



March 1, 2011

Mr. Michael Rochette  
California Regional Water Quality Control Board  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

Re: East Bay Municipal Utility District Bayside Groundwater Project, 2010 Annual Report, Order No. R2-2007-0038

Dear Mr. Rochette:

In accordance with the General Waste Discharge Requirements of Order No. R2-2007-0038, this submittal is the 2010 annual self monitoring report for East Bay Municipal Utility District's (EBMUD's) Bayside Groundwater Project.

EBMUD performed an extraction test at the Bayside facility that lasted from August 4, 2010 to September 29, 2010. No chemicals were added during the process. Raw groundwater was extracted from the Bayside well and then pumped directly into the onsite stormdrain. Discharges of extracted groundwater directly to local receiving waters are under the purview of the Regional Water Quality Control Board's (RWQCB's) Dewatering General Permit (DGP; Order No. R2-2007-0033-0009). The extracted water quality monitoring results were submitted to Mr. Farhad Azimzadeh of your office under a separate cover on November 10, 2010.

In total, approximately 113 million gallons of water were extracted and discharged over 57 days. Tables 1 to 3 summarize the injection and extraction volume data.

The Self Monitoring and Reporting Program (SMP) of Order No. R2-2007-0038 requires EBMUD to schedule and conduct a phased approach for groundwater quality monitoring. The SMP requires EBMUD to begin groundwater level and quality monitoring three months prior to initiating operation and continue for one additional year after operation ceases. Table 3 of the SMP tabulates monitoring well groups for phased monitoring. Monitoring is required to begin with Group 1 wells (Bayside Well, MW-2s, MW-2D<sup>1</sup>, and MW-4). The monitoring of Group 1 wells is to be conducted on an annual basis until the expanding injected waterfront reaches MW-4.

In December 2010, annual water quality sampling was conducted and samples were analyzed in accordance with Table 4 of the SMP. EBMUD retained Environmental Sampling Services (ESS) to collect water quality samples at the Bayside Well, MW-2S, MW-2I and MW-4. A peristaltic pump with dedicated lengths of tubing was used to purge and sample the wells. Purge water discharges were disposed of on permeable ground adjacent to the wells. No surface water discharges occurred.

Sampling was completed according to the following procedure:

1. Disinfect all equipment including water level sounder, pump, and tubing with a dilute bleach solution<sup>2</sup>.
2. Measure static water level within each well and calculate the three-well volume<sup>3</sup> of the well required for purging as per USEPA groundwater sampling protocol.

<sup>1</sup> "MW-2D" is actually "MW-2I".

<sup>2</sup> In the case of the Bayside Well, samples were collected simply by activating the pump in the extraction mode.

3. Purge the well and collect the samples.
4. Measure field water quality data<sup>4</sup> and collect samples in sample containers with appropriate preservatives as per relevant USEPA sampling protocols for individual constituents.
5. Transport samples to EBMUD's state certified laboratory in a cooler for further analyses, under chain of custody.

Table 4 contains construction details for all available wells in the groundwater monitoring system<sup>5</sup>. Table 5 contains groundwater elevation and depth to groundwater data. Table 6 summarizes general groundwater quality data; Table 7 summarizes sampling results for standard minerals; Table 8 summarizes haloacetic acids data; and Table 9 summarizes results for trihalomethanes. Tables 10 and 11 summarize vertical gradient calculations. Appendix A contains the original lab reports including the analytical methods used and associated method detection limits and minimum levels of quantitation.

Figure 1 shows the groundwater level monitoring network and Figure 2 shows the groundwater quality monitoring network. Pressure transducers have been installed in all of the wells listed in Table 4, in addition to the Bayside Well. These transducers measure water level and temperature at a minimum of 30-minute intervals. Figures 3 and 4 present the groundwater level contour maps for August 3 and December 25, 2010, respectively. Figures 5 to 17 present the 2010 groundwater level trends for the monitoring wells.

The high chloride concentrations from MW-2S, a shallow well screened from 40 to 60 feet below grade, are consistent with historic high chloride concentrations observed in the local shallow zone. Results for TTHMs and HAAs were well below the permit limits of 80 µg/L and 60 µg/L, respectively. No exceedances of water quality limits in the order were observed.

Groundwater elevation contour maps were prepared to represent subsurface conditions on August 3 and December 25, before and after the extraction test that occurred from August 4 to September 29. On both occasions, the deep aquifer was flowing in a southwesterly direction in the immediate area surrounding the Bayside project site. The gradient was 0.0003 ft/ft in both cases. Water levels at MW-1 were used to also represent conditions at the Bayside Well due to its proximity to the Bayside Well and the fact that it is screened at the same depth.

Vertical gradients were calculated for the three nested wells at MW-5 for January 25 and December 25 (see Tables 10 and 11). The direction of flow was downward in each case.

Figures 5 through 17 show the typical pattern of higher groundwater levels in the deep aquifer during the winter/spring than fall/summer prevailed. Wells as far away from the Bayside Well as MW-10D registered effects of the extraction that occurred in August and September with a corresponding decrease in water levels. The water levels in all cases quickly recovered upon ceasing the extraction operation. MW-1, MW-2S, MW-2I,

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<sup>3</sup> Only one and a half and one casing volumes of water were purged from MW-2I and MW-4, respectively, due to time constraints as a result of the fact that the pump was only producing approximately 0.5 gpm. However, the pumping was equivalent to a micro-purging process because of minimal disturbance to the water in the wells and minimal water level fluctuations. Water samples were not collected until all monitored field water quality parameters had stabilized. The resultant samples were therefore considered representative of the formation water, and the results were consistent with those from previous years.

<sup>4</sup> Measured field WQ parameters included pH, specific conductance, temperature, and color. Chlorine residual was also measured immediately prior to sample collection.

<sup>5</sup> Not all of the wells in Table 4 are required to be monitored according to Order No. R2-2007-0038.

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MW-3, and MW-4 also displayed a temporary decline in water levels on December 8 that corresponded to the end-of-the-year groundwater sampling event.

A few aberrations in water levels were observed in some of the wells and they were considered anomalies. For example, MW-2S water levels displayed a decreasing trend in early to mid-August, seemingly corresponding to the extraction ongoing at that time, but then abruptly recovered on August 19. The extraction that occurred in August and September was continuous without interruptions and did not end until September 29. One potential explanation is that the decreasing trend observed in early to mid-August was not real and a result of transducer malfunction, which also contributed to a data gap that existed from January 20 to August 11. Another anomaly observed was an almost 4-ft fluctuation in elevation on August 3 at MW-5I. This occurred prior to the two-month long extraction with no apparent explanation.

Lastly, according to Figure 16, MW-10I exhibited artesian conditions in October with the water level reaching as high as 15.96 ft above mean sea level (amsl), while the top of the casing is at 11.76 ft amsl. Yet, this well was never observed to be flowing and no injection took place in all of 2010. 0.04 inch of rain did fall on October 17 in this area, but that was not enough to explain this significant rise in groundwater level.

In addition to MW-2S mentioned above, transducer malfunction also contributed to data gaps for MW-2I, MW-3, MW-5S, and MW-10I.

The extent of injected water was not evaluated because no injection occurred in 2010 while over 113 million gallons of water was extracted.

EBMUD will continue to monitor injection and extraction of groundwater in accordance with all associated regulatory permits in 2011.

#### CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions, please contact me at (510) 287-0345 or Derek Lee, Senior Environmental Health and Safety Specialist, at (510) 287-1086.

Sincerely,

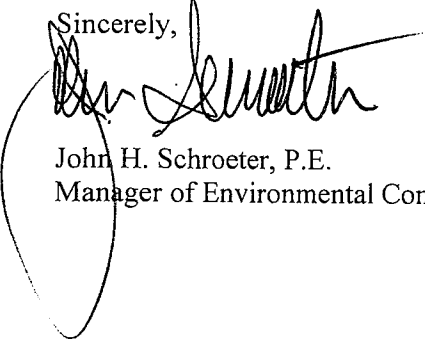
  
John H. Schroeter, P.E.  
Manager of Environmental Compliance

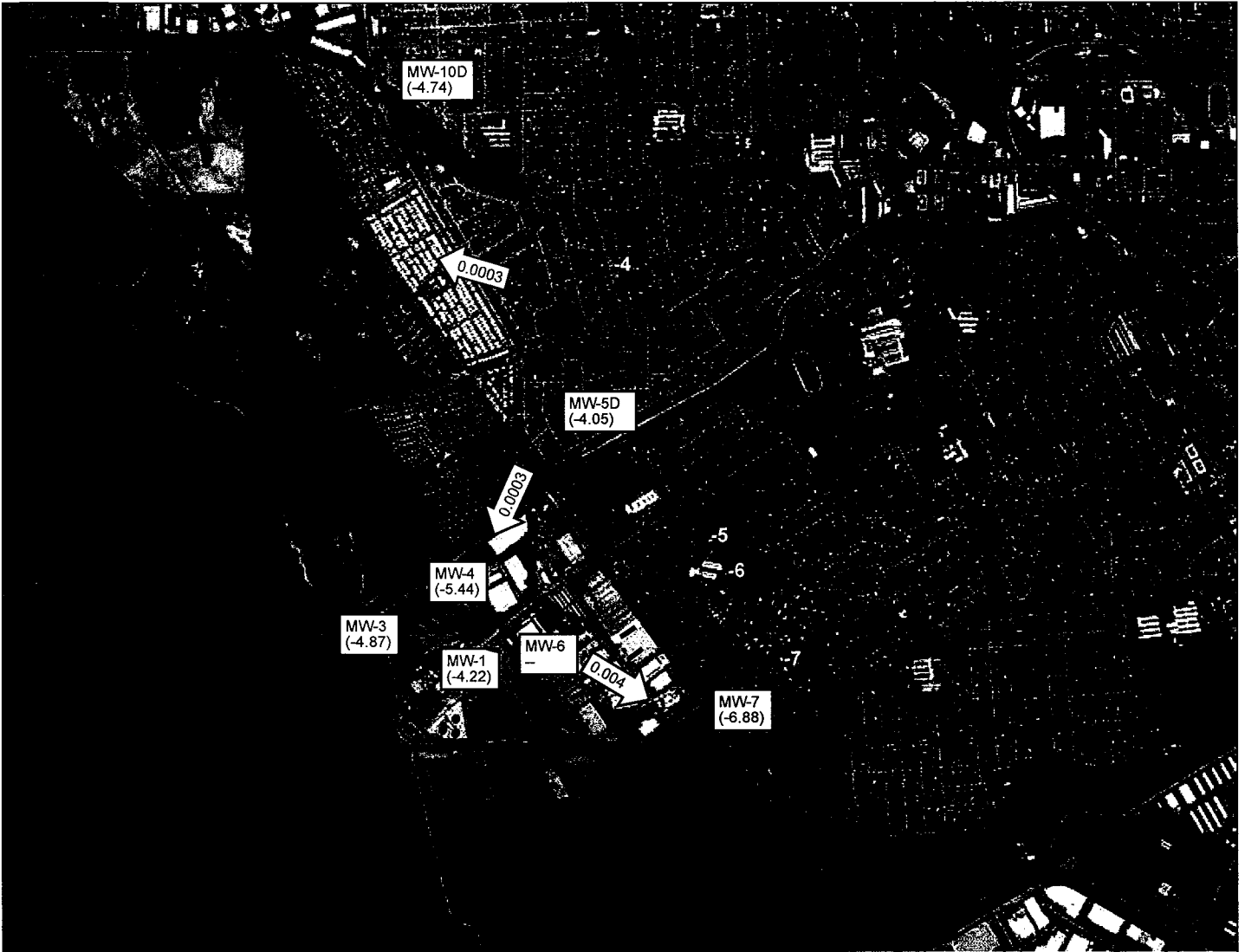


Figure 1 – Groundwater Level Monitoring Well Network



Figure 2 – Groundwater Quality Monitoring Well Network





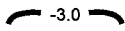
**LEGEND**



Groundwater monitoring well

(-3.24)

Groundwater elevation in feet below mean sea level (measured August 3, 2010)



-3.0

Groundwater elevation contour in feet below mean sea level (contour interval: 1.0 feet)



0.0003

Calculated groundwater gradient direction and magnitude in foot per foot

**URS**

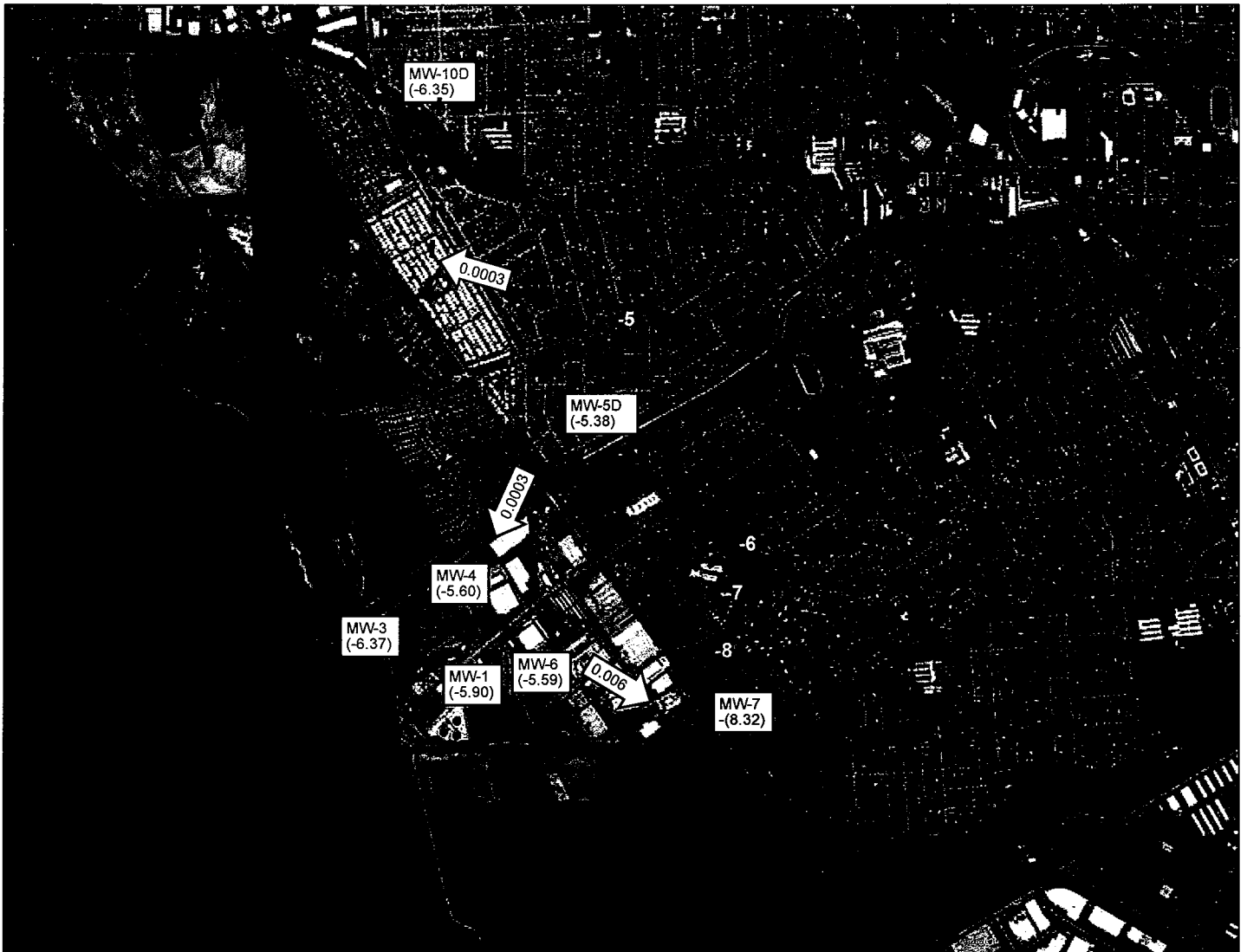
26817754.2008

EBMUD

**GROUNDWATER ELEVATION CONTOUR MAP**

August 3, 2010

Figure  
3



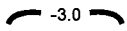
**LEGEND**



Groundwater monitoring well

(-3.24)

Groundwater elevation in feet below mean sea level (measured December 25, 2010)



-3.0

Groundwater elevation contour in feet below mean sea level (contour interval: 1.0 feet)



