



April 5, 2007

Margaret Ash
Environmental Protection Specialist
Colorado Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801
Denver, CO 80203

Subject: Status Report, North Fork Ranch Groundwater Monitoring, Raton Basin, Colorado

Dear Ms. Ash:

On behalf of Pioneer Natural Resources USA Inc., please find attached a status update of groundwater monitoring activities in the North Fork Ranch area of the Raton Basin. Information on water well and monitoring well installation and sampling was submitted to you previously in reports dated October 18th and December 4th, 2006. The attached report summarizes these actions and describes more recent monitoring activities and future plans.

Please contact me if you have any comments or questions regarding this report.

Sincerely,
Norwest Applied Hydrology

Martin S. Johnson, P.G.
Senior Hydrogeologist

Attachments

cc. Gerald Jacob, Pioneer Natural Resources USA

STATUS REPORT
North Fork Ranch Groundwater Monitoring
March 30, 2007

Summary:

Three monitoring wells were installed in the North Fork Ranch subdivision in November and December, 2006, as proposed in the "North Fork Ranch Groundwater Monitoring Work Plan" dated September 23, 2006. The wells were installed near and downgradient of three, planned, coalbed methane production wells between the CBM well sites and the nearest domestic water wells (Figure 1). Two of the monitoring wells, located near the Sanchinator and Keystone CBM wells, were completed in water-bearing units currently utilized by downgradient water users. The third well, located near the Niagara CBM well, was completed at a depth coinciding with the nearest domestic well, but did not contain water.

After completion and development the Sanchinator and Keystone monitoring wells were sampled and the samples submitted for laboratory analysis. Results of the analyses are shown on attached Table 1. The water from both wells met primary drinking water standards for all analytes except fluoride (Sanchinator). Both monitoring wells exceeded secondary standards for iron, and manganese, and the Sanchinator for pH. The Niagara monitoring well did not contain sufficient water to be sampled.

After the monitoring wells were sampled and before any CBM well drilling took place nearby, the Sanchinator and Keystone monitoring wells were equipped with transducers that measure water pressure, temperature, and electrical conductivity. The transducers were initialized to record data every 5 minutes. A pressure transducer was also hung near the bottom of the Niagara well to record any pressure changes that might occur if water came into the well. The transducers were operational during CBM drilling activities at the Niagara and Keystone pads in December, 2006.

Shortly after the transducers were installed, the first of a series of large snowfall events occurred making the wells inaccessible for approximately two months. When the wells were finally accessible in late February, 2007, the transducers were found to be functional, although the internal memories of the dataloggers had been filled and no more data were being recorded. Data from the transducers through February 25th were downloaded and the transducers reset in the wells.

Data from the transducers are currently being compiled. Preliminary evaluation of the data indicates the water level in the Sanchinator monitoring well declined after the transducer was installed until it reached a static level of approximately 516 feet below ground surface. This reduction in water level is common for new monitoring wells as they reach equilibrium following installation. The water level in the Keystone MW fluctuated only slightly during the period of record, likely in response to barometric pressure changes. The temperature and conductivity did not change appreciably in either well. The water level, temperature, and conductivity of the water in the Keystone MW

changed very little during the drilling of the Keystone CBM well, as shown by the graph in Figure 2.

Domestic water well replacement:

Pioneer replaced the Dolores and Ross water wells in September and October, 2006, respectively. The replacement wells were drilled in locations where the shallow, alluvial groundwater that served as a source for the existing wells would not be encountered. Although the replacement well locations were determined by dowsers chosen by the Doloreses and Ms. Ross, neither well encountered sufficient groundwater to serve as a suitable water supply. With the well owners' approval Pioneer installed cisterns and water treatment systems on the two original water wells so they could continue to be used for potable water supply.

