710	520	280	400	390	530	380	470	
MW-3	19.00	34.0	36	11	0.66	ND<5	33	2.4	7.3	16	44	49	46	54	24	66	26	59	88	
MW-5	380	540	1,200	1,000	1,100	680	1,100	600	190	13	180	460	1,100	1,000	1,100	1,200	860	1,400	1,200	
MW-6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	
Total Xylenes (µg/L)																				
MW-1	1,500	1,300	1,400	1,400	1,300	1,900	410	1,300	2,000	1,200	1,400	2,500	1,700	930	1,200	1,100	2,100	1,700	2,200	
MW-3	59	40	40	60	2.9	12	96	17	33	21	28	140	110	130	48	120	64	130	220	
MW-5	770	1,200	2,400	2,300	2,400	1,300	2,100	1,200	180	18	270	750	1,600	1,500	1,700	1,900	1,300	2,400	2,200	
MW-6	ND<0.5	ND<0.5	ND<0.5	1.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.88	ND<0.5	ND<0.5	
MTBE (µg/L)																				
MW-1	ND<50	ND<50	ND<25	ND<250	ND<50 ¹	ND<1,200	ND<120	ND<2.5	ND<500	ND<500	ND<250	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	
MW-3	ND<12	ND<1.0	ND<10	ND<5 ¹	ND<2.5	ND<25	ND<62	ND<0.5	ND<12	ND<25	ND<25	ND<25	ND<25	ND<25	ND<25	ND<25	ND<25	ND<25	ND<25	
MW-5	ND<50	ND<50	ND<120	ND<250	ND<120	ND<1,200	ND<1,200	ND<500	ND<500	ND<2.5	ND<120	ND<500	ND<500	ND<500	ND<500	ND<620	ND<1,200	ND<1,200	ND<1,200	
MW-6	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	
Ethylene Dichloride (µg/L)																				
MW-1	320	320	260	180	190	240	290	300	280	ND<0.50	260	350	220	220	190	180	240	220	200	
MW-3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
MW-5	290	610	670	290	610	190	300	320	330	ND<0.50	55	180	360	410	400	340	220	380	420	
MW-6	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	

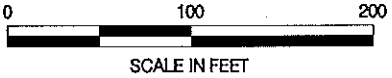
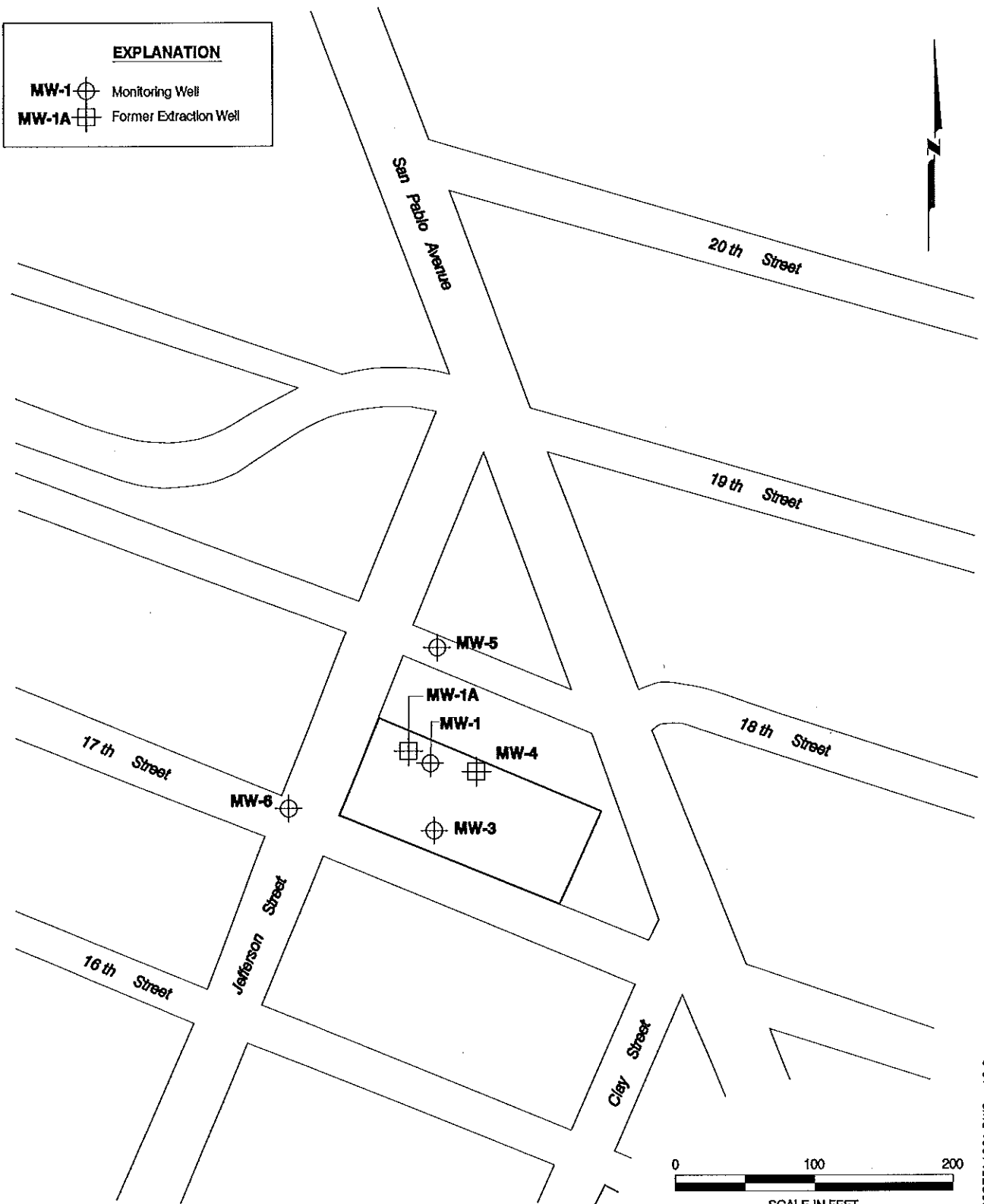
Checked *[Signature]*
 Approved *[Signature]*

