

Florida Onsite Sewage Nitrogen Reduction Strategies Study

Task C.22 GCREC Mound Data Summary Report No. 1

**Progress Report** 

April 2011



HAZEN AND SAWYER Environmental Engineers & Scientists In association with



OTIS ENVIRONMENTAL CONSULTANTS, LLC

# Florida Onsite Sewage Nitrogen Reduction Strategies Study

# TASK C.22 PROGRESS REPORT

# GCREC Mound Data Summary Report No. 1

## **Prepared for:**

Florida Department of Health Division of Environmental Health Bureau of Onsite Sewage Programs 4042 Bald Cypress Way Bin #A-08 Tallahassee, FL 32399-1713

**FDOH Contract CORCL** 

April 2011

Prepared by:



In Association With:





# GCREC Mound Monitoring Data Summary Report No. 1

## 1.0 Background

Task C of the Florida Onsite Sewage Nitrogen Reduction Strategies Study includes monitoring at field sites in Florida to evaluate nitrogen reduction in soil and groundwater, to assess groundwater impacts from various onsite wastewater systems, and to provide data for parameter estimation, verification, and validation of models developed in Task D. The existing mound system at the Gulf Coast Research and Education Center (GCREC) is being monitored to serve as a bridge between the controlled GCREC pilot-scale testing conducted within the same type of soils and the uncontrolled monitoring at home sites in different soils throughout the state. The Task C.5 QAPP documents the objectives, monitoring framework, sample frequency and duration, and analytical methods to be used at the GCREC existing mound system site. The Task C.20 Instrumentation of GCREC Mound System and Plume Progress Reports No. 1 and 2 document the test area design, number and location of monitoring points, and preliminary sample collection and analyses.

## 2.0 Purpose

This data summary report builds off of the Task C.21 Sample Event Report No. 1 to document the results from the first GCREC mound monitoring and sampling event conducted December 9, 2010 – December 10, 2010. The sample event report was submitted February 2011 and described the monitoring conducted including measurement of flowrates dosed to the system, groundwater elevation measured within the standpipe piezometers, measurement of field parameters, and collection of groundwater samples and their analyses in a NELAC certified laboratory. This data summary report describes the results from those efforts and the knowledge gained to date at the GCREC mound site.

## 3.0 Materials and Methods

## 3.1 Project Site

The GCREC mound is located at the University of Florida Gulf Coast Research and Education Center (GCREC) in southeast Hillsborough County, Florida. The facility is

situated on 475 acres of land that were donated by Hillsborough County government. Wastewater from the GCREC research offices and onsite dormitories flow to an existing OSTDS. Lab waste from Facility laboratories is not directed to the OSTDS. This existing OSTDS consists of a pressure dosed mound system designed for 2,850 gallons per day. Two septic tanks (2,500 and 1,250 gallons) provide primary treatment followed by a dosing tank (3,000 gallons). The mound drainfield has 4,351 ft<sup>2</sup> of infiltrative area (design hydraulic loading rate of 0.65 gpd/ft<sup>2</sup>) with each half of the drainfield receiving alternating doses.

## 3.2 Operational Monitoring

Wastewater flow to the mound system is measured via two (2) flow meters located on the dose lines to the mound. The two flow meters were installed in December 2009. Prior to July 16, 2010, the GCREC air conditioning systems were discharging considerable quantities of A/C condensate to the sewer. The PNRS II test facility programmable logic controller (PLC) records flow data from these meters. In addition, a weather station is located at the GCREC facility with weather conditions recorded every minute and stored on a private website.

## 3.3 Monitoring and Sampling Locations and Identification

A schematic of the GCREC mound monitoring network is shown in Figure 1. A 25-ft by 25-ft sampling grid was staked down gradient of the mound then locations surveyed (x, y, and z). Transect lines AA through R are parallel to the southern edge of the mound and increase (higher letter identification) moving southward from the mound. Transect lines 1 through 15 (from east to west) are perpendicular to the southern edge of the mound. Two types of monitoring points were installed: drive point samplers and stand-pipe piezometers (refer to the Task C QAPP and Task C.20 Progress Reports #1 and #2 for additional detail). Each groundwater monitoring location has been assigned a unique identification indicating the type of monitoring point (DP = drive point, PZ = standpipe piezometer), grid location (self explanatory), and depth below ground surface (bottom of the drive point or well screen in feet). For example DP-AA9-14 is a drive point sampler located on the grid at AA9 (see Figure 1) at approximately 14 ft below ground surface. Approximately 145 subsurface monitoring locations have been installed at the site to date.

The nomenclature and sample identifications for this GCREC mound sampling event are listed in Table 1. Figure 2 shows a drive point sampler prior to installation while Figure 3 depicts an installed <sup>3</sup>/<sub>4</sub>-in. diameter PVC standpipe piezometer.

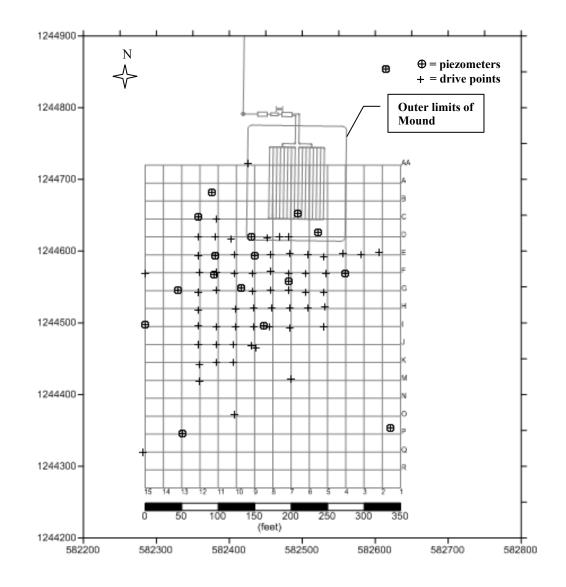


Figure 1 Schematic of GCREC Monitoring Network (UTM coordinates are used) **⊕** denotes piezometers and + denotes drive points

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Figure 2 Stainless Steel Drive Point with Mesh Screen, Umbrella and Tubing



Figure 3 Installed <sup>3</sup>/<sub>4</sub>" Diameter PVC Standpipe Piezometer

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	Grid Location	Sample Identification	Notes	Bottom Elevation (ft)
1	EX Lift Station	STE-EX Pump Tank	Wastewater Sample	N/A
2	Bkgd, North	PZ04-BKG-9	1 1/4" Standpipe Piezometer, 4' screen	118.66
3	Bkgd, North	PZ24-BKG-26	2" Standpipe Piezometer, 5' screen	101.41
4	AA9	DP-AA9-14	SST Drive Point	110.68
5	AA9	DP-AA9-22	SST Drive Point	103.08
6	AA9	DP-AA9-27	SST Drive Point	98.28
7	C12	PZ16-C12-28	3/4" Standpipe Piezometer, 1' screen	94.75
8	D7.5	DP-D7.5-14	SST Drive Point	111.24
9	D7.5	DP-D7.5-20	SST Drive Point	105.31
10	D7.5	DP-D7.5-26	SST Drive Point	99.24
11	D9	DP-D09-6	SST Drive Point	118.35
12	D9	DP-D09-8	SST Drive Point	116.45
13	D9	DP-D09-15	SST Drive Point	109.18
14	D9	DP-D09-21	SST Drive Point	103.18
15	D9	DP-D09-27	SST Drive Point	97.18
16	E12	DP-E12-10	SST Drive Point	113.22
17	E12	DP-E12-15	SST Drive Point	108.66
18	E12	DP-E12-22	SST Drive Point	101.56
19	E12	DP-E12-28	SST Drive Point	95.71
20	F8	DP-F08-14	SST Drive Point	110.43
21	F8	DP-F08-20	SST Drive Point	103.96
22	F8	DP-F08-28	SST Drive Point	96.18
23	F11	DP-F11-11	SST Drive Point	112.68
24	F11	DP-F11-15	SST Drive Point	108.88
25	F11	DP-F11-18	SST Drive Point	105.73
26	F11	DP-F11-21	SST Drive Point	102.93
27	F11	DP-F11-24	SST Drive Point	99.88
28	F11	DP-F11-27	SST Drive Point	96.73
29	F15	DP-F15-14	SST Drive Point	108.82
30	F15	DP-F15-20	SST Drive Point	102.87
31	F15	DP-F15-26	SST Drive Point	96.97
32	G7	DP-G07-13	SST Drive Point	111.63

 Table 1

 GCREC Mound Sample Identification

Grid Location         Sample Identification         Notes         Bottom Elevation (ft)           33         G7         DP-G07-15         SST Drive Point         109.56           34         G7         DP-G07-17         SST Drive Point         106.76           35         G7         DP-G07-21         SST Drive Point         103.31           36         G7         DP-G07-24         SST Drive Point         100.51           37         G7         DP-G07-27         SST Drive Point         108.37           38         G12         DP-G12-15         SST Drive Point         108.37           39         G12         DP-G12-27         SST Drive Point         102.32           40         G12         DP-I06-14         SST Drive Point         103.99           43         I6         DP-I06-26         SST Drive Point         103.99           44         I15         PZ17-I15-26         3/4" Standpipe Piezometer,1" screen         97.09           44         J9         DP-J09-20         SST Drive Point         109.61           46         J9         DP-J01-20         SST Drive Point         102.61           47         J9         DP-J02-20         SST Drive Point         102.61			GCREC Mo	ound Sample Identification	Detter
34         G7         DP-G07-17         SST Drive Point         106.76           35         G7         DP-G07-21         SST Drive Point         103.31           36         G7         DP-G07-24         SST Drive Point         100.51           37         G7         DP-G07-27         SST Drive Point         100.51           38         G12         DP-G12-15         SST Drive Point         102.32           40         G12         DP-G12-21         SST Drive Point         102.32           40         G12         DP-G12-27         SST Drive Point         102.32           40         G12         DP-G12-27         SST Drive Point         102.32           40         G12         DP-G12-27         SST Drive Point         102.32           41         I6         DP-106-14         SST Drive Point         103.99           42         I6         DP-106-26         SST Drive Point         103.99           43         I6         DP-109-20         SST Drive Point         103.36           44         I15         PZ17-115-26         3/4" Standpipe Piezometer,1' screen         97.99           44         I15         DP-J09-20         SST Drive Point         109.61		Grid Location		Notes	Elevation
Dr.         Dr. Gof. 721         SST Drive Point         103.31           36         G7         DP-G07-21         SST Drive Point         103.31           36         G7         DP-G07-24         SST Drive Point         100.51           37         G7         DP-G07-27         SST Drive Point         108.37           39         G12         DP-G12-15         SST Drive Point         102.32           40         G12         DP-G12-21         SST Drive Point         102.32           40         G12         DP-G12-27         SST Drive Point         102.32           40         G12         DP-G12-27         SST Drive Point         96.37           41         I6         DP-106-14         SST Drive Point         103.99           43         I6         DP-106-26         SST Drive Point         97.94           44         I15         PZ17-I15-26         3/4" Standpipe Piezometer,1" screen         97.09           45         J9         DP-J09-14         SST Drive Point         103.36           47         J9         DP-J09-20         SST Drive Point         103.26           49         J12         DP-J12-15         SST Drive Point         108.26           50	33	G7	DP-G07-15	SST Drive Point	109.56
36         G7         DP-G07-24         SST Drive Point         100.51           37         G7         DP-G07-27         SST Drive Point         97.61           38         G12         DP-G12-15         SST Drive Point         102.32           40         G12         DP-G12-21         SST Drive Point         102.32           40         G12         DP-G12-27         SST Drive Point         96.37           41         16         DP-I06-14         SST Drive Point         103.99           43         16         DP-I06-26         SST Drive Point         97.94           44         115         PZ17-115-26         3/4" Standpipe Piezometer,1" screen         97.09           45         J9         DP-J09-14         SST Drive Point         103.36           47         J9         DP-J09-20         SST Drive Point         103.36           47         J9         DP-J09-20         SST Drive Point         103.36           47         J9         DP-J09-20         SST Drive Point         103.26           50         J12         DP-J12-15         SST Drive Point         103.26           51         M7         DP-M07-21         SST Drive Point         102.61 <t< td=""><td>34</td><td>G7</td><td>DP-G07-17</td><td>SST Drive Point</td><td>106.76</td></t<>	34	G7	DP-G07-17	SST Drive Point	106.76
Or         DF 607 27         SST Drive Point         10.031           37         G7         DP-G07-27         SST Drive Point         97.61           38         G12         DP-G12-15         SST Drive Point         108.37           39         G12         DP-G12-21         SST Drive Point         102.32           40         G12         DP-G12-27         SST Drive Point         96.37           41         I6         DP-I06-14         SST Drive Point         102.32           42         I6         DP-I06-20         SST Drive Point         103.99           43         I6         DP-I06-26         SST Drive Point         97.94           44         I15         PZ17-I15-26         3/4" Standpipe Piezometer, 1' screen         97.09           45         J9         DP-J09-14         SST Drive Point         103.36           47         J9         DP-J09-20         SST Drive Point         103.36           47         J9         DP-J012-27         SST Drive Point         102.61           50         J12         DP-J12-20         SST Drive Point         102.61           50         J12         DP-M07-21         SST Drive Point         102.65           53	35	G7	DP-G07-21	SST Drive Point	103.31
Br         Dr. Got 2         Str Drive Point         108.37           38         G12         DP-G12-15         SST Drive Point         102.32           40         G12         DP-G12-21         SST Drive Point         102.32           40         G12         DP-G12-27         SST Drive Point         96.37           41         I6         DP-I06-14         SST Drive Point         110.24           42         I6         DP-I06-26         SST Drive Point         103.99           43         I6         DP-I06-26         SST Drive Point         97.94           44         I15         PZ17-I15-26         3/4" Standpipe Piezometer,1'screen         97.09           45         J9         DP-J09-14         SST Drive Point         103.36           47         J9         DP-J09-20         SST Drive Point         103.36           47         J9         DP-J12-15         SST Drive Point         108.26           49         J12         DP-J12-27         SST Drive Point         102.61           50         J12         DP-M07-21         SST Drive Point         102.65           53         M7         DP-M07-27         SST Drive Point         102.65           54         <		G7	DP-G07-24	SST Drive Point	100.51
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40         G12         DP-G12-27         SST Drive Point         96.37           41         I6         DP-I06-14         SST Drive Point         110.24           42         I6         DP-I06-20         SST Drive Point         103.99           43         I6         DP-I06-26         SST Drive Point         97.94           44         I15         PZ17-I15-26         3/4" Standpipe Piezometer, 1' screen         97.09           45         J9         DP-J09-14         SST Drive Point         109.61           46         J9         DP-J09-20         SST Drive Point         103.36           47         J9         DP-J09-20         SST Drive Point         103.36           47         J9         DP-J09-26         SST Drive Point         108.26           49         J12         DP-J12-15         SST Drive Point         108.26           49         J12         DP-J12-27         SST Drive Point         102.61           50         J12         DP-J12-27         SST Drive Point         102.65           51         M7         DP-M07-21         SST Drive Point         102.65           53         M7         DP-M07-27         SST Drive Point         102.65	38	G12	DP-G12-15	SST Drive Point	108.37
41         16         DP-106-14         SST Drive Point         110.24           42         16         DP-106-14         SST Drive Point         103.99           43         16         DP-106-26         SST Drive Point         97.94           44         115         PZ17-115-26         3/4" Standpipe Piezometer, 1' screen         97.09           45         J9         DP-J09-14         SST Drive Point         103.36           47         J9         DP-J09-20         SST Drive Point         103.36           47         J9         DP-J09-26         SST Drive Point         97.11           48         J12         DP-J12-15         SST Drive Point         108.26           49         J12         DP-J12-20         SST Drive Point         102.61           50         J12         DP-J12-27         SST Drive Point         108.975           52         M7         DP-M07-21         SST Drive Point         102.65           53         M7         DP-M07-27         SST Drive Point         102.65           54         N12         DP-N12-21         SST Drive Point         101.725           56         N12         DP-N12-27         SST Drive Point         101.725	39	G12	DP-G12-21	SST Drive Point	102.32
42         16         DP-106-20         SST Drive Point         103.99           43         16         DP-106-26         SST Drive Point         97.94           44         115         PZ17-115-26         3/4" Standpipe Piezometer,1" screen         97.09           45         J9         DP-J09-14         SST Drive Point         109.61           46         J9         DP-J09-20         SST Drive Point         103.36           47         J9         DP-J09-26         SST Drive Point         108.26           49         J12         DP-J12-15         SST Drive Point         108.26           49         J12         DP-J12-20         SST Drive Point         108.26           50         J12         DP-J12-27         SST Drive Point         102.61           50         J12         DP-M07-15         SST Drive Point         108.975           52         M7         DP-M07-21         SST Drive Point         102.65           53         M7         DP-M07-27         SST Drive Point         102.65           54         N12         DP-N12-21         SST Drive Point         101.725           56         N12         DP-N12-27         SST Drive Point         101.725	40	G12	DP-G12-27	SST Drive Point	96.37
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46         J9         DP-J09-20         SST Drive Point         103.36           47         J9         DP-J09-26         SST Drive Point         97.11           48         J12         DP-J12-15         SST Drive Point         108.26           49         J12         DP-J12-20         SST Drive Point         102.61           50         J12         DP-J12-27         SST Drive Point         108.975           52         M7         DP-M07-15         SST Drive Point         102.65           53         M7         DP-M07-21         SST Drive Point         102.65           54         N12         DP-N12-14         SST Drive Point         108.4           55         N12         DP-N12-21         SST Drive Point         108.4           55         N12         DP-N12-21         SST Drive Point         101.725           56         N12         DP-N12-27         SST Drive Point         101.725           57	44	115	PZ17-I15-26	3/4" Standpipe Piezometer,1' screen	97.09
47         J9         DP-J09-26         SST Drive Point         97.11           48         J12         DP-J12-15         SST Drive Point         108.26           49         J12         DP-J12-20         SST Drive Point         102.61           50         J12         DP-J12-20         SST Drive Point         102.61           50         J12         DP-J12-27         SST Drive Point         96.36           51         M7         DP-M07-15         SST Drive Point         102.65           52         M7         DP-M07-21         SST Drive Point         102.65           53         M7         DP-M07-27         SST Drive Point         102.65           54         N12         DP-N12-14         SST Drive Point         108.44           55         N12         DP-N12-27         SST Drive Point         101.725           56         N12         DP-N12-27         SST Drive Point         101.725           56         N12         DP-N12-27         SST Drive Point         101.725           56         N12         DP-N12-27         SST Drive Point         101.725           57         O10         DP-O10-12         SST Drive Point         101.71           58	45	J9	DP-J09-14	SST Drive Point	109.61
48         J12         DP-J12-15         SST Drive Point         108.26           49         J12         DP-J12-20         SST Drive Point         102.61           50         J12         DP-J12-27         SST Drive Point         96.36           51         M7         DP-M07-15         SST Drive Point         108.975           52         M7         DP-M07-21         SST Drive Point         102.65           53         M7         DP-M07-27         SST Drive Point         96.95           54         N12         DP-N12-14         SST Drive Point         108.4           55         N12         DP-N12-27         SST Drive Point         101.725           56         N12         DP-N12-21         SST Drive Point         101.725           56         N12         DP-N12-27         SST Drive Point         101.725           56         N12         DP-N12-27         SST Drive Point         101.725           56         N12         DP-N12-27         SST Drive Point         101.725           57         O10         DP-O10-12         SST Drive Point         104.56           59         O10         DP-O10-24         SST Drive Point         104.56           59	46	J9	DP-J09-20	SST Drive Point	103.36
49         J12         DP-J12-20         SST Drive Point         102.61           50         J12         DP-J12-27         SST Drive Point         96.36           51         M7         DP-M07-15         SST Drive Point         108.975           52         M7         DP-M07-21         SST Drive Point         102.65           53         M7         DP-M07-27         SST Drive Point         102.65           54         N12         DP-N12-14         SST Drive Point         108.4           55         N12         DP-N12-21         SST Drive Point         101.725           56         N12         DP-N12-27         SST Drive Point         101.725           57         O10         DP-O10-12         SST Drive Point         104.56           59         O10         DP-O10-24         SST Drive Point         104.56           59         O10         DP-Q15-15         SST Drive Point         108.2           61	47	J9	DP-J09-26	SST Drive Point	97.11
512         DF 012 25         OST Drive Point         102.01           50         J12         DP-J12-27         SST Drive Point         96.36           51         M7         DP-M07-15         SST Drive Point         108.975           52         M7         DP-M07-21         SST Drive Point         102.65           53         M7         DP-M07-27         SST Drive Point         96.95           54         N12         DP-N12-14         SST Drive Point         108.4           55         N12         DP-N12-21         SST Drive Point         101.725           56         N12         DP-N12-27         SST Drive Point         101.725           56         N12         DP-N12-27         SST Drive Point         101.725           56         N12         DP-N12-27         SST Drive Point         101.71           58         O10         DP-O10-12         SST Drive Point         110.71           58         O10         DP-O10-14         SST Drive Point         104.56           59         O10         DP-O10-24         SST Drive Point         98.56           60         Q15         DP-Q15-15         SST Drive Point         108.2           61         Q15		J12	DP-J12-15	SST Drive Point	108.26
51         M7         DP-M07-15         SST Drive Point         108.975           52         M7         DP-M07-21         SST Drive Point         102.65           53         M7         DP-M07-27         SST Drive Point         96.95           54         N12         DP-N12-14         SST Drive Point         101.725           56         N12         DP-N12-21         SST Drive Point         101.725           56         N12         DP-N12-27         SST Drive Point         101.725           57         O10         DP-O10-12         SST Drive Point         110.71           58         O10         DP-O10-18         SST Drive Point         104.56           59         O10         DP-O10-24         SST Drive Point         98.56           60         Q15         DP-Q15-15         SST Drive Point         108.2           61         Q15         DP-Q15-21         SST Drive Point         102.29	49	J12	DP-J12-20	SST Drive Point	102.61
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M12         D1 M12 21         Control Point         Hom 20           56         N12         DP-N12-27         SST Drive Point         95.63           57         O10         DP-O10-12         SST Drive Point         110.71           58         O10         DP-O10-18         SST Drive Point         104.56           59         O10         DP-O10-24         SST Drive Point         98.56           60         Q15         DP-Q15-15         SST Drive Point         108.2           61         Q15         DP-Q15-21         SST Drive Point         102.29		N12	DP-N12-14	SST Drive Point	108.4
57         O10         DP-O10-12         SST Drive Point         110.71           58         O10         DP-O10-18         SST Drive Point         104.56           59         O10         DP-O10-24         SST Drive Point         98.56           60         Q15         DP-Q15-15         SST Drive Point         108.2           61         Q15         DP-Q15-21         SST Drive Point         102.29	55	N12	DP-N12-21	SST Drive Point	101.725
58         O10         DP-O10-18         SST Drive Point         104.56           59         O10         DP-O10-24         SST Drive Point         98.56           60         Q15         DP-Q15-15         SST Drive Point         108.2           61         Q15         DP-Q15-21         SST Drive Point         102.29	56	N12	DP-N12-27	SST Drive Point	95.63
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60         Q15         DP-Q15-15         SST Drive Point         108.2           61         Q15         DP-Q15-21         SST Drive Point         102.29	58	O10	DP-010-18	SST Drive Point	104.56
61         Q15         DP-Q15-21         SST Drive Point         102.29		O10	DP-010-24	SST Drive Point	98.56
	60	Q15	DP-Q15-15	SST Drive Point	108.2
62         Q15         DP-Q15-26         SST Drive Point         96.4	61	Q15	DP-Q15-21	SST Drive Point	102.29
	62	Q15	DP-Q15-26	SST Drive Point	96.4

#### Table 1 (continued) GCREC Mound Sample Identification

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## 3.4 Soil Characteristics

During the instrumentation of the mound, continuous soil cores were collected to the spodic layer at four locations (south end of the mound, E9, F4, and west side of the mound), and at one location (G10) a continuous soil core was collected to the confining Hawthorn clay layer. The information on soil properties will aid in determining appropriate parameters to be used in model development. In several locations the actual elevation of the spodic layer was also determined using hand methods as shown in Figure 4. During the November 2010 drilling event, the elevation and thickness of the spodic layer was also estimated by observing the soil cuttings returned to the surface by the auger. This visual method provides general reference information only as depth based on soil cuttings is typically within  $\pm$ 1-2 feet.

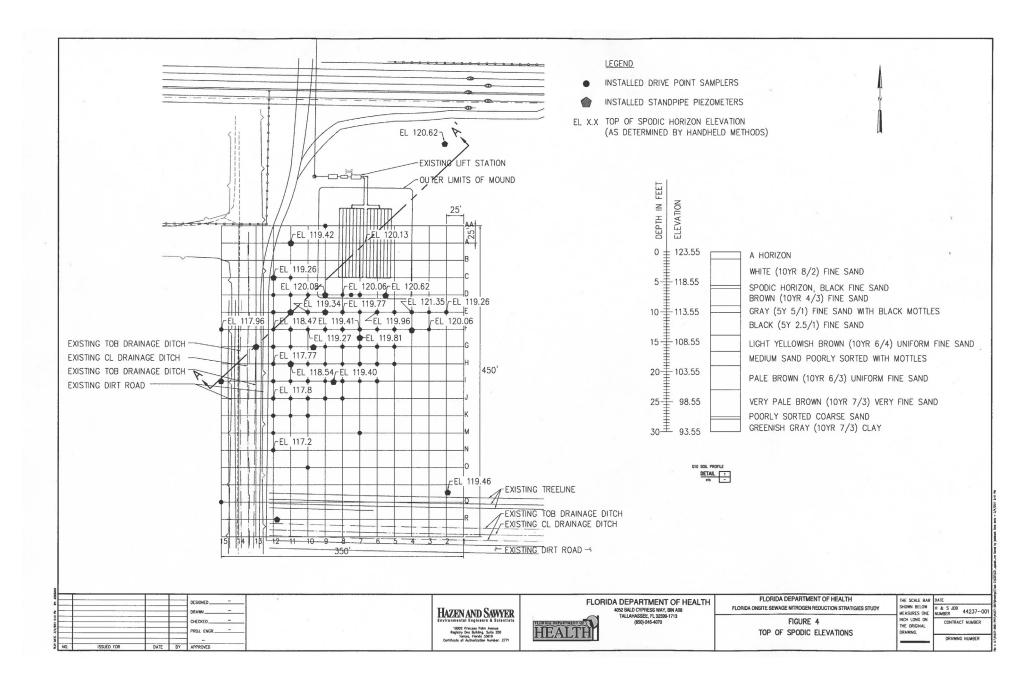
## 3.5 Groundwater Elevation Measurements

Groundwater level measurements are used to determine hydraulic gradients, directions of flow, rates of flow, locations of groundwater recharge and discharge, the amount of water in storage, the change in storage over time, and aquifer hydraulic characteristics. Groundwater levels were measured using a flat tape water level meter graduated in feet (measurement accuracy is 0.01 ft).

## 3.6 Water Quality Sample Collection and Analyses

Groundwater and septic tank effluent (STE) were collected December 9-10, 2010 for water quality analysis. A peristaltic pump was used to collect STE directly into the analysisspecific container supplied by the analytical laboratory. Samples were collected from the existing lift station which supplies STE to the GCREC mound. Groundwater samples were obtained using a peristaltic pump, which was either attached directly to the drivepoint tubing or to dedicated standpipe piezometer tubing. Samples were collected into the analysis-specific containers after sufficient purging had occurred. The analysisspecific containers were supplied by the analytical laboratory and contained appropriate preservatives. The analysis-specific containers were labeled, placed in coolers and transported on ice to the analytical laboratory. Each sample container was secured in packing material as appropriate to prevent damage and spills, and was recorded on chain-of-custody forms supplied by the laboratory.

In addition, equipment blank, field blank, and field sample duplicates were taken. The equipment blank was collected by pumping deionized water (provided by the laboratory) through the cleaned pump tubing. These samples were then analyzed for the same parameters as the GW samples. One field blank was collected by filling sample containers



with deionized water that had been transported from the laboratory into the field along with other sample containers, and a second field blank was collected by filling sample containers with the tap water onsite used for rinsing. The field sample duplicates were collected immediately subsequent to the regular samples. The field duplicate samples taken include:

- DP-D09-15
- DP-F08-20
- DP-F15-20
- DP-G12-15
- DP-J12-20
- STE-EX Pump Tank

Field parameters (pH, specific conductance, temperature (Temp), and dissolved oxygen (DO)) were measured using portable electronic probes with probe tips placed in a flowcell device as groundwater was being pumped. All samples were analyzed by the laboratory for: total alkalinity, total Kjeldahl nitrogen (TKN-N), ammonia nitrogen (NH<sub>3</sub>-N), and nitrate/nitrite nitrogen (NO<sub>X</sub>-N). Additionally, at some of the locations with elevated conductivity in previous preliminary sampling, total organic carbon (TOC) and dissolved organic carbon (DOC) were included. All analyses were performed by an independent and fully certified analytical laboratory (Southern Analytical Laboratory). Table 2 lists the analytical parameters, analytical methods, and detection limits for these analyses.

Analytical Farameters,	Analytical Parameters, method of Analysis, and Detection Limits					
Analytical Parameter	Method of Analysis	Laboratory Detection Limit (mg/L)				
Total Alkalinity as CaCO <sub>3</sub>	SM 2320B	2 mg/L				
Total Kjeldahl Nitrogen (TKN-N)	EPA351.2	0.05 mg/L				
Ammonia Nitrogen (NH <sub>3</sub> -N)	EPA350.1	0.01 mg/L				
Nitrate/Nitrite Nitrogen (NO <sub>x</sub> -N)	EPA353.2	0.01 mg/L				
Total Organic Carbon (TOC)	SM 5310B	0.5 mg/L				
Dissolved Organic Carbon (DOC)	SM 5310B	1.0 mg/L				

Table 2 Analytical Parameters, Method of Analysis, and Detection Limits

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### 3.7 Data Management

To allow for a better visualization of the data collected at the site the mapping program **Surfer** was utilized. **Surfer** is a grid-based mapping program that interpolates irregularly spaced XYZ data into a regularly spaced grid. Although there are several methods used in Surfer to fill in areas where data is missing, the Krieging method was used as the output gave the most visually pleasing graphs.