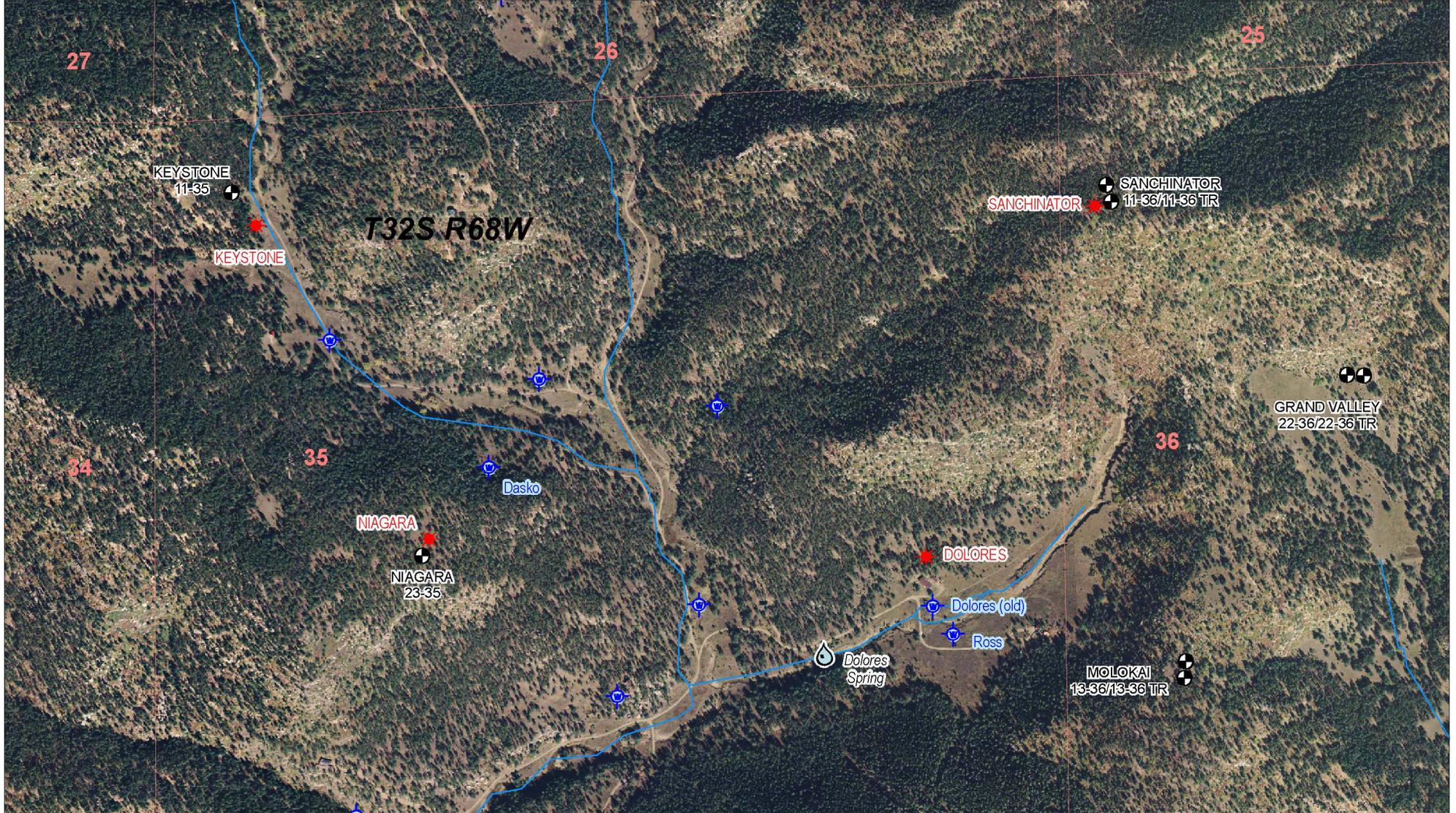
On October 24 and 25, 2006, NAH collected water samples from the two domestic wells at the same time that a consultant hired by the well owners (Glibota Environmental) sampled the wells. The purpose of the joint sampling was to resolve any questions regarding sampling methodology and assure that sampling data obtained by both parties were comparable. As attached Table 2 shows, analytical results for samples collected by both parties were very similar. Federal and state drinking water standards were met for all analytes in the untreated water samples except for slightly elevated manganese in the Dolores well. The well also had coliform bacteria, indicating the need for treatment.