PLATES

EXPLANATION

MW-1  Monitoring Well

MW-1A  Former Extraction Well



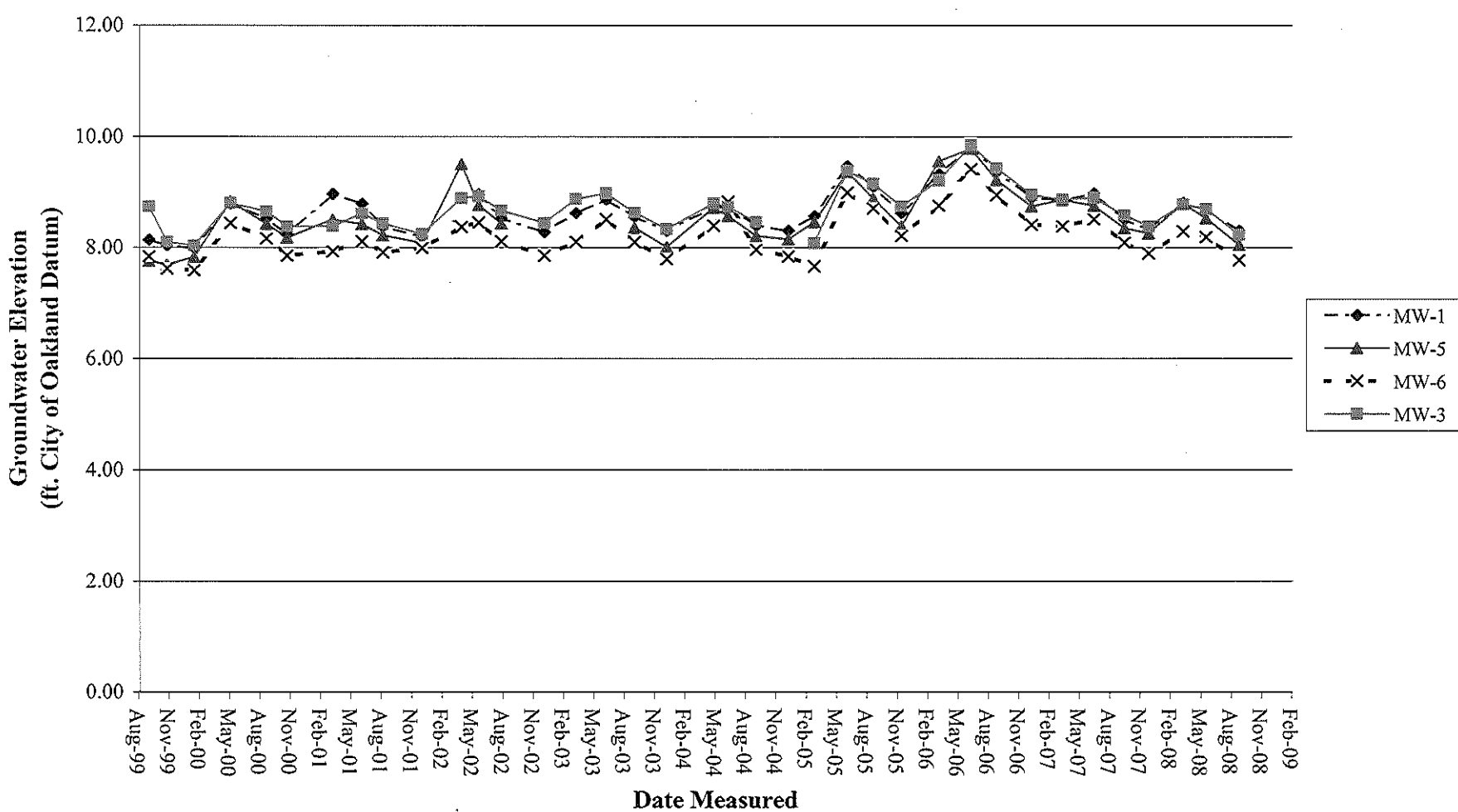
408808751.4001.DWG 40.0
20080630.1024



Site Map
Groundwater Remediation and Monitoring Report
Third Quarter 2008
BPS Reprographic Services Facility
Oakland, California

PLATE
1

DRAWN JLA	JOB NUMBER 4088087514 01	CHECKED <i>DBV</i>	CHECKED DATE 10/08	APPROVED <i>WAC</i>	APPROVED DATE 10/6/08
--------------	-----------------------------	-----------------------	-----------------------	------------------------	--------------------------



(ORC sock stuck in MW-5 from Dec. 2002 until Sep. 2003 - No groundwater elevations monitored in MW-5 during that time)

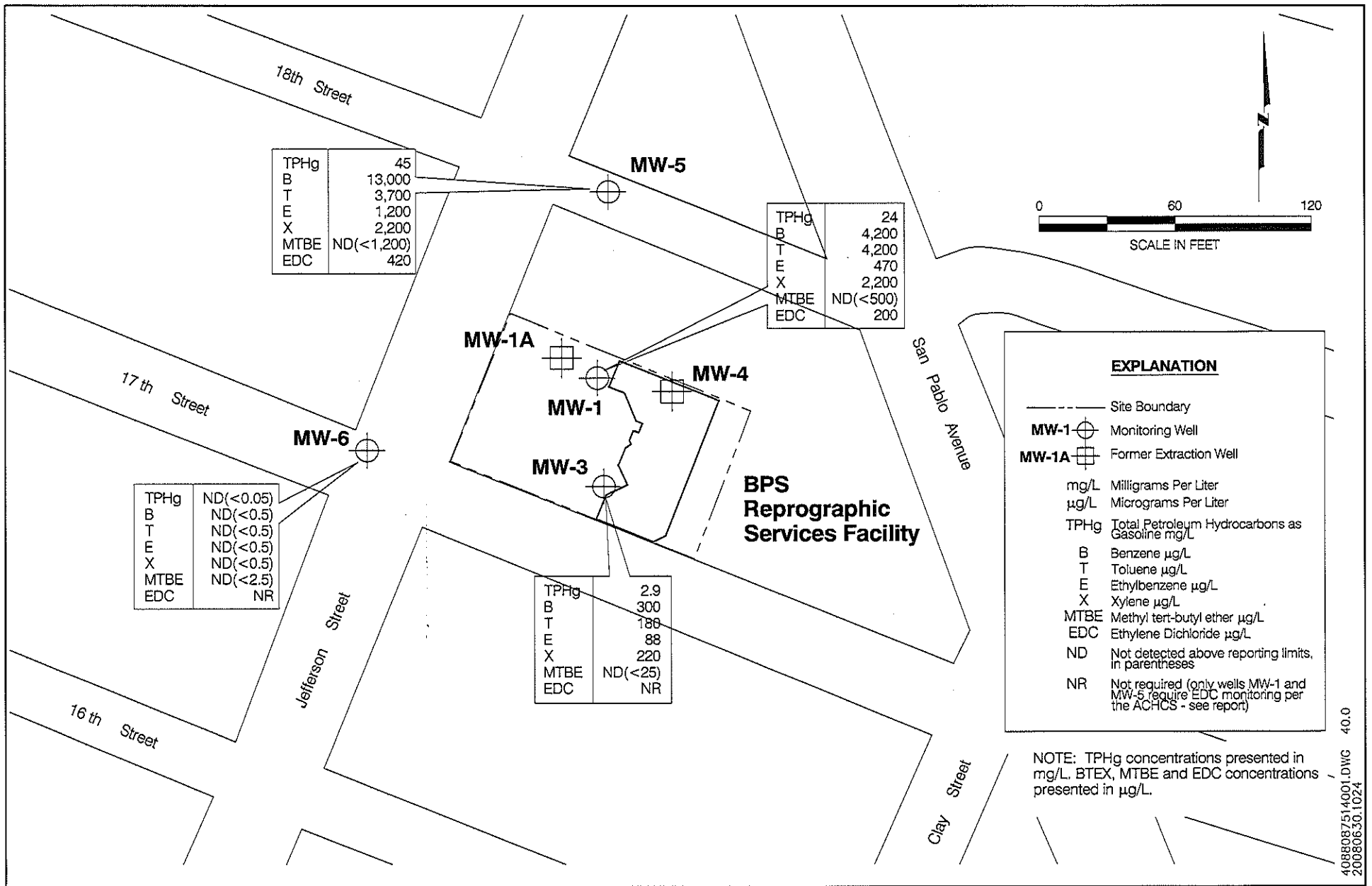


Groundwater Elevation Data
 Third Quarter 2008
 BPS Reprographic Services Facility
 1700 Jefferson Steet
 Oakland, California

Plate

2

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
DSN	4088087514	<i>[Signature]</i>	10-3-08	<i>[Signature]</i>	10/6/08



TPHg, BTEX, MTBE and EDC Concentrations in Groundwater
Groundwater Remediation and Monitoring Report
 Third Quarter 2008
 BPS Reprographic Services Facility
 Oakland, California