0.0003

Calculated groundwater gradient direction and magnitude in foot per foot

**URS**

26817754.2008

EBMUD

**GROUNDWATER ELEVATION CONTOUR MAP**  
(December 25, 2010)

Figure  
4

Figure 5 - MW-1 2010 GW Level Trend

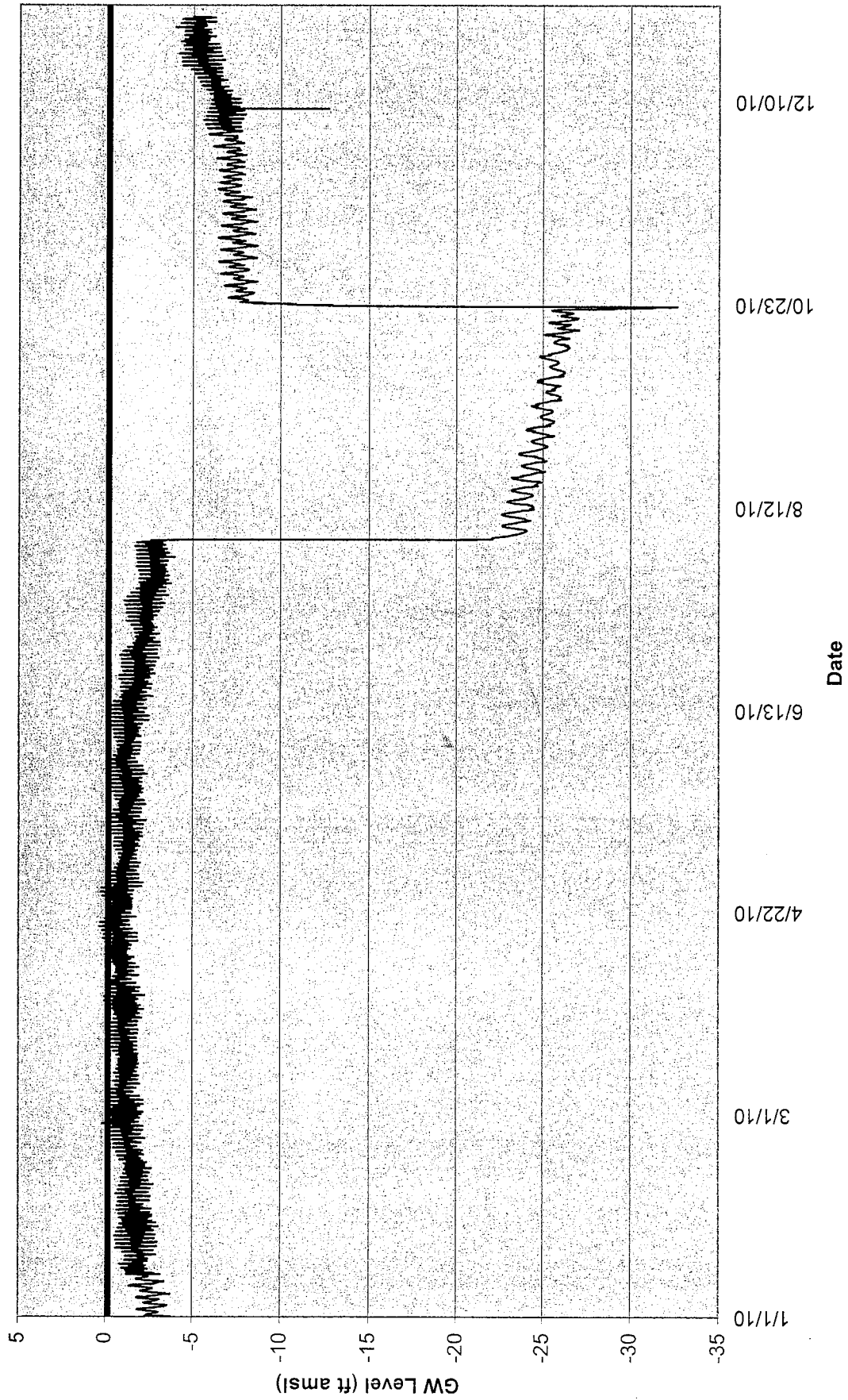




Figure 6 - MW-2S 2010 GW Level Trend

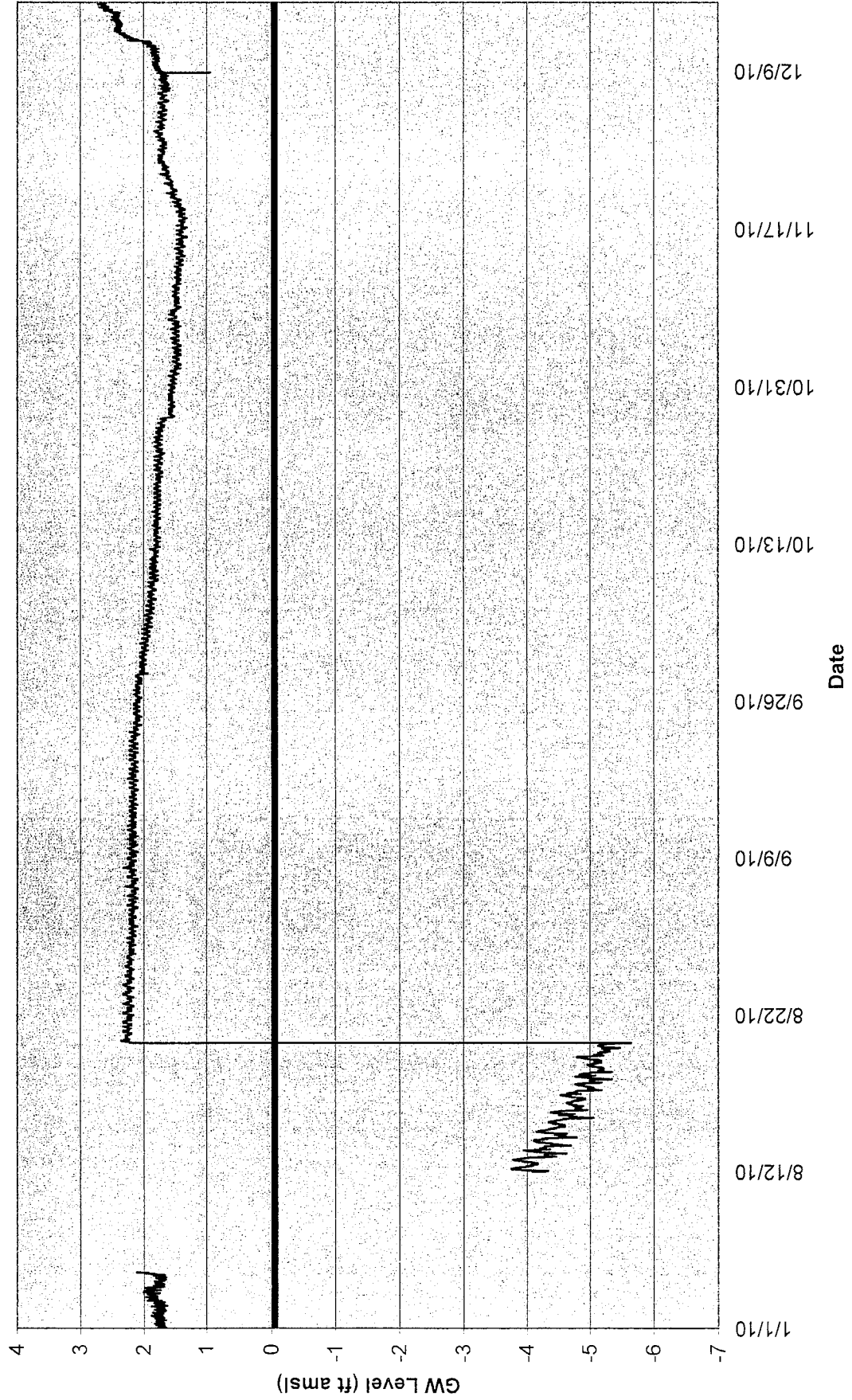


Figure 7 - MW-2I 2010 GW Level Trend

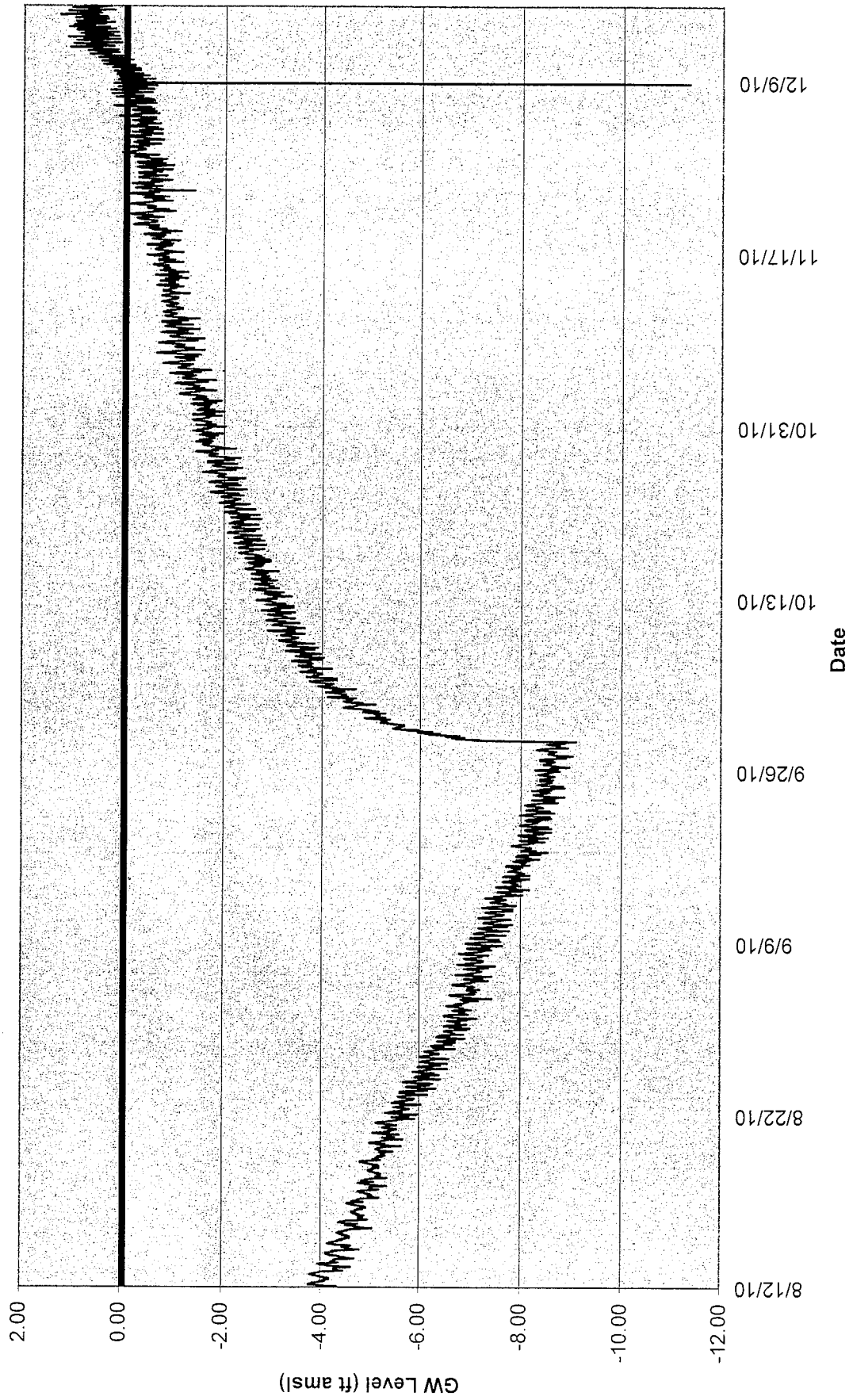


Figure 8 - MW-3 2010 GW Level Trend

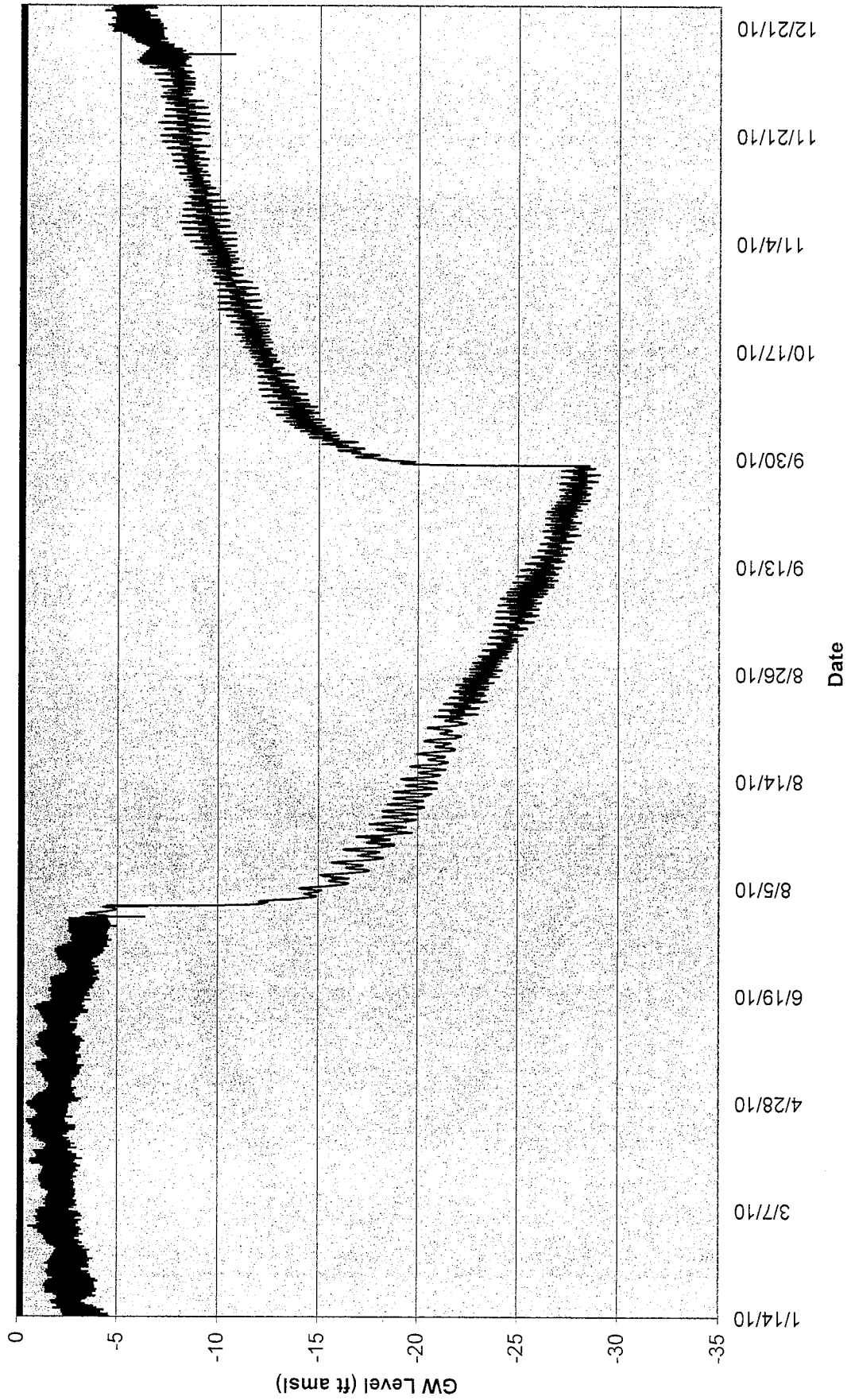


Figure 9 - MW-4 2010 GW Level Trend

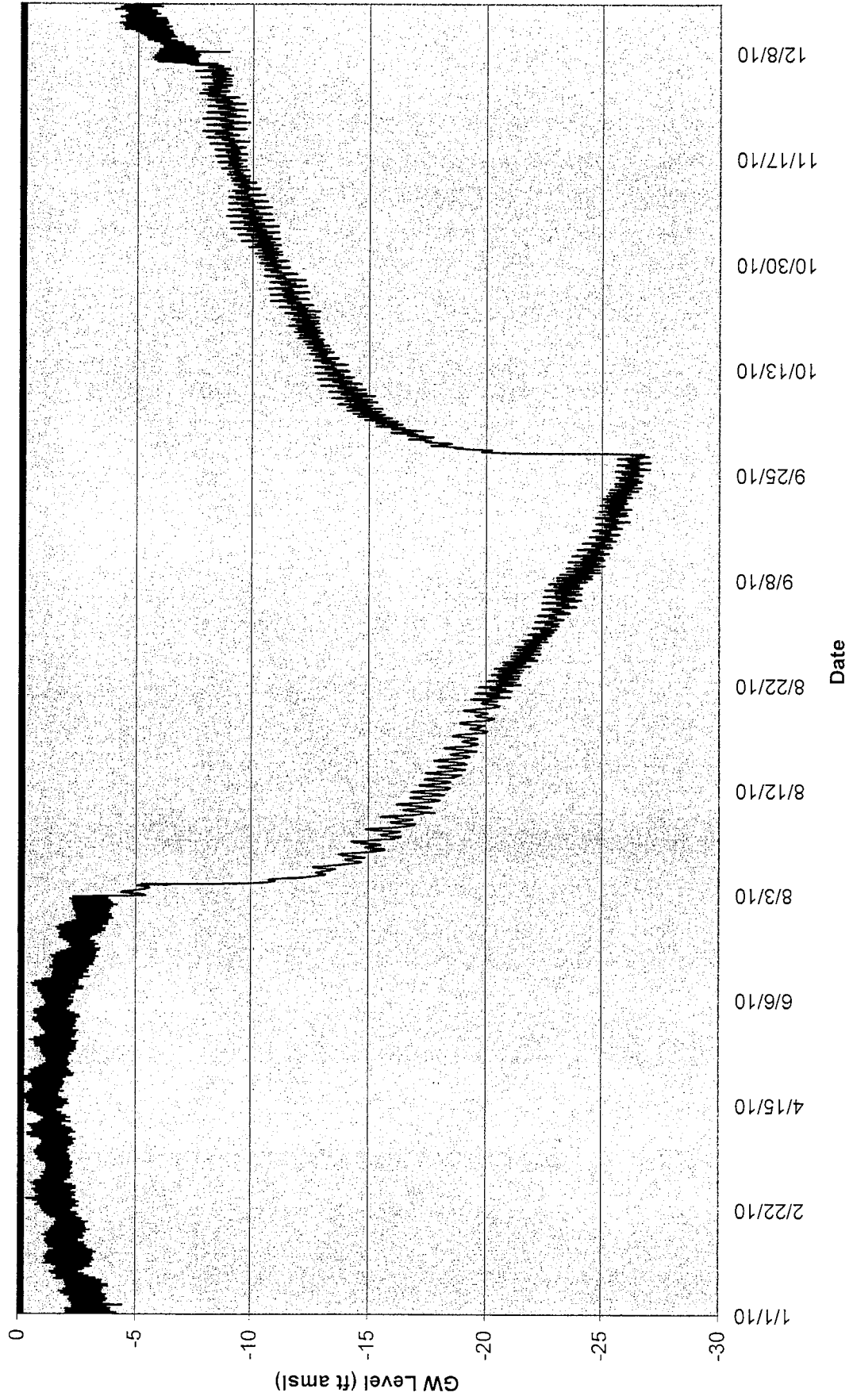


Figure 10 - MW-5S 2010 GW Level Trend

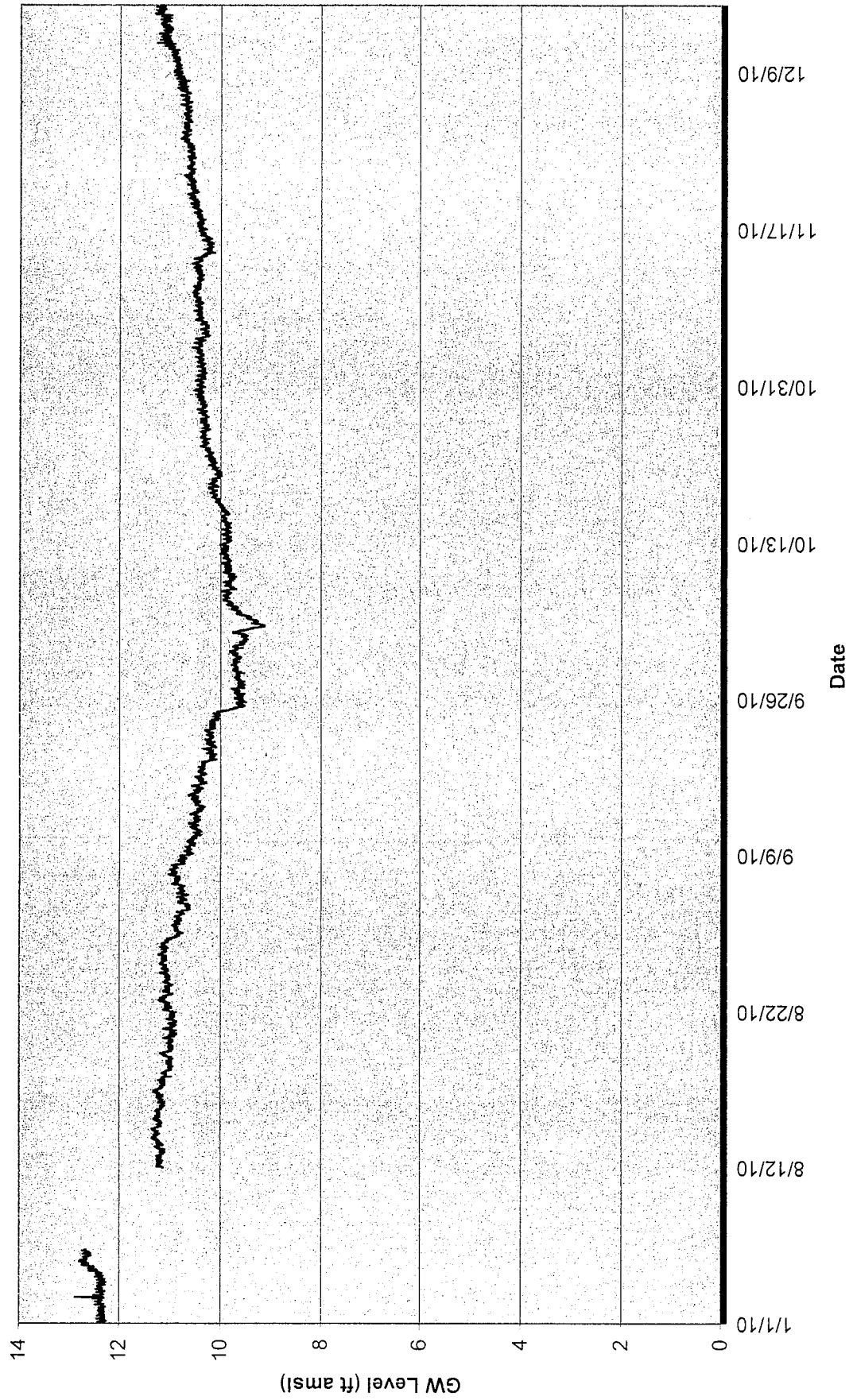


Figure 11 - MW-5I 2010 GW Level Trend

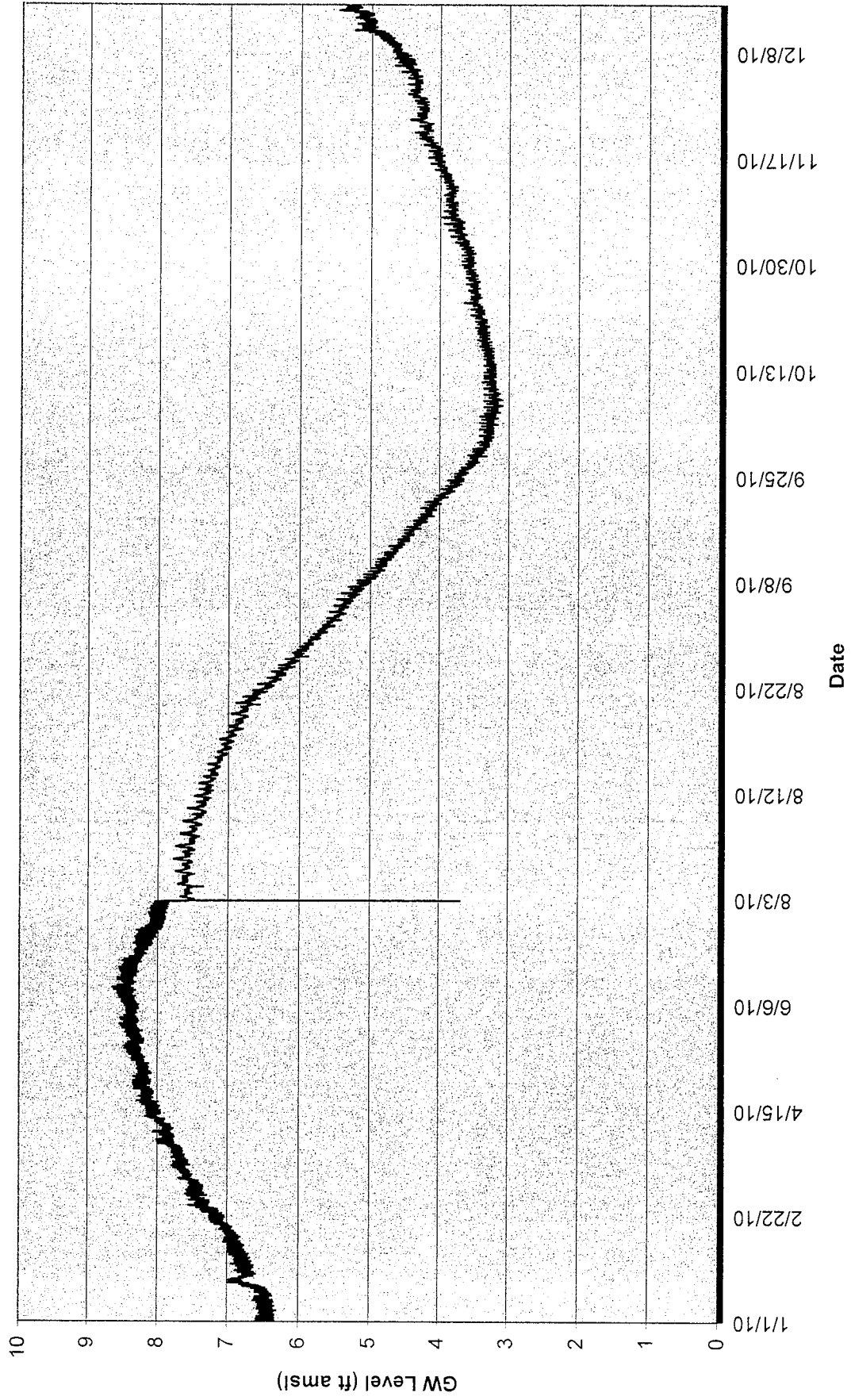


Figure 12 - MW-5D GW Level Trend

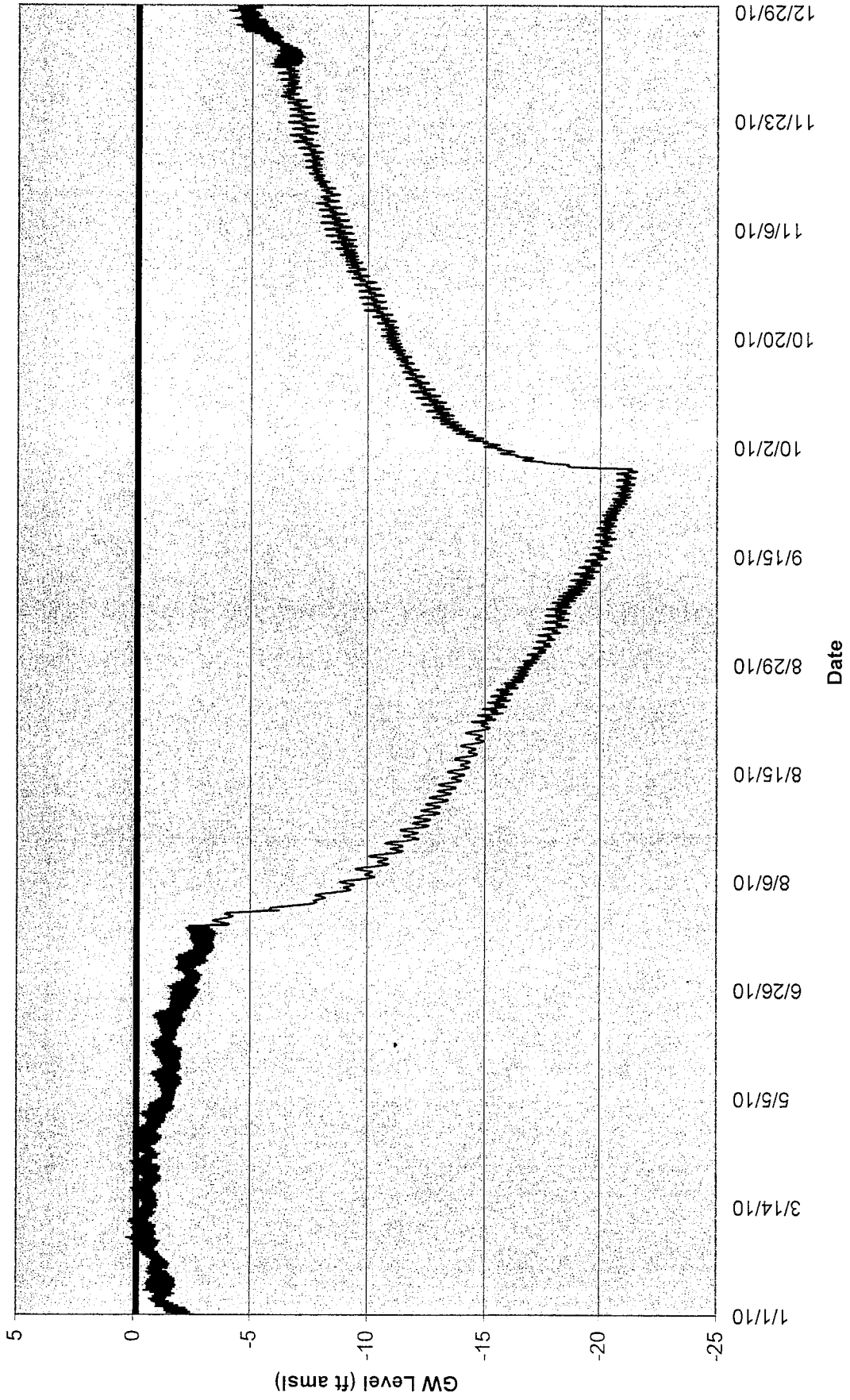


Figure 13 - MW-6 2010 GW Level Trend

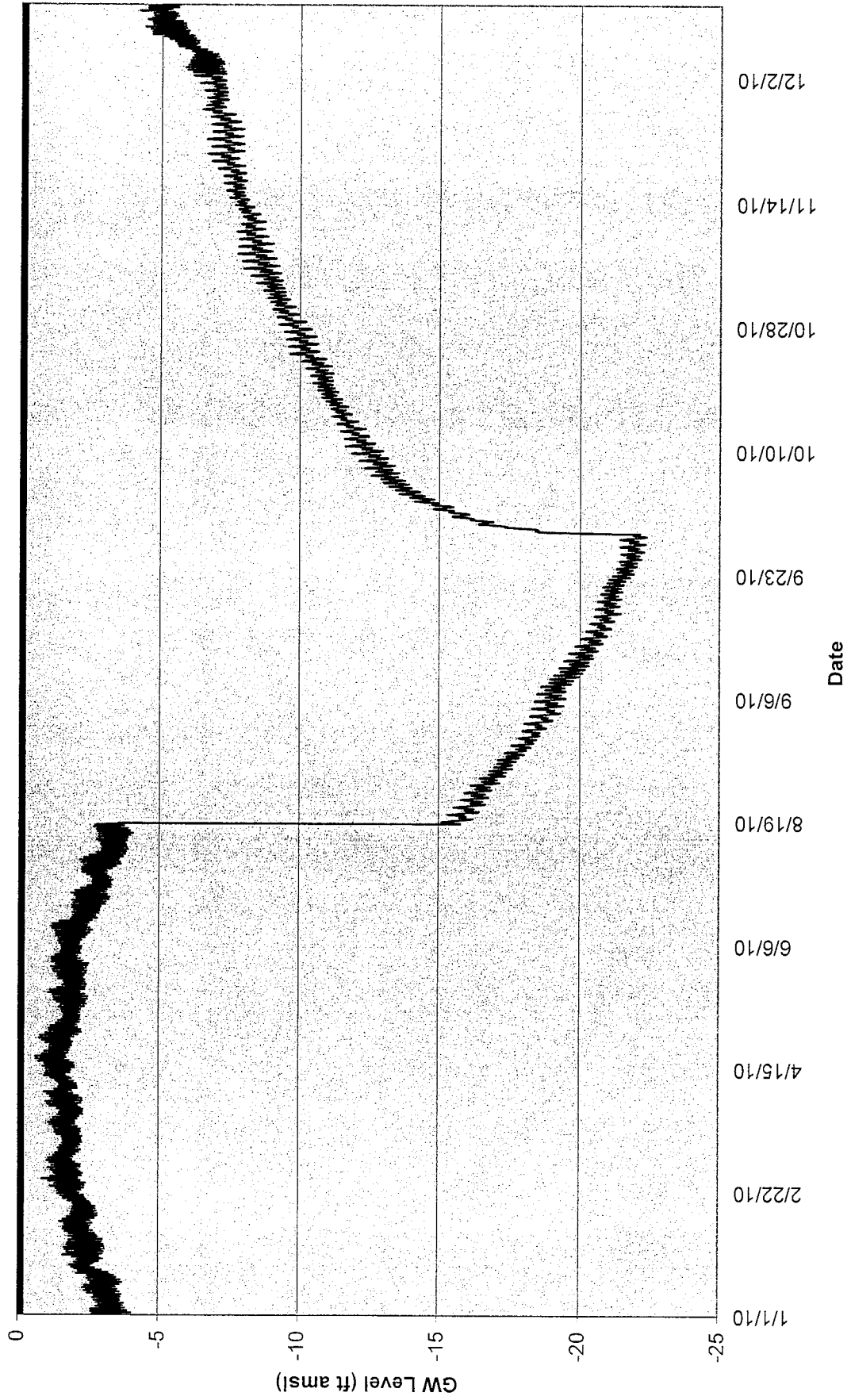




Figure 14 - MW-7 2010 GW Level Trend

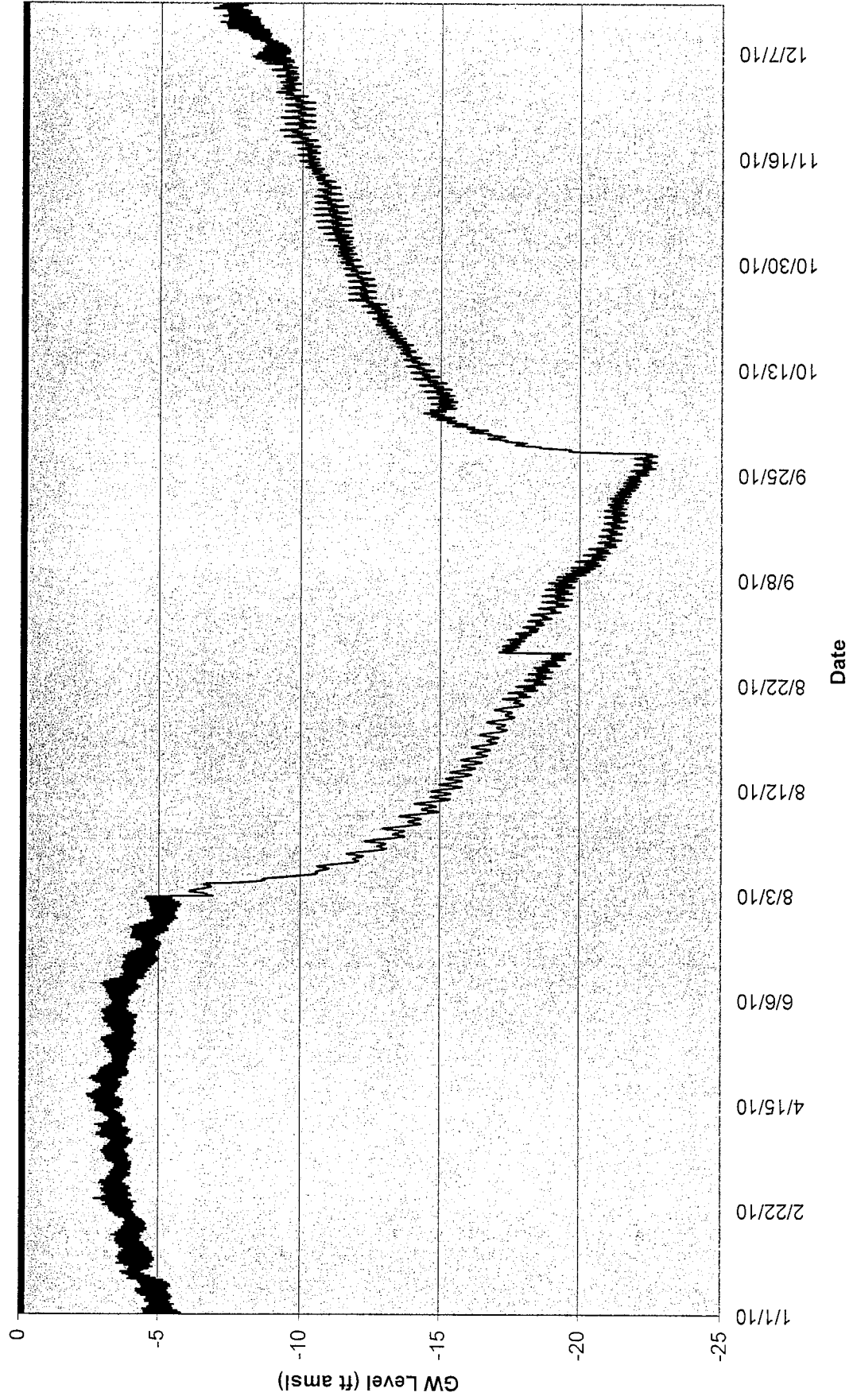


Figure 15 - MW-9D 2010 GW Level Trend

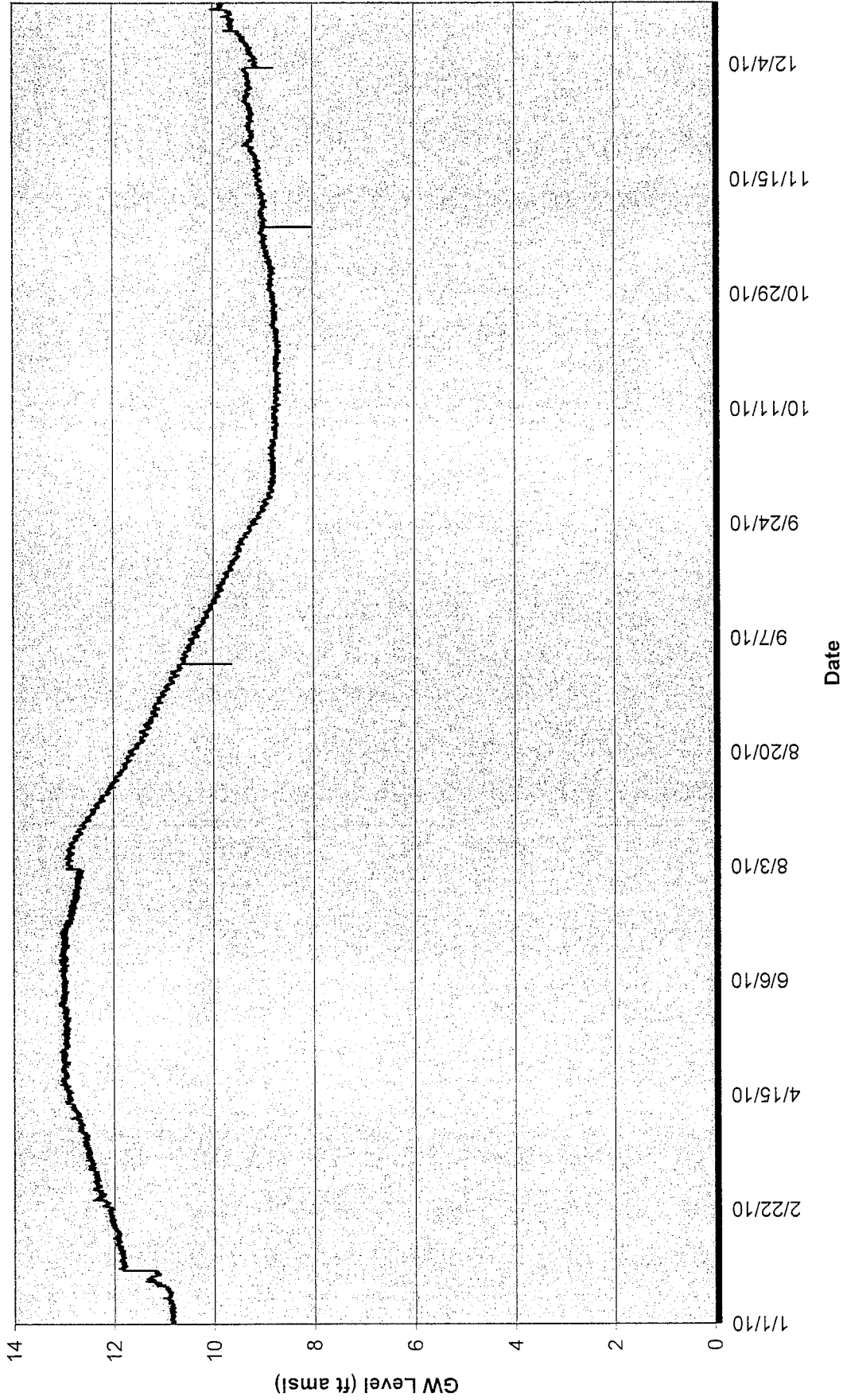


Figure 16 - MW-10I 2010 GW Level Trend

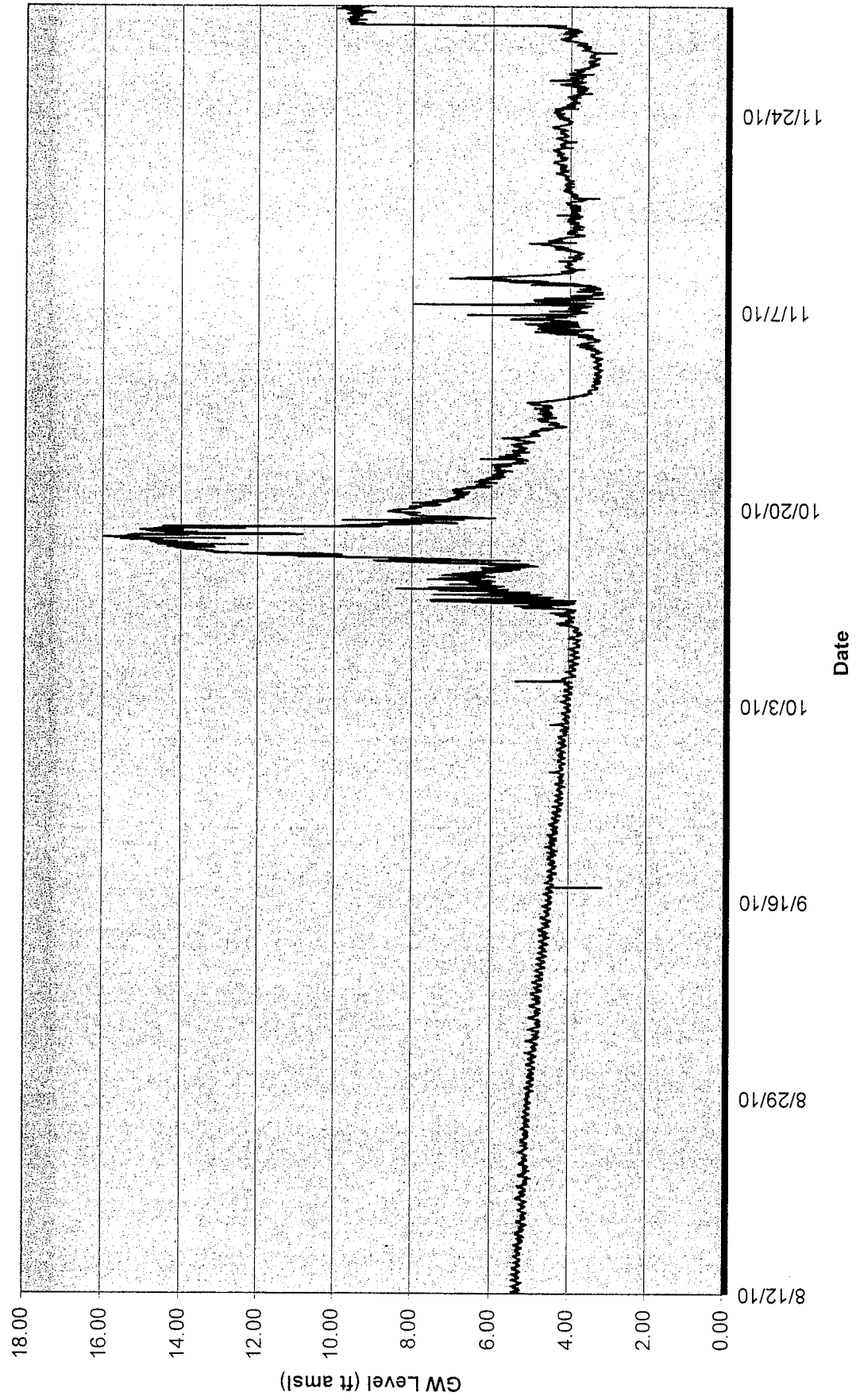
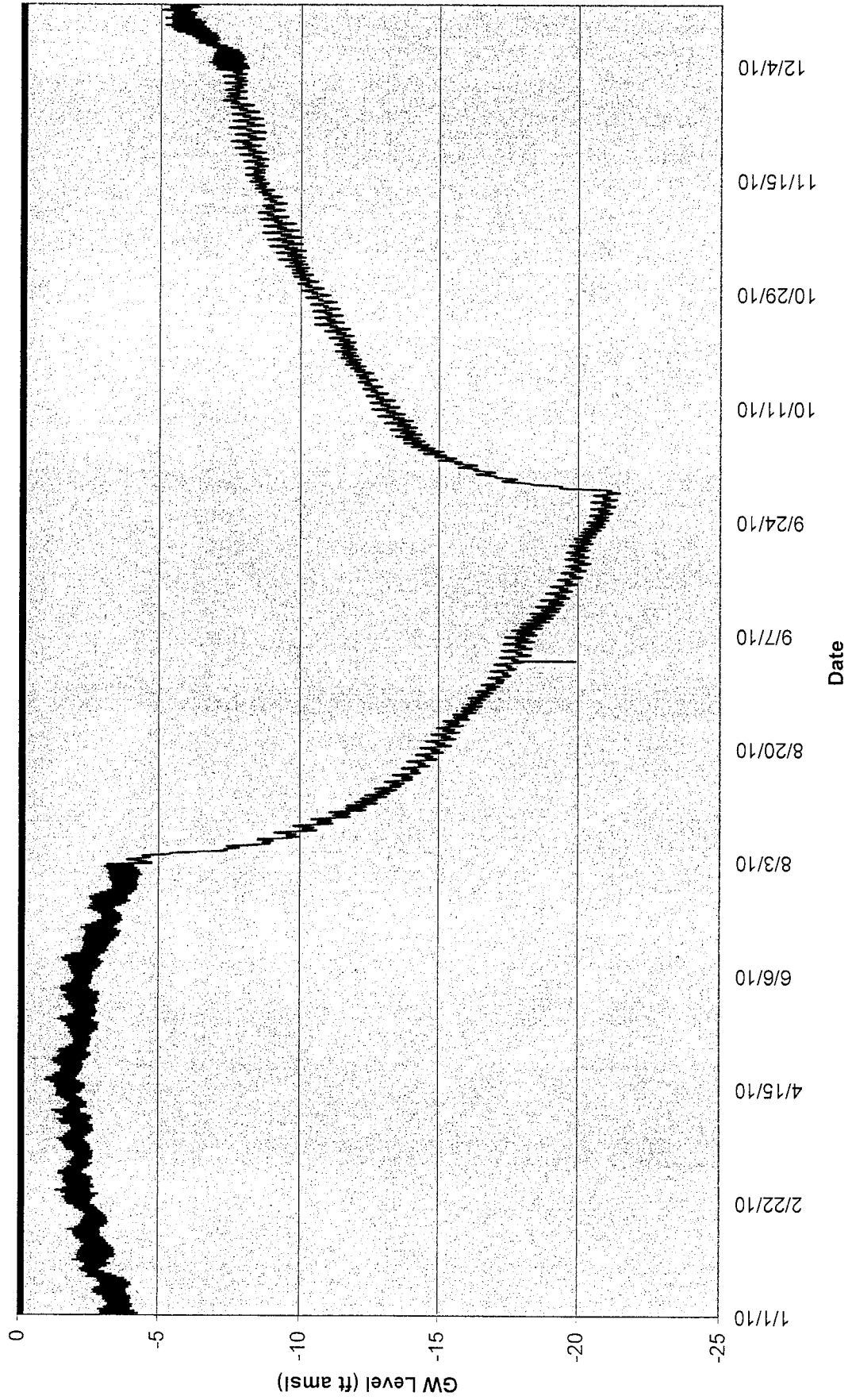


Figure 17 - MW-10D 2010 GW Level Trend



| <b>Table 1: Extraction Summary</b>  |                                |                                   |
|-------------------------------------|--------------------------------|-----------------------------------|
| <b>Date</b>                         | <b>Average Flow Rate (GPM)</b> | <b>Approx. Daily Volume (MGD)</b> |
| Permit Limit = Annual Rate of 1 MGD |                                |                                   |
| Aug-10                              | 1377                           | 1.98                              |
| Sep-10                              | 1377                           | 1.98                              |
| <b>Annualized Daily Rate</b>        |                                | <b>0.30</b>                       |

| <b>Table 2: Injection Summary</b>   |                                |                                   |
|-------------------------------------|--------------------------------|-----------------------------------|
| <b>Date</b>                         | <b>Average Flow Rate (GPM)</b> | <b>Approx. Daily Volume (MGD)</b> |
| Permit Limit = Annual Rate of 1 MGD |                                |                                   |
| 2010                                | 0                              | 0                                 |
| <b>Annualized Daily Rate</b>        |                                | <b>0</b>                          |

| <b>Table 3: Cumulative Total Volume</b> |                                   |                                  |
|---|-----------------------------------|----------------------------------|
| <b>Year</b>                             | <b>Recovered Volume (gallons)</b> | <b>Injected Volume (gallons)</b> |
| 2009                                    | 4,545,000                         | 445,000                          |
| 2010                                    | 113,000,000                       | 0                                |
| <b>Total</b>                            | <b>117,545,000</b>                | <b>445,000</b>                   |

**Table 4: Groundwater Monitoring Wells Information**

| Well ID              | Latitude      | Longitude      | Address                         | City        | Completion Date | Drilled Depth (ft bgs) | Casing Depth (ft bgs) | Depth of Perforation Begin (ft bgs) | Depth of Perforation End (ft bgs) | Casing Diameter (in) | Reference Elevation (ft amsl) | Reference Location on Well       |
|----------------------|---------------|----------------|---------------------------------|-------------|-----------------|------------------------|-----------------------|-------------------------------------|-----------------------------------|----------------------|-------------------------------|----------------------------------|
| MWV-1 <sup>1</sup>   | 37° 40' 4.8"  | 122° 9' 25.2"  | 2600 Grant Ave                  | San Lorenzo |                 | 665                    | 650                   | 520                                 | 640                               | 2                    | 8.71                          | Top of steel casing              |
| MWV-2S <sup>1</sup>  | 37° 40' 4.8"  | 122° 9' 25.2"  | 2600 Grant Ave                  | San Lorenzo |                 | 210                    | 60                    | 40                                  | 60                                | 2                    | 9.9                           | Top of steel casing              |
| MS-2I <sup>1</sup>   | 37° 40' 4.8"  | 122° 9' 25.2"  | 2600 Grant Ave                  | San Lorenzo |                 | 210                    | 200                   | 160                                 | 190                               | 2                    | 9.9                           | Top of steel casing              |
| MWV-3 <sup>1</sup>   | 37° 40' 4.8"  | 122° 9' 28.8"  | 2600 Grant Ave                  | San Lorenzo |                 | 665                    | 660                   | 520                                 | 650                               | 2                    | 8.12                          | Top of steel casing              |
| MWV-4 <sup>1</sup>   | 37° 40' 11.6" | 122° 9' 28.8"  | 2575 Grant Ave                  | San Lorenzo |                 | 705                    | 650                   | 520                                 | 650                               | 2                    | 8.96                          | Top of steel rim                 |
| MWV-5S <sup>1</sup>  | 37° 40' 34.4" | 122° 9' 06.6"  | 2006 Via Barrett                | San Lorenzo | Sep-08          | 460                    | 210                   | 200                                 | 210                               | 2                    | 13.88                         | Seat of vault lid @ e'ly edge    |
