## Tables

Table 1. Phase III Monitoring Well Installation Survey Data

| Well ID | Northing | Easting | Ground Surface Elevation (ft amsl) | Top of Casing (ft amsl) |
|---|---|---|---|---|
| MW-1A | 1603288.9 | 2402905.3 | 6070.4 | 6070.31 |
| MW-1B | 1603288.9 | 2402905.3 | 6070.4 | 6070.29 |
| MW-2A | 1609527.0 | 2398413.6 | 6000.3 | 6000.38* |
| MW-2B | 1609527.0 | 2398413.6 | 6000.3 | 6000.36* |
| MW-3A | 1598811.5 | 2403836.3 | 6166.8 | 6166.62 |
| MW-3B | 1598811.5 | 2403836.3 | 6166.8 | 6166.59 |
| Currie Well | 1607245.5 | 2392551.6 | 5898.2 | 5900.72 |

Notes:

Coordinates in State Plane NAD 83.

Elevation in NAVD 88.

ft amsl = feet above mean sea level.

* - Well modified to accommodate pumping system after initial TOC survey. Initial TOC results are MW-2A = 6000.44 and MW-2B =6000.43.

Table 2. Groundwater Potentiometric Elevation Summary

| Well ID | | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B | Currie Well |
|---|---|---|---|---|---|---|---|---|
| Top of Casing (ft amsl) | | 6070.31 | 6070.29 | 6000.36* | 6000.38* | 6166.62 | 6166.59 | 5900.72 |
| December 15, 2010 | Depth to Water (ft) | 346.10 | 433.95 | 144.28 | 522.48 | 353.55 | 452.27 | NM |
| | Potentiometric Elevation (ft amsl) | 5724.21 | 5636.34 | 5856.16 | 5477.95 | 5813.07 | 5714.32 | NM |
| January 17, 2011 | Depth to Water (ft) | 359.66 | 504.47 | 143.81 | 518.05 | 364.94 | 575.47 | 24.44 |
| | Potentiometric Elevation (ft amsl) | 5710.65 | 5565.82 | 5856.63 | 5482.38 | 5801.68 | 5591.12 | 5876.28 |
| May 10, 2011 | Depth to Water (ft) | 323.70 | 362.70 | 143.13 | 528.01 | 336.11 | 490.17 | 25.45 |
| | Potentiometric Elevation (ft amsl) | 5746.61 | 5707.59 | 5857.31 | 5472.42 | 5830.51 | 5676.42 | 5875.27 |
| February 1, 2012 | Depth to Water (ft) | 32.08 | 198.09 | 141.87 | 521.33 | 290.95 | 286.43 | 24.12 |
| | Potentiometric Elevation (ft amsl) | 6038.23 | 5872.20 | 5858.57 | 5479.10 | 5875.67 | 5880.16 | 5876.60 |
| February 28, 2012 | Depth to Water (ft) | 46.39 | 194.99 | 142.80 | 520.10 | 281.33 | 276.69 | 24.51 |
| | Potentiometric Elevation (ft amsl) | 6023.92 | 5875.30 | 5857.64 | 5480.33 | 5885.29 | 5889.90 | 5876.21 |
| May 1, 2012 | Depth to Water (ft) | 103.51 | 275.00 | 183.72 | 549.88 | 318.22 | 317.85 | NM |
| | Potentiometric Elevation (ft amsl) | 5966.80 | 5795.29 | 5816.64 | 5450.50 | 5848.40 | 5848.74 | NM |
| May 6, 2012 | Depth to Water (ft) | 378.39 | 488.99 | 393.30 | 594.06 | 357.05 | below pump | NM |
| | Potentiometric Elevation (ft amsl) | 5691.92 | 5581.30 | 5607.06 | 5406.32 | 5809.57 | NM | NM |
| June 8, 2012 | Depth to Water (ft) | 365.51 | 452.95 | 189.08 | 588.82 | 347.18 | 578.33 | 23.80 |
| | Potentiometric Elevation (ft amsl) | 5704.80 | 5617.34 | 5811.28 | 5411.56 | 5819.44 | 5588.26 | 5876.92 |
| August 14, 2012 | Depth to Water (ft) | 334.49 | 409.68 | 150.10 | 586.79 | 329.70 | 566.65 | 24.26 |
| | Potentiometric Elevation (ft amsl) | 5735.82 | 5660.61 | 5850.26 | 5413.59 | 5836.92 | 5599.94 | 5876.46 |
| December 17, 2012 | Depth to Water (ft) | 333.69 | 395.25 | 145.39 | 578.13 | 342.55 | 557.12 | 24.54 |
| | Potentiometric Elevation (ft amsl) | 5736.62 | 5675.04 | 5854.97 | 5422.25 | 5824.07 | 5609.47 | 5876.18 |
| January 23, 2013 | Depth to Water (ft) | 370.72 | 440.98 | 147.94 | 576.52 | 357.90 | 571.10 | 24.85 |
| | Potentiometric Elevation (ft amsl) | 5699.59 | 5629.31 | 5852.42 | 5423.86 | 5808.72 | 5595.49 | 5875.87 |

Notes:

ft amsl = feet above mean sea level.

NM = not measured

* - Well modified on 2/1/12 to accommodate pumping system after initial TOC survey.
Initial TOC results are MW-2A = 6000.44 and MW-2B =6000.43.

Table 3. Groundwater Vertical Gradient Evaluation

| Well ID | | MW-1A | MW-1B | MW-2A | MW-2B | MW-3A | MW-3B |
|---|---|---|---|---|---|---|---|
| **Ground Surface Elevation** | | **6070.31** | **6070.29** | **6000.36** | **6000.38** | **6166.62** | **6166.59** |
| **Center of Screened Interval** | | **5681.81** | **5481.09** | **5615.36** | **5407.38** | **5786.62** | **5586.59** |
| **January 17, 2011** | Potentiometric Elevation (ft amsl) | 5710.65 | 5565.82 | 5856.63 | 5482.38 | 5801.68 | 5591.12 |
| | Difference in Head (ft) | -144.82 | | -374.25 | | -210.56 | |
| | Vertical Gradient (ft/ft) | -0.72 | | -1.80 | | -1.05 | |
| **May 10, 2011** | Potentiometric Elevation (ft amsl) | 5746.61 | 5707.59 | 5857.31 | 5472.42 | 5830.51 | 5676.42 |
| | Difference in Head (ft) | -39.01 | | -384.89 | | -154.09 | |
| | Vertical Gradient (ft/ft) | -0.19 | | -1.85 | | -0.77 | |
| **February 1, 2012** | Potentiometric Elevation (ft amsl) | 6038.23 | 5872.20 | 5858.57 | 5479.10 | 5875.67 | 5880.16 |
| | Difference in Head (ft) | -166.02 | | -379.47 | | 4.49 | |
| | Vertical Gradient (ft/ft) | -0.83 | | -1.82 | | 0.02 | |
| **May 1, 2012** | Potentiometric Elevation (ft amsl) | 5966.80 | 5795.29 | 5816.64 | 5450.50 | 5848.40 | 5848.74 |
| | Difference in Head (ft) | -171.50 | | -366.14 | | 0.34 | |
| | Vertical Gradient (ft/ft) | -0.85 | | -1.76 | | 0.00 | |
| **June 8, 2012** | Potentiometric Elevation (ft amsl) | 5704.80 | 5617.34 | 5811.28 | 5411.56 | 5819.44 | 5588.26 |
| | Difference in Head (ft) | -87.45 | | -399.72 | | -231.18 | |
| | Vertical Gradient (ft/ft) | -0.44 | | -1.92 | | -1.16 | |
| **August 14, 2012** | Potentiometric Elevation (ft amsl) | 5735.82 | 5660.61 | 5850.26 | 5413.59 | 5836.92 | 5599.94 |
| | Difference in Head (ft) | -75.20 | | -436.67 | | -236.98 | |
| | Vertical Gradient (ft/ft) | -0.37 | | -2.10 | | -1.18 | |
| **December 17, 2012** | Potentiometric Elevation (ft amsl) | 5736.62 | 5675.04 | 5854.97 | 5422.25 | 5824.07 | 5609.47 |
| | Difference in Head (ft) | -61.57 | | -432.72 | | -214.60 | |
| | Vertical Gradient (ft/ft) | -0.31 | | -2.08 | | -1.07 | |

Notes:

Elevation in NAVD 88.

ft amsl = feet above mean sea level.

