Technical Memorandum

2013 Groundwater Monitoring Summary (Including Fourth Quarter 2013 Groundwater Sampling Event)

National Aeronautics and Space Administration
Jet Propulsion Laboratory, Pasadena, California

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This technical memorandum summarizes the results of the fourth quarter 2013 groundwater sampling event completed as part of the groundwater monitoring program at the National Aeronautics and Space Administration (NASA) Jet Propulsion Laboratory (JPL).

INTRODUCTION

During the fourth quarter 2013 sampling event, groundwater samples were collected from 24 JPL monitoring wells (MWs), both on- and off-facility, and analyzed for volatile organic compounds (VOCs), total chromium, hexavalent chromium [Cr(VI)] and perchlorate. Figure 1 shows the locations of the groundwater monitoring wells.

Groundwater samples were shipped to BC Laboratories, Inc., in Bakersfield, California, for chemical analysis. BC Laboratories, Inc. is certified by the California Department of Public Health (CDPH). Sample collection procedures and sample analyses were conducted in accordance with the approved *Work Plan for Performing a Remedial Investigation/Feasibility Study.*[1] No reported data were rejected for non-compliance with method requirements during the course of validation and no reported data were deemed unusable.

Table 1 summarizes analytical results for VOCs and perchlorate and Table 2 summarizes analytical results for metals during the most recent four quarters. Table 3 summarizes VOC and perchlorate concentrations in production wells located near the JPL facility during the most recent four quarters. No tentatively identified compounds (TICs) were detected in the samples collected during the fourth quarter of 2013.

Figures summarizing the results from the fourth quarter 2013 sampling event are included in this technical memorandum. Figure 2 shows the lateral extent of carbon tetrachloride concentrations in groundwater and Figure 3 provides a cross-section detailing the horizontal and vertical extent of carbon tetrachloride. Figure 4 shows the lateral extent of perchlorate concentrations in groundwater, and Figure 5 provides a cross-section detailing the horizontal and vertical extent of perchlorate in groundwater. Figure 6 shows the lateral extent of tetrachloroethene (PCE) concentrations in groundwater. Figure 7 shows the lateral extent of trichloroethene (TCE) concentrations in groundwater and Figure 8 shows groundwater elevation contours from the fourth quarterly event and groundwater flow directions.

The groundwater monitoring wells have been grouped into four categories:

- On-facility source area wells (MW-7, MW-13, MW-16 and MW-24);
- Other on-facility wells (MW-6, MW-8, MW-11, MW-22 and MW-23);
- Perimeter off-facility wells (MW-1, MW-3, MW-4, MW-5, MW-9, MW-10, MW-12, MW-14 and MW-15 [MW-9 was not sampled during the fourth quarter]); and
- Off-facility wells (MW-17, MW-18, MW-19, MW-20, MW-21, MW-25 and MW-26).

[1] Ebasco. 1993. *Work Plan for Performing a Remedial Investigation/Feasibility Study*, National Aeronautics and Space Administration Jet Propulsion Laboratory, Pasadena, California. December.

Well MW-2 has not been sampled during the groundwater monitoring program since it was replaced with well MW-14.

ON-FACILITY SOURCE AREA WELLS

On-facility source area wells consist of wells that have historically contained the highest concentration of site-related chemicals. This group of wells is located within the JPL facility (on-facility) and consists of monitoring wells MW-7, MW-13, MW-16 and MW-24.

The source area treatment system has been operating since 2005 and addresses groundwater beneath the JPL facility which has historically contained the highest concentrations of perchlorate and VOCs (i.e., the source area). Operation of the source area treatment system appears to have resulted in a significant reduction of chemicals of interest in wells MW-7, MW-16 and MW-24, which are located within the treatment zone. Additional details regarding chemical concentrations in these wells are presented below.

PERCHLORATE ANALYTICAL RESULTS

- During the fourth quarter 2013 sampling event, concentrations of perchlorate in excess of the state maximum contaminant level (MCL) (6.0 micrograms per liter [µg/L]) were reported in samples collected from wells MW-7 (6.1 µg/L), MW-13 (520 µg/L) and MW-24 (Screen 2 [9.7 µg/L]).
- Perchlorate was detected below the state MCL (6.0 µg/L) in MW-24 (Screen 1) at an estimated concentration indicated by "J" (2.3J µg/L). No other perchlorate detections occurred in the on-facility source area wells during the fourth quarter 2013.
- Perchlorate concentrations increased from their respective last sampling date to the fourth quarter 2013 in MW-7 (4.0 µg/L to 6.1 µg/L) and MW-24 (Screen 1 [non-detect to 2.3J µg/L]).
- Perchlorate concentrations decreased from their respective last sampling event to the fourth quarter 2013 in MW-13 (1,200 µg/L to 520 µg/L), MW-16 (2.0J µg/L to non-detect) and MW-24 (Screen 2 [10.0 µg/L to 9.7 µg/L]).
- During 2013, perchlorate concentrations in MW-7, MW-13, MW-16 and MW-24 (Screen 2) ranged from 4.0 µg/L to 260 µg/L, 520 µg/L to 1,400 µg/L, non-detect to 2.0J µg/L, and 9.7 µg/L to 11.0 µg/L, respectively.
- Perchlorate concentrations in MW-16 and MW-24 (Screens 3, 4 and 5) were non-detect during the fourth quarter 2013, with a reporting limit of 4.0 µg/L.

VOC ANALYTICAL RESULTS

- During the fourth quarter 2013, carbon tetrachloride was detected below the state MCL (0.5 µg/L) in MW-24 (Screen 2 [0.4J µg/L]).
- In 2013, carbon tetrachloride was detected above the state MCL in MW-7 (second quarter), MW-13 (first and third quarters), MW-16 (first and second quarters) and MW-24 (Screen 2 [second quarter]). Carbon tetrachloride was also detected below the state MCL during 2013 in MW-7 (first quarter), MW-13 (second quarter) and MW-24 (Screen 2 [first, third and fourth quarters]). No other detections occurred during 2013.
- During the fourth quarter 2013, TCE was detected below the state and federal MCL of 5.0 µg/L in MW-13 (0.2J µg/L) and MW-24 (Screen 2 [0.2J µg/L]).
- In 2013, TCE was detected below the state MCL (5.0 µg/L) in MW-7 (second quarter), MW-13 (all quarters) and MW-24 (Screen 2 [second, third and fourth quarters]).

- During the fourth quarter 2013, PCE was detected below the state and federal MCL of 5.0 µg/L in MW-7 (0.3J µg/L), MW-13 (1.6 µg/L) and MW-24 (Screen 2 [0.3J µg/L]).
- In 2013, PCE was detected below the state MCL in MW-7 (first, second and fourth quarters), MW-13 (all quarters) and MW-24 (Screens 2 [all quarters] and 3 [first and third quarters]). No other detections occurred during 2013.

OTHER NOTABLE ANALYTICAL RESULTS

- During the fourth quarter 2013, Cr(VI)[2] was detected below the state MCL of 50.0 µg/L in MW-7 (4.0 µg/L), MW-13 (2.0J µg/L), MW-16 (14.0 µg/L) and MW-24 (Screens 1, 2 and 5 [6.0 µg/L, 2.0J µg/L and 1.0J µg/L, respectively]).
- In 2013, Cr(VI)[2] was detected in MW-7 (all quarters), MW-13 (all quarters), MW-16 (all quarters) and MW-24 (Screens 1 [second, third and fourth quarters], 2 [all quarters] and 5 [second and fourth quarters]); however, concentrations were below the state MCL of 50.0 µg/L.
- During the fourth quarter 2013, total chromium was above the state MCL of 50.0 µg/L in wells MW-13 (67.0 µg/L) and MW-16 (260 µg/L). Total chromium was also detected below the state MCL of 50.0 µg/L in MW-7 (16.0 µg/L) and MW-24 (Screen 1 [9.9 µg/L]). The total chromium detection in MW-16 (260 µg/L) is the highest detection in this well and is only the fourth time total chromium has been detected above the state MCL of 50.0 µg/L (fourth quarter 2001 [140.8 µg/L], fourth quarter 2006 [73.7 µg/L], third quarter 2012 [93.0 µg/L] and fourth quarter 2013 [260 µg/L]) since it was first analyzed for total chromium in 1996.
- During the four quarters of 2013, total chromium was detected in MW-7 [all quarters], MW-13 [all quarters], MW-16 [all quarters] and MW-24 (Screens 1 [all quarters], 2 [first, second and third quarters], 3 [first quarter], 4 [third quarter] and 5 [second quarter]); however, only the detections in MW-13 (140 µg/L [third quarter] and 67.0 µg/L [fourth quarter]) and MW-16 (260 µg/L [fourth quarter]) exceeded the state MCL (50.0 µg/L). The total chromium detections of 140 µg/L (MW-13 [third quarter]) and 260 µg/L (MW-16 [fourth quarter]) are the highest detections in these respective wells since they were first sampled during the August/September 1996 monitoring event. Total chromium results in MW-7, MW-13 and MW-16 will continue to be closely evaluated during subsequent sampling events.

OTHER ON-FACILITY WELLS

This well group consists of monitoring wells MW-6, MW-8, MW-11, MW-22 and MW-23. These wells are located on the JPL facility but outside the source area.

PERCHLORATE ANALYTICAL RESULTS

- During the fourth quarter 2013, perchlorate was detected above the state MCL of 6.0 µg/L in MW-8 (71.0 µg/L). This is the first detection above the state MCL of 6.0 µg/L in MW-8 since the first quarter 2010.
- Perchlorate was detected below the state MCL of 6.0 µg/L in MW-6 (3.3J µg/L), MW-22 (Screens 1 [3.7J µg/L], 2 [3.5J µg/L] and 3 [2.6J µg/L]) and MW-23 (Screens 1 [4.7 µg/L], 2 [4.1 µg/L] and 3 [3.1J µg/L]).
- Perchlorate concentrations increased from their respective last sampling event to the fourth quarter 2013 in MW-8 (non-detect to 71.0 µg/L), MW-22 (Screens 1 [3.0J µg/L to 3.7J µg/L] and

[2] On August 23, 2013, the California Department of Public Health (CDPH) proposed to establish a MCL for Cr(VI) at a 10.0 µg/L. See http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Chromium6.aspx.

2 [non-detect to 3.5J µg/L]) and MW-23 (Screens 1 [3.2J µg/L to 4.7 µg/L], 2 [4.0 µg/L to 4.1 µg/L] and 3 [2.6J µg/L to 3.1J µg/L]).
- Perchlorate concentrations decreased slightly from their respective last sampling event to the fourth quarter 2013 in MW-6 (3.5J µg/L to 3.3J µg/L) and MW-22 (Screen 3 [3.6J µg/L to 2.6J µg/L]).
- During 2013, perchlorate concentrations in MW-8 ranged from non-detect to 71.0 µg/L. This is the highest detection in MW-8 since a detection of 194 µg/L during the first quarter 2010.
- During the fourth quarter 2013, perchlorate was not detected in MW-11 (Screens 1 through 5), MW-22 (Screens 4 and 5) and MW-23 (Screens 4 and 5) with a reporting limit of 4.0 µg/L.

VOC ANALYTICAL RESULTS

- Carbon tetrachloride was not detected in any of the other on-facility wells during the fourth quarter 2013 with a reporting limit of 0.5 µg/L.
- Carbon tetrachloride was not detected in any of the other on-facility wells during any of the four quarters of 2013 with a reporting limit of 0.5 µg/L.
- During the fourth quarter 2013, TCE was detected below the state and federal MCL of 5.0 µg/L in MW-6 (4.3 µg/L), MW-8 (0.1J µg/L), MW-11 (Screen 3 [0.1J µg/L]), MW-22 (Screens 1 [1.0 µg/L], 2 [0.2J µg/L] and 3 [0.1J µg/L]) and MW-23 (Screens 1 [2.3 µg/L] and 2 [0.8 µg/L]).
- Detections of TCE in the other on-facility wells were relatively consistent (low detections or non-detect) in 2013 and all remained below the state and federal MCL of 5.0 µg/L.
- During the fourth quarter 2013, PCE was detected below the state and federal MCL for PCE (5.0 µg/L) in MW-6 (1.3 µg/L), MW-22 (Screen 1 [0.2J µg/L]) and MW-23 (Screens 1 [0.3J µg/L] and 2 [0.3J µg/L]).
- Detections of PCE in the other on-facility wells were relatively consistent (low detections or non-detect) in 2013 and all remained below the state and federal MCL of 5.0 µg/L.

OTHER NOTABLE ANALYTICAL RESULTS

- During the fourth quarter 2013, Cr(VI)[2] was detected below the state MCL of 50 µg/L in MW-8 (1.0J µg/L), MW-22 (Screens 2 [1.0J µg/L], 3 [2.0 µg/L] and 4 [2.0J µg/L]) and MW-23 (Screens 2 [1.0J µg/L], 3 [3.0 µg/L] and 4 [3.0 µg/L]).
- Detections of Cr(VI)[2] in the other on-facility wells were relatively consistent (low detections or non-detect) in 2013 and all remained below the state and federal MCL of 50 µg/L.
- During the fourth quarter 2013, total chromium was detected below the state and federal MCL (50 µg/L) in MW-6 (39.0 µg/L), MW-8 (2.4J µg/L) and MW-23 (Screens 1 through 4 [2.0J µg/L, 0.9J µg/L, 2.7J µg/L and 2.3J µg/L, respectively]).
- Detections of total chromium in the other on-facility wells were relatively consistent (low detections or non-detect) in 2013 and all remained below the state and federal MCL of 50 µg/L.

PERIMETER OFF-FACILITY WELLS

The perimeter off-facility wells are located near the JPL fence line along the perimeter of the property. This group of wells consists of MW-1, MW-3, MW-4, MW-5, MW-9, MW-10, MW-12, MW-14 and MW-15 (MW-9 was not sampled during the fourth quarter 2013 because the well was inaccessible due to JPL parking structure construction activities).

PERCHLORATE ANALYTICAL RESULTS

- During the fourth quarter 2013 sampling event, concentrations of perchlorate in excess of the state MCL (6.0 µg/L) were reported in samples collected from wells MW-4 (Screen 2 [210 µg/L]) and MW-10 (6.4 µg/L).
- Perchlorate was detected below the state MCL of 6.0 µg/L in MW-3 (Screen 4 [1.0J µg/L]), MW-4 (Screen 3 [2.2J µg/L]), MW-5 (1.5J µg/L), MW-12 (Screens 2 through 5 [5.6 µg/L, 4.5 µg/L, 3.3J µg/L and 3.3J µg/L, respectively]) and MW-14 (Screens 1, 3 and 4 [4.0 µg/L, 5.7 µg/L and 5.3 µg/L, respectively]).
- Perchlorate concentrations increased slightly from their respective last sampling date to the fourth quarter 2013 in MW-3 (Screen 4 [non-detect to 1.0J µg/L]), MW-4 (Screen 3 [non-detect to 2.2J µg/L]), MW-5 (non-detect to 1.5J µg/L), MW-12 (Screens 3 [non-detect to 4.5 µg/L], 4 [3.2J µg/L to 3.3J µg/L] and 5 [2.1J µg/L to 3.3J µg/L]) and MW-14 (Screens 1, 3 and 4 [3.1J µg/L to 4.0 µg/L, 5.3 µg/L to 5.7 µg/L and 3.7J µg/L to 5.3 µg/L, respectively]).
- Perchlorate concentrations decreased from their last sampling event to the fourth quarter 2013 in MW-4 (Screen 2 [250.0 µg/L to 210 µg/L]), MW-10 (9.0 µg/L to 6.4 µg/L), MW-12 (Screen 2 [7.2 µg/L to 5.6 µg/L]) and MW-14 (Screen 2 [3.2J µg/L to non-detect].
- The perchlorate concentration of 210 µg/L in MW-4 (Screen 2) is down from the high detection of 250 µg/L (third quarter 2013). The perchlorate detection is consistent with recent detections in this well screen. Since the first quarter 2011, concentrations have exceeded the state MCL (6.0 µg/L). MW-4 is within the capture zone of the Monk Hill Treatment System (MHTS).
- The perchlorate concentrations in MW-12 (Screen 2) were detected below the state MCL (6.0 µg/L) from the first quarter 2008 through the third quarter 2010. Since the fourth quarter 2010, the detections have been above the state MCL (6.0 µg/L) with five exceptions: 5.7 µg/L, 5.4 µg/L, 5.3 µg/L, non-detect and 5.6 µg/L (first and second quarters of 2011, fourth quarter 2011 and first and fourth quarters 2013, respectively). MW-12 is within the capture zone of the MHTS.
- During 2013, perchlorate concentrations in MW-4 (Screen 2) and MW-10 remained above the state MCL (6.0 µg/L) for all quarters. The detection of 250 µg/L in MW-4 (Screen 2) is the highest detection in MW-4 (Screen 2) since it was first sampled during the August/September 1996 monitoring event.
- Perchlorate was not detected in MW-1, MW-3 (Screens 1, 2 and 5), MW-4 (Screens 1, 4 and 5), MW-12 (Screen 1), MW-14 (Screens 2 and 5) and (MW-15) with a reporting limit of 4.0 µg/L.

VOC ANALYTICAL RESULTS

- During the fourth quarter 2013, carbon tetrachloride was detected at the state MCL in MW-12 (Screen 4 [0.5 µg/L]) and at a concentration below the state MCL (0.5 µg/L) in MW-12 (Screens 3 [0.4J µg/L] and 5 [0.3J µg/L]). No other carbon tetrachloride detections occurred in the perimeter off-facility wells during the fourth quarter 2013.
- In 2013, carbon tetrachloride was detected in MW-4 (Screen 2), MW-12 (Screens 3, 4 and 5); however, only the detections in MW-12 (Screens 3 [first and second quarters 0.8 µg/L and 0.5 µg/L, respectively] and 4 [first, third and fourth quarters 0.9 µg/L, 0.8 µg/L and 0.5 µg/L, respectively]) were at or above the state MCL (0.5 µg/L).
- During the fourth quarter 2013, TCE was detected in wells MW-4 (Screen 2 [0.6 µg/L]), MW-5 (0.2J µg/L), MW-10 (8.1 µg/L), MW-12 (Screens 3 [0.1J µg/L], 4 [0.2J µg/L] and 5 [0.1J µg/L]) and MW-14 (Screens 1 through 4 [1.6 µg/L, 4.0 µg/L, 2.0 µg/L and 0.2J µg/L, respectively]); however, only the detection of 8.1 µg/L in MW-10 is above the state and federal MCL (5.0

µg/L). No other TCE detections occurred in the perimeter off-facility wells during the fourth quarter 2013.

- In 2013, detections of TCE in MW-4 (Screen 2), MW-5, MW-10, MW-12 (Screens 3, 4 and 5) and MW-14 (Screens 1, 2, 3 and 4) remained relatively consistent, ranging from non-detect to 9.8 µg/L.
- During the fourth quarter 2013, PCE was detected below the state and federal MCL (5.0 µg/L) in wells MW-4 (Screen 2 [0.5J µg/L]), MW-10 (0.9 µg/L) and MW-14 (Screens 1 through 4 [0.2J µg/L, 0.3J µg/L, 0.5J µg/L and 0.2J µg/L, respectively]). No other PCE detections occurred in the perimeter off-facility wells during the fourth quarter 2013.
- In 2013, detections of PCE in MW-3 (Screens 3 and 4), MW-4 (Screen 2), MW-10 and MW-14 (Screens 1 through 4) remained relatively consistent, ranging from non-detect to 1.7 µg/L.

OTHER NOTABLE ANALYTICAL RESULTS

- During the fourth quarter 2013, Cr(VI)[2] was detected below the state MCL of 50.0 µg/L in MW-3 (Screens 3 [2.0J µg/L] and 5 [1.0J µg/L]), MW-12 (Screens 1, 4 and 5 [1.0J µg/L, 1.0J µg/L and 2.0J µg/L, respectively]) and MW-14 (Screen 4 [2.0J µg/L]). No other Cr(VI)[2] detections occurred in the perimeter off-facility wells during the fourth quarter 2013.
- Detections of Cr(VI)[2] in the perimeter off-facility wells were relatively consistent in 2013, ranging from non-detect to 9.0 µg/L and remained below the state and federal MCL of 50 µg/L.
- During the fourth quarter 2013, total chromium was detected below the state MCL of 50.0 µg/L in MW-3 (Screens 2 through 5 [0.7J µg/L, 1.8J µg/L, 3.1 µg/L and 7.3 µg/L, respectively]), MW-4 (Screens 2 through 4 [12.0 µg/L, 1.9J µg/L and 1.1J µg/L]), MW-10 (3.4 µg/L), MW-12 (Screens 1 [1.9J µg/L], 2 [1.0J µg/L], 4 [0.9J µg/L] and 5 [1.5J µg/L]) and MW-14 (Screen 1 [1.0J µg/L]).
- During the four quarters of 2013, total chromium remained relatively consistent and below the state MCL of 50.0 µg/L in the perimeter off-facility wells, ranging from non-detect to 34.0 µg/L.

OFF-FACILITY WELLS

The off-facility wells consist of monitoring wells MW-17, MW-18, MW-19, MW-20, MW-21, MW-25 and MW-26. These wells are located near and down gradient of the two off-facility treatment plants: MHTS and Lincoln Avenue Water Company (LAWC) treatment system. Daily operation of the MHTS began in February 2011. Operation of the LAWC system began in July 2004.

PERCHLORATE ANALYTICAL RESULTS

- During the fourth quarter 2013 sampling event, concentrations of perchlorate in excess of the state MCL (6.0 µg/L) were reported in samples collected from wells MW-17 (Screens 3 [7.1 µg/L], 4 [15.0 µg/L] and 5 [9.9 µg/L]), MW-18 (Screens 3 [44.0 µg/L] and 4 [15.0 µg/L]), MW-19 (Screen 2 [6.1 µg/L]), MW-21 (Screen 1 [9.3 µg/L]) and MW-25 (Screens 1 through 4 [11.0 µg/L, 16.0 µg/L, 13.0 µg/L and 10.0 µg/L, respectively]).
- Perchlorate was detected below the state MCL of 6.0 µg/L in MW-19 (Screens 3 [3.4J µg/L], 4 [2.9J µg/L] and 5 [3.8J µg/L]), MW-20 (Screen 2 [2.3J µg/L]), MW-21 (Screens 2 through 5 [3.5J µg/L, 3.5J µg/L, 2.1J µg/L and 3.0J µg/L, respectively]) and MW-26 (Screens 1 [4.5 µg/L] and 2 [3.3J µg/L]).

