

# The Reno Creek Project - Monitor Well Sampling Report

# AUC LLC

|              |         |              |          |                   |      |               |    |
|--------------|---------|--------------|----------|-------------------|------|---------------|----|
| Location ID  | PZM15   | Sample Date: | 11/15/11 | Sampling Company: | TREC | Sampled By 1: | TN |
| Sample Event | Q4-2011 |              |          |                   |      | Sampled By 2: | RM |
|              |         |              |          |                   |      | Sampled By 3: |    |

### Well Information:

|                       |                 |                       |                                     |                   |
|-----------------------|-----------------|-----------------------|-------------------------------------|-------------------|
| Well Total Depth (TD) | 443             | ft                    | Well Measuring Point (MP) Location: | North Side-Marked |
| Sampled From:         | Monitoring Well | Well Inside Diameter: | 4.5                                 | inches            |
| Screened Interval:    | 420             | Feet to               | 440                                 | Feet              |
|                       |                 | Pump Type Used:       | Dedicated Low Flow Bladder          |                   |
|                       |                 | Pump Intake Depth:    | 430                                 | ft                |
|                       |                 | Tubing Type:          | Dedicated Plastic                   |                   |

### Well Fluid Measurements:

|                                 |                 |          |          |    |      |             |                            |
|---------------------------------|-----------------|----------|----------|----|------|-------------|----------------------------|
| Time (military):                | 8:30            | Weather: | Air Temp | 19 | (°F) | Conditions: | Breezy, snowing, very cold |
| Water level gauged using:       | Electronic tape | ft       |          |    |      |             |                            |
| Depth to Water (DTW) below MP:  | 225.94          | ft       |          |    |      |             |                            |
| Water Column Height (TD-DTW):   | 217.06          | ft       |          |    |      |             |                            |
| Water volume = $\pi r^2 h$ (cf) | 179.32          | gallons  |          |    |      |             |                            |
| 3 Well Volumes:                 | 537.97          | gallons  |          |    |      |             |                            |

|  |             |             |             |             |            |
|--|-------------|-------------|-------------|-------------|------------|
| Well volume (in gal / LF) = $\pi r^2$ (cf) where: $\pi$ = pi (approximately 3.14); $r$ = radius of monitoring well (feet)<br>cf = conversion factor (7.48 gal/ft <sup>3</sup> ); |             |             |             |             |            |
| Well ID (in)   | 2           | 3           | 4           | 4.5         | 5          |
| Water Volume (gal/LF)  | 0.163188147 | 0.367173331 | 0.652752589 | 0.826139995 | 1.01992592 |

### Purging:

|                                  |                            |                  |      |                                    |                |                |                         |          |
|----------------------------------|----------------------------|------------------|------|------------------------------------|----------------|----------------|-------------------------|----------|
| Purge Date                       | 11/15/11                   | Purge Time Begin | 8:45 | Low Flow Pump Controller Settings: | Charge Time    | 5              | Exhaust Time            | 25       |
| Purge Pump Type:                 | Dedicated Low Flow Bladder | Pumping Rate:    | 450  | ml/min                             | Meter Type(1): | YSI Multi      | Meter Calibration Date: | 10/14/11 |
| Volume Purged Prior to Sampling: | 3                          | gallons          |      |                                    | Meter Type(2): | Hach Turbidity | Meter Calibration Date: | 11/5/11  |
|                                  |                            |                  |      |                                    | Meter Type(3): |                | Meter Calibration Date: |          |

### Field Stabilization Measurements:

| Sample ID                       | Purge Date | Time (min.) | Purge Rate (ml/min) | Purge Rate (gal/min) | Temp (°C) | Conductivity (µmhos/cm) | DO (mg/L) | pH (su) | ORP (mV) | Turbidity (NTU) | Water Level (ft) | Comments |
|---------------------------------|------------|-------------|---------------------|----------------------|-----------|-------------------------|-----------|---------|----------|-----------------|------------------|----------|
| PZM15-004-111115                | 11/15/11   | 8:50        | 500                 |                      | 9.11      | 882                     | 5.39      | 8.44    | -80.0    | 2.0             | 226.64           |          |
|                                 |            | 8:53        | 450                 |                      | 9.11      | 875                     | 7.70      | 8.70    | -180.0   | 2.9             | 226.71           |          |
|                                 |            | 8:56        | 450                 |                      | 9.02      | 872                     | 3.94      | 8.73    | -203.0   | 2.4             | 226.72           |          |
|                                 |            | 8:59        | 450                 |                      | 9.15      | 873                     | 1.66      | 8.68    | -213.9   | 2.5             | 226.79           |          |
|                                 |            | 9:02        | 450                 |                      | 9.18      | 877                     | 0.91      | 8.61    | -214.4   | 2.5             | 226.79           |          |
|                                 |            | 9:05        | 450                 |                      | 9.21      | 874                     | 0.80      | 8.48    | -206.7   | 2.7             | 226.84           |          |
|                                 |            | 9:08        | 450                 |                      | 9.29      | 875                     | 0.82      | 8.40    | -197.5   | 2.8             | 226.87           |          |
|                                 |            |             |                     |                      |           |                         |           |         |          |                 |                  |          |
| Repeat Last Stabilization Meas. |            |             |                     |                      |           |                         |           |         |          |                 |                  |          |

### Sampling:

|                   |                            |                              |                |
|-------------------|----------------------------|------------------------------|----------------|
| Sample Date       | 11/15/2011                 | Sample Collection Time (MT): | 9:15           |
| Sample Pump Type: | Dedicated Low Flow Bladder | Meter Type(1):               | YSI Multi      |
|                   |                            | Meter Type(2):               | Hach Turbidity |
|                   |                            | Meter Type(3):               |                |
|                   |                            | Meter 1 Calibration Date:    | 10/14/11       |
|                   |                            | Meter 2 Calibration Date:    | 11/5/11        |
|                   |                            | Meter 3 Calibration Date:    |                |

### Analysis:

|                |    |                       |      |        |         |       |     |
|----------------|----|-----------------------|------|--------|---------|-------|-----|
| QA/QC Sample   | No | QA/QC Type            | None | COC#1: | RC08401 | Lab 1 | IML |
| Duplicate Name |    | Duplicate Sample Time |      | COC#2: |         | Lab 2 | ALS |
|                |    |                       |      | COC#3: |         | Lab 3 |     |

Analysis: Table 1- 4.14, Guide 8, & Radon 222

Comments:

### Stabilization Parameters

Temp = +/- 3% in celcius  
 pH = +/- 0.1 unit  
 SC = +/- 3% in µmhos/cm  
 ORP/Eh = +/- 10 millivolts  
 DO = +/- 10% in mg/L  
 Turbidity= +/- 10% for values > 5

### Range values for data entry

| Conductivity Range (µmhos/cm) | Turbidity (NTU) | Dissolve Oxygen (DO) (mg/L) | Temperature Range (°C) | Ox/Reduc Potential (mV) |
|-------------------------------|-----------------|-----------------------------|------------------------|-------------------------|
| Min 0                         | Min 0           | Min 0.01                    | Min -20                | Min -400                |
| Max 2000                      | Max 1000        | Max 2000                    | Max 80                 | Max 700                 |