PLATE

4

DRAWN
JLA

JOB NUMBER
4088087514 01

CHECKED
ABW

CHECKED DATE
10/08

APPROVED
JJ

APPROVED DATE
11-13-08

EXPLANATION

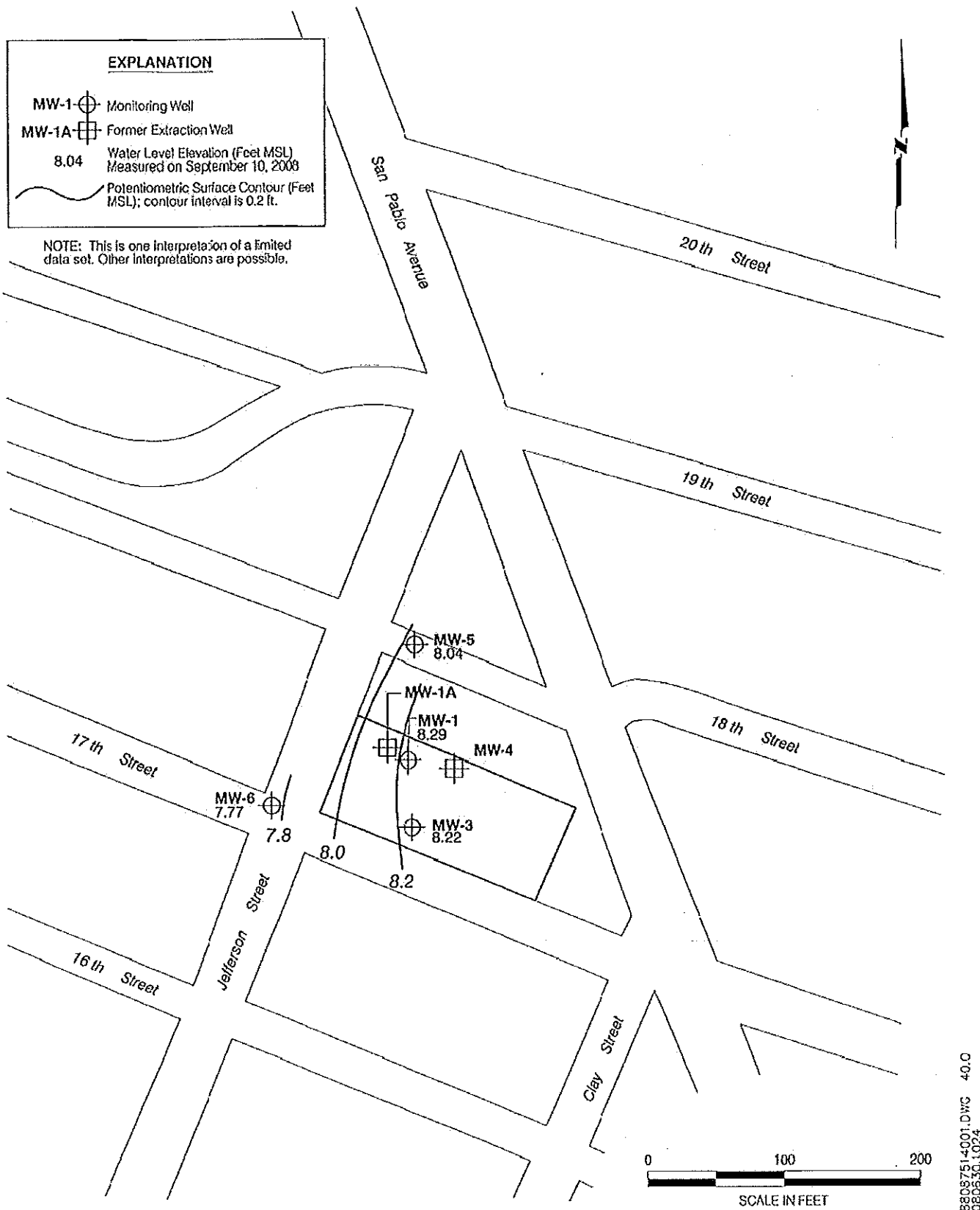
MW-1 Monitoring Well

MW-1A Former Extraction Well

8.04 Water Level Elevation (Feet MSL)
Measured on September 10, 2008

Potentiometric Surface Contour (Feet MSL); contour interval is 0.2 ft.

NOTE: This is one interpretation of a limited data set. Other interpretations are possible.



4088087514001.DWG 40.0
20080930.1024



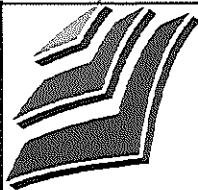
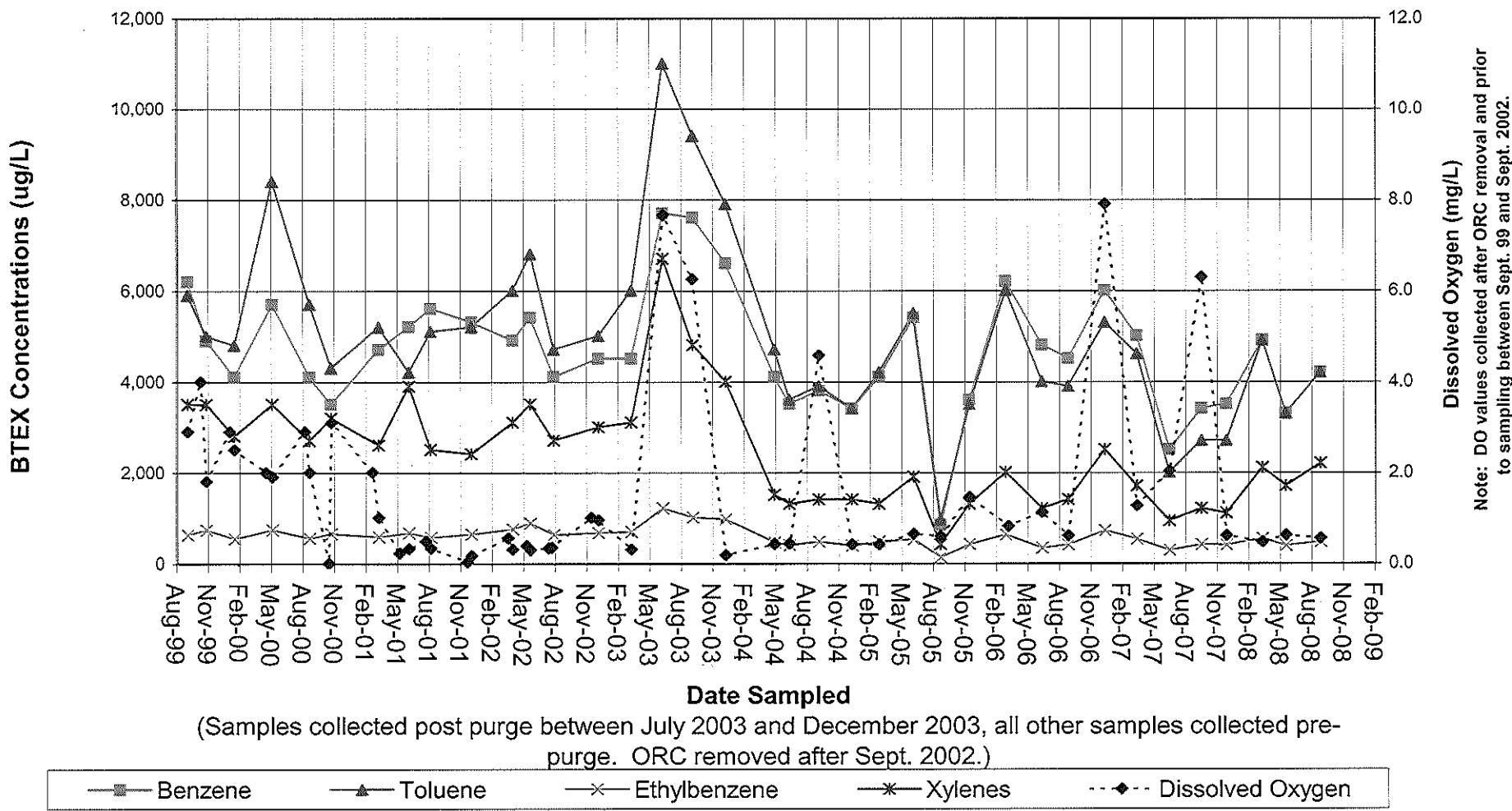
Groundwater Elevation Map
Groundwater Remediation and Monitoring Report
 Third Quarter 2008
 BPS Reprographic Services Facility
 Oakland, California

PLATE

3

DRAWN JLA	JOB NUMBER 4088087514 01	CHECKED <i>[Signature]</i>	CHECKED DATE 10/08	APPROVED <i>[Signature]</i>	APPROVED DATE 10/6/08
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MW-1