- Perchlorate concentrations increased from their respective last sampling date to the fourth quarter 2013 in MW-17 (Screens 4 [1.8J µg/L to 15.0 µg/L] and 5 [3.7J µg/L to 9.9 µg/L]), MW-18 (Screen 4 [13.0 µg/L to 15.0 µg/L]), MW-19 (Screen 5 [3.1J µg/L to 3.8J µg/L]), MW-20 (Screen 2 [1.9J µg/L to 2.3J µg/L]), MW-21 (Screens 1, 2, 3 and 5 [3.1J µg/L to 9.3 µg/L, 2.7J µg/L to 3.5J µg/L, 2.9J µg/L to 3.5J µg/L and 2.1J µg/L to 3.0J µg/L, respectively]), MW-25 (Screens 3 [11.0 µg/L to 13.0 µg/L] and 4 [9.3 µg/L to 10.0 µg/L]) and MW-26 (Screens 1 [non-detect to 4.5 µg/L] and 2 [1.4J µg/L to 3.3J µg/L]).
- The perchlorate concentration decreased from its respective last sampling event to the fourth quarter 2013 in MW-17 (Screen 3 [7.6 µg/L to 7.1 µg/L]), MW-19 (Screens 3 [3.8J µg/L to 3.4J µg/L] and 4 [3.2J µg/L to 2.9J µg/L]), MW-20 (Screen 1 [1.2J µg/L to non-detect]) and MW-21 (Screen 4 [2.2J µg/L to 2.1J µg/L]).
- During 2013, perchlorate concentrations in the off-facility wells remained relatively consistent, ranging from non-detect to 46.0 µg/L. The detection of 9.9 µg/L in MW-17 (Screen 5) is the highest detection in this screen interval since a detection of 14.7 µg/L during the first quarter 2002. The detection of 9.3 µg/L in MW-21 (Screen 1) is the first detection above the MCL in this screen interval since a detection of 7.3 µg/L during the fourth quarter 2004. This well is located cross-gradient to JPL and is representative of groundwater from the La-Cañada Flintridge area to the northwest of JPL.
- Concentrations of perchlorate were not detected in MW-17 (Screens 1 and 2), MW-18 (Screens 2 and 5), MW-19 (Screen 1), MW-20 (Screens 1, 3, 4 and 5) and MW-25 (Screen 5) with a reporting limit of 4.0 µg/L.

VOC ANALYTICAL RESULTS

- During the fourth quarter 2013, carbon tetrachloride was detected above the state MCL (0.5 µg/L) in MW-17 (Screen 4 [0.6 µg/L]), MW-18 (Screens 3 [16.0 µg/L] and 4 [1.9 µg/L]) and below the state MCL in MW-17 (Screen 5 [0.4J µg/L]). No other carbon tetrachloride detections occurred in the off-facility wells during the fourth quarter 2013.
- Since the first quarter 2005, the carbon tetrachloride concentrations in MW-18 (Screen 3) have exceeded the state MCL (0.5 µg/L). Carbon tetrachloride detections in MW-18 (Screen 4) have exceeded the state MCL (0.5 µg/L) since the third quarter 1996 with one exception (non-detect [fourth quarter 2010]).
- In 2013, carbon tetrachloride was detected in MW-17 (Screens 3, 4 and 5) and MW-18 (Screens 3 and 4), however, only the detections in MW-17 (Screen 4 [fourth quarter: 0.6 µg/L]) and MW-18 (Screens 3 [all quarters: 7.2 µg/L, 7.3 µg/L, 10.0 µg/L and 16.0 µg/L, respectively] and 4 [all quarters: 1.4 µg/L, 1.0 µg/L, 2.1 µg/L and 1.9 µg/L, respectively]) were at or above the state MCL (0.5 µg/L).
- During the fourth quarter 2013, TCE was detected in MW-17 (Screens 3, 4 and 5), MW-18 (Screens 3 and 4), MW-19 (Screens 2, 4 and 5), MW-20 (Screens 2 and 3), MW-21 (Screens 1 through 5), MW-25 (Screens 1 and 2) and MW-26 (Screens 1 and 2); however, no detections exceeded the state and federal MCL (5.0 µg/L).
- In 2013, TCE concentrations in MW-17 (Screens 2 through 5) remained relatively consistent, ranging from non-detect to 2.0 µg/L.
- TCE concentrations in MW-18 (Screens 3 and 4) remained relatively consistent during 2013, ranging from 0.6 µg/L to 1.6 µg/L.
- In 2013, TCE concentrations in MW-19 (Screen 2, 4 and 5) remained relatively consistent, ranging from 0.1J µg/L to 1.2 µg/L.
- TCE concentrations in MW-20 (Screens 2 and 3) remained relatively consistent during 2013, ranging from 0.2J µg/L to 0.8 µg/L.

- TCE concentrations in MW-21 (Screens 1 through 5) remained relatively consistent during 2013, ranging from non-detect to 1.9 µg/L.
- In 2013, TCE concentrations in MW-25 (Screens 1 and 2) remained relatively consistent, ranging from 0.1J µg/L to 2.5 µg/L.
- In 2013, TCE concentrations in MW-26 (Screens 1 and 2) remained relatively consistent, ranging from non-detect to 0.6 µg/L.
- During the fourth quarter 2013, PCE was detected in MW-17 (Screens 4 and 5), MW-18 (Screens 3 and 4), MW-19 (Screens 2 through 5), MW-20 (Screens 2 and 3), MW-21 (Screens 1 through 5), MW-25 (Screen 3) and MW-26 (Screens 1 and 2); however, no detections exceeded the state and federal MCL (5.0 µg/L). In 2013, PCE concentrations in MW-17 (Screens 3, 4 and 5) remained relatively consistent, ranging from non-detect to 0.3 µg/L.
- In 2013, PCE concentrations in MW-18 (Screens 3 and 4) remained relatively consistent, ranging from 0.1J µg/L to 1.0 µg/L.
- PCE concentrations in MW-19 (Screens 2 through 5) during 2013 ranged from 0.3J µg/L to 1.2 µg/L.
- PCE concentrations in MW-20 (Screens 2 and 3) during 2013 ranged from non-detect to 0.2J µg/L.
- In 2013, PCE concentrations in MW-21 (Screens 1 through 5) ranged from 0.4J µg/L to 12.0 µg/L; however, only MW-21 (Screen 3) had a detection during the third quarter that exceeded the state and federal MCL (5.0 µg/L).
- In 2013, PCE concentrations in MW-25 (Screen 3) ranged from non-detect to 0.2J µg/L.
- In 2013, PCE concentrations in MW-26 (Screens 1 and 2) ranged from non-detect to 2.0 µg/L.

OTHER NOTABLE ANALYTICAL RESULTS

- During the fourth quarter 2013, Cr(VI)[2] was detected below the state MCL of 50.0 µg/L in MW-17 (Screen 4 [2.0J µg/L]), MW-18 (Screens 3 [1.0J µg/L] and 4 [1.0J µg/L]), MW-19 (Screen 4 [2.0J µg/L]), MW-21 (Screen 5 [1.0J µg/L]) and MW-25 (Screens 2 [1.0J µg/L] and 3 [2.0 µg/L]).
- Detections of Cr(VI)[2] in the off-facility wells were relatively consistent in 2013 ranging from non-detect to 3.0 µg/L and remained below the state and federal MCL of 50 µg/L. During the fourth quarter 2013, total chromium was detected below the state MCL of 50.0 µg/L in MW-17 (Screen 4 [2.0J µg/L]), MW-18 (Screens 3 [2.9J µg/L] and 4 [3.5 µg/L]), MW-19 (Screens 1 through 5 [2.3J µg/L, 2.1J µg/L, 2.6J µg/L, 2.5J µg/L and 1.1J µg/L, respectively]), MW-25 (Screens 2 through 4 [2.5J µg/L, 2.4J µg/L and 1.1J µg/L, respectively]) and MW-26 (Screens 1 [7.2 µg/L] and 2 [2.1J µg/L]).
- During the four quarters of 2013, total chromium remained relatively consistent and below the state MCL of 50.0 µg/L in the off-facility wells, ranging from non-detect to 7.2 µg/L.

ALL WELL CATEGORIES (OTHER RESULTS)

- Comparing the third quarter 2013 to the fourth quarter 2013, groundwater elevations decreased by an average of approximately 10.13 ft.
- Groundwater level measurements collected during the fourth quarter 2013 indicate that groundwater gradients and flow directions are generally consistent with previous observations (see Figure 8).

ATTACHMENTS

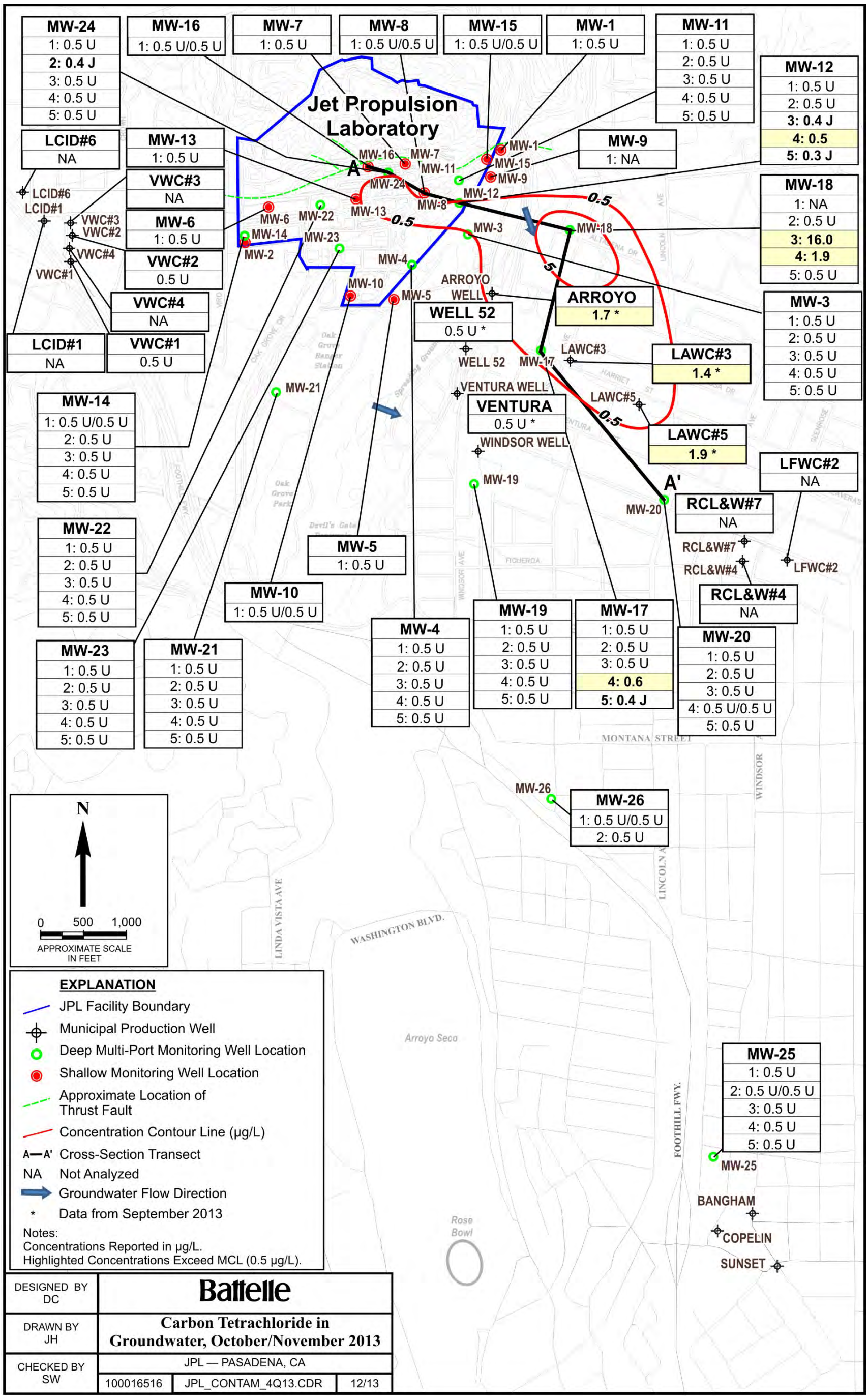
Attachments to this technical memorandum include the following:

- Attachment 1: Quality Assurance/Quality Control Summary
- Attachment 2: Data Validation Reports (Summary Sheets)
- Attachment 3: Laboratory Analytical Reports (Summary Sheets)
- Attachment 4: Field Logs
- Attachment 5: Water Level Measurements
- Attachment 6: Time-Series Concentration Plots
- Attachment 7: Tables 1A, 2A and 3A (Historical Perchlorate, VOCs and Metals from 1996 to present)

FIGURES


MW-1
MW-7
MW-11
MW-15
MW-16
MW-24
MW-9
MW-22
MW-12
MW-6
MW-13
MW-8
MW-18
MW-14
MW-3
MW-2
MW-23
MW-4
MW-10
MW-5
ARROYO WELL
WELL 52
MW-17
LAWC#3
MW-21
VENTURA WELL
LAWC#5
WINDSOR WELL
MW-19
MW-20
RCL&W#7
RCL&W#4
LFWC#2
MW-26
MW-25
BANGHAM
COPELIN
SUNSET
LCID#6
LCID#1
VWC#3
VWC#2
VWC#4
VWC#1
Pioneer Rd
Explorer Rd
Mariner Rd
Surveyor Rd
Oak Grove Dr
Foothill Blvd
Oak Grove Park
Berkshire Pl
Cambridge Rd
Highland Dr
Corona Dr
Inverness Dr
Braemar Rd
Normandy Dr
Knollwood Dr
Dover Rd
Ventura St
Kent St
Shelly St
Vista Laguna Terrace
Royce St
El Sol Ave
Windsor Ave
Casitas Ave
Lincoln Ave
Stonehurst Dr
Alberta St
Crosby St
Acacia St
W Woodbury Rd
Laun St
Vermont St
W Montana St
Toolen Pl
Forest Ave
Wyoming St
W Tremont St
Newport Ave
Mentone Ave
Belmont Ave
Canada Ave
Kenneth Way
Stanton St
W Howard St
Del Monte St
Palisade St
MacDonald St
Cedar St
W Washington Blvd
Willis Alley
Pepper St
Zanja St
W Claremont St
Armada Dr
Rosemont Ave
Rose Bowl Dr
N Arroyo Blvd
Rose Bowl
Westgate St
W Hammond St
Sunset Ave
Kirkwood Ave
Morton Ave
Robinson Park
W Mountain St
Yale St
Blake St
Barthe Dr
Clinton St
Manzanita Ave
Sunset Ave
Carlton Ave
Seco St
Winona Ave
N Pasadena
Cypress
Lincoln
Wicks Rd
Afton St
Linda Vista Ave
Parkview Ave
West Dr
Wellington Ave
Ontario Ave
Brookside Golf Course
LINDA VISTA
NORTH ARROYO
NORTH CENTRAL
Loma Alta County Park
Canyon Crest Rd
Crestford Dr
Florencita Dr
Sunset Ridge Rd
La Viña Ln
Lincoln Ave
Dabney Ave
Thurin Ave
Olive Ave
W Palm St
W Altadena Dr
Devirian Pl
NF-2N70
Sterling Pl
El Nido Dr
Castas Ave
Tola Ave
W Harriet St
Glen Ave
Glenrose Ave
W Mariposa St
W Mendocino St
W Terrace St
Chula Senda Ln
Woodfield Rd
Meadow Grove St
Blythe Rd
Viro Rd
Belita Ln
Alveo Rd
Burgoyne Ln
Revlon Dr
Alminar Ave
Del Monte Rd
Carmel Rd
Hampton Rd
Vineta Ave
Santa Inez Way
Crown Ave
Mero Ln
Stardust Rd
Starlane Dr
Antenna Rd
Mesa Rd
San Juan Way
Baptiste Way
Charles White Park
Mountain View Dr
Fair Oaks Ave
N
0
500
1,000
APPROXIMATE SCALE IN FEET
EXPLANATION
JPL Facility Boundary
Municipal Production Well
Deep Multi-Port Monitoring Well Location
Shallow Monitoring Well Location
Approximate Location of Thrust Fault
DESIGNED BY JH
DRAWN BY JH
CHECKED BY SW
Battelle
Locations of JPL Groundwater Monitoring Wells and Nearby Municipal Production Wells
JPL — PASADENA, CA
100016516
JPL_CONTAM_4Q13.CDR
11/13

Figure 1.


Jet Propulsion Laboratory
MW-24
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2: 0.4 J
3: 0.5 U
4: 0.5 U
5: 0.5 U
MW-16
1: 0.5 U/0.5 U
MW-7
1: 0.5 U
MW-8
1: 0.5 U/0.5 U
MW-15
1: 0.5 U/0.5 U
MW-1
1: 0.5 U
MW-11
1: 0.5 U
2: 0.5 U
3: 0.5 U
4: 0.5 U
5: 0.5 U
MW-12
1: 0.5 U
2: 0.5 U
3: 0.4 J
4: 0.5
5: 0.3 J
LCID#6
NA
MW-13
1: 0.5 U
MW-9
1: NA
VWC#3
NA
MW-6
1: 0.5 U
VWC#2
0.5 U
VWC#4
NA
VWC#1
0.5 U
LCID#1
NA
MW-18
1: NA
2: 0.5 U
3: 16.0
4: 1.9
5: 0.5 U
MW-3
1: 0.5 U
2: 0.5 U
3: 0.5 U
4: 0.5 U
5: 0.5 U
ARROYO
1.7 *
WELL 52
0.5 U *
LAWC#3
1.4 *
VENTURA
0.5 U *
LAWC#5
1.9 *
WINDSOR WELL
LFWC#2
NA
RCL&W#7
NA
RCL&W#4
NA
MW-14
1: 0.5 U/0.5 U
2: 0.5 U
3: 0.5 U
4: 0.5 U
5: 0.5 U
MW-22
1: 0.5 U
2: 0.5 U
3: 0.5 U
4: 0.5 U
5: 0.5 U
MW-5
1: 0.5 U
MW-10
1: 0.5 U/0.5 U
MW-4
1: 0.5 U
2: 0.5 U
3: 0.5 U
4: 0.5 U
5: 0.5 U
MW-19
1: 0.5 U
2: 0.5 U
3: 0.5 U
4: 0.5 U
5: 0.5 U
MW-17
1: 0.5 U
2: 0.5 U
3: 0.5 U
4: 0.6
5: 0.4 J
MW-20
1: 0.5 U
2: 0.5 U
3: 0.5 U
4: 0.5 U/0.5 U
5: 0.5 U
MW-23
1: 0.5 U
2: 0.5 U
3: 0.5 U
4: 0.5 U
5: 0.5 U
MW-21
1: 0.5 U
2: 0.5 U
3: 0.5 U
4: 0.5 U
5: 0.5 U
MW-26
1: 0.5 U/0.5 U
2: 0.5 U
MW-25
1: 0.5 U
2: 0.5 U/0.5 U
3: 0.5 U
4: 0.5 U
5: 0.5 U
A
A'
0.5
5
N
0 500 1,000
APPROXIMATE SCALE IN FEET
EXPLANATION
JPL Facility Boundary
Municipal Production Well
Deep Multi-Port Monitoring Well Location
Shallow Monitoring Well Location
Approximate Location of Thrust Fault
Concentration Contour Line (µg/L)
A—A' Cross-Section Transect
NA Not Analyzed
Groundwater Flow Direction
* Data from September 2013
Notes:
Concentrations Reported in µg/L.
Highlighted Concentrations Exceed MCL (0.5 µg/L).
DESIGNED BY DC
DRAWN BY JH
CHECKED BY SW
Battelle
Carbon Tetrachloride in Groundwater, October/November 2013
JPL — PASADENA, CA
100016516
JPL_CONTAM_4Q13.CDR
12/13
MONTANA STREET
WASHINGTON BLVD.
FOOTHILL FWY.
Arroyo Seco
Rose Bowl
BANGHAM
COPELIN
SUNSET

Figure 2.

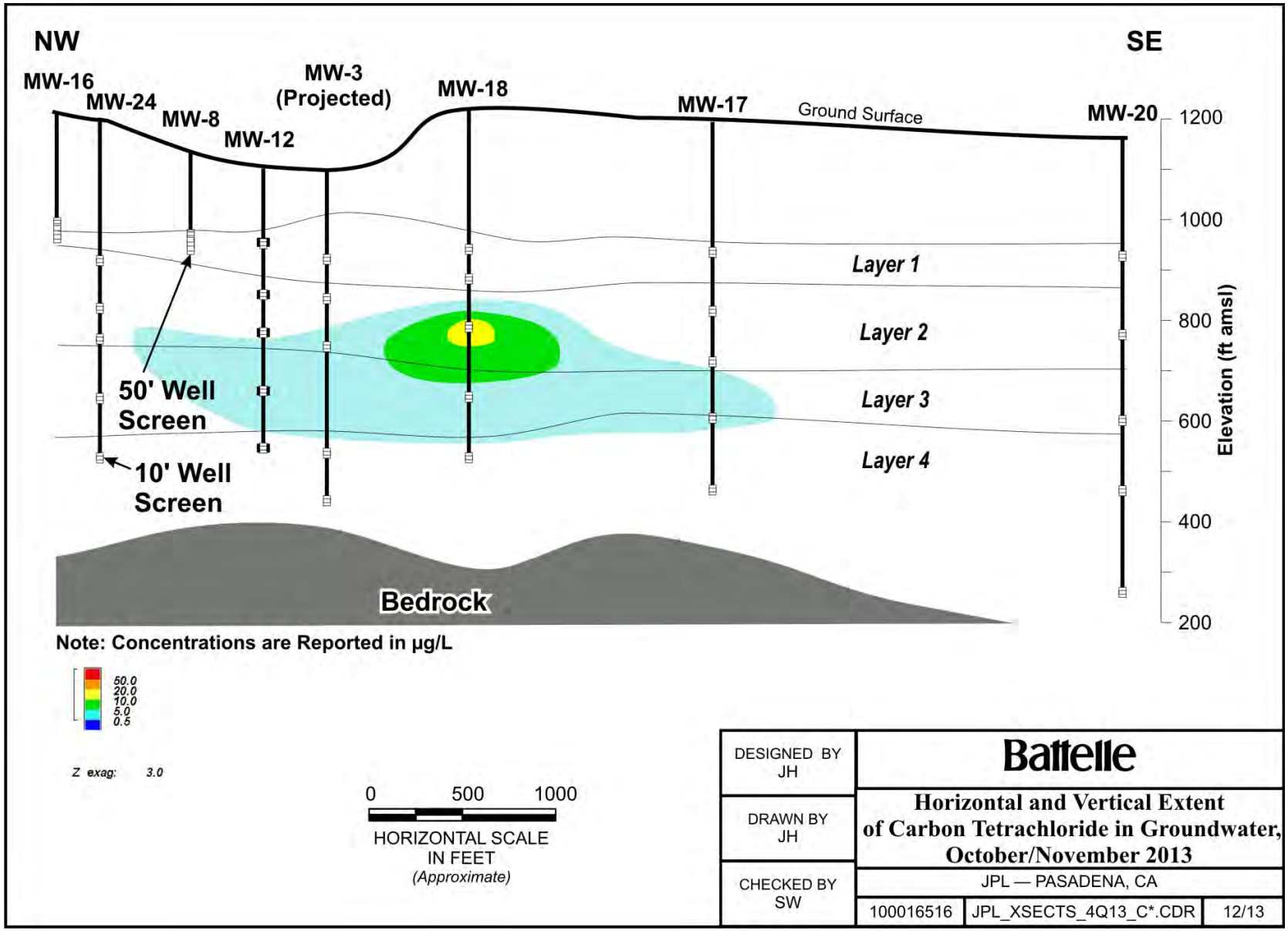
NW
SE
MW-16
MW-24
MW-8
MW-12
MW-3
(Projected)
MW-18
MW-17
Ground Surface
MW-20
1200
1000
800
600
400
200
Elevation (ft amsl)
Layer 1
Layer 2
Layer 3
Layer 4
50' Well
Screen
10' Well
Screen
Bedrock
Note: Concentrations are Reported in µg/L
50.0
20.0
10.0
5.0
0.5
Z exag: 3.0
0
500
1000
HORIZONTAL SCALE
IN FEET
(Approximate)
DESIGNED BY
JH
DRAWN BY
JH
CHECKED BY
SW
Battelle
Horizontal and Vertical Extent
of Carbon Tetrachloride in Groundwater,
October/November 2013
JPL — PASADENA, CA
100016516
JPL_XSECTS_4Q13_C*.CDR
12/13

Figure 3.