| MWV-5I <sup>1</sup>  | 37° 40' 34.4" | 122° 9' 06.6"  | 2005 Via Barrett                | San Lorenzo | Sep-08          | 460                    | 325                   | 315                                 | 325                               | 2                    | 13.88                         | Seat of vault lid @ e'ly edge    |
| MWV-5D <sup>1</sup>  | 37° 40' 34.4" | 122° 9' 06.6"  | 2007 Via Barrett                | San Lorenzo | Feb-01          | 1025                   | 640                   | 500                                 | 630                               | 4                    | 13.76                         | Top of casing @ n'ly faster hole |
| MWV-6 <sup>1</sup>   | 37° 40' 07"   | 122° 9' 04.5"  | 15600 Worthley                  | San Lorenzo | Nov-00          | 1000                   | 655                   | 480                                 | 650                               | 4                    | 9.46                          | Top of casing @ e'ly edge        |
| MWV-7 <sup>1</sup>   | 37° 39' 56.5" | 122° 8' 44.2"  | Western tip of San Lorenzo park | San Lorenzo | Nov-00          | 972                    | 680                   | 510                                 | 630                               | 4                    | 7.42                          | Top of casing @ n'ly edge        |
| MWV-8D               | 34° 43' 04"   | 122° 11' 50.3" | 1970 Davis Street               | San Leandro |                 | 910                    | 490                   | 420                                 | 480                               | 2                    | 14.76                         | Top of steel rim                 |
| MWV-9S               | 37° 41' 11"   | 122° 6' 46"    | 589 E. Lewelling Ave            | San Lorenzo | Jan-08          | 460                    | 120                   | 110                                 | 120                               | 2                    | 54.39                         | Seat of vault, w'ly side         |
| MWV-9I               | 37° 41' 11"   | 122° 6' 46"    | 589 E. Lewelling Ave            | San Lorenzo | Jan-08          | 460                    | 210                   | 200                                 | 210                               | 2                    | 54.39                         | Seat of vault, w'ly side         |
| MWV-9D <sup>1</sup>  | 37° 41' 11"   | 122° 6' 46"    | 589 E. Lewelling Ave            | San Lorenzo | Jan-08          | 460                    | 335                   | 325                                 | 335                               | 2                    | 54.39                         | Seat of vault, w'ly side         |
| MWV-10S              | 37° 41' 19"   | 122° 9' 43"    | 15528 Wick Blvd                 | San Leandro | Sep-08          | 680                    | 120                   | 100                                 | 120                               | 2                    | 11.76                         | Seat of vault lid @ e'ly edge    |
| MWV-10I <sup>1</sup> | 37° 41' 19"   | 122° 9' 43"    | 15528 Wick Blvd                 | San Leandro | Sep-08          | 680                    | 360                   | 340                                 | 360                               | 2                    | 11.76                         | Seat of vault lid @ e'ly edge    |
| MWV-10D <sup>1</sup> | 37° 41' 19"   | 122° 9' 43"    | 15528 Wick Blvd                 | San Leandro | Sep-08          | 680                    | 610                   | 590                                 | 610                               | 2                    | 11.76                         | Seat of vault lid @ e'ly edge    |

**Notes:**

1 - Groundwater level monitoring required per Order No. R2-2007-0038

| Table 5: Groundwater Elevation/Depth to Groundwater Data |                       |       |       |       |       |      |       |      |        |      |                      |       |       |        |      |       |      |        |  |  |
|--|-----------------------|-------|-------|-------|-------|------|-------|------|--------|------|----------------------|-------|-------|--------|------|-------|------|--------|--|--|
|  | Groundwater Elevation |       |       |       |       |      |       |      |        |      | Depth to Groundwater |       |       |        |      |       |      |        |  |  |
|  | BW                    | MW-1  | MW-2S | MW-2I | MW-4  | MW-6 | MW-5D | MW-7 | MW-10D | BW   | MW-1                 | MW-2S | MW-2I | MW-4   | MW-6 | MW-5D | MW-7 | MW-10D |  |  |
|  | ft amsl               |       |       |       |       |      |       |      |        |      | ft bgs               |       |       |        |      |       |      |        |  |  |
| 12/8/2008  |                       |       | 0.99  |       | -4.07 |      |       |      |        |      |                      |       |       |        |      |       |      |        |  |  |
| 12/9/2008  |                       | -5.06 |       | 1.09  |       |      |       |      |        |      | 13.74*               | 8.78* | 8.73* | 12.68* |      |       |      |        |  |  |
| 12/14/2009   |                       |       |       |       | -3.75 |      |       |      |        |      |                      |       |       | 12.71  |      |       |      |        |  |  |
| 12/15/2009   |                       |       | 0.95  | 1.44  |       |      |       |      |        |      |                      | 8.95  | 8.46  |        |      |       |      |        |  |  |
| 12/8/2010  | -7.22                 |       | 1.71  | 0.25  | -7.45 |      |       |      |        | 15.6 |                      | 8.19  | 9.65  | 16.41  |      |       |      |        |  |  |

Notes:

BW = Bayside Well

\* Applicable well reference elevations are different from those in Table 4.

**Table 6: General Water Quality Data**

|            | pH           |      |       |       |      |      |       |      |        |        | Chlorine Residual |        |         |         |      |       |       |        |        |      | TDS      |       |       |       |       |      |        |      |        |  |