MACTEC

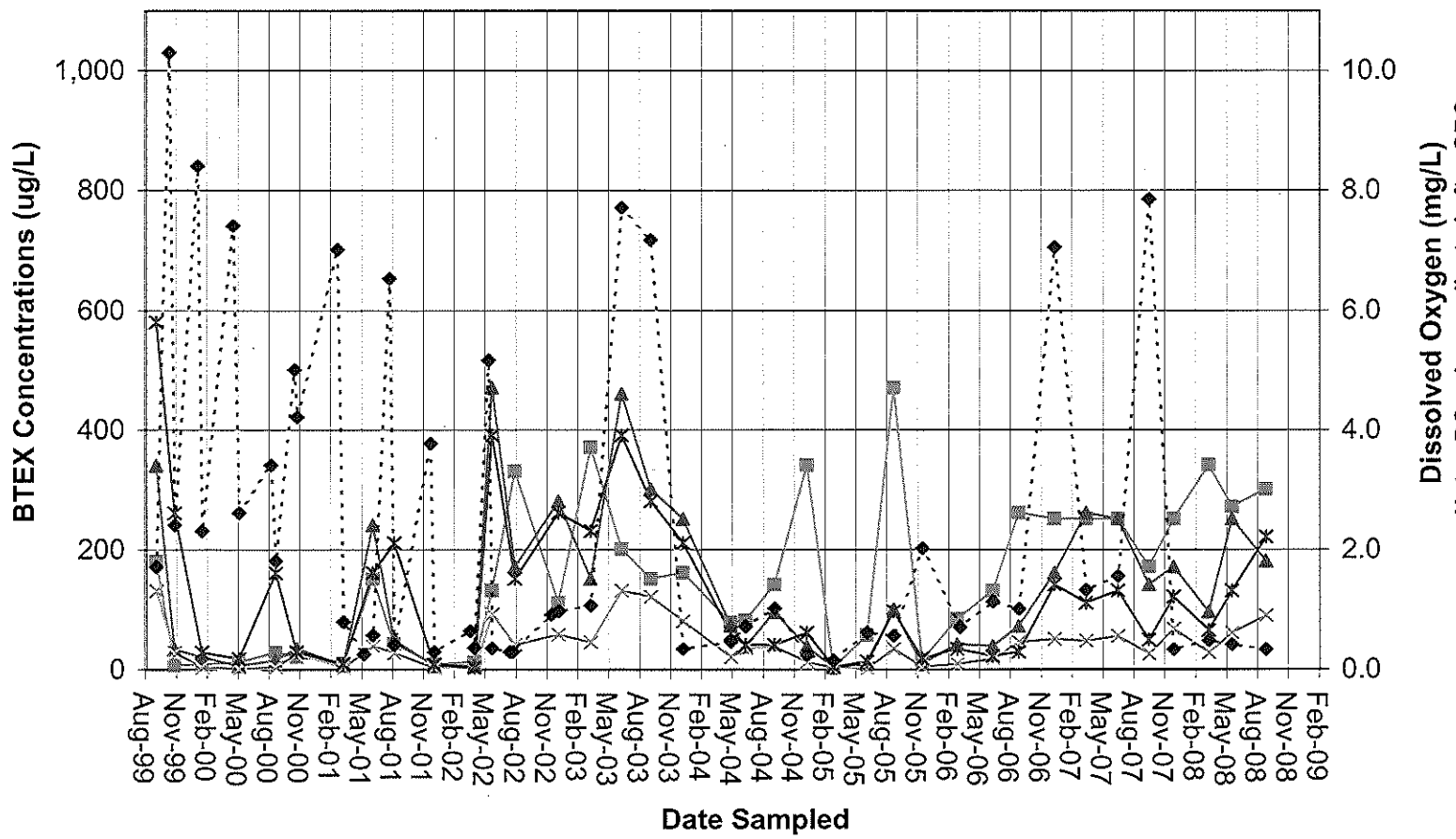
MW-1 BTEX and DO Results
 Third Quarter 2008
 BPS Reprographic Services Facility
 1700 Jefferson Steet
 Oakland, California

Plate

5a

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
DSN	4088087514	<i>[Signature]</i>	10-3-08	<i>[Signature]</i>	10/6/08

MW-3



Dissolved Oxygen (mg/L)
 Note: DO values collected after ORC removal and prior to sampling between Sept. 99 and Sept. 2002.

(Samples collected post purge between July 2003 and December 2003, all other samples collected pre-purge. ORC removed after Sept. 2002.)

■ Benzene ▲ Toluene × Ethylbenzene * Total Xylenes ◆ Dissolved Oxygen



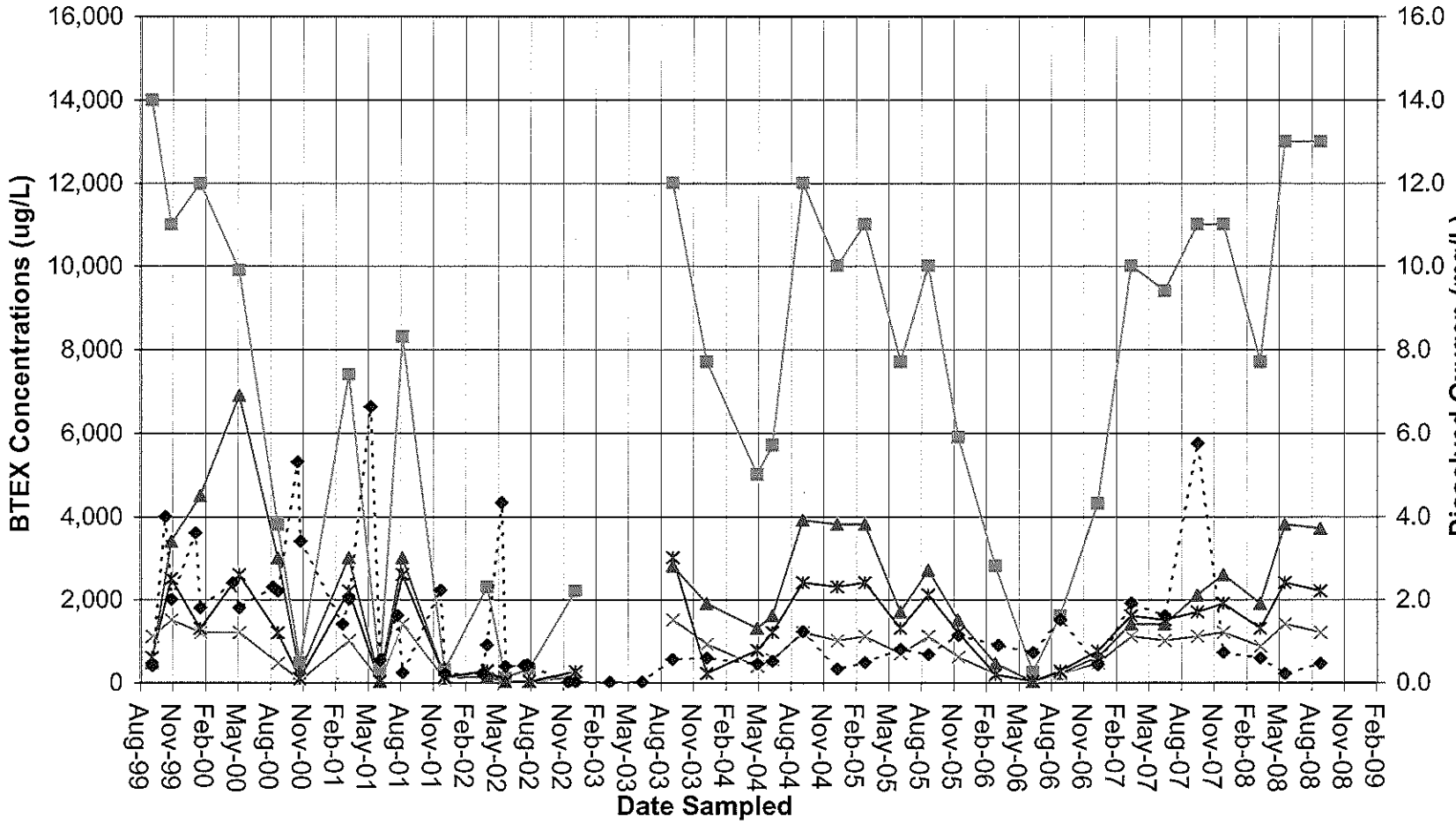
MW-3 BTEX and DO Results
 Third Quarter 2008
 BPS Reprographic Services Facility
 1700 Jefferson Steet
 Oakland, California

Plate

5b

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
DSN	4088087514	<i>DSN</i>	10-3-08	<i>YRC</i>	10/6/08

MW-5



(Samples collected post purge between July 2003 and December 2003, all other samples collected pre-purge. ORC sock stuck in MW-5 for April 2003 and July 2003 sampling events.)

Legend: Benzene (square), Toluene (triangle), Ethylbenzene (cross), Total Xylenes (asterisk), Dissolved Oxygen (diamond)



MACTEC

MW-5 BTEX and DO Results
 Third Quarter 2008
 BPS Reprographic Services Facility
 1700 Jefferson Steet
 Oakland, California

Plate

5c

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
DSN	4088087514	<i>DSN</i>	10-3-08	<i>WJK</i>	10/6/08

APPENDIX A
LABORATORY REPORTS

Sunday, September 28, 2008 11:24:35AM

David Nanstad
MACTEC Engineering & Consulting [Petaluma]
5341 Old Redwood Highway, Suite 300
Petaluma, CA 94954

RE: BPS City Blue
Work Order: MRI0371

Enclosed are the results of analyses for samples received by the laboratory on 09/11/08 08:03. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Tim Costello
Client Services Manager

CA ELAP Certificate # 2682

The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

The report shall not be reproduced except in full, without the written approval of the laboratory. The client, by accepting this report, also agrees not to alter any reports whether in the hard copy or electronic format and to use reasonable efforts to preserve the reports in the form and substance originally provided by TestAmerica.