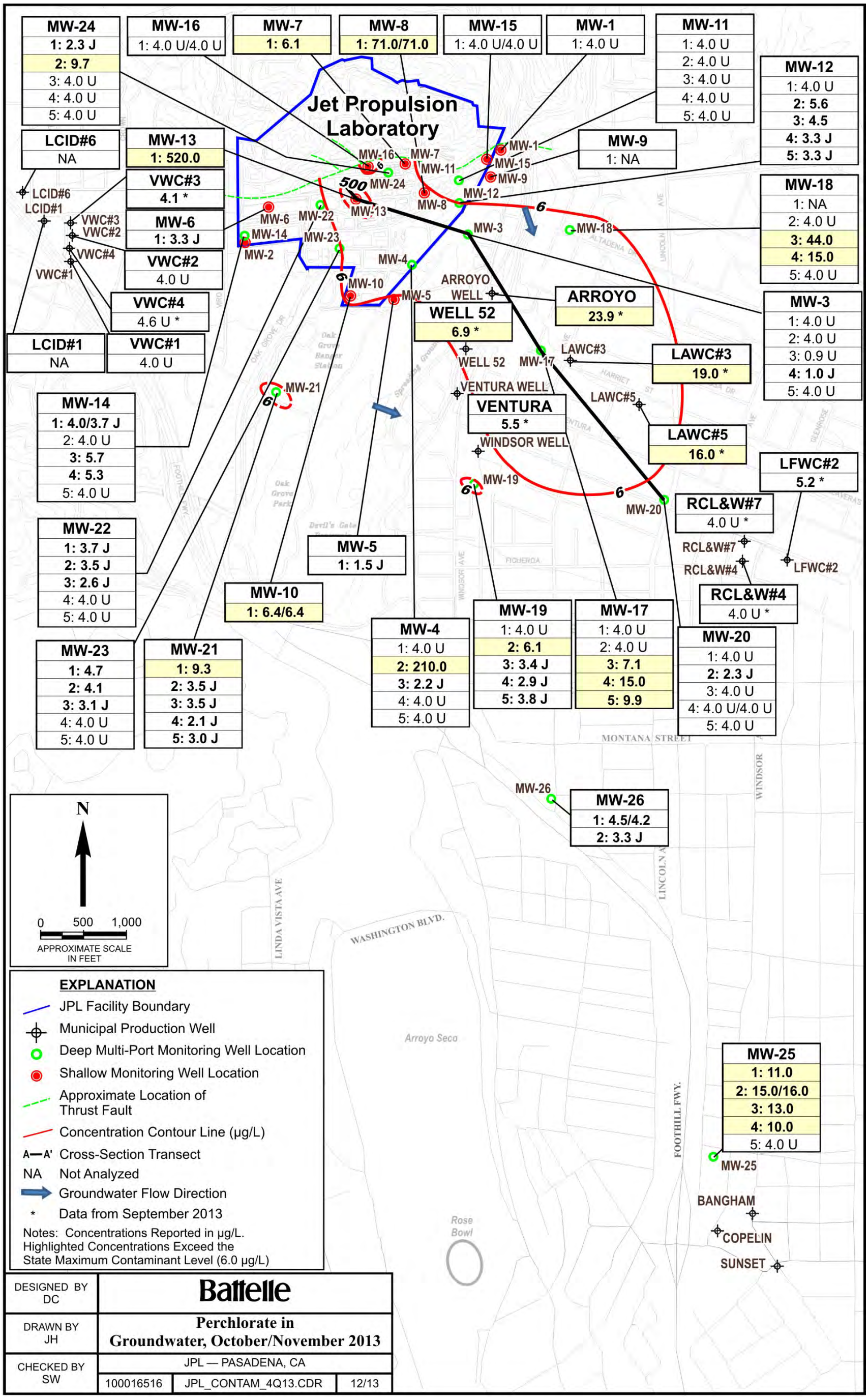
Jet Propulsion Laboratory
MW-24
1: 2.3 J
2: 9.7
3: 4.0 U
4: 4.0 U
5: 4.0 U
MW-16
1: 4.0 U/4.0 U
MW-7
1: 6.1
MW-8
1: 71.0/71.0
MW-15
1: 4.0 U/4.0 U
MW-1
1: 4.0 U
MW-11
1: 4.0 U
2: 4.0 U
3: 4.0 U
4: 4.0 U
5: 4.0 U
MW-12
1: 4.0 U
2: 5.6
3: 4.5
4: 3.3 J
5: 3.3 J
MW-9
1: NA
MW-18
1: NA
2: 4.0 U
3: 44.0
4: 15.0
5: 4.0 U
MW-3
1: 4.0 U
2: 4.0 U
3: 0.9 U
4: 1.0 J
5: 4.0 U
LCID#6
NA
MW-13
1: 520.0
VWC#3
4.1 *
MW-6
1: 3.3 J
VWC#2
4.0 U
VWC#4
4.6 U *
VWC#1
4.0 U
LCID#1
NA
MW-14
1: 4.0/3.7 J
2: 4.0 U
3: 5.7
4: 5.3
5: 4.0 U
MW-22
1: 3.7 J
2: 3.5 J
3: 2.6 J
4: 4.0 U
5: 4.0 U
MW-23
1: 4.7
2: 4.1
3: 3.1 J
4: 4.0 U
5: 4.0 U
MW-21
1: 9.3
2: 3.5 J
3: 3.5 J
4: 2.1 J
5: 3.0 J
MW-10
1: 6.4/6.4
MW-5
1: 1.5 J
MW-4
1: 4.0 U
2: 210.0
3: 2.2 J
4: 4.0 U
5: 4.0 U
MW-19
1: 4.0 U
2: 6.1
3: 3.4 J
4: 2.9 J
5: 3.8 J
MW-17
1: 4.0 U
2: 4.0 U
3: 7.1
4: 15.0
5: 9.9
MW-20
1: 4.0 U
2: 2.3 J
3: 4.0 U
4: 4.0 U/4.0 U
5: 4.0 U
MW-26
1: 4.5/4.2
2: 3.3 J
MW-25
1: 11.0
2: 15.0/16.0
3: 13.0
4: 10.0
5: 4.0 U
ARROYO WELL
ARROYO
23.9 *
WELL 52
6.9 *
VENTURA WELL
VENTURA
5.5 *
WINDSOR WELL
LAWC#3
19.0 *
LAWC#5
16.0 *
LFWC#2
5.2 *
RCL&W#7
4.0 U *
RCL&W#4
4.0 U *
500
6
N
0 500 1,000
APPROXIMATE SCALE IN FEET
EXPLANATION
JPL Facility Boundary
Municipal Production Well
Deep Multi-Port Monitoring Well Location
Shallow Monitoring Well Location
Approximate Location of Thrust Fault
Concentration Contour Line (µg/L)
A—A' Cross-Section Transect
NA Not Analyzed
Groundwater Flow Direction
* Data from September 2013
Notes: Concentrations Reported in µg/L.
Highlighted Concentrations Exceed the State Maximum Contaminant Level (6.0 µg/L)
MONTANA STREET
WASHINGTON BLVD.
FOOTHILL FWY.
Arroyo Seco
Rose Bowl
BANGHAM
COPELIN
SUNSET
DESIGNED BY DC
DRAWN BY JH
CHECKED BY SW
Battelle
Perchlorate in Groundwater, October/November 2013
JPL — PASADENA, CA
100016516
JPL_CONTAM_4Q13.CDR
12/13

Figure 4.

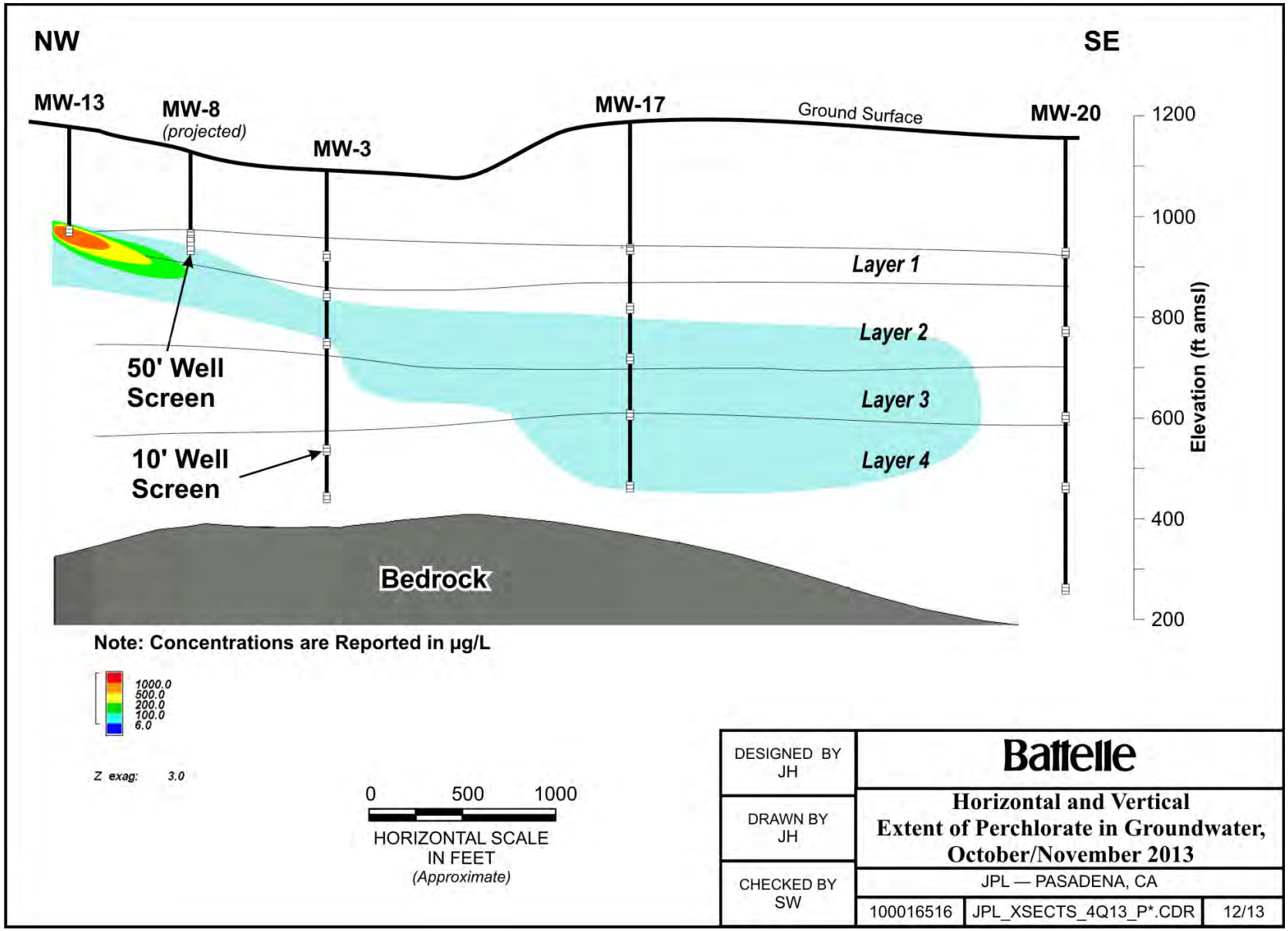
NW
SE
MW-13
MW-8
(projected)
MW-3
MW-17
Ground Surface
MW-20
1200
1000
800
600
400
200
Elevation (ft amsl)
Layer 1
Layer 2
Layer 3
Layer 4
50' Well Screen
10' Well Screen
Bedrock
Note: Concentrations are Reported in µg/L
1000.0
500.0
200.0
100.0
6.0
Z exag: 3.0
0
500
1000
HORIZONTAL SCALE IN FEET
(Approximate)
DESIGNED BY JH
DRAWN BY JH
CHECKED BY SW
Battelle
Horizontal and Vertical Extent of Perchlorate in Groundwater, October/November 2013
JPL — PASADENA, CA
100016516
JPL_XSECTS_4Q13_P*.CDR
12/13

Figure 5.

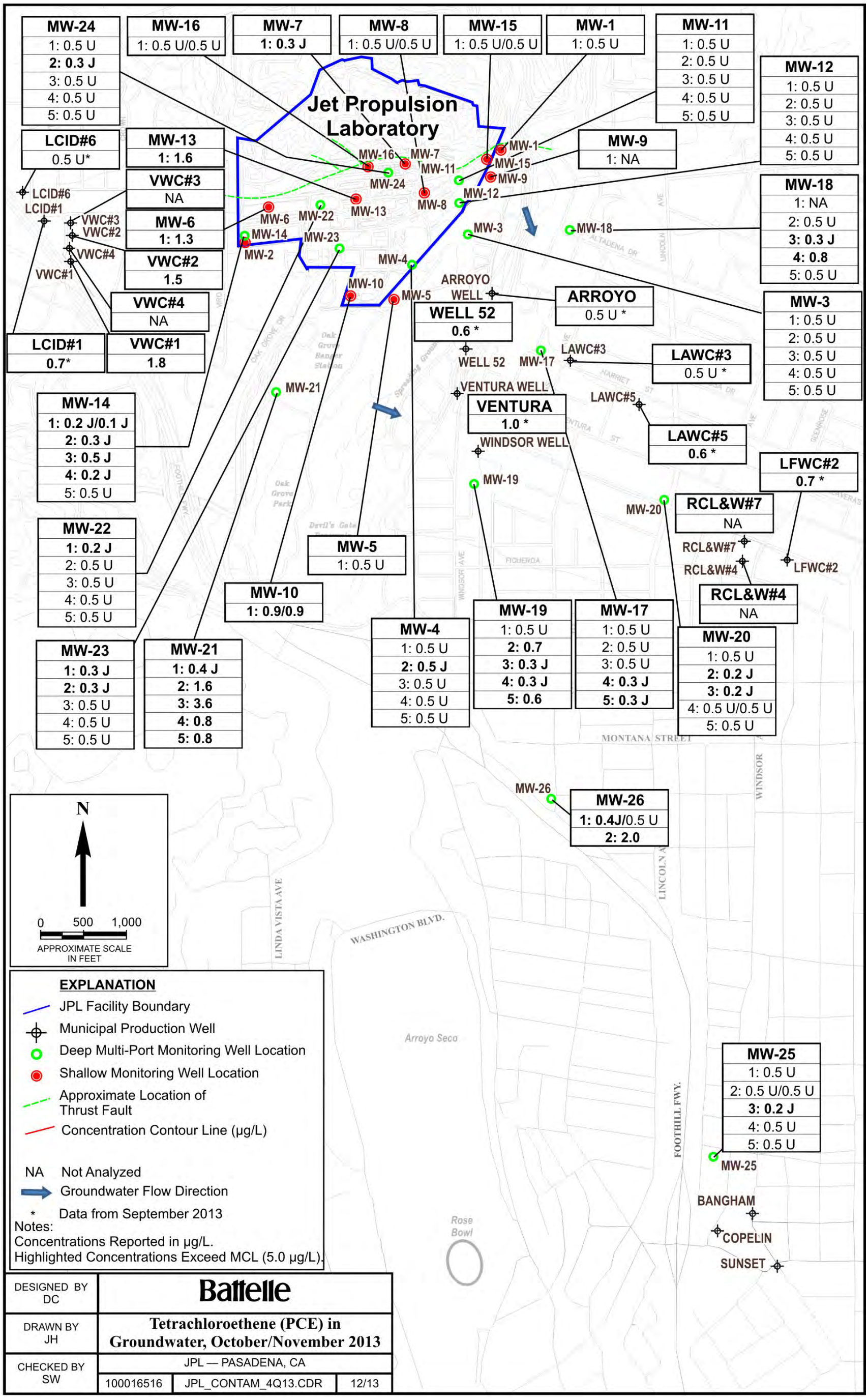
Jet Propulsion Laboratory
MW-24
1: 0.5 U
2: 0.3 J
3: 0.5 U
4: 0.5 U
5: 0.5 U
MW-16
1: 0.5 U/0.5 U
MW-7
1: 0.3 J
MW-8
1: 0.5 U/0.5 U
MW-15
1: 0.5 U/0.5 U
MW-1
1: 0.5 U
MW-11
1: 0.5 U
2: 0.5 U
3: 0.5 U
4: 0.5 U
5: 0.5 U
MW-12
1: 0.5 U
2: 0.5 U
3: 0.5 U
4: 0.5 U
5: 0.5 U
LCID#6
0.5 U*
MW-13
1: 1.6
VWC#3
NA
MW-6
1: 1.3
VWC#2
1.5
VWC#4
NA
VWC#1
1.8
LCID#1
0.7*
MW-9
1: NA
MW-18
1: NA
2: 0.5 U
3: 0.3 J
4: 0.8
5: 0.5 U
MW-3
1: 0.5 U
2: 0.5 U
3: 0.5 U
4: 0.5 U
5: 0.5 U
ARROYO
0.5 U *
WELL 52
0.6 *
LAWC#3
0.5 U *
VENTURA
1.0 *
LAWC#5
0.6 *
LFWC#2
0.7 *
RCL&W#7
NA
RCL&W#4
NA
MW-14
1: 0.2 J/0.1 J
2: 0.3 J
3: 0.5 J
4: 0.2 J
5: 0.5 U
MW-22
1: 0.2 J
2: 0.5 U
3: 0.5 U
4: 0.5 U
5: 0.5 U
MW-23
1: 0.3 J
2: 0.3 J
3: 0.5 U
4: 0.5 U
5: 0.5 U
MW-21
1: 0.4 J
2: 1.6
3: 3.6
4: 0.8
5: 0.8
MW-10
1: 0.9/0.9
MW-5
1: 0.5 U
MW-4
1: 0.5 U
2: 0.5 J
3: 0.5 U
4: 0.5 U
5: 0.5 U
MW-19
1: 0.5 U
2: 0.7
3: 0.3 J
4: 0.3 J
5: 0.6
MW-17
1: 0.5 U
2: 0.5 U
3: 0.5 U
4: 0.3 J
5: 0.3 J
MW-20
1: 0.5 U
2: 0.2 J
3: 0.2 J
4: 0.5 U/0.5 U
5: 0.5 U
MW-26
1: 0.4J/0.5 U
2: 2.0
MW-25
1: 0.5 U
2: 0.5 U/0.5 U
3: 0.2 J
4: 0.5 U
5: 0.5 U
MW-24
MW-16
MW-7
MW-11
MW-1
MW-15
MW-9
MW-12
MW-13
MW-8
MW-6
MW-22
MW-14
MW-23
MW-2
MW-3
MW-18
MW-4
MW-10
MW-5
ARROYO WELL
WELL 52
MW-17
LAWC#3
VENTURA WELL
VENTURA
LAWC#5
WINDSOR WELL
MW-21
MW-19
MW-20
RCL&W#7
RCL&W#4
LFWC#2
LCID#6
LCID#1
VWC#3
VWC#2
VWC#4
VWC#1
MW-26
MW-25
BANGHAM
COPELIN
SUNSET
N
0 500 1,000
APPROXIMATE SCALE IN FEET
EXPLANATION
JPL Facility Boundary
Municipal Production Well
Deep Multi-Port Monitoring Well Location
Shallow Monitoring Well Location
Approximate Location of Thrust Fault
Concentration Contour Line (µg/L)
NA Not Analyzed
Groundwater Flow Direction
* Data from September 2013
Notes:
Concentrations Reported in µg/L.
Highlighted Concentrations Exceed MCL (5.0 µg/L).
DESIGNED BY DC
DRAWN BY JH
CHECKED BY SW
Battelle
Tetrachloroethene (PCE) in Groundwater, October/November 2013
JPL — PASADENA, CA
100016516
JPL_CONTAM_4Q13.CDR
12/13
Oak Grove Park
Arroyo Seco
Rose Bowl
MONTANA STREET
WINDSOR AVE
LINDA VISTA AVE
WASHINGTON BLVD.
FOOTHILL FWY.
LINCOLN AVE
FIGUEROA
ALTADENA DR
HARRIET ST
VENTURA ST
GLENROSE

Figure 6.