## 4.0 Results

## 4.1 **Operational Data and Site Conditions**

Appendix A provides summary tables of the recorded wastewater flow data for the GCREC mound pumps between June 14, 2010 and December 10, 2010 (Day 28 through Day 207 since PNRS II test facility start-up). Wastewater flow to the mound system averaged 1,707 gpd for the five month period prior to the December sampling event. Table 3 provides the recorded meteorological data daily averages leading up to and during the sample event. Appendix B provides summary tables of the average monthly recorded meteorological data.

weteor	meteorological Data Dally Averages measured December 6, 2010 – December 10, 2010									
Date	Temp Avg 60 cm (°F)	Temp Avg 10 m (°F)	Temp Soil Avg -10 cm (°F)	Dewpoint Avg 2m (°F)	Relative Humidity Avg 2m (%)	Rain Total 2m (in)	Wind Speed Avg 10m (mph)			
12-6-10	44.08	43.81	63.34	32.19	66	0	8.7			
12-7-10	40.44	40.95	61.3	26.71	62	0	7.22			
12-8-10	45.03	45.58	60.32	29.72	59	0	5.6			
12-9-10	48.45	48.36	60.71	34.76	62	0.03	6.37			
12-10-10	51.85	51.49	60.72	45.45	83	0	6.51			

Table 3Meteorological Data Daily Averages Measured December 6, 2010 – December 10, 2010

## 4.2 Soil Characteristics

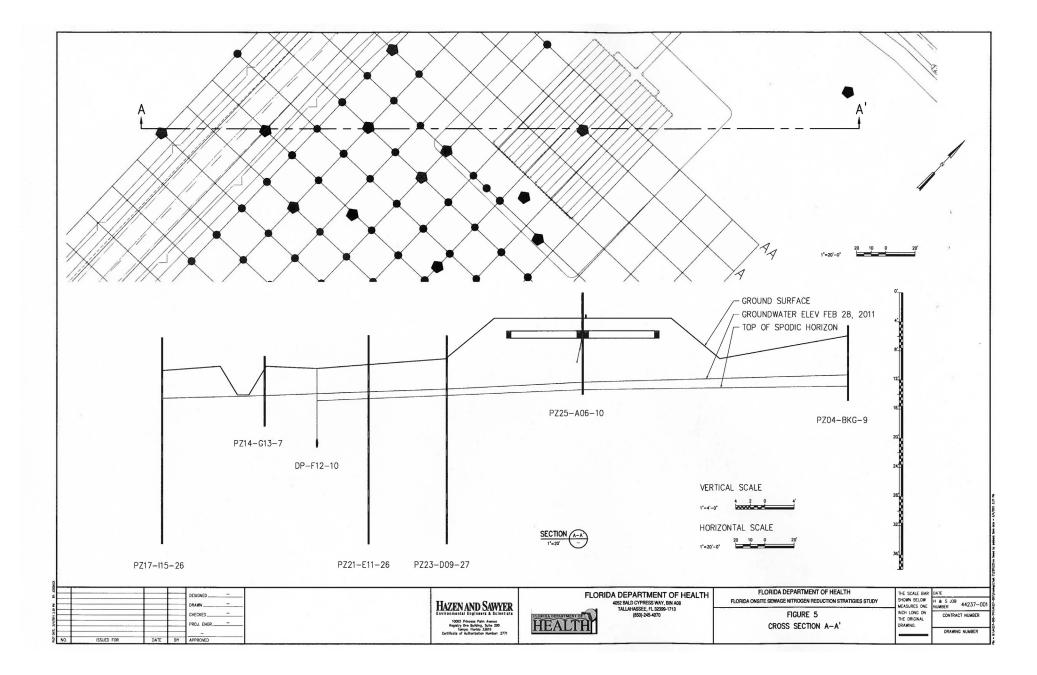
Table 4 summarizes the general soil lithology described from the soil cores while the cross section A-A' is depicted in Figure 5. Although the four soil cores show some variability in soil over the site, a general soil profile trend is present. The top few inches at the site are typically a darker, slightly brown or reddish fine silty sand soil, followed by a light-colored, grey and/or pale yellow fine sand. Mottling is commonly visible 4 -5 feet below the ground surface. The continuous soil core from G10 shows the spodic layer (very hard and coarse with a coffee-like texture), which is approximately 5 feet thick at that location, and the soil below the spodic layer is a light or yellowish brown, fine to medium sand (Figure 6). Similar observations were made at the other sites during the November drilling event. The Hawthorne clay is considered a confining layer for the upper Floridian aquifer at the site and lies approximately 27 to 30 feet below the ground surface.

			Description	าร
Grid Location	Identifier	Surface Elevation (ft)	Depth bgs (ft)	Description
South end of Mound	PZ10-CD6-13	129.51	0-0.4'	Grass/fill
CD6.5			0.4-0.9'	Gray fine sand with yellow and white mottles
			0.9-6.6'	Uniform yellow fine grain sand
			6.5'	Saturation
			6.6-6.7'	Dark brown (10YR 3/3) fine sand
			6.7-10.7'	Light gray (5Y 7/2) fine sand
			10.7-11.5'	Dark brown (10YR 3/3) fine sand
			11.5-12.3'	Yellow (5Y 7/6) fine sand
			12.3-13.45'	Light gray (5Y 7/2) fine sand
			13.45-16.1'	Spodic horizon, dark brown (7.5YR 3/3) fine sand
			16.1-17.4'	Brown (7.5YR 4/4) fine sand
E9	PZ11-E09-10	124.06	0-2.2'	A Horizon top soil
			2.2-2.7'	Pale yellow (5Y 7/3) fine sand with mottles
			2.7-5.8'	Yellowish brown (10YR 5/4) fine sand
			5.8-6.9'	Very dark brown (7.5YR 2.5/3) fine san
			6.1'	Saturation
			6.9-10.3'	Medium brown (10YR 5/3) fine sand
			10.3-15'	Spodic horizon, black (10YR 2/1) fil sand
G10	Abandoned	123.55	0-1.2'	A Horizon top soil
	PZ12		1.2-2.8'	White (10YR 8/2) fine sand
			2.8-6.1'	Spodic horizon, black fine sand
			6.1-9'	Brown (10YR 4/3) fine sand
			9'	Saturation
			9-10.1'	Gray (5Y 5/1) fine sand with black mottles
			10.1-13.9'	Black (5Y 2.5/1) fine sand
			13.9-16.6'	Light yellowish brown (10YR 6/4) uniform fine sand
			16.6-19'	Medium sand poorly sorted, well rounded (3mm diameter) with mottles
			19-23'	Pale brown (10YR 6/3) uniform fine sand

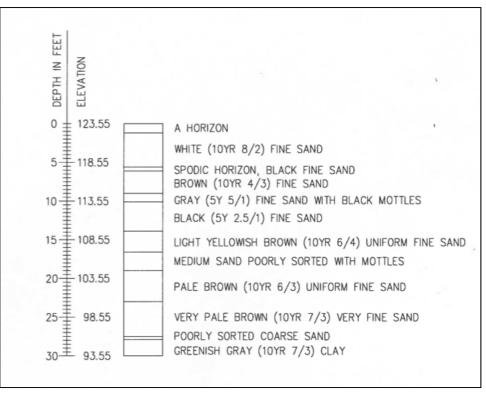
#### Table 4 June 2010 Small Direct Push Rig (6620 Geoprobe<sup>™</sup>) Soil Core Descriptions

#### Table 4 (continued) June 2010 Small Direct Push Rig (6620 Geoprobe<sup>™</sup>) Soil Core Descriptions

	Soli Core Descriptions							
Grid Location	Identifier	Surface Elevation (ft)	Depth bgs (ft)	Description				
G10 (con't)	Abandoned PZ12	123.55	23-27.5'	Very pale brown (10YR 7/3) very fine sand				
			27.5-27.9'	Poorly sorted coarse sand				
			27.9-30.0'	Greenish gray (Gley1 6/5GY) clay, Hawthorn confining layer				
F4	PZ13-F04-8	124.42	0-4.2'	A Horizon top soil				
			4.2-4.7'	Pale yellow (5Y 8/4) fine sand with mottles				
			4.7-13.5'	Spodic horizon, dark brown sand				
			6.3'	Saturation				
Westside of Mound		~129	0-7.4'	Mound sand with some mottles				
			7.4-8.4'	Dark oxidized sand				
			8.4'	Saturation				
			8.4-9.4'	Saturated very pale brown fine sand				
			9.4-10'	Spodic horizon, dark brown fine sand				
			10-12'	Dark yellowish brown (10YR 4/6) fine sand				
			12-15'	Dark brown fine sand				

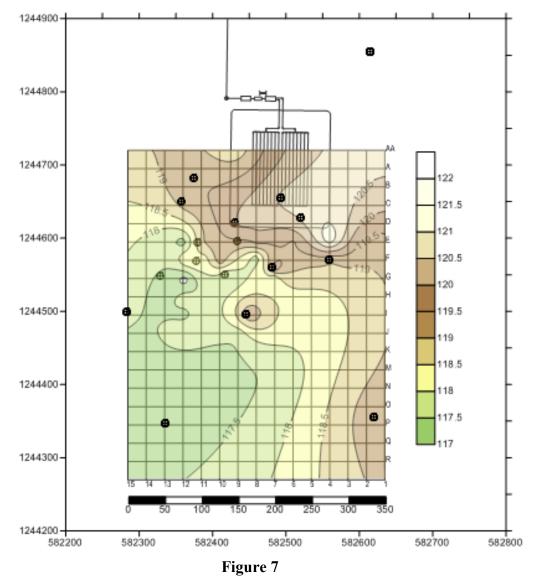


April 2011



#### Figure 6 The Continuous Soil Profile Obtained at G10

During the installation of the shallow drive points in the summer of 2010, the elevations of the spodic layer was determined at several locations as the installation was done primarily with handheld methods. Although efforts were made to determine the elevation and thickness of the spodic layer during the November drilling event, the larger drilling rig required to penetrate the spodic layer prevented the drill operators from "feeling" (increase resistance requiring increased power) when the auger first hit the hard layer and second when it broke through the spodic. Hence the depth and thickness of the spodic layer was estimated at that time to be approximately 6 feet below the ground surface with a thickness of approximately 5.5 and 8.5 feet. Subsequently, handheld methods were used to better determine the actual elevation of the spodic layer at several additional sites. Figure 7 illustrates the top elevation of the spodic layer at the site as determined by the handheld methods. Although variations are present, the general trend follows that of the ground surface and that of the groundwater.



Elevations of Spodic Layer as Determined by Hand Held Methods (The locations of the piezometers are provided for reference.)

### 4.3 Groundwater Levels

Groundwater level monitoring has been conducted over a larger area since additional piezometers were installed in November 2010. Water levels were measured at all standpipe piezometers within the grid on December 9, 2010 for this sampling event as summarized in Table 5. Figure 8 illustrates the surficial groundwater contours as measured within the standpipe piezometers on December 9, 2010. The groundwater elevations have been found to fluctuate due to periods of dry weather and/or heavy precipitation; however, the general flow-path does not change. By continued monitoring of the groundwater elevations, a clearer picture of the gradient at the site will be gained.

Fig 4 Identification	Location	Identification	Water Table Elevation (ft)
1	Bkgd, North	PZ01-BKG-9	122.97
2	Bkgd, North	PZ04-BKG-9	121.76
3	Bkgd, North	PZ24-BKG-26	121.46
4	Bkgd, East	PZ05-BKG-9	121.53
5	Bkgd, NW	PZ06-BKG-12	122.09
6	A11	PZ15-A11-6	119.77
7	C12	PZ16-C12-28	119.37
8	CD6.5	PZ10-CD6-13	120.37
9	D5.5	PZ07-D05-7	120.22
10	D9	PZ23-D09-27	119.64
11	E9	PZ11-E09-10	119.57
12	E11	PZ21-E11-26	119.22
13	E11	PZ22-E11-15	119.21
14	F4	PZ13-F04-8	120.16
15	FG7	PZ08-FG7-6	119.65
16	G9.75	PZ19-G10-26	119.18
17	G9.75	PZ20-G10-15	119.17
18	G13	PZ14-G13-7	118.72
19	H11	PZ03-H11-6	119.21
20	18.5	PZ09-108-5	119.15
21	115	PZ17-I15-26	118.26
22	PQ1.75	PZ02-P02-9	118.52
23	R12	PZ18-R12-26	118.22

Table 5
Standpipe Piezometer Groundwater Level Measured December 9, 2010

FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY GCREC MOUND MONITORING DATA SUMMARY REPORT NO. 1

PAGE 1-16 HAZEN AND SAWYER, P.C.

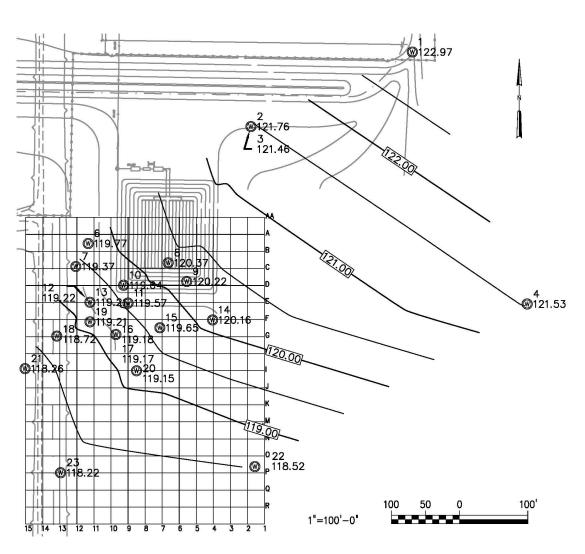


Figure 8 Surficial Groundwater Contours December 9, 2010

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#### 4.4 Water Quality Analyses

#### 4.4.1 Field Parameters

Field parameters (temperature, pH, dissolved oxygen (DO), and specific conductivity) were measured at all the sampling locations during the December sampling event. Variations in measured values were expected as the chemical composition of the groundwater varied due to the discharge of STE. Interestingly, these variations were not large, in fact the temperature was found to range from 20.7 to 27.6 °C but the inter-

quartile range (IQR) was between 21.8 to 22.7 °C, pH varied from 4.2 to 5.7 with an IQR from 4.8 to 5.0, DO varied from 0.4 to 3.3 mg/L with an IQR from 0.8 to 1.4 mg/L, and finally the conductivity varied from 163 to 649 µS with an IQR from 292 to 342 µS (Table 6). The small range in IQR for these field parameters may suggest little variation in the plume groundwater. For example, temperature plays a role in both the magnitude of nitrification and denitrification, but the variation in temperature at the site in December may not be significant enough for measurable rate differences across the site. Bacteria responsible for denitrification are not highly sensitive to pH fluctuations within the range measured at the site, and while near neutral pH may be optimal for denitrification; research has shown that lower pH levels have little to no impact on the process. The higher levels of DO seen at the site are likely inhibiting denitrification; however, the IQR is around 1 mg/L, which has been shown to be the limiting level, hence the DO levels may or may not have a significant impact on nitrogen transformation at the site. The complete field parameter data set is included in Appendix C.

	Table 6		
	Field Parameter	ſS	
Field Parameters	Range	IQR	
Temperature (°C)	20.7-27.6	21.8-22.7	
рН	4.2-5.7	4.8-5.0	
DO (mg/L)	0.4-3.3	0.8-1.4	
Specific conductance (µS)	163-649	292-342	

Table 6
Field Parameter

#### 4.4.2 Correlations

Correlations between various field parameters and nitrogen concentration were conducted to determine if specific types of information could be estimated in the absence of actual field data. Such estimates can then provide insight into expected nitrogen removal or can be used to approximate difficult to obtain parameter values. No significant correlations were observed with the exception of the relationship between specific conductance and the concentration of NOX (Figure 9). Because this correlation is based on one sample event this observation is not conclusive. Continued monitoring may confirm this lack of correlation or may reveal a trend not yet determined.

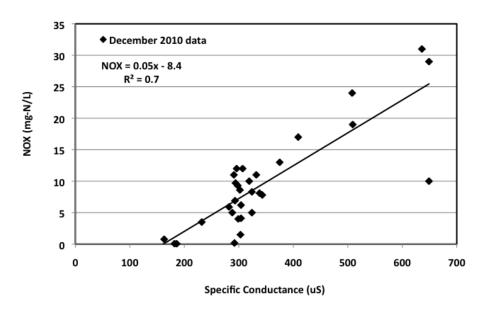


Figure 9 Correlation Between the Specific Conductance (uS) and the Concentrations of Nitrate/Nitrite (mg-N/L)

## 4.4.3 Analytical Parameters

In addition to measuring field parameters, all samples were analyzed for total alkalinity (as CaCO<sub>3</sub>), total Kjeldahl nitrogen (TKN-N), ammonia nitrogen (NH3-N), and nitrate/nitrite nitrogen (NOX-N). At some of the locations with elevated conductivity in preliminary sampling, total organic carbon (TOC) and dissolved organic carbon (DOC) were included. By analyzing for the different nitrogen species and for carbon content, a clearer picture will be gained on the transformation of nitrogen within the plume. Although the December sampling event did give some insight into the current nitrogen plume, the somewhat limited dataset did not provide enough information to make any conclusive interpretations. The complete water quality analytical results for Sample Event No. 1 are listed in Table 1 of Appendix C. The summary of the water quality is presented in Table 1 of Appendix D. The laboratory report containing the raw analytical data is included in Appendix E.

## 4.4.4 Nitrate/Nitrite Concentrations with Depth

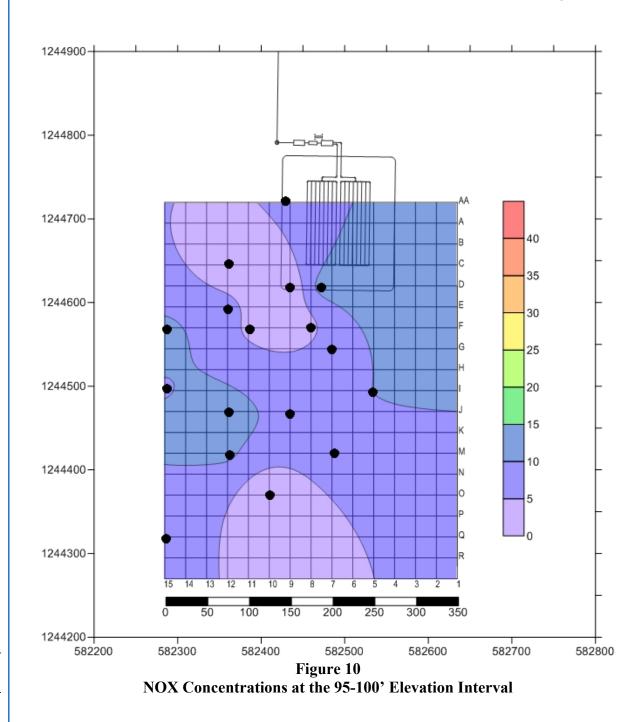
Based on this first sampling event, the general trend of the nitrogen plume at the site can be determined. Although **Surfer** is an excellent tool for mapping the information from

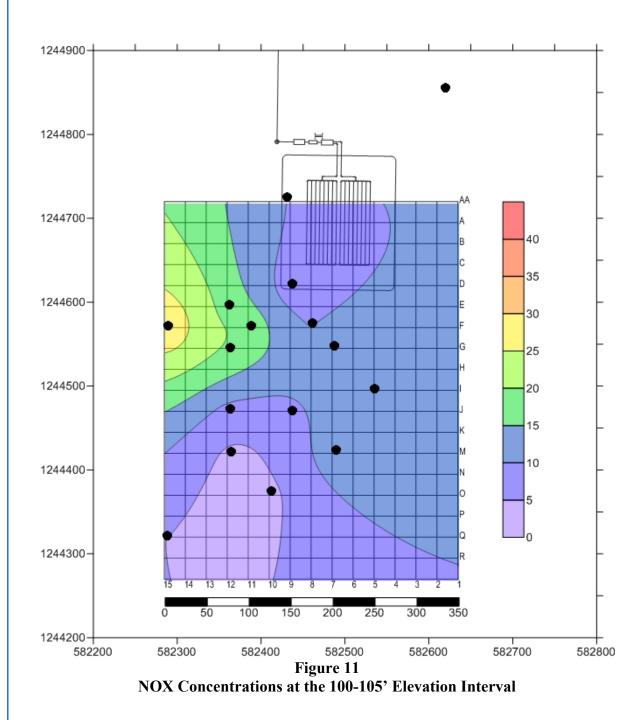
the site, it cannot project a 3-dimensional view of concentrations with depth. Instead the information from the different sampling locations needed to be compiled into "slices" of similar depth and then plotted as a planar view, thus allowing the different "slices" to be compared.

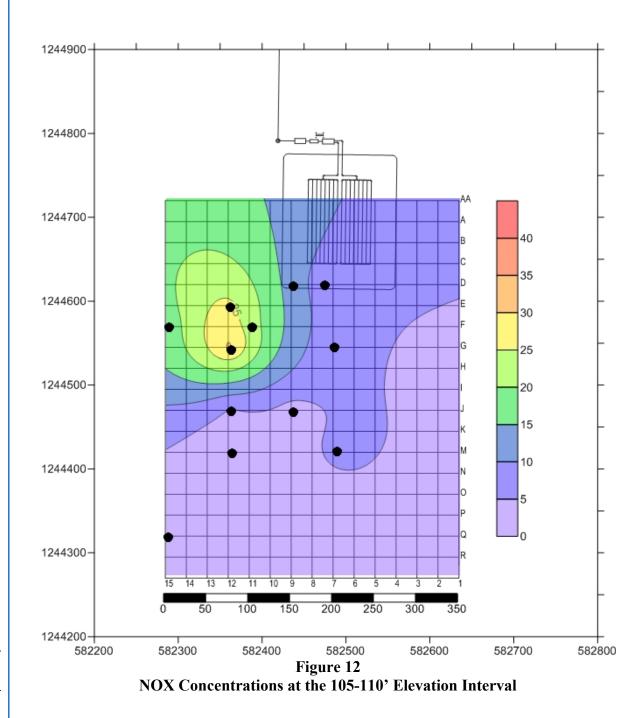
With 121 drive points installed at different depths below the ground surface at 63 different locations outside of the mound, deciding on a logical way to separate the drive points into a few select groups that would represent a selection of elevation depths provided a challenge. Great care was taken to install the drive points at specific depths (e.g. 5, 7, 9, 14, 21 and 27 feet bgs), however, the reality is that the points are located at different elevations (Table 1) due to differences in ground surface elevations.

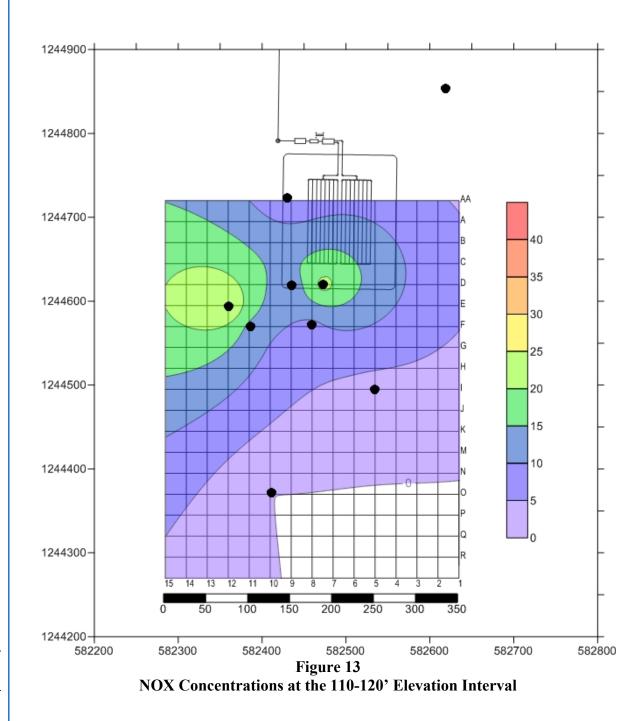
Initially, the drive points were clustered according to the approximate depth of installation (e.g. 14, 21 or 27 feet bgs); however after close examination of the actual elevation of each point, this was not a reasonable method due to the actual differences in the installed depth. Rather, the drive points were clusted into four groups depending on the actual elevation of the drive point. The first group is a ten-foot interval that comprises primarily drive points in the spodic layer, while the bottom three groups cluster monitoring points into five-foot intervals..

The concentrations of NOX in these different "slices" of groundwater are illustrated in Figures 10-13. Each map shows contours of the concentrations as estimated using the Krieging method in Surfer. The maps also show at which locations in the grid these samples were taken and at what approximate elevation. As is evident, there were a limited amount of sampling locations for each map; however, an overall trend is still visible. The lowest concentrations of NOX were found at the 95 to 100 elevation interval (Figure 10). At the 100-105 elevation level, an increase in NOX is apparent southwest of the mound, with the highest concentration around transect 15 (Figure 11). At the shallower interval (105-110 elevation), immediately below the assumed spodic layer, the highest concentration of NOX is closer to the mound with a maximum concentration around transect 12 (Figure 12). The concentrations of NOX within the spodic layer were lower than underlying elevations, yet still present in the southwesterly plume direction.









April 2011

## 5.0 GCREC Data Summary Report No. 1: Summary and Recommendations

## 5.1 Summary

The results of this first sampling event served to identify the general trend of the NOX plume and provide the basis upon which to make adjustments and modifications to future monitoring locations. Results of Sample Event No. 1 indicate that:

- Although the groundwater fluctuates, the direction of flow does not appear to change.
- The elevation of the spodic layer appears to follow the same trend as the groundwater.
- There are small variations in field parameters over the site with no significant correlations between field parameters and NOX concentrations identified, with the exception of specific conductance and concentrations of NOX, which showed a good correlation (R<sup>2</sup>=0.7).
- The nitrogen plume appears to be in a southwesterly direction with elevated concentrations in the spodic layer closer to the mound and higher elevations just below the spodic layer further away from the mound. The concentration is lowest just above the confining layer.

## 5.2 Recommendations

The following recommendations are based on the existing available information in context of the overriding goal to develop a field-monitoring framework at home sites and a simple groundwater model (Task D). The project team will continue to evaluate all results including those that result from implementation of the recommendations and make further adaptations as needed (observational method). Following is a list with select recommendations which the next sample event will address:

- Additional analyses of field parameters will give a better understanding of if and how they may correlate to nitrogen occurrence and reduction.
- Groundwater level monitoring in combination with tracer tests, will provide information needed to determine the necessary parameters for model development.
- Sampling of all locations will provide a snapshot of the site needed for plume identification and for nitrogen fate and transport determination.



## Appendix A: GCREC Mound Wastewater Flow Data

Table A.1 GCREC Mound Metered Wastewater Flow Data							
Date RangeFlow Meter Totalized Pump 1 toFlow Meter Totalized Pump 2 to GCREC Mound 							
Before A/C Condensate E	Diversion						
12/21/10 - 7/16/10	12/21/10 – 7/16/10 1,650 591 2,241						
After A/C Condensate Diversion							
7/19/10 – 1/9/11	789	911	1,700				

#### Table A.2

Summary of Daily Wastewater Flows (PLC Recorded)

	Date Range	Average Recorded Flow	Std. Dev.	MIN	MAX				
		(gpd)		(gpd)	(gpd)				
Before A/C Condens	Before A/C Condensate Diversion								
Pump 1 to Mound		5,422	1,565	3,013	9,117				
Pump 2 to Mound	6/14/10 - 7/16/10	-	-	-	-				
Sum of Both Pumps		5,422	1,565	3,013	9,117				
After A/C Condensa	te Diversion								
Pump 1 to Mound		790	366	284	2,640				
Pump 2 to Mound	7/16/10 – 12/10/10	917	403	291	3,090				
Sum of Both Pumps		1,707	749	584	5,730				

Table A.3 PLC Recorded Daily Wastewater Flows (6/14/10 – 12/10/10)

L				12/10/10/					
	Day Since Start-Up	Date	Pump 1 to GCREC Mound	Pump 2 to GCREC Mound	Sum Pump 1 and 2				
L	28	6/14/2010	PR	PR	-				
L	29	6/15/2010	6,436	0	6,436				
	30         6/16/2010           31         6/17/2010           32         6/18/2010           33         6/19/2010		5,035	0	5,035				
			7,841	0	7,841				
			5,268	0	5,268				
			3,668	0	3,668				
	34	6/20/2010	3,013	0	3,013				
	35	6/21/2010	5,250	0	5,250				
	36	6/22/2010	5,734	0	5,734				

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FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY GCREC MOUND MONITORING DATA SUMMARY REPORT NO. 1

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Day Since Start-Up	Date	Pump 1 to GCREC Mound	Pump 2 to GCREC Mound	Sum Pump 1 and 2
37	6/23/2010	4,672	0	4,672
38	6/24/2010	5,061	0	5,061
39	6/25/2010	5,142	0	5,142
40	6/26/2010	4,546	0	4,546
41	6/27/2010	4,044	0	4,044
42	6/28/2010	7,189	0	7,189
43	6/29/2010	4,739	0	4,739
44	6/30/2010	9,117	0	9,117
45	7/1/2010	PR	PR	-
46	7/2/2010	NR	NR	-
47	7/3/2010	NR	NR	-
48	7/4/2010	NR	NR	-
49	7/5/2010	NR	NR	-
50	7/6/2010	NR	NR	-
51	7/7/2010	NR	NR	-
52	7/8/2010	NR	NR	-
53	7/9/2010	NR	NR	-
54	7/10/2010	NR	NR	-
55	7/11/2010	NR	NR	-
56	7/12/2010	NR	NR	-
57	7/13/2010	NR	NR	-
58	7/14/2010	NR	NR	-
59	7/15/2010	NR	NR	-
60	7/16/2010	NR	NR	-
61	7/17/2010	NR	NR	-
62	7/18/2010	NR	NR	-
63	7/19/2010	NR	NR	-
64	7/20/2010	NR	NR	-
65	7/21/2010	NR	NR	-
66	7/22/2010	NR	NR	-
67	7/23/2010	NR	NR	-
68	7/24/2010	NR	NR	-
69	7/25/2010	NR	NR	-
70	7/26/2010	NR	NR	-
71	7/27/2010	NR	NR	-
72	7/28/2010	NR	NR	-
73	7/29/2010	NR	NR	-
74	7/30/2010	PR	PR	-

Day Since Start-Up	Date	Pump 1 to GCREC Mound	Pump 2 to GCREC Mound	Sum Pump 1 and 2
75	7/31/2010	485	639	1,124
76	8/1/2010	312	314	626
77	8/2/2010	1,021	1,192	2,213
78	8/3/2010	814	814	1,628
79	8/4/2010	994	825	1,819
80	8/5/2010	842	966	1,808
81	8/6/2010	982	793	1,775
82	8/7/2010	321	316	637
83	8/8/2010	319	463	782
84	8/9/2010	960	808	1,768
85	8/10/2010	780	943	1,723
86	8/11/2010	962	951	1,913
87	8/12/2010	933	776	1,709
88	8/13/2010	936	925	1,861
89	8/14/2010	457	466	923
90	8/15/2010	452	452	904
91	8/16/2010	946	1,363	2,309
92	8/17/2010	986	1,164	2,150
93	8/18/2010	930	1,056	1,986
94	8/19/2010	1,129	945	2,074
95	8/20/2010	782	964	1,746
96	8/21/2010	616	607	1,223
97	8/22/2010	450	456	906
98	8/23/2010	943	926	1,869
99	8/24/2010	1,092	939	2,031
100	8/25/2010	1,092	1,229	2,321
101	8/26/2010	1,242	1,085	2,327
102	8/27/2010	1,073	1,226	2,299
103	8/28/2010	745	742	1,487
104	8/29/2010	749	761	1,510
105	8/30/2010	917	1,204	2,121
106	8/31/2010	900	1,082	1,982
107	9/1/2010	1,053	1,049	2,102
108	9/2/2010	759	1,223	1,982
109	9/3/2010	1,659	1,715	3,374
110	9/4/2010	290	441	731
111	9/5/2010	599	444	1,043
112	9/6/2010	450	593	1,043