Negative gradient values indicate downward flow

Table 4. Organic and Inorganic Analytical Results

| Client Sample ID: | | Colorado Basic Standards for Groundwater | Federal MCL or Secondary Standard | MW-1A_012111 | | MW-1A_051211 | | MW-1A_081512 | | MW-1A_122012 | | MW-1B_012111 | | MW-1B-051311 | | MW-1B_081612 | | MW-1B_122012 | | MW-2A_012011 | | MW-2A_051211 | | MW-2A_081512 | | MW-2A_121912 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID: | | | | D20581-1 | | D23440-3F | | 280-32208-1 | | 280-37308-1 | | D20581-2 | | D23462-1F | | 280-32240-1 | | 280-37308-1 | | D20552-1 | | D23440-1F | | 280-32208-4 | | 280-37250-1 | |
| Date Sampled: | | | | 1/21/2011 | | 5/12/2011 | | 8/15/2012 | | 12/20/2012 | | 1/21/2011 | | 5/13/2011 | | 8/16/2012 | | 12/20/2012 | | 1/20/2011 | | 5/12/2011 | | 8/15/2012 | | 12/19/2012 | |
| GC/MS Volatiles | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | ug/l | - | - | 45.6 | | 70.3 | | na | | na | | 36.7 | | 23.7 | | na | | na | | 11.5 | | 5.0 | U | na | | na | |
| Benzene | ug/l | 5 | 5 | 0.6 | J | 0.79 | J | 1.0 | U | 1.0 | U | 5.3 | | 4.3 | | 1.0 | U | 1.3 | | 0.3 | J | 0.71 | J | 1.0 | U | 1.0 | U |
| Bromodichloromethane | ug/l | 0.56 | - | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| Bromoform | ug/l | 4 | - | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| Chlorobenzene | ug/l | 100 | 100 | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| Chloroethane | ug/l | - | - | 1.5 | U | 0.50 | U | na | | na | | 1.5 | U | 0.50 | U | na | | na | | 1.5 | U | 0.50 | U | na | | na | |
| Chloroform | ug/l | - | 70 | 0.9 | J | 0.50 | U | na | | na | | 0.5 | U | 0.50 | U | na | | na | | 3.3 | | 2.2 | | na | | na | |
| 2-Chloroethyl vinyl ether | ug/l | - | - | 1.0 | U | 5.0 | U | na | | na | | 1.0 | U | 5.0 | U | na | | na | | 1.0 | U | 5.0 | U | na | | na | |
| Carbon disulfide | ug/l | - | - | 1.0 | U | 1.1 | U | na | | na | | 1.0 | U | 1.4 | J | na | | na | | 1.0 | U | 1.1 | U | na | | na | |
| Carbon tetrachloride | ug/l | 0.27 to 5[1] | 5 | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| 1,1-Dichloroethane | ug/l | - | - | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| 1,1-Dichloroethylene | ug/l | 7 | 7 | 0.5 | U | 0.77 | U | na | | na | | 0.5 | U | 0.77 | U | na | | na | | 0.5 | U | 0.77 | U | na | | na | |
| 1,2-Dichloroethane | ug/l | 0.38 to 5[1] | 5 | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| 1,2-Dichloropropane | ug/l | 0.52 to 5[1] | 5 | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| Dibromochloromethane | ug/l | 14[2] | - | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| cis-1,2-Dichloroethylene | ug/l | 70 | 70 | 0.33 | U | 0.32 | U | na | | na | | 0.33 | U | 0.32 | U | na | | na | | 0.33 | U | 0.32 | U | na | | na | |
| cis-1,3-Dichloropropene | ug/l | 0.52 to 5[1] | 5 | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| m-Dichlorobenzene | ug/l | 94 | - | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| o-Dichlorobenzene | ug/l | 600 | 600 | 1.0 | U | 0.54 | U | na | | na | | 1.0 | U | 0.54 | U | na | | na | | 1.0 | U | 0.54 | U | na | | na | |
| p-Dichlorobenzene | ug/l | 75 | 75 | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| trans-1,2-Dichloroethylene | ug/l | 100 | 100 | 0.5 | U | 0.90 | U | na | | na | | 0.5 | U | 0.90 | U | na | | na | | 0.5 | U | 0.90 | U | na | | na | |
| trans-1,3-Dichloropropene | ug/l | - | - | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| Ethylbenzene | ug/l | 700 | 700 | 0.3 | U | 0.50 | U | 1.0 | U | 1.0 | U | 0.3 | U | 0.50 | U | 1.0 | U | 1.0 | U | 0.3 | U | 0.50 | U | 1.0 | U | 1.0 | U |
| 2-Hexanone | ug/l | - | - | 1.0 | J | 1.9 | J | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| 4-Methyl-2-pentanone | ug/l | - | - | 2.0 | U | 2.5 | U | na | | na | | 2.0 | U | 2.5 | U | na | | na | | 2.0 | U | 2.5 | U | na | | na | |
| Methyl bromide | ug/l | - | - | 1.5 | U | 2.9 | U | na | | na | | 1.5 | U | 2.9 | U | na | | na | | 1.5 | U | 2.9 | U | na | | na | |
| Methyl chloride | ug/l | - | - | 1.0 | U | 0.58 | U | na | | na | | 1.0 | U | 0.58 | U | na | | na | | 1.0 | U | 0.58 | U | na | | na | |
| Methylene chloride | ug/l | 4.7 to 5[1] | - | 4.3 | U | 2.5 | U | na | | na | | 4.3 | U | 2.5 | U | na | | na | | 4.3 | U | 2.5 | U | na | | na | |
| Methyl ethyl ketone | ug/l | - | - | 4.3 | J | 5.2 | J | na | | na | | 2.5 | U | 2.5 | U | na | | na | | 2.5 | U | 2.5 | U | na | | na | |
| Styrene | ug/l | 100 | 100 | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| 1,1,1-Trichloroethane | ug/l | 200 | 200 | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| 1,1,2,2-Tetrachloroethane | ug/l | 0.18 | - | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| 1,1,2-Trichloroethane | ug/l | 2.8 to 5[2] | 5 | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| Tetrachloroethylene | ug/l | 5 | 5 | 0.5 | U | 0.50 | U | na | | na | | 0.5 | U | 0.50 | U | na | | na | | 0.5 | U | 0.50 | U | na | | na | |
| Toluene | ug/l | 560 to 1000[1] | 1000 | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U |
| Trichloroethylene | ug/l | 5 | 5 | 0.5 | U | 0.50 | U | na | | na | | 0.5 | U | 0.50 | U | na | | na | | 0.5 | U | 0.50 | U | na | | na | |
| Vinyl chloride | ug/l | 0.023 to 2[1] | 2 | 0.5 | U | 0.75 | U | na | | na | | 0.5 | U | 0.75 | U | na | | na | | 0.5 | U | 0.75 | U | na | | na | |
| Vinyl Acetate | ug/l | - | - | 0.6 | U | 2.5 | U | na | | na | | 0.6 | U | 2.5 | U | na | | na | | 0.6 | U | 2.5 | U | na | | na | |
| Xylene (total) | ug/l | 1400 to 10000[1] | 10000 | 0.6 | U | 1.0 | U | 2.0 | U | 2.0 | U | 0.6 | U | 1.0 | U | 2.0 | U | 1.0 | U | 0.6 | U | 1.0 | J | 2.0 | U | 2.0 | U |
| Total TIC, Volatile | ug/l | - | - | 5.2 | J | 7.9 | J | na | | na | | 143.8 | J | 31.9 | J | na | | na | | 0.0 | U | 0.0 | U | na | | na | |
| GC Volatiles (SW846 8015B) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH-GRO (C6-C10) | ug/l | - | - | 0.2 | U | 0.10 | U | 25 | U | 25 | U | 0.2 | U | 0.10 | U | 25 | U | 25 | U | 0.2 | U | 0.10 | U | 25 | U | 25 | U |
| TPH-DRO (C10-C28) | mg/l | - | - | na | | na | | 0.26 | | 0.41 | | na | | na | | 0.33 | | 0.36 | | na | | na | | 0.36 | | 0.24 | U |
| Inorganics/General Chemistry | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barium | ug/l | - | 2000 | 1,320 | | 597 | | 580 | | 510 | | 1,180 | | 1,380 | | 950 | | 790 | | 276 | | 265 | | 110 | | 100 | |
| Calcium | ug/l | - | - | 269,000 | | 108,000 | | 120,000 | | 91,000 | | 160,000 | | 169,000 | | 88,000 | | 100,000 | | 33,500 | | 30,400 | | 49,000 | | 35,000 | |
| Iron | ug/l | 300[3] | 340[4] | 133 | | 155 | | 100 | U | 110 | | 70 | U | 70 | U | 100 | U | 100 | U | 70 | U | 70 | U | 100 | U | 100 | U |
| Magnesium | ug/l | - | - | 200 | U | 200 | U | 200 | U | 200 | U | 200 | U | 200 | U | 200 | U | 200 | U | 200 | U | 200 | U | 1,500 | | 1,100 | |
| Manganese | ug/l | 50[3] | 50[4] | 5.0 | U | 5.0 | U | 10.0 | U | 10.0 | U | 5.0 | U | 5.0 | U | 10.0 | U | 10.0 | U | 5.0 | U | 5.0 | U | 32.0 | | 37.0 | |
| Potassium | ug/l | - | - | 168,000 | | 101,000 | | 110,000 | | 84,000 | | 136,000 | | 92,300 | | 73,000 | | 49,000 | | 2,230 | | 2,050 | | 3,100 | | 3,000 | U |
| Sodium | ug/l | - | - | 808,000 | | 658,000 | | 450,000 | | 470,000 | | 1,250,000 | | 1,280,000 | | 1,000,000 | | 1,000,000 | | 583,000 | | 580,000 | | 880,000 | | 690,000 | |
| Strontium | ug/l | - | - | 9,850 | | 3,990 | | 4,700 | | 3,700 | | 7,670 | | 7,090 | | 5,400 | | 5,700 | | 843 | | 853 | | 1,600 | | 1,200 | |
| Iron, Ferrous | mg/l | - | - | 2.5 | U | 0.50 | U | 0.2 | U | 0.2 | U | 2.5 | U | 0.50 | U | 0.2 | U | 0.2 | U | 0.10 | U | 0.10 | U | 0.33 | | 0.2 | U |
| Iron, Ferric (a) | mg/l | - | - | 2.6 | U | 0.57 | U | 0.2 | U | 0.2 | U | 2.6 | U | 0.57 | U | 0.2 | U | 0.2 | U | 0.17 | U | 0.17 | U | 0.2 | U | 0.2 | U |
| Alkalinity, Total as CaCO3 | mg/l | - | - | 2,350 | | 1,490 | | 1,100 | | 1,100 | | 1,020 | | 764 | | 470 | | 550 | | 76.7 | | 67.2 | | 110 | | 150 | |
| Total Dissolved Solids | mg/l | 400[3] | 500[4] | 3,440 | | 3,140 | | 1,600 | | 1,600 | | 3,860 | | 3,890 | | 2,800 | | 1,900 | | 1,740 | | 1,830 | | 2,500 | | 2,100 | |
| Hydrogen Sulfide | mg/l | - | - | 0.5 | U | 0.50 | U | 1.0 | U | 1.0 | U | 0.5 | U | 0.50 | U | 1.0 | U | 1.0 | U | 0.5 | U | 0.50 | U | 1.0 | U | 1.0 | U |
| Fluride | mg/l | - | - | na | | na | | 2.5 | U | 2.5 | U | na | | na | | 3.1 | | 2.5 | U | na | | na | | 3.6 | | 4.7 | |
| Iodide | mg/l | - | - | na | | na | | 1.0 | U | 2.2 | | na | | na | | 1.4 | | 1.9 | | na | | na | | 1.6 | | 1.9 | |
| Nitrogen, Ammonia | mg/l | - | - | 2.1 | | 3.4 | | 0.74 | | 1.9 | | 2.3 | | 2.1 | | 1.2 | | 2.2 | | 0.62 | | 0.61 | | 0.11 | | 0.1 | U |
| Chloride | mg/l | 250[3] | 250[4] | 172 | | 467 | | 240 | | 190 | | 1,610 | | 1,780 | | 1,300 | | 1,300 | | 858 | | 905 | | 950 | | 950 | |
| Nitrogen, Nitrite | mg/l | - | 1 | 0.31 | U | 0.61 | U | 1.0 | U | 1.0 | U | 1.5 | U | 6.1 | U | 1.0 | U | 1.0 | U | 3.1 | U | 3.1 | U | 1.0 | U | 1.0 | U |
| Nitrogen, Nitrate | mg/l | - | 10 | 0.23 | U | 0.71 | | 1.0 | U | 1.0 | U | 0.23 | U | 0.45 | U | 1.0 | U | 1.0 | U | 0.23 | U | 0.23 | U | 1.0 | U | 1.0 | U |
| Sulfate | mg/l | 250[3] | 250[4] | 26.4 | | 17.9 | | 25 | | 29 | | 89 | | 55.0 | | 100 | | 100 | | 154 | | 147 | | 510 | | 270 | |
| Sulfide | mg/l | - | - | na | | na | | 4.0 | U | 4.0 | U | na | | na | | 4.0 | U | 4.0 | U | na | | na | | 4.0 | U | 6.6 | |
| Total Coliforms | MPN/100ml | - | - | <2 | | <2 | | na | | na | | <2 | | <2 | | na | | na | | <2 | | <2 | | na | | na | |