The replacement water well drilled for the Doloreses was subsequently re-permitted with the Colorado State Engineers Office as a monitoring well. The well will be included in the groundwater monitoring program for the North Fork Ranch area and will be sampled periodically and equipped with a pressure transducer to monitor for water level changes during CBM well drilling in the area.

Plans:

The transducers were reset in the Keystone and Sanchinator monitoring wells to resume recording data at 5-minute intervals. The transducers will be checked and data downloaded monthly or more frequently when there is nearby CBM drilling activity. Water samples will be collected for laboratory analysis from the two monitoring wells containing water on the schedule proposed in the work plan. The Niagara well will be checked to see if it contains water and, if so, will be sampled and equipped for continuous data recording.

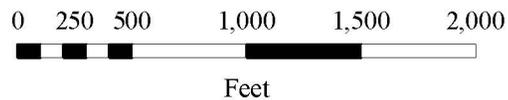
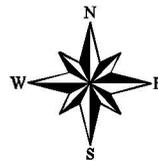
Figure 1 Site Location Map



Legend

- Monitoring Well
- Water Well
- Spring
- CBM Well
- Stream
- Section Line

1:10,000



Projection: UTM
Datum: NAD 1927
Zone: 13N
Units: Feet

Created: MD
Date 3/27/2007

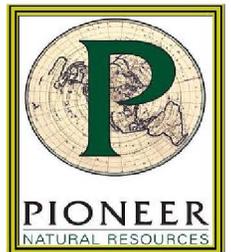


FIGURE 2
Keystone MW

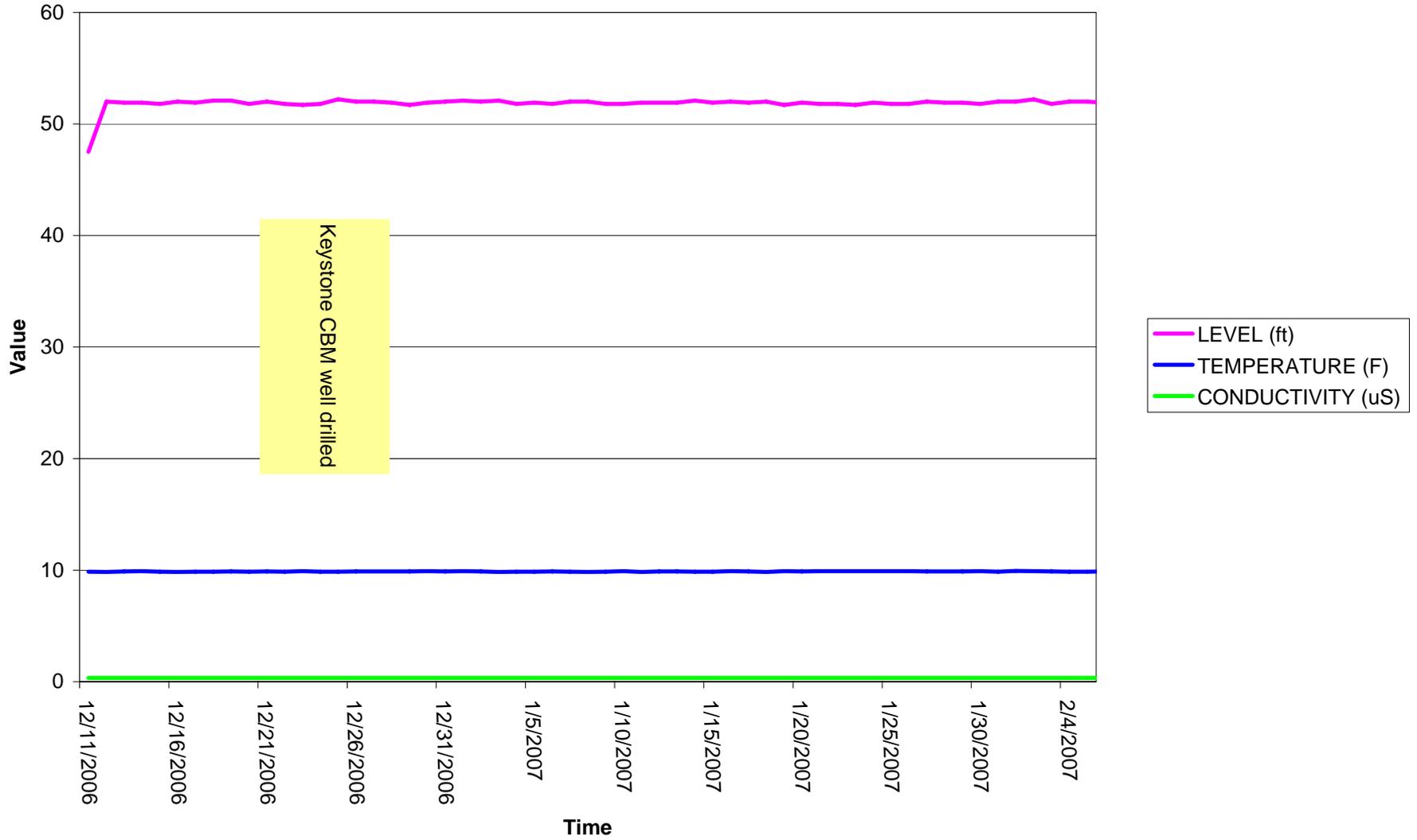


TABLE 1
North Fork Ranch Monitoring Well Data

| Constituent | Method | Reporting Limit | Units | MCL or TT Primary | Secondary Standard | Sanchinator 11/18/2006 | Keystone 11/20/2006 |