Day Since Start-Up	Date	Pump 1 to GCREC Mound	Pump 2 to GCREC Mound	Sum Pump 1 and 2
113	9/7/2010	1,060	909	1,969
114	9/8/2010	1,055	1,383	2,438
115	9/9/2010	746	904	1,650
116	9/10/2010	729	1,062	1,791
117	9/11/2010	284	594	878
118	9/12/2010	289	588	877
119	9/13/2010	899	1,067	1,966
120	9/14/2010	913	1,058	1,971
121	9/15/2010	748	1,043	1,791
122	9/16/2010	896	764	1,660
123	9/17/2010	897	920	1,817
124	9/18/2010	288	588	876
125	9/19/2010	292	437	729
126	9/20/2010	754	901	1,655
127	9/21/2010	881	749	1,630
128	9/22/2010	746	904	1,650
129	9/23/2010	597	752	1,349
130	9/24/2010	891	916	1,807
131	9/25/2010	286	300	586
132	9/26/2010	285	446	731
133	9/27/2010	758	923	1,681
134	9/28/2010	740	1,052	1,792
135	9/29/2010	894	762	1,656
136	9/30/2010	606	896	1,502
137	10/1/2010	750	893	1,643
138	10/2/2010	290	596	886
139	10/3/2010	287	441	728
140	10/4/2010	1,082	903	1,985
141	10/5/2010	911	1,071	1,982
142	10/6/2010	770	1,222	1,992
143	10/7/2010	906	925	1,831
144	10/8/2010	940	905	1,845
145	10/9/2010	291	293	584
146	10/10/2010	295	435	730
147	10/11/2010	732	934	1,666
148	10/12/2010	906	1,054	1,960
149	10/13/2010	934	1,222	2,156
150	10/14/2010	1,201	1,271	2,472

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Day Since Start-Up	Date	Pump 1 to GCREC Mound	Pump 2 to GCREC Mound	Sum Pump 1 and 2		
151	10/15/2010	292	739	1,031		
152	10/16/2010	573	444	1,017		
153	10/17/2010	285	444	729		
154	10/18/2010	913	1,223	2,136		
155	10/19/2010	1,099	1,274	2,373		
156	10/20/2010	1,053	1,081	2,134		
157	10/21/2010	915	1,078	1,993		
158	10/22/2010	606	932	1,538		
159	10/23/2010	435	598	1,033		
160	10/24/2010	433	292	725		
161	10/25/2010	1,260	1,250	2,510		
162	10/26/2010	1,243	1,401	2,644		
163	10/27/2010	931	1,246	2,177		
164	10/28/2010	1,237	1,246	2,483		
165	10/29/2010	930	1,216	2,146		
166	10/30/2010	292	589	881		
167	10/31/2010	439	291	730		
168	11/1/2010	765	1,218	1,983		
169	11/2/2010	906	1,058	1,964		
170	11/3/2010	909	1,069	1,978		
171	11/4/2010	1,060	909	1,969		
172	11/5/2010	752	1,083	1,835		
173	11/6/2010	446	593	1,039		
174	11/7/2010	589	444	1,033		
175	11/8/2010	1,067	1,239	2,306		
176	11/9/2010	768	1,056	1,824		
177	11/10/2010	1,661	1,887	3,548		
178	11/11/2010	293	596	889		
179	11/12/2010	1,309	1,343	2,652		
180	11/13/2010	286	448	734		
181	11/14/2010	442	446	888		
182	11/15/2010	941	1,436	2,377		
183	11/16/2010	1,241	1,103	2,344		
184	11/17/2010	1,306	1,827	3,133		
185	11/18/2010	1,269	1,459	2,728		
186	11/19/2010	895	781	1,676		
187	11/20/2010	286	761	1,047		
188	11/21/2010	433	446	879		

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#### Appendix A

Day Since Start-Up	Date	Pump 1 to GCREC Mound	Pump 2 to GCREC Mound	Sum Pump 1 and 2		
189	11/22/2010	744	1,118	1,862		
190	11/23/2010	984	1,555	2,539		
191	11/24/2010	906	1,073	1,979		
192	11/25/2010	291	445	736		
193	11/26/2010	440	294	734		
194	11/27/2010	438	596	1,034		
195	11/28/2010	293	443	736		
196	11/29/2010	899	1,088	1,987		
197	11/30/2010	1,880	2,048	3,928		
198	12/1/2010	2,640	3,090	5,730		
199	12/2/2010	892	1,106	1,998		
200	12/3/2010	752	1,089	1,841		
201	12/4/2010	291	330	621		
202	12/5/2010	446	561	1,007		
203	12/6/2010	1,116	1,134	2,250		
204	12/7/2010	916	938	1,854		
205	12/8/2010	1,082	1,284	2,366		
206	12/9/2010	771	942	1,713		
207 12/10/201		940	1,280	2,220		

<sup>1</sup>NR = No reading <sup>2</sup>PR = Partial daily flow recorded



# **Appendix B: GCREC Weather Station Data**

FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY GCREC MOUND MONITORING DATA SUMMARY REPORT NO. 1

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													an Dain	10	10	10		
										-			2m Rain	10m	10m	10m		
							Tsoil avg		Tsoil	2m	RelHum		max over	Wind	Wind	Wind	WDir avg	
	60cm T	60cm T	60cm T	10m T	10m T	10m T	-10cm	min(avg)	max(avg)	DewPt	avg 2m	2m Rain	15min	avg	min	max	10m	ET avg
Period	avg (F)	min (F)	max (F)	avg (F)	min (F)	max (F)	(F)	-10cm (F)	-10cm (F)	avg (F)	(pct)	tot (in)	(in)	(mph)	(mph)	(mph)	(deg)	(in)
Jan-10	53.1	23.97	82.38	53.67	25.75	80.78	59.67	51.13	66.63	44.57	76	3.19	0.57	7.6	0	32.8	348	0.05
Feb-10	53.75	30.84	78.96	53.88	34.39	76.75	59.86	54.32	65.75	43.97	74	2.22	0.47	7.85	0	36.13	348	0.07
Mar-10	59.24	32.89	82.26	59.54	37.02	80.42	62.09	55.31	68.11	48.75	73	6.15	0.44	8.25	0	38.27	289	0.1
Apr-10	69.78	44.74	88.54	70.02	51.53	86.36	70.78	63	75.72	59.5	74	2.79	0.52	7.46	0	44.17	94	0.15
May-10	77.78	62.37	93.63	77.61	65.19	91.15	79.11	73.17	83.97	68.62	77	0.89	0.13	6.75	0	31.1	126	0.18
Jun-10	80.91	65.84	99.09	80.81	68.68	95.32	82.32	76.69	88.63	72.87	80	8.25	1.3	5.85	0	50.47	116	0.19
Jul-10	80.67	68	96.21	80.81	70.7	93.81	82.58	77.49	87.03	74.05	82	7.3	0.48	5.95	0	35.37	103	0.18
Aug-10	80.54	70.59	96.87	80.58	71.64	93.81	82.63	79.11	87.85	75.03	85	13.51	1.74	5.78	0	43.53	154	0.16
Sep-10	78.91	63.43	95.88	79.14	67.87	92.93	80.83	78.17	83.39	72.11	82	3.42	0.55	6.33	0	41.6	84	0.16
Oct-10	71.98	51.24	93	72.84	55.15	90.25	74.97	71.83	78.62	61.55	73	0.01	0.01	5.56	0	32	31	0.11
Nov-10	65.75	39.95	86.77	66.38	41.73	84.13	69.47	64.33	75.34	56.97	76	1.24	0.16	6.52	0	30.53	55	0.07
Dec-10	50.64	22.86	78.37	51.3	27.61	76.46	60.71	54.61	71.33	39.83	71	0.5	0.05	7.33	0	36.77	354	0.04

Table B.1Monthly Recorded Meteorological Data



# **Appendix C: Water Quality Analytical Results**

FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY GCREC MOUND MONITORING DATA SUMMARY REPORT NO. 1

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### Table C.1 Water Quality Analytical Results (December 9-10, 2010)

Sample ID	Sample Date/Time	Sample Type	Temp (°C)	рН	Total Alkalinity (mg/L)	DO (mg/L)	Specific Conductance (µS)	TN (mg/L N)	TKN (mg/L N)	Organic N (mg/L N)	NH3-N (mg/L N)	NOx (mg/L N)	TIN (mg/L N)	TOC (mg/L)	DOC (mg/L)
STE Sample															
STE-EX Pump Tank	12/10/10 9:55	G	19.90	7.33	410	0.1	1,273	56.01	56	21.00	35	0.01	35.01		
STE-EX Pump Tank-D	12/10/10 9:55	G	19.90	7.33	410	0.1	1,273	64.01	64.00	3.00	61	0.01	61.01		
Drivepoints															ļ
DPAA9-14	12/9/10 7:45	G	21.50	5.10	11	0.89	282	6.83	0.93	0.92	0.006	5.9	5.91		
DPAA9-22	12/9/10 7:55	G	23.30	4.90	2	1.06	319	10.82	0.82	0.81	0.013	10			
DPAA9-27	12/9/10 8:12	G	22.70	4.80	2	0.84	293	7.90	1.0	0.97	0.028	6.9	6.93		
DPD7.5-14	12/9/10 8:20	G	21.20	7.01	2	1.10	432	22.68	0.68	0.56	0.12	22	22.12	2.9	1
DPD7.5-20	12/9/10 8:35	G	22.20	7.01	2	2.55	258	8.20	0.80	0.78	0.022	7.4	7.42		
DPD7.5-26	12/9/10 8:46	G	21.30	7.01	2	2.01	295	12.99	0.99	0.95	0.038	12	12.04		
DPD09-6	12/9/10 9:05	G	17.00	4.82	2	5.59	363	11.84	0.84	0.81	0.028	11	11.03		
DPD09-8	12/9/10 9:20	G	18.40	4.65	2	3.52	380	12.91	0.91	0.89	0.022	12	12.02		
DPD09-15	12/9/10 9:30	G	19.10	5.30	2	3.20	433	13.43	0.43	0.34	0.086	13	13.09	5.3	2
DPD09-15-D	12/9/10 9:30	G	19.10	5.30	14	3.20	433	12.41	0.41	0.41	0.005	12	12.01		
DPD09-21	12/9/10 9:50	G	21.70	5.78	2	1.35	300	7.67	0.27	0.22	0.053	7.4	7.45		
DPD09-27	12/9/10 10:05	G	20.20	5.97	3	2.26	270	1.43	1.10	1.09	0.01	0.33	0.34		
DPE12-10	12/9/10 10:45	G	19.20	5.48	2	4.68	491	27.30	2.30	2.07	0.23	25	25.23		
DPE12-15	12/9/10 10:50	G	22.20	4.88	2	2.47	550	26.88	0.88	0.63	0.25	26	26.25		
DPE12-22	12/9/10 11:05	G	20.40	5.00	2	1.95	464	19.00	1.00	0.95	0.049	18	18.05	2.3	1
DPE12-28	12/9/10 11:20	G	21.90	5.17	2	2.01	297	10.20	2.30	2.23	0.069	7.9	7.97		
DPF08-14	12/9/10 11:45	G	22.40	7.04	310	6.09	1,412	9.40	0.90	0.71	0.19	8.5	8.69		
DPF08-20	12/9/10 12:00	G	23.20	6.34	3	1.77	368	10.87	0.87	0.83	0.036	10	10.04	3	2
DPF08-20-D	12/9/10 12:00	G	23.20	6.34	20	1.77	368	11.91	0.91	0.91	0.005	11	11.01		
DPF08-28	12/9/10 12:15	G	23.10	6.11	35	1.73	332	3.93	0.63	0.48	0.15	3.3	3.45		
DPF11-11	12/9/10 12:30	G	19.50	5.35	2	5.26	366	14.70	1.70	0.20	1.50	13	14.50		
DPF11-15	12/9/10 12:55	G	22.80	5.00	2	3.64	547	30.10	1.10	0.72	0.38	29	29.38		
DPF11-18	12/9/10 13:05	G	23.10	5.02	2	2.48	497	22.55	0.55	0.53	0.024	22		4.1	1
DPF11-21	12/9/10 13:25	G	22.70	5.02	2	2.10	458	19.64	0.64	0.62	0.018	19			
DPF11-24	12/9/10 13:45	G	22.90	5.00	2	1.15	475	23.47	0.47	0.45		23			
DPF11-27	12/9/10 14:00	G	23.30	5.19	2	0.82	297	4.53	0.83	0.80	0.026	3.7	3.73		
DPF15-14	12/10/10 6:52	G	21.50	5.10	22	1.11	409	17.26	0.26	0.07	0.19	17	17.19		
DPF15-20	12/10/10 7:15	G	22.10	4.90	11	0.62	649	29.31	0.31	0.29		29		1.1	1
DPF15-20-D	12/10/10 7:20	G	22.10	4.90	7.1	0.62	649	29.29	0.29	0.29		29			
DPF15-26	12/10/10 7:41	G	21.80	4.90	2	0.52	291	11.54	0.54	0.52		11	11.02		<u> </u>
DPG07-15	12/10/10 8:25	G	21.00	5.53	6.1	3.33	271	4.79	0.49	0.32		4.3	4.34		<u> </u>
DPG07-17	12/10/10 8:35	G	21.90	5.36	5.1	2.19	312	7.01	0.45	0.45		6.7	6.71		<u> </u>
DPG07-21	12/10/10 8:50	G	22.90	5.30	6.1	1.66	343	12.51	0.51	0.51		12			<u> </u>
DPG07-24	12/10/10 9:00	G	22.90	5.26	7.1	1.00	300	14.50	0.51	0.51		14	14.01		<u> </u>
DPG07-27	12/10/10 9:15	G	22.50	5.19	5.1	1.13	293	8.44	0.30	0.30		7.7	7.71		

#### FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY GCREC MOUND MONITORING DATA SUMMARY REPORT NO. 1

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#### Table C.1 (con't) Water Quality Analytical Results (December 9-10, 2010)

Sample ID	Sample Date/Time	Sample Type	Temp	pН	Total	DO	Specific	TN	TKN	Organic N	NH3-N	NOx	TIN	тос	DOC
Sample ID	Sample Date/Time	Sample Type	(°C)	рп	Alkalinity	(mg/L)	Conductance	(mg/LN)	(mg/LN)	(mg/LN)	(mg/LN)	(mg/LN)	(mg/LN)	(mg/L)	(mg/L)
DPG12-15	12/10/10 9:06	G	22.30	4.70	5.1	0.89	508	25.00	1.0	0.78	0.22	24	24.22		
DPG12-15-D	12/10/10 9:38	G	22.30	4.70	4.1	0.89	508	25.10	1.10	0.91	0.19	24	24.19		
DPG12-21	12/10/10 9:52	G	22.70	4.90	4.1	0.99	636	31.06	0.06	0.06	0.005	31	31.01		
DPG12-27	12/10/10 10:08	G	23.10	4.70	6.1	0.45	509	19.68	0.68	0.46	0.22	19	19.22		
DPI06-14	12/10/10 7:10	G	20.40	5.25	6.1	1.66	240	4.30	1.1	1.10	0.005	3.2	3.21		
DP106-20	12/10/10 7:25	G	21.40	5.03	2.0	1.80	367	15.46	0.46	0.46	0.005	15	15.01		
DP106-26	12/10/10 7:46	G	21.30	5.01	2.0	2.36	302	10.38	0.38	0.38	0.005	10	10.01	0.75	1.0
DPJ09-14	12/9/10 13:20	G	21.90	4.50	2.0	3.29	232	3.92	0.42	0.42	0.005	3.5	3.51		
DPJ09-20	12/9/10 13:36	G	23.20	4.90	2.0	1.57	338	8.15	0.05	0.05	0.005	8.1	8.11		
DPJ09-26	12/9/10 13:58	G	23.00	4.90	2.0	2.51	298	10.40	1.1	1.10	0.005	9.3	9.31		
DPJ12-15	12/9/10 12:28	G	22.10	4.80	2.0	1.50	288	5.05	0.05	0.05	0.005	5	5.01		
DPJ12-20	12/9/10 12:39	G	22.90	5.00	2.0	1.13	343	8.63	0.83	0.83	0.005	7.8	7.81	2.6	1.5
DPJ12-20-D	12/9/10 12:44	G	22.90	5.00	5.1	1.13	343	9.95	0.85	0.84	0.014	9.1	9.11		
DPJ12-27	12/9/10 13:00	G	22.60	4.80	2.0	1.14	307	13.10	1.1	1.10	0.005	12	12.01		
DPM07-15	12/9/10 11:32	G	22.20	4.80	2.0	0.80	304	6.62	0.42	0.42	0.005	6.2	6.21		
DPM07-21	12/9/10 11:47	G	22.50	4.90	2.0	0.58	375	13.86	0.86	0.86	0.005	13	13.01		
DPM07-27	12/9/10 12:07	G	22.50	4.80	2.0	0.49	302	9.34	0.74	0.74	0.005	8.6	8.61		
DPN12-14	12/9/10 10:36	G	22.10	5.00	2.0	1.28	163	1.03	0.26	0.26	0.005	0.77	0.78		
DPN12-21	12/9/10 10:52	G	22.30	4.90	2.0	1.91	304	4.70	0.60	0.60	0.005	4.1	4.11		
DPN12-27	12/9/10 11:14	G	21.60	5.00	2.0	2.45	332	11.99	0.99	0.99	0.005	11	11.01	1.5	2.0
DPO10-12	12/9/10 9:45	G	21.10	4.30	2.0	1.31	186	0.16	0.10	0.10	0.005	0.06	0.07		
DPO10-18	12/9/10 9:58	G	22.20	4.80	2.0	0.77	299	4.54	0.54	0.54	0.005	4.0	4.01		
DPO10-24	12/9/10 10:14	G	21.80	4.20	2.0	0.69	182	0.16	0.09	0.09	0.005	0.07	0.08		
DPQ15-15	12/9/10 8:53	G	20.70	4.70	2.0	2.31	303	1.79	0.29	0.29	0.005	1.5	1.51		
DPQ15-21	12/9/10 9:05	G	22.60	5.00	2.0	1.44	324	5.90	0.90	0.90	0.005	5.0	5.01		
DPQ15-26	12/9/10 9:23	G	21.50	5.10	2.0	0.96	324	9.00	0.70	0.70	0.005	8.3	8.31		
Standpipe															
Piezometers															
PZ16-C12-28	12/9/10 8:30	G	27.60	5.60	11	0.7	292	0.29	0.12	0.10	0.017	0.17	0.19		
PZ04-BKG-9	12/10/10 8:40	G	21.60	5.30	8.1	1.1	73	0.12	0.11	0.11	0.005	0.01	0.02	2.9	2.8
PZ24-BKG-26	12/10/10 8:20	G	24.10	5.10	4.1	0.7	296	12.60	0.60	0.60	0.005	12	12.01	1.3	1.1
PZ17-I15-26	12/10/10 9:16	G	22.10	5.70	4.1	0.5	294	10.30	0.60	0.60	0.005	9.7	9.71	4.0	1.0
Blanks															
Field Blank-DI	12/10/10 7:53	G	12.10	5.71	2.0	9.4	1	0.06	0.05	0.05	0.005	0.01	0.02		
Field Blank-TAP	12/10/10 8:00	G	9.60	6.97	140	11.1	445	0.06	0.05	0.05	0.005	0.01	0.02		
Equipment Rinsate	12/10/10 9:42	G	11.90	7.20	2.0	2.3	13	0.06	0.05	0.05	0.005	0.01	0.02		

Notes

DO - Dissolved oxygen

G - Grab sample

Gray - Shaded data points indicate values below method detection level (mdl), mdl value used for statistical analyses.

Yellow shaded data points indicate the reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

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# **Appendix D: Summary of Water Quality Data**

FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY GCREC MOUND MONITORING DATA SUMMARY REPORT NO. 1

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Sample ID	Statistical Parameter	Temp (°C)	рН	Total Alkalinity (mg/L)	DO (mg/L)	Specific Conductance (µS)	TN (mg/LN) <sup>1</sup>	TKN (mg/L N)	Organic N (mg/L N) <sup>2</sup>	NH3-N (mg/L N)	NOx (mg/L N)	TIN (mg/L N) <sup>3</sup>	TOC (mg/L)	DOC (mg/L)
STE Sample	-													
	n	5	5	6	3	4	5	5	5	6	6	5		
STE-EX Pump	MEAN	24.7		258.8	0.1	899.8	45.3	45.2	7.7	32.2	0.1	37.6		
Tank	STD. DEV.	4.8		119.3	0.0	431.8	17.3	17.2	9.1	18.4	0.1	14.7		
Tallk	MIN	19.9	6.5	150.0	0.1	494.0	24.2	24.2	-1.0	5.8	0.0	21.5		
	MAX	30.4	7.3	410.0	0.1	1273.0	64.0	64.0	21.0	61.0	0.3	61.0		
Drivepoints														
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	21.5		11.0	0.9	281.9	6.8	0.9	0.9	0.006	5.9	5.9		
DP-AA9-14	STD. DEV.	21.5		11.0	0.5	201.9	0.0	0.5	0.5	0.000	5.5	5.5		
	MIN	21.5	5.1	11.0	0.9	281.9	6.8	0.9	0.9	0.006	5.9	5.9		
	MAX	21.5	5.1	11.0	0.9	281.9	6.8	0.9	0.9	0.006	5.9	5.9		
	n	1		1	0.5	1	1	1	1	1	1	1		
	MEAN	23.3	-	2.0	1.1	318.7	10.8	0.8	0.8	0.01	10.0	10.0		
DP-AA9-22	STD. DEV.	23.5		2.0	1.1	510.7	10.0	0.0	0.0	0.01	10.0	10.0		
	MIN	23.3	4.9	2.0	1.1	318.7	10.8	0.8	0.8	0.01	10.0	10.0		
	MAX	23.3	4.9	2.0	1.1	318.7	10.8	0.8	0.8	0.01	10.0	10.0		
	n	1	1	1	1	1	1	1	1	1	1	10.10		
	MEAN	22.7		2.0	0.8	293.2	7.9	1.0	1.0	0.03	6.9	6.9		
DP-AA9-27	STD. DEV.													
	MIN	22.7	4.8	2.0	0.8	293.2	7.9	1.0	1.0	0.03	6.9	6.9		
	MAX	22.7	4.8	2.0	0.8	293.2	7.9		1.0	0.03	-	6.9		
	n	1	1	1	1	1	1	1	1	1	1	1	1	
	MEAN	21.2		2.0	1.1	432.0	22.7	0.7	0.6	0.1	22.0	22.1	2.9	1
DPD7.5-14	STD. DEV.							-					-	
	MIN	21.2	7.0	2.0	1.1	432.0	22.7	0.7	0.6	0.1	22.0	22.1	2.9	1
	MAX	21.2	7.0	2.0	1.1	432.0	22.7	0.7	0.6	0.1	22.0	22.1	2.9	1
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.2		2.0	2.6	258.0	8.2	0.8	0.8	0.02	7.4	7.4		
DPD7.5-20	STD. DEV.													
	MIN	22.2	7.0	2.0	2.6	258.0	8.2	0.8	0.8	0.02	7.4	7.4		
	MAX	22.2	7.0	2.0	2.6	258.0	8.2	0.8	0.8	0.02	7.4	7.4		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	21.3		2.0	2.0	295.0	13.0	1.0	1.0	0.04	12.0	12.0		
DPD7.5-26	STD. DEV.													
	MIN	21.3	7.0	2.0	2.0	295.0	13.0	1.0	1.0	0.04	12.0	12.0		
	MAX	21.3	7.0	2.0	2.0	295.0	13.0	1.0	1.0	0.04	12.0	12.0		

FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY GCREC MOUND MONITORING DATA SUMMARY REPORT NO. 1

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Sample ID	Statistical Parameter	Temp (°C)	рН	Total Alkalinity (mg/L)	DO (mg/L)	Specific Conductance (µS)	TN (mg/L N) <sup>1</sup>	TKN (mg/L N)	Organic N (mg/L N) <sup>2</sup>	NH3-N (mg/LN)	NOx (mg/L N)	TIN (mg/L N) <sup>3</sup>	TOC (mg/L)	DOC (mg/L)
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	17.0		2.0	5.6	363.0	11.8	0.8	0.8	0.03	11.0	11.0		
DPD09-6	STD. DEV.													
	MIN	17.0	4.8	2.0	5.6	363.0	11.8	0.8	0.8	0.03	11.0	11.0		
	MAX	17.0	4.8	2.0	5.6	363.0	11.8	0.8	0.8	0.03	11.0	11.0		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	18.4		2.0	3.5	380.0	12.9	0.9	0.9	0.02	12.0	12.0		
DPD09-8	STD. DEV.													
	MIN	18.4	4.7	2.0	3.5	380.0	12.9	0.9	0.9	0.02	12.0	12.0		
	MAX	18.4	4.7	2.0	3.5	380.0	12.9	0.9	0.9	0.02	12.0	12.0		
	n	2	2	2	2	2	2	2	2	2	2	2	1	1
	MEAN	19.1		8.0	3.2	433.0	12.9	0.4	0.4	0.05	12.5	12.5	5.3	2.5
DPD09-15	STD. DEV.	0.0		8.5	0.0	0.0	0.7	0.0	0.0	0.1	0.7	0.8		
	MIN	19.1	5.3	2.0	3.2	433.0	12.4	0.4	0.3	0.005	12.0	12.0	5.3	
	MAX	19.1	5.3	14.0	3.2	433.0	13.4	0.4	0.4	0.1	13.0	13.1	5.3	2.5
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	21.7		2.0	1.4	300.0	7.7	0.3	0.2	0.1	7.4	7.5		
DPD09-21	STD. DEV.													
	MIN	21.7	5.8	2.0	1.4	300.0	7.7	0.3	0.2	0.1	7.4	7.5		
	MAX	21.7	5.8	2.0	1.4	300.0	7.7	0.3	0.2	0.1	7.4	7.5		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	20.2		3.0	2.3	270.0	1.4	1.1	1.1	0.01	0.3	0.3		
DPD09-27	STD. DEV.													
	MIN	20.2	6.0	3.0	2.3	270.0	1.4	1.1	1.1	0.01	0.3	0.3		
	MAX	20.2	6.0	3.0	2.3	270.0	1.4	1.1	1.1	0.01	0.3	0.3		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	19.2		2.0	4.7	491.0	27.3	2.3	2.1	0.2	25.0	25.2		
DPE12-10	STD. DEV.													
	MIN	19.2	5.5	2.0	4.7	491.0	27.3	2.3	2.1	0.2	25.0	25.2		
	MAX	19.2	5.5	2.0	4.7	491.0	27.3	2.3	2.1	0.2	25.0	25.2		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.2		2.0	2.5	550.0	26.9	0.9	0.6	0.3	26.0	26.3		
DPE12-15	STD. DEV.													
	MIN	22.2	4.9	2.0	2.5	550.0	26.9		0.6	0.3	26.0			
	MAX	22.2	4.9	2.0	2.5	550.0	26.9	0.9	0.6	0.3	26.0	26.3		

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Sample ID	Statistical Parameter	Temp (°C)	рН	Total Alkalinity (mg/L)	DO (mg/L)	Specific Conductance (µS)	TN (mg/L N) <sup>1</sup>	TKN (mg/L N)	Organic N (mg/L N) <sup>2</sup>	NH3-N (mg/L N)	NOx (mg/L N)	TIN (mg/L N) <sup>3</sup>	TOC (mg/L)	DOC (mg/L)
	n	1	1	1	1	1	1	1	1	1	1	1	1	1
	MEAN	20.4		2.0	2.0	464.0	19.0	1.0	1.0	0.05	18.0	18.0	2.3	1.5
DPE12-22	STD. DEV.													
	MIN	20.4	5.0	2.0	2.0	464.0	19.0	1.0	1.0	0.05	18.0	18.0	2.3	1.5
	MAX	20.4	5.0	2.0	2.0	464.0	19.0	1.0	1.0	0.05	18.0	18.0	2.3	1.5
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	21.9		2.0	2.0	297.0	10.2	2.3	2.2	0.1	7.9	8.0		
DPE12-28	STD. DEV.													
	MIN	21.9	5.2	2.0	2.0	297.0	10.2	2.3	2.2	0.1	7.9	8.0		
	MAX	21.9	5.2	2.0	2.0	297.0	10.2	2.3	2.2	0.1	7.9	8.0		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.4		310.0	6.1	1412.0	9.4	0.9	0.7	0.2	8.5	8.7		
DPF08-14	STD. DEV.													
	MIN	22.4	7.0	310.0	6.1	1412.0	9.4	0.9	0.7	0.2	8.5	8.7		
	MAX	22.4	7.0	310.0	6.1	1412.0	9.4	0.9	0.7	0.2	8.5	8.7		
	n	2	2	2	2	2	2	2	2	2	2	2	1	1
	MEAN	23.2		11.5	1.8	368.0	11.4	0.9	0.9	0.021	10.5	10.5	3.0	2.4
DPF08-20	STD. DEV.	0.0		12.0	0.0	0.0	0.7	0.0	0.1	0.022	0.7	0.7		
	MIN	23.2	6.3	3.0	1.8	368.0	10.9	0.9	0.8	0.005	10.0	10.0	3.0	
	MAX	23.2	6.3	20.0	1.8	368.0	11.9	0.9	0.9	0.036	11.0	11.0	3.0	2.4
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	23.1		35.0	1.7	332.0	3.9	0.6	0.5	0.2	3.3	3.5		
DPF08-28	STD. DEV.													
	MIN	23.1	6.1	35.0	1.7	332.0	3.9	0.6	0.5	0.2	3.3	3.5		
	MAX	23.1	6.1	35.0	1.7	332.0	3.9	0.6	0.5	0.2	3.3	3.5		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	19.5		2.0	5.3	366.0	14.7	1.7	0.2	1.5	13.0	14.5		
DPF11-11	STD. DEV.													
	MIN	19.5	5.4	2.0	5.3	366.0	14.7	1.7	0.2	1.5	13.0	14.5		
	MAX	19.5	5.4	2.0	5.3	366.0	14.7	1.7	0.2	1.5	13.0	14.5		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.8		2.0	3.6	547.0	30.1	1.1	0.7	0.4	29.0	29.4		
DPF11-15	STD. DEV.													
	MIN	22.8	5.0	2.0	3.6	547.0	30.1	1.1	0.7	0.4	29.0	29.4		
	MAX	22.8	5.0	2.0	3.6	547.0	30.1	1.1	0.7	0.4	29.0	29.4		

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Sample ID	Statistical Parameter	Temp (°C)	рН	Total Alkalinity (mg/L)	DO (mg/L)	Specific Conductance (µS)	TN (mg/L N) <sup>1</sup>	TKN (mg/L N)	Organic N (mg/L N) <sup>2</sup>	NH3-N (mg/L N)	NOx (mg/L N)	TIN (mg/L N) <sup>3</sup>	TOC (mg/L)	DOC (mg/L)
	n	1	1	1	1	1	1	1	1	1	1	1	1	1
	MEAN	23.1		2.0	2.5	497.0	22.6	0.6	0.5	0.02	22.0	22.0	4.1	1.3
DPF11-18	STD. DEV.													
	MIN	23.1	5.0	2.0	2.5	497.0	22.6	0.6	0.5	0.02	22.0	22.0	4.1	1.3
	MAX	23.1	5.0	2.0	2.5	497.0	22.6	0.6	0.5	0.02	22.0	22.0	4.1	1.3
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.7		2.0	2.1	458.0	19.6	0.6	0.6	0.02	19.0	19.0		
DPF11-21	STD. DEV.													
	MIN	22.7	5.0	2.0	2.1	458.0	19.6	0.6	0.6	0.02	19.0	19.0		
	MAX	22.7	5.0	2.0	2.1	458.0	19.6	0.6	0.6	0.02	19.0	19.0		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.9		2.0	1.2	475.0	23.5	0.5	0.4	0.02	23.0	23.0		
DPF11-24	STD. DEV.													
	MIN	22.9	5.0		1.2	475.0	23.5	0.5	0.4	0.02	23.0	23.0		
	MAX	22.9	5.0	2.0	1.2	475.0	23.5	0.5	0.4	0.02	23.0	23.0		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	23.3		2.0	0.8	297.0	4.5	0.8	0.8	0.03	3.7	3.7		
DPF11-27	STD. DEV.													
	MIN	23.3	5.2		0.8		4.5		0.8			3.7		
	MAX	23.3	5.2	2.0	0.8	297.0	4.5	0.8	0.8	0.03	3.7	3.7		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	21.5		22.0	1.1	408.6	17.3	0.3	0.1	0.2	17.0	17.2		
DPF15-14	STD. DEV.													
	MIN	21.5	5.1		1.1	408.6	17.3	0.3	0.1	0.2		17.2		
	MAX	21.5	5.1	22.0	1.1	408.6	17.3	0.3	0.1	0.2	17.0	17.2		
	n	2	2		2	2	2		2	2	2	2	1	
	MEAN	22.1		9.1	0.6	649.0	29.3	0.3	0.3	0.012	29.0	29.0	1.1	1.2
DPF15-20	STD. DEV.	0.0		2.8	0.0	0.0	0.0	0.0	0.0	0.010	0.0	0.0		
	MIN	22.1	4.9	7.1	0.6	649.0	29.3	0.3	0.3	0.005	29.0	29.0	1.1	1.2
	MAX	22.1	4.9	11.0	0.6	649.0	29.3	0.3	0.3	0.019	29.0	29.0	1.1	1.2
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	21.8		2.0	0.5	290.8	11.5	0.5	0.5	0.02	11.0	11.0		
DPF15-26	STD. DEV.													
	MIN	21.8	4.9		0.5	290.8	11.5	0.5	0.5	0.02	11.0	11.0		
	MAX	21.8	4.9	2.0	0.5	290.8	11.5	0.5	0.5	0.02	11.0	11.0		

FLORIDA DEPARTMENT OF HEALTH GCREC MOUND MONITORING DATA SUMMARY REPORT NO. 1 PAGE D-5 HAZEN AND SAWYER, P.C.