Notes:
na = Not analyzed.
U = Not detected
J = Indicates an estimated value
(a) Calculated as: (Iron) - (Iron, Ferrous)
- Highlighted cell indicates a result greater than an existing groundwater standard.
1. Whenever a range of standards is listed and referenced to this footnote, the first number in the range is a strictly health-based value, based on the Commission's established methodology for
Where ground water quality exceeds the first number in the range due to a release of contaminants that occurred prior to September 14, 2004, (regardless of the date of discovery or
Wherever the Commission has adopted alternative, site-specific standards for the chemical, the site-specific standards shall apply instead of these statewide standards.
The Commission does not intend the adoption of this range of standards to result in changes to clean-up requirements previously established by an implementing agency, unless such change
2. Standards for Group C compounds that have both published toxicity and carcinogenic risk data are calculated based on toxicity data and then adjusted downward using an uncertainty factor of 10.
3. The standard listed is a Colorado Secondary Drinking Water Standard.
4. The standard listed is a National Secondary Drinking Water Standard.

Table 4. Organic and Inorganic Analytical Results

| Client Sample ID:<br>Lab Sample ID:<br>Date Sampled: | | Colorado Basic Standards for Groundwater | Federal MCL or Secondary Standard | MW-2B_020111<br>D20806-1<br>2/1/2011 | | MW-2B_051211<br>D23440-2F<br>5/12/2011 | | MW-3A_012011<br>D20552-3<br>1/20/2011 | | MW-3A-051111<br>D23412-1F<br>5/11/2011 | | MW-3A_081412<br>280-32125-1<br>8/14/2012 | | MW-3A_121812<br>280-37208-1<br>12/18/2012 | | MW-3B_022111<br>D21212-1F<br>2/21/2011 | | MW-3B-051111<br>D23412-2F<br>5/11/2011 | | MW-3B_081612<br>280-32240-2<br>8/16/2012 | | MW-3B_121812<br>280-37208-1<br>12/18/2012 | | CURRIE WELL_011911<br>D20524-1<br>1/19/2011 | | CURRIE WELL-501111<br>D23412-3F<br>5/11/2011 | | CURRIE WELL_081512<br>280-32208-3<br>8/15/2012 | | CURRIE WELL_121912<br>280-37250-1<br>12/19/2012 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GC/MS Volatiles | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acetone | ug/l | - | - | 130 | | 108 | | 45.2 | | 18.2 | | na | | na | | 100 | | 132 | | na | | na | | 4.0 | U | 5.0 | U | na | | na | |
| Benzene | ug/l | 5 | 5 | 3.4 | | 1.4 | | 0.3 | U | 0.69 | J | 1.0 | U | 1.0 | U | 1.2 | | 0.73 | J | 1.0 | U | 1.5 | | 1.8 | | 1.5 | | 1.3 | | 1.4 | |
| Bromodichloromethane | ug/l | 0.56 | - | 1.0 | U | 0.50 | U | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| Bromoform | ug/l | 4 | - | 1.0 | U | 0.50 | U | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| Chlorobenzene | ug/l | 100 | 100 | 1.0 | U | 0.50 | U | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| Chloroethane | ug/l | - | - | 1.5 | U | 0.50 | U | 1.5 | U | 0.50 | U | na | | na | | 1.5 | U | 0.50 | U | na | | na | | 1.5 | U | 0.50 | U | na | | na | |
| Chloroform | ug/l | - | 70 | 0.5 | U | 0.50 | U | 2.8 | | 25.7 | | na | | na | | 0.5 | U | 0.50 | U | na | | na | | 0.5 | U | 0.50 | U | na | | na | |
| 2-Chloroethyl vinyl ether | ug/l | - | - | 1.0 | U | 5.0 | U | 1.0 | U | 5.0 | U | na | | na | | 1.0 | U | 5.0 | U | na | | na | | 1.0 | U | 5.0 | U | na | | na | |
| Carbon disulfide | ug/l | - | - | 1.0 | U | 1.1 | U | 1.0 | U | 1.1 | U | na | | na | | 1.0 | U | 1.1 | U | na | | na | | 1.0 | U | 1.1 | U | na | | na | |
| Carbon tetrachloride | ug/l | 0.27 to 5[1] | 5 | 1.0 | U | 0.50 | U | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| 1,1-Dichloroethane | ug/l | - | - | 1.0 | U | 0.50 | U | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| 1,1-Dichloroethylene | ug/l | 7 | 7 | 0.5 | U | 0.77 | U | 0.5 | U | 0.77 | U | na | | na | | 0.5 | U | 0.77 | U | na | | na | | 0.5 | U | 0.77 | U | na | | na | |
| 1,2-Dichloroethane | ug/l | 0.38 to 5[1] | 5 | 1.0 | U | 0.50 | U | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| 1,2-Dichloropropane | ug/l | 0.52 to 5[1] | 5 | 1.0 | U | 0.50 | U | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| Dibromochloromethane | ug/l | 14[2] | - | 1.0 | U | 0.50 | U | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| cis-1,2-Dichloroethylene | ug/l | 70 | 70 | 0.33 | U | 0.32 | U | 0.33 | U | 0.32 | U | na | | na | | 0.33 | U | 0.32 | U | na | | na | | 0.33 | U | 0.32 | U | na | | na | |
| cis-1,3-Dichloropropene | ug/l | 0.52 to 5[1] | 5 | 1.0 | U | 0.50 | U | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| m-Dichlorobenzene | ug/l | 94 | - | 1.0 | U | 0.50 | U | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| o-Dichlorobenzene | ug/l | 600 | 600 | 1.0 | U | 0.54 | U | 1.0 | U | 0.54 | U | na | | na | | 1.0 | U | 0.54 | U | na | | na | | 1.0 | U | 0.54 | U | na | | na | |
| p-Dichlorobenzene | ug/l | 75 | 75 | 1.0 | U | 0.50 | U | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| trans-1,2-Dichloroethylene | ug/l | 100 | 100 | 0.5 | U | 0.90 | U | 0.5 | U | 0.90 | U | na | | na | | 0.5 | U | 0.90 | U | na | | na | | 0.5 | U | 0.90 | U | na | | na | |
| trans-1,3-Dichloropropene | ug/l | - | - | 1.0 | U | 0.50 | U | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| Ethylbenzene | ug/l | 700 | 700 | 0.3 | U | 0.50 | U | 0.3 | U | 0.50 | U | 1.0 | U | 1.0 | U | 0.3 | U | 0.50 | U | 1.0 | U | 1.0 | U | 0.3 | U | 0.50 | U | 1.0 | U | 1.0 | U |
| 2-Hexanone | ug/l | - | - | 6.4 | | 11.0 | | 2.2 | | 2.1 | | na | | na | | 4.7 | | 8.6 | | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| 4-Methyl-2-pentanone | ug/l | - | - | 2.8 | J | 2.5 | U | 2.0 | U | 2.5 | U | na | | na | | 2.0 | U | 2.5 | U | na | | na | | 2.0 | U | 2.5 | U | na | | na | |
| Methyl bromide | ug/l | - | - | 1.5 | U | 2.9 | U | 1.5 | U | 2.9 | U | na | | na | | 1.5 | U | 2.9 | U | na | | na | | 1.5 | U | 2.9 | U | na | | na | |
| Methyl chloride | ug/l | - | - | 1.0 | U | 0.58 | U | 1.0 | U | 0.58 | U | na | | na | | 1.0 | U | 0.60 | J | na | | na | | 1.0 | U | 0.58 | U | na | | na | |