|------------------------|---------------|-----------------|-------|-------------------|--------------------|------------------------|---------------------|
| Alkalinity | 310.1 | 5.0 | mg/L | | | 170 | 134 |
| Arsenic - T.Rec | 200.8 | 0.0025 | mg/L | 0.0100 | | 0.0081 | 0.0025 |
| Barium - T.Rec | 200.8 | 0.0050 | mg/L | 2.0000 | | 0.170 | 0.210 |
| Benzene | 8021B / 524.2 | 0.0005 | mg/L | 0.0050 | | ND | 0.00093 |
| Bicarbonate Alkalinity | 310.1 | 5.0 | mg/L | | | 170 | 134 |
| Boron - T.Rec | 200.8 | 0.100 | mg/L | | | ND | ND |
| Boron - Total | 6010B | 0.050 | mg/L | | | ND | ND |
| Bromide | 300.0 | 0.20 | mg/L | | | ND | ND |
| Cadmium - Total | 200.7 | 0.0050 | mg/L | 0.0050 | | ND | ND |
| Calcium - Total | 200.7 | 0.20 | mg/L | | | 3.1 | 36.5 |
| Calcium - Total | 6010B | 0.200 | mg/L | | | 3.1 | 32.3 |
| Carbonate Alkalinity | 310.1 | 5.0 | mg/L | | | 32.1 | ND |
| Chloride | 300.0 | 1.0 | mg/l | | 250.000 | 8.0 | 3.9 |
| Chromium - Total | 200.7 | 0.010 | mg/L | 0.1000 | | 0.012 | ND |
| Copper - Diss. | 200.7 | 0.010 | mg/L | | 1.0000 | ND | ND |
| Copper - T.Rec | 200.8 | 0.0050 | mg/L | | 1.0000 | 0.0082 | ND |
| Ethane | RSK-175 | 0.0050 | mg/L | | | ND | 0.017 |
| Ethene | RSK-175 | 0.0050 | mg/L | | | ND | ND |
| Ethylbenzene | 8021B / 524.2 | 0.0005 | mg/L | 0.7000 | | ND | ND |
| Fluoride | 300.0 | 0.20 | mg/L | 4.00 | 2.00 | 8.30 | 0.66 |
| Hydroxide Alkalinity | 310.1 | 5.0 | mg/L | | | ND | ND |
| Iron - T.Rec | 200.7 | 0.10 | mg/L | | 0.300 | 12.70 | 2.20 |