Sample ID	Statistical Parameter	Temp (°C)	рН	Total Alkalinity (mg/L)	DO (mg/L)	Specific Conductance (µS)	TN (mg/L N) <sup>1</sup>	TKN (mg/L N)	Organic N (mg/L N) <sup>2</sup>	NH3-N (mg/L N)	NOx (mg/L N)	TIN (mg/L N) <sup>3</sup>	TOC (mg/L)	DOC (mg/L)
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	21.4		6.1	3.3	271.0	4.8	0.5	0.5	0.04	4.3	4.3		
DPG07-15	STD. DEV.													
	MIN	21.4	5.5	6.1	3.3	271.0	4.8	0.5	0.5	0.04	4.3	4.3		
	MAX	21.4	5.5	6.1	3.3	271.0	4.8	0.5	0.5	0.04	4.3	4.3		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	21.9		5.1	2.2	312.0	7.0	0.3	0.3	0.005	6.7	6.7		
DPG07-17	STD. DEV.													
	MIN	21.9	5.4	5.1	2.2	312.0	7.0	0.3	0.3	0.005	6.7	6.7		
	MAX	21.9	5.4	5.1	2.2	312.0	7.0	0.3	0.3	0.005	6.7	6.7		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.9		6.1	1.7	343.0	12.5	0.5	0.5	0.005	12.0	12.0		
DPG07-21	STD. DEV.													
	MIN	22.9	5.4	6.1	1.7	343.0	12.5	0.5	0.5	0.005	12.0	12.0		
	MAX	22.9	5.4	6.1	1.7	343.0	12.5	0.5	0.5	0.005	12.0	12.0		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.9		7.1	1.1	300.0	14.5	0.5	0.5	0.005	14.0	14.0		
DPG07-24	STD. DEV.													
	MIN	22.9	5.3	7.1	1.1	300.0	14.5	0.5	0.5	0.005	14.0	14.0		
	MAX	22.9	5.3	7.1	1.1	300.0	14.5	0.5	0.5	0.005	14.0	14.0		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.5		5.1	1.4	293.0	8.4	0.7	0.7	0.005	7.7	7.7		
DPG07-27	STD. DEV.													
	MIN	22.5	5.2	5.1	1.4	293.0	8.4	0.7	0.7	0.005	7.7	7.7		
	MAX	22.5	5.2	5.1	1.4	293.0	8.4	0.7	0.7	0.005	7.7	7.7		
	n	2	2	2	2	2	2	2	2	2	2	2		
	MEAN	22.3		4.6	0.9	508.0	25.1	1.1	0.8	0.2	24.0	24.2		
DPG12-15	STD. DEV.	0.0		0.7	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0		
	MIN	22.3	4.7	4.1	0.9	508.0	25.0	1.0	0.8	0.2	24.0	24.2		
	MAX	22.3	4.7	5.1	0.9	508.0	25.1	1.1	0.9	0.2	24.0	24.2		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.7		4.1	1.0	636.0	31.1	0.06	0.1	0.005	31.0	31.0		
DPG12-21	STD. DEV.													
	MIN	22.7	4.9		1.0		31.1	0.06	0.1	0.005		31.0		$\square$
	MAX	22.7	4.9	4.1	1.0	636.0	31.1	0.06	0.1	0.005	31.0	31.0		

FLORIDA DEPARTMENT OF HEALTH GCREC MOUND MONITORING DATA SUMMARY REPORT NO. 1 PAGE D-6 HAZEN AND SAWYER, P.C.

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Sample ID	Statistical Parameter	Temp (°C)	рН	Total Alkalinity (mg/L)	DO (mg/L)	Specific Conductance (µS)	TN (mg/L N) <sup>1</sup>	TKN (mg/L N)	Organic N (mg/L N) <sup>2</sup>	NH3-N (mg/L N)	NOx (mg/L N)	TIN (mg/L N) <sup>3</sup>	TOC (mg/L)	DOC (mg/L)
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	23.1		6.1	0.5	509.0	19.7	0.7	0.5	0.2	19.0	19.2		
DPG12-27	STD. DEV.													
	MIN	23.1	4.7	6.1	0.5	509.0	19.7	0.7	0.5	0.2	19.0	19.2		
	MAX	23.1	4.7	6.1	0.5	509.0	19.7	0.7	0.5	0.2	19.0	19.2		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	20.4		6.1	1.7	240.0	4.3	1.1	1.1	0.005	3.2	3.2		
DPI06-14	STD. DEV.													
	MIN	20.4	5.3	6.1	1.7	240.0	4.3	1.1	1.1	0.005	3.2	3.2		
	MAX	20.4	5.3	6.1	1.7	240.0	4.3	1.1	1.1	0.005	3.2	3.2		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	21.4		2.0	1.8	367.0	15.5	0.5	0.5	0.005	15.0	15.0		
DPI06-20	STD. DEV.													
	MIN	21.4	5.0	2.0	1.8	367.0	15.5	0.5	0.5	0.005	15.0	15.0		
	MAX	21.4	5.0	2.0	1.8	367.0	15.5	0.5	0.5	0.005	15.0	15.0		
	n	1	1	1	1	1	1	1	1	1	1	1	1	1
	MEAN	21.3		2.0	2.4	302.0	10.4	0.4	0.4	0.005	10.0	10.0	0.75	1.0
DPI06-26	STD. DEV.													
	MIN	21.3	5.0	2.0	2.4	302.0	10.4	0.4	0.4	0.005	10.0	10.0	0.75	1.0
	MAX	21.3	5.0	2.0	2.4	302.0	10.4	0.4	0.4	0.005	10.0	10.0	0.75	1.0
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	21.9		2.0	3.3	232.1	3.9	0.4	0.4	0.005	3.5	3.5		
DPJ09-14	STD. DEV.													
	MIN	21.9	4.5	2.0	3.3	232.1	3.9	0.4	0.4	0.005	3.5	3.5		
	MAX	21.9	4.5	2.0	3.3	232.1	3.9	0.4	0.4	0.005	3.5	3.5		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	23.2		2.0	1.6	338.1	8.2	0.05	0.05	0.005	8.1	8.1		
DPJ09-20	STD. DEV.													
	MIN	23.2	4.9	2.0	1.6	338.1	8.2	0.05	0.05	0.005	8.1	8.1		
	MAX	23.2	4.9	2.0	1.6	338.1	8.2	0.05	0.05	0.005	8.1	8.1		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	23.0		2.0	2.5	298.2	10.4	1.1	1.1	0.005	9.3	9.3		
DPJ09-26	STD. DEV.													
	MIN	23.0	4.9	2.0	2.5	298.2	10.4	1.1	1.1	0.005	9.3	9.3		
	MAX	23.0	4.9	2.0	2.5	298.2	10.4	1.1	1.1	0.005	9.3	9.3		

FLORIDA DEPARTMENT OF HEALTH GCREC MOUND MONITORING DATA SUMMARY REPORT NO. 1 PAGE D-7 HAZEN AND SAWYER, P.C.

Sample ID	Statistical Parameter	Temp (°C)	рН	Total Alkalinity (mg/L)	DO (mg/L)	Specific Conductance (µS)	TN (mg/L N) <sup>1</sup>	TKN (mg/L N)	Organic N (mg/L N) <sup>2</sup>	NH3-N (mg/L N)	NOx (mg/L N)	TIN (mg/L N) <sup>3</sup>	TOC (mg/L)	DOC (mg/L)
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.1		2.0	1.5	287.5	5.1	0.05	0.05	0.005	5.0	5.0		
DPJ12-15	STD. DEV.													
	MIN	22.1	4.8	2.0	1.5	287.5	5.1	0.05	0.05	0.005	5.0	5.0		
	MAX	22.1	4.8	2.0	1.5	287.5	5.1	0.05	0.05	0.005	5.0	5.0		
	n	2	2	2	2	2	2	2	2	2	2		1	1
	MEAN	22.9		3.6	1.1	342.9	9.3	0.8	0.8	0.010	8.5	8.5	2.6	1.5
DPJ12-20	STD. DEV.	0.0		2.2	0.0	0.0	0.9	0.0	0.0	0.006	0.9	0.9		
	MIN	22.9	5.0	2.0	1.1	342.9	8.6	0.8	0.8	0.005	7.8	7.8	2.6	1.5
	MAX	22.9	5.0	5.1	1.1	342.9	10.0	0.9	0.8	0.014	9.1	9.1	2.6	1.5
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.6	0.0	2.0	1.1	307.1	13.1	1.1	1.1	0.005	12.0	12.0		
DPJ12-27	STD. DEV.													
	MIN	22.6	4.8	2.0	1.1	307.1	13.1	1.1	1.1	0.005	12.0	12.0		
	MAX	22.6	4.8	2.0	1.1	307.1	13.1	1.1	1.1	0.005	12.0	12.0		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.2		2.0	0.8	304.0	6.6	0.4	0.4	0.005	6.2	6.2		
DPM07-15	STD. DEV.													
	MIN	22.2	4.8	2.0	0.8	304.0	6.6	0.4	0.4	0.005	6.2	6.2		
	MAX	22.2	4.8	2.0	0.8	304.0	6.6	0.4	0.4	0.005	6.2	6.2		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.5		2.0	0.6	374.9	13.9	0.9	0.9	0.0	13.0	13.0		
DPM07-21	STD. DEV.													
	MIN	22.5	4.9	2.0	0.6	374.9	13.9	0.9	0.9	0.005	13.0	13.0		
	MAX	22.5	4.9	2.0	0.6	374.9	13.9	0.9	0.9	0.005	13.0	13.0		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.5		2.0	0.5	301.5	9.3	0.7	0.7	0.005	8.6	8.6		
DPM07-27	STD. DEV.													
	MIN	22.5	4.8	2.0	0.5	301.5	9.3		0.7	0.005	8.6	8.6		
	MAX	22.5	4.8	2.0	0.5	301.5	9.3	0.7	0.7	0.005	8.6			
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.1		2.0	1.3	163.4	1.0	0.3	0.3	0.005	0.8	0.8		
DPN12-14	STD. DEV.													
	MIN	22.1	5.0	2.0	1.3	163.4	1.0		0.3	0.005	0.8	0.8		
	MAX	22.1	5.0	2.0	1.3	163.4	1.0	0.3	0.3	0.005	0.8	0.8		

FLORIDA DEPARTMENT OF HEALTH GCREC MOUND MONITORING DATA SUMMARY REPORT NO. 1 PAGE D-8 HAZEN AND SAWYER, P.C.

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Sample ID	Statistical Parameter	Temp (°C)	рН	Total Alkalinity (mg/L)	DO (mg/L)	Specific Conductance (µS)	TN (mg/L N) <sup>1</sup>	TKN (mg/L N)	Organic N (mg/L N) <sup>2</sup>	NH3-N (mg/L N)	NOx (mg/L N)	TIN (mg/L N) <sup>3</sup>	TOC (mg/L)	DOC (mg/L)
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.3		2.0	1.9	304.1	4.7	0.6	0.6	0.005	4.1	4.1		
DPN12-21	STD. DEV.													
	MIN	22.3	4.9	2.0	1.9	304.1	4.7	0.6	0.6	0.005	4.1	4.1		
	MAX	22.3	4.9	2.0	1.9	304.1	4.7	0.6	0.6	0.005	4.1	4.1		
	n	1	1	1	1	1	1	1	1	1	1	1	1	
	MEAN	21.6		2.0	2.5	331.6	12.0	1.0	1.0	0.005	11.0	11.0	1.5	2.
DPN12-27	STD. DEV.													
	MIN	21.6	5.0	2.0	2.5	331.6	12.0	1.0	1.0	0.005	11.0	11.0	1.5	2.
	MAX	21.6	5.0	2.0	2.5	331.6	12.0	1.0	1.0	0.005	11.0	11.0	1.5	2.
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	21.1		2.0	1.3	186.4	0.2	0.1	0.1	0.005	0.06	0.07		
DPO10-12	STD. DEV.													
	MIN	21.1	4.3	2.0	1.3	186.4	0.2	0.1	0.1	0.005	0.06	0.07		
	MAX	21.1	4.3	2.0	1.3	186.4	0.2	0.1	0.1	0.005	0.06	0.07		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.2		2.0	0.8	298.6	4.5	0.5	0.5	0.005	4.0	4.0		
DPO10-18	STD. DEV.													
	MIN	22.2	4.8	2.0	0.8	298.6	4.5	0.5	0.5	0.005	4.0	4.0		
	MAX	22.2	4.8	2.0	0.8	298.6	4.5	0.5	0.5	0.005	4.0	4.0		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	21.8		2.0	0.7	182.2	0.2	0.09	0.1	0.005	0.1	0.1		
DPO10-24	STD. DEV.													
	MIN	21.8	4.2	2.0	0.7	182.2	0.2	0.09	0.1	0.005	0.1	0.1		
	MAX	21.8	4.2	2.0	0.7	182.2	0.2	0.09	0.1	0.005	0.1	0.1		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	20.7		2.0	2.3	303.4	1.8	0.3	0.3	0.005	1.5	1.5		
DPQ15-15	STD. DEV.													
	MIN	20.7	4.7	2.0	2.3	303.4	1.8	0.3	0.3	0.005	1.5	1.5		
	MAX	20.7	4.7	2.0	2.3	303.4	1.8	0.3	0.3	0.005	1.5	1.5		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	22.6		2.0	1.4	323.6	5.9	0.9	0.9	0.005	5.0	5.0		
DPQ15-21	STD. DEV.													
	MIN	22.6	5.0	2.0	1.4	323.6	5.9	0.9	0.9	0.005	5.0	5.0		
	MAX	22.6	5.0		1.4	323.6	5.9	0.9	0.9	0.005		5.0		

GCREC MOUND MONITORING DATA SUMMARY REPORT NO. 1

HAZEN AND SAWYER, P.C.

Sample ID	Statistical Parameter	Temp (°C)	рН	Total Alkalinity (mg/L)	DO (mg/L)	Specific Conductance (µS)	TN (mg/L N) <sup>1</sup>	TKN (mg/L N)	Organic N (mg/L N) <sup>2</sup>	NH3-N (mg/L N)	NOx (mg/L N)	TIN (mg/L N) <sup>3</sup>	TOC (mg/L)	DOC (mg/L)
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	21.5		2.0	1.0	324.0	9.0	0.7	0.7	0.005	8.3	8.3		
DPQ15-26	STD. DEV.													
	MIN	21.5	5.1	2.0	1.0	324.0	9.0	0.7	0.7	0.005	8.3	8.3		
	MAX	21.5	5.1	2.0	1.0	324.0	9.0	0.7	0.7	0.005	8.3	8.3		
Standpipe Piez	zometers													
	n	1	1	1	1	1	1	. 1	1	1	1	1		
	MEAN	27.6		11.0	0.7	291.8	0.3	0.12	0.1	0.017	0.2	0.2		
PZ16-C12-28	STD. DEV.													
	MIN	27.6	5.6	11.0	0.7	291.8	0.3	0.12	0.1	0.017	0.2	0.2		
	MAX	27.6	5.6	11.0	0.7	291.8	0.3	0.12	0.1	0.017	0.2	0.2		
	n	1	1	1	1	1	1	. 1	1	1	1	1	1	1
	MEAN	21.6		8.1	1.1	72.9	0.1	0.11	0.1	0.005	0.01	0.02	2.9	2.8
PZ04-BKG-9	STD. DEV.													
	MIN	21.6	5.3	8.1	1.1	72.9	0.1	0.11	0.1	0.005	0.01	0.02	2.9	
	MAX	21.6	5.3	8.1	1.1	72.9	0.1	0.11	0.1	0.005	0.01	0.02	2.9	2.8
	n	1	1	1	1	1	1	. 1	1	1	1	1	1	-
	MEAN	24.1		4.1	0.7	296.2	12.6	0.6	0.6	0.005	12.0	12.0	1.3	1.1
PZ24-BKG-26	STD. DEV.													
	MIN	24.1	5.1	4.1	0.7	296.2	12.6	0.6	0.6	0.005	12.0	12.0	1.3	
	MAX	24.1	5.1	4.1	0.7	296.2	12.6	0.6	0.6	0.005	12.0	12.0	1.3	1.1
	n	1	1	1	1	1	1	. 1	1	1	1	1	1	. 1
	MEAN	22.1		4.1	0.5	294.1	10.3	0.6	0.6	0.005	9.7	9.7	4.0	1.0
PZ17-I15-26	STD. DEV.													
	MIN	22.1	5.7	4.1	0.5	294.1	10.3	0.6	0.6	0.005	9.7	9.7	4.0	
	MAX	22.1	5.7	4.1	0.5	294.1	10.3	0.6	0.6	0.005	9.7	9.7	4.0	1.0

FLORIDA DEPARTMENT OF HEALTH GCREC MOUND MONITORING DATA SUMMARY REPORT NO. 1

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Sample ID	Statistical Parameter	Temp (°C)	рН	Total Alkalinity (mg/L)	DO (mg/L)	Specific Conductance (µS)	TN (mg/L N) <sup>1</sup>	TKN (mg/L N)	Organic N (mg/L N) <sup>2</sup>	NH3-N (mg/L N)	NOx (mg/L N)	TIN (mg/L N) <sup>3</sup>	TOC (mg/L)	DOC (mg/L)
Blanks														
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	12.1		2.0	9.4	1.5	0.06	0.05	0.05	0.005	0.01	0.02		
FB-DI	STD. DEV.													
	MIN	12.1	5.7	2.0	9.4	1.5	0.06	0.05	0.05	0.005	0.01	0.02		
	MAX	12.1	5.7	2.0	9.4	1.5	0.06	0.05	0.05	0.005	0.01	0.02		
	n	1	1	1	1	1	1	1	1	1	1	1		
	MEAN	9.6		140.0	11.1	445.0	0.06	0.05	0.05	0.005	0.01	0.02		
FB-TAP	STD. DEV.													
	MIN	9.6	7.0	140.0	11.1	445.0	0.06	0.05	0.05	0.005	0.01	0.02		
	MAX	9.6	7.0	140.0	11.1	445.0	0.06	0.05	0.05	0.005	0.01	0.02		
	n	1	1	1	1	1	1	1	1	1	1	1		
Equipment	MEAN	11.9		2.0	2.3	13.2	0.06	0.05	0.05	0.005	0.01	0.02		
Rinsate	STD. DEV.													
ninsate	MIN	11.9	7.2	2.0	2.3	13.2	0.06	0.05	0.05	0.005	0.01	0.02		
	MAX	11.9	7.2	2.0	2.3	13.2	0.06	0.05	0.05	0.005	0.01	0.02		

<sup>+</sup>Total Nitrogen (TN) is a calculated value equal to the sum of TKN and NO<sub>x</sub></sup>

 $^2$ Organic Nitrogen (ON) is a calculated value equal to the difference of TKN and NH $_{
m 3}$ 

 $^3$ Total Inorganic Nitrogen (TIN) is a calculated value equal to the sum of NH $_{2}$  and NO $_{v}$ 

DO - Dissolved oxygen

Gray-shaded data points indicate values below method detection level (mdl), mdl value used for statistical analyses.

Yellow-shaded data points indicate the reported value is between the laboratory method detection limit and the laboratory practical quantitation limit, value used for statistical analyses.

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## **Appendix E: Laboratory Report**

FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY GCREC MOUND MONITORING DATA SUMMARY REPORT NO. 1

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### Hazen and Sawyer 10002 Princess Palm Avenue Suite 200 Tampa FLORIDA, 33619