|------------|--------------|------|-------|-------|------|------|-------|------|--------|--------|-------------------|--------|---------|---------|------|-------|-------|--------|--------|------|----------|-------|-------|-------|-------|------|--------|------|--------|--|
|            | BW           | MW-1 | MW-2S | MW-2I | MW-4 | MW-6 | MW-5D | MW-7 | MW-10D |        | BW                | MW-1   | MW-2S   | MW-2I   | MW-4 | MW-6  | MW-5D | MW-7   | MW-10D |      | BW       | MW-1  | MW-2S | MW-2I | MW-4  | MW-6 | MW-5D  | MW-7 | MW-10D |  |
| 12/8/2008  |              |      | 6.6   |       | 7.82 |      |       |      |        |        |                   | ND     |         | ND      |      |       |       |        |        |      |          |       |       |       |       |      |        |      |        |  |
| 12/9/2008  |              | 7.96 |       | 7.97  |      |      |       |      |        |        | ND                |        | ND      |         |      |       |       |        |        | 170  |          |       |       |       |       |      |        |      |        |  |
| 12/14/2009 | 8.18         |      |       |       | 8.02 |      |       |      |        | ND     |                   |        |         | ND      |      |       |       |        |        | 200  |          |       |       |       |       |      |        |      |        |  |
| 12/15/2009 |              |      | 6.55  | 8.05  |      |      |       |      |        |        |                   | ND     | ND      | ND      |      |       |       |        |        |      | 87000    | 510   |       |       |       |      |        |      |        |  |
| 12/8/2010  | 7.37         |      | 6.33  | 7.56  | 7.51 |      |       |      |        | ND     |                   | ND     | ND      | ND      |      |       |       |        |        | 360  |          | 80000 | 620   | 430   |       |      |        |      |        |  |
|            | Ammonia as N |      |       |       |      |      |       |      |        |        | Nitrate as N      |        |         |         |      |       |       |        |        |      | Chloride |       |       |       |       |      |        |      |        |  |
|            | mg/L         |      |       |       |      |      |       |      |        |        | mg/L              |        |         |         |      |       |       |        |        |      | mg/L     |       |       |       |       |      |        |      |        |  |
| 12/8/2008  | BW           | MW-1 | MW-2S | MW-2I | MW-4 | MW-6 | MW-5D | MW-7 | MW-10D | BW     | MW-1              | MW-2S  | MW-2I   | MW-4    | MW-6 | MW-5D | MW-7  | MW-10D | BW     | MW-1 | MW-2S    | MW-2I | MW-4  | MW-6  | MW-5D | MW-7 | MW-10D |      |        |  |
| 12/9/2008  |              | <0.2 |       | 0.84  |      |      |       |      |        |        | <0.14             |        | <0.14   |         |      |       |       |        |        | 25   | 510      |       | 78    |       |       |      |        | 50   |        |  |
| 12/14/2009 | <0.3         |      |       |       | <0.3 |      |       |      |        | 0.029  |                   |        |         | 0.36    |      |       |       |        | 31     |      |          |       |       |       |       |      |        | 54   |        |  |
| 12/15/2009 |              |      | <0.3  | <0.3  |      |      |       |      |        |        |                   | <0.095 | 0.16    |         |      |       |       |        |        |      | 39000    | 84    |       |       |       |      |        |      |        |  |
| 12/8/2010  | <0.3         |      | <0.3  | <0.3  | <0.3 |      |       |      |        | E0.004 |                   | <0.31  | <0.0031 | <0.0031 |      |       |       |        | 55     |      | 44000    | 110   | 57    |       |       |      |        |      |        |  |
|            | Manganese    |      |       |       |      |      |       |      |        |        | Iron              |        |         |         |      |       |       |        |        |      |          |       |       |       |       |      |        |      |        |  |
|            | µg/L         |      |       |       |      |      |       |      |        |        | µg/L              |        |         |         |      |       |       |        |        |      |          |       |       |       |       |      |        |      |        |  |
| 12/8/2008  | BW           | MW-1 | MW-2S | MW-2I | MW-4 | MW-6 | MW-5D | MW-7 | MW-10D | BW     | MW-1              | MW-2S  | MW-2I   | MW-4    | MW-6 | MW-5D | MW-7  | MW-10D |        |      |          |       |       |       |       |      |        |      |        |  |
| 12/9/2008  |              | 56.7 |       | 101   |      |      |       |      |        |        | <11               | <230   |         | 47      |      |       |       |        |        |      |          |       |       |       |       |      |        |      |        |  |
| 12/14/2009 | 55.4         |      |       |       | 228  |      |       |      |        | 130    |                   |        | 210     | 35      |      |       |       |        |        |      |          |       |       |       |       |      |        |      |        |  |
| 12/15/2009 |              |      | 36900 | 98.6  |      |      |       |      |        |        |                   | <31    | 110     |         |      |       |       |        |        |      |          |       |       |       |       |      |        |      |        |  |
| 12/8/2010  | 58.1         |      | 35000 | 99.8  | 203  |      |       |      |        | 160    |                   | <83    | 390     | 77      |      |       |       |        |        |      |          |       |       |       |       |      |        |      |        |  |

**Notes:**

BW = Bayside Well

E = Estimated value, concentration outside calibration range. For SIP, E=DNQ, Estimated Concentration.