For Volatile Analysis a trip blank is required to be provided. If trip blank results are not included in the report, then either the trip blank was not submitted or requested to be analyzed.

The reported results were obtained in compliance with the 2003 NELAC standards unless otherwise noted.

MACTEC Engineering & Consulting [Petaluma] 5341 Old Redwood Highway, Suite 300 Petaluma CA, 94954	Project: BPS City Blue Project Number: 4088087514-01 Project Manager: David Nanstad	MRI0371 Reported: 09/28/08 11:24
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-6	MRI0371-01	Water	09/10/08 12:00	09/11/08 08:03
MW-3	MRI0371-02	Water	09/10/08 12:30	09/11/08 08:03
MW-5	MRI0371-03	Water	09/10/08 13:00	09/11/08 08:03
MW-1	MRI0371-04	Water	09/10/08 13:30	09/11/08 08:03
TB	MRI0371-05	Water	09/10/08 08:00	09/11/08 08:03

MACTEC Engineering & Consulting [Petaluma] 5341 Old Redwood Highway, Suite 300 Petaluma CA, 94954	Project: BPS City Blue Project Number: 4088087514-01 Project Manager: David Nanstad	MRI0371 Reported: 09/28/08 11:24
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Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B

TestAmerica Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (MRI0371-01) Water Sampled: 09/10/08 12:00 Received: 09/11/08 08:03									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	8122003	09/22/08	09/22/08	EPA 8015B/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		113 %		80-120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %		60-140	"	"	"	"	
MW-3 (MRI0371-02) Water Sampled: 09/10/08 12:30 Received: 09/11/08 08:03									
Gasoline Range Organics (C4-C12)	2900	500	ug/l	10	8122003	09/22/08	09/22/08	EPA 8015B/8021B	
Benzene	300	5.0	"	"	"	"	"	"	
Toluene	180	5.0	"	"	"	"	"	"	
Ethylbenzene	88	5.0	"	"	"	"	"	"	
Xylenes (total)	220	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	25	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		112 %		80-120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %		60-140	"	"	"	"	
MW-5 (MRI0371-03) Water Sampled: 09/10/08 13:00 Received: 09/11/08 08:03									
Gasoline Range Organics (C4-C12)	45000	25000	ug/l	500	8122003	09/22/08	09/22/08	EPA 8015B/8021B	
Benzene	13000	250	"	"	"	"	"	"	
Toluene	3700	250	"	"	"	"	"	"	
Ethylbenzene	1200	250	"	"	"	"	"	"	
Xylenes (total)	2200	250	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1200	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		105 %		80-120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97 %		60-140	"	"	"	"	

MACTEC Engineering & Consulting [Petaluma] 5341 Old Redwood Highway, Suite 300 Petaluma CA, 94954	Project: BPS City Blue Project Number: 4088087514-01 Project Manager: David Nanstad	MRI0371 Reported: 09/28/08 11:24
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Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B

TestAmerica Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MRI0371-04) Water Sampled: 09/10/08 13:30 Received: 09/11/08 08:03									
Gasoline Range Organics (C4-C12)	24000	10000	ug/l	200	8122003	09/22/08	09/22/08	EPA 8015B/8021B	P-HS
Benzene	4200	100	"	"	"	"	"	"	P-HS
Toluene	4200	100	"	"	"	"	"	"	P-HS
Ethylbenzene	470	100	"	"	"	"	"	"	P-HS
Xylenes (total)	2200	100	"	"	"	"	"	"	P-HS
Methyl tert-butyl ether	ND	500	"	"	"	"	"	"	P-HS
Surrogate: <i>a,a,a</i> -Trifluorotoluene		107 %		80-120	"	"	"	"	P-HS
Surrogate: <i>4</i> -Bromofluorobenzene		94 %		60-140	"	"	"	"	P-HS

MACTEC Engineering & Consulting [Petaluma]
5341 Old Redwood Highway, Suite 300
Petaluma CA, 94954

Project: BPS City Blue
Project Number: 4088087514-01
Project Manager: David Nanstad

MRI0371
Reported:
09/28/08 11:24

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (MRI0371-03) Water Sampled: 09/10/08 13:00 Received: 09/11/08 08:03									
1,2-Dichloroethane	420	10	ug/l	20	8118013	09/18/08	09/18/08	EPA 8260B	
Surrogate: Dibromofluoromethane		99 %	80-120		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		107 %	75-130		"	"	"	"	
Surrogate: Toluene-d8		95 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	70-120		"	"	"	"	
MW-1 (MRI0371-04) Water Sampled: 09/10/08 13:30 Received: 09/11/08 08:03									
1,2-Dichloroethane	200	5.0	ug/l	10	8119015	09/19/08	09/20/08	EPA 8260B	
Surrogate: Dibromofluoromethane		97 %	80-120		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		105 %	75-130		"	"	"	"	
Surrogate: Toluene-d8		108 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97 %	70-120		"	"	"	"	

MACTEC Engineering & Consulting [Petaluma] 5341 Old Redwood Highway, Suite 300 Petaluma CA, 94954	Project: BPS City Blue Project Number: 4088087514-01 Project Manager: David Nanstad	MRI0371 Reported: 09/28/08 11:24
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Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control
TestAmerica Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 8122003 - EPA 5030B [P/T] / EPA 8015B/8021B

Blank (8122003-BLK1) Prepared & Analyzed: 09/22/08										
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	43.3		"	40.0		108	80-120			
Surrogate: 4-Bromofluorobenzene	38.8		"	40.0		97	60-140			

Laboratory Control Sample (8122003-BS1) Prepared & Analyzed: 09/22/08										
Benzene	10.3	0.50	ug/l	10.0		103	85-115			
Toluene	10.1	0.50	"	10.0		101	85-115			
Ethylbenzene	10.4	0.50	"	10.0		104	85-115			
Xylenes (total)	30.7	0.50	"	30.0		102	85-115			
Methyl tert-butyl ether	9.12	2.5	"	10.0		91	80-125			
Surrogate: a,a,a-Trifluorotoluene	43.0		"	40.0		108	80-120			

Laboratory Control Sample (8122003-BS2) Prepared & Analyzed: 09/22/08										
Gasoline Range Organics (C4-C12)	211	50	ug/l	250		85	60-120			
Surrogate: 4-Bromofluorobenzene	39.6		"	40.0		99	60-140			

Laboratory Control Sample Dup (8122003-BSD2) Prepared & Analyzed: 09/22/08										
Gasoline Range Organics (C4-C12)	234	50	ug/l	250		94	60-120	10	20	
Surrogate: 4-Bromofluorobenzene	41.5		"	40.0		104	60-140			

Matrix Spike (8122003-MS1) Source: MRI0427-03 Prepared & Analyzed: 09/22/08										
Gasoline Range Organics (C4-C12)	98.5	50	ug/l	91.0	8.93	98	70-145			
Benzene	11.1	0.50	"	10.0	ND	111	80-120			
Toluene	10.4	0.50	"	10.0	ND	104	80-125			
Ethylbenzene	11.0	0.50	"	10.0	ND	110	85-120			
Xylenes (total)	32.7	0.50	"	30.0	ND	109	80-125			
Methyl tert-butyl ether	9.68	2.5	"	10.0	ND	97	70-135			
Surrogate: a,a,a-Trifluorotoluene	42.8		"	40.0		107	80-120			
Surrogate: 4-Bromofluorobenzene	39.5		"	40.0		99	60-140			

MACTEC Engineering & Consulting [Petaluma] 5341 Old Redwood Highway, Suite 300 Petaluma CA, 94954	Project: BPS City Blue Project Number: 4088087514-01 Project Manager: David Nanstad	MRI0371 Reported: 09/28/08 11:24
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Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control

TestAmerica Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 8I22003 - EPA 5030B [P/T] / EPA 8015B/8021B

Matrix Spike Dup (8I22003-MSD1)	Source: MRI0427-03	Prepared & Analyzed: 09/22/08								
Gasoline Range Organics (C4-C12)	93.8	50	ug/l	91.0	8.93	93	70-145	5	20	
Benzene	10.5	0.50	"	10.0	ND	105	80-120	5	25	
Toluene	10.2	0.50	"	10.0	ND	102	80-125	2	20	
Ethylbenzene	10.6	0.50	"	10.0	ND	106	85-120	4	25	
Xylenes (total)	31.4	0.50	"	30.0	ND	105	80-125	4	20	
Methyl tert-butyl ether	9.45	2.5	"	10.0	ND	95	70-135	2	25	
Surrogate: a,a,a-Trifluorotoluene	43.7		"	40.0		109	80-120			
Surrogate: 4-Bromofluorobenzene	42.3		"	40.0		106	60-140			