December 24, 2010 Work Order: 1003007

Parameters         Units         Results*         Method         PQL         PDL         Prepared         Analyzed           Sample Description Matrix SAL Sample Number         DP-AA9-14 Groundwater         Groundwater         Sample Description	Project Name		GCREC Mound G	roundwater Ana	alyses				
Matrix         Groundwater           SAL Sample Number         1003007-01           DaterTime Collected         1209/10 07:45           Collected by         Larry Ward           DateTime Received         1209/10 07:45           Social Sample Number         1209/10 07:45           Specific conductance         umhos/cm         282         DEP FT1400         0.1         0.1         12/09/10 07:45           Specific conductance         umhos/cm         282         DEP FT1500         0.1         0.1         12/09/10 07:45           Inorganics         Ammonia as N         mg/L         0.9         DEP FT1500         0.1         0.1         12/09/10 07:45           Matrix ferstrains         C         21.5         DEP FT1200         0.1         0.1         12/09/10 07:45           Inorganics         Ammonia as N         mg/L         0.9         DEP FT1500         0.1         0.1         12/09/10 07:45           Total Alkalinity         mg/L         1.1         SM 2302         0.04         0.01         12/16/10 13:34         12/17/10 16:37           Sample Description <b>DP-AA9-22</b> Matrix         Groundwater         1033007-02         0.04         0.01         0.1         12/16/10 13:34         12/16/1	Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Matrix         Groundwater 1003007-01 DeterTime Collected Collected by         Groundwater 1209/10 07:45 Larry Ward           EderTime Collected DeterTime Received         1209/10 07:45 Larry Ward         0.1         0.1         1209/10 07:45           Field Parameters Pith         SU         5.1         DEP FT1100         0.1         0.1         1209/10 07:45           Specific conductance         umhos/cm         282         DEP FT1200         0.1         0.1         1209/10 07:45           Ammonia as N         mg/L         0.09         DEP FT1500         0.1         0.1         12/09/10 07:45           Ammonia as N         mg/L         0.09         DEP FT1500         0.1         0.1         12/09/10 07:45           Ammonia as N         mg/L         0.09         DEP FT1500         0.1         0.1         12/09/10 07:45           Total Akalinity         mg/L         0.33         EPA 350.1         0.010         0.005         12/16/10 13:34         12/17/10 16:37           Writa'e Nitrite (as N)         mg/L         5.9         EPA 350.2         0.04         0.01         12/16/10 13:44         12/16/10 13:45           DeterTime Collected         12/09/10 07:55         Collected by         Larry Ward         0.1         0.1         12/16/10 13:34         12/	Sample Description		DP-AA9-14						
Date Time Collected         1209/10 07:45 Larry Ward           Date Time Received         1209/10 15:32           Field Parameters PH         SU         5.1         DEP FT1100         0.1         0.1         1209/10 07:45           Specific conductance         umhos/cm         282         DEP FT1200         0.1         0.1         1209/10 07:45           Disolved Oxygen         mg/L         0.9         DEP FT1200         0.1         0.1         1209/10 07:45           Disolved Oxygen         mg/L         0.9         DEP FT1200         0.1         0.1         12/09/10 07:45           Intrancia         sN         mg/L         0.9         DEP FT1300         0.1         0.1         12/09/10 07:45           Intradictance         umhonia as N         mg/L         0.1         SM         2208         8.0         2.0         12/10/10 10:27         12/10/10 10:27         12/10/10 10:27         12/10/10 10:32         12/11/10 15:50         12/11/10 15:30         12/11/10 15:30         12/11/10 15:31         12/11/10 15:31         12/11/10 15:31         12/11/10 15:31         12/11/10 15:31         12/11/10 15:32         12/11/10 15:32         12/11/10 15:32         12/11/10 15:32         12/11/10 15:32         12/11/10 15:32         12/11/10 15:55         12/11/10 15:53         12/1			Groundwater						
Collected by         Larry Ward           Date/Time Received         12/09/10 15:32           Field Parameters	SAL Sample Number		1003007-01						
Date/Time Received         12/09/10 15:32           Field Parameters pH         SU         5.1         DEP FT1100         0.1         0.1         12/09/10 07:45           Specific conductance         umhos/cm         282         DEP FT1200         0.1         0.1         12/09/10 07:45           Mater Temperature         °C         21.5         DEP FT1200         0.1         0.1         12/09/10 07:45           Dissolved Oxygen         mg/L         0.9         DEP FT1200         0.1         0.1         12/09/10 07:45           Ammonia as N         mg/L         0.90         DEP FT1500         0.1         0.1         12/09/10 07:45           Ammonia as N         mg/L         0.90         DEP FT1500         0.1         0.11         12/09/10 07:45           Mintate Nitrite (as N)         mg/L         11         SM 23208         8.0         2.0         12/16/10 13:34         12/17/10 16:37           Sample Description         DF-AA9-22         EPA 351.2         0.20         0.05         12/16/10 13:45         12/17/10 16:37           Sample Description         DF-AA9-22         EPA 351.2         0.20         0.05         12/16/10 13:4         12/17/10 16:37           Date/Time Collected         12/09/10 07:55         DEP 400 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Field Parameters pH         SU         5.1         DEP FT1100         0.1         0.1         12/09/10 07.45           Water Temperature         *C         21.5         DEP FT1400         0.1         0.1         12/09/10 07.45           Specific conductance         umhos/cm         282         DEP FT1200         0.1         0.1         12/09/10 07.45           Increanics         mmonia as N         mg/L         0.9         DEP A350.1         0.010         0.005         12/11/10 15.50           Total Kjeldahi Nirogen         mg/L         0.93         EPA 333.2         0.20         0.05         12/10/10 10.27           Nitrate+Nitrite (as N)         mg/L         5.9         EPA 333.2         0.04         0.01         12/14/10 16.58           Sample Description         DP-AA9-22         Matrix         Groundwater         55         Collected by         12/19/10 07.55           Date/Time Collected         12/09/10 07.55         EPA 135.2         0.1         0.1         12/09/10 07.55           Discofied Conductance         umhos/cm         319         DEP FT1400         0.1         0.1         12/09/10 07.55           Discofied Conductance         umhos/cm         319         DEP FT1500         0.1         0.1         12/09/10 07.55<			-						
pH         SU         5.1         DEP FT1100         0.1         0.1         12/09/10 07:45           Water Temperature         'C         21.5         DEP FT1400         0.1         0.1         12/09/10 07:45           Specific conductance         umbos/cm         282         DEP FT1500         0.1         0.1         12/09/10 07:45           Introductance         mmonia as N         mg/L         0.9         DEP FT1500         0.1         0.1         12/09/10 07:45           Ammonia as N         mg/L         0.906 I         EPA 350.1         0.010         0.005         12/11/10 15:50           Total Akjalinity         mg/L         1.1         SM 23208         8.0         2.0         12/16/10 13:34         12/17/10 16:37           Nitrate-Nitrite (as N)         mg/L         5.9         EPA 353.2         0.04         0.01         12/14/10 16:58           Sample Description         DP-AA9-22         Matrix         Groundwater         SA         SA         0.01         0.1         12/09/10 07:55           Collected by         Larry Ward         Larry Ward         0.1         0.1         12/09/10 07:55           Discolved Oxygen         mg/L         1.1         DEP FT11200         0.1         0.1         12	Date/Time Received		12/09/10 15:32						
Water Temperature         °C         21.5         DEP FT1400         0.1         0.1         12/09/10 07:45           Specific conductance         umhos/cm         282         DEP FT1200         0.1         0.1         12/09/10 07:45           Dissolved Oxygen         mg/L         0.9         DEP FT1500         0.1         0.1         12/09/10 07:45           Increantics             0.01         0.01         0.005         12/11/10 15:50           Total Alkalinity         mg/L         11         SM 23205         8.0         2.0         12/10/10 10:27           Total Kjeldahl Nitrogen         mg/L         0.93         EPA 351.2         0.20         0.05         12/11/10 16:37           Nitrate+Nitrite (as N)         mg/L         5.9         EPA 353.2         0.04         0.01         12/14/10 16:38           Sample Description         DP-AA9-22         Matrix         Groundwater         Sasson         0.01         0.1         12/09/10 07:55           Collected by         Larry Ward         Larry Ward         0.1         0.1         12/09/10 07:55           Specific conductance         umhos/cm         319         DEP FT1200         0.1         0.1         12/09/10 07:55 <td>Field Parameters</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Field Parameters								
Specific conductance         umhos/cm         282         DEP FT1200         0.1         0.1         12/09/10 07:45           Dissolved Oxygen         mg/L         0.9         DEP FT1500         0.1         0.1         1         12/09/10 07:45           Ammonia as N         mg/L         0.006 I         EPA 350.1         0.010         0.005         12/11/10 15:50           Total Aklainity         mg/L         11         SM 32020         8.0         2.0         12/16/10 13:34         12/17/10 16:37           Nitrate+Nitrite (as N)         mg/L         5.9         EPA 353.2         0.04         0.01         12/14/10 16:58           Sample Description         DP-AA9-22         Groundwater         Groundwater         1003007-02         Date/Time Collected         12/09/10 07:55         Collected by         Larry Ward         Date/Time Collected         12/09/10 07:55           Date/Time Collected         12/09/10 07:55         EPE FT1200         0.1         0.1         12/09/10 07:55           Dissolved Oxygen         mg/L         1.1         DEP FT1200         0.1         0.1         12/09/10 07:55           Specific conductance         umhos/cm         319         DEP FT1200         0.1         0.1         12/09/10 07:55           Dissolved	рН			DEP FT1100	0.1	0.1		12/09/10 07:45	LRV
Dissolved Oxygen         mg/L         0.9         DEP FT1500         0.1         0.1         12/09/10 07:45           Incraanics         mg/L         0.006           EPA 350.1         0.010         0.005         12/11/10 15:50           Total Alkalinity         mg/L         11         SM 23208         8.0         2.0         12/10/10 10:27           Total Alkalinity         mg/L         0.93         EPA 351.2         0.20         0.05         12/16/10 13:34         12/17/10 16:37           Nitrate+Nitrite (as N)         mg/L         5.9         EPA 353.2         0.04         0.01         12/14/10 16:58           Sample Description         DP-AA9-22         Matrix         Groundwater         1003007-02         Date/Time Collected         12/09/10 07:55           Collected by         Larry Ward         DEP FT100         0.1         0.1         12/09/10 07:55           Specific conductance         umbos/cm         319         DEP FT1200         0.1         0.1         12/09/10 07:55           Iorogenetic         °C         23.3         DEP FT1200         0.1         0.1         12/09/10 07:55           Specific conductance         umbos/cm         319         DEP FT1500         0.1         0.1         12/09/10 07:55	Water Temperature	°C	21.5	DEP FT1400	0.1	0.1		12/09/10 07:45	LRV
Increanics         Marmonia as N         mg/L         0.006 I         EPA 350.1         0.010         0.005         12/11/10 15:50           Total Aklalinity         mg/L         11         SM 2320B         8.0         2.0         12/10/10 10:27           Total Kjeldahl Nitrogen         mg/L         5.9         EPA 351.2         0.00         0.05         12/10/10 16:37           Nitrate+Nitrite (as N)         mg/L         5.9         EPA 353.2         0.04         0.01         12/14/10 16:58           Sample Description         DP-AA9-22         Groundwater         SAL Sample Number         1003007-02         12/19/10 07:55           Collected by         Larry Ward         Larry Ward         0.1         0.1         12/10/10 07:55           Specific conductance         umhos/cm         319         DEP FT1200         0.1         0.1         12/09/10 07:55           Disolved Oxygen         mg/L         1.1         DEP FT1500         0.1         0.1         12/09/10 07:55           Intractic conductance         umhos/cm         319         DEP FT1200         0.1         0.1         12/10/10 10:27           Total Akalinity         mg/L         0.013         EPA 350.1         0.010         0.005         12/11/10 16:56	Specific conductance	umhos/cm	282	DEP FT1200	0.1	0.1		12/09/10 07:45	LRV
Ammonia as N         mg/L         0.006 I         EPA 350.1         0.010         0.005         12/11/10 15:50           Total Alkalinity         mg/L         11         SM 23208         8.0         2.0         12/10/10 10:27           Total Alkalinity         mg/L         0.93         EPA 351.2         0.00         0.05         12/16/10 13:34         12/17/10 16:37           Nitrate+Nitrite (as N)         mg/L         5.9         EPA 353.2         0.04         0.01         12/14/10 16:58           Sample Description         DP-AA9-22         Groundwater         0.03007-02         5         5         5         5           SAL Sample Number         1003007-02         12/09/10 07:55         7         12/09/10 07:55         5         5         5         5         5         5         7         1         12/09/10 07:55         5         5         5         5         5         5         5         5         1 <td< td=""><td>Dissolved Oxygen</td><td>mg/L</td><td>0.9</td><td>DEP FT1500</td><td>0.1</td><td>0.1</td><td></td><td>12/09/10 07:45</td><td>LRV</td></td<>	Dissolved Oxygen	mg/L	0.9	DEP FT1500	0.1	0.1		12/09/10 07:45	LRV
Total Alkalinity       mg/L       11       SM 2320B       8.0       2.0       12/10/10 10:27         Total Kjeldahi Nitrogen       mg/L       0.93       EPA 351.2       0.20       0.05       12/16/10 13:34       12/17/10 16:37         Nitrate+Nitrite (as N)       mg/L       5.9       EPA 353.2       0.04       0.01       12/16/10 13:34       12/14/10 16:37         Sample Description       DP-AA9-22       Groundwater       0.03       0.04       0.01       12/16/10 13:34       12/14/10 16:58         Sample Description       Groundwater       1003007-02       0.04       0.01       12/10/10 07:55         Collected by       Larry Ward       11       0.1       0.1       12/09/10 07:55         Collected by       Larry Ward       0.1       0.1       0.1       12/09/10 07:55         Specific conductance       umhos/cm       319       DEP FT1200       0.1       0.1       12/09/10 07:55         Dissolved Oxygen       mg/L       0.013       EPA 350.1       0.010       0.005       12/11/10 15:50         Total Alkalinity       mg/L       2.0       U       SM 2320B       8.0       2.0       12/10/10 10:27         Total Alkalinity       mg/L       0.013       EPA 350.1	Inorganics								
Total Kjeldah Nitrogen         mg/L         0.93         EPA 351.2         0.20         0.05         12/16/10 13:34         12/17/10 16:37           Nitrate+Nitrite (as N)         mg/L         5.9         EPA 353.2         0.04         0.01         12/14/10 16:37           Sample Description         DP-AA9-22         Groundwater         1003007-02         12/19/10 07:55         12/19/10 07:55           Collected by         Larry Ward         Larry Ward         12/09/10 07:55         12/19/10 07:55           Date/Time Received         12/09/10 15:32         PEP FT1100         0.1         0.1         12/09/10 07:55           Specific conductance         °C         23.3         DEP FT1200         0.1         0.1         12/09/10 07:55           Dissolved Oxygen         mg/L         1.1         DEP FT1200         0.1         0.1         12/09/10 07:55           Ibisolved Oxygen         mg/L         1.1         DEP FT1200         0.1         0.1         12/09/10 07:55           Ibisolved Oxygen         mg/L         0.013         EPA 350.1         0.010         0.005         12/11/10 15:50           Total Alkalinity         mg/L         0.82         EPA 351.2         0.20         0.05         12/11/10 10:27         12/10/10 10:27	Ammonia as N	mg/L	0.006	EPA 350.1	0.010	0.005		12/11/10 15:50	SMI
Nitrate+Nitrite (as N)         mg/L         5.9         EPA 353.2         0.04         0.01         12/14/10 16:58           Sample Description         Groundwater         Groundwater         SAL Sample Number         1003007-02         SAL Sample Number         1003007-02         SAL Sample Number         12/09/10 07:55         Collected         12/09/10 07:55         SAL Sample Number         12/10/10 10:27         SAL Sample Number         12/09/10 07:55         SAL Sample Number         12/10/10 10:27         SAL Sample Number         12/11/10 15:50         12/11/10 15:50         12/11/10 15:50         12/11/10 16:37         12/11/10 16:37         12/11/10 16:37         12/11/10 16:37         12/11/10 16:37         12/11/10 16:37         12/11/10 1	Total Alkalinity	mg/L	11	SM 2320B	8.0	2.0		12/10/10 10:27	KT
Sample Description         DP-AA9-22 Groundwater         Description         DP-AA9-22 Groundwater           SAL Sample Number         1003007-02 12/09/10 07:55         Date/Time Collected         12/09/10 07:55           Collected by         Larry Ward         Date/Time Received         12/09/10 07:55           Field Parameters pH         SU         4.9         DEP FT1100         0.1         0.1         12/09/10 07:55           Specific conductance         umhos/cm         319         DEP FT1200         0.1         0.1         12/09/10 07:55           Dissolved Oxygen         mg/L         1.1         DEP FT1500         0.1         0.1         12/09/10 07:55           Inorganics         Ammonia as N         mg/L         0.013         EPA 350.1         0.010         0.005         12/11/10 15:50           Total Alkalinity         mg/L         2.0 U         SM 23208         8.0         2.0         12/10/10 10:27           Total Alkalinity         mg/L         0.82         EPA 351.2         0.20         0.05         12/11/10 16:37           Nitrate+Nitrite (as N)         mg/L         10         EPA 353.2         0.04         0.01         12/14/10 16:58           Sample Description         DP-AA9-27         Groundwater         SAL Sample Number	Total Kjeldahl Nitrogen	mg/L	0.93	EPA 351.2	0.20	0.05	12/16/10 13:34	12/17/10 16:37	ME
Binding         Groundwater           SAL Sample Number         1003007-02           Date/Time Collected         12/09/10 07:55           Collected by         Larry Ward           Date/Time Received         12/09/10 15:32           Field Parameters           pH         SU         4.9         DEP FT1100         0.1         0.1         12/09/10 07:55           Water Temperature         °C         23.3         DEP FT1400         0.1         0.1         12/09/10 07:55           Specific conductance         umhos/cm         319         DEP FT1200         0.1         0.1         12/09/10 07:55           Dissolved Oxygen         mg/L         1.1         DEP FT1500         0.1         0.1         12/09/10 07:55           Inorganics         Ammonia as N         mg/L         0.013         EPA 350.1         0.010         0.005         12/11/10 15:50           Total Alkalinity         mg/L         2.0         SM 2320B         8.0         2.0         12/10/10 10:27           Total Kjeldahl Nitrogen         mg/L         0.82         EPA 351.2         0.20         0.05         12/11/10 16:37           Sample Description         DP-AA9-27         Groundwater         Groundwater         SAL Sample Numbe	Nitrate+Nitrite (as N)	mg/L	5.9	EPA 353.2	0.04	0.01		12/14/10 16:58	SMI
SAL Sample Number         1003007-02 12/09/10 07:55 Collected by         Larry Ward           Date/Time Collected         12/09/10 15:32	Sample Description		DP-AA9-22						
Date/Time Collected       12/09/10 07:55         Collected by       Larry Ward         Date/Time Received       12/09/10 15:32         Field Parameters         pH       SU       4.9       DEP FT1100       0.1       0.1       12/09/10 07:55         Water Temperature       °C       23.3       DEP FT1400       0.1       0.1       12/09/10 07:55         Specific conductance       umhos/cm       319       DEP FT1200       0.1       0.1       12/09/10 07:55         Dissolved Oxygen       mg/L       1.1       DEP FT1500       0.1       0.1       12/09/10 07:55         Inorganics       Namonia as N       mg/L       0.013       EPA 350.1       0.010       0.005       12/11/10 15:50         Total Alkalinity       mg/L       2.0       U       SM 2320B       8.0       2.0       12/10/10 10:27         Total Kjeldahl Nitrogen       mg/L       0.82       EPA 351.2       0.20       0.05       12/16/10 13:34       12/17/10 16:37         Sample Description       DP-AA9-27       Matrix       Groundwater       S33.2       0.04       0.01       12/14/10 16:58         Sample Number       1003007-03       Date/Time Collected       12/09/10 08:12       Larry Ward <td>Matrix</td> <td></td> <td>Groundwater</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Matrix		Groundwater						
Collected by Date/Time Received         Larry Ward 12/09/10 15:32           Field Parameters pH         SU         4.9         DEP FT1100         0.1         0.1         12/09/10 07:55           Water Temperature         °C         23.3         DEP FT1400         0.1         0.1         12/09/10 07:55           Specific conductance         umhos/cm         319         DEP FT1200         0.1         0.1         12/09/10 07:55           Dissolved Oxygen         mg/L         1.1         DEP FT1500         0.1         0.1         12/09/10 07:55           Inorganics         Mamonia as N         mg/L         0.013         EPA 350.1         0.010         0.005         12/11/10 15:50           Total Alkalinity         mg/L         2.0         SM 2320B         8.0         2.0         12/10/10 10:27           Total Alkalinity         mg/L         0.82         EPA 351.2         0.20         0.05         12/16/10 13:34         12/17/10 16:37           Nitrate+Nitrite (as N)         mg/L         10         EPA 353.2         0.04         0.01         12/14/10 16:58           Sample Description         DP-AA9-27 Matrix         Groundwater         SAS.2         0.04         0.01         12/14/10 16:58           Sate/Time Collected <t< td=""><td>SAL Sample Number</td><td></td><td>1003007-02</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	SAL Sample Number		1003007-02						
Date/Time Received         12/09/10 15:32           Field Parameters pH         SU         4.9         DEP FT1100         0.1         0.1         12/09/10 07:55           Water Temperature         °C         23.3         DEP FT1400         0.1         0.1         12/09/10 07:55           Specific conductance         umhos/cm         319         DEP FT1200         0.1         0.1         12/09/10 07:55           Dissolved Oxygen         mg/L         1.1         DEP FT1500         0.1         0.1         12/09/10 07:55           Inorganics         N         Mg/L         0.013         EPA 350.1         0.010         0.005         12/11/10 15:50           Total Alkalinity         mg/L         2.0         U         SM 2320B         8.0         2.0         12/10/10 10:27           Total Kjeldahl Nitrogen         mg/L         0.82         EPA 351.2         0.20         0.05         12/16/10 13:34         12/17/10 16:37           Nitrate+Nitrite (as N)         mg/L         10         EPA 353.2         0.04         0.01         12/14/10 16:58           Sample Description         DP-AA9-27         Matrix         Groundwater         SAL Sample Number         1003007-03         Date/Time Collected         12/09/10 08:12         Larry Ward <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Field Parameters           pH         SU         4.9         DEP FT1100         0.1         0.1         12/09/10 07:55           Water Temperature         °C         23.3         DEP FT1400         0.1         0.1         12/09/10 07:55           Specific conductance         umhos/cm         319         DEP FT1200         0.1         0.1         12/09/10 07:55           Dissolved Oxygen         mg/L         1.1         DEP FT1500         0.1         0.1         12/09/10 07:55           Inorganics         Mamonia as N         mg/L         0.013         EPA 350.1         0.010         0.005         12/11/10 15:50           Total Alkalinity         mg/L         2.0         U         SM 2320B         8.0         2.0         12/10/10 10:27           Total Kjeldahl Nitrogen         mg/L         0.82         EPA 351.2         0.20         0.05         12/16/10 13:34         12/17/10 16:37           Nitrate+Nitrite (as N)         mg/L         10         EPA 353.2         0.04         0.01         12/14/10 16:58           Sample Description         DP-AA9-27         Matrix         Groundwater         SAL Sample Number         1003007-03         1003007-03         12/09/10 08:12         Collected by         Larry Ward         Larr			-						
pH         SU         4.9         DEP FT1100         0.1         0.1         12/09/10 07:55           Water Temperature         °C         23.3         DEP FT1400         0.1         0.1         12/09/10 07:55           Specific conductance         umhos/cm         319         DEP FT1200         0.1         0.1         12/09/10 07:55           Dissolved Oxygen         mg/L         1.1         DEP FT1500         0.1         0.1         12/09/10 07:55           Inorganics	Date/Time Received		12/09/10 15:32						
Water Temperature         °C         23.3         DEP FT1400         0.1         0.1         12/09/10         07:55           Specific conductance         umhos/cm         319         DEP FT1200         0.1         0.1         12/09/10         07:55           Dissolved Oxygen         mg/L         1.1         DEP FT1500         0.1         0.1         12/09/10         07:55           Inorganics         N         mg/L         0.013         EPA 350.1         0.010         0.005         12/11/10         15:50           Total Alkalinity         mg/L         2.0         U         SM 2320B         8.0         2.0         12/10/10         12/10/10         10:27           Total Kjeldahl Nitrogen         mg/L         0.82         EPA 351.2         0.20         0.05         12/11/10         16:37           Nitrate+Nitrite (as N)         mg/L         10         EPA 353.2         0.04         0.01         12/14/10         16:58           Sample Description         DP-AA9-27         Groundwater         1003007-03         12/09/10         08:12         12/09/10         12/09/10         12/19/10         16:58           Collected by         Larry Ward         Larry Ward         Larry Ward         Larry Ward         Lar									
Specific conductance         umhos/cm         319         DEP FT1200         0.1         0.1         12/09/10 07:55           Dissolved Oxygen         mg/L         1.1         DEP FT1500         0.1         0.1         12/09/10 07:55           Inorganics         Image: Contract of the state of	•								LRV
Dissolved Oxygen       mg/L       1.1       DEP FT1500       0.1       0.1       12/09/10 07:55         Inorganics       N       mg/L       0.013       EPA 350.1       0.010       0.005       12/11/10 15:50         Total Alkalinity       mg/L       2.0 U       SM 2320B       8.0       2.0       12/10/10 10:27         Total Kjeldahl Nitrogen       mg/L       0.82       EPA 351.2       0.20       0.05       12/16/10 13:34       12/17/10 16:37         Nitrate+Nitrite (as N)       mg/L       10       EPA 353.2       0.04       0.01       12/14/10 16:58         Sample Description       DP-AA9-27       Groundwater       Sample Number       1003007-03       12/09/10 08:12       Larry Ward         Collected by       Larry Ward       Larry Ward       Larry Ward       Larry Ward       Larry Ward	•	-							LRV
Inorganics           Ammonia as N         mg/L         0.013         EPA 350.1         0.010         0.005         12/11/10 15:50           Total Alkalinity         mg/L         2.0 U         SM 2320B         8.0         2.0         12/10/10 10:27           Total Kjeldahl Nitrogen         mg/L         0.82         EPA 351.2         0.20         0.05         12/16/10 13:34         12/17/10 16:37           Nitrate+Nitrite (as N)         mg/L         10         EPA 353.2         0.04         0.01         12/14/10 16:58           Sample Description         DP-AA9-27         Groundwater         SAL Sample Number         1003007-03         12/09/10 08:12         12/09/10 08:12         12/09/10 08:12         12/09/10 08:12         12/09/10 08:12         12/09/10 08:12         12/109/10 08:12         <									LRV
Ammonia as N         mg/L         0.013         EPA 350.1         0.010         0.005         12/11/10 15:50           Total Alkalinity         mg/L         2.0 U         SM 2320B         8.0         2.0         12/10/10 10:27           Total Kjeldahl Nitrogen         mg/L         0.82         EPA 351.2         0.20         0.05         12/10/10 10:27           Nitrate+Nitrite (as N)         mg/L         10         EPA 353.2         0.04         0.01         12/14/10 16:58           Sample Description         DP-AA9-27         Groundwater         53.2         0.04         0.01         12/14/10 16:58           SAL Sample Number         1003007-03         1003007-03         12/09/10 08:12         12/09/10 08:12         12/09/10 08:12         12/09/10 08:12           Collected by         Larry Ward	Dissolved Oxygen	mg/L	1.1	DEP F11500	0.1	0.1		12/09/10 07:55	LRV
Total Alkalinity       mg/L       2.0 U       SM 2320B       8.0       2.0       12/10/10 10:27         Total Alkalinity       mg/L       0.82       EPA 351.2       0.20       0.05       12/16/10 13:34       12/17/10 16:37         Nitrate+Nitrite (as N)       mg/L       10       EPA 353.2       0.04       0.01       12/14/10 16:58         Sample Description       DP-AA9-27       Groundwater       1003007-03       1003007-03       12/09/10 08:12       12/09/10 08:12         Collected by       Larry Ward       Larry Ward       Larry Ward       Larry Ward       Larry Ward									
Total Kjeldahl Nitrogen         mg/L         0.82         EPA 351.2         0.20         0.05         12/16/10 13:34         12/17/10 16:37           Nitrate+Nitrite (as N)         mg/L         10         EPA 353.2         0.04         0.01         12/14/10 16:58           Sample Description         DP-AA9-27           Matrix         Groundwater           SAL Sample Number         1003007-03           Date/Time Collected         12/09/10 08:12           Collected by         Larry Ward									SM
Nitrate+Nitrite (as N)     mg/L     10     EPA 353.2     0.04     0.01     12/14/10 16:58       Sample Description     DP-AA9-27       Matrix     Groundwater       SAL Sample Number     1003007-03       Date/Time Collected     12/09/10 08:12       Collected by     Larry Ward	,	-							KT
Sample Description     DP-AA9-27       Matrix     Groundwater       SAL Sample Number     1003007-03       Date/Time Collected     12/09/10 08:12       Collected by     Larry Ward	Total Kjeldahl Nitrogen	mg/L	0.82	EPA 351.2	0.20	0.05	12/16/10 13:34	12/17/10 16:37	ME
MatrixGroundwaterSAL Sample Number1003007-03Date/Time Collected12/09/10 08:12Collected byLarry Ward	Nitrate+Nitrite (as N)	mg/L	10	EPA 353.2	0.04	0.01		12/14/10 16:58	SMI
SAL Sample Number1003007-03Date/Time Collected12/09/10 08:12Collected byLarry Ward									
Date/Time Collected     12/09/10 08:12       Collected by     Larry Ward									
Collected by Larry Ward	-								
	-								
Field Parameters	Field Parameters								



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### Laboratory Report

Project Name		GCREC Mound G	roundwater Ana	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-AA9-27						
Matrix		Groundwater						
SAL Sample Number		1003007-03						
Date/Time Collected		12/09/10 08:12						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
рН	SU	4.8	DEP FT1100	0.1	0.1		12/09/10 08:12	LRV
Water Temperature	°C	22.7	DEP FT1400	0.1	0.1		12/09/10 08:12	LRV
Specific conductance	umhos/cm	293	DEP FT1200	0.1	0.1		12/09/10 08:12	LRV
Dissolved Oxygen	mg/L	0.8	DEP FT1500	0.1	0.1		12/09/10 08:12	LRV
Inorganics								
Ammonia as N	mg/L	0.028	EPA 350.1	0.010	0.005		12/11/10 15:50	SME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	1.0	EPA 351.2	0.20	0.05	12/16/10 13:34	12/17/10 16:37	ME.
Nitrate+Nitrite (as N)	mg/L	6.9	EPA 353.2	0.04	0.01		12/14/10 16:58	SME
Sample Description		DP-D7.5-14						
Matrix		Groundwater						
SAL Sample Number		1003007-04						
Date/Time Collected		12/09/10 08:20						
Collected by		Josephine Edeback	-Hirst					
Date/Time Received		12/09/10 15:32						
Inorganics								
Ammonia as N	mg/L	0.12	EPA 350.1	0.010	0.005		12/11/10 15:50	SME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.68	EPA 351.2	0.20	0.05	12/16/10 13:34	12/17/10 16:37	ME.
Total Organic Carbon	mg/L	2.9	SM 5310B	1.0	0.50		12/11/10 10:36	ME.
Nitrate+Nitrite (as N)	mg/L	22	EPA 353.2	0.04	0.01		12/14/10 16:58	SME
Inorganic, Dissolved								
Dissolved Organic Carbon	mg/L	1.2	SM 5310B	4.0	1.0	12/10/10 12:00	12/11/10 10:36	ME
Sample Description		DP-D7.5-20						
Matrix		Groundwater						
SAL Sample Number		1003007-05						
Date/Time Collected		12/09/10 08:35						
Collected by		Josephine Edeback	-Hirst					
Date/Time Received		12/09/10 15:32						
Inorganics								
Ammonia as N	mg/L	0.022	EPA 350.1	0.010	0.005		12/11/10 15:50	SME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.80	EPA 351.2	0.20	0.05	12/16/10 13:34	12/17/10 16:37	ME
Nitrate+Nitrite (as N)	mg/L	7.4	EPA 353.2	0.04	0.01		12/14/10 16:58	SME

Francis I. Daniels, Laboratory Director Leslie C. Boardman, Q.A. Manager



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Project Name		GCREC Mound G	roundwater An	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-D7.5-20						
Matrix		Groundwater						
SAL Sample Number		1003007-05						
Date/Time Collected		12/09/10 08:35						
Collected by		Josephine Edeback	-Hirst					
Date/Time Received		12/09/10 15:32						
Sample Description		DP-D7.5-26						
Matrix		Groundwater						
SAL Sample Number		1003007-06						
Date/Time Collected		12/09/10 08:46						
Collected by		Josephine Edeback	-Hirst					
Date/Time Received		12/09/10 15:32						
<u>Inorganics</u> Ammonia as N	ma/l	0.028	EPA 350.1	0.010	0.005		12/11/10 15:50	с М Г
	mg/L	0.038		0.010	0.005		12/11/10 15:50	SME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KT(
Total Kjeldahl Nitrogen	mg/L	0.99	EPA 351.2	0.20	0.05	12/16/10 13:34	12/17/10 16:37	ME
Nitrate+Nitrite (as N)	mg/L	12	EPA 353.2	0.04	0.01		12/14/10 16:58	SME
Sample Description Matrix		DP-D09-6 Groundwater						
SAL Sample Number		1003007-07						
Date/Time Collected Collected by		12/09/10 09:05 Josephine Edeback	_ Hiret					
Date/Time Received		12/09/10 15:32	-11130					
Inorganics								
Ammonia as N	mg/L	0.028	EPA 350.1	0.010	0.005		12/11/10 15:50	SME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.84	EPA 351.2	0.20	0.05	12/16/10 13:34	12/17/10 16:37	ME
Nitrate+Nitrite (as N)	mg/L	11	EPA 353.2	0.04	0.01		12/14/10 16:58	SME
Sample Description		DP-D09-8						
Matrix		Groundwater						
SAL Sample Number		1003007-08						
Date/Time Collected		12/09/10 09:20 Josephine Edeback	Hiret					
Collected by Date/Time Received		12/09/10 15:32	-11150					
Inorganics								
Ammonia as N	mg/L	0.022	EPA 350.1	0.010	0.005		12/11/10 15:50	SME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
	•	-						



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Project Name		GCREC Mound G	roundwater An	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-D09-8						
Matrix		Groundwater						
SAL Sample Number		1003007-08						
Date/Time Collected		12/09/10 09:20						
Collected by		Josephine Edeback	-Hirst					
Date/Time Received		12/09/10 15:32						
Nitrate+Nitrite (as N)	mg/L	12	EPA 353.2	0.04	0.01		12/14/10 16:58	SME
Sample Description		DP-D09-15						
Matrix		Groundwater						
SAL Sample Number		1003007-09						
Date/Time Collected		12/09/10 09:30						
Collected by		Josephine Edeback	-Hirst					
Date/Time Received		12/09/10 15:32						
Inorganics								
Ammonia as N	mg/L	0.086	EPA 350.1	0.010	0.005		12/11/10 15:50	SME
Total Alkalinity	mg/L	2.0	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.43	EPA 351.2	0.20	0.05	12/16/10 13:34	12/17/10 16:37	ME
Total Organic Carbon	mg/L	5.3	SM 5310B	1.0	0.50		12/11/10 10:36	ME
Nitrate+Nitrite (as N)	mg/L	13	EPA 353.2	0.04	0.01		12/14/10 16:58	SME
Inorganic, Dissolved								
Dissolved Organic Carbon	mg/L	2.5	SM 5310B	4.0	1.0	12/10/10 12:00	12/11/10 10:36	ME
Sample Description		DP-D09-21						
Matrix		Groundwater						
SAL Sample Number		1003007-10						
Date/Time Collected		12/09/10 09:50						
Collected by		Josephine Edeback	-Hirst					
Date/Time Received		12/09/10 15:32						
Inorganics								
Ammonia as N	mg/L	0.053	EPA 350.1	0.010	0.005		12/11/10 15:50	SME
Total Alkalinity	mg/L	2.0	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.27	EPA 351.2	0.20	0.05	12/16/10 13:34	12/17/10 16:37	ME
Nitrate+Nitrite (as N)	mg/L	7.4	EPA 353.2	0.04	0.01		12/14/10 16:58	SME
Sample Description		DP-D09-27						
Matrix		Groundwater						
SAL Sample Number		1003007-11						
Date/Time Collected		12/09/10 10:05						
Collected by		Josephine Edeback	-Hirst					
Date/Time Received		12/09/10 15:32						



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Project Name		GCREC Mound Gr	oundwater An	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-D09-27						
Matrix		Groundwater						
SAL Sample Number		1003007-11						
Date/Time Collected		12/09/10 10:05						
Collected by		Josephine Edeback	Hirst					
Date/Time Received		12/09/10 15:32						
Inorganics								
Ammonia as N	mg/L	0.10	EPA 350.1	0.010	0.005		12/11/10 15:50	SMD
Total Alkalinity	mg/L	3.0	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	1.1	EPA 351.2	0.20	0.05	12/16/10 13:34	12/17/10 16:37	MEJ
Nitrate+Nitrite (as N)	mg/L	0.33	EPA 353.2	0.04	0.01		12/14/10 16:58	SMD
Sample Description		DP-E12-10						
Matrix		Groundwater						
SAL Sample Number		1003007-12						
Date/Time Collected		12/09/10 10:45						
Collected by		Josephine Edeback-	Hirst					
Date/Time Received		12/09/10 15:32						
Inorganics								
Ammonia as N	mg/L	0.23	EPA 350.1	0.010	0.005		12/11/10 15:50	SMD
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	2.3	EPA 351.2	0.20	0.05	12/16/10 13:34	12/17/10 16:37	MEJ
Nitrate+Nitrite (as N)	mg/L	25	EPA 353.2	0.04	0.01		12/14/10 16:58	SMD
Sample Description		DP-E12-15						
Matrix		Groundwater						
SAL Sample Number		1003007-13						
Date/Time Collected		12/09/10 10:50						
Collected by		Josephine Edeback-	Hirst					
Date/Time Received		12/09/10 15:32						
Inorganics								
Ammonia as N	mg/L	0.25	EPA 350.1	0.010	0.005		12/11/10 15:50	SMD
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	ктс
Total Kjeldahl Nitrogen	mg/L	0.88	EPA 351.2	0.20	0.05	12/16/10 13:34	12/17/10 16:37	MEJ
Nitrate+Nitrite (as N)	mg/L	26	EPA 353.2	0.04	0.01		12/14/10 16:58	SMD



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Project Name	GCREC Mound Groundwater Analyses							
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-E12-22						
Matrix		Groundwater						
SAL Sample Number		1003007-14						
Date/Time Collected		12/09/10 11:05	Llivet					
Collected by Date/Time Received		Josephine Edeback 12/09/10 15:32	-nirst					
		12/09/10 15.52						
Inorganics								
Ammonia as N	mg/L	0.049	EPA 350.1	0.010	0.005		12/11/10 15:50	SME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTO
Total Kjeldahl Nitrogen	mg/L	1.0	EPA 351.2	0.20	0.05	12/16/10 13:34	12/17/10 16:37	ME
Total Organic Carbon	mg/L	2.3	SM 5310B	1.0	0.50		12/11/10 10:36	ME
Nitrate+Nitrite (as N)	mg/L	18	EPA 353.2	0.04	0.01		12/14/10 16:58	SME
Inorganic, Dissolved								
Dissolved Organic Carbon	mg/L	1.5	SM 5310B	4.0	1.0	12/10/10 12:00	12/11/10 10:36	ME
Comula Description		DP-E12-28						
Sample Description Matrix		Groundwater						
SAL Sample Number		1003007-15						
Date/Time Collected		12/09/10 11:20						
Collected by		Josephine Edeback	-Hirst					
Date/Time Received		12/09/10 15:32						
Inorganics								
Ammonia as N	mg/L	0.069	EPA 350.1	0.010	0.005		12/11/10 15:50	SME
Total Alkalinity	mg/L	2.0	SM 2320B	8.0	2.0		12/10/10 10:27	KTO
Total Kjeldahl Nitrogen	mg/L	2.3	EPA 351.2	0.20	0.05	12/16/10 13:34	12/17/10 16:37	ME
Nitrate+Nitrite (as N)	mg/L	7.9	EPA 353.2	0.04	0.01		12/14/10 16:58	SME
Sample Description		DP-F08-14						
Matrix		Groundwater						
SAL Sample Number		1003007-16						
Date/Time Collected		12/09/10 11:45						
Collected by		Josephine Edeback	-Hirst					
Date/Time Received		12/09/10 15:32						
Inorganics								
Ammonia as N	mg/L	0.19	EPA 350.1	0.010	0.005		12/11/10 15:50	SME
Total Alkalinity	mg/L	310	SM 2320B	8.0	2.0		12/10/10 10:27	KT
Total Kjeldahl Nitrogen	mg/L	0.90	EPA 351.2	0.20	0.05	12/16/10 13:34	12/17/10 16:37	ME