**Table 7: Standard Minerals Data**

|            | Calcium<br>µg/L                                |       |          |         |        |      |       |      |        |      | Magnesium<br>µg/L |          |       |       |      |       |       |        |        |      | Potassium<br>µg/L |        |       |      |       |       |        |        |  |  |
|------------|--|-------|----------|---------|--------|------|-------|------|--------|------|-------------------|----------|-------|-------|------|-------|-------|--------|--------|------|-------------------|--------|-------|------|-------|-------|--------|--------|--|--|
|            | BW   | MW-1  | MW-2S    | MW-21   | MW-4   | MW-6 | MW-5D | MW-7 | MW-10D | MW-1 | BW                | MW-1     | MW-2S | MW-21 | MW-4 | MW-6  | MW-5D | MW-7   | MW-10D | BW   | MW-1              | MW-2S  | MW-21 | MW-4 | MW-6  | MW-5D | MW-7   | MW-10D |  |  |
| 12/8/2008  |  |       | 630000   |         | 25400  |      |       |      |        |      |                   |          |       |       |      |       |       |        |        |      |                   |        |       |      |       |       |        |        |  |  |
| 12/9/2008  |  | 17000 |          | 15000   |        |      |       |      |        |      | 5400              | 1500000  |       | 14000 |      |       |       |        |        |      |                   |        |       |      |       |       |        |        |  |  |
| 12/14/2009 |  | 28000 |          |         |        |      |       |      |        | 7400 |                   |          |       | 12000 |      |       |       |        |        | 1400 |                   |        |       |      |       |       |        |        |  |  |
| 12/15/2009 |  |       | 1300000  | 15000   |        |      |       |      |        | 7900 |                   | 2.80E+06 | 13000 |       |      |       |       |        |        | 1700 |                   | 500000 | 6100  |      |       |       |        |        |  |  |
| 12/8/2010  |  | 27000 |          | 1300000 | 17000  |      |       |      |        |      |                   | 2.50E+06 | 15000 | 12000 |      |       |       |        |        |      |                   | 450000 | 6000  |      |       |       |        |        |  |  |
|            | Sodium<br>µg/L                                 |       |          |         |        |      |       |      |        |      |                   |          |       |       |      |       |       |        |        |      |                   |        |       |      |       |       |        |        |  |  |
|            | Sulfate<br>µg/L                                |       |          |         |        |      |       |      |        |      |                   |          |       |       |      |       |       |        |        |      |                   |        |       |      |       |       |        |        |  |  |
|            | Hardness<br>mg/L                               |       |          |         |        |      |       |      |        |      |                   |          |       |       |      |       |       |        |        |      |                   |        |       |      |       |       |        |        |  |  |
|            | BW   | MW-1  | MW-2S    | MW-21   | MW-4   | MW-6 | MW-5D | MW-7 | MW-10D | BW   | MW-1              | MW-2S    | MW-21 | MW-4  | MW-6 | MW-5D | MW-7  | MW-10D | BW     | MW-1 | MW-2S             | MW-21  | MW-4  | MW-6 | MW-5D | MW-7  | MW-10D |        |  |  |
| 12/8/2008  |  |       | 11000000 |         | 102000 |      |       |      |        |      |                   |          |       |       |      |       |       |        |        |      |                   |        |       |      |       |       |        |        |  |  |
| 12/9/2008  |  | 36000 |          | 150000  |        |      |       |      |        |      | 16                | 5600     |       | 27    |      |       |       |        |        |      | 64                |        | 16000 |      |       |       |        |        |  |  |
| 12/14/2009 |  | 41000 |          |         |        |      |       |      |        | 23   |                   |          |       | 37    |      |       |       |        |        | 97   |                   |        |       |      |       |       |        |        |  |  |
| 12/15/2009 |  |       | 2.30E+07 | 160000  |        |      |       |      |        | 42   |                   | 4000     | 26    |       |      |       |       |        |        | 100  |                   | 17000  | 100   |      |       |       |        |        |  |  |
| 12/8/2010  |  | 84000 |          | 170000  | 100000 |      |       |      |        |      |                   | 5700     | 23    | 42    |      |       |       |        |        |      |                   | 16000  | 100   | 130  |       |       |        |        |  |  |
|            | Alkalinity: Total as CaCO <sub>3</sub><br>mg/L |       |          |         |        |      |       |      |        |      |                   |          |       |       |      |       |       |        |        |      |                   |        |       |      |       |       |        |        |  |  |
|            | Alkalinity: Hydroxide<br>mg/L                  |       |          |         |        |      |       |      |        |      |                   |          |       |       |      |       |       |        |        |      |                   |        |       |      |       |       |        |        |  |  |
|            | Alkalinity: Carbonate<br>mg/L                  |       |          |         |        |      |       |      |        |      |                   |          |       |       |      |       |       |        |        |      |                   |        |       |      |       |       |        |        |  |  |
|            | BW   | MW-1  | MW-2S    | MW-21   | MW-4   | MW-6 | MW-5D | MW-7 | MW-10D | BW   | MW-1              | MW-2S    | MW-21 | MW-4  | MW-6 | MW-5D | MW-7  | MW-10D | BW     | MW-1 | MW-2S             | MW-21  | MW-4  | MW-6 | MW-5D | MW-7  | MW-10D |        |  |  |
| 12/8/2008  |  |       | 420      |         | 230    |      |       |      |        |      |                   | <0.1     |       | <0.1  |      |       |       |        |        |      |                   | 0.16   |       |      |       |       |        |        |  |  |
| 12/9/2008  |  |       | 87       |         | 160    |      |       |      |        |      | <0.1              |          | <0.1  |       |      |       |       |        |        |      | 0.74              |        |       |      |       |       |        |        |  |  |
| 12/14/2009 |  | 110   |          |         |        |      |       |      |        | <0.1 |                   |          |       | <0.1  |      |       |       |        |        | 0.66 |                   |        |       |      |       |       |        |        |  |  |
| 12/15/2009 |  |       | 380      | 310     |        |      |       |      |        |      |                   | <0.1     | <0.1  |       |      |       |       |        |        |      |                   | 0.2    | 2.8   |      |       |       |        |        |  |  |
| 12/8/2010  |  | 170   |          | 390     | 310    |      |       |      |        | <0.1 |                   | <0.1     | <0.1  | <0.1  |      |       |       |        |        | 0.37 |                   |        | 1     |      |       |       |        |        |  |  |
|            | Alkalinity: Bicarbonate<br>mg/L                |       |          |         |        |      |       |      |        |      |                   |          |       |       |      |       |       |        |        |      |                   |        |       |      |       |       |        |        |  |  |
|            | BW   | MW-1  | MW-2S    | MW-21   | MW-4   | MW-6 | MW-5D | MW-7 | MW-10D | BW   | MW-1              | MW-2S    | MW-21 | MW-4  | MW-6 | MW-5D | MW-7  | MW-10D | BW     | MW-1 | MW-2S             | MW-21  | MW-4  | MW-6 | MW-5D | MW-7  | MW-10D |        |  |  |
| 12/8/2008  |  |       | 420      |         | 229    |      |       |      |        |      |                   |          |       |       |      |       |       |        |        |      |                   |        |       |      |       |       |        |        |  |  |
| 12/9/2008  |  | 86.2  |          | 159     |        |      |       |      |        |      |                   |          |       |       |      |       |       |        |        |      |                   |        |       |      |       |       |        |        |  |  |
| 12/14/2009 |  | 109   |          |         |        |      |       |      |        |      |                   |          |       | 238   |      |       |       |        |        |      |                   |        |       |      |       |       |        |        |  |  |
| 12/15/2009 |  |       | 380      | 307     |        |      |       |      |        |      |                   |          |       |       |      |       |       |        |        |      |                   |        |       |      |       |       |        |        |  |  |
| 12/8/2010  |  | 170   |          | 390     | 310    |      |       |      |        |      |                   |          |       | 230   |      |       |       |        |        |      |                   |        |       |      |       |       |        |        |  |  |

Notes:  
BW = BaySide Well



**Table 8: Haloacetic Acids Data**

|            | Tribromoacetic Acid |       |       |       |       |      |       |      |        |      | Trichloroacetic Acid |       |       |      |      |       |      |        |  |  |
|------------|---------------------|-------|-------|-------|-------|------|-------|------|--------|------|----------------------|-------|-------|------|------|-------|------|--------|--|--|
|            | µg/L                |       |       |       |       |      |       |      |        |      | µg/L                 |       |       |      |      |       |      |        |  |  |
|            | BW                  | MW-1  | MW-2S | MW-2I | MW-4  | MW-6 | MW-5D | MW-7 | MW-10D | BW   | MW-1                 | MW-2S | MW-2I | MW-4 | MW-6 | MW-5D | MW-7 | MW-10D |  |  |
| 12/8/2008  |                     |       | <0.83 |       | <0.83 |      |       |      |        |      |                      | <0.3  |       | <0.3 |      |       |      |        |  |  |
| 12/9/2008  |                     | <0.83 |       |       | <0.83 |      |       |      |        |      | <0.3                 |       | <0.3  |      |      |       |      |        |  |  |
| 12/14/2009 |                     | <0.83 |       |       | <0.83 |      |       |      |        | <0.3 |                      | <0.3  |       | <0.3 |      |       |      |        |  |  |
| 12/15/2009 |                     |       | <0.83 |       | <0.83 |      |       |      |        |      |                      | <0.3  |       | <0.3 |      |       |      |        |  |  |
| 12/8/2010  | <0.83               |       | <0.83 |       | <0.83 |      |       |      |        | <0.3 |                      | <0.3  |       | <0.3 |      |       |      |        |  |  |

**Notes:**

BW = Bayside Well

**Table 9: Trihalomethanes Data**

|            | TTHMs                |       |       |                    |                    |      |       |      |        |  | Chloroform |        |       |        |       |      |       |      |        |  | Bromodichloromethane |      |       |       |      |      |       |      |        |  |  |
|------------|----------------------|-------|-------|--------------------|--------------------|------|-------|------|--------|--|------------|--------|-------|--------|-------|------|-------|------|--------|--|----------------------|------|-------|-------|------|------|-------|------|--------|--|--|
|            | µg/L                 |       |       |                    |                    |      |       |      |        |  | µg/L       |        |       |        |       |      |       |      |        |  | µg/L                 |      |       |       |      |      |       |      |        |  |  |
|            | BW                   | MW-1  | MW-2S | MW-2I              | MW-4               | MW-6 | MW-5D | MW-7 | MW-10D |  | BW         | MW-1   | MW-2S | MW-2I  | MW-4  | MW-6 | MW-5D | MW-7 | MW-10D |  | BW                   | MW-1 | MW-2S | MW-2I | MW-4 | MW-6 | MW-5D | MW-7 | MW-10D |  |  |
| 12/8/2008  |                      |       | <0.37 |                    | <0.37              |      |       |      |        |  |            | <0.054 |       | <0.054 |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/9/2008  |                      | <0.37 |       | <0.37              |                    |      |       |      |        |  |            | <0.054 |       | <0.054 |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/16/2008 |                      |       |       |                    |                    |      |       |      | <0.37  |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/1/2009  | 0.1                  |       |       |                    |                    |      |       |      |        |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/4/2009  | 0.11                 |       |       |                    |                    |      |       |      |        |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/14/2009 | <2.43 <sup>1</sup>   |       |       |                    | <2.43 <sup>1</sup> |      |       |      |        |  |            |        |       | <0.57  |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/15/2009 |                      |       |       |                    |                    |      |       |      |        |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/8/2010  | <2.43 <sup>1</sup>   |       |       | <2.43 <sup>1</sup> | <2.43 <sup>1</sup> |      |       |      |        |  |            |        |       | <0.57  |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
|            | Dibromochloromethane |       |       |                    |                    |      |       |      |        |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
|            | µg/L                 |       |       |                    |                    |      |       |      |        |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
|            | BW                   | MW-1  | MW-2S | MW-2I              | MW-4               | MW-6 | MW-5D | MW-7 | MW-10D |  | BW         | MW-1   | MW-2S | MW-2I  | MW-4  | MW-6 | MW-5D | MW-7 | MW-10D |  | BW                   | MW-1 | MW-2S | MW-2I | MW-4 | MW-6 | MW-5D | MW-7 | MW-10D |  |  |
| 12/8/2008  |                      |       | <0.11 |                    | <0.11              |      |       |      |        |  |            |        | <0.13 |        | <0.13 |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/9/2008  |                      | <0.11 |       | <0.11              |                    |      |       |      |        |  |            | <0.13  |       | <0.13  |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/16/2008 |                      |       |       |                    |                    |      |       |      | <0.11  |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/14/2009 | <0.64                |       |       |                    | <0.64              |      |       |      |        |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/15/2009 |                      |       |       |                    |                    |      |       |      |        |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/8/2010  | <0.64                |       |       | <0.64              | <0.64              |      |       |      |        |  |            |        |       | <0.64  |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
|            | Bromoform            |       |       |                    |                    |      |       |      |        |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
|            | µg/L                 |       |       |                    |                    |      |       |      |        |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
|            | BW                   | MW-1  | MW-2S | MW-2I              | MW-4               | MW-6 | MW-5D | MW-7 | MW-10D |  | BW         | MW-1   | MW-2S | MW-2I  | MW-4  | MW-6 | MW-5D | MW-7 | MW-10D |  | BW                   | MW-1 | MW-2S | MW-2I | MW-4 | MW-6 | MW-5D | MW-7 | MW-10D |  |  |
| 12/8/2008  |                      |       |       |                    |                    |      |       |      |        |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/9/2008  |                      |       |       |                    |                    |      |       |      |        |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/16/2008 |                      |       |       |                    |                    |      |       |      |        |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/14/2009 |                      |       |       |                    |                    |      |       |      |        |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/15/2009 |                      |       |       |                    |                    |      |       |      |        |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |
| 12/8/2010  |                      |       |       |                    |                    |      |       |      |        |  |            |        |       |        |       |      |       |      |        |  |                      |      |       |       |      |      |       |      |        |  |  |

**Notes:**

BW = Bayside Well

1 - Calculated from individual THMs

| <b>Table 10: Vertical Gradients for the Nested MW-5 Wells on 01/25/2010</b> |              |              |              |
|---|--------------|--------------|--------------|
| <b>Nested Well Set</b>  | <b>MW-5S</b> | <b>MW-5I</b> | <b>MW-5D</b> |
| Elevation at land surface (ft amsl)   | 13.88        | 13.88        | 13.76        |
| Depth of monitoring well (ft bgs)   | 210          | 325          | 640          |
| Depth to water (ft bgs)   | 1.27         | 7.26         | 15.2         |
|   |              |              |              |
| Hydraulic Head (ft)   | 12.61        | 6.62         | -1.44        |
| pressure Head (ft)  | 208.73       | 317.74       | 624.8        |
| Elevation Head (ft)   | -196.12      | -311.12      | -626.24      |
| <b>Vertical Hydraulic Gradient (ft/ft)</b>                                  |              | 0.052        | 0.026        |

| <b>Table 11: Vertical Gradients for the Nested MW-5 Wells on 12/25/2010</b> |              |              |              |
|---|--------------|--------------|--------------|
| <b>Nested Well Set</b>  | <b>MW-5S</b> | <b>MW-5I</b> | <b>MW-5D</b> |
| Elevation at land surface (ft amsl)   | 13.88        | 13.88        | 13.76        |
| Depth of monitoring well (ft bgs)   | 210          | 325          | 640          |
| Depth to water (ft bgs)   | 2.82         | 8.88         | 19.14        |
|   |              |              |              |
| Hydraulic Head (ft)   | 11.06        | 5            | -5.38        |
| pressure Head (ft)  | 207.18       | 316.12       | 620.86       |
| Elevation Head (ft)   | -196.12      | -311.12      | -626.24      |
| <b>Vertical Hydraulic Gradient (ft/ft)</b>                                  |              | 0.053        | 0.033        |

## **Appendix A: Lab Reports**

# EBMUD Laboratory

## Analytical Report

EAST BAY MUNICIPAL UTILITY DISTRICT  
Laboratory Services Division  
PO Box 24055, MS 59, Oakland, CA 94623  
Phone (510)287-1432 Fax (510)465-5462

California Environmental Laboratory Accreditation Program Certificate Number 1060

Laboratory Report - L164135

LSR # - B455-0706-1 Project Title: BAYSIDE GROUND WATER PROJECT

Report generated on: Jan 04, 2011 04:18 pm

5 - Samples received by the lab on: Dec 09 2010, 07:48 am

0 - Lost Analyses

0 - Hold Time Exceedences

Turn-around-time not met

Client PM: DEREK LEE

Lab PM: JACK C. LIM

This is an electronic transmittal of a Laboratory Analytical Report

Samples included in this report:

| Sample    | Type | Collected         | Site        | Locator       | ClientID |
|-----------|------|-------------------|-------------|---------------|----------|
| L164135-1 | GRAB | 08-Dec-2010 09:30 | WTP BAYSIDE | BAY WELL HEAD | -        |
| L164135-2 | GRAB | 08-Dec-2010 17:27 | GW BAYSIDE  | BAY1-MW2S     | -        |
| L164135-3 | GRAB | 08-Dec-2010 16:12 | GW BAYSIDE  | BAY1-MW2I     | -        |
| L164135-4 | GRAB | 08-Dec-2010 13:53 | GW BAYSIDE  | BAY1-MW4      | -        |
| L164135-5 | QCFB | 08-Dec-2010 13:40 | FIELD QC    | COLLECTION QC | -        |

Legend to the laboratory qualifiers used in this report:

E - Estimated value, concentration outside calibration range. For SIP, E=DNQ, Estimated Concentration.