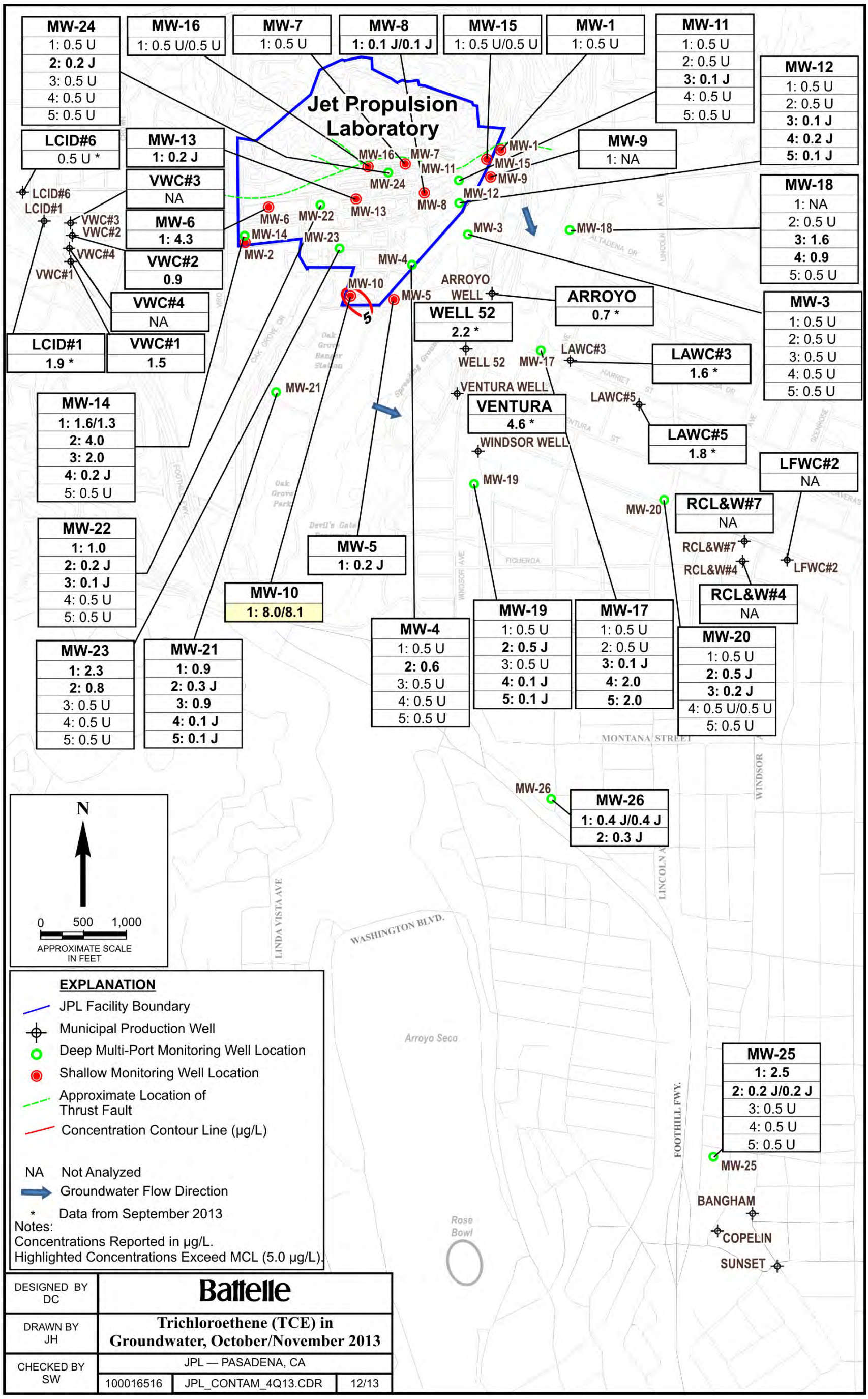
Jet Propulsion Laboratory
MW-24
1: 0.5 U
2: 0.2 J
3: 0.5 U
4: 0.5 U
5: 0.5 U
MW-16
1: 0.5 U/0.5 U
MW-7
1: 0.5 U
MW-8
1: 0.1 J/0.1 J
MW-15
1: 0.5 U/0.5 U
MW-1
1: 0.5 U
MW-11
1: 0.5 U
2: 0.5 U
3: 0.1 J
4: 0.5 U
5: 0.5 U
MW-12
1: 0.5 U
2: 0.5 U
3: 0.1 J
4: 0.2 J
5: 0.1 J
LCID#6
0.5 U *
MW-13
1: 0.2 J
MW-9
1: NA
VWC#3
NA
MW-6
1: 4.3
VWC#2
0.9
VWC#4
NA
VWC#1
1.5
LCID#1
1.9 *
MW-18
1: NA
2: 0.5 U
3: 1.6
4: 0.9
5: 0.5 U
MW-3
1: 0.5 U
2: 0.5 U
3: 0.5 U
4: 0.5 U
5: 0.5 U
ARROYO
0.7 *
WELL 52
2.2 *
LAWC#3
1.6 *
VENTURA
4.6 *
LAWC#5
1.8 *
WINDSOR WELL
LFWC#2
NA
MW-14
1: 1.6/1.3
2: 4.0
3: 2.0
4: 0.2 J
5: 0.5 U
MW-22
1: 1.0
2: 0.2 J
3: 0.1 J
4: 0.5 U
5: 0.5 U
MW-5
1: 0.2 J
MW-10
1: 8.0/8.1
RCL&W#7
NA
RCL&W#4
NA
MW-4
1: 0.5 U
2: 0.6
3: 0.5 U
4: 0.5 U
5: 0.5 U
MW-19
1: 0.5 U
2: 0.5 J
3: 0.5 U
4: 0.1 J
5: 0.1 J
MW-17
1: 0.5 U
2: 0.5 U
3: 0.1 J
4: 2.0
5: 2.0
MW-20
1: 0.5 U
2: 0.5 J
3: 0.2 J
4: 0.5 U/0.5 U
5: 0.5 U
MW-23
1: 2.3
2: 0.8
3: 0.5 U
4: 0.5 U
5: 0.5 U
MW-21
1: 0.9
2: 0.3 J
3: 0.9
4: 0.1 J
5: 0.1 J
MW-26
1: 0.4 J/0.4 J
2: 0.3 J
MW-25
1: 2.5
2: 0.2 J/0.2 J
3: 0.5 U
4: 0.5 U
5: 0.5 U
N
0 500 1,000
APPROXIMATE SCALE IN FEET
EXPLANATION
JPL Facility Boundary
Municipal Production Well
Deep Multi-Port Monitoring Well Location
Shallow Monitoring Well Location
Approximate Location of Thrust Fault
Concentration Contour Line (µg/L)
NA Not Analyzed
Groundwater Flow Direction
* Data from September 2013
Notes:
Concentrations Reported in µg/L.
Highlighted Concentrations Exceed MCL (5.0 µg/L).
DESIGNED BY DC
DRAWN BY JH
CHECKED BY SW
Battelle
Trichloroethene (TCE) in Groundwater, October/November 2013
JPL — PASADENA, CA
100016516
JPL_CONTAM_4Q13.CDR
12/13

Figure 7.

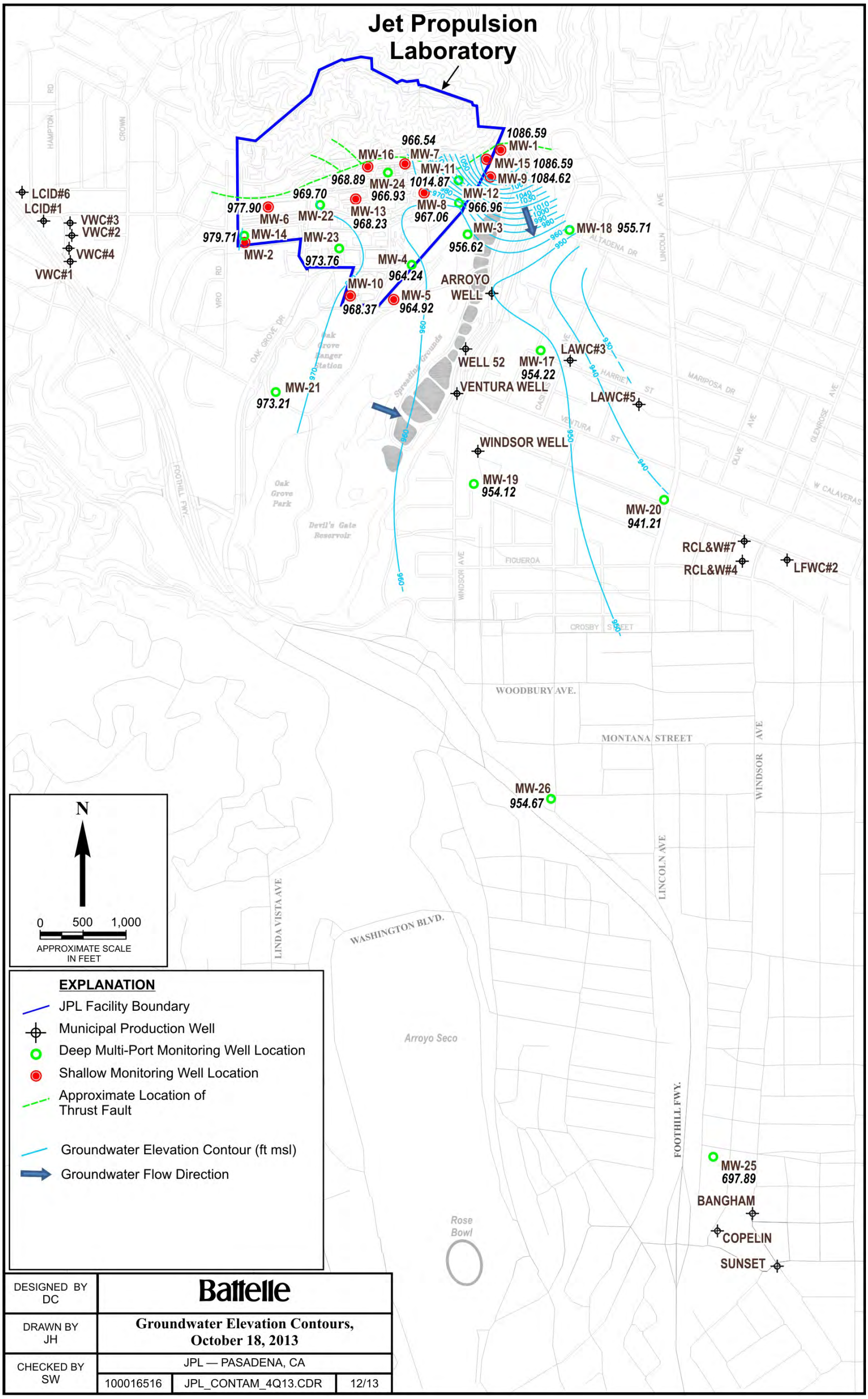
Jet Propulsion Laboratory
1086.59
MW-1
966.54
MW-16
MW-7
MW-15 1086.59
MW-11
968.89
MW-24
1014.87
MW-9 1084.62
969.70
966.93
MW-12
977.90
MW-6
MW-22
MW-13
MW-8
966.96
968.23
967.06
MW-3
MW-18 955.71
979.71
MW-14
MW-23
956.62
MW-2
973.76
MW-4
964.24
ARROYO WELL
MW-10
MW-5
968.37
964.92
LCID#6
LCID#1
VWC#3
VWC#2
VWC#4
VWC#1
WELL 52
MW-17
954.22
LAWC#3
MW-21
973.21
VENTURA WELL
LAWC#5
WINDSOR WELL
MW-19
954.12
MW-20
941.21
RCL&W#7
RCL&W#4
LFWC#2
WOODBURY AVE.
MONTANA STREET
MW-26
954.67
MW-25
697.89
BANGHAM
COPELIN
SUNSET
Arroyo Seco
Rose Bowl
FOOTHILL FWY.
WASHINGTON BLVD.
LINDA VISTA AVE
LINCOLN AVE
WINDSOR AVE
FIGUEROA
CROSBY STREET
ALTADENA DR
MARIPOSA DR
W CALAVERAS
OAK GROVE DR
Oak Grove Park
Devil's Gate Reservoir
Oak Grove Ranger Station
Spreading Grounds
N
0 500 1,000
APPROXIMATE SCALE IN FEET
EXPLANATION
JPL Facility Boundary
Municipal Production Well
Deep Multi-Port Monitoring Well Location
Shallow Monitoring Well Location
Approximate Location of Thrust Fault
Groundwater Elevation Contour (ft msl)
Groundwater Flow Direction
DESIGNED BY DC
DRAWN BY JH
CHECKED BY SW
Battelle
Groundwater Elevation Contours, October 18, 2013
JPL — PASADENA, CA
100016516
JPL_CONTAM_4Q13.CDR
12/13

Figure 8.

TABLES

TABLE 1

SUMMARY OF VOLATILE ORGANIC COMPOUNDS AND PERCHLORATE DETECTED

DURING THE LAST FOUR SAMPLING EVENTS OF THE LONG-TERM QUARTERLY GROUNDWATER SAMPLING PROGRAM

(All concentrations reported in µg/L.)

(Shaded values exceed State or Federal MCLs or action levels.)

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-1	Apr/May 2013	MW-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-1	Apr/May 2013	DUP-8-2Q13	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-1	Oct/Nov 2013	MW-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-3 Screen 1	Apr/May 2013	MW-3-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-3 Screen 1	Oct/Nov 2013	MW-3-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-3 Screen 2	Jan/Feb 2013	MW-3-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Styrene**	**0.1 J**
MW-3 Screen 2	Apr/May 2013	MW-3-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-3 Screen 2	Jul 2013	MW-3-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-3 Screen 2	Jul 2013	DUPE-5-3Q13	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-3 Screen 2	Oct/Nov 2013	MW-3-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-3 Screen 3	Jan/Feb 2013	MW-3-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-3 Screen 3	Apr/May 2013	MW-3-3	0.5 U	0.5 U	**0.2 J**	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-3 Screen 3	Jul 2013	MW-3-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-3 Screen 3	Oct/Nov 2013	MW-3-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.9 U		
MW-3 Screen 4	Jan/Feb 2013	MW-3-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-3 Screen 4	Apr/May 2013	MW-3-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-3 Screen 4	Jul 2013	MW-3-4	0.5 U	0.5 U	**0.2 J**	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-3 Screen 4	Oct/Nov 2013	MW-3-4	0.5 U	0.5 U	0.5 U	**0.1 J**	0.5 U	0.5 U	0.5 U	0.5 U	**1.0 J**		
MW-3 Screen 5	Apr/May 2013	MW-3-5	0.5 U	0.5 U	0.5 U	**0.1 J**	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-3 Screen 5	Oct/Nov 2013	MW-3-5	0.5 U	0.5 U	0.5 U	**0.1 J**	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-4 Screen 1	Jan/Feb 2013	MW-4-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-4 Screen 1	Apr/May 2013	MW-4-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-4 Screen 1	Jul 2013	MW-4-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-4 Screen 1	Oct/Nov 2013	MW-4-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-4 Screen 2	Jan/Feb 2013	MW-4-2	0.5 U	**0.2 J**	**0.4 J**	**0.1 J**	0.5 U	0.5 U	0.5 U	**2.3**	**220.0**	**Bromodichloromethane** **Dibromochloromethane**	**1.7** **1.0**
MW-4 Screen 2	Apr/May 2013	MW-4-2	0.5 U	**0.2 J**	**0.3 J**	**0.1 J**	0.5 U	0.5 U	0.5 U	**2.1**	**220.0**	**Bromodichloromethane** **Dibromochloromethane**	**1.7** **1.0**
MW-4 Screen 2	Jul 2013	MW-4-2	**0.2 J**	**1.1**	**1.7**	**0.5 J**	0.5 U	**0.2 J**	0.5 U	**3.8**	**250.0**	**Bromodichloromethane** **Dibromochloromethane**	**2.2** **1.1**
MW-4 Screen 2	Oct/Nov 2013	MW-4-2	0.5 U	**0.6**	**0.5 J**	**0.2 J**	0.5 U	0.5 U	0.5 U	**1.7**	**210.0**	**Bromodichloromethane** **Dibromochloromethane**	**1.2** **0.6**
MW-4 Screen 3	Jan/Feb 2013	MW-4-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.9 J**		
MW-4 Screen 3	Jan/Feb 2013	DUP-4-1Q13	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.5 J**		

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-4 Screen 3	Apr/May 2013	MW-4-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-4 Screen 3	Jul 2013	MW-4-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-4 Screen 3	Oct/Nov 2013	MW-4-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**2.2 J**		
MW-4 Screen 4	Apr/May 2013	MW-4-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-4 Screen 4	Oct/Nov 2013	MW-4-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-4 Screen 5	Apr/May 2013	MW-4-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-4 Screen 5	Oct/Nov 2013	MW-4-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Styrene**	**0.1 J**
MW-5	Jan/Feb 2013	MW-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-5	Apr/May 2013	MW-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-5	Jul 2013	MW-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-5	Oct/Nov 2013	MW-5	0.5 U	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.1 J**	**1.5 J**		
MW-6	Jan/Feb 2013	MW-6	0.5 U	**4.2**	**1.3**	**0.3 J**	0.5 U	**0.3 J**	0.5 U	**0.8**	**4.5**	**trans-1,2-Dichloroethene**	**0.2 J**
MW-6	Apr/May 2013	MW-6	0.5 U	**4.1**	**1.2**	**0.3 J**	0.5 U	**0.3 J**	0.5 U	**0.7**	**3.2 J**	**cis-1,2-Dichloroethene** **trans-1,2-Dichloroethene**	**0.1 J** **0.2 J**
MW-6	Apr/May 2013	DUP-7-2Q13	0.5 U	**4.0**	**1.2**	**0.3 J**	0.5 U	**0.3 J**	0.5 U	**0.8**	**3.5 J**	**cis-1,2-Dichloroethene** **trans-1,2-Dichloroethene**	**0.1 J** **0.2 J**
MW-6	Jul 2013	MW-6	0.5 U	**4.4**	**1.3**	**0.3 J**	0.5 U	**0.3 J**	0.5 U	**0.8**	**3.5 J**	**trans-1,2-Dichloroethene**	**0.2 J**
MW-6	Oct/Nov 2013	MW-6	0.5 U	**4.3**	**1.3**	**0.3 J**	0.5 U	**0.3 J**	0.5 U	**0.8**	**3.3 J**	**trans-1,2-Dichloroethene**	**0.3 J**
MW-7	Jan/Feb 2013	MW-7	**0.3 J**	0.5 U	**0.5 J**	0.5 U	0.5 U	0.5 U	0.5 U	**12.0**	**35.0**	**Bromodichloromethane** **Dibromochloromethane** **Methylene chloride**	**7.5** **0.4 J** **0.8**
MW-7	Jan/Feb 2013	DUP-7-1Q13	**0.3 J**	0.5 U	**0.5 J**	0.5 U	0.5 U	0.5 U	0.5 U	**13.0**	**35.0**	**Bromodichloromethane** **Dibromochloromethane** **Methylene chloride**	**7.3** **0.4 J** **0.8**
MW-7	Apr/May 2013	MW-7	**1.0**	**0.1 J**	**1.9**	0.5 U	0.5 U	**0.2 J**	0.5 U	**9.5**	**260.0**	**Bromodichloromethane**	**2.9**
MW-7	Apr/May 2013	DUP-6-2Q13	**1.0**	**0.1 J**	**1.9**	0.5 U	0.5 U	**0.2 J**	0.5 U	**9.8**	**260.0**	**Bromodichloromethane**	**3.0**
MW-7	Jul 2013	MW-7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**5.4**	**4.0**	**Bromodichloromethane**	**0.9**
MW-7	Oct/Nov 2013	MW-7	0.5 U	0.5 U	**0.3 J**	0.5 U	0.5 U	0.5 U	0.5 U	**8.7**	**6.1**	**Bromodichloromethane** **Dibromochloromethane**	**1.9** **0.7**
MW-8	Jan/Feb 2013	MW-8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Trichlorofluoromethane**	**0.4 J**
MW-8	Jan/Feb 2013	DUP-6-1Q13	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Trichlorofluoromethane**	**0.4 J**
MW-8	Apr/May 2013	MW-8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Trichlorofluoromethane**	**0.6**
MW-8	Jul 2013	MW-8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Trichlorofluoromethane**	**0.7**
MW-8	Oct/Nov 2013	MW-8	0.5 U	**0.1 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.1**	**71.0**	**Bromodichloromethane** **Dibromochloromethane** **Trichlorofluoromethane**	**0.9** **0.5** **0.3 J**
MW-8	Oct/Nov 2013	DUPE-5-4Q13	0.5 U	**0.1 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.2**	**71.0**	**Bromodichloromethane** **Dibromochloromethane** **Trichlorofluoromethane**	**0.9** **0.6** **0.3 J**
MW-9	Apr/May 2013	MW-9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-10	Jan/Feb 2013	MW-10	0.5 U	6.8	0.9	0.2 J	0.5 U	0.5 U	0.5 U	1.1	9.6		
MW-10	Apr/May 2013	MW-10	0.5 U	7.4	0.8	0.2 J	0.5 U	0.5 U	0.5 U	1.1	8.2	cis-1,2-Dichloroethene	0.1 J
MW-10	Jul 2013	MW-10	0.5 U	9.8	1.0	0.2 J	0.5 U	0.5 U	0.5 U	1.2	9.0	cis-1,2-Dichloroethene trans-1,2-Dichloroethene	0.1 J 0.3 J
MW-10	Oct/Nov 2013	MW-10	0.5 U	8.0	0.9	0.2 J	0.5 U	0.5 U	0.5 U	0.9	6.4	cis-1,2-Dichloroethene trans-1,2-Dichloroethene	0.2 J 0.2 J
MW-10	Oct/Nov 2013	DUPE-8-4Q13	0.5 U	8.1	0.9	0.2 J	0.5 U	0.5 U	0.5 U	0.9	6.4	cis-1,2-Dichloroethene trans-1,2-Dichloroethene	0.2 J 0.3 J
MW-11 Screen 1	Jan/Feb 2013	MW-11-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-11 Screen 1	Apr/May 2013	MW-11-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-11 Screen 1	Apr/May 2013	DUP-5-2Q13	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-11 Screen 1	Jul 2013	MW-11-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-11 Screen 1	Oct/Nov 2013	MW-11-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene	0.1 J
MW-11 Screen 2	Jan/Feb 2013	MW-11-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	4.0 U		
MW-11 Screen 2	Apr/May 2013	MW-11-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-11 Screen 2	Jul 2013	MW-11-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-11 Screen 2	Jul 2013	DUPE-6-3Q13	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-11 Screen 2	Oct/Nov 2013	MW-11-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-11 Screen 3	Jan/Feb 2013	MW-11-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene	0.1 J
MW-11 Screen 3	Apr/May 2013	MW-11-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene	0.1 J
MW-11 Screen 3	Jul 2013	MW-11-3	0.5 U	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	4.0 U	Styrene	0.1 J
MW-11 Screen 3	Oct/Nov 2013	MW-11-3	0.5 U	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene	0.1 J
MW-11 Screen 4	Jan/Feb 2013	MW-11-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene	0.2 J
MW-11 Screen 4	Apr/May 2013	MW-11-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene	0.2 J
MW-11 Screen 4	Jul 2013	MW-11-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene	0.2 J
MW-11 Screen 4	Oct/Nov 2013	MW-11-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene	0.2 J
MW-11 Screen 5	Apr/May 2013	MW-11-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene	0.2 J
MW-11 Screen 5	Oct/Nov 2013	MW-11-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene	0.2 J
MW-12 Screen 1	Jan/Feb 2013	MW-12-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-12 Screen 1	Apr/May 2013	MW-12-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-12 Screen 1	Jul 2013	MW-12-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-12 Screen 1	Oct/Nov 2013	MW-12-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Trichlorofluoromethane	0.2 J
MW-12 Screen 2	Jan/Feb 2013	MW-12-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	8.9 U		
MW-12 Screen 2	Apr/May 2013	MW-12-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	8.5		
MW-12 Screen 2	Apr/May 2013	DUP-4-2Q13	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	8.7	Trichlorofluoromethane	0.2 J
MW-12 Screen 2	Jul 2013	MW-12-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	7.2	Styrene	0.1 J
MW-12 Screen 2	Oct/Nov 2013	MW-12-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5.6		
MW-12 Screen 3	Jan/Feb 2013	MW-12-3	0.8	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5	3.9 U		
MW-12 Screen 3	Apr/May 2013	MW-12-3	0.5	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0	4.0 U		
MW-12 Screen 3	Jul 2013	MW-12-3	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0	4.0 U	Styrene	0.1 J