Hazen and Sawyer 10002 Princess Palm Avenue Suite 200 Tampa FLORIDA, 33619 December 24, 2010 Work Order: 1003007

Project Name		GCREC Mound Groundwater Analyses							
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву	
Sample Description Matrix SAL Sample Number Date/Time Collected		DP-F08-20 Groundwater 1003007-17 12/09/10 12:00 Josephine Edeback	Hirot						
Collected by Date/Time Received		12/09/10 15:32	-חוו גו						
Inorganics									
Ammonia as N	mg/L	0.036	EPA 350.1	0.010	0.005		12/11/10 15:50	SMD	
Total Alkalinity	mg/L	3.0	SM 2320B	8.0	2.0		12/10/10 10:27	KTC	
Total Kjeldahl Nitrogen	mg/L	0.87	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD	
Total Organic Carbon	mg/L	3.0	SM 5310B	1.0	0.50		12/11/10 10:36	MEJ	
Nitrate+Nitrite (as N)	mg/L	10	EPA 353.2	0.04	0.01		12/14/10 16:58	SMD	
Inorganic, Dissolved									
Dissolved Organic Carbon	mg/L	2.4	SM 5310B	4.0	1.0	12/10/10 12:00	12/11/10 10:36	MEJ	
Sample Description		DP-F08-28							
Matrix		Groundwater							
SAL Sample Number		1003007-18 12/09/10 12:10							
Date/Time Collected Collected by		Josephine Edeback	-Hirst						
Date/Time Received		12/09/10 15:32							
<u>Inorganics</u> Ammonia as N	ma/l	0.15	EPA 350.1	0.010	0.005		12/11/10 15:50	SMD	
Total Alkalinity	mg/L	35	SM 2320B	8.0	2.0		12/10/10 10:27	KTC	
	mg/L	0.63	EPA 351.2		2.0 0.05	12/17/10 16:00	12/10/10 10:27	SMD	
Total Kjeldahl Nitrogen Nitrate+Nitrite (as N)	mg/L mg/L	3.3	EPA 353.2	0.20 0.04	0.05	12/17/10 16.00	12/14/10 16:58	SMD	
	III9/L	5.5	217(000.2	0.04	0.01		12/14/10 10.30	SIVID	
Sample Description		DP-F11-11							
Matrix		Groundwater							
SAL Sample Number		1003007-19							
Date/Time Collected		12/09/10 12:30 Josephine Edeback	Hiret						
Collected by Date/Time Received		12/09/10 15:32	-11151						
		12/03/10 13.32							
Inorganics									
Ammonia as N	mg/L	1.5	EPA 350.1	0.010	0.005		12/11/10 15:50	SMD	
Total Alkalinity	mg/L	2.0	SM 2320B	8.0	2.0		12/10/10 10:27	KTC	
Total Kjeldahl Nitrogen	mg/L	1.7	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD	
Nitrate+Nitrite (as N)	mg/L	13	EPA 353.2	0.04	0.01		12/14/10 16:58	SMD	



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Project Name		GCREC Mound Gr	oundwater An	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description Matrix SAL Sample Number Date/Time Collected Collected by Date/Time Received		DP-F11-15 Groundwater 1003007-20 12/09/10 12:55 Josephine Edeback- 12/09/10 15:32	Hirst					
Inorganics								
Ammonia as N	mg/L	0.38	EPA 350.1	0.010	0.005		12/11/10 15:50	SMD
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	1.1	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD
Nitrate+Nitrite (as N)	mg/L	29	EPA 353.2	0.04	0.01		12/14/10 16:58	SMD
Sample Description Matrix SAL Sample Number Date/Time Collected Collected by Date/Time Received		DP-F11-18 Groundwater 1003007-21 12/09/10 13:05 Josephine Edeback- 12/09/10 15:32	Hirst					
Inorganics								
Ammonia as N	mg/L	0.024	EPA 350.1	0.010	0.005		12/11/10 15:50	SMD
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.55	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD
Total Organic Carbon	mg/L	4.1	SM 5310B	1.0	0.50		12/11/10 10:36	MEJ
Nitrate+Nitrite (as N)	mg/L	22	EPA 353.2	0.04	0.01		12/14/10 16:58	SMD
Inorganic, Dissolved Dissolved Organic Carbon	mg/L	1.3	SM 5310B	4.0	1.0	12/10/10 12:00	12/11/10 10:36	MEJ
Sample Description Matrix SAL Sample Number Date/Time Collected Collected by Date/Time Received		DP-F11-21 Groundwater 1003007-22 12/09/10 13:25 Josephine Edeback- 12/09/10 15:32	Hirst					
Inorganics								
Ammonia as N	mg/L	0.018	EPA 350.1	0.010	0.005		12/11/10 15:50	SMD
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.64	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD
Nitrate+Nitrite (as N)	mg/L	19	EPA 353.2	0.04	0.01		12/14/10 16:58	SMD



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Project Name		GCREC Mound G	roundwater Ana	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-F11-24						
Matrix		Groundwater						
SAL Sample Number		1003007-23						
Date/Time Collected		12/09/10 13:45						
Collected by		Josephine Edeback	k-Hirst					
Date/Time Received		12/09/10 15:32						
Inorganics								
Ammonia as N	mg/L	0.022	EPA 350.1	0.010	0.005		12/11/10 15:50	SME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.47	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SME
Nitrate+Nitrite (as N)	mg/L	23	EPA 353.2	0.04	0.01		12/14/10 16:58	SME
Sample Description		DP-F11-27						
Matrix		Groundwater						
SAL Sample Number		1003007-24						
Date/Time Collected		12/09/10 14:00						
Collected by		Josephine Edeback	k-Hirst					
Date/Time Received		12/09/10 15:32						
Inorganics								
Ammonia as N	mg/L	0.026	EPA 350.1	0.010	0.005		12/11/10 15:50	SME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.83	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SME
Nitrate+Nitrite (as N)	mg/L	3.7	EPA 353.2	0.04	0.01		12/14/10 16:58	SME
Sample Description		DP-F15-14						
Matrix		Groundwater						
SAL Sample Number		1003007-25						
Date/Time Collected		12/10/10 06:52						
Collected by		Larry Ward						
Date/Time Received		12/10/10 11:55						
Field Parameters								
рН	SU	5.1	DEP FT1100	0.1	0.1		12/10/10 06:52	LRV
Water Temperature	°C	21.5	DEP FT1400	0.1	0.1		12/10/10 06:52	LRV
Specific conductance	umhos/cm	409	DEP FT1200	0.1	0.1		12/10/10 06:52	LRV
Dissolved Oxygen	mg/L	1.1	DEP FT1500	0.1	0.1		12/10/10 06:52	LRV
Inorganics								
Ammonia as N	mg/L	0.19	EPA 350.1	0.010	0.005		12/11/10 15:50	SME
Total Alkalinity	mg/L	22	SM 2320B	8.0	2.0		12/11/10 11:19	KTC
Total Kjeldahl Nitrogen	mg/L	0.26	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SME

### SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 FAX 813-855-2218



December 24, 2010

Work Order: 1003007

Hazen and Sawyer 10002 Princess Palm Avenue Suite 200 Tampa FLORIDA, 33619

Project Name		GCREC Mound G	roundwater Ana	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-F15-20						
Matrix		Groundwater						
SAL Sample Number		1003007-26						
Date/Time Collected		12/10/10 07:15						
Collected by		Larry Ward						
Date/Time Received		12/10/10 11:55						
Field Parameters								
рН	SU	4.9	DEP FT1100	0.1	0.1		12/10/10 07:15	LRW
Water Temperature	°C	22.1	DEP FT1400	0.1	0.1		12/10/10 07:15	LRW
Specific conductance	umhos/cm	649	DEP FT1200	0.1	0.1		12/10/10 07:15	LRW
Dissolved Oxygen	mg/L	0.6	DEP FT1500	0.1	0.1		12/10/10 07:15	LRW
Inorganics								
Ammonia as N	mg/L	0.019	EPA 350.1	0.010	0.005		12/11/10 15:50	SMD
Total Alkalinity	mg/L	11	SM 2320B	8.0	2.0		12/11/10 11:19	KTC
Total Kjeldahl Nitrogen	mg/L	0.31	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD
Total Organic Carbon	mg/L	1.1	SM 5310B	1.0	0.50		12/11/10 10:36	MEJ
Nitrate+Nitrite (as N)	mg/L	29	EPA 353.2	0.04	0.01		12/14/10 16:47	SMD
Inorganic, Dissolved								
Dissolved Organic Carbon	mg/L	1.2	SM 5310B	4.0	1.0	12/10/10 12:00	12/11/10 10:36	MEJ
Sample Description		DP-F15-26						
Matrix		Groundwater						
SAL Sample Number		1003007-27						
Date/Time Collected		12/10/10 07:41						
Collected by		Larry Ward						
Date/Time Received		12/10/10 11:55						
Field Parameters								
рН	SU	4.9	DEP FT1100	0.1	0.1		12/10/10 07:41	LRW
Water Temperature	°C	21.8	DEP FT1400	0.1	0.1		12/10/10 07:41	LRW
Specific conductance	umhos/cm	291	DEP FT1200	0.1	0.1		12/10/10 07:41	LRW
Dissolved Oxygen	mg/L	0.5	DEP FT1500	0.1	0.1		12/10/10 07:41	LRW
Inorganics								
Ammonia as N	mg/L	0.016	EPA 350.1	0.010	0.005		12/11/10 15:50	SMD
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/11/10 11:19	KTC
Total Kjeldahl Nitrogen	mg/L	0.54	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD
Nitrate+Nitrite (as N)	mg/L	11	EPA 353.2	0.04	0.01		12/14/10 16:47	SMD



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Project Name		GCREC Mound Gr	roundwater An	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-G07-15						
Matrix		Groundwater						
SAL Sample Number		1003007-29						
Date/Time Collected		12/10/10 08:25						
Collected by		Larry Ward						
Date/Time Received		12/10/10 11:55						
Inorganics								
Ammonia as N	mg/L	0.039	EPA 350.1	0.010	0.005		12/11/10 15:50	SMD
Total Alkalinity	mg/L	6.1 (	SM 2320B	8.0	2.0		12/11/10 11:19	KTC
Total Kjeldahl Nitrogen	mg/L	0.49	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD
Nitrate+Nitrite (as N)	mg/L	4.3	EPA 353.2	0.04	0.01		12/14/10 16:47	SMD
		DP-G07-17						
Sample Description Matrix		Groundwater						
SAL Sample Number		1003007-30						
Date/Time Collected		12/10/10 08:35						
Collected by		Larry Ward						
Date/Time Received		12/10/10 11:55						
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ
Total Alkalinity	mg/L	5.1 (	SM 2320B	8.0	2.0		12/11/10 11:19	ктс
Total Kjeldahl Nitrogen	mg/L	0.31	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD
Nitrate+Nitrite (as N)	mg/L	6.7	EPA 353.2	0.04	0.01		12/14/10 16:47	SMD
		DD 007 04						
Sample Description		DP-G07-21						
Matrix		Groundwater 1003007-31						
SAL Sample Number Date/Time Collected		12/10/10 08:50						
Collected by		Larry Ward						
Date/Time Received		12/10/10 11:55						
Inorganics								
<u>Inorganics</u> Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ
		-	SM 2320B					KTC
Total Alkalinity	mg/L	6.1	EPA 351.2	8.0	2.0	12/17/10 16:00	12/11/10 11:19	SMD
Total Kjeldahl Nitrogen	mg/L	0.51		0.20	0.05	12/17/10 16:00	12/20/10 15:20	-
Nitrate+Nitrite (as N)	mg/L	12	EPA 353.2	0.04	0.01		12/14/10 16:47	SMD



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Project Name	GCREC Mound Groundwater Analyses								
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву	
Sample Description		DP-G07-24							
Matrix		Groundwater							
SAL Sample Number		1003007-32							
Date/Time Collected		12/10/10 09:00							
Collected by		Josephine Edeback	-Hirst						
Date/Time Received		12/10/10 11:55							
Inorganics									
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ	
Total Alkalinity	mg/L	7.1	SM 2320B	8.0	2.0		12/11/10 11:19	KTC	
Total Kjeldahl Nitrogen	mg/L	0.50	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD	
Nitrate+Nitrite (as N)	mg/L	14	EPA 353.2	0.04	0.01		12/14/10 16:47	SMD	
Comple Description		DP-G07-27							
Sample Description Matrix		Groundwater							
SAL Sample Number		1003007-33							
Date/Time Collected		12/10/10 09:15							
Collected by		Josephine Edeback	-Hirst						
Date/Time Received		12/10/10 11:55							
Inorganics									
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ	
Total Alkalinity	mg/L	5.1	SM 2320B	8.0	2.0		12/11/10 11:19	KTC	
Total Kjeldahl Nitrogen	mg/L	0.74	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD	
Nitrate+Nitrite (as N)	mg/L	7.7	EPA 353.2	0.04	0.01		12/14/10 16:47	SMD	
Sample Description		DP-G12-15							
Matrix		Groundwater							
SAL Sample Number		1003007-34							
Date/Time Collected		12/10/10 09:36							
Collected by Date/Time Received		Larry Ward							
Date/Time Received		12/10/10 11:55							
Field Parameters									
рН	SU	4.7	DEP FT1100	0.1	0.1		12/10/10 09:36	LRW	
Water Temperature	°C	22.3	DEP FT1400	0.1	0.1		12/10/10 09:36	LRW	
Specific conductance	umhos/cm	508	DEP FT1200	0.1	0.1		12/10/10 09:36	LRW	
Dissolved Oxygen	mg/L	0.9	DEP FT1500	0.1	0.1		12/10/10 09:36	LRW	
Inorganics									
Ammonia as N	mg/L	0.22	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ	
Total Alkalinity	mg/L	5.1	SM 2320B	8.0	2.0		12/14/10 17:00	JMK	
Total Kjeldahl Nitrogen	mg/L	1.0	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD	
Nitrate+Nitrite (as N)	mg/L	24	EPA 353.2	0.04	0.01		12/14/10 16:47	SMD	



### Hazen and Sawyer 10002 Princess Palm Avenue Suite 200 Tampa FLORIDA, 33619

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Laboratory Report

Project Name		GCREC Mound G	roundwater Ana	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-G12-21						
Matrix		Groundwater						
SAL Sample Number		1003007-35						
Date/Time Collected		12/10/10 09:52						
Collected by		Larry Ward						
Date/Time Received		12/10/10 11:55						
Field Parameters								
рН	SU	4.9	DEP FT1100	0.1	0.1		12/10/10 09:52	LRW
Water Temperature	°C	22.7	DEP FT1400	0.1	0.1		12/10/10 09:52	LRW
Specific conductance	umhos/cm	636	DEP FT1200	0.1	0.1		12/10/10 09:52	LRW
Dissolved Oxygen	mg/L	1.0	DEP FT1500	0.1	0.1		12/10/10 09:52	LRW
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	ME
Total Alkalinity	mg/L	4.1	SM 2320B	8.0	2.0		12/11/10 11:19	KTC
Total Kjeldahl Nitrogen	mg/L	0.06	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD
Nitrate+Nitrite (as N)	mg/L	31	EPA 353.2	0.04	0.01		12/14/10 16:47	SMD
Sample Description		DP-G12-27						
Matrix		Groundwater						
SAL Sample Number		1003007-36						
Date/Time Collected		12/10/10 10:08						
Collected by		Larry Ward						
Date/Time Received		12/10/10 11:55						
Field Parameters								
рН	SU	4.7	DEP FT1100	0.1	0.1		12/10/10 10:08	LRW
Water Temperature	°C	23.1	DEP FT1400	0.1	0.1		12/10/10 10:08	LRW
Specific conductance	umhos/cm	509	DEP FT1200	0.1	0.1		12/10/10 10:08	LRW
Dissolved Oxygen	mg/L	0.4	DEP FT1500	0.1	0.1		12/10/10 10:08	LRW
Inorganics		0.00		0.040	0 005			
Ammonia as N	mg/L	0.22	EPA 350.1	0.010	0.005		12/17/10 14:32	ME
Total Alkalinity	mg/L	6.1	SM 2320B	8.0	2.0		12/11/10 11:19	KTC
Total Kjeldahl Nitrogen	mg/L	0.68	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD
Nitrate+Nitrite (as N)	mg/L	19	EPA 353.2	0.04	0.01		12/14/10 16:47	SMD
Sample Description		DP-106-14						
Matrix		Groundwater						
SAL Sample Number		1003007-37						

SAL Sample Number Date/Time Collected Collected by Date/Time Received Groundwater 1003007-37 12/10/10 07:10 Josephine Edeback-Hirst 12/10/10 11:55

#### **Inorganics**



December 24, 2010

Work Order: 1003007

Hazen and Sawyer 10002 Princess Palm Avenue Suite 200 Tampa FLORIDA, 33619

Project Name		GCREC Mound Gr	oundwater An	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-106-14						
Matrix		Groundwater						
SAL Sample Number		1003007-37						
Date/Time Collected		12/10/10 07:10						
Collected by		Josephine Edeback-	Hirst					
Date/Time Received		12/10/10 11:55						
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ
Total Alkalinity	mg/L	6.1	SM 2320B	8.0	2.0		12/11/10 11:19	KTC
Total Kjeldahl Nitrogen	mg/L	1.1	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD
Nitrate+Nitrite (as N)	mg/L	3.2	EPA 353.2	0.04	0.01		12/14/10 16:47	SMD
Sample Description		DP-106-20						
Matrix		Groundwater						
SAL Sample Number		1003007-38						
Date/Time Collected		12/10/10 07:25						
Collected by		Josephine Edeback-	Hirst					
Date/Time Received		12/10/10 11:55						
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/11/10 11:19	KTC
Total Kjeldahl Nitrogen	mg/L	0.46	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD
Nitrate+Nitrite (as N)	mg/L	15	EPA 353.2	0.04	0.01		12/14/10 16:47	SMD
Sample Description		DP-106-26						
Matrix		Groundwater						
SAL Sample Number		1003007-39						
Date/Time Collected		12/10/10 07:45						
Collected by		Josephine Edeback-	Hirst					
Date/Time Received		12/10/10 11:55						
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/11/10 11:19	ктс
Total Kjeldahl Nitrogen	mg/L	0.38	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMD
Total Organic Carbon	mg/L	0.75	SM 5310B	1.0	0.50		12/11/10 10:36	MEJ
Nitrate+Nitrite (as N)	mg/L	10	EPA 353.2	0.04	0.01		12/14/10 16:47	SMD
Inorganic, Dissolved								
Dissolved Organic Carbon	mg/L	1.0 U	SM 5310B	4.0	1.0	12/10/10 12:00	12/11/10 10:36	MEJ



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Project Name		GCREC Mound G	roundwater Ana	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-J09-14						
Matrix		Groundwater						
SAL Sample Number		1003007-40						
Date/Time Collected		12/09/10 13:20						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
Field Parameters								
рН	SU	4.5	DEP FT1100	0.1	0.1		12/09/10 13:20	LRV
Water Temperature	°C	21.9	DEP FT1400	0.1	0.1		12/09/10 13:20	LRV
Specific conductance	umhos/cm	232	DEP FT1200	0.1	0.1		12/09/10 13:20	LRV
Dissolved Oxygen	mg/L	3.3	DEP FT1500	0.1	0.1		12/09/10 13:20	LRV
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	ME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KT
Total Kjeldahl Nitrogen	mg/L	0.42	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMI
Nitrate+Nitrite (as N)	mg/L	3.5	EPA 353.2	0.04	0.01		12/14/10 16:58	SMI
Sample Description		DP-J09-20						
Matrix		Groundwater						
SAL Sample Number		1003007-41						
Date/Time Collected		12/09/10 13:36						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
Field Parameters								
pH	SU	4.9	DEP FT1100	0.1	0.1		12/09/10 13:36	LRV
Water Temperature	°C	23.2	DEP FT1400	0.1	0.1		12/09/10 13:36	LRV
Specific conductance	umhos/cm	338	DEP FT1200	0.1	0.1		12/09/10 13:36	LRV
Dissolved Oxygen	mg/L	1.6	DEP FT1500	0.1	0.1		12/09/10 13:36	LRV
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	ME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KT
Total Kjeldahl Nitrogen	mg/L	0.05 U	EPA 351.2	0.20	0.05	12/17/10 16:00	12/20/10 15:20	SMI
Nitrate+Nitrite (as N)	mg/L	8.1	EPA 353.2	0.04	0.01		12/14/10 16:58	SMI
Sample Description		DP-J09-26						
Matrix		Groundwater						
SAL Sample Number		1003007-42						
Date/Time Collected		12/09/10 13:58 Larry Ward						
Collected by Date/Time Received		12/09/10 15:32						
Field Parameters								



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Project Name		GCREC Mound G	roundwater Ana	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-J09-26						
Matrix		Groundwater						
SAL Sample Number		1003007-42						
Date/Time Collected		12/09/10 13:58						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
рН	SU	4.9	DEP FT1100	0.1	0.1		12/09/10 13:58	LRW
Water Temperature	°C	23.0	DEP FT1400	0.1	0.1		12/09/10 13:58	LRW
Specific conductance	umhos/cm	298	DEP FT1200	0.1	0.1		12/09/10 13:58	LRW
Dissolved Oxygen	mg/L	2.5	DEP FT1500	0.1	0.1		12/09/10 13:58	LRW
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	1.1	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SMB
Nitrate+Nitrite (as N)	mg/L	9.3	EPA 353.2	0.04	0.01		12/14/10 16:58	SMD
Sample Description		DP-J12-15						
Matrix		Groundwater						
SAL Sample Number		1003007-43						
Date/Time Collected		12/09/10 12:28						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
Field Parameters								
рН	SU	4.8	DEP FT1100	0.1	0.1		12/09/10 12:28	LRW
Water Temperature	°C	22.1	DEP FT1400	0.1	0.1		12/09/10 12:28	LRW
Specific conductance	umhos/cm	288	DEP FT1200	0.1	0.1		12/09/10 12:28	LRW
Dissolved Oxygen	mg/L	1.5	DEP FT1500	0.1	0.1		12/09/10 12:28	LRW
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.05 U	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SMB
Nitrate+Nitrite (as N)	mg/L	5.0	EPA 353.2	0.04	0.01		12/14/10 16:58	SMD
Sample Description		DP-J12-20						
Matrix		Groundwater						
SAL Sample Number		1003007-44						
Date/Time Collected		12/09/10 12:39						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
Field Parameters								
рН	SU	5.0	DEP FT1100	0.1	0.1		12/09/10 12:39	LRW
Water Temperature	°C	22.9	DEP FT1400	0.1	0.1		12/09/10 12:39	LRW

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Project Name		GCREC Mound G		<b>,</b>				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-J12-20						
Matrix		Groundwater						
SAL Sample Number		1003007-44						
Date/Time Collected		12/09/10 12:39						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
Specific conductance	umhos/cm	343	DEP FT1200	0.1	0.1		12/09/10 12:39	LRV
Dissolved Oxygen	mg/L	1.1	DEP FT1500	0.1	0.1		12/09/10 12:39	LRV
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	ME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KT
Total Kjeldahl Nitrogen	mg/L	0.83	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SM
Total Organic Carbon	mg/L	2.6	SM 5310B	1.0	0.50		12/11/10 10:36	ME
Nitrate+Nitrite (as N)	mg/L	7.8	EPA 353.2	0.04	0.01		12/14/10 17:05	SM
Inorganic, Dissolved								
Dissolved Organic Carbon	mg/L	1.5	SM 5310B	4.0	1.0	12/10/10 12:00	12/11/10 10:36	ME
Sample Description		DP-J12-27						
Matrix		Groundwater						
SAL Sample Number		1003007-45						
Date/Time Collected		12/09/10 13:00						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
Field Parameters								
рН	SU	4.8	DEP FT1100	0.1	0.1		12/09/10 13:00	LRV
Water Temperature	°C	22.6	DEP FT1400	0.1	0.1		12/09/10 13:00	LRV
Specific conductance	umhos/cm	307	DEP FT1200	0.1	0.1		12/09/10 13:00	LRV
Dissolved Oxygen	mg/L	1.1	DEP FT1500	0.1	0.1		12/09/10 13:00	LRV
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	ME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KT
Total Kjeldahl Nitrogen	mg/L	1.1	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SM
Nitrate+Nitrite (as N)	mg/L	12	EPA 353.2	0.04	0.01		12/14/10 17:05	SMI
Sample Description		DP-M07-15						
Matrix		Groundwater						
SAL Sample Number		1003007-46						
Date/Time Collected		12/09/10 11:32						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
Field Parameters								



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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-M07-15						
Matrix		Groundwater						
SAL Sample Number		1003007-46						
Date/Time Collected		12/09/10 11:32						
Collected by Date/Time Received		Larry Ward 12/09/10 15:32						
Date/Time Received		12/09/10 15:32						
pН	SU	4.8	DEP FT1100	0.1	0.1		12/09/10 11:32	LRW
Water Temperature	°C	22.2	DEP FT1400	0.1	0.1		12/09/10 11:32	LRW
Specific conductance	umhos/cm	304	DEP FT1200	0.1	0.1		12/09/10 11:32	LRW
Dissolved Oxygen	mg/L	0.8	DEP FT1500	0.1	0.1		12/09/10 11:32	LRW
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.42	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SMB
Nitrate+Nitrite (as N)	mg/L	6.2	EPA 353.2	0.04	0.01		12/14/10 17:05	SMD
Sample Description		DP-M07-21						
Matrix		Groundwater						
SAL Sample Number		1003007-47						
Date/Time Collected		12/09/10 11:47						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
Field Parameters								
рН	SU	4.9	DEP FT1100	0.1	0.1		12/09/10 11:47	LRW
Water Temperature	°C	22.5	DEP FT1400	0.1	0.1		12/09/10 11:47	LRW
Specific conductance	umhos/cm	375	DEP FT1200	0.1	0.1		12/09/10 11:47	LRW
Dissolved Oxygen	mg/L	0.6	DEP FT1500	0.1	0.1		12/09/10 11:47	LRW
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.86	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SMB
Nitrate+Nitrite (as N)	mg/L	13	EPA 353.2	0.04	0.01		12/14/10 17:05	SMD
Sample Description		DP-M07-27						
Matrix		Groundwater						
SAL Sample Number		1003007-48						
Date/Time Collected		12/09/10 12:07						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
Field Parameters								
рН	SU	4.8	DEP FT1100	0.1	0.1		12/09/10 12:07	LRW
Water Temperature	°C	22.5	DEP FT1400	0.1	0.1		12/09/10 12:07	LRW

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Project Name		GCREC Mound G	roundwater Ana	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-M07-27						
Matrix		Groundwater						
SAL Sample Number		1003007-48						
Date/Time Collected		12/09/10 12:07						
Collected by Date/Time Received		Larry Ward						
Date/Time Received		12/09/10 15:32						
Specific conductance	umhos/cm	302	DEP FT1200	0.1	0.1		12/09/10 12:07	LRW
Dissolved Oxygen	mg/L	0.5	DEP FT1500	0.1	0.1		12/09/10 12:07	LRW
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.74	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SMB
Nitrate+Nitrite (as N)	mg/L	8.6	EPA 353.2	0.04	0.01		12/14/10 17:05	SMD
Sample Description		DP-N12-14						
Matrix		Groundwater						
SAL Sample Number		1003007-49						
Date/Time Collected		12/09/10 10:36						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
Field Parameters								
рН	SU	5.0	DEP FT1100	0.1	0.1		12/09/10 10:36	LRW
Water Temperature	°C	22.1	DEP FT1400	0.1	0.1		12/09/10 10:36	LRW
Specific conductance	umhos/cm	163	DEP FT1200	0.1	0.1		12/09/10 10:36	LRW
Dissolved Oxygen	mg/L	1.3	DEP FT1500	0.1	0.1		12/09/10 10:36	LRW
Inorganics		0.005		0.040			10/17/10 11 00	
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.26	EPA 351.2 EPA 353.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SMB
Nitrate+Nitrite (as N)	mg/L	0.77	EPA 353.2	0.04	0.01		12/14/10 17:05	SMD
Sample Description		DP-N12-21						
Matrix		Groundwater						
SAL Sample Number		1003007-50						
Date/Time Collected		12/09/10 10:52						
Collected by Date/Time Received		Larry Ward						
		12/09/10 15:32						
Field Parameters								
рН	SU	4.9	DEP FT1100	0.1	0.1		12/09/10 10:52	LRW
Water Temperature	°C	22.3	DEP FT1400	0.1	0.1		12/09/10 10:52	LRW
Specific conductance	umhos/cm	304	DEP FT1200	0.1	0.1		12/09/10 10:52	LRW
Dissolved Oxygen	mg/L	1.9	DEP FT1500	0.1	0.1		12/09/10 10:52	LRW

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Project Name		GCREC Mound G	roundwater Ana	lyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-N12-21						
Matrix		Groundwater						
SAL Sample Number		1003007-50						
Date/Time Collected		12/09/10 10:52						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	ME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KT
Total Kjeldahl Nitrogen	mg/L	0.60	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SM
Nitrate+Nitrite (as N)	mg/L	4.1	EPA 353.2	0.04	0.01		12/14/10 17:05	SMI
Sample Description		DP-N12-27						
Matrix		Groundwater						
SAL Sample Number		1003007-51						
Date/Time Collected		12/09/10 11:14						
Collected by Date/Time Received		Larry Ward						
Date/Time Received		12/09/10 15:32						
Field Parameters								
pH	SU	5.0	DEP FT1100	0.1	0.1		12/09/10 11:14	LRV
Water Temperature	°C	21.6	DEP FT1400	0.1	0.1		12/09/10 11:14	LRV
Specific conductance	umhos/cm	332	DEP FT1200	0.1	0.1		12/09/10 11:14	LRV
Dissolved Oxygen	mg/L	2.4	DEP FT1500	0.1	0.1		12/09/10 11:14	LRV
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	ME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KT
Total Kjeldahl Nitrogen	mg/L	0.99	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SM
Total Organic Carbon	mg/L	1.5	SM 5310B	1.0	0.50		12/11/10 10:36	ME
Nitrate+Nitrite (as N)	mg/L	11	EPA 353.2	0.04	0.01		12/14/10 17:05	SM
Inorganic, Dissolved		0.0.1	CM 5240D	4.0	1.0	40/40/40 40:00	40/44/40 40:00	
Dissolved Organic Carbon	mg/L	2.0	SM 5310B	4.0	1.0	12/10/10 12:00	12/11/10 10:36	ME
Sample Description		DP-010-12						
Matrix		Groundwater						
SAL Sample Number		1003007-52						
Date/Time Collected		12/09/10 09:45						
Collected by Date/Time Received		Larry Ward 12/09/10 15:32						
Field Parameters								
<u>Field Parameters</u> pH	SU	4.3	DEP FT1100	0.1	0.1		12/09/10 09:45	LRV
Vater Temperature	°C	4.3 21.1	DEP FT1400	0.1	0.1		12/09/10 09:45	LRV
water remperature	U	21.1		0.1	0.1		12/09/10 09.45	LKV