| Iron - Total | 6010B | 0.1000 | mg/L | | 0.300 | 12.50 | 2.10 |
| Lead - T.Rec | 200.8 | 0.0015 | mg/L | 0.0150 | | 0.0036 | ND |
| Magnesium - T.Rec | 200.8 | 0.20 | mg/L | | | 1.30 | 4.90 |
| Magnesium - Total | 6010B | 0.20 | mg/L | | | 1.30 | 4.40 |
| Manganese - Diss. | 200.7 | 0.010 | mg/L | | | 0.120 | 0.260 |
| Manganese - T. Rec | 200.7 | 0.0100 | mg/L | | 0.050 | 0.180 | 0.270 |
| Methane | RSK-175 | 0.0050 | mg/L | | | 1.40 | 0.460 |
| Nitrate | 300.0 | 0.10 | mg/L | 10.000 | | ND | ND |
| Oil & Grease | 1664A HEM | 5.0 | mg/L | | | ND | ND |
| pH | 150.1 | 0.10 | - | | 6.5-8.5 | 9.2 | 7.8 |
| Potassium - T.Rec | 200.8 | 0.250 | mg/L | | | 1.90 | 2.50 |
| Potassium - Total | 6010B | 3.00 | mg/L | | | ND | ND |
| Resistivity | 120.1 | 0.00020 | ohm-m | | | 26.0 | 21.3 |
| Selenium - T.Rec | 200.8 | 0.0025 | mg/L | 0.0500 | | ND | ND |
| Silver - Total | 200.7 | 0.010 | mg/l | | 0.100 | ND | ND |
| Sodium - Total | 200.7 | 5.0 | mg/L | | | 95.6 | 57.1 |
| Sodium - Total | 6010B | 5.0 | mg/L | | | 89.7 | 49.6 |
| Specific Gravity | D1429 | 0.00010 | - | | | 1.00 | 1.00 |
| Sulfate | 300.0 | 5.0 | mg/l | | 250.0 | ND | 85.8 |
| Sulfide | 376.2 | 0.050 | mg/L | | | ND | ND |
| TDS | 160.1 | 10.0 | mg/L | | 500.0 | 245 | 308 |
| TEPH - DRO | 8015B | 0.250 | mg/L | | | ND | ND |
| Toluene | 8021B / 524.2 | 0.0005 | mg/L | 1.0000 | | ND | ND |
| TSS | 160.2 | 4.0 | mg/L | | | 141 | 32 |
| Xylenes | 8021B / 524.2 | 0.0005 | mg/L | 10.0000 | | ND | ND |
| Zinc - Total | 200.7 | 0.020 | mg/L | | 5.000 | 0.023 | ND |