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-12 Screen 3	Oct/Nov 2013	MW-12-3	0.4 J	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5	4.5		
MW-12 Screen 4	Jan/Feb 2013	MW-12-4	0.9	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.8	2.7 J	Styrene	0.1 J
MW-12 Screen 4	Apr/May 2013	MW-12-4	0.3 J	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6	3.6 J		
MW-12 Screen 4	Jul 2013	MW-12-4	0.8	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.8	3.2 J		
MW-12 Screen 4	Oct/Nov 2013	MW-12-4	0.5	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6	3.3 J		
MW-12 Screen 5	Jan/Feb 2013	MW-12-5	0.3 J	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	1.9 U		
MW-12 Screen 5	Apr/May 2013	MW-12-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	1.9 J		
MW-12 Screen 5	Jul 2013	MW-12-5	0.4 J	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	2.1 J		
MW-12 Screen 5	Oct/Nov 2013	MW-12-5	0.3 J	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	3.3 J		
MW-13	Jan/Feb 2013	MW-13	0.7	0.2 J	0.5	0.1 J	0.5 U	0.7	0.5 U	9.4	1400.0	Bromodichloromethane	0.6
MW-13	Jan/Feb 2013	DUP-5-1Q13	0.6	0.2 J	0.5	0.1 J	0.5 U	0.6	0.5 U	9.5	1400.0	Bromodichloromethane	0.6
MW-13	Apr/May 2013	MW-13	0.3 J	0.2 J	0.6	0.2 J	0.5 U	0.3 J	0.5 U	5.5	690.0	1,4-Dioxane Bromodichloromethane	2.2 0.3 J
MW-13	Jul 2013	MW-13	0.6	0.2 J	0.9	0.2 J	0.5 U	0.5 J	0.5 U	7.3	1200.0	Bromodichloromethane	0.2 J
MW-13	Oct/Nov 2013	MW-13	0.5 U	0.2 J	1.6	0.4 J	0.5 U	0.2 J	0.5 U	2.5	520.0		
MW-14 Screen 1	Jan/Feb 2013	MW-14-1	0.5 U	1.7	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	3.9 J	Methyl-tert-butyl ether (MTBE)	0.9
MW-14 Screen 1	Apr/May 2013	MW-14-1	0.5 U	2.0	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5	4.0 U	cis-1,2-Dichloroethene Methyl-tert-butyl ether (MTBE)	0.1 J 0.6
MW-14 Screen 1	Jul 2013	MW-14-1	0.5 U	2.1	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.6	3.1 J	Methyl-tert-butyl ether (MTBE)	0.5 J
MW-14 Screen 1	Oct/Nov 2013	MW-14-1	0.5 U	1.6	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5	4.0	cis-1,2-Dichloroethene Methyl-tert-butyl ether (MTBE)	0.1 J 0.4 J
MW-14 Screen 1	Oct/Nov 2013	DUPE-2-4Q13	0.5 U	1.3	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	3.7 J	Methyl-tert-butyl ether (MTBE)	0.4 J
MW-14 Screen 2	Jan/Feb 2013	MW-14-2	0.5 U	4.1	0.4 J	0.1 J	0.5 U	0.5 U	0.5 U	0.5 J	2.8 J	cis-1,2-Dichloroethene trans-1,2-Dichloroethene	0.2 J 0.2 J
MW-14 Screen 2	Apr/May 2013	MW-14-2	0.5 U	4.6	0.3 J	0.2 J	0.5 U	0.5 U	0.5 U	0.5	4.1	cis-1,2-Dichloroethene trans-1,2-Dichloroethene	0.2 J 0.2 J
MW-14 Screen 2	Jul 2013	MW-14-2	0.5 U	5.4	0.5 J	0.2 J	0.5 U	0.5 U	0.5 U	0.6	1.9 J	cis-1,2-Dichloroethene trans-1,2-Dichloroethene	0.2 J 0.3 J
MW-14 Screen 2	Jul 2013	DUPE-2-3Q13	0.5 U	6.1	0.5 J	0.2 J	0.5 U	0.5 U	0.5 U	0.6	3.2 J	cis-1,2-Dichloroethene trans-1,2-Dichloroethene	0.3 J 0.3 J
MW-14 Screen 2	Oct/Nov 2013	MW-14-2	0.5 U	4.0	0.3 J	0.1 J	0.5 U	0.5 U	0.5 U	0.5 J	4.0 U	cis-1,2-Dichloroethene trans-1,2-Dichloroethene	0.3 J 0.2 J
MW-14 Screen 3	Jan/Feb 2013	MW-14-3	0.5 U	1.8	0.4 J	0.3 J	0.5 U	0.5 U	0.5 U	0.5	6.1	cis-1,2-Dichloroethene	0.1 J
MW-14 Screen 3	Apr/May 2013	MW-14-3	0.5 U	1.5	0.3 J	0.2 J	0.5 U	0.5 U	0.5 U	0.5 J	4.8	cis-1,2-Dichloroethene	0.1 J
MW-14 Screen 3	Jul 2013	MW-14-3	0.5 U	2.4	0.7	0.3 J	0.5 U	0.5 U	0.5 U	0.6	5.3	cis-1,2-Dichloroethene	0.2 J
MW-14 Screen 3	Oct/Nov 2013	MW-14-3	0.5 U	2.0	0.5 J	0.3 J	0.5 U	0.5 U	0.5 U	0.5	5.7	cis-1,2-Dichloroethene	0.2 J
MW-14 Screen 4	Jan/Feb 2013	MW-14-4	0.5 U	0.3 J	0.3 J	0.1 J	0.5 U	0.5 U	0.5 U	0.3 J	3.6 J	cis-1,2-Dichloroethene	0.2 J
MW-14 Screen 4	Apr/May 2013	MW-14-4	0.5 U	0.3 J	0.3 J	0.2 J	0.5 U	0.5 U	0.5 U	0.3 J	4.0 U	cis-1,2-Dichloroethene	0.2 J
MW-14 Screen 4	Apr/May 2013	DUP-2-2Q13	0.5 U	0.3 J	0.2 J	0.2 J	0.5 U	0.5 U	0.5 U	0.3 J	3.0 J	cis-1,2-Dichloroethene	0.2 J
MW-14 Screen 4	Jul 2013	MW-14-4	0.5 U	0.2 J	0.3 J	0.1 J	0.5 U	0.5 U	0.5 U	0.2 J	3.7 J	cis-1,2-Dichloroethene	0.1 J

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-14 Screen 4	Oct/Nov 2013	MW-14-4	0.5 U	**0.2 J**	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**5.3**	**cis-1,2-Dichloroethene**	**0.1 J**
MW-14 Screen 5	Jan/Feb 2013	MW-14-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-14 Screen 5	Apr/May 2013	MW-14-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-14 Screen 5	Jul 2013	MW-14-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	4.0 U		
MW-14 Screen 5	Oct/Nov 2013	MW-14-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-15	Apr/May 2013	MW-15	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-15	Oct/Nov 2013	MW-15	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-15	Oct/Nov 2013	DUPE-6-4Q13	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-16	Jan/Feb 2013	MW-16	**0.3 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**13.0**	4.0 U	**Bromodichloromethane** **Bromoform** **Dibromochloromethane**	**13.0** **4.7** **12.0**
MW-16	Apr/May 2013	MW-16	**0.3 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**9.0**	4.0 U	**Bromodichloromethane** **Bromoform** **Dibromochloromethane**	**9.6** **4.8** **8.7**
MW-16	Jul 2013	MW-16	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**7.9**	**2.0 J**	**Bromodichloromethane** **Bromoform** **Dibromochloromethane**	**12.0** **4.0** **11.0**
MW-16	Oct/Nov 2013	MW-16	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**6.0**	4.0 U	**Bromodichloromethane** **Bromoform** **Dibromochloromethane**	**7.3** **2.2** **6.4**
MW-16	Oct/Nov 2013	DUPE-7-4Q13	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**6.6**	4.0 U	**Bromodichloromethane** **Bromoform** **Dibromochloromethane**	**8.1** **2.0** **6.7**
MW-17 Screen 1	Apr/May 2013	MW-17-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-17 Screen 1	Oct/Nov 2013	MW-17-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-17 Screen 2	Jan/Feb 2013	MW-17-2	0.5 U	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.3 J**	**22.0**		
MW-17 Screen 2	Apr/May 2013	MW-17-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**2.6 J**		
MW-17 Screen 2	Jul 2013	MW-17-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-17 Screen 2	Oct/Nov 2013	MW-17-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-17 Screen 3	Jan/Feb 2013	MW-17-3	0.5 U	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**5.5**		
MW-17 Screen 3	Apr/May 2013	MW-17-3	0.5 U	**0.1 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**6.3**		
MW-17 Screen 3	Jul 2013	MW-17-3	**0.3 J**	**0.2 J**	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**7.6**		
MW-17 Screen 3	Oct/Nov 2013	MW-17-3	0.5 U	**0.1 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**7.1**		
MW-17 Screen 4	Jan/Feb 2013	MW-17-4	**0.4 J**	**0.8**	**0.1 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.3 J**	**10.0**		
MW-17 Screen 4	Apr/May 2013	MW-17-4	**0.3 J**	**0.9**	**0.1 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.4 J**	**8.2**		
MW-17 Screen 4	Jul 2013	MW-17-4	0.5 U	**1.0**	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.3 J**	**1.8 J**	**Styrene**	**0.1 J**
MW-17 Screen 4	Oct/Nov 2013	MW-17-4	**0.6**	**2.0**	**0.3 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.6**	**15.0**		
MW-17 Screen 5	Apr/May 2013	MW-17-5	0.5 U	**0.6**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.4 J**	**3.7 J**		
MW-17 Screen 5	Oct/Nov 2013	MW-17-5	**0.4 J**	**2.0**	**0.3 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.7**	**9.9**		
MW-18 Screen 1	Apr/May 2013	MW-18-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-18 Screen 2	Jan/Feb 2013	MW-18-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-18 Screen 2	Apr/May 2013	MW-18-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-18 Screen 2	Jul 2013	MW-18-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-18 Screen 2	Oct/Nov 2013	MW-18-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-18 Screen 3	Jan/Feb 2013	MW-18-3	**7.2**	**0.7**	**0.1 J**	0.5 U	0.5 U	0.5 U	**0.2 J**	**1.5**	**46.0**		
MW-18 Screen 3	Apr/May 2013	MW-18-3	**7.3**	**0.7**	**0.2 J**	0.5 U	0.5 U	0.5 U	**0.2 J**	**1.5**	**36.0**		
MW-18 Screen 3	Jul 2013	MW-18-3	**10.0**	**0.7**	**0.2 J**	0.5 U	0.5 U	0.5 U	**0.3 J**	**1.5**	**44.0**		
MW-18 Screen 3	Oct/Nov 2013	MW-18-3	**16.0**	**1.6**	**0.3 J**	0.5 U	0.5 U	0.5 U	**0.3 J**	**2.2**	**44.0**		
MW-18 Screen 4	Jan/Feb 2013	MW-18-4	**1.4**	**0.7**	**0.6**	0.5 U	0.5 U	0.5 U	0.5 U	**0.6**	**12.0**		
MW-18 Screen 4	Apr/May 2013	MW-18-4	**1.0**	**0.6**	**0.5**	0.5 U	0.5 U	0.5 U	0.5 U	**0.6**	**12.0**		
MW-18 Screen 4	Jul 2013	MW-18-4	**2.1**	**0.9**	**1.0**	0.5 U	0.5 U	0.5 U	0.5 U	**0.7**	**13.0**		
MW-18 Screen 4	Jul 2013	DUPE-3-3Q13	**1.5**	**0.6**	**0.7**	0.5 U	0.5 U	0.5 U	0.5 U	**0.6**	**13.0**		
MW-18 Screen 4	Oct/Nov 2013	MW-18-4	**1.9**	**0.9**	**0.8**	0.5 U	0.5 U	0.5 U	0.5 U	**0.7**	**15.0**		
MW-18 Screen 5	Jan/Feb 2013	MW-18-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-18 Screen 5	Apr/May 2013	MW-18-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Styrene**	**0.1 J**
MW-18 Screen 5	Jul 2013	MW-18-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Styrene**	**0.1 J**
MW-18 Screen 5	Oct/Nov 2013	MW-18-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Styrene**	**0.1 J**
MW-19 Screen 1	Jan/Feb 2013	MW-19-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-19 Screen 1	Jan/Feb 2013	DUP-1-1Q13	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-19 Screen 1	Apr/May 2013	MW-19-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-19 Screen 1	Jul 2013	MW-19-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-19 Screen 1	Oct/Nov 2013	MW-19-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-19 Screen 2	Jan/Feb 2013	MW-19-2	0.5 U	**1.2**	**0.8**	**0.3 J**	0.5 U	0.5 U	0.5 U	**0.7**	**6.2**	**Bromodichloromethane** **cis-1,2-Dichloroethene**	**0.2 J** **0.3 J**
MW-19 Screen 2	Apr/May 2013	MW-19-2	0.5 U	**0.7**	**0.5 J**	**0.2 J**	0.5 U	0.5 U	0.5 U	**0.6**	**4.2**	**Bromodichloromethane** **cis-1,2-Dichloroethene**	**0.2 J** **0.2 J**
MW-19 Screen 2	Jul 2013	MW-19-2	0.5 U	**0.9**	**1.2**	**0.3 J**	0.5 U	0.5 U	0.5 U	**0.9**	**6.1**	**Bromodichloromethane** **cis-1,2-Dichloroethene**	**0.4 J** **0.3 J**
MW-19 Screen 2	Oct/Nov 2013	MW-19-2	0.5 U	**0.5 J**	**0.7**	**0.2 J**	0.5 U	0.5 U	0.5 U	**0.6**	**6.1**	**Bromodichloromethane** **cis-1,2-Dichloroethene**	**0.2 J** **0.2 J**
MW-19 Screen 3	Jan/Feb 2013	MW-19-3	0.5 U	0.5 U	**0.5 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**2.4 J**		
MW-19 Screen 3	Apr/May 2013	MW-19-3	0.5 U	0.5 U	**0.4 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	4.0 U		
MW-19 Screen 3	Jul 2013	MW-19-3	0.5 U	0.5 U	**0.6**	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**3.8 J**		
MW-19 Screen 3	Oct/Nov 2013	MW-19-3	0.5 U	0.5 U	**0.3 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.1 J**	**3.4 J**		
MW-19 Screen 4	Jan/Feb 2013	MW-19-4	0.5 U	**0.2 J**	**0.5 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.3 J**	**3.3 J**		
MW-19 Screen 4	Apr/May 2013	MW-19-4	0.5 U	**0.1 J**	**0.4 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**2.9 J**		
MW-19 Screen 4	Jul 2013	MW-19-4	0.5 U	**0.1 J**	**0.5**	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**3.2 J**		
MW-19 Screen 4	Oct/Nov 2013	MW-19-4	0.5 U	**0.1 J**	**0.3 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**2.9 J**		
MW-19 Screen 5	Jan/Feb 2013	MW-19-5	0.5 U	**0.1 J**	**0.9**	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**2.6 J**		
MW-19 Screen 5	Apr/May 2013	MW-19-5	0.5 U	**0.2 J**	**0.7**	0.5 U	0.5 U	0.5 U	0.5 U	**0.3 J**	4.0 U	**Carbon disulfide**	**0.4 J**

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-19 Screen 5	Jul 2013	MW-19-5	0.5 U	**0.2 J**	**1.0**	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**3.1 J**	**Styrene**	**0.1 J**
MW-19 Screen 5	Jul 2013	DUP-1-3Q13	0.5 U	**0.1 J**	**0.9**	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**3.0 J**		
MW-19 Screen 5	Oct/Nov 2013	MW-19-5	0.5 U	**0.1 J**	**0.6**	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**3.8 J**		
MW-20 Screen 1	Jan/Feb 2013	MW-20-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	4.0 U	**Methyl-tert-butyl ether (MTBE)**	**0.2 J**
MW-20 Screen 1	Apr/May 2013	MW-20-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.4 J**	4.0 U	**Bromodichloromethane** **Methyl-tert-butyl ether (MTBE)**	**0.2 J** **0.2 J**
MW-20 Screen 1	Jul 2013	MW-20-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**1.2 J**	**Methyl-tert-butyl ether (MTBE)**	**0.2 J**
MW-20 Screen 1	Oct/Nov 2013	MW-20-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	4.0 U	**Carbon disulfide**	**0.4 J**
MW-20 Screen 2	Jan/Feb 2013	MW-20-2	0.5 U	**0.4 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.1 J**	**3.4 J**	**Styrene**	**0.1 J**
MW-20 Screen 2	Apr/May 2013	MW-20-2	0.5 U	**0.7**	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**2.9 J**	**Carbon disulfide**	**0.4 J**
MW-20 Screen 2	Jul 2013	MW-20-2	0.5 U	**0.8**	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.3 J**	**1.9 J**		
MW-20 Screen 2	Oct/Nov 2013	MW-20-2	0.5 U	**0.5 J**	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.3 J**	**2.3 J**		
MW-20 Screen 3	Jan/Feb 2013	MW-20-3	0.5 U	**0.3 J**	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Acrylonitrile** **Ethylbenzene** **Styrene** **Toluene**	**2.2 J** **0.1 J** **0.5 J** **0.1 J**
MW-20 Screen 3	Apr/May 2013	MW-20-3	0.5 U	**0.3 J**	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Acrylonitrile** **Carbon disulfide** **Ethylbenzene** **Styrene** **Toluene**	**2.5 J** **0.6 J** **0.1 J** **0.4 J** **0.1 J**
MW-20 Screen 3	Apr/May 2013	DUP-1-2Q13	0.5 U	**0.2 J**	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Acrylonitrile** **Carbon disulfide** **Ethylbenzene** **Styrene** **Toluene**	**2.8 J** **0.5 J** **0.1 J** **0.3 J** **0.1 J**
MW-20 Screen 3	Jul 2013	MW-20-3	0.5 U	**0.2 J**	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Acrylonitrile** **Ethylbenzene** **Styrene** **Toluene**	**2.9 J** **0.2 J** **0.4 J** **0.1 J**
MW-20 Screen 3	Oct/Nov 2013	MW-20-3	0.5 U	**0.2 J**	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Acrylonitrile** **Carbon disulfide** **Ethylbenzene** **Styrene** **Toluene**	**2.6 J** **0.8 J** **0.1 J** **0.4 J** **0.1 J**
MW-20 Screen 4	Jan/Feb 2013	MW-20-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Styrene**	**0.1 J**
MW-20 Screen 4	Apr/May 2013	MW-20-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Carbon disulfide**	**0.6 J**
MW-20 Screen 4	Jul 2013	MW-20-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-20 Screen 4	Oct/Nov 2013	MW-20-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Carbon disulfide**	**0.5 J**
MW-20 Screen 4	Oct/Nov 2013	DUPE-1-4Q13	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Carbon disulfide**	**0.8 J**

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-20 Screen 5	Jan/Feb 2013	MW-20-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene	0.3 J
MW-20 Screen 5	Apr/May 2013	MW-20-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Carbon disulfide Styrene	0.5 J 0.2 J
MW-20 Screen 5	Jul 2013	MW-20-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene	0.2 J
MW-20 Screen 5	Oct/Nov 2013	MW-20-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Carbon disulfide Styrene	0.8 J 0.3 J
MW-21 Screen 1	Jan/Feb 2013	MW-21-1	0.5 U	0.1 J	0.9	0.5 U	0.5 U	0.5 U	0.5 U	2.1	3.2 J	cis-1,2-Dichloroethene	0.1 J
MW-21 Screen 1	Apr/May 2013	MW-21-1	0.5 U	0.1 J	0.5	0.5 U	0.5 U	0.5 U	0.5 U	2.0	3.4 J		
MW-21 Screen 1	Jul 2013	MW-21-1	0.5 U	0.2 J	0.9	0.5 U	0.5 U	0.5 U	0.5 U	2.1	3.1 J		
MW-21 Screen 1	Oct/Nov 2013	MW-21-1	0.5 U	0.9	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	1.4	9.3		
MW-21 Screen 2	Jan/Feb 2013	MW-21-2	0.5 U	0.3 J	2.2	0.5 U	0.5 U	0.5 U	0.5 U	1.1	1.8 J	cis-1,2-Dichloroethene Methyl-tert-butyl ether (MTBE)	0.3 J 0.2 J
MW-21 Screen 2	Apr/May 2013	MW-21-2	0.5 U	0.2 J	1.1	0.5 U	0.5 U	0.5 U	0.5 U	0.7	2.5 J	cis-1,2-Dichloroethene Methyl-tert-butyl ether (MTBE)	0.2 J 0.2 J
MW-21 Screen 2	Jul 2013	MW-21-2	0.5 U	0.4 J	2.3	0.5 U	0.5 U	0.5 U	0.5 U	0.6	2.7 J	cis-1,2-Dichloroethene Methyl-tert-butyl ether (MTBE)	0.2 J 0.2 J
MW-21 Screen 2	Oct/Nov 2013	MW-21-2	0.5 U	0.3 J	1.6	0.5 U	0.5 U	0.5 U	0.5 U	0.6	3.5 J	cis-1,2-Dichloroethene Methyl-tert-butyl ether (MTBE)	0.2 J 0.2 J
MW-21 Screen 3	Jan/Feb 2013	MW-21-3	0.5 U	0.7	4.7	0.5 U	0.5 U	0.5 U	0.5 U	2.7	4.0	cis-1,2-Dichloroethene Methyl-tert-butyl ether (MTBE)	0.9 0.3 J
MW-21 Screen 3	Apr/May 2013	MW-21-3	0.5 U	0.7	4.1	0.1 J	0.5 U	0.5 U	0.5 U	2.4	3.4 J	cis-1,2-Dichloroethene Methyl-tert-butyl ether (MTBE)	0.9 0.3 J
MW-21 Screen 3	Jul 2013	MW-21-3	0.5 U	1.9	12.0	0.3 J	0.5 U	0.5 U	0.5 U	3.1	2.9 J	cis-1,2-Dichloroethene Methyl-tert-butyl ether (MTBE)	1.4 0.3 J
MW-21 Screen 3	Oct/Nov 2013	MW-21-3	0.5 U	0.9	3.6	0.2 J	0.5 U	0.5 U	0.5 U	1.4	3.5 J	cis-1,2-Dichloroethene Methyl-tert-butyl ether (MTBE)	0.7 0.3 J
MW-21 Screen 4	Jan/Feb 2013	MW-21-4	0.5 U	0.5 U	0.8	0.5 U	0.5 U	0.5 U	0.5 U	6.4	2.7 J	cis-1,2-Dichloroethene	0.1 J
MW-21 Screen 4	Apr/May 2013	MW-21-4	0.5 U	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.5 U	5.2	2.4 J		
MW-21 Screen 4	Jul 2013	MW-21-4	0.5 U	0.2 J	1.1	0.5 U	0.5 U	0.5 U	0.5 U	9.2	2.0 J	cis-1,2-Dichloroethene	0.2 J
MW-21 Screen 4	Jul 2013	DUPE-7-3Q13	0.5 U	0.1 J	1.1	0.5 U	0.5 U	0.5 U	0.5 U	9.9	2.2 J	cis-1,2-Dichloroethene	0.2 J
MW-21 Screen 4	Oct/Nov 2013	MW-21-4	0.5 U	0.1 J	0.8	0.5 U	0.5 U	0.5 U	0.5 U	8.8	2.1 J	cis-1,2-Dichloroethene	0.2 J
MW-21 Screen 5	Jan/Feb 2013	MW-21-5	0.5 U	0.1 J	0.7	0.5 U	0.5 U	0.5 U	0.5 U	5.6	3.0 J		
MW-21 Screen 5	Apr/May 2013	MW-21-5	0.5 U	0.5 U	0.6	0.5 U	0.5 U	0.5 U	0.5 U	5.0	2.4 J		
MW-21 Screen 5	Jul 2013	MW-21-5	0.5 U	0.1 J	0.9	0.5 U	0.5 U	0.5 U	0.5 U	6.0	2.1 J	cis-1,2-Dichloroethene	0.1 J
MW-21 Screen 5	Oct/Nov 2013	MW-21-5	0.5 U	0.1 J	0.8	0.5 U	0.5 U	0.5 U	0.5 U	5.8	3.0 J		
MW-22 Screen 1	Jan/Feb 2013	MW-22-1	0.5 U	1.2	0.4 J	0.1 J	0.5 U	0.5 U	0.5 U	0.4 J	4.5		
MW-22 Screen 1	Apr/May 2013	MW-22-1	0.5 U	0.8	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	2.5 J		
MW-22 Screen 1	Jul 2013	MW-22-1	0.5 U	1.5	0.6	0.1 J	0.5 U	0.5 U	0.5 U	0.5 J	3.0 J		
MW-22 Screen 1	Oct/Nov 2013	MW-22-1	0.5 U	1.0	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	3.7 J		
MW-22 Screen 2	Jan/Feb 2013	MW-22-2	0.5 U	0.2 J	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	3.2 J		