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Project Name		GCREC Mound G	roundwater Ana	lyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-010-12						
Matrix		Groundwater						
SAL Sample Number		1003007-52						
Date/Time Collected		12/09/10 09:45						
Collected by Date/Time Received		Larry Ward						
Date/Time Received		12/09/10 15:32						
Specific conductance	umhos/cm	186	DEP FT1200	0.1	0.1		12/09/10 09:45	LRW
Dissolved Oxygen	mg/L	1.3	DEP FT1500	0.1	0.1		12/09/10 09:45	LRW
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.10	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SMB
Nitrate+Nitrite (as N)	mg/L	0.06	EPA 353.2	0.04	0.01		12/14/10 17:05	SMD
Sample Description		DP-010-18						
Matrix		Groundwater						
SAL Sample Number		1003007-53						
Date/Time Collected		12/09/10 09:58						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
Field Parameters								
рН	SU	4.8	DEP FT1100	0.1	0.1		12/09/10 09:58	LRW
Water Temperature	°C	22.2	DEP FT1400	0.1	0.1		12/09/10 09:58	LRW
Specific conductance	umhos/cm	299	DEP FT1200	0.1	0.1		12/09/10 09:58	LRW
Dissolved Oxygen	mg/L	0.8	DEP FT1500	0.1	0.1		12/09/10 09:58	LRW
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.54	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SMB
Nitrate+Nitrite (as N)	mg/L	4.0	EPA 353.2	0.04	0.01		12/14/10 17:05	SMD
Sample Description		DP-O10-24						
Matrix		Groundwater						
SAL Sample Number		1003007-54						
Date/Time Collected		12/09/10 10:16						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
Field Parameters								
рН	SU	4.2	DEP FT1100	0.1	0.1		12/09/10 10:16	LRW
Water Temperature	°C	21.8	DEP FT1400	0.1	0.1		12/09/10 10:16	LRW
Specific conductance	umhos/cm	182	DEP FT1200	0.1	0.1		12/09/10 10:16	LRW
Dissolved Oxygen	mg/L	0.7	DEP FT1500	0.1	0.1		12/09/10 10:16	LRW

Francis I. Daniels, Laboratory Director Leslie C. Boardman, Q.A. Manager



Hazen and Sawyer 10002 Princess Palm Avenue Suite 200 Tampa FLORIDA, 33619 December 24, 2010 Work Order: 1003007

Project Name		GCREC Mound G	roundwater Ana	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description Matrix SAL Sample Number Date/Time Collected		DP-O10-24 Groundwater 1003007-54 12/09/10 10:16						
Collected by Date/Time Received		Larry Ward 12/09/10 15:32						
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	ME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.09	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SME
Nitrate+Nitrite (as N)	mg/L	0.07	EPA 353.2	0.04	0.01		12/14/10 17:05	SME
Sample Description Matrix SAL Sample Number Date/Time Collected Collected by Date/Time Received		DP-Q15-15 Groundwater 1003007-55 12/09/10 08:53 Larry Ward 12/09/10 15:32						
Field Parameters								
рН	SU	4.7	DEP FT1100	0.1	0.1		12/09/10 08:53	LRW
Water Temperature	°C	20.7	DEP FT1400	0.1	0.1		12/09/10 08:53	LRW
Specific conductance	umhos/cm	303	DEP FT1200	0.1	0.1		12/09/10 08:53	LRW
Dissolved Oxygen	mg/L	2.3	DEP FT1500	0.1	0.1		12/09/10 08:53	LRV
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	ME
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.29	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SME
Nitrate+Nitrite (as N)	mg/L	1.5	EPA 353.2	0.04	0.01		12/14/10 17:05	SME
Sample Description Matrix SAL Sample Number Date/Time Collected Collected by		DP-Q15-21 Groundwater 1003007-56 12/09/10 09:05 Larry Ward						
Date/Time Received		12/09/10 15:32						
Field Parameters					<b>.</b> .			
pH	SU	5.0	DEP FT1100	0.1	0.1		12/09/10 09:05	LRV
Water Temperature	°C	22.6	DEP FT1400	0.1	0.1		12/09/10 09:05	LRW
Specific conductance	umhos/cm	324	DEP FT1200	0.1	0.1		12/09/10 09:05	LRW
Dissolved Oxygen	mg/L	1.4	DEP FT1500	0.1	0.1		12/09/10 09:05	LRW
Inorganics								



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### Laboratory Report

Project Name		GCREC Mound G	roundwater Ana	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description Matrix SAL Sample Number Date/Time Collected Collected by Date/Time Received		DP-Q15-21 Groundwater 1003007-56 12/09/10 09:05 Larry Ward 12/09/10 15:32						
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ
Total Alkalinity	mg/L	2.0	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.90	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SMB
Nitrate+Nitrite (as N)	mg/L	5.0	EPA 353.2	0.04	0.01		12/14/10 17:05	SMD
Sample Description Matrix SAL Sample Number Date/Time Collected Collected by Date/Time Received		DP-Q15-26 Groundwater 1003007-57 12/09/10 09:23 Larry Ward 12/09/10 15:32						
Field Parameters								
pH	SU	5.1	DEP FT1100	0.1	0.1		12/09/10 09:23	LRW
Water Temperature	°C	21.5	DEP FT1400	0.1	0.1		12/09/10 09:23	LRW
Specific conductance	umhos/cm	324	DEP FT1200	0.1	0.1		12/09/10 09:23	LRW
Dissolved Oxygen	mg/L	1.0	DEP FT1500	0.1	0.1		12/09/10 09:23	LRW
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:32	MEJ
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		12/10/10 10:27	KTC
Total Kjeldahl Nitrogen	mg/L	0.70	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SMB
Nitrate+Nitrite (as N)	mg/L	8.3	EPA 353.2	0.04	0.01		12/14/10 17:05	SMD
Sample Description Matrix SAL Sample Number Date/Time Collected Collected by Date/Time Received		PZ16-C12-28 Groundwater 1003007-58 12/09/10 08:31 Larry Ward 12/09/10 15:32						
Field Parameters								
рН	SU	5.6	DEP FT1100	0.1	0.1		12/09/10 08:31	LRW
Water Temperature	°C	27.6	DEP FT1400	0.1	0.1		12/09/10 08:31	LRW
Specific conductance	umhos/cm	292	DEP FT1200	0.1	0.1		12/09/10 08:31	LRW
Dissolved Oxygen	mg/L	0.8	DEP FT1500	0.1	0.1		12/09/10 08:31	LRW
Inorganics								
Ammonia as N	mg/L	0.017	EPA 350.1	0.010	0.005		12/17/10 14:01	MEJ
Total Alkalinity	mg/L	11	SM 2320B	8.0	2.0		12/14/10 17:00	JMK

FDOH Laboratory No.E84129 NELAP Accredited Francis I. Daniels, Laboratory Director Leslie C. Boardman, Q.A. Manager



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Project Name		GCREC Mound Gr	oundwater An	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		PZ16-C12-28						
Matrix		Groundwater						
SAL Sample Number		1003007-58						
Date/Time Collected		12/09/10 08:31						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
Total Kjeldahl Nitrogen	mg/L	0.12	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SME
Nitrate+Nitrite (as N)	mg/L	0.17	EPA 353.2	0.04	0.01		12/14/10 17:05	SME
Sample Description		STE-EX Pump Tank						
Matrix		Groundwater						
SAL Sample Number		1003007-59						
Date/Time Collected		12/10/10 09:55						
Collected by		Josephine Edeback	-Hirst					
Date/Time Received		12/10/10 11:55						
Inorganics								
Ammonia as N	mg/L	35	EPA 350.1	0.010	0.005		12/20/10 14:22	SME
Total Alkalinity	mg/L	410	SM 2320B	8.0	2.0		12/14/10 17:00	JMk
Total Kjeldahl Nitrogen	mg/L	56	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SME
Nitrate+Nitrite (as N)	mg/L	0.01 U	EPA 353.2	0.04	0.01		12/14/10 16:47	SME
Sample Description		Field Blank-DI						
Matrix		Groundwater						
SAL Sample Number		1003007-60						
Date/Time Collected		12/10/10 07:55						
Collected by		Josephine Edeback	-Hirst					
Date/Time Received		12/10/10 11:55						
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:01	ME
Total Alkalinity	mg/L	2.0	SM 2320B	8.0	2.0		12/14/10 17:00	JMK
Total Kjeldahl Nitrogen	mg/L	0.05 U	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SME
Nitrate+Nitrite (as N)	mg/L	0.01 U	EPA 353.2	0.04	0.01		12/14/10 16:47	SME
Sample Description		Field Blank-TAP						
Matrix		Groundwater						
SAL Sample Number		1003007-61						
Date/Time Collected		12/10/10 08:00						
Collected by		Josephine Edeback	-Hirst					
Date/Time Received		12/10/10 11:55						
Inorganics								_
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:01	ME



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Project Name		GCREC Mound Gro	oundwater Ana	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		Field Blank-TAP						
Matrix		Groundwater						
SAL Sample Number		1003007-61						
Date/Time Collected		12/10/10 08:00	livet					
Collected by Date/Time Received		Josephine Edeback-H 12/10/10 11:55	hirst					
Date/Time Received		12/10/10 11.55						
Total Alkalinity	mg/L	140	SM 2320B	8.0	2.0		12/14/10 17:00	JMK
Total Kjeldahl Nitrogen	mg/L	0.05 U	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SMB
Nitrate+Nitrite (as N)	mg/L	0.01 U	EPA 353.2	0.04	0.01		12/14/10 16:47	SMD
Sample Description		Equipment Rinsate						
Matrix		Groundwater						
SAL Sample Number		1003007-62						
Date/Time Collected		12/10/10 09:42						
Collected by		Larry Ward						
Date/Time Received		12/10/10 11:55						
Field Parameters								
рН	SU	7.2	DEP FT1100	0.1	0.1		12/10/10 09:42	LRW
Water Temperature	°C	11.9	DEP FT1400	0.1	0.1		12/10/10 09:42	LRW
Specific conductance	umhos/cm	13	DEP FT1200	0.1	0.1		12/10/10 09:42	LRW
Dissolved Oxygen	mg/L	2.3	DEP FT1500	0.1	0.1		12/10/10 09:42	LRW
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:01	MEJ
Total Alkalinity	mg/L	2.0	SM 2320B	8.0	2.0		12/14/10 17:00	JMK
Total Kjeldahl Nitrogen	mg/L	0.05 U	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SMB
Nitrate+Nitrite (as N)	mg/L	0.01 U	EPA 353.2	0.04	0.01		12/14/10 16:47	SMD
Sample Description		DP-D09-15-D						
Matrix		Groundwater						
SAL Sample Number		1003007-63						
Date/Time Collected		12/09/10 09:35						
Collected by		Josephine Edeback-H	lirst					
Date/Time Received		12/09/10 15:32						
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:01	MEJ
Total Alkalinity	mg/L	14	SM 2320B	8.0	2.0		12/14/10 17:00	JMK
Total Kjeldahl Nitrogen	mg/L	0.41	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SMB
Nitrate+Nitrite (as N)	mg/L	12	EPA 353.2	0.04	0.01		12/14/10 17:05	SMD



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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		DP-F08-20-D						
Matrix		Groundwater						
SAL Sample Number		1003007-64						
Date/Time Collected		12/10/10 07:20						
Collected by		Larry Ward						
Date/Time Received		12/09/10 15:32						
Field Parameters								
рН	SU	4.9	DEP FT1100	0.1	0.1		12/10/10 07:20	LRV
Water Temperature	°C	22.1	DEP FT1400	0.1	0.1		12/10/10 07:20	LRV
Specific conductance	umhos/cm	649	DEP FT1200	0.1	0.1		12/10/10 07:20	LRV
Dissolved Oxygen	mg/L	0.6	DEP FT1500	0.1	0.1		12/10/10 07:20	LRV
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:01	ME
Total Alkalinity	mg/L	20	SM 2320B	8.0	2.0		12/14/10 17:00	JMł
Total Kjeldahl Nitrogen	mg/L	0.91	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SME
Nitrate+Nitrite (as N)	mg/L	11	EPA 353.2	0.04	0.01		12/14/10 17:05	SME
Sample Description		DP-F15-20-D						
Matrix SAL Sample Number		Groundwater 1003007-65						
Date/Time Collected		12/10/10 07:20						
Collected by		Larry Ward						
Date/Time Received		12/10/10 11:55						
Field Parameters								
рН	SU	4.9	DEP FT1100	0.1	0.1		12/10/10 07:20	LRV
Water Temperature	°C	22.1	<b>DEP FT1400</b>	0.1	0.1		12/10/10 07:20	LRV
Specific conductance	umhos/cm	649	DEP FT1200	0.1	0.1		12/10/10 07:20	LRV
Dissolved Oxygen	mg/L	0.6	DEP FT1500	0.1	0.1		12/10/10 07:20	LRV
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:01	ME
Total Alkalinity	mg/L	7.1	SM 2320B	8.0	2.0		12/14/10 17:00	JMł
Total Kjeldahl Nitrogen	mg/L	0.29	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SME
Nitrate+Nitrite (as N)	mg/L	29	EPA 353.2	0.04	0.01		12/14/10 16:47	SME
Sample Description		DP-G12-15-D						
Matrix		Groundwater						
SAL Sample Number		1003007-66						
Date/Time Collected		12/10/10 09:38						
Collected by		Larry Ward						
Date/Time Received		12/10/10 11:55						
Field Parameters								



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Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву	
	DP-G12-15-D							
	Groundwater							
	1003007-66							
	12/10/10 09:38							
	Larry Ward							
	12/10/10 11:55							
SU	4.7	DEP FT1100	0.1	0.1		12/10/10 09:38	LRW	
°C	22.3	DEP FT1400	0.1	0.1		12/10/10 09:38	LRW	
umhos/cm	508	<b>DEP FT1200</b>	0.1	0.1		12/10/10 09:38	LRW	
mg/L	0.9	DEP FT1500	0.1	0.1		12/10/10 09:38	LRW	
mg/L	0.19	EPA 350.1	0.010	0.005		12/17/10 14:01	ME	
mg/L	4.1	SM 2320B	8.0	2.0		12/14/10 17:00	JMk	
mg/L	1.1	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SME	
mg/L	24	EPA 353.2	0.04	0.01		12/14/10 16:47	SME	
	DP- 112-20-D							
	12/09/10 12:39							
	Larry Ward							
	12/09/10 15:32							
SU	5.0	<b>DEP FT1100</b>	0.1	0.1		12/09/10 12:39	LRW	
°C	22.9	<b>DEP FT1400</b>	0.1	0.1		12/09/10 12:39	LRW	
umhos/cm	343	DEP FT1200	0.1	0.1		12/09/10 12:39	LRW	
	1.1	<b>DEP FT1500</b>	0.1	0.1			LRW	
0								
ma/L	0.014	EPA 350.1	0.010	0.005		12/17/10 14:01	ME	
		SM 2320B					JMK	
	-	EPA 351.2			12/21/10 11:30	12/22/10 17:15	SME	
mg/L	9.1	EPA 353.2	0.04	0.01		12/14/10 17:05	SME	
		<b>D</b>						
		-U						
		-Hirst						
	12/10/10 11:55							
ma/l	61	EPA 350.1	0.010	0.005		12/20/10 14·22	SME	
	01	SM 2320B	8.0	2.0		12/14/10 17:00	JMK	
	SU °C umhos/cm mg/L mg/L mg/L mg/L SU °C umhos/cm mg/L mg/L mg/L mg/L mg/L	DP-G12-15-D Groundwater 1003007-66 12/10/10 09:38 Larry Ward 12/10/10 11:55           SU         4.7           °C         22.3           umhos/cm         508           mg/L         0.9           mg/L         0.19           mg/L         1.1           mg/L         1.1           mg/L         24           DP-J12-20-D Groundwater 1003007-67         Groundwater 1003007-67           12/09/10 12:39 Larry Ward 12/09/10 15:32         SU           SU         5.0           °C         22.9           umhos/cm         343           mg/L         0.014           mg/L         0.11           mg/L         0.014           mg/L         0.014           mg/L         0.51           03007-68         12/10/10 10:05           josephine Edeback         12/10/10 11:55	DP-G12-15-D Groundwater 1003007-66 12/10/10 09:38 Larry Ward 12/10/10 11:55           SU         4.7         DEP FT1100           °C         22.3         DEP FT1400           umhos/cm         508         DEP FT1200           mg/L         0.9         DEP FT1500           mg/L         0.19         EPA 350.1           mg/L         1.1         SM 2320B           mg/L         1.1         EPA 351.2           mg/L         2.4         EPA 353.2           SU         5.0         DEP FT1100           °C         22.9         DEP A 353.2           SU         5.0         DEP FT1100           °C         22.9         DEP FT1400           umhos/cm         343         DEP FT1200           mg/L         1.1         DEP FT1500           °C         22.9         DEP FT1400           umhos/cm         343         DEP FT1200           mg/L         1.1         DEP FT1500           mg/L         0.014         EPA 350.1           mg/L         0.11         SU 3202B           mg/L         0.85         EPA 351.2           mg/L         0.85         EPA 353.2 <t< td=""><td>DP-G12-15-D Groundwater 1003007-66 12/10/10 09:38 Larry Ward 12/10/10 11:55           SU         4.7         DEP FT1100         0.1           °C         22.3         DEP FT1400         0.1           umhos/cm         508         DEP FT1500         0.1           mg/L         0.9         DEP FT1500         0.1           mg/L         0.9         DEP FT1500         0.1           mg/L         1.1         SM 2320B         8.0           mg/L         1.1         EPA 351.2         0.20           mg/L         1.1         EPA 353.2         0.04           DP-J12-20-D Groundwater 1003007-67 12/09/10 12:39 Larry Ward 12/09/10 15:32           SU         5.0         DEP FT1100         0.1           "C         22.9         DEP FT1400         0.1           umhos/cm         343         DEP FT1200         0.1           mg/L         1.1         DEP FT1500         0.1           mg/L         0.014         EPA 350.1         0.010           mg/L         0.014         EPA 351.2         0.20           mg/L         0.85         EPA 351.2         0.20           mg/L         9.1         EPA 353.2         0.04           <td colsp<="" td=""><td>DP-G12-15-D Groundwater 1003007-66 12/10/10 09:38 Larry Ward 12/10/10 11:55         SU         4.7         DEP FT1100         0.1         0.1           °C         22.3         DEP FT1400         0.1         0.1         0.1           umhos/cm         508         DEP FT1200         0.1         0.1           mg/L         0.9         DEP FT1500         0.1         0.1           mg/L         0.19         EPA 350.1         0.010         0.005           mg/L         1.1         SM 2320B         8.0         2.0           mg/L         1.1         EPA 351.2         0.20         0.05           mg/L         1.1         EPA 353.2         0.04         0.01           DP-J12-20-D Groundwater 1003007-67         12/09/10 12:39 Larry Ward 12/09/10 15:32         0.1         0.1           SU         5.0         DEP FT1100         0.1         0.1           °C         22.9         DEP FT1400         0.1         0.1           umhos/cm         343         DEP FT1200         0.1         0.1           mg/L         1.1         DEP FT1500         0.1         0.1           mg/L         0.014         EPA 350.1         0.010         0.005           mg/L</td><td>DP-G12-15-D Groundwater 1003007-66 12/10/10 09:38 Larry Ward 12/10/10 11:55           SU         4.7         DEP FT1100         0.1         0.1           °C         22.3         DEP FT1400         0.1         0.1           umhos/cm         508         DEP FT1200         0.1         0.1           mg/L         0.9         DEP FT1500         0.1         0.1           mg/L         0.9         DEP FT1500         0.1         0.1           mg/L         0.19         EPA 350.1         0.010         0.005           mg/L         4.1         SM 2320B         8.0         2.0           mg/L         1.1         EPA 351.2         0.20         0.05         12/21/10 11:30           mg/L         24         EPA 353.2         0.04         0.01         11:30           DP-J12-20-D Groundwater 1003007-67           12/09/10 12:39 Larry Ward 12/09/10 15:32         0.1         0.1         0.1           %C         22.9         DEP FT1400         0.1         0.1           mg/L         1.1         DEP FT1500         0.1         0.1           mg/L         5.1         SM 2320B         8.0         2.0           mg/L         5.1         SM 23</td><td>DP-G12-15-D Groundwater 1003007-66 12/10/10 99:38 Lary Ward 12/10/10 11:55         SU         4.7         DEP FT1100         0.1         0.1         12/10/10 09:38 12/10/10 09:38           °C         22.3         DEP FT1400         0.1         0.1         1         12/10/10 09:38           mg/L         0.9         DEP FT1200         0.1         0.1         12/10/10 09:38           mg/L         0.9         DEP FT1500         0.1         0.1         12/10/10 09:38           mg/L         0.9         DEP FT1500         0.1         0.1         12/10/10 09:38           mg/L         0.19         EPA 350.1         0.010         0.005         12/17/10 14:01           mg/L         1.1         EPA 351.2         0.20         0.05         12/12/10 11:30         12/22/10 17:15           mg/L         2.4         EPA 353.2         0.04         0.01         12/12/10 11:30         12/22/10 17:15           mg/L         1.1         EPA 350.2         0.04         0.01         12/12/10 11:30         12/22/10 17:15           mg/L         5.0         DEP FT1100         0.1         0.1         12/09/10 12:39           umhos/cm         343         DEP FT1500         0.1         0.1         12/09/10 12:39</td></td></td></t<>	DP-G12-15-D Groundwater 1003007-66 12/10/10 09:38 Larry Ward 12/10/10 11:55           SU         4.7         DEP FT1100         0.1           °C         22.3         DEP FT1400         0.1           umhos/cm         508         DEP FT1500         0.1           mg/L         0.9         DEP FT1500         0.1           mg/L         0.9         DEP FT1500         0.1           mg/L         1.1         SM 2320B         8.0           mg/L         1.1         EPA 351.2         0.20           mg/L         1.1         EPA 353.2         0.04           DP-J12-20-D Groundwater 1003007-67 12/09/10 12:39 Larry Ward 12/09/10 15:32           SU         5.0         DEP FT1100         0.1           "C         22.9         DEP FT1400         0.1           umhos/cm         343         DEP FT1200         0.1           mg/L         1.1         DEP FT1500         0.1           mg/L         0.014         EPA 350.1         0.010           mg/L         0.014         EPA 351.2         0.20           mg/L         0.85         EPA 351.2         0.20           mg/L         9.1         EPA 353.2         0.04 <td colsp<="" td=""><td>DP-G12-15-D Groundwater 1003007-66 12/10/10 09:38 Larry Ward 12/10/10 11:55         SU         4.7         DEP FT1100         0.1         0.1           °C         22.3         DEP FT1400         0.1         0.1         0.1           umhos/cm         508         DEP FT1200         0.1         0.1           mg/L         0.9         DEP FT1500         0.1         0.1           mg/L         0.19         EPA 350.1         0.010         0.005           mg/L         1.1         SM 2320B         8.0         2.0           mg/L         1.1         EPA 351.2         0.20         0.05           mg/L         1.1         EPA 353.2         0.04         0.01           DP-J12-20-D Groundwater 1003007-67         12/09/10 12:39 Larry Ward 12/09/10 15:32         0.1         0.1           SU         5.0         DEP FT1100         0.1         0.1           °C         22.9         DEP FT1400         0.1         0.1           umhos/cm         343         DEP FT1200         0.1         0.1           mg/L         1.1         DEP FT1500         0.1         0.1           mg/L         0.014         EPA 350.1         0.010         0.005           mg/L</td><td>DP-G12-15-D Groundwater 1003007-66 12/10/10 09:38 Larry Ward 12/10/10 11:55           SU         4.7         DEP FT1100         0.1         0.1           °C         22.3         DEP FT1400         0.1         0.1           umhos/cm         508         DEP FT1200         0.1         0.1           mg/L         0.9         DEP FT1500         0.1         0.1           mg/L         0.9         DEP FT1500         0.1         0.1           mg/L         0.19         EPA 350.1         0.010         0.005           mg/L         4.1         SM 2320B         8.0         2.0           mg/L         1.1         EPA 351.2         0.20         0.05         12/21/10 11:30           mg/L         24         EPA 353.2         0.04         0.01         11:30           DP-J12-20-D Groundwater 1003007-67           12/09/10 12:39 Larry Ward 12/09/10 15:32         0.1         0.1         0.1           %C         22.9         DEP FT1400         0.1         0.1           mg/L         1.1         DEP FT1500         0.1         0.1           mg/L         5.1         SM 2320B         8.0         2.0           mg/L         5.1         SM 23</td><td>DP-G12-15-D Groundwater 1003007-66 12/10/10 99:38 Lary Ward 12/10/10 11:55         SU         4.7         DEP FT1100         0.1         0.1         12/10/10 09:38 12/10/10 09:38           °C         22.3         DEP FT1400         0.1         0.1         1         12/10/10 09:38           mg/L         0.9         DEP FT1200         0.1         0.1         12/10/10 09:38           mg/L         0.9         DEP FT1500         0.1         0.1         12/10/10 09:38           mg/L         0.9         DEP FT1500         0.1         0.1         12/10/10 09:38           mg/L         0.19         EPA 350.1         0.010         0.005         12/17/10 14:01           mg/L         1.1         EPA 351.2         0.20         0.05         12/12/10 11:30         12/22/10 17:15           mg/L         2.4         EPA 353.2         0.04         0.01         12/12/10 11:30         12/22/10 17:15           mg/L         1.1         EPA 350.2         0.04         0.01         12/12/10 11:30         12/22/10 17:15           mg/L         5.0         DEP FT1100         0.1         0.1         12/09/10 12:39           umhos/cm         343         DEP FT1500         0.1         0.1         12/09/10 12:39</td></td>	<td>DP-G12-15-D Groundwater 1003007-66 12/10/10 09:38 Larry Ward 12/10/10 11:55         SU         4.7         DEP FT1100         0.1         0.1           °C         22.3         DEP FT1400         0.1         0.1         0.1           umhos/cm         508         DEP FT1200         0.1         0.1           mg/L         0.9         DEP FT1500         0.1         0.1           mg/L         0.19         EPA 350.1         0.010         0.005           mg/L         1.1         SM 2320B         8.0         2.0           mg/L         1.1         EPA 351.2         0.20         0.05           mg/L         1.1         EPA 353.2         0.04         0.01           DP-J12-20-D Groundwater 1003007-67         12/09/10 12:39 Larry Ward 12/09/10 15:32         0.1         0.1           SU         5.0         DEP FT1100         0.1         0.1           °C         22.9         DEP FT1400         0.1         0.1           umhos/cm         343         DEP FT1200         0.1         0.1           mg/L         1.1         DEP FT1500         0.1         0.1           mg/L         0.014         EPA 350.1         0.010         0.005           mg/L</td> <td>DP-G12-15-D Groundwater 1003007-66 12/10/10 09:38 Larry Ward 12/10/10 11:55           SU         4.7         DEP FT1100         0.1         0.1           °C         22.3         DEP FT1400         0.1         0.1           umhos/cm         508         DEP FT1200         0.1         0.1           mg/L         0.9         DEP FT1500         0.1         0.1           mg/L         0.9         DEP FT1500         0.1         0.1           mg/L         0.19         EPA 350.1         0.010         0.005           mg/L         4.1         SM 2320B         8.0         2.0           mg/L         1.1         EPA 351.2         0.20         0.05         12/21/10 11:30           mg/L         24         EPA 353.2         0.04         0.01         11:30           DP-J12-20-D Groundwater 1003007-67           12/09/10 12:39 Larry Ward 12/09/10 15:32         0.1         0.1         0.1           %C         22.9         DEP FT1400         0.1         0.1           mg/L         1.1         DEP FT1500         0.1         0.1           mg/L         5.1         SM 2320B         8.0         2.0           mg/L         5.1         SM 23</td> <td>DP-G12-15-D Groundwater 1003007-66 12/10/10 99:38 Lary Ward 12/10/10 11:55         SU         4.7         DEP FT1100         0.1         0.1         12/10/10 09:38 12/10/10 09:38           °C         22.3         DEP FT1400         0.1         0.1         1         12/10/10 09:38           mg/L         0.9         DEP FT1200         0.1         0.1         12/10/10 09:38           mg/L         0.9         DEP FT1500         0.1         0.1         12/10/10 09:38           mg/L         0.9         DEP FT1500         0.1         0.1         12/10/10 09:38           mg/L         0.19         EPA 350.1         0.010         0.005         12/17/10 14:01           mg/L         1.1         EPA 351.2         0.20         0.05         12/12/10 11:30         12/22/10 17:15           mg/L         2.4         EPA 353.2         0.04         0.01         12/12/10 11:30         12/22/10 17:15           mg/L         1.1         EPA 350.2         0.04         0.01         12/12/10 11:30         12/22/10 17:15           mg/L         5.0         DEP FT1100         0.1         0.1         12/09/10 12:39           umhos/cm         343         DEP FT1500         0.1         0.1         12/09/10 12:39</td>	DP-G12-15-D Groundwater 1003007-66 12/10/10 09:38 Larry Ward 12/10/10 11:55         SU         4.7         DEP FT1100         0.1         0.1           °C         22.3         DEP FT1400         0.1         0.1         0.1           umhos/cm         508         DEP FT1200         0.1         0.1           mg/L         0.9         DEP FT1500         0.1         0.1           mg/L         0.19         EPA 350.1         0.010         0.005           mg/L         1.1         SM 2320B         8.0         2.0           mg/L         1.1         EPA 351.2         0.20         0.05           mg/L         1.1         EPA 353.2         0.04         0.01           DP-J12-20-D Groundwater 1003007-67         12/09/10 12:39 Larry Ward 12/09/10 15:32         0.1         0.1           SU         5.0         DEP FT1100         0.1         0.1           °C         22.9         DEP FT1400         0.1         0.1           umhos/cm         343         DEP FT1200         0.1         0.1           mg/L         1.1         DEP FT1500         0.1         0.1           mg/L         0.014         EPA 350.1         0.010         0.005           mg/L	DP-G12-15-D Groundwater 1003007-66 12/10/10 09:38 Larry Ward 12/10/10 11:55           SU         4.7         DEP FT1100         0.1         0.1           °C         22.3         DEP FT1400         0.1         0.1           umhos/cm         508         DEP FT1200         0.1         0.1           mg/L         0.9         DEP FT1500         0.1         0.1           mg/L         0.9         DEP FT1500         0.1         0.1           mg/L         0.19         EPA 350.1         0.010         0.005           mg/L         4.1         SM 2320B         8.0         2.0           mg/L         1.1         EPA 351.2         0.20         0.05         12/21/10 11:30           mg/L         24         EPA 353.2         0.04         0.01         11:30           DP-J12-20-D Groundwater 1003007-67           12/09/10 12:39 Larry Ward 12/09/10 15:32         0.1         0.1         0.1           %C         22.9         DEP FT1400         0.1         0.1           mg/L         1.1         DEP FT1500         0.1         0.1           mg/L         5.1         SM 2320B         8.0         2.0           mg/L         5.1         SM 23	DP-G12-15-D Groundwater 1003007-66 12/10/10 99:38 Lary Ward 12/10/10 11:55         SU         4.7         DEP FT1100         0.1         0.1         12/10/10 09:38 12/10/10 09:38           °C         22.3         DEP FT1400         0.1         0.1         1         12/10/10 09:38           mg/L         0.9         DEP FT1200         0.1         0.1         12/10/10 09:38           mg/L         0.9         DEP FT1500         0.1         0.1         12/10/10 09:38           mg/L         0.9         DEP FT1500         0.1         0.1         12/10/10 09:38           mg/L         0.19         EPA 350.1         0.010         0.005         12/17/10 14:01           mg/L         1.1         EPA 351.2         0.20         0.05         12/12/10 11:30         12/22/10 17:15           mg/L         2.4         EPA 353.2         0.04         0.01         12/12/10 11:30         12/22/10 17:15           mg/L         1.1         EPA 350.2         0.04         0.01         12/12/10 11:30         12/22/10 17:15           mg/L         5.0         DEP FT1100         0.1         0.1         12/09/10 12:39           umhos/cm         343         DEP FT1500         0.1         0.1         12/09/10 12:39