ND = Not Detected

MCL or TT = Maximum Contaminant Level or Treatment Target for municipal water supplies (not necessarily water wells)

Secondary Standard = "non enforceable guidelines regulating contaminants that may cause cosmetic effects or aesthetic effects in drinking water"

RL = Reporting Limit. The reporting limit may be adjusted high concentrations of the target constituent necessitate sample dilution.

TABLE 2
Ross and Dolores Water Well Sample Results

| Constituent | Method | Requested RL | MCL or TT Primary | Secondary Standard | Ross 10/25/06 | Ross 10/25/2006 | Dolores 10/24/2006 | Dolores 10/24/2006 |
|------------------------|---------------|--------------|-------------------|--------------------|---------------|-----------------|--------------------|--------------------|
| Acetone | 524.2 | 0.0100 | | | 0.019 | ND | ND | ND |
| Alkalinity | 310.1 | 1.0 | | | 170 | 164 | 190.0 | 178 |
| Aluminum - T. Rec | 200.8 | 0.050 | | 0.2000 | ND | - | ND | - |
| Antimony - T. Rec | 200.8 | 0.0025 | 0.0060 | | ND | - | ND | - |
| Arsenic - Diss. | 200.7 | 0.0150 | 0.0100 | | - | ND | - | ND |
| Arsenic - T.Rec | 200.8 | 0.0025 | 0.0100 | | ND | - | ND | - |
| Barium - Diss. | 200.7 | 0.010 | 2.0000 | | - | 0.068 | - | 0.054 |
| Barium - T.Rec | 200.8 | 0.0050 | 2.0000 | | 0.073 | 0.069 | 0.056 | 0.056 |
| Benzene | 8021B / 524.2 | 0.0005 | 0.0050 | | ND | ND | ND | ND |
| Beryllium - T. Rec | 200.8 | 0.0005 | 0.0040 | | ND | - | ND | - |
| Bicarbonate Alkalinity | 310.1 | 1.0 | | | 170 | 164 | 180.0 | 178 |
| Boron - T.Rec | 200.8 | 0.100 | | | ND | ND | ND | ND |
| Boron - Total | 6010B | 0.050 | | | - | ND | - | ND |
| Bromide | 300.0 | 0.20 | | | - | ND | - | ND |
| Cadmium - Diss. | 200.7 | 0.0050 | 0.0050 | | - | ND | - | ND |
| Cadmium - T. Rec | 200.8 | 0.0005 | 0.0050 | | ND | - | ND | - |
| Calcium - Diss. | 200.7 | 0.200 | | | - | 25.3 | - | 43.4 |
| Calcium - T.Rec | 200.8 | 0.250 | | | 28.0 | 28.0 | 47.0 | 46.0 |
| Calcium - Total | 6010B | 0.200 | | | - | 25.8 | - | 44.4 |
| Carbonate Alkalinity | 310.1 | 5.0 | | | ND | ND | ND | ND |
| Chloride | 300.0 | 1.0 | | 250.0000 | 6.2 | 5.9 | ND | 6.7 |
| Chloride | 325.2 | 2.5 | | 250.0000 | - | 6.0 | - | 6.6 |
| Chloroform | 524.2 | 0.0005 | | | ND | ND | 0.0049 | 0.0038 |
| Chromium - Diss. | 200.7 | 0.010 | 0.1000 | | - | ND | - | ND |
| Chromium - T. Rec | 200.8 | 0.005 | 0.1000 | | ND | - | ND | - |
| Cobalt - T. Rec | 200.8 | 0.0005 | | | ND | - | ND | - |
| Coliform, Fecal | 9222D | 1.0 | 0.0000 | | ND | - | ND | - |
| Coliform, Total | 9223 | 1.0 | 0.0000 | | 5.2 | - | 2400.0 | - |
| Color | 2120B | 5.0 | | 15.0000 | ND | - | ND | - |
| Copper - Pot. Diss. | 200.7 | 0.010 | 1.3000 | 1.0000 | - | ND | - | ND |
| Copper - T.Rec | 200.8 | 0.0050 | 1.3000 | 1.0000 | ND | ND | ND | ND |
| Copper - T.Rec | 6010B | 0.010 | 1.3000 | 1.0000 | - | ND | - | ND |
| Escherichia coli | 9223 | 1.0 | 0.0000 | | ND | - | ND | - |
| Ethane | RSK-175 | 0.0500 | | | - | ND | - | ND |
| Ethene | RSK-175 | 0.0500 | | | - | ND | - | ND |
| Ethylbenzene | 8021B / 524.2 | 0.0005 | 0.7000 | | ND | ND | ND | ND |
| Fluoride | 300.0 | 0.20 | 4.00 | 2.00 | 0.97 | 0.97 | ND | 0.47 |
| Hydroxide Alkalinity | 310.1 | 5.0 | | | - | ND | - | ND |
| Iron - Diss. | 200.7 | 0.050 | | 0.3000 | - | ND | - | ND |
| Iron - T.Rec | 200.8 | 0.100 | | 0.3000 | ND | ND | ND | ND |
| Iron - T.Rec | 6010B | 0.050 | | 0.3000 | - | 0.058 | - | ND |