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-22 Screen 2	Apr/May 2013	MW-22-2	0.5 U	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**1.7 J**		
MW-22 Screen 2	Jul 2013	MW-22-2	0.5 U	**0.2 J**	**0.2 J**	**0.1 J**	0.5 U	0.5 U	0.5 U	**0.2 J**	4.0 U		
MW-22 Screen 2	Oct/Nov 2013	MW-22-2	0.5 U	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**3.5 J**		
MW-22 Screen 3	Jan/Feb 2013	MW-22-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**5.0**		
MW-22 Screen 3	Apr/May 2013	MW-22-3	0.5 U	**0.1 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**2.3 J**		
MW-22 Screen 3	Apr/May 2013	DUP-3-2Q13	0.5 U	**0.1 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.2 J**	**2.6 J**		
MW-22 Screen 3	Jul 2013	MW-22-3	0.5 U	**0.1 J**	**0.1 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.1 J**	**3.6 J**		
MW-22 Screen 3	Oct/Nov 2013	MW-22-3	0.5 U	**0.1 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**2.6 J**		
MW-22 Screen 4	Apr/May 2013	MW-22-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-22 Screen 4	Oct/Nov 2013	MW-22-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-22 Screen 5	Apr/May 2013	MW-22-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Carbon disulfide**	**0.6 J**
MW-22 Screen 5	Oct/Nov 2013	MW-22-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Carbon disulfide**	**0.7 J**
MW-23 Screen 1	Jan/Feb 2013	MW-23-1	0.5 U	**1.9**	**0.3 J**	**0.1 J**	0.5 U	0.5 U	0.5 U	**0.4 J**	**3.8 J**		
MW-23 Screen 1	Apr/May 2013	MW-23-1	0.5 U	**2.8 J**	**0.3 J**	**0.1 J**	0.5 U	0.5 U	0.5 U	**0.5**	**2.7 J**	**cis-1,2-Dichloroethene**	**0.1 J**
MW-23 Screen 1	Jul 2013	MW-23-1	0.5 U	**2.7**	**0.4 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.4 J**	**3.2 J**		
MW-23 Screen 1	Oct/Nov 2013	MW-23-1	0.5 U	**2.3**	**0.3 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.4 J**	**4.7**		
MW-23 Screen 2	Jan/Feb 2013	MW-23-2	0.5 U	**0.7**	**0.3 J**	**0.2 J**	0.5 U	0.5 U	0.5 U	**0.4 J**	**3.7 J**		
MW-23 Screen 2	Apr/May 2013	MW-23-2	0.5 U	**0.9**	**0.4 J**	**0.2 J**	0.5 U	0.5 U	0.5 U	**0.6**	**3.4 J**		
MW-23 Screen 2	Jul 2013	MW-23-2	0.5 U	**1.1**	**0.5**	**0.2 J**	0.5 U	0.5 U	0.5 U	**0.6**	**4.0**		
MW-23 Screen 2	Oct/Nov 2013	MW-23-2	0.5 U	**0.8**	**0.3 J**	**0.2 J**	0.5 U	0.5 U	0.5 U	**0.5 J**	**4.1**		
MW-23 Screen 3	Jan/Feb 2013	MW-23-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**2.6 J**		
MW-23 Screen 3	Apr/May 2013	MW-23-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**2.0 J**		
MW-23 Screen 3	Jul 2013	MW-23-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**2.6 J**		
MW-23 Screen 3	Oct/Nov 2013	MW-23-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**3.1 J**		
MW-23 Screen 4	Apr/May 2013	MW-23-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-23 Screen 4	Oct/Nov 2013	MW-23-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-23 Screen 5	Apr/May 2013	MW-23-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Styrene**	**0.3 J**
MW-23 Screen 5	Oct/Nov 2013	MW-23-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	**Carbon disulfide** **Ethylbenzene** **Styrene**	**0.5 J** **0.1 J** **0.4 J**
MW-24 Screen 1	Jan/Feb 2013	MW-24-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**7.2**	4.0 U	**Benzene** **Bromodichloromethane** **Methylene chloride** **Methyl-tert-butyl ether (MTBE)** **Styrene**	**0.1 J** **2.6** **0.6** **0.2 J** **0.2 J**
MW-24 Screen 1	Apr/May 2013	MW-24-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**4.3**	4.0 U	**Bromodichloromethane** **Carbon disulfide**	**0.9** **0.4 J**
MW-24 Screen 1	Jul 2013	MW-24-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**3.8**	4.0 U	**Bromodichloromethane**	**0.2 J**
MW-24 Screen 1	Oct/Nov 2013	MW-24-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**5.0 J**	**2.3 J**	**Bromodichloromethane**	**0.2 J**
MW-24 Screen 2	Jan/Feb 2013	MW-24-2	**0.2 J**	0.5 U	**0.2 J**	**0.1 J**	0.5 U	0.5 U	0.5 U	**0.4 J**	**9.9**	**Bromodichloromethane**	**0.2 J**

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-24 Screen 2	Apr/May 2013	MW-24-2	0.6	0.2 J	0.4 J	0.3 J	0.5 U	0.5 U	0.5 U	1.1	11.0	Bromodichloromethane	0.5
MW-24 Screen 2	Jul 2013	MW-24-2	0.3 J	0.1 J	0.2 J	0.2 J	0.5 U	0.5 U	0.5 U	0.6	10.0	Bromodichloromethane	0.4 J
MW-24 Screen 2	Oct/Nov 2013	MW-24-2	0.4 J	0.2 J	0.3 J	0.3 J	0.5 U	0.5 U	0.5 U	1.1	9.7	Bromodichloromethane	0.8
MW-24 Screen 3	Jan/Feb 2013	MW-24-3	0.5 U	0.5 U	0.1 J	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-24 Screen 3	Apr/May 2013	MW-24-3	0.5 U	0.5 U	0.5 U	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Carbon disulfide	0.6 J
MW-24 Screen 3	Jul 2013	MW-24-3	0.5 U	0.5 U	0.2 J	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene	0.1 J
MW-24 Screen 3	Oct/Nov 2013	MW-24-3	0.5 U	0.5 U	0.5 U	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Carbon disulfide	0.4 J
MW-24 Screen 4	Apr/May 2013	MW-24-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Ethylbenzene Styrene	0.1 J 0.2 J
MW-24 Screen 4	Oct/Nov 2013	MW-24-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Ethylbenzene Styrene	0.2 J 0.2 J
MW-24 Screen 5	Apr/May 2013	MW-24-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-24 Screen 5	Oct/Nov 2013	MW-24-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-25 Screen 1	Jan/Feb 2013	MW-25-1	0.5 U	2.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6	9.3	Methyl-tert-butyl ether (MTBE)	0.2 J
MW-25 Screen 1	Apr/May 2013	MW-25-1	0.5 U	1.3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	9.2	Methyl-tert-butyl ether (MTBE)	0.2 J
MW-25 Screen 1	Jul 2013	MW-25-1	0.5 U	2.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.8	11.0	Methyl-tert-butyl ether (MTBE)	0.3 J
MW-25 Screen 1	Oct/Nov 2013	MW-25-1	0.5 U	2.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6	11.0	Methyl-tert-butyl ether (MTBE)	0.3 J
MW-25 Screen 2	Jan/Feb 2013	MW-25-2	0.5 U	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	15.0		
MW-25 Screen 2	Apr/May 2013	MW-25-2	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	14.0		
MW-25 Screen 2	Jul 2013	MW-25-2	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	16.0		
MW-25 Screen 2	Oct/Nov 2013	MW-25-2	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	15.0		
MW-25 Screen 2	Oct/Nov 2013	DUPE-4-4Q13	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	16.0		
MW-25 Screen 3	Jan/Feb 2013	MW-25-3	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.7	11.0		
MW-25 Screen 3	Apr/May 2013	MW-25-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	8.4		
MW-25 Screen 3	Jul 2013	MW-25-3	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.6	11.0		
MW-25 Screen 3	Jul 2013	DUPE-4-3Q13	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 J	11.0		
MW-25 Screen 3	Oct/Nov 2013	MW-25-3	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.9	13.0		
MW-25 Screen 4	Jan/Feb 2013	MW-25-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	19.0		
MW-25 Screen 4	Jan/Feb 2013	DUP-2-1Q13	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	9.9		
MW-25 Screen 4	Apr/May 2013	MW-25-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	7.3	Carbon disulfide	0.5 J
MW-25 Screen 4	Jul 2013	MW-25-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	9.3		
MW-25 Screen 4	Oct/Nov 2013	MW-25-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10.0	Carbon disulfide	0.5 J
MW-25 Screen 5	Jan/Feb 2013	MW-25-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-25 Screen 5	Apr/May 2013	MW-25-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-25 Screen 5	Jul 2013	MW-25-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-25 Screen 5	Oct/Nov 2013	MW-25-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Carbon disulfide	0.7 J
MW-26 Screen 1	Jan/Feb 2013	MW-26-1	0.5 U	0.3 J	1.0	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	4.6		
MW-26 Screen 1	Apr/May 2013	MW-26-1	0.5 U	0.3 J	0.7	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	2.6 J	cis-1,2-Dichloroethene	0.1 J
MW-26 Screen 1	Jul 2013	MW-26-1	0.5 U	0.6	1.2	0.1 J	0.5 U	0.5 U	0.5 U	0.4 J	4.0 U	cis-1,2-Dichloroethene	0.1 J
MW-26 Screen 1	Oct/Nov 2013	MW-26-1	0.5 U	0.4 J	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	4.5		

Sample Location	Sampling Event	Sample Number	Carbon tetrachloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds and 1,4-Dioxane, NDMA, NDPA, 1,2,3-TCP	
MW-26 Screen 1	Oct/Nov 2013	DUPE-3-4Q13	0.5 U	**0.4 J**	**0.5 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.3 J**	**4.2**		
MW-26 Screen 2	Jan/Feb 2013	MW-26-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-26 Screen 2	Apr/May 2013	MW-26-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U		
MW-26 Screen 2	Jul 2013	MW-26-2	0.5 U	0.5 U	**0.4 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.1 J**	**1.4 J**		
MW-26 Screen 2	Oct/Nov 2013	MW-26-2	0.5 U	**0.3 J**	**2.0**	0.5 U	0.5 U	0.5 U	0.5 U	**1.1**	**3.3 J**	**Bromodichloromethane** **cis-1,2-Dichloroethene**	**0.2 J** **0.3 J**
California Maximum Contaminant Level (MCL)			0.5	5	5	5	0.5	6	1200	TTHM	6.0 *		
EPA Region IX Maximum Contaminant Level			5	5	5	NE	5	7	NE	TTHM	NE		

Notes

DUPE	Field Duplicate
NA	Not analyzed
NE	Not established
TTHM	Chloroform is regulated under the state and federal MCL of 80 µg/L for Total Trihalomethanes (TTHMs); the MCL applies to the sum of all four trihalomethanes (Bromodichloromethane, Bromoform, Dibromochloromethane, and Chloroform) as an annual average
*	Interim Action Level - California Department of Public Health
J	Analyte concentration is an estimated value
U	Analyte was analyzed for but not detected at or above the stated limit

TABLE 2
SUMMARY OF METALS DETECTED
DURING THE LAST FOUR SAMPLING EVENTS OF THE LONG-TERM QUARTERLY
GROUNDWATER SAMPLING PROGRAM

(All concentrations reported in µg/L; except for Hexavalent Chromium, which is reported in mg/L.)

(Shaded values exceed State or Federal MCLs or action levels.)

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (mg/L)
MW-1	Apr/May 2013	MW-1	**1.4 J**	1.000 U	3.0 U	0.002 U
MW-1	Apr/May 2013	DUP-8-2Q13	**1.1 J**	1.000 U	3.0 U	0.002 U
MW-1	Oct/Nov 2013	MW-1	NA	NA	3.0 U	0.002 U
MW-3 Screen 1	Apr/May 2013	MW-3-1	2.0 U	1.000 U	3.0 U	0.002 U
MW-3 Screen 1	Oct/Nov 2013	MW-3-1	NA	NA	3.0 U	0.002 U
MW-3 Screen 2	Jan/Feb 2013	MW-3-2	NA	NA	**0.7 J**	0.002 U
MW-3 Screen 2	Apr/May 2013	MW-3-2	2.0 U	0.120 U	3.0 U	0.002 U
MW-3 Screen 2	Jul 2013	MW-3-2	NA	NA	**0.6 J**	0.002 U
MW-3 Screen 2	Jul 2013	DUPE-5-3Q13	NA	NA	3.0 U	0.002 U
MW-3 Screen 2	Oct/Nov 2013	MW-3-2	NA	NA	**0.7 J**	0.002 U
MW-3 Screen 3	Jan/Feb 2013	MW-3-3	NA	NA	**2.5 J**	0.002 U
MW-3 Screen 3	Apr/May 2013	MW-3-3	**3.0**	1.000 U	**2.3 J**	**0.002 J**
MW-3 Screen 3	Jul 2013	MW-3-3	NA	NA	**2.4 J**	0.002 U
MW-3 Screen 3	Oct/Nov 2013	MW-3-3	NA	NA	**1.8 J**	**0.002 J**
MW-3 Screen 4	Jan/Feb 2013	MW-3-4	NA	NA	**10.0**	0.005 U
MW-3 Screen 4	Apr/May 2013	MW-3-4	**18.0**	1.000 U	**34.0**	0.002 U
MW-3 Screen 4	Jul 2013	MW-3-4	NA	NA	**22.0**	0.002 U
MW-3 Screen 4	Oct/Nov 2013	MW-3-4	NA	NA	**3.1**	0.002 U
MW-3 Screen 5	Apr/May 2013	MW-3-5	**1.7 J**	1.000 U	**1.6 J**	0.002 U
MW-3 Screen 5	Oct/Nov 2013	MW-3-5	NA	NA	**7.3**	**0.001 J**
MW-4 Screen 1	Jan/Feb 2013	MW-4-1	NA	NA	**0.7 J**	0.002 U
MW-4 Screen 1	Apr/May 2013	MW-4-1	2.0 U	1.000 U	3.0 U	0.002 U
MW-4 Screen 1	Jul 2013	MW-4-1	NA	NA	**0.6 J**	0.002 U
MW-4 Screen 1	Oct/Nov 2013	MW-4-1	NA	NA	3.0 U	0.002 U
MW-4 Screen 2	Jan/Feb 2013	MW-4-2	NA	NA	**5.6**	0.002 U
MW-4 Screen 2	Apr/May 2013	MW-4-2	2.0 U	1.000 U	**3.5**	0.002 U
MW-4 Screen 2	Jul 2013	MW-4-2	NA	NA	**3.2**	**0.002 J**
MW-4 Screen 2	Oct/Nov 2013	MW-4-2	NA	NA	**12.0**	0.002 U
MW-4 Screen 3	Jan/Feb 2013	MW-4-3	NA	NA	**3.5**	**0.001 J**
MW-4 Screen 3	Jan/Feb 2013	DUP-4-1Q13	NA	NA	**3.4**	**0.001 J**
MW-4 Screen 3	Apr/May 2013	MW-4-3	**1.0 J**	1.000 U	**1.2 J**	0.002 U
MW-4 Screen 3	Jul 2013	MW-4-3	NA	NA	**1.0 J**	0.002 U
MW-4 Screen 3	Oct/Nov 2013	MW-4-3	NA	NA	**1.9 J**	0.002 U
MW-4 Screen 4	Apr/May 2013	MW-4-4	**0.8 J**	1.000 U	**0.9 J**	0.002 U

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (mg/L)
MW-4 Screen 4	Oct/Nov 2013	MW-4-4	NA	NA	**1.1 J**	0.002 U
MW-4 Screen 5	Apr/May 2013	MW-4-5	2.0 U	1.000 U	3.0 U	0.002 U
MW-4 Screen 5	Oct/Nov 2013	MW-4-5	NA	NA	3.0 U	0.002 U
MW-5	Jan/Feb 2013	MW-5	NA	NA	3.0 U	0.002 U
MW-5	Apr/May 2013	MW-5	2.0 U	1.000 U	3.0 U	0.002 U
MW-5	Jul 2013	MW-5	NA	NA	0.8 U	0.002 U
MW-5	Oct/Nov 2013	MW-5	NA	NA	3.0 U	0.002 U
MW-6	Jan/Feb 2013	MW-6	NA	NA	**1.6 J**	0.002 U
MW-6	Apr/May 2013	MW-6	2.0 U	1.000 U	**5.1**	**0.002 J**
MW-6	Apr/May 2013	DUP-7-2Q13	2.0 U	1.000 U	**1.1 J**	**0.001 J**
MW-6	Jul 2013	MW-6	NA	NA	2.9 U	0.002 U
MW-6	Oct/Nov 2013	MW-6	NA	NA	**39.0**	0.001 U
MW-7	Jan/Feb 2013	MW-7	NA	NA	**12.0**	**0.010 J**
MW-7	Jan/Feb 2013	DUP-7-1Q13	NA	NA	**13.0**	**0.009 J**
MW-7	Apr/May 2013	MW-7	**0.9 J**	1.000 U	**16.0 J**	**0.014**
MW-7	Apr/May 2013	DUP-6-2Q13	**0.9 J**	1.000 U	**17.0 J**	**0.013**
MW-7	Jul 2013	MW-7	NA	NA	**17.0**	**0.004**
MW-7	Oct/Nov 2013	MW-7	NA	NA	**16.0**	**0.004**
MW-8	Jan/Feb 2013	MW-8	NA	NA	**0.6 J**	0.002 U
MW-8	Jan/Feb 2013	DUP-6-1Q13	NA	NA	3.0 U	0.002 U
MW-8	Apr/May 2013	MW-8	**0.9 J**	1.000 U	**0.7 J**	0.002 U
MW-8	Jul 2013	MW-8	NA	NA	1.5 U	0.002 U
MW-8	Oct/Nov 2013	MW-8	NA	NA	**2.4 J**	**0.001 J**
MW-8	Oct/Nov 2013	DUPE-5-4Q13	NA	NA	**2.1 J**	**0.001 J**
MW-9	Apr/May 2013	MW-9	**1.0 J**	1.000 U	**0.7 J**	0.002 U
MW-10	Jan/Feb 2013	MW-10	NA	NA	**5.8**	**0.003 J**
MW-10	Apr/May 2013	MW-10	2.0 U	1.000 U	**5.2**	**0.004**
MW-10	Jul 2013	MW-10	NA	NA	3.3 U	**0.002 J**
MW-10	Oct/Nov 2013	MW-10	NA	NA	**2.9 J**	0.001 U
MW-10	Oct/Nov 2013	DUPE-8-4Q13	NA	NA	**3.4**	0.001 U
MW-11 Screen 1	Jan/Feb 2013	MW-11-1	NA	NA	3.0 U	0.002 U
MW-11 Screen 1	Apr/May 2013	MW-11-1	**1.8 J**	1.000 U	**0.5 J**	0.002 U
MW-11 Screen 1	Apr/May 2013	DUP-5-2Q13	2.0 U	1.000 U	3.0 U	0.002 U
MW-11 Screen 1	Jul 2013	MW-11-1	NA	NA	**3.6**	0.002 U
MW-11 Screen 1	Oct/Nov 2013	MW-11-1	NA	NA	3.0 U	0.002 U
MW-11 Screen 2	Jan/Feb 2013	MW-11-2	NA	NA	3.0 U	0.002 U
MW-11 Screen 2	Apr/May 2013	MW-11-2	**1.2 J**	1.000 U	3.0 U	**0.001 J**
MW-11 Screen 2	Jul 2013	MW-11-2	NA	NA	3.0 U	0.002 U
MW-11 Screen 2	Jul 2013	DUPE-6-3Q13	NA	NA	3.0 U	0.002 U
MW-11 Screen 2	Oct/Nov 2013	MW-11-2	NA	NA	3.0 U	0.002 U
MW-11 Screen 3	Jan/Feb 2013	MW-11-3	NA	NA	3.0 U	0.002 U

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (mg/L)
MW-11 Screen 3	Apr/May 2013	MW-11-3	**1.4 J**	1.000 U	**0.9 J**	0.002 U
MW-11 Screen 3	Jul 2013	MW-11-3	NA	NA	**0.5 J**	0.002 U
MW-11 Screen 3	Oct/Nov 2013	MW-11-3	NA	NA	3.0 U	0.002 U
MW-11 Screen 4	Apr/May 2013	MW-11-4	**0.7 J**	1.000 U	**1.3 J**	0.002 U
MW-11 Screen 4	Oct/Nov 2013	MW-11-4	NA	NA	3.0 U	0.002 U
MW-11 Screen 5	Apr/May 2013	MW-11-5	**6.9**	**0.140 J**	**1.7 J**	0.002 U
MW-11 Screen 5	Oct/Nov 2013	MW-11-5	NA	NA	3.0 U	0.002 U
MW-12 Screen 1	Jan/Feb 2013	MW-12-1	NA	NA	**1.1 J**	0.002 U
MW-12 Screen 1	Apr/May 2013	MW-12-1	2.0 U	1.000 U	**0.6 J**	0.002 U
MW-12 Screen 1	Jul 2013	MW-12-1	NA	NA	**1.0 J**	0.002 U
MW-12 Screen 1	Oct/Nov 2013	MW-12-1	NA	NA	**1.9 J**	**0.001 J**
MW-12 Screen 2	Jan/Feb 2013	MW-12-2	NA	NA	**2.0 J**	0.002 U
MW-12 Screen 2	Apr/May 2013	MW-12-2	**0.8 J**	1.000 U	**1.1 J**	0.002 U
MW-12 Screen 2	Apr/May 2013	DUP-4-2Q13	2.0 U	1.000 U	**1.2 J**	0.002 U
MW-12 Screen 2	Jul 2013	MW-12-2	NA	NA	**1.6 J**	0.002 U
MW-12 Screen 2	Oct/Nov 2013	MW-12-2	NA	NA	**1.0 J**	0.002 U
MW-12 Screen 3	Jan/Feb 2013	MW-12-3	NA	NA	**1.1 J**	0.002 U
MW-12 Screen 3	Apr/May 2013	MW-12-3	**1.3 J**	1.000 U	3.0 U	0.002 U
MW-12 Screen 3	Jul 2013	MW-12-3	NA	NA	3.0 U	0.002 U
MW-12 Screen 3	Oct/Nov 2013	MW-12-3	NA	NA	3.0 U	0.002 U
MW-12 Screen 4	Apr/May 2013	MW-12-4	**1.7 J**	1.000 U	**0.8 J**	**0.001 J**
MW-12 Screen 4	Oct/Nov 2013	MW-12-4	NA	NA	**0.9 J**	**0.001 J**
MW-12 Screen 5	Apr/May 2013	MW-12-5	**2.2**	1.000 U	**1.8 J**	**0.002**
MW-12 Screen 5	Oct/Nov 2013	MW-12-5	NA	NA	**1.5 J**	**0.002 J**
MW-13	Jan/Feb 2013	MW-13	NA	NA	**17.0**	**0.006**
MW-13	Jan/Feb 2013	DUP-5-1Q13	NA	NA	**15.0**	**0.006**
MW-13	Apr/May 2013	MW-13	**0.7 J**	**0.100 J**	**14.0 J**	**0.005**
MW-13	Jul 2013	MW-13	NA	NA	**140.0**	**0.004**
MW-13	Oct/Nov 2013	MW-13	NA	NA	**67.0**	**0.002 J**
MW-14 Screen 1	Jan/Feb 2013	MW-14-1	NA	NA	**1.3 J**	0.002 U
MW-14 Screen 1	Apr/May 2013	MW-14-1	2.0 U	1.000 U	**0.8 J**	**0.009**
MW-14 Screen 1	Jul 2013	MW-14-1	NA	NA	**1.3 J**	0.002 U
MW-14 Screen 1	Oct/Nov 2013	MW-14-1	NA	NA	**0.8 J**	0.002 U
MW-14 Screen 1	Oct/Nov 2013	DUPE-2-4Q13	NA	NA	**1.0 J**	0.002 U
MW-14 Screen 2	Jan/Feb 2013	MW-14-2	NA	NA	**0.7 J**	0.002 U
MW-14 Screen 2	Apr/May 2013	MW-14-2	2.0 U	1.000 U	3.0 U	0.002 U
MW-14 Screen 2	Jul 2013	MW-14-2	NA	NA	**1.3 J**	0.002 U
MW-14 Screen 2	Jul 2013	DUPE-2-3Q13	NA	NA	**1.3 J**	0.002 U
MW-14 Screen 2	Oct/Nov 2013	MW-14-2	NA	NA	3.0 U	0.002 U
MW-14 Screen 3	Jan/Feb 2013	MW-14-3	NA	NA	**1.2 J**	0.002 U
MW-14 Screen 3	Apr/May 2013	MW-14-3	2.0 U	1.000 U	3.0 U	0.002 U