| Methylene chloride | ug/l | 4.7 to 5[1] | - | 4.3 | U | 2.5 | U | 4.3 | U | 2.5 | U | na | | na | | 4.3 | U | 2.5 | U | na | | na | | 4.3 | U | 2.5 | U | na | | na | |
| Methyl ethyl ketone | ug/l | - | - | 24.5 | | 18.6 | | 6.5 | J | 2.5 | U | na | | na | | 32.6 | | 2.5 | U | na | | na | | 2.5 | U | 2.5 | U | na | | na | |
| Styrene | ug/l | 100 | 100 | 1.0 | U | 0.50 | U | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| 1,1,1-Trichloroethane | ug/l | 200 | 200 | 1.0 | U | 0.50 | U | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| 1,1,2,2-Tetrachloroethane | ug/l | 0.18 | - | 1.0 | U | 0.50 | U | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| 1,1,2-Trichloroethane | ug/l | 2.8 to 5[2] | 5 | 1.0 | U | 0.50 | U | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | | 1.0 | U | 0.50 | U | na | | na | |
| Tetrachloroethylene | ug/l | 5 | 5 | 0.5 | U | 0.50 | U | 0.5 | U | 0.50 | U | na | | na | | 0.5 | U | 0.50 | U | na | | na | | 0.5 | U | 0.50 | U | na | | na | |
| Toluene | ug/l | 560 to 1000[1] | 1000 | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U |
| Trichloroethylene | ug/l | 5 | 5 | 0.5 | U | 0.50 | U | 0.5 | U | 0.50 | U | na | | na | | 0.5 | U | 0.50 | U | na | | na | | 0.5 | U | 0.50 | U | na | | na | |
| Vinyl chloride | ug/l | 0.023 to 2[1] | 2 | 0.5 | U | 0.75 | U | 0.5 | U | 0.75 | U | na | | na | | 0.5 | U | 0.75 | U | na | | na | | 0.5 | U | 0.75 | U | na | | na | |
| Vinyl Acetate | ug/l | - | - | 0.6 | U | 2.5 | U | 0.6 | U | 2.5 | U | na | | na | | 0.6 | U | 2.5 | U | na | | na | | 0.6 | U | 2.5 | U | na | | na | |
| Xylene (total) | ug/l | 1400 to 10000[1] | 10000 | 0.6 | U | 1.0 | U | 0.6 | U | 1.0 | U | 2.0 | U | 2.0 | U | 0.6 | U | 1.0 | U | 2.0 | U | 2.0 | U | 0.6 | U | 1.0 | U | 2.0 | U | 2.0 | U |
| Total TIC, Volatile | ug/l | - | - | 24.3 | J | 5.1 | J | 5.3 | J | 7.4 | J | na | | na | | 8.8 | J | 41.7 | J | na | | na | | 18.9 | J | 17.6 | J | na | | na | |
| GC Volatiles (SW846 8015B) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH-GRO (C6-C10) | ug/l | - | - | 0.2 | U | 0.10 | U | 0.2 | U | 0.10 | U | 33 | | 51 | | 0.2 | U | 0.10 | U | 99 | | 88 | | 0.2 | U | 0.10 | U | 25 | U | 25 | U |
| TPH-DRO (C10-C28) | mg/l | - | - | na | | na | | na | | na | | 0.49 | | 0.5 | | na | | na | | 1.1 | | 0.97 | | na | | na | | 0.25 | U | 0.25 | U |
| Inorganics/General Chemistry | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barium | ug/l | - | 2000 | 437 | | 417 | | 5,600 | | 5,760 | | 1,600 | | 1,100 | | 1,190 | | 1,800 | | 840 | | 970 | | 56 | | 58.1 | | 64 | | 70 | |
| Calcium | ug/l | - | - | 45,200 | | 45,300 | | 620,000 | | 614,000 | | 340,000 | | 330,000 | | 151,000 | | 212,000 | | 150,000 | | 150,000 | | 52,400 | | 52,200 | | 48,000 | | 53,000 | |
| Iron | ug/l | 300[3] | 340[4] | 105 | | 84.4 | | 79.5 | | 70 | U | 100 | U | 100 | U | 158 | | 79.9 | | 100 | U | 340 | | 70 | U | 70 | U | 100 | U | 100 | U |
| Magnesium | ug/l | - | - | 200 | U | 200 | U | 200 | U | 200 | U | 200 | U | 200 | U | 200 | U | 200 | U | 200 | U | 200 | U | 2,710 | | 2,510 | | 2,300 | | 2,400 | |
| Manganese | ug/l | 50[3] | 50[4] | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 10.0 | U | 10.0 | U | 5.0 | U | 5.0 | U | 10.0 | U | 10.0 | U | 26.0 | | 25.0 | | 25 | | 28 | |
| Potassium | ug/l | - | - | 90,800 | | 86,700 | | 55,700 | | 48,300 | | 35,000 | | 23,000 | | 223,000 | | 156,000 | | 98,000 | | 75,000 | | 1,640 | | 1,600 | | 3,000 | U | 3,000 | U |
| Sodium | ug/l | - | - | 1,130,000 | | 1,080,000 | | 1,830,000 | | 1,760,000 | | 940,000 | | 990,000 | | 1,470,000 | | 1,530,000 | | 1,600,000 | | 1,400,000 | | 672,000 | | 645,000 | | 710,000 | | 760,000 | |
| Strontium | ug/l | - | - | 2,710 | | 2,590 | | 14,700 | | 16,500 | | 8,600 | | 7,500 | | 7,280 | | 8,540 | | 7,100 | | 6,900 | | 1,690 | | 1,670 | | 1,600 | | 1,800 | |
| Iron, Ferrous | mg/l | - | - | 0.10 | U | 0.50 | U | 2.5 | U | 0.50 | U | 0.2 | U | 0.82 | | 2.5 | U | 0.50 | U | 0.2 | U | 0.2 | U | 0.10 | U | 0.10 | U | 0.2 | U | 0.2 | U |
| Iron, Ferric (a) | mg/l | - | - | 0.17 | U | 0.57 | U | 2.6 | U | 0.57 | U | 0.2 | U | 0.2 | U | 2.6 | U | 0.57 | U | 0.2 | U | 0.34 | | 0.17 | U | 0.17 | U | 0.2 | U | 0.2 | U |
| Alkalinity, Total as CaCO3 | mg/l | - | - | 1,680 | | 1,600 | | 2,150 | | 1,780 | | 1,500 | | 900 | | 2,550 | | 2,740 | | 1,400 | | 1,300 | | 454 | | 428 | | 410 | | 410 | |
| Solids, Total Dissolved | mg/l | 400[3] | 500[4] | 3,270 | | 3,100 | | 7,500 | | 11,200 | | 4,000 | | 5,000 | | 4,820 | | 4,840 | | 4,500 | | 4,200 | | 2,060 | | 2,030 | | 1,900 | | 1,900 | |
| Hydrogen Sulfide | mg/l | - | - | 1.0 | U | 0.50 | U | 0.5 | U | 0.50 | U | 1.0 | U | 1.0 | U | 0.5 | U | 0.50 | U | 1.0 | U | 1.0 | U | 0.5 | U | 0.50 | U | 1.0 | U | 1.0 | U |
| Fluride | mg/l | - | - | na | | na | | na | | na | | 2.5 | U | 2.5 | U | na | | na | | 2.5 | U | 3.3 | | na | | na | | 1.4 | | 1.4 | |
| Iodide | mg/l | - | - | na | | na | | na | | na | | 1.0 | U | 8.4 | | na | | na | | 1.0 | U | 3.4 | | na | | na | | 1.0 | U | 1.0 | U |
| Nitrogen, Ammonia | mg/l | - | - | 5.7 | | 5.5 | | 2.9 | | 2.4 | | 1.9 | | 3.6 | | 3.9 | | 3.4 | | 3.7 | | 5.6 | | 1.5 | | 0.65 | | 0.44 | | 0.78 | |
| Chloride | mg/l | 250[3] | 250[4] | 527 | | 581 | | 2,620 | | 2,780 | | 780 | | 1200 | | 722 | | 1,290 | | 1,500 | | 1500 | | 397 | | 400 | | 420 | | 450 | |
| Nitrogen, Nitrite | mg/l | - | 1 | 0.61 | U | 0.61 | U | 6.1 | U | 6.1 | U | 1.0 | U | 1.0 | U | 0.31 | U | 1.5 | U | 1.0 | U | 1.0 | U | 0.61 | U | 1.5 | U | 1.0 | U | 1.0 | U |
| Nitrogen, Nitrate | mg/l | - | 10 | 0.45 | U | 0.45 | U | 0.09 | U | 0.45 | U | 1.0 | U | 1.0 | U | 0.23 | U | 0.45 | U | 1.0 | U | 1.0 | U | 0.23 | U | 0.23 | U | 1.0 | U | 1.0 | U |
| Sulfate | mg/l | 250[3] | 250[4] | 136 | | 131 | | 29.1 | | 39.5 | | 140 | | 180 | | 5.4 | | 40.4 | | 120 | | 72 | | 681 | | 604 | | 560 | | 560 | |
| Sulfide | mg/l | - | - | na | | na | | na | | na | | 4.0 | U | 4.0 | U | na | | na | | 4.0 | U | 4.0 | U | na | | na | | 8.0 | | 8.8 | |
| Total Coliforms | MPN/100ml | - | - | <2 | | <2 | | <2 | | <2 | | na | | na | | <2 | | <2 | | na | | na | | <2 | | **2.0** | | na | | na | |