U - Analyte not detected

Qualifiers for subcontract work - See textvalue for description

RESULTS IN THIS REPORT ARE REPORTED IN ACCORDANCE WITH TITLE 22, SECTION 64819

EAST BAY MUNICIPAL UTILITY DISTRICT  
 Laboratory Services Division  
 PO Box 24055, MS 59, Oakland, CA 94623  
 Phone (510)287-1432 Fax (510)465-5462  
 Analytical Results Report

LSR#: B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo  
 Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002  
 Lab ID: L164135-1 (P167787-1)  
 Sample Type: GRAB (Instantaneous Grab)  
 Date Collected: Dec 08 2010, 09:30am Sample collector: SPenman / ESS  
 Date Received: Dec 09 2010, 07:48am Sample receiver: RMOLINA  
 Sample Comments: BAYSIDE WELL pH = 7.37 ; Cl2R = ND mg/L; Depth to GW = NA feet  
 ; +TRANSMITTAL for OXY-18

| Method Reference<br>Parameter | Qualifier | Result | Units | Dilution | MDL | Matrix<br>RL/ML | Tag |
|-------------------------------|-----------|--------|-------|----------|-----|-----------------|-----|
|-------------------------------|-----------|--------|-------|----------|-----|-----------------|-----|

|   |  |  |  |  |  |           |  |
|---|--|--|--|--|--|-----------|--|
| Method: PER SUBCONTRACT LABORATORY REPORT - Subcontract data transmittal                  |  |  |  |  |  | GroundH2O |  |
| <i>Subcontract data from Test America</i>   |  |  |  |  |  |           |  |
| Comment: Original report transmitted to client. Copy of report archived with data packet. |  |  |  |  |  |           |  |
| SUBCONTRACT LAB DATA  |  |  |  |  |  |           |  |
| DATA TRANSMITTAL  |  |  |  |  |  |           |  |
| Run ID: R207128 / Work Group No.: WG166445  |  |  |  |  |  |           |  |
| Prep Date: 29-DEC-11 Analyzed 29-Dec-10 00:00   |  |  |  |  |  |           |  |

|  |   |      |          |   |     |           |  |
|--|---|------|----------|---|-----|-----------|--|
| Method: SAMPLER PROVIDED FIELD MEASUREMENTS - DATA ENTRY LIST FOR FIELD DATA |   |      |          |   |     | GroundH2O |  |
| <i>FIELD ANALYSIS/OBSERVATION DATA PARAMETERS</i>                            |   |      |          |   |     |           |  |
| PH   |   | 7.37 | pH units | 1 |     |           |  |
| CHLORINE RESIDUAL: TOTAL   | U | 0.1  | mg/L     | 1 | 0.1 |           |  |
| Run ID: R206402 / Work Group No.: WG166043                                   |   |      |          |   |     |           |  |
| Prep Date: 08-DEC-10 Analyzed 08-Dec-10 09:30                                |   |      |          |   |     |           |  |

|   |   |      |            |   |      |           |  |
|---|---|------|------------|---|------|-----------|--|
| Method: EPA 8260B - Trihalomethanes: GC/MS    |   |      |            |   |      | GroundH2O |  |
| <i>TARGET ANALYTES</i>                        |   |      |            |   |      |           |  |
| CHLOROFORM                                    | U | 0.57 | ug/L       | 1 | 0.57 |           |  |
| BROMODICHLOROMETHANE                          | U | 0.58 | ug/L       | 1 | 0.58 |           |  |
| DIBROMOCHLOROMETHANE                          | U | 0.64 | ug/L       | 1 | 0.64 |           |  |
| BROMOFORM                                     | U | 0.64 | ug/L       | 1 | 0.64 |           |  |
| <i>INTERNAL STANDARD</i>                      |   |      |            |   |      |           |  |
| FLUOROENZENE                                  |   | 112  | % recovery | 1 |      |           |  |
| SURROGATE                                     |   |      |            |   |      |           |  |
| 4-BROMOFLUOROENZENE                           |   | 112  | % recovery | 1 |      |           |  |
| Run ID: R206523 / Work Group No.: WG166072    |   |      |            |   |      |           |  |
| Prep Date: 10-DEC-10 Analyzed 10-Dec-10 15:30 |   |      |            |   |      |           |  |

|   |   |        |            |   |        |           |   |
|---|---|--------|------------|---|--------|-----------|---|
| Method: EPA 300.1 - Anions by IC: EPA 300.1   |   |        |            |   |        | GroundH2O | 1 |
| <i>Instrument calibrated 07-DEC-10</i>        |   |        |            |   |        |           |   |
| <i>TARGET ANALYTES</i>                        |   |        |            |   |        |           |   |
| NITRATE AS N                                  | E | 0.0041 | mg/L       | 1 | 0.0031 | 0.4       |   |
| <i>SURROGATE</i>                              |   |        |            |   |        |           |   |
| DICHLOROACETATE                               |   | 100    | % recovery | 1 |        |           |   |
| Run ID: R206441 / Work Group No.: WG166038    |   |        |            |   |        |           |   |
| Prep Date: 09-DEC-10 Analyzed 09-Dec-10 12:54 |   |        |            |   |        |           |   |

|   |  |     |            |    |      |           |  |
|---|--|-----|------------|----|------|-----------|--|
| Method: EPA 300.1 - Anions by IC: EPA 300.1   |  |     |            |    |      | GroundH2O |  |
| <i>Instrument calibrated 07-DEC-10</i>        |  |     |            |    |      |           |  |
| <i>TARGET ANALYTES</i>                        |  |     |            |    |      |           |  |
| CHLORIDE                                      |  | 55  | mg/L       | 50 | 0.21 |           |  |
| SULFATE                                       |  | 42  | mg/L       | 50 | 0.4  | 0.5       |  |
| <i>SURROGATE</i>                              |  |     |            |    |      |           |  |
| DICHLOROACETATE                               |  | 100 | % recovery | 50 |      |           |  |
| Run ID: R206441 / Work Group No.: WG166038    |  |     |            |    |      |           |  |
| Prep Date: 09-DEC-10 Analyzed 09-Dec-10 11:07 |  |     |            |    |      |           |  |

|  |   |      |      |   |      |           |  |
|--|---|------|------|---|------|-----------|--|
| Method: EPA 552.2 - Haloacetic Acids & Dalapon |   |      |      |   |      | GroundH2O |  |
| <i>TARGET ANALYTES</i>                         |   |      |      |   |      |           |  |
| BROMOCHLOROACETIC ACID                         | U | 0.55 | ug/L | 1 | 0.55 |           |  |
| BROMODICHLOROACETIC ACID                       | U | 0.26 | ug/L | 1 | 0.26 |           |  |
| CHLORODIBROMOACETIC ACID                       | U | 0.54 | ug/L | 1 | 0.54 |           |  |
| DALAPON  | U | 0.15 | ug/L | 1 | 0.15 |           |  |

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 Analytical Results Report

LSR#: B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo  
 Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002  
 Lab ID: L164135-1 (P167787-1)  
 Sample Type: GRAB (Instantaneous Grab)  
 Date Collected: Dec 08 2010, 09:30am Sample collector: SPENMAN / ESS  
 Date Received: Dec 09 2010, 07:48am Sample receiver: RMOLINA  
 Sample Comments: BAYSIDE WELL pH = 7.37 ;Cl2R = ND mg/L; Depth to GW = NA feet  
 ; +TRANSMITTAL for OXY-18

| Method Reference   | Parameter                  | Qualifier | Result | Units      | Dilution | MDL  | Matrix | Tag |
|--|----------------------------|-----------|--------|------------|----------|------|--------|-----|
|  | DIBROMOACETIC ACID         | U         | 0.25   | ug/L       | 1        | 0.25 | 1      |     |
|  | DICHLOROACETIC ACID        | U         | 0.99   | ug/L       | 1        | 0.99 | 1      |     |
|  | MONOBROMOACETIC ACID       | U         | 0.54   | ug/L       | 1        | 0.54 | 1      |     |
|  | MONOCHLOROACETIC ACID      | U         | 0.78   | ug/L       | 1        | 0.78 | 2      |     |
|  | TRIBROMOACETIC ACID        | U         | 0.83   | ug/L       | 1        | 0.83 |        |     |
|  | TRICHLOROACETIC ACID       | U         | 0.30   | ug/L       | 1        | 0.3  | 1      |     |
| VALUE CALCULATED FROM OTHER RESULTS                                  |                            |           |        |            |          |      |        |     |
|  | HAA(5)                     |           | 0.0    | ug/L       |          | 2.9  |        |     |
|  | HAA(9)                     |           | 0.0    | ug/L       |          | 5    |        |     |
| INTERNAL STANDARD  |                            |           |        |            |          |      |        |     |
|  | 1,2,3-TRICHLOROPROPANE     |           | 100    | % recovery |          | 1    |        |     |
| SURROGATE  |                            |           |        |            |          |      |        |     |
|  | 2,3-DIBROMOPROPIONIC ACID  |           | 97     | % recovery |          | 1    |        |     |
| Run ID: R206805 / Work Group No.: WG166249                           |                            |           |        |            |          |      |        |     |
| Prep Date1: 15-DEC-10 Prep Date2: 21-DEC-10 Analyzed 21-Dec-10 18:11 |                            |           |        |            |          |      |        |     |
| Method: SM(20)2320 B - Alkalinity: Total, Titration GroundH2O        |                            |           |        |            |          |      |        |     |
| TARGET ANALYTES  |                            |           |        |            |          |      |        |     |
|  | ALKALINITY: TOTAL AS CaCO3 |           | 170    | mg/L       | 1        | 5    |        |     |
| Run ID: R206424 / Work Group No.: WG166052                           |                            |           |        |            |          |      |        |     |
| Prep Date1: 09-DEC-10 Analyzed 09-Dec-10 08:00                       |                            |           |        |            |          |      |        |     |
| Method: SM(20)2340 C - HARDNESS: TOTAL, TITRATION GroundH2O          |                            |           |        |            |          |      |        |     |
| TARGET ANALYTES  |                            |           |        |            |          |      |        |     |
|  | HARDNESS: TOTAL AS CaCO3   |           | 100    | mg/L       | 1        | 2    |        |     |
| Run ID: R206460 / Work Group No.: WG166069                           |                            |           |        |            |          |      |        |     |
| Prep Date1: 10-DEC-10 Analyzed 10-Dec-10 10:25                       |                            |           |        |            |          |      |        |     |
| Method: SM(20)2540 C - Solids: Total Dissolved GroundH2O             |                            |           |        |            |          |      |        |     |
| TARGET ANALYTES  |                            |           |        |            |          |      |        |     |
|  | TOTAL DISSOLVED SOLIDS     |           | 360    | mg/L       | 1        | 18   |        |     |
| Run ID: R206563 / Work Group No.: WG166061                           |                            |           |        |            |          |      |        |     |
| Prep Date1: 10-DEC-10 Analyzed 10-Dec-10 07:20                       |                            |           |        |            |          |      |        |     |
| Method: SM(20)4500-CO2 D - Hydroxide, calculation GroundH2O          |                            |           |        |            |          |      |        |     |
| TARGET ANALYTES  |                            |           |        |            |          |      |        |     |
|  | ALKALINITY: HYDROXIDE      | U         | 0.10   | mg/L       | 1        | 0.1  |        |     |
| Run ID: R206428 / Work Group No.: WG166056                           |                            |           |        |            |          |      |        |     |
| Prep Date1: 09-DEC-10 Analyzed 09-Dec-10 14:00                       |                            |           |        |            |          |      |        |     |
| Method: SM(20)4500-CO2 D - Carbonate, Calculation GroundH2O          |                            |           |        |            |          |      |        |     |
| TARGET ANALYTES  |                            |           |        |            |          |      |        |     |
|  | ALKALINITY: CARBONATE      |           | 0.37   | mg/L       | 1        | 0.1  |        |     |
| Run ID: R206428 / Work Group No.: WG166056                           |                            |           |        |            |          |      |        |     |
| Prep Date1: 09-DEC-10 Analyzed 09-Dec-10 14:00                       |                            |           |        |            |          |      |        |     |
| Method: SM(20)4500-CO2 D - BICARBONATE, CALCULATION GroundH2O        |                            |           |        |            |          |      |        |     |
| TARGET ANALYTES  |                            |           |        |            |          |      |        |     |
|  | ALKALINITY: BICARBONATE    |           | 170    | mg/L       | 1        | 5    |        |     |
| Run ID: R206428 / Work Group No.: WG166056                           |                            |           |        |            |          |      |        |     |
| Prep Date1: 09-DEC-10 Analyzed 09-Dec-10 14:00                       |                            |           |        |            |          |      |        |     |

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**Analytical Results Report**

LSR#: B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo  
 Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002  
 Lab ID: L164135-1 (P167787-1)  
 Sample Type: GRAB (Instantaneous Grab)  
 Date Collected: Dec 08 2010, 09:30am Sample collector: SPenman / ESS  
 Date Received: Dec 09 2010, 07:48am Sample receiver: RMOLINA  
 Sample Comments: BAYSIDE WELL pH = 7.37 ;Cl2R = ND mg/L; Depth to GW = NA feet  
 ; +TRANSMITTAL for OXY-18

| Method Reference<br>Parameter                          | Qualifier | Result | Units | Dilution | MDL   | Matrix<br>RL/ML | Tag |
|--|-----------|--------|-------|----------|-------|-----------------|-----|
| Method: SM(20)4500-NH3 B,C - AMMONIA: TOTAL, TITRATION |           |        |       |          |       | GroundH2O       |     |
| TARGET ANALYTES  |           |        |       |          |       |                 |     |
| AMMONIA AS N   | U         | 0.300  | mg/L  | 1        | 0.3   |                 |     |
| Run ID: R206578 / Work Group No.: WG166122             |           |        |       |          |       |                 |     |
| Prep Date: 14-DEC-10 Analyzed 14-Dec-10 08:00          |           |        |       |          |       |                 |     |
| Method: EPA 200.7 - ICP Scan                           |           |        |       |          |       | RawH2O          |     |
| TARGET ANALYTES  |           |        |       |          |       |                 |     |
| CALCIUM  |           | 27,000 | ug/L  | 1.04     | 10    |                 |     |
| IRON   |           | 160    | ug/L  | 1.04     | 8.3   | 100             |     |
| POTASSIUM  |           | 1,700  | ug/L  | 1.04     | 11    |                 |     |
| MAGNESIUM  |           | 7,900  | ug/L  | 1.04     | 15    |                 |     |
| MANGANESE  |           | 58.1   | ug/L  | 1.04     | 0.728 | 20              |     |
| SODIUM   |           | 84,000 | ug/L  | 1.04     | 17    |                 |     |
| Run ID: R206582 / Work Group No.: WG166112             |           |        |       |          |       |                 |     |
| Prep Date: 14-DEC-10 Analyzed 14-Dec-10 11:22          |           |        |       |          |       |                 |     |

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 Analytical Results Report

LSR#: B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater  
 Locator: BAY1-MW2S OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW2-60  
 Lab ID: L164135-2 (P167787-2)  
 Sample Type: GRAB (Instantaneous Grab)  
 Date Collected: Dec 08 2010, 05:27pm Sample collector: SPenman / ESS  
 Date Received: Dec 09 2010, 07:48am Sample receiver: RMOLINA  
 Sample Comments: MS2S pH = 6.33 ; Cl2R = ND mg/L; Depth to GW = 8.19 feet ; +TRANSMITTAL  
 for OXY-18

| Method Reference<br>Parameter | Qualifier | Result | Units | Dilution | MDL | Matrix<br>RL/ML | Tag |
|-------------------------------|-----------|--------|-------|----------|-----|-----------------|-----|
|-------------------------------|-----------|--------|-------|----------|-----|-----------------|-----|

|   |  |  |  |  |  |           |  |
|---|--|--|--|--|--|-----------|--|
| Method: PER SUBCONTRACT LABORATORY REPORT - Subcontract data transmittal                  |  |  |  |  |  | GroundH2O |  |
| <i>Subcontract data from Test America</i>   |  |  |  |  |  |           |  |
| Comment: Original report transmitted to client. Copy of report archived with data packet. |  |  |  |  |  |           |  |
| SUBCONTRACT LAB DATA  |  |  |  |  |  |           |  |
| DATA TRANSMITTAL  |  |  |  |  |  |           |  |
| Run ID: R207128 / Work Group No.: WG166445  |  |  |  |  |  |           |  |
| Prep Date: 29-DEC-11 Analyzed 29-Dec-10 00:00   |  |  |  |  |  |           |  |

|  |   |      |          |   |     |           |  |
|--|---|------|----------|---|-----|-----------|--|
| Method: SAMPLER PROVIDED FIELD MEASUREMENTS - DATA ENTRY LIST FOR FIELD DATA |   |      |          |   |     | GroundH2O |  |
| <i>FIELD ANALYSIS/OBSERVATION DATA PARAMETERS</i>                            |   |      |          |   |     |           |  |
| PH   |   | 6.33 | pH units | 1 |     |           |  |
| DEPTH  |   | 8.19 | feet     | 1 |     |           |  |
| CHLORINE RESIDUAL: TOTAL   | U | 0.1  | mg/L     | 1 | 0.1 |           |  |
| Run ID: R206402 / Work Group No.: WG166043                                   |   |      |          |   |     |           |  |
| Prep Date: 08-DEC-10 Analyzed 08-Dec-10 17:27                                |   |      |          |   |     |           |  |

|   |   |      |            |   |      |           |  |
|---|---|------|------------|---|------|-----------|--|
| Method: EPA 8260B - Trihalomethanes: GC/MS    |   |      |            |   |      | GroundH2O |  |
| <i>TARGET ANALYTES</i>                        |   |      |            |   |      |           |  |
| CHLOROFORM                                    | U | 0.57 | ug/L       | 1 | 0.57 |           |  |
| BROMODICHLOROMETHANE                          | U | 0.58 | ug/L       | 1 | 0.58 |           |  |
| DIBROMOCHLOROMETHANE                          | U | 0.64 | ug/L       | 1 | 0.64 |           |  |
| BROMOFORM                                     | U | 0.64 | ug/L       | 1 | 0.64 |           |  |
| <i>INTERNAL STANDARD</i>                      |   |      |            |   |      |           |  |
| FLUOROBENZENE                                 |   | 106  | % recovery | 1 |      |           |  |
| SURROGATE                                     |   |      |            |   |      |           |  |
| 4-BROMOFLUOROBENZENE                          |   | 115  | % recovery | 1 |      |           |  |
| Run ID: R206523 / Work Group No.: WG166072    |   |      |            |   |      |           |  |
| Prep Date: 10-DEC-10 Analyzed 10-Dec-10 16:20 |   |      |            |   |      |           |  |

|   |   |      |            |     |      |           |   |
|---|---|------|------------|-----|------|-----------|---|
| Method: EPA 300.1 - Anions by IC: EPA 300.1   |   |      |            |     |      | GroundH2O | 1 |
| <i>Instrument calibrated 07-DEC-10</i>        |   |      |            |     |      |           |   |
| <i>TARGET ANALYTES</i>                        |   |      |            |     |      |           |   |
| NITRATE AS N                                  | U | 0.31 | mg/L       | 100 | 0.31 | 0.4       |   |
| <i>SURROGATE</i>                              |   |      |            |     |      |           |   |
| DICHLOROACETATE                               |   | 100  | % recovery | 100 |      |           |   |
| Run ID: R206441 / Work Group No.: WG166038    |   |      |            |     |      |           |   |
| Prep Date: 09-DEC-10 Analyzed 09-Dec-10 14:06 |   |      |            |     |      |           |   |

|   |  |        |            |       |     |           |  |
|---|--|--------|------------|-------|-----|-----------|--|
| Method: EPA 300.1 - Anions by IC: EPA 300.1   |  |        |            |       |     | GroundH2O |  |
| <i>Instrument calibrated 07-DEC-10</i>        |  |        |            |       |     |           |  |
| <i>TARGET ANALYTES</i>                        |  |        |            |       |     |           |  |
| CHLORIDE                                      |  | 44,000 | mg/L       | 25000 | 100 |           |  |
| SULFATE                                       |  | 5,700  | mg/L       | 25000 | 200 | 0.5       |  |
| <i>SURROGATE</i>                              |  |        |            |       |     |           |  |
| DICHLOROACETATE                               |  | 100    | % recovery | 25000 |     |           |  |
| Run ID: R206441 / Work Group No.: WG166038    |  |        |            |       |     |           |  |
| Prep Date: 09-DEC-10 Analyzed 09-Dec-10 13:30 |  |        |            |       |     |           |  |