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Volatile Organic Compounds by EPA Method 8260B - Quality Control
TestAmerica Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8I18013 - EPA 5030B P/T / EPA 8260B										
Blank (8I18013-BLK1) Prepared & Analyzed: 09/18/08										
1,2-Dichloroethane	ND	0.50	ug/l							
Surrogate: Dibromofluoromethane	7.24		"	7.50		97	80-120			
Surrogate: 1,2-Dichloroethane-d4	7.56		"	7.50		101	75-130			
Surrogate: Toluene-d8	7.06		"	7.50		94	80-120			
Surrogate: 4-Bromofluorobenzene	6.57		"	7.50		88	70-120			
Laboratory Control Sample (8I18013-BS1) Prepared & Analyzed: 09/18/08										
1,2-Dichloroethane	10.5	0.50	ug/l	10.0		105	80-125			
Surrogate: Dibromofluoromethane	7.57		"	7.50		101	80-120			
Surrogate: 1,2-Dichloroethane-d4	7.77		"	7.50		104	75-130			
Surrogate: Toluene-d8	7.21		"	7.50		96	80-120			
Surrogate: 4-Bromofluorobenzene	7.41		"	7.50		99	70-120			
Matrix Spike (8I18013-MS1) Source: MRI0402-01 Prepared & Analyzed: 09/18/08 P1, pH										
1,2-Dichloroethane	11.6	0.50	ug/l	10.0	ND	116	80-140			
Surrogate: Dibromofluoromethane	7.56		"	7.50		101	80-120			
Surrogate: 1,2-Dichloroethane-d4	7.72		"	7.50		103	75-130			
Surrogate: Toluene-d8	7.31		"	7.50		97	80-120			
Surrogate: 4-Bromofluorobenzene	7.48		"	7.50		100	70-120			
Matrix Spike Dup (8I18013-MSD1) Source: MRI0402-01 Prepared & Analyzed: 09/18/08 P1, pH										
1,2-Dichloroethane	11.7	0.50	ug/l	10.0	ND	117	80-140	0.9	25	
Surrogate: Dibromofluoromethane	7.55		"	7.50		101	80-120			
Surrogate: 1,2-Dichloroethane-d4	7.86		"	7.50		105	75-130			
Surrogate: Toluene-d8	7.27		"	7.50		97	80-120			
Surrogate: 4-Bromofluorobenzene	7.39		"	7.50		99	70-120			

MACTEC Engineering & Consulting [Petaluma] 5341 Old Redwood Highway, Suite 300 Petaluma CA, 94954	Project: BPS City Blue Project Number: 4088087514-01 Project Manager: David Nanstad	MRI0371 Reported: 09/28/08 11:24
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Volatile Organic Compounds by EPA Method 8260B - Quality Control

TestAmerica Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 8I19015 - EPA 5030B P/T / EPA 8260B

Blank (8I19015-BLK1) Prepared & Analyzed: 09/19/08

1,2-Dichloroethane	ND	0.50	ug/l							
Surrogate: Dibromofluoromethane	7.50		"	7.50		100	80-120			
Surrogate: 1,2-Dichloroethane-d4	7.71		"	7.50		103	75-130			
Surrogate: Toluene-d8	7.56		"	7.50		101	80-120			
Surrogate: 4-Bromofluorobenzene	6.68		"	7.50		89	70-120			

Laboratory Control Sample (8I19015-BS1) Prepared & Analyzed: 09/19/08

1,2-Dichloroethane	10.2	0.50	ug/l	10.0	ND	102	80-125			
Surrogate: Dibromofluoromethane	7.56		"	7.50		101	80-120			
Surrogate: 1,2-Dichloroethane-d4	7.70		"	7.50		103	75-130			
Surrogate: Toluene-d8	7.69		"	7.50		103	80-120			
Surrogate: 4-Bromofluorobenzene	7.34		"	7.50		98	70-120			

Matrix Spike (8I19015-MS1) Source: MRI0457-01 Prepared & Analyzed: 09/19/08

1,2-Dichloroethane	11.8	0.50	ug/l	10.0	ND	118	80-140			
Surrogate: Dibromofluoromethane	7.84		"	7.50		105	80-120			
Surrogate: 1,2-Dichloroethane-d4	8.05		"	7.50		107	75-130			
Surrogate: Toluene-d8	7.83		"	7.50		104	80-120			
Surrogate: 4-Bromofluorobenzene	7.48		"	7.50		100	70-120			

Matrix Spike Dup (8I19015-MSD1) Source: MRI0457-01 Prepared & Analyzed: 09/19/08

1,2-Dichloroethane	10.9	0.50	ug/l	10.0	ND	109	80-140	7	25	
Surrogate: Dibromofluoromethane	7.86		"	7.50		105	80-120			
Surrogate: 1,2-Dichloroethane-d4	7.90		"	7.50		105	75-130			
Surrogate: Toluene-d8	7.87		"	7.50		105	80-120			
Surrogate: 4-Bromofluorobenzene	7.43		"	7.50		99	70-120			

MACTEC Engineering & Consulting [Petaluma]
5341 Old Redwood Highway, Suite 300
Petaluma CA, 94954

Project: BPS City Blue
Project Number: 4088087514-01
Project Manager: David Nanstad

MRI0371
Reported:
09/28/08 11:24

Notes and Definitions

P-HS Sample container contained headspace.
pH pH = 7
P1 Sample received and analyzed without chemical preservation.
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference



CHAIN OF CUSTODY RECORD

3416
MR103T1

MACTEC Engineering and Consulting, Inc.
5341 Old Redwood Highway, Suite 300
Petaluma, CA 94954
(707) 793-3800 • FAX (707) 793-3900

SAMPLING INFORMATION
 NAME OF FACILITY: Test America
 STREET ADDRESS: _____
 CITY / STATE: Morgan Hill, CA ZIP: _____

PROJECT NAME: BPS Services (Former City Bldg) JOB NO.: 4088087514-01
 SAMPLERS (SIGNATURE): David Allbut SAMPLERS INITIALS (PRINT): David Allbut
 SAMPLING DATE: 9/10/08 APO 200809376

TIME	GRAB	MTRX	SAMPLE NO.	SAMPLE LOCATION	FIELD MEASUREMENT	TOTAL NO. OF CONTAINERS	ANALYSES										FOR LAB USE ONLY	
							TPH-g (8015)	BTEX (8020)	MRE (8020)	EDC (8020)	CHLORIDE							
1200	X	W	MW-6			3	X	X	X									01
1230	X	W	MW-3			3	X	X	X									02
1300	X	W	MW-5			3	X	X	X	X								03
1330	X	W	MW-1			3	X	X	X	X								04
0900	X	W	TB		ON HOLD	2	X	X	X									05

RELINQUISHED BY: David Allbut DATE/TIME: 9/10/08 0805 RECEIVED BY: [Signature] DATE/TIME: _____
 (SIGNATURE) (SIGNATURE) (SIGNATURE) (SIGNATURE)

*MATRIX: WATER - W, SOIL / SEDIMENT - SO, OTHER - NA
 REMARKS: DISTRIBUTION: ORIGINAL AND YELLOW COPIES ACCOMPANY SAMPLE SHIPMENT TO LABORATORY. PINK COPY RETAINED BY SAMPLERS. YELLOW COPIES RETAINED BY LABORATORY.
Standard TAT; TB is "on hold"; Project Manager = David Nanstad
Detections of MRE are to be confirmed by 3260

For Lab Use Only
 Custody Seals Present? Yes No Are Custody Seals Intact? Yes No N/A Inspected By: P. HUFANO Date: 9/10/08

TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: <u>MACTEC</u> REC. BY (PRINT): <u>PH</u> WORKORDER: <u>MR10371</u>	DATE REC'D AT LAB: <u>9/11/08</u> TIME REC'D AT LAB: <u>0803</u> DATE LOGGED IN: <u>9/15/08</u>	For Regulatory Purposes? <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> WASTE WATER <input checked="" type="checkbox"/> OTHER
---	---	--