Notes:

U = Not detected
J = Indicates an estimated value
(a) Calculated as: (Iron) - (Iron, Ferrous)
 - Highlighted cell indicates a result greater than an existing groundwater standard.
1. Whenever a range of standards is listed and referenced to this footnote, the first number in the range is a strictly health-based value, based on the Commission's established methodology for human health-based
Where ground water quality exceeds the first number in the range due to a release of contaminants that occurred prior to September 14, 2004, (regardless of the date of discovery or subsequent migration of such
Wherever the Commission has adopted alternative, site-specific standards for the chemical, the site-specific standards shall apply instead of these statewide standards.
The Commission does not intend the adoption of this range of standards to result in changes to clean-up requirements previously established by an implementing agency, unless such change is mandated by the
2. Standards for Group C compounds that have both published toxicity and carcinogenic risk data are calculated based on toxicity data and then adjusted downward using an uncertainty factor of 10.
3. The standard listed is a Colorado Secondary Drinking Water Standard.
4. The standard listed is a National Secondary Drinking Water Standard.

Table 5a. Dissolved Gas and Methane Isotope Analytical Results

| Client Sample ID: | | MW-1A-012111 | MW-1A_051211 | MW-1A_081512 | MW-1A_122012 | MW-1B-012111 | MW-1B_051311 | MW-1B_081612 | MW-1B-122012 | MW-2A-012011 | MW-2A_051211 | MW-2A_081512 | MW-2A-121912 | MW-2B-020111 | MW-2B_051211 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date Sampled: | Units | 1/21/2011 | 5/12/2011 | 8/15/2012 | 12/20/2012 | 1/21/2011 | 5/13/2011 | 8/16/2012 | 12/20/2012 | 1/20/2011 | 5/12/2011 | 8/15/2012 | 12/19/2012 | 2/1/2011 | 5/12/2011 |
| He | Mol. % | 0.0061 | na | na | 0.0088 | 0.0064 | 0.0145 | na | na | 0.0077 | 0.015 | na | 0.0086 | na | na |
| $H_2$ | Mol. % | nd | na | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | na | na |
| Ar | Mol. % | 0.803 | 0.863 | 0.923 | 0.88 | 0.417 | 0.371 | 0.492 | 1.01 | 0.395 | 0.509 | 0.222 | 0.275 | 0.596 | 0.752 |
| $O_2$ | Mol. % | 15.99 | 10.94 | 16.9 | 13.8 | 10.18 | 9.68 | 15.5 | 7.07 | 3.35 | 8.24 | 3.91 | 0.82 | 14.06 | 18.06 |
| $CO_2$ | Mol. % | nd | 0.006 | nd | nd | 0.005 | 0.007 | nd | nd | 0.006 | 0.006 | 0.011 | 0.026 | nd | 0.013 |
| $N_2$ | Mol. % | 66.63 | 62.24 | 75.04 | 74.04 | 24.83 | 22.13 | 82.64 | 70.32 | 19.21 | 28.91 | 11.19 | 19.86 | 35.84 | 33.94 |
| CO | Mol. % | 0.025 | 0.06 | nd | nd | 0.014 | 0.017 | nd | nd | 0.008 | 0.025 | nd | nd | 0.030 | 0.12 |
| $C_1$ | Mol. % | 16.50 | 25.81 | 7.12 | 11.24 | 63.18 | 66.26 | 1.33 | 21.2 | 76.94 | 62.17 | 84.58 | 78.93 | 48.69 | 46.22 |
| $C_2$ | Mol. % | 0.0482 | 0.0771 | 0.0148 | 0.0245 | 1.26 | 1.41 | 0.0301 | 0.36 | 0.0835 | 0.121 | 0.0884 | 0.077 | 0.763 | 0.874 |
| $C_2H_4$ | Mol. % | nd | 0.0033 | 0.0012 | 0.0021 | nd | 0.001 | 0.0006 | 0.0059 | 0.0046 | 0.0055 | 0.0013 | 0.0021 | 0.0013 | nd |
| $C_3H_6$ | Mol. % | na | na | 0.0004 | nd | na | na | 0.003 | nd | na | na | 0.0003 | nd | na | na |
| $C_3$ | Mol. % | 0.0017 | 0.0025 | nd | 0.0013 | 0.100 | 0.108 | nd | 0.031 | nd | 0.0013 | nd | 0.0002 | 0.0158 | 0.0217 |
| $iC_4$ | Mol. % | nd | nd | nd | 0.0002 | 0.008 | 0.0034 | 0.0006 | 0.0054 | nd | nd | 0.0001 | nd | nd | nd |
| $nC_4$ | Mol. % | nd | nd | nd | 0.0002 | 0.0018 | 0.0019 | nd | 0.001 | nd | nd | nd | nd | nd | nd |
| $iC_5$ | Mol. % | nd | nd | nd | nd | nd | nd | nd | 0.0002 | nd | nd | nd | nd | nd | nd |
| $nC_5$ | Mol. % | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| $C_6$+ | Mol. % | nd | nd | 0.0003 | 0.0002 | nd | nd | 0.0019 | 0.0003 | nd | nd | 0.0003 | 0.0002 | nd | nd |
| $d^{13}C_1$ | ‰ | -55.94 | -55.87 | -57.63 | -56.86 | -36.33 | -37.21 | na | -37.17 | -59.31 | -58.72 | -59.54 | -59.79 | -38.29 | -42.92 |
| $dDC_1$ | ‰ | -189.6 | -189.2 | -180 | -181.9 | -170.4 | -177.3 | na | -160.6 | -206.8 | -208.6 | -208.8 | -208 | -184.4 | -196.1 |
| Dissolved $CH_4$ | mg/L | 9.8 | 13 | 5.7 | 8.9 | 35 | 36 | 3.0 | 8.7 | 84 | 66 | 140 | 130 | 22 | 12 |
| Dissolved $CH_4$ | cc/L | 15 | 20 | 8.5 | 13 | 53 | 54 | 4.5 | 13 | 130 | 99 | 220 | 190 | 33 | 18 |
| Specific Gravity | | 0.924 | 0.879 | 0.965 | 0.943 | 0.723 | 0.71 | 0.985 | 0.894 | 0.656 | 0.724 | 0.624 | 0.643 | 0.788 | 0.805 |
| BTU | | 168 | 263 | 72 | 114 | 665 | 699 | 14 | 222 | 781 | 632 | 859 | 801 | 507 | 485 |