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**Analytical Results Report**

LSR#: B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater  
 Locator: BAY1-MW2S OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW2-60  
 Lab ID: L164135-2 (P167787-2)  
 Sample Type: GRAB (Instantaneous Grab)  
 Date Collected: Dec 08 2010, 05:27pm Sample collector: SPENMAN / ESS  
 Date Received: Dec 09 2010, 07:48am Sample receiver: RMOLINA  
 Sample Comments: MS2S pH = 6.33 ;Cl2R = ND mg/L; Depth to GW = 8.19 feet ; +TRANSMITTAL  
 for OXY-18

| Method Reference<br>Parameter  | Qualifier | Result | Units      | Dilution | MDL  | Matrix<br>RL/ML | Tag |
|--|-----------|--------|------------|----------|------|-----------------|-----|
| Method: EPA 552.2 - Haloacetic Acids & Dalapon                       |           |        |            |          |      | GroundH2O       |     |
| TARGET ANALYTES  |           |        |            |          |      |                 |     |
| BROMOCHLOROACETIC ACID   | U         | 0.55   | ug/L       | 1        | 0.55 |                 |     |
| BROMODICHLOROACETIC ACID   | U         | 0.26   | ug/L       | 1        | 0.26 |                 |     |
| CHLORODIBROMOACETIC ACID   | U         | 0.54   | ug/L       | 1        | 0.54 |                 |     |
| DALAPON  | U         | 0.15   | ug/L       | 1        | 0.15 |                 |     |
| DIBROMOACETIC ACID   | U         | 0.25   | ug/L       | 1        | 0.25 | 1               |     |
| DICHLOROACETIC ACID  | U         | 0.99   | ug/L       | 1        | 0.99 | 1               |     |
| MONOBROMOACETIC ACID   | U         | 0.54   | ug/L       | 1        | 0.54 | 1               |     |
| MONOCHLOROACETIC ACID  | U         | 0.78   | ug/L       | 1        | 0.78 | 2               |     |
| TRIBROMOACETIC ACID  | U         | 0.83   | ug/L       | 1        | 0.83 |                 |     |
| TRICHLOROACETIC ACID   | U         | 0.30   | ug/L       | 1        | 0.3  | 1               |     |
| VALUE CALCULATED FROM OTHER RESULTS                                  |           |        |            |          |      |                 |     |
| HAA (5)  |           | 0.0    | ug/L       |          | 2.9  |                 |     |
| HAA (9)  |           | 0.0    | ug/L       |          | 5    |                 |     |
| INTERNAL STANDARD  |           |        |            |          |      |                 |     |
| 1,2,3-TRICHLOROPROPANE   |           | 100    | % recovery |          | 1    |                 |     |
| SURROGATE  |           |        |            |          |      |                 |     |
| 2,3-DIBROMOPROPIONIC ACID  |           | 110    | % recovery |          | 1    |                 |     |
| Run ID: R206805 / Work Group No.: WG166249                           |           |        |            |          |      |                 |     |
| Prep Date1: 15-DEC-10 Prep Date2: 21-DEC-10 Analyzed 21-Dec-10 18:56 |           |        |            |          |      |                 |     |
| Method: SM(20)2320 B - Alkalinity: Total, Titration                  |           |        |            |          |      | GroundH2O       |     |
| TARGET ANALYTES  |           |        |            |          |      |                 |     |
| ALKALINITY: TOTAL AS CaCO3   |           | 390    | mg/L       | 1        | 5    |                 |     |
| Run ID: R206424 / Work Group No.: WG166052                           |           |        |            |          |      |                 |     |
| Prep Date1: 09-DEC-10 Analyzed 09-Dec-10 08:00                       |           |        |            |          |      |                 |     |
| Method: SM(20)2340 C - HARDNESS: TOTAL, TITRATION                    |           |        |            |          |      | GroundH2O       |     |
| TARGET ANALYTES  |           |        |            |          |      |                 |     |
| HARDNESS: TOTAL AS CaCO3   |           | 16,000 | mg/L       | 100      | 200  |                 |     |
| Run ID: R206460 / Work Group No.: WG166069                           |           |        |            |          |      |                 |     |
| Prep Date1: 10-DEC-10 Analyzed 10-Dec-10 10:25                       |           |        |            |          |      |                 |     |
| Method: SM(20)2540 C - Solids: Total Dissolved                       |           |        |            |          |      | GroundH2O       |     |
| TARGET ANALYTES  |           |        |            |          |      |                 |     |
| TOTAL DISSOLVED SOLIDS   |           | 80,000 | mg/L       | 20       | 360  |                 |     |
| Run ID: R206563 / Work Group No.: WG166061                           |           |        |            |          |      |                 |     |
| Prep Date1: 10-DEC-10 Analyzed 10-Dec-10 07:20                       |           |        |            |          |      |                 |     |
| Method: SM(20)4500-CO2 D - Hydroxide, calculation                    |           |        |            |          |      | GroundH2O       |     |
| TARGET ANALYTES  |           |        |            |          |      |                 |     |
| ALKALINITY: HYDROXIDE  | U         | 0.10   | mg/L       | 1        | 0.1  |                 |     |
| Run ID: R206428 / Work Group No.: WG166056                           |           |        |            |          |      |                 |     |
| Prep Date1: 09-DEC-10 Analyzed 09-Dec-10 14:00                       |           |        |            |          |      |                 |     |
| Method: SM(20)4500-CO2 D - Carbonate, Calculation                    |           |        |            |          |      | GroundH2O       |     |
| TARGET ANALYTES  |           |        |            |          |      |                 |     |
| ALKALINITY: CARBONATE  | U         | 0.10   | mg/L       | 1        | 0.1  |                 |     |
| Run ID: R206428 / Work Group No.: WG166056                           |           |        |            |          |      |                 |     |
| Prep Date1: 09-DEC-10 Analyzed 09-Dec-10 14:00                       |           |        |            |          |      |                 |     |

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 Analytical Results Report

LSR#: B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater  
 Locator: BAY1-MW2S OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW2-60  
 Lab ID: L164135-2 (P167787-2)  
 Sample Type: GRAB (Instantaneous Grab)  
 Date Collected: Dec 08 2010, 05:27pm Sample collector: SPenman / ESS  
 Date Received: Dec 09 2010, 07:48am Sample receiver: RMOLINA  
 Sample Comments: MS2S pH = 6.33 ;Cl2R = ND mg/L; Depth to GW = 8.19 feet ; +TRANSMITTAL  
 for OXY-18

| Method Reference<br>Parameter                          | Qualifier | Result   | Units | Dilution | MDL  | Matrix<br>RL/ML | Tag       |
|--|-----------|----------|-------|----------|------|-----------------|-----------|
| Method: SM(20)4500-CO2 D - BICARBONATE, CALCULATION    |           |          |       |          |      |                 | GroundH2O |
| TARGET ANALYTES  |           |          |       |          |      |                 |           |
| ALKALINITY: BICARBONATE                                |           | 390      | mg/L  | 1        | 5    |                 |           |
| Run ID: R206428 / Work Group No.: WG166056             |           |          |       |          |      |                 |           |
| Prep Date1: 09-DEC-10 Analyzed 09-Dec-10 14:00         |           |          |       |          |      |                 |           |
| Method: SM(20)4500-NH3 B,C - AMMONIA: TOTAL, TITRATION |           |          |       |          |      |                 | GroundH2O |
| TARGET ANALYTES  |           |          |       |          |      |                 |           |
| AMMONIA AS N   | U         | 0.300    | mg/L  | 1        | 0.3  |                 |           |
| Run ID: R206578 / Work Group No.: WG166122             |           |          |       |          |      |                 |           |
| Prep Date1: 14-DEC-10 Analyzed 14-Dec-10 08:00         |           |          |       |          |      |                 |           |
| Method: EPA 200.7 - ICP Scan                           |           |          |       |          |      |                 | RawH2O    |
| TARGET ANALYTES  |           |          |       |          |      |                 |           |
| CALCIUM  |           | 1.30E+06 | ug/L  | 104      | 1000 |                 |           |
| IRON   | U         | 83       | ug/L  | 10.4     | 83   | 100             |           |
| POTASSIUM  |           | 450,000  | ug/L  | 10.4     | 110  |                 |           |
| MAGNESIUM  |           | 2.50E+06 | ug/L  | 10.4     | 150  |                 |           |
| MANGANESE  |           | 35,000   | ug/L  | 10.4     | 7.28 | 20              |           |
| SODIUM   |           | 2.10E+07 | ug/L  | 104      | 1700 |                 |           |
| Run ID: R206582 / Work Group No.: WG166112             |           |          |       |          |      |                 |           |
| Prep Date1: 14-DEC-10 Analyzed 14-Dec-10 12:47         |           |          |       |          |      |                 |           |

Results with 6 figures or more are expressed in scientific notation.  
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**Analytical Results Report**

LSR#: B455-0706-1 BAYSIDE GROUND WATER PROJECT  
 Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater  
 Locator: BAY1-MW2I OW-1 the same parcel as the Bayside Well on Oro Loma Property; aka BAY1-MW2D until 11-2009;  
 formerly BAY1-MW2-190  
 Lab ID: L164135-3 (P167787-3)  
 Sample Type: GRAB (Instantaneous Grab)  
 Date Collected: Dec 08 2010; 04:12pm Sample collector: SPENMAN / ESS  
 Date Received: Dec 09 2010, 07:48am Sample receiver: RMOLINA  
 Sample Comments: MW2I pH = 7.56 ;CL2R = ND mg/L; Depth to GW = 9.65 feet ; +TRANSMITTAL  
 for OXY-18

| Method Reference  | Qualifier | Result | Units      | Dilution | MDL    | Matrix<br>RL/ML | Tag         |
|---|-----------|--------|------------|----------|--------|-----------------|-------------|
| Method: PER SUBCONTRACT LABORATORY REPORT - Subcontract data transmittal                  |           |        |            |          |        |                 | GroundH2O   |
| <i>Subcontract data from Test America</i>   |           |        |            |          |        |                 |             |
| Comment: Original report transmitted to client. Copy of report archived with data packet. |           |        |            |          |        |                 |             |
| SUBCONTRACT LAB DATA  |           |        |            |          |        |                 |             |
| DATA TRANSMITTAL  |           |        |            |          |        |                 |             |
| Run ID: R207128 / Work Group No.: WG166445  |           |        |            |          |        |                 |             |
| Prep Date: 29-DEC-11 Analyzed 29-Dec-10 00:00   |           |        |            |          |        |                 |             |
| Method: SAMPLER PROVIDED FIELD MEASUREMENTS - DATA ENTRY LIST FOR FIELD DATA              |           |        |            |          |        |                 | GroundH2O   |
| FIELD ANALYSIS/OBSERVATION DATA PARAMETERS  |           |        |            |          |        |                 |             |
| PH  |           | 7.56   | pH units   | 1        |        |                 |             |
| DEPTH   |           | 9.65   | feet       | 1        |        |                 |             |
| CHLORINE RESIDUAL: TOTAL  | U         | 0.1    | mg/L       | 1        | 0.1    |                 |             |
| Run ID: R206402 / Work Group No.: WG166043  |           |        |            |          |        |                 |             |
| Prep Date: 08-DEC-10 Analyzed 08-Dec-10 16:12   |           |        |            |          |        |                 |             |
| Method: EPA 8260B - Trihalomethanes: GC/MS  |           |        |            |          |        |                 | GroundH2O   |
| TARGET ANALYTES   |           |        |            |          |        |                 |             |
| CHLOROFORM  | U         | 0.57   | ug/L       | 1        | 0.57   |                 |             |
| BROMODICHLOROMETHANE  | U         | 0.58   | ug/L       | 1        | 0.58   |                 |             |
| DIBROMOCHLOROMETHANE  | U         | 0.64   | ug/L       | 1        | 0.64   |                 |             |
| BROMOFORM   | U         | 0.64   | ug/L       | 1        | 0.64   |                 |             |
| INTERNAL STANDARD   |           |        |            |          |        |                 |             |
| FLUOROBENZENE   |           | 107    | % recovery | 1        |        |                 |             |
| SURROGATE   |           |        |            |          |        |                 |             |
| 4-BROMOFLUOROBENZENE  |           | 114    | % recovery | 1        |        |                 |             |
| Run ID: R206523 / Work Group No.: WG166072  |           |        |            |          |        |                 |             |
| Prep Date: 10-DEC-10 Analyzed 10-Dec-10 16:47   |           |        |            |          |        |                 |             |
| Method: EPA 300.1 - Anions by IC: EPA 300.1   |           |        |            |          |        |                 | GroundH2O   |
| <i>Instrument calibrated 07-DEC-10</i>  |           |        |            |          |        |                 |             |
| TARGET ANALYTES   |           |        |            |          |        |                 |             |
| SULFATE   |           | 23     | mg/L       | 50       | 0.4    | 0.5             |             |
| SURROGATE   |           |        |            |          |        |                 |             |
| DICHLOROACETATE   |           | 100    | % recovery | 50       |        |                 |             |
| Run ID: R206441 / Work Group No.: WG166038  |           |        |            |          |        |                 |             |
| Prep Date: 09-DEC-10 Analyzed 09-Dec-10 14:42   |           |        |            |          |        |                 |             |
| Method: EPA 300.1 - Anions by IC: EPA 300.1   |           |        |            |          |        |                 | GroundH2O 1 |
| <i>Instrument calibrated 07-DEC-10</i>  |           |        |            |          |        |                 |             |
| TARGET ANALYTES   |           |        |            |          |        |                 |             |
| NITRATE AS N  | U         | 0.0031 | mg/L       | 1        | 0.0031 | 0.4             |             |
| SURROGATE   |           |        |            |          |        |                 |             |
| DICHLOROACETATE   |           | 99     | % recovery | 1        |        |                 |             |
| Run ID: R206441 / Work Group No.: WG166038  |           |        |            |          |        |                 |             |
| Prep Date: 09-DEC-10 Analyzed 09-Dec-10 15:18   |           |        |            |          |        |                 |             |

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 Analytical Results Report

LSR#: B455-0706-1 BAYSIDE GROUND WATER PROJECT  
 Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater  
 Locator: BAY1-MW2I OW-1 the same parcel as the Bayside Well on Oro Loma Property; aka BAY1-MW2D until 11-2009;  
 formerly BAY1-MW2-190  
 Lab ID: L164135-3 (P167787-3)  
 Sample Type: GRAB (Instantaneous Grab)  
 Date Collected: Dec 08 2010, 04:12pm Sample collector: SPENMAN / ESS  
 Date Received: Dec 09 2010, 07:48am Sample receiver: RMOLINA  
 Sample Comments: MW2I pH = 7.56 ; Cl2R = ND mg/L; Depth to GW = 9.65 feet ; +TRANSMITTAL  
 for OXY-18

| Method Reference<br>Parameter  | Qualifier | Result | Units      | Dilution | MDL  | Matrix<br>RL/ML | Tag |
|--|-----------|--------|------------|----------|------|-----------------|-----|
| Method: EPA 300.1 - Anions by IC: EPA 300.1<br>Instrument calibrated 07-DEC-10                                     |           |        |            |          |      | GroundH2O       | 2   |
| TARGET ANALYTES  |           |        |            |          |      |                 |     |
| CHLORIDE   |           | 110    | mg/L       | 100      | 0.42 |                 |     |
| SURROGATE  |           |        |            |          |      |                 |     |
| DICHLOROACETATE  |           | 98     | % recovery | 100      |      |                 |     |
| Run ID: R206441 / Work Group No.: WG166038<br>Prep Date1: 09-DEC-10 Analyzed 09-Dec-10 17:42                       |           |        |            |          |      |                 |     |
| Method: EPA 552.2 - Haloacetic Acids & Dalapon   |           |        |            |          |      | GroundH2O       |     |
| TARGET ANALYTES  |           |        |            |          |      |                 |     |
| BROMOCHLOROACETIC ACID   | U         | 0.55   | ug/L       | 1        | 0.55 |                 |     |
| BROMODICHLOROACETIC ACID   | U         | 0.26   | ug/L       | 1        | 0.26 |                 |     |
| CHLORODIBROMOACETIC ACID   | U         | 0.54   | ug/L       | 1        | 0.54 |                 |     |
| DALAPON  | U         | 0.15   | ug/L       | 1        | 0.15 |                 |     |
| DIBROMOACETIC ACID   | U         | 0.25   | ug/L       | 1        | 0.25 | 1               |     |
| DICHLOROACETIC ACID  | U         | 0.99   | ug/L       | 1        | 0.99 | 1               |     |
| MONOBROMOACETIC ACID   | U         | 0.54   | ug/L       | 1        | 0.54 | 1               |     |
| MONOCHLOROACETIC ACID  | U         | 0.78   | ug/L       | 1        | 0.78 | 2               |     |
| TRIBROMOACETIC ACID  | U         | 0.83   | ug/L       | 1        | 0.83 |                 |     |
| TRICHLOROACETIC ACID   | U         | 0.30   | ug/L       | 1        | 0.3  | 1               |     |
| VALUE(S) USED TO CALCULATE OTHER VALUE(S)  |           |        |            |          |      |                 |     |
| HAA (5)  |           | 0.0    | ug/L       |          | 2.9  |                 |     |
| HAA (9)  |           | 0.0    | ug/L       |          | 5    |                 |     |
| INTERNAL STANDARD  |           |        |            |          |      |                 |     |
| 1,2,3-TRICHLOROPROPANE   |           | 100    | % recovery |          | 1    |                 |     |
| SURROGATE  |           |        |            |          |      |                 |     |
| 2,3-DIBROMOPROPIONIC ACID  |           | 100    | % recovery |          | 1    |                 |     |
| Run ID: R206805 / Work Group No.: WG166249<br>Prep Date1: 15-DEC-10 Prep Date2: 21-DEC-10 Analyzed 21-Dec-10 19:40 |           |        |            |          |      |                 |     |
| Method: SM(20)2320 B - Alkalinity: Total, Titration  |           |        |            |          |      | GroundH2O       |     |
| TARGET ANALYTES  |           |        |            |          |      |                 |     |
| ALKALINITY: TOTAL AS CaCO3   |           | 310    | mg/L       | 1        | 5    |                 |     |
| Run ID: R206424 / Work Group No.: WG166052<br>Prep Date1: 09-DEC-10 Analyzed 09-Dec-10 08:00                       |           |        |            |          |      |                 |     |
| Method: SM(20)2340 C - HARDNESS: TOTAL, TITRATION  |           |        |            |          |      | GroundH2O       |     |
| TARGET ANALYTES  |           |        |            |          |      |                 |     |
| HARDNESS: TOTAL AS CaCO3   |           | 100    | mg/L       | 1        | 2    |                 |     |
| Run ID: R206460 / Work Group No.: WG166069<br>Prep Date1: 10-DEC-10 Analyzed 10-Dec-10 10:25                       |           |        |            |          |      |                 |     |
| Method: SM(20)2540 C - Solids: Total Dissolved   |           |        |            |          |      | GroundH2O       |     |
| TARGET ANALYTES  |           |        |            |          |      |                 |     |
| TOTAL DISSOLVED SOLIDS   |           | 620    | mg/L       | 2        | 36   |                 |     |
| Run ID: R206563 / Work Group No.: WG166061<br>Prep Date1: 10-DEC-10 Analyzed 10-Dec-10 07:20                       |           |        |            |          |      |                 |     |