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (mg/L)
MW-14 Screen 3	Jul 2013	MW-14-3	NA	NA	**1.1 J**	0.002 U
MW-14 Screen 3	Oct/Nov 2013	MW-14-3	NA	NA	3.0 U	0.002 U
MW-14 Screen 4	Apr/May 2013	MW-14-4	2.0 U	1.000 U	**2.1 J**	**0.001 J**
MW-14 Screen 4	Apr/May 2013	DUP-2-2Q13	2.0 U	1.000 U	**5.0**	**0.001 J**
MW-14 Screen 4	Oct/Nov 2013	MW-14-4	NA	NA	3.0 U	**0.002 J**
MW-14 Screen 5	Apr/May 2013	MW-14-5	**1.3 J**	1.000 U	3.0 U	0.002 U
MW-14 Screen 5	Oct/Nov 2013	MW-14-5	NA	NA	3.0 U	0.002 U
MW-15	Jan/Feb 2013	MW-15	NA	NA	**0.6 J**	0.002 U
MW-15	Apr/May 2013	MW-15	**1.5 J**	1.000 U	**0.5 J**	0.002 U
MW-15	Jul 2013	MW-15	NA	NA	**4.2**	0.002 U
MW-15	Oct/Nov 2013	MW-15	NA	NA	3.0 U	0.002 U
MW-15	Oct/Nov 2013	DUPE-6-4Q13	NA	NA	3.0 U	0.002 U
MW-16	Jan/Feb 2013	MW-16	NA	NA	**17.0**	**0.018 J**
MW-16	Apr/May 2013	MW-16	**4.8**	1.000 U	**14.0**	**0.010**
MW-16	Jul 2013	MW-16	NA	NA	**15.0**	**0.014**
MW-16	Oct/Nov 2013	MW-16	NA	NA	**260.0**	**0.014**
MW-16	Oct/Nov 2013	DUPE-7-4Q13	NA	NA	**180.0**	**0.014**
MW-17 Screen 1	Apr/May 2013	MW-17-1	2.0 U	1.000 U	3.0 U	0.002 U
MW-17 Screen 1	Oct/Nov 2013	MW-17-1	NA	NA	3.0 U	0.002 U
MW-17 Screen 2	Jan/Feb 2013	MW-17-2	NA	NA	**0.6 J**	0.002 U
MW-17 Screen 2	Apr/May 2013	MW-17-2	2.0 U	1.000 U	**0.7 J**	0.002 U
MW-17 Screen 2	Jul 2013	MW-17-2	NA	NA	**0.7 J**	0.002 U
MW-17 Screen 2	Oct/Nov 2013	MW-17-2	NA	NA	3.0 U	0.002 U
MW-17 Screen 3	Jan/Feb 2013	MW-17-3	NA	NA	3.0 U	0.002 U
MW-17 Screen 3	Apr/May 2013	MW-17-3	**1.0 J**	1.000 U	**0.6 J**	0.002 U
MW-17 Screen 3	Jul 2013	MW-17-3	NA	NA	**0.9 J**	0.002 U
MW-17 Screen 3	Oct/Nov 2013	MW-17-3	NA	NA	3.0 U	0.002 U
MW-17 Screen 4	Jan/Feb 2013	MW-17-4	NA	NA	**1.8 J**	0.002 U
MW-17 Screen 4	Apr/May 2013	MW-17-4	**2.4**	1.000 U	**1.1 J**	0.002 U
MW-17 Screen 4	Jul 2013	MW-17-4	NA	NA	**0.6 J**	0.002 U
MW-17 Screen 4	Oct/Nov 2013	MW-17-4	NA	NA	**2.0 J**	**0.002 J**
MW-17 Screen 5	Apr/May 2013	MW-17-5	**6.6**	**0.340 J**	3.0 U	0.002 U
MW-17 Screen 5	Oct/Nov 2013	MW-17-5	NA	NA	3.0 U	0.002 U
MW-18 Screen 1	Apr/May 2013	MW-18-1	2.0 U	**0.720 J**	3.0 U	0.004 U
MW-18 Screen 2	Jan/Feb 2013	MW-18-2	NA	NA	3.0 U	0.004 U
MW-18 Screen 2	Apr/May 2013	MW-18-2	**0.9 J**	1.000 U	3.0 U	0.002 U
MW-18 Screen 2	Jul 2013	MW-18-2	NA	NA	**0.6 J**	0.002 U
MW-18 Screen 2	Oct/Nov 2013	MW-18-2	NA	NA	3.0 U	0.002 U
MW-18 Screen 3	Jan/Feb 2013	MW-18-3	NA	NA	**2.1 J**	0.002 U
MW-18 Screen 3	Apr/May 2013	MW-18-3	2.0 U	1.000 U	**2.2 J**	**0.001 J**
MW-18 Screen 3	Jul 2013	MW-18-3	NA	NA	**2.8 J**	**0.001 J**

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (mg/L)
MW-18 Screen 3	Oct/Nov 2013	MW-18-3	NA	NA	**2.9 J**	**0.001 J**
MW-18 Screen 4	Jan/Feb 2013	MW-18-4	NA	NA	**2.2 J**	0.002 U
MW-18 Screen 4	Apr/May 2013	MW-18-4	**1.2 J**	1.000 U	**1.2 J**	0.002 U
MW-18 Screen 4	Jul 2013	MW-18-4	NA	NA	**2.5 J**	0.002 U
MW-18 Screen 4	Jul 2013	DUPE-3-3Q13	NA	NA	**2.1 J**	0.002 U
MW-18 Screen 4	Oct/Nov 2013	MW-18-4	NA	NA	**3.5**	**0.001 J**
MW-18 Screen 5	Apr/May 2013	MW-18-5	**1.3 J**	1.000 U	3.0 U	0.002 U
MW-18 Screen 5	Oct/Nov 2013	MW-18-5	NA	NA	3.0 U	0.002 U
MW-19 Screen 1	Apr/May 2013	MW-19-1	2.0 U	1.000 U	3.0 U	0.002 U
MW-19 Screen 1	Oct/Nov 2013	MW-19-1	NA	NA	**2.3 J**	0.002 U
MW-19 Screen 2	Apr/May 2013	MW-19-2	2.0 U	1.000 U	**1.7 J**	0.002 U
MW-19 Screen 2	Oct/Nov 2013	MW-19-2	NA	NA	**2.1 J**	0.002 U
MW-19 Screen 3	Apr/May 2013	MW-19-3	**0.9 J**	1.000 U	**1.9 J**	**0.001 J**
MW-19 Screen 3	Oct/Nov 2013	MW-19-3	NA	NA	**2.6 J**	0.002 U
MW-19 Screen 4	Apr/May 2013	MW-19-4	**1.3 J**	1.000 U	**1.1 J**	**0.002 J**
MW-19 Screen 4	Oct/Nov 2013	MW-19-4	NA	NA	**2.5 J**	**0.002 J**
MW-19 Screen 5	Apr/May 2013	MW-19-5	**1.1 J**	1.000 U	3.0 U	0.002 U
MW-19 Screen 5	Oct/Nov 2013	MW-19-5	NA	NA	**1.1 J**	0.002 U
MW-20 Screen 1	Jan/Feb 2013	MW-20-1	NA	NA	3.0 U	0.002 U
MW-20 Screen 1	Apr/May 2013	MW-20-1	2.0 U	1.000 U	3.0 U	0.002 U
MW-20 Screen 1	Jul 2013	MW-20-1	NA	NA	**1.1 J**	0.002 U
MW-20 Screen 1	Oct/Nov 2013	MW-20-1	NA	NA	3.0 U	0.002 U
MW-20 Screen 2	Jan/Feb 2013	MW-20-2	NA	NA	**0.6 J**	0.002 U
MW-20 Screen 2	Apr/May 2013	MW-20-2	**0.7 J**	1.000 U	3.0 U	0.002 U
MW-20 Screen 2	Jul 2013	MW-20-2	NA	NA	3.0 U	0.002 U
MW-20 Screen 2	Oct/Nov 2013	MW-20-2	NA	NA	3.0 U	0.002 U
MW-20 Screen 3	Jan/Feb 2013	MW-20-3	NA	NA	3.0 U	0.002 U
MW-20 Screen 3	Apr/May 2013	MW-20-3	**1.0 J**	1.000 U	3.0 U	0.002 U
MW-20 Screen 3	Apr/May 2013	DUP-1-2Q13	**1.1 J**	1.000 U	3.0 U	0.002 U
MW-20 Screen 3	Jul 2013	MW-20-3	NA	NA	**0.9 J**	0.002 U
MW-20 Screen 3	Oct/Nov 2013	MW-20-3	NA	NA	3.0 U	0.002 U
MW-20 Screen 4	Jan/Feb 2013	MW-20-4	NA	NA	3.0 U	0.002 U
MW-20 Screen 4	Apr/May 2013	MW-20-4	**1.8 J**	1.000 U	**2.8 J**	0.002 U
MW-20 Screen 4	Jul 2013	MW-20-4	NA	NA	**0.9 J**	0.002 U
MW-20 Screen 4	Oct/Nov 2013	MW-20-4	NA	NA	3.0 U	0.002 U
MW-20 Screen 4	Oct/Nov 2013	DUPE-1-4Q13	NA	NA	3.0 U	0.002 U
MW-20 Screen 5	Jan/Feb 2013	MW-20-5	NA	NA	3.0 U	0.002 U
MW-20 Screen 5	Apr/May 2013	MW-20-5	2.0 U	1.000 U	3.0 U	0.002 U
MW-20 Screen 5	Jul 2013	MW-20-5	NA	NA	**1.5 J**	0.002 U
MW-20 Screen 5	Oct/Nov 2013	MW-20-5	NA	NA	3.0 U	0.002 U
MW-21 Screen 1	Jan/Feb 2013	MW-21-1	NA	NA	**1.7 J**	0.002 U

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (mg/L)
MW-21 Screen 1	Apr/May 2013	MW-21-1	2.0 U	1.000 U	**1.4 J**	**0.001 J**
MW-21 Screen 1	Jul 2013	MW-21-1	NA	NA	1.4 U	**0.001 J**
MW-21 Screen 1	Oct/Nov 2013	MW-21-1	NA	NA	3.9 U	0.002 U
MW-21 Screen 2	Jan/Feb 2013	MW-21-2	NA	NA	3.0 U	0.002 U
MW-21 Screen 2	Apr/May 2013	MW-21-2	2.0 U	1.000 U	**3.3**	**0.001 J**
MW-21 Screen 2	Jul 2013	MW-21-2	NA	NA	1.2 U	0.002 U
MW-21 Screen 2	Oct/Nov 2013	MW-21-2	NA	NA	1.3 U	0.002 U
MW-21 Screen 3	Jan/Feb 2013	MW-21-3	NA	NA	**1.0 J**	0.002 U
MW-21 Screen 3	Apr/May 2013	MW-21-3	**0.9 J**	1.000 U	**0.7 J**	**0.001 J**
MW-21 Screen 3	Jul 2013	MW-21-3	NA	NA	1.0 U	0.002 U
MW-21 Screen 3	Oct/Nov 2013	MW-21-3	NA	NA	2.0 U	0.002 U
MW-21 Screen 4	Jan/Feb 2013	MW-21-4	NA	NA	**1.1 J**	0.002 U
MW-21 Screen 4	Apr/May 2013	MW-21-4	**0.8 J**	1.000 U	**1.5 J**	**0.001 J**
MW-21 Screen 4	Jul 2013	MW-21-4	NA	NA	**1.6 J**	0.002 U
MW-21 Screen 4	Jul 2013	DUPE-7-3Q13	NA	NA	**1.6 J**	0.002 U
MW-21 Screen 4	Oct/Nov 2013	MW-21-4	NA	NA	1.9 U	0.002 U
MW-21 Screen 5	Jan/Feb 2013	MW-21-5	NA	NA	**1.5 J**	0.002 U
MW-21 Screen 5	Apr/May 2013	MW-21-5	**1.6 J**	1.000 U	**1.9 J**	**0.002 J**
MW-21 Screen 5	Jul 2013	MW-21-5	NA	NA	**1.7 J**	**0.001 J**
MW-21 Screen 5	Oct/Nov 2013	MW-21-5	NA	NA	2.3 U	**0.001 J**
MW-22 Screen 1	Jan/Feb 2013	MW-22-1	NA	NA	**1.7 J**	0.004 U
MW-22 Screen 1	Apr/May 2013	MW-22-1	2.0 U	1.000 U	**0.6 J**	0.002 U
MW-22 Screen 1	Jul 2013	MW-22-1	NA	NA	**0.9 J**	0.002 U
MW-22 Screen 1	Oct/Nov 2013	MW-22-1	NA	NA	1.0 U	0.002 U
MW-22 Screen 2	Jan/Feb 2013	MW-22-2	NA	NA	**2.0 J**	0.002 U
MW-22 Screen 2	Apr/May 2013	MW-22-2	**0.9 J**	1.000 U	**1.7 J**	**0.001 J**
MW-22 Screen 2	Jul 2013	MW-22-2	NA	NA	**1.9 J**	**0.001 J**
MW-22 Screen 2	Oct/Nov 2013	MW-22-2	NA	NA	2.4 U	**0.001 J**
MW-22 Screen 3	Jan/Feb 2013	MW-22-3	NA	NA	**2.5 J**	**0.001 J**
MW-22 Screen 3	Apr/May 2013	MW-22-3	2.0 U	1.000 U	**2.1 J**	**0.002 J**
MW-22 Screen 3	Apr/May 2013	DUP-3-2Q13	2.0 U	1.000 U	**2.0 J**	**0.001 J**
MW-22 Screen 3	Jul 2013	MW-22-3	NA	NA	**2.7 J**	**0.002 J**
MW-22 Screen 3	Oct/Nov 2013	MW-22-3	NA	NA	3.2 U	**0.002**
MW-22 Screen 4	Apr/May 2013	MW-22-4	**1.0 J**	1.000 U	**2.2 J**	**0.001 J**
MW-22 Screen 4	Oct/Nov 2013	MW-22-4	NA	NA	2.0 U	**0.002 J**
MW-22 Screen 5	Apr/May 2013	MW-22-5	2.0 U	1.000 U	3.0 U	0.002 U
MW-22 Screen 5	Oct/Nov 2013	MW-22-5	NA	NA	3.0 U	0.002 U
MW-23 Screen 1	Jan/Feb 2013	MW-23-1	NA	NA	**1.6 J**	0.002 U
MW-23 Screen 1	Apr/May 2013	MW-23-1	2.0 U	1.000 U	**2.7 J**	0.002 U
MW-23 Screen 1	Jul 2013	MW-23-1	NA	NA	**7.0**	0.002 U
MW-23 Screen 1	Oct/Nov 2013	MW-23-1	NA	NA	**2.0 J**	0.002 U

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (mg/L)
MW-23 Screen 2	Jan/Feb 2013	MW-23-2	NA	NA	**1.6 J**	0.002 U
MW-23 Screen 2	Apr/May 2013	MW-23-2	**0.8 J**	1.000 U	**1.9 J**	**0.002 J**
MW-23 Screen 2	Jul 2013	MW-23-2	NA	NA	**1.4 J**	**0.001 J**
MW-23 Screen 2	Oct/Nov 2013	MW-23-2	NA	NA	**0.9 J**	**0.001 J**
MW-23 Screen 3	Jan/Feb 2013	MW-23-3	NA	NA	**3.2**	**0.002 J**
MW-23 Screen 3	Apr/May 2013	MW-23-3	**1.2 J**	1.000 U	**3.0**	**0.003 J**
MW-23 Screen 3	Jul 2013	MW-23-3	NA	NA	**3.1**	**0.003**
MW-23 Screen 3	Oct/Nov 2013	MW-23-3	NA	NA	**2.7 J**	**0.003**
MW-23 Screen 4	Jan/Feb 2013	MW-23-4	NA	NA	**3.0**	**0.002 J**
MW-23 Screen 4	Jan/Feb 2013	DUP-3-1Q13	NA	NA	**3.1**	**0.002 J**
MW-23 Screen 4	Apr/May 2013	MW-23-4	**1.7 J**	1.000 U	**2.7 J**	**0.002 J**
MW-23 Screen 4	Jul 2013	MW-23-4	NA	NA	**3.3**	**0.002 J**
MW-23 Screen 4	Oct/Nov 2013	MW-23-4	NA	NA	**2.3 J**	**0.003**
MW-23 Screen 5	Apr/May 2013	MW-23-5	**3.7**	**0.150 J**	3.0 U	0.002 U
MW-23 Screen 5	Oct/Nov 2013	MW-23-5	NA	NA	3.0 U	0.002 U
MW-24 Screen 1	Jan/Feb 2013	MW-24-1	NA	NA	**19.0**	0.002 U
MW-24 Screen 1	Apr/May 2013	MW-24-1	2.0 U	1.000 U	**20.0**	**0.002**
MW-24 Screen 1	Jul 2013	MW-24-1	NA	NA	**13.0**	**0.007**
MW-24 Screen 1	Oct/Nov 2013	MW-24-1	NA	NA	**9.9**	**0.006**
MW-24 Screen 2	Jan/Feb 2013	MW-24-2	NA	NA	**2.9 J**	**0.001 J**
MW-24 Screen 2	Apr/May 2013	MW-24-2	**2.4**	1.000 U	**1.8 J**	**0.002**
MW-24 Screen 2	Jul 2013	MW-24-2	NA	NA	**2.4 J**	**0.001 J**
MW-24 Screen 2	Oct/Nov 2013	MW-24-2	NA	NA	2.3 U	**0.002 J**
MW-24 Screen 3	Jan/Feb 2013	MW-24-3	NA	NA	**0.7 J**	0.002 U
MW-24 Screen 3	Apr/May 2013	MW-24-3	**2.3**	1.000 U	3.0 U	0.004 U
MW-24 Screen 3	Jul 2013	MW-24-3	NA	NA	3.0 U	0.002 U
MW-24 Screen 3	Oct/Nov 2013	MW-24-3	NA	NA	3.0 U	0.002 U
MW-24 Screen 4	Jan/Feb 2013	MW-24-4	NA	NA	3.0 U	0.002 U
MW-24 Screen 4	Apr/May 2013	MW-24-4	**1.1 J**	1.000 U	3.0 U	0.002 U
MW-24 Screen 4	Jul 2013	MW-24-4	NA	NA	**0.6 J**	0.002 U
MW-24 Screen 4	Oct/Nov 2013	MW-24-4	NA	NA	3.0 U	0.002 U
MW-24 Screen 5	Apr/May 2013	MW-24-5	**2.4**	0.140 U	**2.3 J**	**0.003**
MW-24 Screen 5	Oct/Nov 2013	MW-24-5	NA	NA	3.1 U	**0.001 J**
MW-25 Screen 1	Jan/Feb 2013	MW-25-1	NA	NA	**2.1 J**	0.004 U
MW-25 Screen 1	Apr/May 2013	MW-25-1	2.0 U	1.000 U	**1.6 J**	0.002 U
MW-25 Screen 1	Jul 2013	MW-25-1	NA	NA	**1.7 J**	0.002 U
MW-25 Screen 1	Oct/Nov 2013	MW-25-1	NA	NA	2.3 U	0.002 U
MW-25 Screen 2	Jan/Feb 2013	MW-25-2	NA	NA	**3.7**	0.004 U
MW-25 Screen 2	Apr/May 2013	MW-25-2	**0.8 J**	1.000 U	**2.8 J**	**0.002 J**
MW-25 Screen 2	Jul 2013	MW-25-2	NA	NA	**2.9 J**	**0.002 J**
MW-25 Screen 2	Oct/Nov 2013	MW-25-2	NA	NA	**2.5 J**	**0.001 J**

Sample Location	Sampling Event	Sample Number	Arsenic (µg/L)	Lead (µg/L)	Chromium, Total (µg/L)	Chromium, Hexavalent (mg/L)
MW-25 Screen 2	Oct/Nov 2013	DUPE-4-4Q13	NA	NA	3.7 U	**0.001 J**
MW-25 Screen 3	Jan/Feb 2013	MW-25-3	NA	NA	**3.5**	**0.001 J**
MW-25 Screen 3	Apr/May 2013	MW-25-3	**0.9 J**	**0.230 J**	**3.2**	**0.002 J**
MW-25 Screen 3	Jul 2013	MW-25-3	NA	NA	**3.3**	**0.003**
MW-25 Screen 3	Jul 2013	DUPE-4-3Q13	NA	NA	**3.1**	**0.003**
MW-25 Screen 3	Oct/Nov 2013	MW-25-3	NA	NA	**2.4 J**	**0.002**
MW-25 Screen 4	Jan/Feb 2013	MW-25-4	NA	NA	**2.0 J**	0.002 U
MW-25 Screen 4	Jan/Feb 2013	DUP-2-1Q13	NA	NA	**1.8 J**	0.002 U
MW-25 Screen 4	Apr/May 2013	MW-25-4	**0.8 J**	1.000 U	**1.3 J**	0.002 U
MW-25 Screen 4	Jul 2013	MW-25-4	NA	NA	**1.5 J**	0.002 U
MW-25 Screen 4	Oct/Nov 2013	MW-25-4	NA	NA	**1.1 J**	0.002 U
MW-25 Screen 5	Jan/Feb 2013	MW-25-5	NA	NA	3.0 U	0.002 U
MW-25 Screen 5	Apr/May 2013	MW-25-5	**2.1**	**0.370 J**	3.0 U	0.002 U
MW-25 Screen 5	Jul 2013	MW-25-5	NA	NA	3.0 U	0.002 U
MW-25 Screen 5	Oct/Nov 2013	MW-25-5	NA	NA	3.0 U	0.002 U
MW-26 Screen 1	Jan/Feb 2013	MW-26-1	NA	NA	3.0 U	0.002 U
MW-26 Screen 1	Apr/May 2013	MW-26-1	2.0 U	**0.130 J**	**0.9 J**	0.002 U
MW-26 Screen 1	Jul 2013	MW-26-1	NA	NA	3.0 U	0.002 U
MW-26 Screen 1	Oct/Nov 2013	MW-26-1	NA	NA	3.0 U	0.002 U
MW-26 Screen 1	Oct/Nov 2013	DUPE-3-4Q13	NA	NA	**7.2**	0.002 U
MW-26 Screen 2	Jan/Feb 2013	MW-26-2	NA	NA	**3.6**	0.002 U
MW-26 Screen 2	Apr/May 2013	MW-26-2	**1.2 J**	1.000 U	**2.9 J**	0.002 U
MW-26 Screen 2	Jul 2013	MW-26-2	NA	NA	**2.6 J**	0.002 U
MW-26 Screen 2	Oct/Nov 2013	MW-26-2	NA	NA	**2.1 J**	0.002 U
California Maximum Contaminant Level (MCL)			10	15 *	50	0.05 **
EPA Region IX Maximum Contaminant Level			50	15 *	100	NE

Notes

DUPE	Field Duplicate
NA	Not analyzed
NE	Not established
UNK	PQL value unknown
*	Interim Action Level - California Department of Health Services
**	As of January 6, 2004, hexavalent chromium is regulated under the 50-µg/L MCL for total chromium. DHS will be adopting an MCL that is specific for hexavalent chromium (DHS, 2004). As of December 31, 2010, a draft PHG of 0.02 µg/L has been established by Cal/EPA (e.g., Health and Safety Code requirement to establish the MCL); however, the CDPH (formerly DHS) has not established an MCL. On August 23, 2013, the California Department of Public Health (CDPH) proposed to establish a specific MCL for Cr(VI) at a concentration of 0.010 milligram per liter (10.0 µg/L equivalent).
J	Analyte concentration is an estimated value
U	Analyte was analyzed for but not detected at or above the stated limit

TABLE 3

SUMMARY OF VOLATILE ORGANIC COMPOUNDS AND PERCHLORATE REPORTED IN MUNICIPAL PRODUCTION WELLS NEAR JPL DURING LAST FOUR SAMPLING EVENTS OF THE LONG-TERM QUARTERLY GROUNDWATER SAMPLING PROGRAM

(All concentrations reported in µg/L.)