| Iron - Total | 6010B | 0.050 | | 0.3000 | - | ND | - | ND |
| Lead - Diss. | 200.7 | 0.0090 | 0.0150 | | - | ND | - | ND |
| Lead - T.Rec | 200.8 | 0.0015 | 0.0150 | | ND | ND | ND | ND |
| Magnesium - Diss. | 200.7 | 0.10 | | | - | 5.60 | - | 8.10 |
| Magnesium - T.Rec | 200.8 | 0.250 | | | 6.30 | 5.80 | 8.80 | 8.30 |
| Magnesium - Total | 6010B | 0.10 | | | - | 5.40 | - | 9.30 |
| Manganese - Diss. | 200.7 | 0.010 | | 0.0500 | - | ND | - | 0.150 |
| Manganese - Pot. Diss. | 200.7 | 0.010 | | 0.0500 | - | ND | - | 0.160 |
| Manganese - T.Rec | 200.8 | 0.0050 | | 0.0500 | ND | ND | 0.160 | 0.160 |
| Mercury - T. Rec | 200.8 | 0.0005 | 0.0020 | | ND | - | ND | - |
| Methane | RSK-175 | 0.0050 | | | 0.200 | 0.250 | 2.400 | 0.63 |
| Molybdenum - T. Rec | 200.8 | 0.0050 | | | 0.013 | - | ND | - |
| MTBE | 524.4 | 0.0020 | | | ND | ND | ND | ND |
| Nickel - T. Rec | 200.8 | 0.0010 | | | ND | - | ND | - |
| Nitrate | 300.0 | 0.10 | 10.0000 | | - | 0.26 | - | ND |
| Odor | 2150B | 1.0 | | 3.0000 | ND | - | ND | - |
| Oil & Grease | 1664A HEM | 5.0 | | | - | ND | - | ND |
| pH | 150.1 | 0.10 | | 6.5-8.5 | 7.7 | 7.9 | 7.32 | 7.7 |
| Potassium - Diss. | 200.7 | 3.0 | | | - | ND | - | ND |
| Potassium - T.Rec | 200.8 | 0.250 | | | 0.88 | 0.87 | 1.300 | 1.300 |
| Potassium - Total | 6010B | 3.0 | | | - | ND | - | ND |
| Resistivity | 120.1 | 0.0002 | | | - | 21.5 | - | 16.2 |
| Selenium - Diss. | 200.7 | 0.0150 | 0.0500 | | - | ND | - | ND |
| Selenium - T.Rec | 200.8 | 0.0025 | 0.0500 | | ND | ND | 0.0025 | ND |
| Silver - Diss. | 200.7 | 0.010 | | 0.1000 | - | ND | - | ND |
| Silver - T. Rec | 200.8 | 0.0010 | | 0.1000 | ND | - | ND | - |
| Sodium - Diss. | 200.7 | 5.0 | | | - | 75.3 | - | 85.2 |
| Sodium - T.Rec | 200.8 | 0.250 | | | 75.0 | 77.0 | 87.000 | 85.000 |
| Sodium - Total | 6010B | 5.0 | | | - | 75.7 | - | 94.6 |
| Specific Gravity | D1429 | 0.0001 | | | - | 1.00 | - | 1.00 |
| Sulfate | 300.0 | 25.0 | | 250.0000 | 56.0 | 66.7 | 120.0 | 133 |
| Sulfide | 376.2 | 0.10 | | | ND | ND | ND | ND |
| TDS | 160.1 | 5.0 | | 500.0000 | 300 | 278 | 400.0 | 380 |
| Thallium - T. Rec | 200.8 | 0.0010 | 0.0020 | | ND | - | ND | - |
| Toluene | 8021B / 524.2 | 0.0010 | 1.0000 | | ND | ND | 0.00071 | 0.0011 |
| TPH - DRO | 8015B | 0.25 | | | - | ND | - | ND |
| TSS | 160.2 | 4.0 | | | - | ND | - | ND |
| Xylenes | 8021B / 524.2 | 0.0005 | 10.0000 | | ND | ND | ND | ND |
| Zinc - Pot. Diss. | 200.7 | 0.020 | | 5.0000 | - | ND | - | 0.030 |
| Zinc - T.Rec | 200.8 | 0.020 | | 5.0000 | ND | - | 0.020 | - |
| Zinc - T.Rec | 6010B | 0.020 | | 5.0000 | - | ND | - | ND |

| | | | |
|------------------------------------|------------------|------------------------------------|------------------|
| Collected by Glibota Environmental | Collected by NAH | Collected by Glibota Environmental | Collected by NAH |
|------------------------------------|------------------|------------------------------------|------------------|

ND = Not Detected

MCL or TT = Maximum Contaminant Level or Treatment Target for municipal water supplies (not necessarily water wells)

Secondary Standard = "non enforceable guidelines regulating contaminants that may cause cosmetic effects or aesthetic effects in drinking water"

RL = Reporting Limit. The reporting limit may be adjusted when high concentrations of the target constituent necessitate dilution of the sample.