Notes:
Chemical analysis based on standards accurate to within 2%
Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace.
Addition of helium negates the ability to detect native helium or hydrogen.
nd = not detected
na = not analyzed

Table 5a. Dissolved Gas and Methane Isotope Analytical Results

| Client Sample ID: | | MW-3A-012011 | MW-3A_051111 | MW-3A_081412 | MW-3A-012313 | MW-3B_022111 | MW-3B_051111 | MW-3B_081612 | MW-3B_121812 | Currie Well_011911 | Currie Well_051111 | Currie Well_081512 | Currie Well_121912 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date Sampled: | Units | 1/20/2011 | 5/11/2011 | 8/14/2012 | 1/23/2013 | 2/21/2011 | 5/11/2011 | 8/16/2012 | 12/18/2012 | 1/19/2011 | 5/11/2011 | 8/15/2012 | 12/19/2012 |
| He | Mol. % | 0.0068 | na | na | 0.004 | 0.0039 | na | na | 0.0125 | 0.0093 | na | na | na |
| $H_2$ | Mol. % | nd | na | nd | nd | 0.0019 | na | nd | nd | nd | na | nd | nd |
| Ar | Mol. % | 0.801 | 0.881 | 0.877 | 0.838 | 1.03 | 1.06 | 0.853 | 0.978 | 0.967 | 1.29 | 1.04 | 1.25 |
| $O_2$ | Mol. % | 16.07 | 4.53 | 17.18 | 13.6 | 20.68 | 20.61 | 17.92 | 16.08 | 10.49 | 1.08 | 12.21 | 0.44 |
| $CO_2$ | Mol. % | nd | 0.007 | nd | nd | nd | 0.007 | nd | nd | 0.42 | 0.54 | 0.97 | 0.79 |
| $N_2$ | Mol. % | 77.10 | 55.64 | 72.76 | 71.39 | 77.75 | 76.01 | 79.93 | 79.62 | 83.71 | 79.30 | 74.29 | 76.2 |
| CO | Mol. % | 0.047 | 0.61 | 0.029 | 0.014 | 0.021 | 0.12 | nd | ND | nd | nd | nd | nd |
| $C_1$ | Mol. % | 5.97 | 38.27 | 9.13 | 14.12 | 0.497 | 2.18 | 1.25 | 3.21 | 4.40 | 17.78 | 11.48 | 21.30 |
| $C_2$ | Mol. % | 0.0062 | 0.0578 | 0.0241 | 0.0305 | 0.0115 | 0.0112 | 0.0361 | 0.0827 | 0.0037 | 0.0149 | 0.0101 | 0.0178 |
| $C_2H_4$ | Mol. % | nd | 0.0035 | 0.0022 | 0.0024 | 0.0007 | nd | 0.0021 | 0.002 | nd | nd | nd | nd |
| $C_3H_6$ | Mol. % | na | na | 0.0007 | nd | na | na | 0.0035 | nd | na | na | 0.0005 | nd |
| $C_3$ | Mol. % | nd | 0.0029 | nd | 0.0007 | 0.0009 | 0.0011 | nd | 0.0116 | nd | nd | nd | 0.0008 |
| $iC_4$ | Mol. % | nd | nd | 0.0005 | 0.0006 | nd | nd | nd | 0.0004 | nd | nd | nd | nd |
| $nC_4$ | Mol. % | nd | nd | nd | 0.0002 | nd | nd | nd | 0.0003 | nd | nd | nd | nd |
| $iC_5$ | Mol. % | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| $nC_5$ | Mol. % | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| $C_6$+ | Mol. % | nd | nd | 0.0007 | 0.0002 | nd | nd | 0.0007 | 0.0003 | nd | nd | 0.0008 | nd |
| $d^{13}C_1$ | ‰ | -61.51 | -68.36 | -70.95 | -73.32 | -44.01 | -63.3 | -53.90 | -52.32 | -82.03 | -80.19 | -81.1 | -80.09 |
| $dDC_1$ | ‰ | -211.4 | -203.4 | -194.1 | -199.7 | -196.0 | -205 | -195.0 | -197.3 | -192.1 | -199.9 | -184.8 | -191.2 |
| Dissolved $CH_4$ | mg/L | 5.9 | 12 | 6.0 | 13 | 0.36 | 0.81 | 0.53 | 2.3 | 5.6 | 4.2 | 4.1 | 5.1 |
| Dissolved $CH_4$ | cc/L | 8.9 | 18 | 9.0 | 19 | 0.53 | 1.2 | 0.79 | 3.4 | 8.5 | 6.3 | 6.1 | 7.6 |
| Specific Gravity | | 0.968 | 0.819 | 0.957 | 0.931 | 0.998 | 0.991 | 0.99 | 0.98 | 0.970 | 0.904 | 0.946 | 0.889 |
| BTU | | 61 | 391 | 93 | 144 | 5 | 23 | 13 | 34 | 45 | 180 | 116 | 216 |

Notes:
Chemical analysis based on standards accurate to within 2%
Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace.
Addition of helium negates the ability to detect native helium or hydrogen.
nd = not detected
na = not analyzed

Table 5b. Dissolved Methane and Methane Isotope Analytical Results

| Client Sample ID: | | MW-1A-012111 | MW-1A_051211 | MW-1A_081512 | MW-1A_122012 | MW-1B-012111 | MW-1B_051311 | MW-1B_081612 | MW-1B-122012 | MW-2A-012011 | MW-2A_051211 | MW-2A_081512 | MW-2A-121912 | MW-2B-020111 | MW-2B_051211 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date Sampled: | Units | 1/21/2011 | 5/12/2011 | 8/15/2012 | 12/20/2012 | 1/21/2011 | 5/13/2011 | 8/16/2012 | 12/20/2012 | 1/20/2011 | 5/12/2011 | 8/15/2012 | 12/19/2012 | 2/1/2011 | 5/12/2011 |
| $C_1$ | Mol. % | 16.50 | 25.81 | 7.12 | 11.24 | 63.18 | 66.26 | 1.33 | 21.2 | 76.94 | 62.17 | 84.58 | 78.93 | 48.69 | 46.22 |
| $d^{13}C_1$ | ‰ | -55.94 | -55.87 | -57.63 | -56.86 | -36.33 | -37.21 | na | -37.17 | -59.31 | -58.72 | -59.54 | -59.79 | -38.29 | -42.92 |
| $dDC_1$ | ‰ | -189.6 | -189.2 | -180 | -181.9 | -170.4 | -177.3 | na | -160.6 | -206.8 | -208.6 | -208.8 | -208 | -184.4 | -196.1 |
| Dissolved $CH_4$ | mg/L | 9.8 | 13 | 5.7 | 8.9 | 35 | 36 | 3.0 | 8.7 | 84 | 66 | 140 | 130 | 22 | 12 |
| Dissolved $CH_4$ | cc/L | 15 | 20 | 8.5 | 13 | 53 | 54 | 4.5 | 13 | 130 | 99 | 220 | 190 | 33 | 18 |

Notes:

Chemical analysis based on standards accurate to within 2%

Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace.