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 Analytical Results Report

LSR#: B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater  
 Locator: BAY1-MW2I OW-1 the same parcel as the Bayside Well on Oro Loma Property; aka BAY1-MW2D until 11-2009;  
 formerly BAY1-MW2-190

Lab ID: L164135-3 (P167787-3)  
 Sample Type: GRAB (Instantaneous Grab)  
 Date Collected: Dec 08 2010, 04:12pm Sample collector: SPENMAN / ESS  
 Date Received: Dec 09 2010, 07:48am Sample receiver: RMOLINA  
 Sample Comments: MW2I pH = 7.56 ;Cl2R = ND mg/L; Depth to GW = 9.65 feet ; +TRANSMITTAL  
 for OXY-18

| Method Reference<br>Parameter                          | Qualifier | Result  | Units | Dilution | MDL   | Matrix<br>RL/ML | Tag       |
|--|-----------|---------|-------|----------|-------|-----------------|-----------|
| Method: SM(20)4500-CO2 D - Hydroxide, calculation      |           |         |       |          |       |                 | GroundH2O |
| TARGET ANALYTES  |           |         |       |          |       |                 |           |
| ALKALINITY: HYDROXIDE                                  | U         | 0.10    | mg/L  | 1        | 0.1   |                 |           |
| Run ID: R206428 / Work Group No.: WG166056             |           |         |       |          |       |                 |           |
| Prep Date: 09-DEC-10 Analyzed 09-Dec-10 14:00          |           |         |       |          |       |                 |           |
| Method: SM(20)4500-CO2 D - Carbonate, Calculation      |           |         |       |          |       |                 | GroundH2O |
| TARGET ANALYTES  |           |         |       |          |       |                 |           |
| ALKALINITY: CARBONATE                                  |           | 1.0     | mg/L  | 1        | 0.1   |                 |           |
| Run ID: R206428 / Work Group No.: WG166056             |           |         |       |          |       |                 |           |
| Prep Date: 09-DEC-10 Analyzed 09-Dec-10 14:00          |           |         |       |          |       |                 |           |
| Method: SM(20)4500-CO2 D - BICARBONATE, CALCULATION    |           |         |       |          |       |                 | GroundH2O |
| TARGET ANALYTES  |           |         |       |          |       |                 |           |
| ALKALINITY: BICARBONATE                                |           | 310     | mg/L  | 1        | 5     |                 |           |
| Run ID: R206428 / Work Group No.: WG166056             |           |         |       |          |       |                 |           |
| Prep Date: 09-DEC-10 Analyzed 09-Dec-10 14:00          |           |         |       |          |       |                 |           |
| Method: SM(20)4500-NH3 B,C - AMMONIA; TOTAL, TITRATION |           |         |       |          |       |                 | GroundH2O |
| TARGET ANALYTES  |           |         |       |          |       |                 |           |
| AMMONIA AS N   | U         | 0.300   | mg/L  | 1        | 0.3   |                 |           |
| Run ID: R206578 / Work Group No.: WG166122             |           |         |       |          |       |                 |           |
| Prep Date: 14-DEC-10 Analyzed 14-Dec-10 08:00          |           |         |       |          |       |                 |           |
| Method: EPA 200.7 - ICP Scan                           |           |         |       |          |       |                 | RawH2O    |
| TARGET ANALYTES  |           |         |       |          |       |                 |           |
| CALCIUM  |           | 17,000  | ug/L  | 1.04     | 10    |                 |           |
| IRON   |           | 390     | ug/L  | 1.04     | 8.3   | 100             |           |
| POTASSIUM  |           | 6,000   | ug/L  | 1.04     | 11    |                 |           |
| MAGNESIUM  |           | 15,000  | ug/L  | 1.04     | 15    |                 |           |
| MANGANESE  |           | 99.8    | ug/L  | 1.04     | 0.728 | 20              |           |
| SODIUM   |           | 170,000 | ug/L  | 1.04     | 17    |                 |           |
| Run ID: R206582 / Work Group No.: WG166112             |           |         |       |          |       |                 |           |
| Prep Date: 14-DEC-10 Analyzed 14-Dec-10 12:52          |           |         |       |          |       |                 |           |

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 Analytical Results Report

LSR#: B455-0706-1 BAYSIDE GROUND WATER PROJECT  
 Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater  
 Locator: BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5  
 Lab ID: L164135-4 (P167787-4)  
 Sample Type: GRAB (Instantaneous Grab)  
 Date Collected: Dec 08 2010, 01:53pm Sample collector: SPenman / ESS  
 Date Received: Dec 09 2010, 07:48am Sample receiver: RMOLINA  
 Sample Comments: MW4 pH = 7.51 ;Cl2R = ND mg/L; Depth to GW = 16.41 feet ; +TRANSMITTAL  
 for OXY-18

| Method Reference<br>Parameter | Qualifier | Result | Units | Dilution | MDL | Matrix<br>RL/ML | Tag |
|-------------------------------|-----------|--------|-------|----------|-----|-----------------|-----|
|-------------------------------|-----------|--------|-------|----------|-----|-----------------|-----|

|  |           |
|--|-----------|
| Method: PER SUBCONTRACT LABORATORY REPORT - Subcontract data transmittal<br>Subcontract data from Test America<br>Comment: Original report transmitted to client. Copy of report archived with data packet.<br>SUBCONTRACT LAB DATA<br>DATA TRANSMITTAL<br>Run ID: R207128 / Work Group No.: WG166445<br>Prep Date: 29-DEC-11 Analyzed 29-Dec-10 00:00 | GroundH2O |
|--|-----------|

|  |           |
|--|-----------|
| Method: SAMPLER PROVIDED FIELD MEASUREMENTS - DATA ENTRY LIST FOR FIELD DATA<br>FIELD ANALYSIS/OBSERVATION DATA PARAMETERS<br>PH 7.51 pH units 1<br>DEPTH 16.41 feet 1<br>CHLORINE RESIDUAL: TOTAL U 0.1 mg/L 1 0.1<br>Run ID: R206402 / Work Group No.: WG166043<br>Prep Date: 08-DEC-10 Analyzed 08-Dec-10 13:53 | GroundH2O |
|--|-----------|

|  |           |
|--|-----------|
| Method: EPA 8260B - Trihalomethanes: GC/MS<br>TARGET ANALYTES<br>CHLOROFORM U 0.57 ug/L 1 0.57<br>BROMODICHLOROMETHANE U 0.58 ug/L 1 0.58<br>DIBROMOCHLOROMETHANE U 0.64 ug/L 1 0.64<br>BROMOFORM U 0.64 ug/L 1 0.64<br>INTERNAL STANDARD<br>FLUOROBENZENE 112 % recovery 1<br>SURROGATE<br>4-BROMOFLUOROBENZENE 105 % recovery 1<br>Run ID: R206523 / Work Group No.: WG166072<br>Prep Date: 10-DEC-10 Analyzed 10-Dec-10 17:14 | GroundH2O |
|--|-----------|

|  |           |
|--|-----------|
| Method: EPA 300.1 - Anions by IC: EPA 300.1<br>Instrument calibrated 07-DEC-10<br>TARGET ANALYTES<br>NITRATE AS N U 0.0031 mg/L 1 0.0031 0.4<br>SURROGATE<br>DICHLOROACETATE 100 % recovery 1<br>Run ID: R206441 / Work Group No.: WG166038<br>Prep Date: 09-DEC-10 Analyzed 09-Dec-10 16:30 | GroundH2O |
|--|-----------|

|  |           |
|--|-----------|
| Method: EPA 300.1 - Anions by IC: EPA 300.1<br>Instrument calibrated 07-DEC-10<br>TARGET ANALYTES<br>CHLORIDE 57 mg/L 50 0.21<br>SULFATE 42 mg/L 50 0.4 0.5<br>SURROGATE<br>DICHLOROACETATE 100 % recovery 50<br>Run ID: R206441 / Work Group No.: WG166038<br>Prep Date: 09-DEC-10 Analyzed 09-Dec-10 15:54 | GroundH2O |
|--|-----------|

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LSR#: B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater  
 Locator: BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5  
 Lab ID: L164135-4 (P167787-4)  
 Sample Type: GRAB (Instantaneous Grab)  
 Date Collected: Dec 08 2010, 01:53pm Sample collector: SPENMAN / ESS  
 Date Received: Dec 09 2010, 07:48am Sample receiver: RMOLINA  
 Sample Comments: MW4 pH = 7.51 ; Cl2R = ND mg/L; Depth to GW = 16.41 feet ; +TRANSMITTAL  
 for OXY-18

| Method Reference<br>Parameter  | Qualifier | Result | Units      | Dilution | MDL  | Matrix<br>RL/ML | Tag       |
|--|-----------|--------|------------|----------|------|-----------------|-----------|
| Method: EPA 552.2 - Haloacetic Acids & Dalapon                       |           |        |            |          |      |                 | GroundH2O |
| TARGET ANALYTES  |           |        |            |          |      |                 |           |
| BROMOCHLOROACETIC ACID   | U         | 0.55   | ug/L       | 1        | 0.55 |                 |           |
| BROMODICHLOROACETIC ACID   | U         | 0.26   | ug/L       | 1        | 0.26 |                 |           |
| CHLORODIBROMOACETIC ACID   | U         | 0.54   | ug/L       | 1        | 0.54 |                 |           |
| DALAPON  | U         | 0.15   | ug/L       | 1        | 0.15 |                 |           |
| DIBROMOACETIC ACID   | U         | 0.25   | ug/L       | 1        | 0.25 | 1               |           |
| DICHLOROACETIC ACID  | U         | 0.99   | ug/L       | 1        | 0.99 | 1               |           |
| MONOBROMOACETIC ACID   | U         | 0.54   | ug/L       | 1        | 0.54 | 1               |           |
| MONOCHLOROACETIC ACID  | U         | 0.78   | ug/L       | 1        | 0.78 | 2               |           |
| TRIBROMOACETIC ACID  | U         | 0.83   | ug/L       | 1        | 0.83 |                 |           |
| TRICHLOROACETIC ACID   | U         | 0.30   | ug/L       | 1        | 0.3  | 1               |           |
| VALUE CALCULATED FROM OTHER RESULTS                                  |           |        |            |          |      |                 |           |
| HAA (5)  |           | 0.0    | ug/L       |          | 2.9  |                 |           |
| HAA (9)  |           | 0.0    | ug/L       |          | 5    |                 |           |
| INTERNAL STANDARD  |           |        |            |          |      |                 |           |
| 1,2,3-TRICHLOROPROPANE   |           | 100    | % recovery |          | 1    |                 |           |
| SURROGATE  |           |        |            |          |      |                 |           |
| 2,3-DIBROMOPROPIONIC ACID  |           | 110    | % recovery |          | 1    |                 |           |
| Run ID: R206805 / Work Group No.: WG166249                           |           |        |            |          |      |                 |           |
| Prep Date1: 15-DEC-10 Prep Date2: 21-DEC-10 Analyzed 21-Dec-10 20:25 |           |        |            |          |      |                 |           |
| Method: SM(20)2320 B - Alkalinity: Total, Titration                  |           |        |            |          |      |                 | GroundH2O |
| TARGET ANALYTES  |           |        |            |          |      |                 |           |
| ALKALINITY: TOTAL AS CaCO3   |           | 230    | mg/L       | 1        | 5    |                 |           |
| Run ID: R206424 / Work Group No.: WG166052                           |           |        |            |          |      |                 |           |
| Prep Date1: 09-DEC-10 Analyzed 09-Dec-10 08:00                       |           |        |            |          |      |                 |           |
| Method: SM(20)2340 C - HARDNESS: TOTAL, TITRATION                    |           |        |            |          |      |                 | GroundH2O |
| TARGET ANALYTES  |           |        |            |          |      |                 |           |
| HARDNESS: TOTAL AS CaCO3   |           | 130    | mg/L       | 1        | 2    |                 |           |
| Run ID: R206460 / Work Group No.: WG166069                           |           |        |            |          |      |                 |           |
| Prep Date1: 10-DEC-10 Analyzed 10-Dec-10 10:25                       |           |        |            |          |      |                 |           |
| Method: SM(20)2540 C - Solids: Total Dissolved                       |           |        |            |          |      |                 | GroundH2O |
| TARGET ANALYTES  |           |        |            |          |      |                 |           |
| TOTAL DISSOLVED SOLIDS   |           | 430    | mg/L       | 1        | 18   |                 |           |
| Run ID: R206563 / Work Group No.: WG166061                           |           |        |            |          |      |                 |           |
| Prep Date1: 10-DEC-10 Analyzed 10-Dec-10 07:20                       |           |        |            |          |      |                 |           |
| Method: SM(20)4500-CO2 D - Hydroxide, calculation                    |           |        |            |          |      |                 | GroundH2O |
| TARGET ANALYTES  |           |        |            |          |      |                 |           |
| ALKALINITY: HYDROXIDE  | U         | 0.10   | mg/L       | 1        | 0.1  |                 |           |
| Run ID: R206428 / Work Group No.: WG166056                           |           |        |            |          |      |                 |           |
| Prep Date1: 09-DEC-10 Analyzed 09-Dec-10 14:00                       |           |        |            |          |      |                 |           |
| Method: SM(20)4500-CO2 D - Carbonate, Calculation                    |           |        |            |          |      |                 | GroundH2O |
| TARGET ANALYTES  |           |        |            |          |      |                 |           |
| ALKALINITY: CARBONATE  |           | 0.70   | mg/L       | 1        | 0.1  |                 |           |
| Run ID: R206428 / Work Group No.: WG166056                           |           |        |            |          |      |                 |           |
| Prep Date1: 09-DEC-10 Analyzed 09-Dec-10 14:00                       |           |        |            |          |      |                 |           |

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EAST BAY MUNICIPAL UTILITY DISTRICT  
 Laboratory Services Division  
 PO Box 24055, MS 59, Oakland, CA 94623  
 Phone (510)287-1432 Fax (510)465-5462  
 Analytical Results Report

LSR#: B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater  
 Locator: BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5  
 Lab ID: L164135-4 (P167787-4)  
 Sample Type: GRAB (Instantaneous Grab)  
 Date Collected: Dec 08 2010, 01:53pm Sample collector: SPENMAN / ESS  
 Date Received: Dec 09 2010, 07:48am Sample receiver: RMOLINA  
 Sample Comments: MW4 pH = 7.51 ;Cl2R = ND mg/L; Depth to GW = 16.41 feet ; +TRANSMITTAL  
 for OXY-18

| Method Reference<br>Parameter                          | Qualifier | Result  | Units | Dilution | MDL   | Matrix<br>RL/ML | Tag       |
|--|-----------|---------|-------|----------|-------|-----------------|-----------|
| Method: SM(20)4500-CO2 D - BICARBONATE, CALCULATION    |           |         |       |          |       |                 | GroundH2O |
| TARGET ANALYTES  |           |         |       |          |       |                 |           |
| ALKALINITY: BICARBONATE                                |           | 230     | mg/L  | 1        | 5     |                 |           |
| Run ID: R206428 / Work Group No.: WG166056             |           |         |       |          |       |                 |           |
| Prep Date: 09-DEC-10 Analyzed 09-Dec-10 14:00          |           |         |       |          |       |                 |           |
| Method: SM(20)4500-NH3 B,C - AMMONIA: TOTAL, TITRATION |           |         |       |          |       |                 | GroundH2O |
| TARGET ANALYTES  |           |         |       |          |       |                 |           |
| AMMONIA AS N   | U         | 0.300   | mg/L  | 1        | 0.3   |                 |           |
| Run ID: R206578 / Work Group No.: WG166122             |           |         |       |          |       |                 |           |
| Prep Date: 14-DEC-10 Analyzed 14-Dec-10 08:00          |           |         |       |          |       |                 |           |
| Method: EPA 200.7 - ICP Scan                           |           |         |       |          |       |                 | RawH2O    |
| TARGET ANALYTES  |           |         |       |          |       |                 |           |
| CALCIUM  |           | 29,000  | ug/L  | 1.04     | 10    |                 |           |
| IRON   |           | 77      | ug/L  | 1.04     | 8.3   | 100             |           |
| POTASSIUM  |           | 2,600   | ug/L  | 1.04     | 11    |                 |           |
| MAGNESIUM  |           | 12,000  | ug/L  | 1.04     | 15    |                 |           |
| MANGANESE  |           | 203     | ug/L  | 1.04     | 0.728 | 20              |           |
| SODIUM   |           | 100,000 | ug/L  | 1.04     | 17    |                 |           |
| Run ID: R206582 / Work Group No.: WG166112             |           |         |       |          |       |                 |           |
| Prep Date: 14-DEC-10 Analyzed 14-Dec-10 12:56          |           |         |       |          |       |                 |           |

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 Analytical Results Report

LSR#: B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: FIELD QC Sample collection QC  
 Locator: COLLECTION QC Field QC Sample submitted for analysis  
 Lab ID: L164135-5 (P168160-1)  
 Sample Type: QCFB (Field Blank Grab)  
 Date Collected: Dec 08 2010, 01:40pm Sample collector: SPenman / ESS  
 Date Received: Dec 09 2010, 07:48am Sample receiver: RMOLINA  
 Sample Comments: QCFB for L164135-4; Prep'd on 06-DEC-10 by RTC; extra +HOLD for COC documentation;

| Method Reference                              | Parameter            | Qualifier | Result | Units      | Dilution | MDL  | Matrix<br>RL/ML | Tag |
|---|----------------------|-----------|--------|------------|----------|------|-----------------|-----|
| Method: EPA 8260B - Trihalomethanes: GC/MS    |                      |           |        |            |          |      | GroundH2O       |     |
| <i>TARGET ANALYTES</i>                        |                      |           |        |            |          |      |                 |     |
|   | CHLOROFORM           | U         | 0.57   | ug/L       | 1        | 0.57 |                 |     |
|   | BROMODICHLOROMETHANE | U         | 0.58   | ug/L       | 1        | 0.58 |                 |     |
|   | DIBROMOCHLOROMETHANE | U         | 0.64   | ug/L       | 1        | 0.64 |                 |     |
|   | BROMOFORM            | U         | 0.64   | ug/L       | 1        | 0.64 |                 |     |
| <i>INTERNAL STANDARD</i>                      |                      |           |        |            |          |      |                 |     |
|   | FLUOROBENZENE        |           | 119    | % recovery | 1        |      |                 |     |
|   | <i>SURROGATE</i>     |           |        |            |          |      |                 |     |
|   | 4-BROMOFLUOROBENZENE |           | 106    | % recovery | 1        |      |                 |     |
| Run ID: R206523 / Work Group No.: WG166072    |                      |           |        |            |          |      |                 |     |
| Prep Date: 10-DEC-10 Analyzed 10-Dec-10 14:34 |                      |           |        |            |          |      |                 |     |

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