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH**	SAMPLE MATRIX	DATE SAMPLED	Temp. >6°C	REMARKS: CONDITION
1. Custody Seal(s) Present / <input checked="" type="radio"/> Absent Intact / Broken*									<div style="font-size: 2em; transform: rotate(-45deg); opacity: 0.5;"> SEE COC / HCl Vials / 9/11/08 </div>
2. Chain-of-Custody <input checked="" type="radio"/> Present / Absent*									
3. Traffic Reports or Packing List: Present / <input checked="" type="radio"/> Absent									
4. Airbill / Sticker - Present / <input checked="" type="radio"/> Absent Tracking # _____									
5. Sample Condition: <input checked="" type="radio"/> Intact / Leaking* / Broken*									
6. Samples labeled <input checked="" type="radio"/> Yes / No*									
7. Sample ID's listed on COC <input checked="" type="radio"/> Yes / No*									
8. Does information on COC and sample labels agree? <input checked="" type="radio"/> Yes / No*									
9. Sample received within hold time: <input checked="" type="radio"/> Yes / No*									
10. Adequate sample volume received <input checked="" type="radio"/> Yes / No*									
11. Proper preservatives used <input checked="" type="radio"/> Yes / No*									
12. <input checked="" type="radio"/> Trip Blank / Temp Blank Received? <small>(circle which if yes)</small> <input checked="" type="radio"/> Yes / No									
13. Thermometer Used : IR-1 (<input checked="" type="radio"/> IR-3) Backup									
14. Cooler									
1 RT*** CF*** CT***									
2 <u>6.2°C</u> <u>-1.0</u> <u>5.2°C</u>									
3 _____									
4 _____									
5 _____									
15. Is/Are corrected temp 0-6°C? Yes / No*									

*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION

**CHECK SAMPLE PREP LOG IF NOT INDICATED

*** Read Temperature/Correction Factor/Corrected Temperature

APPENDIX B

GROUNDWATER SAMPLING FORM

Groundwater Monitoring Data Sheet

City Blue
1700 Jefferson Street
Oakland, CA

Well Number	Date	Time	Water Depth First Reading (TOC)	Water Depth Second Reading (TOC)	Cap	Lock	Casing	Box/Lid	Well Diameter	Comments
MW-1	9/10/08	1005	24.07	24.07	OK	N/A	OK	OK	4	
MW-3		0951	23.55	23.55	OK				4	
MW-5		1000	22.52	22.52	OK				2	
MW-6		0945	23.49	23.49	OK				2	1/3 bolts missing 3/3 tabs stripped.
MW-1A		1009	22.60	22.60	bad				4	2/2 tabs stripped
MW-4		1012	24.08	24.08	bad				4	old extraction cap does not seal

Please record all monitoring equipment model numbers, serial numbers and calibration dates here. Also record expiration dates of calibration fluids if applicable:

pH: YSI 556 MPS # 08C101081 Calibrated 9/10/08

Temperature: _____

Specific Conductance: _____

Dissolved Oxygen: YSI 55 # 01D0 873AD

Turbidity: La Motte 2020e # ME13983

Orp probe: Orion SA 230 # 2956

IF Probe: Heron H.01L # 3622



GROUNDWATER SAMPLING FORM

Job Name: BPS Services (Former City Blue)
Job Number: 4088087514-01
Recorded By: David Albut

Well Number: MW-1
Well Type: X Monitor Extraction Other
X PVC St. Steel Other
Date: 9/10/08
Sampled By: DA

WELL PURGING

PURGE VOLUME
Casing Diameter (D in inches): 4
Total Depth of Casing (TD in ft BTOC):
Water Level Depth (WL in ft BTOC): 24.07
No. of Well Volumes to be purged (# V): no purge

PURGE METHOD
Bailer - Type:
Submersible - Type:
Other - Type: peristaltic

PUMP INTAKE SETTING

Near Bottom Near Top
Other
Depth in feet (BTOC): 27'
Screen Interval in feet (BTOC): from to

PURGE VOLUME CALCULATION

TD (feet) WL (feet) D (inches) # V Calculated Purge Volume
() X 3 X 0.0408 = gals

Field Parameter Measurement

Table with columns: Minutes, pH, Conductivity (µS), Temp. (°C/°F), Turbidity (NTU), ORP. Includes handwritten data: Initial 6.60, 1376, 69.02, 5.13, -160.2. Also includes handwritten notes: pre-purge DO = 0.54 mg/l, ORP = -176.1

PURGE TIME
Purge Start: 1323
Purge Stop: 1327
Elapsed: 4 min

PURGE RATE
GPM: 100 ml/min
PURGE VOLUME
Volume: 500 ml gallons

Observations During Purging (Well Condition, Color, Odor):
clear, slight hydrocarbon odor

Discharge Water Disposal: Sanitary Sewer
Storm Sewer Other

WELL SAMPLING

Bailer - Type: peristaltic w/ded. tubing
Sample Time: 1330

Table with columns: Sample No., Volume/Cont., Analysis Requested, Preservatives, Lab, Comments. Row 1: MW-1, 40ml x 3, 8260, HCl, 827TA

QUALITY CONTROL SAMPLES

Table for Duplicate Samples with columns: Original Sample No., Dupl. Sample No.

Table for Blank Samples with columns: Type, Sample No.

Table for Other Samples with columns: Type, Sample No.



GROUNDWATER SAMPLING FORM

Well Number: MW-3
 Well Type: Monitor Extraction Other
 PVC St. Steel Other
 Job Name: BPS Services (Former City Blue)
 Job Number: 4094087514-01
 Date: 9/10/08
 Recorded By: David Allbut (Signature)
 Sampled By: DA (Initials)

WELL PURGING

PURGE VOLUME
 Casing Diameter (D in inches): 4
 Total Depth of Casing (TD in ft BTOC): -
 Water Level Depth (WL in ft BTOC): 23.55
 No. of Well Volumes to be purged (#V): no purge

PURGE METHOD
 Bailer - Type: _____
 Submersible - Type: _____
 Other - Type: peristaltic pump

PUMP INTAKE SETTING

Near Bottom Near Top
 Other
 Depth in feet (BTOC): 26'
 Screen Interval in feet (BTOC): from _____ to _____

PURGE VOLUME CALCULATION

(-) X (-)² X 3 X 0.0408 = _____ gals
 TD (feet) WL (feet) D (inches) #V Calculated Purge Volume

Field Parameter Measurement

Minutes	pH	Conductivity (µS)	Temp. °F	Turbidity (NTU)	ORP
Initial	<u>6.26</u>	<u>585</u>	<u>68.87</u>	<u>6.57</u>	<u>737</u>

pre-purge DO = 0.32 mg/L
 ORP = -136 mV

Meter S/N _____

PURGE TIME
 Purge Start: 1225
 Purge Stop: 1229
 Elapsed: 4 min

PURGE RATE
 GPM: 100 gal/min
 GPM: _____

PURGE VOLUME
 Volume: 500 ml gallons

Observations During Purging (Well Condition, Color, Odor):

clear, hydrocarbon odor

Discharge Water Disposal: Sanitary Sewer
 Storm Sewer Other

WELL SAMPLING

Bailer - Type: peristaltic welded tubing Sample Time: 1230

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
<u>MW-3</u>	<u>40 ml x 3</u>		<u>HCl</u>	<u>not TA</u>	

QUALITY CONTROL SAMPLES

Duplicate Samples	
Original Sample No.	Dupl. Sample No.

Blank Samples	
Type	Sample No.

Other Samples	
Type	Sample No.



GROUNDWATER SAMPLING FORM

Job Name: BPS Services (Former City Blue)
Job Number: 4988087514 - 0.1
Recorded By: David Aubert

Well Number: MW-5
Well Type: X Monitor Extraction Other
X PVC St. Steel Other
Date: 9/10/08
Sampled By: DA OK

WELL PURGING

PURGE VOLUME
Casing Diameter (D in inches): 2
Total Depth of Casing (TD in ft BTOC): -
Water Level Depth (WL in ft BTOC): 22.52
No. of Well Volumes to be purged (# V): no purge

PURGE METHOD
Bailer - Type:
Submersible - Type:
X Other - Type: peristaltic

PUMP INTAKE SETTING

Near Bottom X Near Top
X Other
Depth in feet (BTOC): 25.5
Screen Interval in feet (BTOC): from to

PURGE VOLUME CALCULATION

TD (feet) WL (feet) D (inches) # V Calculated Purge Volume
- - -) X 3 X 0.0408 = - gals

Field Parameter Measurement

Table with 5 columns: Minutes, pH, Conductivity (µS), Temp. (°F), Turbidity (NTU). Includes handwritten data for initial readings and notes on pre-purge DO and ORP.