Addition of helium negates the ability to detect native helium or hydrogen.

na = not analyzed

Table 5b. Dissolved Methane and Methane Isotope Analytical Results

| Client Sample ID: / Date Sampled: | Units | MW-3A-012011 1/20/2011 | MW-3A_051111 5/11/2011 | MW-3A_081412 8/14/2012 | MW-3A-012313 1/23/2013 | MW-3B_022111 2/21/2011 | MW-3B_051111 5/11/2011 | MW-3B_081612 8/16/2012 | MW-3B_121812 12/18/2012 | Currie Well_011911 1/19/2011 | Currie Well_051111 5/11/2011 | Currie Well_081512 8/15/2012 | Currie Well_121912 12/19/2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $C_1$ | Mol. % | 5.97 | 38.27 | 9.13 | 14.12 | 0.497 | 2.18 | 1.25 | 3.21 | 4.40 | 17.78 | 11.48 | 21.30 |
| $d^{13}C_1$ | ‰ | -61.51 | -68.36 | -70.95 | -73.32 | -44.01 | -63.3 | -53.90 | -52.32 | -82.03 | -80.19 | -81.1 | -80.09 |
| $dDC_1$ | ‰ | -211.4 | -203.4 | -194.1 | -199.7 | -196.0 | -205 | -195.0 | -197.3 | -192.1 | -199.9 | -184.8 | -191.2 |
| Dissolved $CH_4$ | mg/L | 5.9 | 12 | 6.0 | 13 | 0.36 | 0.81 | 0.53 | 2.3 | 5.6 | 4.2 | 4.1 | 5.1 |
| Dissolved $CH_4$ | cc/L | 8.9 | 18 | 9.0 | 19 | 0.53 | 1.2 | 0.79 | 3.4 | 8.5 | 6.3 | 6.1 | 7.6 |

Notes:

Chemical analysis based on standards accurate to within 2%

Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace.

Addition of helium negates the ability to detect native helium or hydrogen.

na = not analyzed

Table 6. Field Duplicate Quality Assurance/Quality Control Results

| Client Sample ID:<br>Lab Sample ID:<br>Date Sampled: | | MW-1A_081512<br>280-32208-1<br>8/15/2012 | | MW-99-A_081512<br>(MW-1A Dup)<br>280-32208-2<br>8/15/2012 | | Relative Percent Difference | MW-1A_122012<br>280-37308-1<br>12/20/2012 | | MW-99-A_122012<br>(MW-1A Dup)<br>280-37308-1<br>12/20/2012 | | Relative Percent Difference | MW-1B-051311<br>D23462-1F<br>5/13/2011 | | MW-99A-051311<br>(MW-1B Duplicate)<br>D23462-2<br>5/13/2011 | | Relative Percent Difference | MW-2A_012011<br>D20552-1<br>1/20/2011 | | MW-99-A_012011<br>(MW-2A Dup)<br>D20552-2<br>1/20/2011 | | Relative Percent Difference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GC/MS Volatiles | | | | | | | | | | | | | | | | | | | | | |
| Acetone | ug/l | na | | na | | - | na | | na | | - | 23.7 | | 21.9 | | 7.9 | 11.5 | | 4.0 | U | N/A[1] |
| Benzene | ug/l | 1.0 | U | 1.0 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] | 4.3 | | 5.9 | | -31.4 | 0.3 | J | 0.3 | U | N/A[1] |
| Bromodichloromethane | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| Bromoform | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| Chlorobenzene | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| Chloroethane | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.5 | U | 1.5 | U | N/A[1] |
| Chloroform | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 3.3 | | 4.3 | | -26.3 |
| 2-Chloroethyl vinyl ether | ug/l | na | | na | | - | na | | na | | - | 5.0 | U | 5.0 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| Carbon disulfide | ug/l | na | | na | | - | na | | na | | - | 1.4 | J | 1.8 | J | -25.0 | 1.0 | U | 3.4 | | N/A[1] |
| Carbon tetrachloride | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| 1,1-Dichloroethane | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| 1,1-Dichloroethylene | ug/l | na | | na | | - | na | | na | | - | 0.77 | U | 0.77 | U | N/A[1] | 0.5 | U | 0.5 | U | N/A[1] |
| 1,2-Dichloroethane | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| 1,2-Dichloropropane | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| Dibromochloromethane | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| cis-1,2-Dichloroethylene | ug/l | na | | na | | - | na | | na | | - | 0.32 | U | 0.32 | U | N/A[1] | 0.33 | U | 0.33 | U | N/A[1] |
| cis-1,3-Dichloropropene | ug/l | na | | na | | - | na | | na | | - | p | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| m-Dichlorobenzene | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| o-Dichlorobenzene | ug/l | na | | na | | - | na | | na | | - | 0.54 | U | 0.54 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| p-Dichlorobenzene | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| trans-1,2-Dichloroethylene | ug/l | na | | na | | - | na | | na | | - | 0.90 | U | 0.90 | U | N/A[1] | 0.5 | U | 0.5 | U | N/A[1] |
| trans-1,3-Dichloropropene | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| Ethylbenzene | ug/l | 1.0 | U | 1.0 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] | 0.50 | U | 0.50 | U | N/A[1] | 0.3 | U | 0.3 | U | N/A[1] |
| 2-Hexanone | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| 4-Methyl-2-pentanone | ug/l | na | | na | | - | na | | na | | - | 2.5 | U | 2.5 | U | N/A[1] | 2.0 | U | 2.0 | U | N/A[1] |
| Methyl bromide | ug/l | na | | na | | - | na | | na | | - | 2.9 | U | 2.9 | U | N/A[1] | 1.5 | U | 1.5 | U | N/A[1] |
| Methyl chloride | ug/l | na | | na | | - | na | | na | | - | 0.58 | U | 0.58 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| Methylene chloride | ug/l | na | | na | | - | na | | na | | - | 2.5 | U | 2.5 | U | N/A[1] | 4.3 | U | 4.3 | U | N/A[1] |
| Methyl ethyl ketone | ug/l | na | | na | | - | na | | na | | - | 2.5 | U | 2.5 | U | N/A[1] | 2.5 | U | 2.5 | U | N/A[1] |
| Styrene | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| 1,1,1-Trichloroethane | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| 1,1,2,2-Tetrachloroethane | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| 1,1,2-Trichloroethane | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| Tetrachloroethylene | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 0.5 | U | 0.5 | U | N/A[1] |
| Toluene | ug/l | 1.0 | U | 1.0 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] |
| Trichloroethylene | ug/l | na | | na | | - | na | | na | | - | 0.50 | U | 0.50 | U | N/A[1] | 0.5 | U | 0.5 | U | N/A[1] |
| Vinyl chloride | ug/l | na | | na | | - | na | | na | | - | 0.75 | U | 0.75 | U | N/A[1] | 0.5 | U | 0.5 | U | N/A[1] |
| Vinyl Acetate | ug/l | na | | na | | - | na | | na | | - | 2.5 | U | 2.5 | U | N/A[1] | 0.6 | U | 0.6 | U | N/A[1] |
| Xylene (total) | ug/l | 2.0 | U | 2.0 | U | N/A[1] | 2.0 | U | 2.0 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] | 0.6 | U | 0.6 | U | N/A[1] |
| Total TIC, Volatile | ug/l | na | | na | | - | na | | na | | - | 31.9 | J | 59 | J | N/A[2] | 0.0 | U | 17.1 | J | N/A[1,2] |
| GC Volatiles (SW846 8015B) | | | | | | | | | | | | | | | | | | | | | |
| TPH-GRO (C6-C10) | ug/l | 25 | U | 25 | U | N/A[1] | 25 | U | 28 | | -11.3 | 0.10 | U | 0.10 | U | 0.0 | 0.2 | U | 0.2 | U | N/A[1] |
| TPH-DRO (C10-C28) | mg/l | 0.26 | | 0.27 | | -3.8 | 0.41 | | 0.4 | | 2.5 | na | | na | | - | na | | na | | - |
| Inorganics/General Chemistry | | | | | | | | | | | | | | | | | | | | | |
| Barium | ug/l | 580 | | 580 | | 0.0 | 510 | | 450 | | 12.5 | 1,380 | | 1,390 | | -0.7 | 276 | | 272 | | 1.5 |
| Calcium | ug/l | 120,000 | | 120,000 | | 0.0 | 91,000 | | 81,000 | | 11.6 | 169,000 | | 168,000 | | 0.6 | 33,500 | | 32,500 | | 3.0 |
| Iron | ug/l | 100 | U | 100 | U | N/A[1] | 110 | | 120 | | -8.7 | 70 | U | 70 | U | N/A[1] | 70 | U | 70 | U | N/A[1] |
| Magnesium | ug/l | 200 | U | 200 | U | N/A[1] | 200 | U | 200 | U | N/A[1] | 200 | U | 200 | U | N/A[1] | 200 | U | 200 | U | N/A[1] |
| Manganese | ug/l | 10.0 | U | 10.0 | U | N/A[1] | 10.0 | U | 10.0 | U | N/A[1] | 5.0 | U | 5.0 | U | N/A[1] | 5.0 | U | 5.0 | U | N/A[1] |
| Potassium | ug/l | 110,000 | | 110,000 | | 0.0 | 84,000 | | 70,000 | | 18.2 | 92,300 | | 91,800 | | 0.5 | 2,230 | | 2,150 | | 3.7 |
| Sodium | ug/l | 450,000 | | 450,000 | | 0.0 | 470,000 | | 460,000 | | 2.2 | 1,280,000 | | 1,290,000 | | -0.8 | 583,000 | | 566,000 | | 3.0 |
| Strontium | ug/l | 4,700 | | 4,700 | | 0.0 | 3,700 | | 3,200 | | 14.5 | 7,090 | | 7,030 | | 0.8 | 843 | | 818 | | 3.0 |
| Iron, Ferrous | mg/l | 0.2 | U | 0.2 | U | N/A[1] | 0.2 | U | 0.2 | U | N/A[1] | 0.50 | U | 0.50 | U | N/A[1] | 0.10 | U | 0.10 | U | N/A[1] |
| Iron, Ferric (a) | mg/l | 0.2 | U | 0.2 | U | N/A[1] | 0.2 | U | 0.2 | U | N/A[1] | 0.57 | U | 0.57 | U | N/A[1] | 0.17 | U | 0.17 | U | N/A[1] |
| Alkalinity, Total as CaCO3 | mg/l | 1,100 | | 1,100 | | 0.0 | 1,100 | | 950 | | 14.6 | 764 | | 735 | | 3.9 | 76.7 | | 76.1 | | 0.8 |
| Solids, Total Dissolved | mg/l | 1,600 | | 1,500 | | 6.5 | 1,600 | | 1,600 | | 0.0 | 3,890 | | 3,880 | | 0.3 | 1,740 | | 1,700 | | 2.3 |
| Hydrogen Sulfide | mg/l | 1.0 | U | 1.0 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] | 0.50 | U | 0.50 | U | N/A[1] | 0.5 | U | 0.5 | U | N/A[1] |
| Fluride | mg/l | 2.5 | U | 2.5 | U | N/A[1] | 2.5 | U | 2.5 | U | N/A[1] | na | | na | | - | na | | na | | - |
| Iodide | mg/l | 1.0 | U | 1.0 | U | N/A[1] | 2.2 | | 2.3 | | -4.4 | na | | na | | - | na | | na | | - |
| Nitrogen, Ammonia | mg/l | 0.74 | | 0.91 | | -20.6 | 1.9 | | 2.2 | | -14.6 | 2.1 | | 2.1 | | 0.0 | 0.62 | | 0.67 | | -7.8 |
| Chloride | mg/l | 240 | | 200 | | 18.2 | 190 | | 230 | | -19.0 | 1,780 | | 1,780 | | 0.0 | 858 | | 857 | | 0.1 |
| Nitrogen, Nitrite | mg/l | 1.0 | U | 1.0 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] | 6.1 | U | 6.1 | U | N/A[1] | 3.1 | U | 3.1 | U | N/A[1] |
| Nitrogen, Nitrate | mg/l | 1.0 | U | 1.0 | U | N/A[1] | 1.0 | U | 1.0 | U | N/A[1] | 0.45 | U | 0.45 | U | N/A[1] | 0.23 | U | 0.23 | U | N/A[1] |
| Sulfate | mg/l | 25 | | 25 | | 0.0 | 29 | | 33 | | -12.9 | 55.0 | | 69.1 | | -22.7 | 154 | | 154 | | 0.0 |
| Sulfide | mg/l | 4.0 | U | 4.0 | U | N/A[1] | 4.0 | U | 4.0 | U | N/A[1] | na | | na | | - | na | | na | | - |
| Total Coliforms | MPN/100ml | na | | na | | - | na | | na | | - | <2 | | <2 | | - | <2 | | <2 | | - |