(Shaded values exceed State or Federal MCLs or action levels.)

Purveyor	Well Name	Sample Date	Perchlorate	Carbon Tetrachloride	PCE	TCE
LINCOLN AVENUE WATER CO.	WELL 03	12/21/12	**6.5**	0.5 U	0.5 U	0.5 U
		1/17/13	**4.9**	0.5 U	0.5 U	0.5 U
		2/12/13	**11.0**	NA	NA	NA
		2/19/13	**13.0**	NA	NA	NA
		2/26/13	**15.0**	NA	NA	NA
		3/05/13	**18.0**	**0.9**	0.5 U	**1.2**
		3/12/13	**18.0**	NA	NA	NA
		3/19/13	**18.0**	NA	NA	NA
		4/01/13	**19.0**	**1.2**	0.5 U	**1.2**
		4/09/13	**19.0**	NA	NA	NA
		4/23/13	**18.0**	NA	NA	NA
		5/07/13	**18.0**	**1.1**	0.5 U	**1.3**
		5/14/13	**18.0**	NA	NA	NA
		5/21/13	**18.0**	NA	NA	NA
		5/28/13	**18.0**	NA	NA	NA
		6/04/13	**18.0**	**1.1**	0.5 U	**1.4**
		6/11/13	**16.0**	NA	NA	NA
		6/18/13	**16.0**	NA	NA	NA
		6/25/13	**16.0**	NA	NA	NA
		7/02/13	**16.0**	**1.4**	**0.4**	**1.6**
		7/09/13	**18.0**	NA	NA	NA
		7/16/13	**18.0**	NA	NA	NA
		7/23/13	**19.0**	NA	NA	NA
		7/30/13	**17.0**	NA	NA	NA
		8/06/13	**17.0**	**1.1**	0.5 U	**1.2**
		8/13/13	**18.0**	NA	NA	NA
		8/20/13	**17.0**	NA	NA	NA
		8/26/13	NA	**1.3**	0.5 U	**1.5**
		8/27/13	**17.0**	NA	NA	NA
		9/03/13	**17.0**	**1.4**	0.5 U	**1.6**
		9/10/13	**19.0**	NA	NA	NA
		9/17/13	**19.0**	NA	NA	NA
		9/24/13	**19.0**	NA	NA	NA
	WELL 05	11/20/12	**23.0**	NA	NA	NA
		11/27/12	**23.0**	NA	NA	NA
		12/04/12	**23.0**	**2.0**	**0.8**	**1.7**
		12/11/12	**27.0**	NA	NA	NA
		12/18/12	**22.0**	NA	NA	NA
		12/26/12	**24.0**	NA	NA	NA
		1/02/13	**22.0**	**2.1**	**0.7**	**1.9**
		1/08/13	**23.0**	NA	NA	NA
		1/15/13	**22.0**	NA	NA	NA
		1/22/13	**23.0**	NA	NA	NA

Purveyor	Well Name	Sample Date	Perchlorate	Carbon Tetrachloride	PCE	TCE
LINCOLN AVENUE WATER CO. (con't)	WELL 05 (con't)	1/29/13	**22.0**	NA	NA	NA
		2/12/13	**21.0**	**1.9**	**0.6**	**1.7**
		2/19/13	**23.0**	NA	NA	NA
		2/26/13	**20.0**	NA	NA	NA
		2/28/13	NA	**2.3**	**0.6**	**1.8**
		3/05/13	**19.0**	**1.9**	**0.6**	**1.9**
		3/26/13	**20.0**	NA	NA	NA
		4/01/13	**21.0**	**2.0**	**0.6**	**1.7**
		4/09/13	**20.0**	NA	NA	NA
		4/16/13	**20.0**	NA	NA	NA
		4/23/13	**20.0**	NA	NA	NA
		5/07/13	**18.0**	**2.0**	**0.6**	**1.9**
		5/14/13	**19.0**	NA	NA	NA
		5/21/13	**18.0**	NA	NA	NA
		5/28/13	**19.0**	NA	NA	NA
		6/04/13	**18.0**	**1.9**	**0.6**	**2.0**
		6/11/13	**17.0**	NA	NA	NA
		6/18/13	**16.0**	NA	NA	NA
		6/25/13	**17.0**	NA	NA	NA
		7/02/13	**16.0**	**2.0**	**0.7**	**1.9**
		7/09/13	**17.0**	NA	NA	NA
		7/16/13	**19.0**	NA	NA	NA
		7/23/13	**17.0**	NA	NA	NA
		7/30/13	**17.0**	NA	NA	NA
		8/06/13	**16.0**	**1.8**	**0.6**	**1.6**
		8/13/13	**17.0**	NA	NA	NA
		8/20/13	**16.0**	NA	NA	NA
		8/27/13	**17.0**	NA	NA	NA
		9/03/13	**18.0**	**1.9**	**0.6**	**1.8**
		9/10/13	**16.0**	NA	NA	NA
		9/17/13	**16.0**	NA	NA	NA
		9/24/13	**16.0**	NA	NA	NA
RUBIO CANON LAND & WATER ASSOCIATION	WELL 04	11/26/12	4.0 U	NA	NA	NA
		12/03/12	4.0 U	NA	NA	NA
		12/10/12	4.0 U	NA	NA	NA
		12/17/12	4.0 U	NA	NA	NA
		12/24/12	4.0 U	NA	NA	NA
		12/31/12	4.0 U	NA	NA	NA
		1/07/13	4.0 U	NA	NA	NA
		1/14/13	4.0 U	NA	NA	NA
		1/22/13	4.0 U	NA	NA	NA
		1/28/13	4.0 U	NA	NA	NA
		2/11/13	4.0 U	NA	NA	NA
		2/19/13	4.0 U	NA	NA	NA
		2/25/13	4.0 U	NA	NA	NA
		3/04/13	4.0 U	NA	NA	NA
		3/11/13	4.0 U	NA	NA	NA
		3/18/13	4.0 U	NA	NA	NA
		3/25/13	4.0 U	NA	NA	NA
		4/01/13	4.0 U	NA	NA	NA

Purveyor	Well Name	Sample Date	Perchlorate	Carbon Tetrachloride	PCE	TCE
RUBIO CANON LAND & WATER ASSOCIATION (con't)	WELL 04 (con't)	4/08/13	4.0 U	NA	NA	NA
		4/15/13	4.0 U	NA	NA	NA
		4/22/13	4.0 U	NA	NA	NA
		5/13/13	4.0 U	NA	NA	NA
		5/20/13	4.0 U	NA	NA	NA
		5/28/13	4.0 U	NA	NA	NA
		6/03/13	4.0 U	NA	NA	NA
		6/10/13	4.0 U	NA	NA	NA
		6/17/13	4.0 U	NA	NA	NA
		6/24/13	4.0 U	NA	NA	NA
		7/01/13	4.0 U	NA	NA	NA
		7/08/13	4.0 U	NA	NA	NA
		7/15/13	4.0 U	NA	NA	NA
		7/22/13	4.0 U	NA	NA	NA
		7/29/13	4.0 U	NA	NA	NA
		8/05/13	4.0 U	NA	NA	NA
		8/12/13	4.0 U	NA	NA	NA
		8/19/13	4.0 U	NA	NA	NA
		8/26/13	4.0 U	NA	NA	NA
		9/03/13	4.0 U	NA	NA	NA
		9/09/13	4.0 U	NA	NA	NA
		9/16/13	4.0 U	NA	NA	NA
		9/19/13	4.0 U	NA	NA	NA
		9/23/13	4.0 U	NA	NA	NA
	WELL 07	11/26/12	4.0 U	NA	NA	NA
		12/03/12	4.0 U	NA	NA	NA
		12/10/12	4.0 U	NA	NA	NA
		12/17/12	4.0 U	NA	NA	NA
		12/24/12	4.0 U	NA	NA	NA
		12/31/12	4.0 U	NA	NA	NA
		1/07/13	4.0 U	NA	0.5 U	NA
		1/14/13	4.0 U	NA	NA	NA
		1/22/13	4.0 U	NA	NA	NA
		1/28/13	4.0 U	NA	NA	NA
		2/11/13	4.0 U	NA	NA	NA
		2/19/13	4.0 U	NA	NA	NA
		2/25/13	4.0 U	NA	NA	NA
		3/04/13	4.0 U	NA	NA	NA
		3/11/13	4.0 U	NA	NA	NA
		3/18/13	4.0 U	NA	NA	NA
		3/25/13	4.0 U	NA	NA	NA
		4/01/13	4.0 U	NA	0.5 U	NA
		4/08/13	4.0 U	NA	NA	NA
		4/15/13	4.0 U	NA	NA	NA
		4/22/13	4.0 U	NA	NA	NA
		5/28/13	4.0 U	NA	NA	NA
		6/03/13	4.0 U	NA	NA	NA
		6/10/13	4.0 U	NA	NA	NA
		6/17/13	4.0 U	NA	NA	NA
		6/24/13	4.0 U	NA	NA	NA

Purveyor	Well Name	Sample Date	Perchlorate	Carbon Tetrachloride	PCE	TCE
RUBIO CANON LAND & WATER ASSOCIATION (con't)	WELL 07 (con't)	7/01/13	4.0 U	NA	**0.5**	NA
		7/08/13	4.0 U	NA	NA	NA
		7/15/13	4.0 U	NA	NA	NA
		7/22/13	4.0 U	NA	NA	NA
		7/29/13	4.0 U	NA	NA	NA
		8/05/13	4.0 U	NA	NA	NA
		8/12/13	4.0 U	NA	NA	NA
		8/19/13	4.0 U	NA	NA	NA
		8/26/13	4.0 U	NA	NA	NA
		9/03/13	4.0 U	NA	NA	NA
		9/09/13	4.0 U	NA	NA	NA
		9/16/13	4.0 U	NA	NA	NA
		9/19/13	4.0 U	NA	NA	NA
		9/23/13	4.0 U	NA	NA	NA
LAS FLORES WATER CO.	WELL 02	11/26/12	**5.1**	NA	0.5 U	NA
		12/03/12	**4.8**	NA	**0.7**	NA
		12/10/12	**4.0**	NA	**0.8**	NA
		12/17/12	**5.1**	NA	**0.5**	NA
		12/26/12	**5.1**	NA	**0.5**	NA
		1/02/13	**5.3**	NA	0.5 U	NA
		1/07/13	**5.4**	NA	0.5 U	NA
		1/14/13	**5.2**	NA	0.5 U	NA
		1/21/13	**4.8**	NA	0.5 U	NA
		1/28/13	**5.3**	NA	0.5 U	NA
		2/11/13	**5.2**	NA	0.5 U	NA
		2/19/13	**4.7**	NA	0.5 U	NA
		3/11/13	**5.3**	NA	0.5 U	NA
		3/18/13	**5.9**	NA	0.5 U	NA
		3/25/13	**6.4**	NA	0.5 U	NA
		4/01/13	**5.2**	NA	0.5 U	NA
		4/08/13	**5.6**	NA	0.5 U	NA
		4/15/13	**5.3**	NA	0.5 U	NA
		4/22/13	**5.6**	NA	0.5 U	NA
		5/13/13	**5.0**	NA	0.5 U	NA
		5/20/13	**4.5**	NA	0.5 U	NA
		5/28/13	**5.5**	NA	0.5 U	NA
		6/03/13	**5.2**	NA	0.5 U	NA
		6/10/13	**4.9**	NA	0.5 U	NA
		6/17/13	**4.7**	NA	0.5 U	NA
		6/24/13	**4.0**	NA	0.5 U	NA
		7/01/13	4.0 U	NA	**0.5**	NA
		7/08/13	**4.3**	NA	0.5 U	NA
		7/15/13	4.0 U	NA	**0.5**	NA
		7/22/13	**4.0**	NA	**0.6**	NA
		7/29/13	**4.5**	NA	**0.6**	NA
		8/05/13	**4.0**	NA	0.5 U	NA
		8/12/13	**5.2**	NA	**0.6**	NA
		8/19/13	**5.6**	NA	**0.5**	NA
		8/26/13	**5.3**	NA	**0.6**	NA
		9/03/13	**5.5**	NA	**0.6**	NA

Purveyor	Well Name	Sample Date	Perchlorate	Carbon Tetrachloride	PCE	TCE
LAS FLORES WATER CO. (con't)	WELL 02 (con't)	9/09/13	**5.7**	NA	**0.8**	NA
		9/16/13	**4.8**	NA	**0.7**	NA
		9/23/13	**5.2**	NA	**0.7**	NA
LA CANADA IRRIGATION DIST.	WELL 01	11/26/12	4.0 U	NA	NA	NA
		12/26/12	NA	NA	**0.6**	**2.0**
		2/19/13	**4.0**	NA	NA	NA
		3/11/13	**4.9**	0.5 U	**0.8**	**2.2**
		5/20/13	4.0 U	NA	NA	NA
		6/10/13	NA	NA	**0.6**	**1.7**
		8/19/13	4.0 U	NA	NA	NA
		9/03/13	NA	NA	**0.7**	**1.9**
	WELL 06	12/17/12	4.0 U	0.5 U	0.5 U	**0.9**
		3/03/13	NA	NA	0.5 U	**0.6**
		6/17/13	NA	NA	0.5 U	**0.8**
		7/29/13	4.0 U	NA	NA	NA
		9/09/13	NA	NA	0.5 U	0.5 U
VALLEY WATER CO.	WELL 01	5/07/13	NA	0.5 U	**1.6**	0.5 U
		6/03/13	4.0 U	NA	NA	NA
		6/10/13	NA	0.5 U	**1.5**	**1.1**
		7/02/13	**4.5**	0.5 U	**2.2**	**1.2**
		8/06/13	4.0 U	0.5 U	0.5 U	0.5 U
		9/03/13	**5.2**	0.5 U	**1.8**	**1.3**
		10/03/13	4.0 U	0.5 U	**1.8**	**1.5**
	WELL 02	2/13/13	**4.0**	**0.5**	**0.5**	**0.5**
		5/07/13	NA	0.5 U	**3.8**	**0.5**
		6/10/13	4.0 U	0.5 U	**3.4**	**0.5**
		7/02/13	**4.1**	0.5 U	**4.3**	**0.6**
		8/06/13	4.0 U	0.5 U	0.5 U	0.5 U
		9/03/13	**5.3**	0.5 U	**2.2**	**0.8**
		10/03/13	4.0 U	0.5 U	**1.5**	**0.9**
	WELL 03	5/07/13	NA	0.5 U	**1.5**	**1.1**
		6/10/13	**4.2**	0.5 U	**1.2**	**1.1**
		7/02/13	**4.9**	0.5 U	**1.6**	**1.2**
		8/06/13	4.0 U	0.5 U	0.5 U	0.5 U
		9/03/13	**4.1**	NA	NA	NA
	WELL 04	5/07/13	NA	0.5 U	**1.3**	**1.7**
		6/03/13	4.0 U	NA	NA	NA
		6/10/13	NA	0.5 U	**1.4**	**1.3**
		7/02/13	**4.1**	0.5 U	**2.0**	**1.5**
		8/06/13	4.0 U	0.5 U	0.5 U	0.5 U
		9/03/13	4.6 U	NA	NA	NA
PASADENA-CITY, WATER DEPT.	ARROYO	11/20/12	**40.2**	**4.0**	0.5 U	**0.8**
		11/27/12	**38.7**	**3.8**	0.5 U	**0.7**
		12/04/12	**39.8**	**2.7**	0.5 U	**0.6**
		12/11/12	**43.2**	**2.9**	0.5 U	**0.6**
		12/18/12	**43.2**	**3.0**	0.5 U	**0.6**
		12/24/12	**39.8**	**3.4**	0.5 U	**0.7**
		1/02/13	**40.0**	**3.1**	0.5 U	**0.7**
		1/08/13	**38.1**	**2.8**	0.5 U	**0.6**
		1/15/13	**43.3**	**2.8**	0.5 U	**0.6**

Purveyor	Well Name	Sample Date	Perchlorate	Carbon Tetrachloride	PCE	TCE
PASADENA-CITY, WATER DEPT. (con't)	ARROYO (con't)	1/22/13	**37.3**	**2.9**	0.5 U	**0.6**
		1/29/13	**43.7**	**3.2**	0.5 U	**0.7**
		2/13/13	**37.4**	**3.0**	0.5 U	**0.6**
		2/19/13	**41.2**	**3.2**	0.5 U	**0.6**
		2/26/13	**40.3**	**2.8**	0.5 U	**0.6**
		3/05/13	**36.0**	**2.7**	0.5 U	**0.6**
		3/12/13	**39.7**	**2.6**	0.5 U	**0.6**
		3/19/13	**42.1**	**2.4**	0.5 U	**0.6**
		3/26/13	**38.6**	**2.7**	0.5 U	**0.6**
		4/02/13	**43.0**	**2.3**	0.5 U	**0.6**
		4/10/13	**44.6**	**2.2**	0.5 U	**0.6**
		4/16/13	**37.4**	**2.4**	0.5 U	**0.6**
		4/23/13	**35.0**	**2.3**	0.5 U	**0.6**
		4/30/13	**34.6**	**2.0**	0.5 U	**0.5**
		5/07/13	**45.5**	**2.2**	0.5 U	**0.6**
		5/14/13	**31.4**	**1.7**	0.5 U	**0.5**
		5/22/13	**31.7**	**1.9**	0.5 U	**0.6**
		5/28/13	**28.5**	**2.8**	0.5 U	**0.6**
		6/04/13	**29.6**	**2.7**	0.5 U	**0.6**
		6/11/13	**30.2**	**2.1**	0.5 U	**0.6**
		6/18/13	**31.4**	**1.7**	0.5 U	**0.6**
		6/25/13	**25.7**	**1.7**	0.5 U	**0.6**
		7/02/13	**28.1**	**1.5**	0.5 U	**0.6**
		7/09/13	**27.8**	**1.1**	0.5 U	**0.5**
		7/16/13	**28.2**	**1.7**	0.5 U	**0.6**
		7/23/13	**27.0**	**1.5**	0.5 U	**0.6**
		8/02/13	**28.5**	**1.6**	0.5 U	**0.6**
		8/06/13	**28.7**	**1.7**	0.5 U	**0.7**
		8/13/13	**29.9**	**1.5**	0.5 U	**0.6**
		8/20/13	**26.9**	**2.4**	0.5 U	**0.6**
		8/27/13	**29.6**	**2.3**	0.5 U	**0.6**
		9/03/13	**26.1**	**1.9**	0.5 U	**0.7**
		9/10/13	**28.5**	**1.5**	0.5 U	**0.7**
		9/17/13	**27.2**	**2.0**	0.5 U	**0.7**
		9/24/13	**23.9**	**1.7**	0.5 U	**0.7**
	VENTURA	1/29/13	**5.1**	0.5 U	**1.1**	**4.3**
		4/10/13	**5.5**	0.5 U	**1.0**	**4.2**
		8/14/13	**5.9**	0.5 U	**0.8**	**4.2**
		9/10/13	**5.5**	0.5 U	**1.0**	**4.6**
	WELL 52	11/20/12	**7.5**	0.5 U	**0.5**	**0.9**
		11/27/12	**7.2**	**3.8**	**0.5**	**1.0**
		12/04/12	**7.6**	0.5 U	0.5 U	**0.9**
		12/11/12	**9.7**	0.5 U	0.5 U	**0.9**
		12/18/12	**7.3**	0.5 U	0.5 U	**1.0**
		12/24/12	**7.9**	0.5 U	0.5 U	**1.1**
		1/02/13	**8.4**	0.5 U	**0.5**	**1.2**
		1/08/13	**7.2**	0.5 U	0.5 U	**1.1**
		1/15/13	**7.5**	0.5 U	0.5 U	**1.0**
		1/22/13	**8.2**	0.5 U	**0.5**	**1.5**
		2/13/13	**8.2**	0.5 U	0.5 U	**1.3**

Purveyor	Well Name	Sample Date	Perchlorate	Carbon Tetrachloride	PCE	TCE
PASADENA-CITY, WATER DEPT. (con't)	WELL 52 (con't)	2/19/13	**9.0**	0.5 U	**0.5**	**1.3**
		2/26/13	**8.4**	0.5 U	0.5 U	**1.3**
		3/05/13	**7.5**	0.5 U	0.5 U	**1.2**
		3/12/13	**6.0**	0.5 U	0.5 U	**1.3**
		3/19/13	**11.4**	0.5 U	0.5 U	**1.3**
		3/26/13	**6.3**	0.5 U	0.5 U	**1.4**
		4/02/13	**9.7**	0.5 U	**0.5**	**1.4**
		4/10/13	**10.1**	0.5 U	0.5 U	**1.4**
		8/14/13	**7.5**	0.5 U	**0.8**	**4.2**
		9/10/13	**8.0**	0.5 U	**0.7**	**2.4**
		9/17/13	**7.7**	0.5 U	**0.6**	**2.2**
		9/24/13	**6.9**	0.5 U	**0.6**	**2.2**
	WINDSOR	7/09/13	4.0 U	NA	NA	NA
		7/23/13	NA	0.5 U	0.5 U	0.5 U
California Maximum Contaminant Level (MCL)			6.0 *	0.5	5.0	5.0
EPA Region IX Maximum Contaminant Level			NE	5.0	5.0	5.0

Notes

NA	Not analyzed
NE	Not established
*	Interim Action Level - California Department of Public Health
Source	California Department of Public Health Drinking Water Program, California Drinking Water Data, January 4, 2005
U	Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.