PURGE TIME
Purge Start: 1252
Purge Stop: 1256
Elapsed: 4 min
PURGE RATE
GPM: 100 ml/min
PURGE VOLUME
Volume: 500 ml gallons

Observations During Purging (Well Condition, Color, Odor):
clear, slight hydrocarbon odor
Discharge Water Disposal: Sanitary Sewer
Storm Sewer: Other

WELL SAMPLING

Bailer - Type: peristaltic w/ ded. tubing
Sample Time: 1300

Table with 6 columns: Sample No., Volume/Cont., Analysis Requested, Preservatives, Lab, Comments. Contains handwritten entry for MW-5.

QUALITY CONTROL SAMPLES

Table for Duplicate Samples with columns for Original Sample No. and Dupl. Sample No.

Table for Blank Samples with columns for Type and Sample No.

Table for Other Samples with columns for Type and Sample No.



GROUNDWATER SAMPLING FORM

Job Name: BPS Services (Former City Blue)
 Job Number: 4088097514 - 01
 Recorded By: David Allbut
(Signature)

Well Number: MW-6
 Well Type: Monitor Extraction Other
 PVC St. Steel Other
 Date: 4/10/08
 Sampled By: SK DA
(Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches): 2
 Total Depth of Casing (TD in ft BTOC): -
 Water Level Depth (WL in ft BTOC): 23.49
 No. of Well Volumes to be purged (#V): no purge

PURGE METHOD

Bailer - Type: _____
 Submersible - Type: _____
 Other - Type: peristaltic

PUMP INTAKE SETTING

Near Bottom Near Top
 Other
 Depth in feet (BTOC): 26
 Screen Interval in feet (BTOC): from _____ to _____

PURGE VOLUME CALCULATION

$$\frac{(\text{TD (feet)} - \text{WL (feet)}) \times \pi \times \text{D (inches)}^2 \times \text{\#V} \times 0.0408}{1728} = \text{Calculated Purge Volume (gals)}$$

Field Parameter Measurement

Minutes	pH	Conductivity (µS)	Temp. °F	Turbidity (NTU)	ORP
Initial	6.59	1121	70.62	5.34	203.2

pre-purge OU = 0.63 mg/l
 " ORP = 179.8 mV

PURGE TIME: _____ PURGE RATE: _____
 Purge Start: 1155 GPM: 100ml/min
 Purge Stop: 1200 GPM: _____
 Elapsed: 4 min

PURGE VOLUME: _____ gallons
 Volume: 500ml
 Observations During Purging (Well Condition, Color, Odor):
clear
 Discharge Water Disposal: Sanitary Sewer Other
 Storm Sewer

WELL SAMPLING

Bailer - Type: peri pump w/ ded. tubing Sample Time: 1200

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
<u>MW-6</u>	<u>3x40 ml H2O2</u>		<u>HCl</u>	<u>ERT TA</u>	

QUALITY CONTROL SAMPLES

Duplicate Samples	
Original Sample No.	Dupl. Sample No.

Blank Samples	
Type	Sample No.
<u>TB</u>	<u>TB C0300</u>

Other Samples	
Type	Sample No.



CHAIN OF CUSTODY RECORD

MACTEC Engineering and Consulting, Inc.
5341 Old Redwood Highway, Suite 300
Petaluma, CA 94954
(707) 793-3800 • FAX (707) 793-3900

SAMPLING INFORMATION

NAME OF FACILITY: Test America
STREET ADDRESS: _____
CITY/STATE: Marques Hill, CA ZIP: _____

PROJECT NAME				JOB NO.	TOTAL NO. OF CONTAINERS	ANALYSES										FOR LAB USE ONLY			
SAMPLERS (SIGNATURE)				SAMPLERS INITIALS (PRINT)		TPH (805)	BTEX (8020)	MTBE (8020)	EDC (EPA/118)	DHEX (118)	DHEX (118)	DHEX (118)	DHEX (118)	DHEX (118)	DHEX (118)				
SAMPLING DATE																			
TIME	GRAB	CONT.	MATRIX	SAMPLE NO.	SAMPLE LOCATION	FIELD MEASUREMENT													
1200	X		W	MW-6			3	X	X	X									
1230	X		W	MW-3			3	X	X	X									
1300	X		W	MW-5			3	X	X	X	X								
1330	X		W	MW-1			3	X	X	X	X								
0800	X		W	TB		ON HOLD	2	X	X	X									

RELINQUISHED BY: David Albert (SIGNATURE) DATE/TIME: 9/11/09 0800 RECEIVED BY: [Signature] (SIGNATURE) DATE/TIME: _____

RELINQUISHED BY: _____ (SIGNATURE) RECEIVED BY: _____ (SIGNATURE) DATE/TIME: _____

*MATRIX: WATER - W, SOIL / SEDIMENT - SO, OTHER - NA

REMARKS: Standard TAT; TB is "on hold"; Project Manager = David Nonstad
Detections of MTBE are to be confirmed by 8260

For Lab Use Only

Are Custody Seals Present? Yes No Are Custody Seals Intact? Yes No N/A Inspected By: P. HUFANU Date: 9/11/09

MACTEC
- Multi-Probe Calibration Log

Section I - General Information:

Project Name: <i>Olin/Standard Fusee</i>	Operator: <i>DA</i>	Date: <i>9/10/08</i>
Project Number: <i>1088087514</i>	Task Number: <i>01</i>	Calibration Start Time: <i>0900</i>

Section II - Instrument Information

multi-probe make: <i>YSI 556</i>	turbidimeter make: <i>La Motte 2020e</i>
multi-probe serial # (stamped on back of unit): <i>08C101081</i>	turbidimeter serial #: <i>ME 13983</i>
multi-probe rental ID (N/A if MACTEC unit): <i>N/A</i>	turbidimeter rental ID (N/A if MACTEC unit): <i>N/A</i>
last calibration date: <i>9/10/08</i>	last calibration date: <i>9/10/08</i>
service/receive date: <i>N/A</i>	service/receive date: <i>N/A</i>

Section III - Calibration Solution Information

conductivity lot: <i>7AL145</i>	pH10 standard lot: <i>1706759</i>
conductivity expiration: <i>12/2008</i>	pH10 standard expiration: <i>12/23/08</i>
pH7 standard lot: <i>78H002</i>	ORP standard lot #: <i>090208</i>
pH7 standard expiration: <i>8/2009</i>	ORP expiration: <i>11/1/09</i>

Section IV - Parameter Calibrations

Function	Uncal	Temp.	Initial Reading	Calibrated To	Further Information
1. pH - pH7 standard	<input checked="" type="checkbox"/>	<i>18.08 °C</i>	<i>pH 6.99</i>	<i>pH7.0</i>	Calibrate pH7 before pH10
2. pH - pH10 standard	<input checked="" type="checkbox"/>	<i>17.57 °C</i>	<i>pH 9.98</i>	<i>pH10.0</i>	
3. ORP - Zobel solution	<input checked="" type="checkbox"/>	<i>17.72 °C</i>	<i>247.8 mV</i>	<i>240.5 mV</i>	See Zobel Solution Values chart, below.
4. sp. conductance - <i>1000</i> 447 $\mu\text{S}/\text{cm}$	<input checked="" type="checkbox"/>	<i>18.13 °C</i>	<i>1012 $\mu\text{S}/\text{cm}$</i>	<i>447 $\mu\text{S}/\text{cm}$</i>	1mS/cm=1000 $\mu\text{S}/\text{cm}$. OK range: $\pm 10\%$ ($\pm 100 \mu\text{S}/\text{cm}$).
5. dissolved oxygen (%)	<input checked="" type="checkbox"/>	<i>18.04 °C</i>	<i>106.9 %</i>	<i>100%</i>	barometric pressure: <i>757.0</i> mmHg (from YSI 556)
6. turbidity - <i>200</i> 10 NTU solution	<i>NA</i>	<i>NA</i>			

Table 1 - Zobel Solution, mV vs. Temp.

Temperature °C	Zobel Solution Value, mV
5	257.0
10	250.5
15	244.0
20	237.5
25	231.0
30	224.5
35	218.0
40	211.5

Comments:

Signature of Operator: *David Allant* Completion Time: *0910*