

The Reno Creek Project - Monitor Well Sampling Report

AUC LLC

Location ID	PZM16	Sample Date:	8/31/11	Sampling Company:	TREC	Sampled By 1:	TN
Sample Event	Q3-2011					Sampled By 2:	WC
						Sampled By 3:	None

Well Information:

Well Total Depth (TD)	315	ft	Well Measuring Point (MP) Location:	North Side-Marked
Sampled From:	Monitoring Well	Well Inside Diameter:	4.5	inches
Screened Interval:	295	Feet to	315	Feet
		Pump Type Used:	Dedicated Low Flow Bladder	
		Pump Intake Depth:	305	ft
		Tubing Type:	Dedicated Plastic	

Well Fluid Measurements:

Time (military):	9:15	Weather:	Air Temp	81	(°F)	Conditions:	Windy, sunny, very warm
Water level gauged using:	Electronic tape						
Depth to Water (DTW) below MP:	137.48	ft					
Water Column Height (TD-DTW):	177.52	ft					
Water volume = $\pi r^2 h$ (cf)	146.66	gallons					
3 Well Volumes:	439.97	gallons					

Well volume (in gal / LF) = πr^2 (cf) where: π = pi (approximately 3.14); r = radius of monitoring well (feet) cf = conversion factor (7.48 gal/ft ³);					
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	8/31/11	Purge Time Begin	9:30	Low Flow Pump Controller Settings:	Charge Time	5	Exhaust Time	20
Purge Pump Type:	Dedicated Low Flow Bladder	Pumping Rate:	300	ml/min	Meter Type(1):	YSI Multi	Meter Calibration Date:	8/15/11
Volume Purged Prior to Sampling:	3.5	gallons			Meter Type(2):	Hach Turbidity	Meter Calibration Date:	8/11/11
					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		
PZM16-003-110831	08/31/11	9:40	300		14.60	1370	1.37	8.67	-168.0	1.5	137.38			
		9:43	300		14.58	1371	0.48	9.41	-206.4	0.5		Shut pump off		
		9:46	300		17.09	1373	0.36	9.30	-210.5	0.6	137.38			
		9:50	300		15.1	1371	0.34	9.50	-213.8	0.6	137.38			
		9:53	300		14.97	1368	0.31	9.56	-215.1	0.6	137.38	Shut pump off		
												137.64	ending water level	
Repeat Last Stabilization Meas.														

Sampling:

Sample Date	8/31/2011	Sample Collection Time (MT):	10:00	Meter Type(1):	YSI Multi	Meter 1 Calibration Date:	8/15/11
Sample Pump Type:	Non-Dedicated Low Flow Bladder			Meter Type(2):	Hach Turbidity	Meter 2 Calibration Date:	8/11/11
				Meter Type(3):		Meter 3 Calibration Date:	

Analysis:

QA/QC Sample	No	QA/QC Type Duplicate		COC#1:	RC08368	Lab 1	IML
Duplicate Name		Sample Time		COC#2:		Lab 2	ALS
				COC#3:		Lab 3	

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

Comments:
 Could not get Solinst to read water level while pumping, so took water levels every other reading to ensure no drawdown by shutting pump off; no drawdown at all; quit getting water at 10:10 after line developed air leak down in the well just above pump;
 pulled line/pump out for repair; fixed & reinstalled line; ran system for 15 minutes to purge line exposed to light and heat (more than 2 gal); finished sampling at 11:30, 300 ml/min

Stabilization Parameters

Temp	= +/- 3% in celsius
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