Notes:
N/A = Not applicable.
1 - Not applicable due to one or both of the sample results being non-detect.
2 - Not applicable because total TIC results include multiple analytes.
na = Not analyzed.
U = Not detected
J = Indicates an estimated value
(a) Calculated as: (Iron) - (Iron, Ferrous)

Table 7. Groundwater Sampling Field Parameters

| Well ID | Sample Date | Sample Time | Conductivity (mmhos/cm) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) | pH | Temperature ($^{o}$C) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|---|
| MW-1A | 1/21/2011 | 10:12 | 12.01 | 4.74 | -93.6 | 13.37 | 7.11 | 24.7 |
| MW-1A | 5/12/2011 | 12:15 | 10.53 | 0.22 | -164.4 | 12.68 | 12.40 | 6.89 |
| MW-1A | 8/15/2012 | 8:57 | 5.04 | 0.83 | 82.7 | 12.63 | 13.12 | 3.39 |
| MW-1A | 12/20/2012 | 10:43 | 3.84 | 0.76 | -131.1 | 12.72 | 10.31 | 0.72 |
| MW-1B | 1/21/2011 | 12:07 | 9.99 | 1.98 | -88.3 | 12.95 | 7.97 | 40.3 |
| MW-1B | 5/13/2011 | 9:10 | 9.52 | 0.22 | -134.5 | 12.08 | 10.55 | 2.22 |
| MW-1B | 8/16/2012 | 9:15 | 5.27 | 1.13 | -182.2 | 12.42 | 13.23 | 15.2 |
| MW-1B | 12/20/2012 | 14:18 | 4.59 | 0.50 | -208.7 | 12.35 | 10.90 | 0.40 |
| MW-2A | 1/20/2011 | 9:02 | 4.97 | 1.29 | -3.3 | 11.48 | 3.29 | 18.1 |
| MW-2A | 5/12/2011 | 10:55 | 3.08 | 0.18 | -144.6 | 10.64 | 11.72 | 4.65 |
| MW-2A | 8/15/2012 | 15:17 | 3.85 | 0.16 | -255.6 | 8.63 | 15.54 | 2.10 |
| MW-2A | 10/19/2012 | 10:39 | 2.67 | 0.38 | -289.6 | 8.49 | 9.01 | 2.18 |
| MW-2B | 2/1/2011 | 12:20 | 6.31 | 5.11 | -101.6 | 13.01 | 3.27 | 24.9 |
| MW-2B | 5/12/2011 | 9:00 | 10.27 | 0.73 | -156.3 | 12.82 | 9.60 | 6.59 |
| MW-3A | 1/20/2011 | 13:11 | 26.41 | 8.43 | -80.1 | 13.44 | 7.17 | 15.1 |
| MW-3A | 5/11/2011 | 8:40 | 15.76 | 0.23 | -125.6 | 12.95 | 6.20 | 42.6 |
| MW-3A | 8/14/2012 | 14:31 | 7.41 | 1.10 | -123.2 | 12.44 | 16.69 | 7.23 |
| MW-3A | 12/18/2012 | 10:18 | 6.68 | 0.94 | -80.8 | 12.31 | 10.31 | 3.08 |
| MW-3B | 2/21/2011 | 16:37 | 14.70 | 7.68 | -54.6 | 12.95 | 6.21 | 462 |
| MW-3B | 5/11/2011 | 10:35 | 15.48 | 4.42 | -93.6 | 13.15 | 8.12 | 6.35 |
| MW-3B | 8/16/2012 | 11:35 | 9.74 | 6.01 | -103.5 | 12.81 | 15.34 | 14.1 |
| MW-3B | 12/18/2012 | 13:43 | 7.62 | 2.25 | -81.6 | 12.66 | 10.33 | 30.9 |
| Currie Well | 1/19/2011 | 15:24 | 5.27 | 0.10 | -365.5 | 8.25 | 10.33 | 6.25 |
| Currie Well | 5/11/2011 | 12:30 | 3.17 | 0.11 | -346.4 | 7.98 | 10.58 | 2.46 |
| Currie Well | 8/15/2012 | 13:45 | 2.72 | 0.77 | -323.5 | 7.97 | 12.67 | 4.21 |
| Currie Well | 12/19/2012 | 14:55 | 2.22 | 0.23 | -301.2 | 8.02 | 9.53 | 1.67 |