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Project Name		GCREC Mound Grou	undwater Ana	lyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		STE-EX Pump Tank-D						
Matrix		Groundwater						
SAL Sample Number		1003007-68						
Date/Time Collected		12/10/10 10:05						
Collected by		Josephine Edeback-Hi	rst					
Date/Time Received		12/10/10 11:55						
Total Kjeldahl Nitrogen	mg/L	64	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SMI
Nitrate+Nitrite (as N)	mg/L	0.01 U	EPA 353.2	0.04	0.01		12/14/10 16:47	SMI
Sample Description		PZ04-BKG-9						
Matrix		Groundwater						
SAL Sample Number		1003007-69						
Date/Time Collected		12/10/10 08:40						
Collected by		Larry Ward						
Date/Time Received		12/10/10 11:55						
Field Parameters								
рН	SU	5.3	DEP FT1100	0.1	0.1		12/10/10 08:40	LRV
Water Temperature	°C	21.6	DEP FT1400	0.1	0.1		12/10/10 08:40	LRV
Specific conductance	umhos/cm	73	DEP FT1200	0.1	0.1		12/10/10 08:40	LRV
Dissolved Oxygen	mg/L	1.1	DEP FT1500	0.1	0.1		12/10/10 08:40	LRV
Inorganics								
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:01	ME
Total Alkalinity	mg/L	8.1	SM 2320B	8.0	2.0		12/14/10 17:00	JMI
Total Kjeldahl Nitrogen	mg/L	0.11	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SMI
Total Organic Carbon	mg/L	2.9	SM 5310B	1.0	0.50		12/11/10 10:36	ME
Nitrate+Nitrite (as N)	mg/L	0.01 U	EPA 353.2	0.04	0.01		12/14/10 16:47	SMI
Inorganic, Dissolved	ma/l	2.9.1	SM 5310B	4.0	1.0	12/10/10 12:00	10/11/10 10:26	
Dissolved Organic Carbon	mg/L	2.8	SIM 5310B	4.0	1.0	12/10/10 12:00	12/11/10 10:36	ME
Sample Description		PZ24-BKG-26						
Matrix		Groundwater						
SAL Sample Number		1003007-70						
Date/Time Collected		12/10/10 08:21						
Collected by		Larry Ward						
Date/Time Received		12/10/10 11:55						
Field Parameters								
рН	SU	5.1	DEP FT1100	0.1	0.1		12/10/10 08:21	LRV
Water Temperature	°C	24.1	DEP FT1400	0.1	0.1		12/10/10 08:21	LRV
Specific conductance	umhos/cm	296	DEP FT1200	0.1	0.1		12/10/10 08:21	LRV
Dissolved Oxygen	mg/L	0.7	DEP FT1500	0.1	0.1		12/10/10 08:21	LRV
Inorganics								



### Hazen and Sawyer 10002 Princess Palm Avenue Suite 200 Tampa FLORIDA, 33619

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Project Name		GCREC Mound G	roundwater Ana	alyses				
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Ву
Sample Description		PZ24-BKG-26						
Matrix		Groundwater						
SAL Sample Number		1003007-70						
Date/Time Collected		12/10/10 08:21						
Collected by		Larry Ward						
Date/Time Received		12/10/10 11:55						
Ammonia as N	mg/L	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:01	MEJ
Total Alkalinity	mg/L	4.1	SM 2320B	8.0	2.0		12/14/10 17:00	JMK
Total Kjeldahl Nitrogen	mg/L	0.60	EPA 351.2	0.20	0.05	12/21/10 11:30	12/22/10 17:15	SMB
Total Organic Carbon	mg/L	1.3	SM 5310B	1.0	0.50		12/11/10 10:36	MEJ
Nitrate+Nitrite (as N)	mg/L	12	EPA 353.2	0.04	0.01		12/14/10 16:47	SMD
Inorganic, Dissolved								
Dissolved Organic Carbon	mg/L	1.1	SM 5310B	4.0	1.0	12/10/10 12:00	12/11/10 10:36	MEJ
Sample Description Matrix SAL Sample Number Date/Time Collected Collected by Date/Time Received		PZ17-I15-26 Groundwater 1003007-71 12/10/10 09:17 Larry Ward 12/10/10 11:55						
Field Parameters	0.1						10/10/10 00 17	
pH	SU °C	5.7	DEP FT1100 DEP FT1400	0.1	0.1		12/10/10 09:17	LRW
Water Temperature	C C	22.1 294	DEP FT1400	0.1 0.1	0.1 0.1		12/10/10 09:17	LRW LRW
Specific conductance	umhos/cm	294 0.5	DEP FT1200	0.1	0.1		12/10/10 09:17 12/10/10 09:17	LRW
Dissolved Oxygen	mg/L	0.5	DELTITIOU	0.1	0.1		12/10/10 09.17	LRVV
Inorganics Ammonia as N	ma/l	0.005 U	EPA 350.1	0.010	0.005		12/17/10 14:01	MEJ
	mg/L	-	SM 2320B		2.0			
Total Alkalinity	mg/L	4.1 µ 0.60	EPA 351.2	8.0 0.20	2.0 0.05	10/01/10 11:00	12/14/10 17:00	JMK
Total Kjeldahl Nitrogen	mg/L	4.0	SM 5310B	0.20 1.0	0.05	12/21/10 11:30	12/22/10 17:15 12/11/10 10:36	SMB MEJ
Total Organic Carbon	mg/L	4.0 9.7	EPA 353.2	0.04	0.50		12/11/10 10:36	SMD
Nitrate+Nitrite (as N)	mg/L	9.7	LFA 333.2	0.04	0.01		12/14/10 10:47	SIVID
Inorganic, Dissolved	ma/l	1.0 U	SM 5310B	4.0	1.0	12/10/10 12:00	12/11/10 10:36	
Dissolved Organic Carbon	mg/L	1.0 U		4.0	1.0	12/10/10 12:00	12/11/10 10:30	MEJ

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### Hazen and Sawyer 10002 Princess Palm Avenue Suite 200 Tampa FLORIDA, 33619

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BL01007 - alkalinity										
Blank (BL01007-BLK1)					Prepared 8	Analyzed:	12/10/10			
Total Alkalinity	2.0 U	8.0	2.0	mg/L						
Bicarbonate Alkalinity	2.0 U	8.0	2.0	mg/L						
Carbonate Alkalinity	2.0 U	8.0	2.0	mg/L						
Hydroxide Alkalinity	2.0 U	8.0	2.0	mg/L						
Phenolphthalein Alkalinity	2.0 U	8.0	2.0	mg/L						
Blank (BL01007-BLK2)					Prepared 8	Analyzed:	12/10/10			
Total Alkalinity	2.0 U	8.0	2.0	mg/L						
Bicarbonate Alkalinity	2.0 U	8.0	2.0	mg/L						
Carbonate Alkalinity	2.0 U	8.0	2.0	mg/L						
Hydroxide Alkalinity	2.0 U	8.0	2.0	mg/L						
Phenolphthalein Alkalinity	2.0 U	8.0	2.0	mg/L						
LCS (BL01007-BS1)					Prepared 8	Analyzed:	12/10/10			
Total Alkalinity	120	8.0	2.0	mg/L	120		95	90-110		20
LCS (BL01007-BS2)					Prepared 8	Analyzed:	12/10/10			
Total Alkalinity	120	8.0	2.0	mg/L	120		95	90-110		20
Matrix Spike (BL01007-MS1)		Source: 1	003007-01		Prepared 8	Analyzed:	12/10/10			
Total Alkalinity	130	8.0	2.0	mg/L	120	11	95	80-120		26
Matrix Spike (BL01007-MS2)		Source: 1	003007-18		Prepared 8	Analyzed:	12/10/10			
Total Alkalinity	160	8.0	2.0	mg/L	120	35	100	80-120		26
Matrix Spike Dup (BL01007-MSD1)	1	Source: 1	003007-01		Prepared 8	Analyzed:	12/10/10			
Total Alkalinity	130	8.0	2.0	mg/L	120	11	95	80-120	0	26

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### Hazen and Sawyer 10002 Princess Palm Avenue Suite 200 Tampa FLORIDA, 33619

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BL01007 - alkalinity										
Matrix Spike Dup (BL01007-MSD	2)	Source: 1	003007-18		Prepared 8	Analyzed:	12/10/10			
Total Alkalinity	160	8.0	2.0	mg/L	120	35	100	80-120	0	26
Batch BL01018 - Nitrate 353.2	2 by seal									
Blank (BL01018-BLK1)					Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	0.01 U	0.04	0.01	mg/L						
Blank (BL01018-BLK2)					Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	0.0161	0.04	0.01	mg/L						
LCS (BL01018-BS1)					Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	0.750	0.04	0.01	mg/L	0.80		94	90-110		
LCS (BL01018-BS2)					Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	0.776	0.04	0.01	mg/L	0.80		97	90-110		
Matrix Spike (BL01018-MS1)		Source: 1	003007-01		Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	15.5	0.04	0.01	mg/L	10	5.86	96	77-119		
Matrix Spike (BL01018-MS2)		Source: 1	003007-21		Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	128	0.04	0.01	mg/L	100	22.3	105	77-119		
Matrix Spike Dup (BL01018-MSD	1)	Source: 1	003007-01		Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	14.9	0.04	0.01	mg/L	10	5.86	90	77-119	4	20
Matrix Spike Dup (BL01018-MSD	2)	Source: 1	003007-21		Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	133	0.04	0.01	mg/L	100	22.3	110	77-119	4	20

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Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BL01103 - TOC prep										
Blank (BL01103-BLK1)					Prepared &	Analyzed:	12/11/10			
Total Organic Carbon	0.50 U	1.0	0.50	mg/L						
LCS (BL01103-BS1)					Prepared &	Analyzed:	12/11/10			
Total Organic Carbon	9.36	1.0	0.50	mg/L	10		94	90-110		
Batch BL01105 - alkalinity										
Blank (BL01105-BLK1)					Prepared &	Analyzed:	12/11/10			
Total Alkalinity	2.0 U	8.0	2.0	mg/L						
Bicarbonate Alkalinity	2.0 U	8.0	2.0	mg/L						
Carbonate Alkalinity	2.0 U	8.0	2.0	mg/L						
Hydroxide Alkalinity	2.0 U	8.0	2.0	mg/L						
Phenolphthalein Alkalinity	2.0 U	8.0	2.0	mg/L						
LCS (BL01105-BS1)					Prepared &	Analyzed:	12/11/10			
Total Alkalinity	120	8.0	2.0	mg/L	120		95	90-110		20
Matrix Spike (BL01105-MS1)		Source: 1	003007-25		Prepared &	Analyzed:	12/11/10			
Total Alkalinity	140	8.0	2.0	mg/L	120	22	95	80-120		26
Matrix Spike Dup (BL01105-MSD1)		Source: 1	003007-25		Prepared &	Analyzed:	12/11/10			
Total Alkalinity	140	8.0	2.0	mg/L	120	22	95	80-120	0	26
Batch BL01108 - Nitrate 353.2 b	oy seal									
Blank (BL01108-BLK1)					Prepared 8	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	0.0121	0.04	0.01	mg/L						

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### Hazen and Sawyer 10002 Princess Palm Avenue Suite 200 Tampa FLORIDA, 33619

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BL01108 - Nitrate 353.2	2 by seal									
LCS (BL01108-BS1)					Prepared 8	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	0.744	0.04	0.01	mg/L	0.80		93	90-110		
Matrix Spike (BL01108-MS1)		Source: 1	003007-67		Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	13.2	0.04	0.01	mg/L	5.0	9.11	83	77-119		
Matrix Spike Dup (BL01108-MSD	1)	Source: 1	003007-67		Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	13.6	0.04	0.01	mg/L	5.0	9.11	91	77-119	3	20
Batch BL01109 - Nitrate 353.2	2 by seal									
Blank (BL01109-BLK1)					Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	0.01 U	0.04	0.01	mg/L						
Blank (BL01109-BLK2)					Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	0.01 U	0.04	0.01	mg/L						
LCS (BL01109-BS1)					Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	0.766	0.04	0.01	mg/L	0.80		96	90-110		
LCS (BL01109-BS2)					Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	0.783	0.04	0.01	mg/L	0.80		98	90-110		
Matrix Spike (BL01109-MS1)		Source: 1	003007-60		Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	1.01	0.04	0.01	mg/L	1.0	ND	101	77-119		
Matrix Spike (BL01109-MS2)		Source: 1	003007-61		Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	1.03	0.04	0.01	mg/L	1.0	ND	103	77-119		

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### Hazen and Sawyer 10002 Princess Palm Avenue Suite 200 Tampa FLORIDA, 33619

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BL01109 - Nitrate 353.2	by seal									
Matrix Spike Dup (BL01109-MSD	1)	Source: 1	003007-60		Prepared 8	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	0.991	0.04	0.01	mg/L	1.0	ND	99	77-119	2	20
Matrix Spike Dup (BL01109-MSD)	2)	Source: 1	003007-61		Prepared &	Analyzed:	12/14/10			
Nitrate+Nitrite (as N)	0.900	0.04	0.01	mg/L	1.0	ND	90	77-119	14	20
Batch BL01326 - Ammonia by	/ SEAL									
Blank (BL01326-BLK1)					Prepared 8	Analyzed:	12/11/10			
Ammonia as N	0.005 U	0.010	0.005	mg/L						
Blank (BL01326-BLK2)					Prepared &	Analyzed:	12/11/10			
Ammonia as N	0.005 U	0.010	0.005	mg/L						
LCS (BL01326-BS1)					Prepared &	Analyzed:	12/11/10			
Ammonia as N	0.51	0.010	0.005	mg/L	0.50		102	90-110		
LCS (BL01326-BS2)					Prepared &	Analyzed:	12/11/10			
Ammonia as N	0.73	0.010	0.005	mg/L	0.75		97	90-110		
Matrix Spike (BL01326-MS1)		Source: 1	003007-04		Prepared &	Analyzed:	12/11/10			
Ammonia as N	0.63	0.010	0.005	mg/L	0.50	0.12	102	90-110		
Matrix Spike (BL01326-MS2)		Source: 1	003007-17		Prepared 8	Analyzed:	12/11/10			
Ammonia as N	0.50	0.010	0.005	mg/L	0.50	0.036	93	90-110		
Matrix Spike Dup (BL01326-MSD	1)	Source: 1	003007-04		Prepared &	Analyzed:	12/11/10			
Ammonia as N	0.64	0.010	0.005	mg/L	0.50	0.12	104	90-110	2	10

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### Hazen and Sawyer 10002 Princess Palm Avenue Suite 200 Tampa FLORIDA, 33619

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BL01326 - Ammonia by	SEAL									
Matrix Spike Dup (BL01326-MSD2	)	Source: 1	003007-17		Prepared 8	Analyzed:	12/11/10			
Ammonia as N	0.50	0.010	0.005	mg/L	0.50	0.036	93	90-110	0.4	10
Batch BL01502 - alkalinity										
Blank (BL01502-BLK1)					Prepared 8	Analyzed:	12/14/10			
Total Alkalinity	2.0 U	8.0	2.0	mg/L						
Bicarbonate Alkalinity	2.0 U	8.0	2.0	mg/L						
Carbonate Alkalinity	2.0 U	8.0	2.0	mg/L						
Hydroxide Alkalinity	2.0 U	8.0	2.0	mg/L						
Phenolphthalein Alkalinity	2.0 U	8.0	2.0	mg/L						
Blank (BL01502-BLK2)					Prepared 8	Analyzed:	12/14/10			
Total Alkalinity	2.0 U	8.0	2.0	mg/L						
Bicarbonate Alkalinity	2.0 U	8.0	2.0	mg/L						
Carbonate Alkalinity	2.0 U	8.0	2.0	mg/L						
Hydroxide Alkalinity	2.0 U	8.0	2.0	mg/L						
Phenolphthalein Alkalinity	2.0 U	8.0	2.0	mg/L						
LCS (BL01502-BS1)					Prepared 8	Analyzed:	12/14/10			
Total Alkalinity	130	8.0	2.0	mg/L	120		104	90-110		20
LCS (BL01502-BS2)					Prepared 8	Analyzed:	12/14/10			
Total Alkalinity	130	8.0	2.0	mg/L	120		104	90-110		20
Matrix Spike (BL01502-MS2)		Source: 1	003007-69		Prepared 8	Analyzed:	12/14/10			
Total Alkalinity	120	8.0	2.0	mg/L	120	8.1	93	80-120		26



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Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
	Source: 1	003007-69		Prepared &	Analyzed:	12/14/10			
120	8.0	2.0	mg/L	120	8.1	93	80-120	0	26
TKN by EPA	351.2								
				Prepared:	12/16/10 Ar	nalyzed: 12	/17/10		
0.05 U	0.20	0.05	mg/L						
				Prepared:	12/16/10 Ar	nalyzed: 12	/17/10		
0.05 U	0.20	0.05	mg/L						
				Prepared:	12/16/10 Ar	nalyzed: 12	/17/10		
2.74	0.20	0.05	mg/L	2.5		110	90-110		
				Prepared:	12/16/10 Ar	nalyzed: 12	/17/10		
2.75	0.20	0.05	mg/L	2.5		110	90-110		
	Source: 1	003007-01		Prepared:	12/16/10 Ar	nalyzed: 12	/17/10		
3.44	0.20	0.05	mg/L	2.5	0.931	100	80-120		
)	Source: 1	003007-01		Prepared:	12/16/10 Ar	nalyzed: 12	/17/10		
3.58	0.20	0.05	mg/L	2.5	0.931	106	80-120	4	20
SEAL									
				Prepared 8	Analyzed:	12/17/10			
0.005 U	0.010	0.005	mg/L						
	120 <b>TKN by EPA</b> 0.05 U 0.05 U 2.74 2.75 3.44 3.58 <b>SEAL</b>	Source: 1           120         8.0           TKN by EPA 351.2           0.05 U         0.20           0.05 U         0.20           2.74         0.20           2.75         0.20           3.44         0.20           3.58         0.20           SEAL         0.20	Source:         1003007-69           120         8.0         2.0           TKN by EPA 351.2         0.05         0.05           0.05         0.20         0.05           0.05         0.20         0.05           2.74         0.20         0.05           2.75         0.20         0.05           3.44         0.20         0.05           3.58         0.20         0.05           SEAL         0.20         0.05	Source:         1003007-69           120         8.0         2.0         mg/L           TKN by EPA 351.2         0.05         mg/L           0.05         0.20         0.05         mg/L           0.05         0.20         0.05         mg/L           2.74         0.20         0.05         mg/L           2.75         0.20         0.05         mg/L           Source:         1003007-01         mg/L         Source:           3.44         0.20         0.05         mg/L           3.58         0.20         0.05         mg/L           SEAL	Result         PQL         MDL         Units         Level           Source: 1003007-69         Prepared &           120         8.0         2.0         mg/L         120           TKN by EPA 351.2         Prepared:         120         120           0.05 U         0.20         0.05         mg/L         Prepared:           0.05 U         0.20         0.05         mg/L         Prepared:           0.05 U         0.20         0.05         mg/L         Prepared:           2.74         0.20         0.05         mg/L         2.5           2.75         0.20         0.05         mg/L         2.5           Source: 1003007-01         Prepared:         3.44         0.20         0.05         mg/L         2.5           Source: 1003007-01         Prepared:         3.58         0.20         0.05         mg/L         2.5           SEAL         Prepared &         Prepared &         Prepared &         Prepared &	Result         PQL         MDL         Units         Level         Result           Source: 1003007-69         Prepared & Analyzed:         Prepared & Analyzed:         120         8.0         2.0         mg/L         120         8.1           TKN by EPA 351.2         Prepared: 12/16/10 Ar           0.05 U         0.20         0.05         mg/L         Prepared: 12/16/10 Ar           0.05 U         0.20         0.05         mg/L         Prepared: 12/16/10 Ar           0.05 U         0.20         0.05         mg/L         Prepared: 12/16/10 Ar           2.74         0.20         0.05         mg/L         2.5           Source: 1003007-01         Prepared: 12/16/10 Ar         Ar           3.44         0.20         0.05         mg/L         2.5           Source: 1003007-01         Prepared: 12/16/10 Ar         3.58         0.20         0.05         mg/L         2.5           SEAL         Prepared: 12/16/10 Ar	Result         PQL         MDL         Units         Level         Result         %REC           Source: 1003007-69         Prepared & Analyzed: 12/14/10           120         8.0         2.0         mg/L         120         8.1         93           TKN by EPA 351.2         Prepared: 12/16/10         Analyzed: 12         0.05         U         0.05         mg/L         120         Analyzed: 12           0.05 U         0.20         0.05         mg/L         Prepared: 12/16/10         Analyzed: 12           0.05 U         0.20         0.05         mg/L         Prepared: 12/16/10         Analyzed: 12           0.05 U         0.20         0.05         mg/L         2.5         110           Prepared: 12/16/10         Analyzed: 12         2.74         0.20         0.05         mg/L         2.5         110           2.75         0.20         0.05         mg/L         2.5         110         120           Source: 1003007-01         Prepared: 12/16/10         Analyzed: 12         3.44         0.20         0.05         mg/L         2.5         0.931         100           Source: 1003007-01         Prepared: 12/16/10         Analyzed: 12         3.58         0.20         0.05	Result         PQL         MDL         Units         Level         Result         %REC         Limits           Source:         1003007-69         Prepared & Analyzed:         12/14/10         12/14/10           120         8.0         2.0         mg/L         120         8.1         93         80-120           TKN by EPA 351.2         Prepared:         12/16/10         Analyzed:         12/17/10           0.05 U         0.20         0.05         mg/L         Prepared:         12/16/10         Analyzed:         12/17/10           0.05 U         0.20         0.05         mg/L         Prepared:         12/16/10         Analyzed:         12/17/10           0.05 U         0.20         0.05         mg/L         2.5         110         90-110           2.74         0.20         0.05         mg/L         2.5         110         90-110           2.75         0.20         0.05         mg/L         2.5         100         90-110           3.44         0.20         0.05         mg/L         2.5         0.931         100         80-120           3.58         0.20         0.05         mg/L         2.5         0.931         106         80-120	Result         PQL         MDL         Units         Level         Result         %REC         Limits         RPD           Source:         1003007-69         Prepared & Analyzed:         12/14/10          0           120         8.0         2.0         mg/L         120         8.1         93         80-120         0           TKN by EPA 351.2         Prepared:         12/16/10         Analyzed:         12/17/10         0           0.05 U         0.20         0.05         mg/L         Prepared:         12/16/10         Analyzed:         12/17/10           0.05 U         0.20         0.05         mg/L         Prepared:         12/16/10         Analyzed:         12/17/10           2.74         0.20         0.05         mg/L         2.5         110         90-110           2.75         0.20         0.05         mg/L         2.5         100         90-110           Source:         1003007-01         Prepared:         12/16/10         Analyzed:         12/17/10           3.44         0.20         0.05         mg/L         2.5         0.931         100         80-120           Source:         1003007-01         Prepared:         12/16/10 </td

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Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
		. 41		<b>U</b>		rtooun	/01120	2		
Batch BL01634 - Ammonia by	SEAL									
Blank (BL01634-BLK2)					Prepared &	& Analyzed:	12/17/10			
Ammonia as N	0.005 U	0.010	0.005	mg/L						
LCS (BL01634-BS1)					Prepared &	Analyzed:	12/17/10			
Ammonia as N	0.54	0.010	0.005	mg/L	0.50		108	90-110		
LCS (BL01634-BS2)					Prepared &	Analyzed:	12/17/10			
Ammonia as N	0.53	0.010	0.005	mg/L	0.50		106	90-110		
Matrix Spike (BL01634-MS1)		Source: 1	003007-54		Prepared &	Analyzed:	12/17/10			
Ammonia as N	0.46	0.010	0.005	mg/L	0.50	ND	92	90-110		
Matrix Spike (BL01634-MS2)		Source: 1	003007-34		Prepared &	Analyzed:	12/17/10			
Ammonia as N	0.77	0.010	0.005	mg/L	0.50	0.22	110	90-110		
Matrix Spike Dup (BL01634-MSD	1)	Source: 1	003007-54		Prepared &	Analyzed:	12/17/10			
Ammonia as N	0.46	0.010	0.005	mg/L	0.50	ND	92	90-110	0.5	10
Matrix Spike Dup (BL01634-MSD	2)	Source: 1	003007-34		Prepared &	Analyzed:	12/17/10			
Ammonia as N	0.76	0.010	0.005	mg/L	0.50	0.22	109	90-110	0.7	10
Batch BL01730 - Ammonia by	SEAL									
Blank (BL01730-BLK1)					Prepared &	& Analyzed:	12/17/10			
Ammonia as N	0.005 U	0.010	0.005	mg/L						
Blank (BL01730-BLK2)					Prepared &	Analyzed:	12/17/10			
Ammonia as N	0.005 U	0.010	0.005	mg/L						

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### Hazen and Sawyer 10002 Princess Palm Avenue Suite 200 Tampa FLORIDA, 33619

Analista	Result	PQL	MDL	Units	Spike	Source	%REC	%REC	RPD	RPD Limit
Analyte	Result	PQL	IVIDL	Units	Level	Result	%REC	Limits	RPD	Limit
Batch BL01730 - Ammonia by	SEAL									
LCS (BL01730-BS1)					Prepared &	Analyzed:	12/17/10			
Ammonia as N	0.50	0.010	0.005	mg/L	0.50		99	90-110		
LCS (BL01730-BS2)					Prepared &	Analyzed:	12/17/10			
Ammonia as N	0.49	0.010	0.005	mg/L	0.50		97	90-110		
Matrix Spike (BL01730-MS1)		Source: 1	003007-62		Prepared &	Analyzed:	12/17/10			
Ammonia as N	0.52	0.010	0.005	mg/L	0.50	ND	104	90-110		
Matrix Spike (BL01730-MS2)		Source: 1	003007-71		Prepared &	Analyzed:	12/17/10			
Ammonia as N	0.50	0.010	0.005	mg/L	0.50	ND	99	90-110		
Matrix Spike Dup (BL01730-MSD1	)	Source: 1	003007-62		Prepared &	Analyzed:	12/17/10			
Ammonia as N	0.51	0.010	0.005	mg/L	0.50	ND	102	90-110	3	10
Matrix Spike Dup (BL01730-MSD2	)	Source: 1	003007-71		Prepared &	Analyzed:	12/17/10			
Ammonia as N	0.50	0.010	0.005	mg/L	0.50	ND	99	90-110	0.04	10
Batch BL01803 - Digestion for	TKN by EPA	351.2								
Blank (BL01803-BLK1)					Prepared:	12/17/10 Ar	nalyzed: 12	/20/10		
Total Kjeldahl Nitrogen	0.05 U	0.20	0.05	mg/L						
Blank (BL01803-BLK2)					Prepared:	12/17/10 Ar	nalyzed: 12	/20/10		
Total Kjeldahl Nitrogen	0.05 U	0.20	0.05	mg/L						
LCS (BL01803-BS1)					Prepared:	12/17/10 Ar	nalyzed: 12	/20/10		
Total Kjeldahl Nitrogen	2.63	0.20	0.05	mg/L	2.5		105	90-110		



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Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BL01803 - Digestion fo	or TKN by EPA 3	351.2								
LCS (BL01803-BS2)					Prepared:	12/17/10 Ar	nalyzed: 12	/20/10		
Total Kjeldahl Nitrogen	2.68	0.20	0.05	mg/L	2.5		107	90-110		
Matrix Spike (BL01803-MS2)		Source: 1	003007-21		Prepared:	12/17/10 Ar	nalyzed: 12	/20/10		
Total Kjeldahl Nitrogen	2.87	0.20	0.05	mg/L	2.5	0.549	93	80-120		
Matrix Spike Dup (BL01803-MSD	2)	Source: 1	003007-21		Prepared:	12/17/10 Ar	nalyzed: 12	/20/10		
Total Kjeldahl Nitrogen	2.79	0.20	0.05	mg/L	2.5	0.549	90	80-120	3	20
Batch BL02102 - Ammonia b	y SEAL									
Blank (BL02102-BLK1)					Prepared &	Analyzed:	12/20/10			
Ammonia as N	0.005 U	0.010	0.005	mg/L						
Blank (BL02102-BLK2)					Prepared &	Analyzed:	12/20/10			
Ammonia as N	0.005 U	0.010	0.005	mg/L						
Blank (BL02102-BLK3)					Prepared:	12/20/10 Ar	nalyzed: 12	/22/10		
Ammonia as N	0.005 U	0.010	0.005	mg/L						
LCS (BL02102-BS1)					Prepared &	Analyzed:	12/20/10			
Ammonia as N	0.51	0.010	0.005	mg/L	0.50		102	90-110		
LCS (BL02102-BS2)					Prepared &	Analyzed:	12/20/10			
Ammonia as N	0.51	0.010	0.005	mg/L	0.50		101	90-110		
LCS (BL02102-BS3)					Prepared:	12/20/10 Ar	nalyzed: 12	/22/10		
Ammonia as N	0.53	0.010	0.005	mg/L	0.50		106	90-110		



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Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BL02207 - Digestion for	r TKN by EPA 3	351.2								
Blank (BL02207-BLK1)					Prepared:	12/21/10 Ar	nalyzed: 12	/22/10		
Total Kjeldahl Nitrogen	0.05 U	0.20	0.05	mg/L						
Blank (BL02207-BLK2)					Prepared:	12/21/10 Ar	nalyzed: 12	/22/10		
Total Kjeldahl Nitrogen	0.05 U	0.20	0.05	mg/L						
LCS (BL02207-BS1)					Prepared:	12/21/10 Ar	nalyzed: 12	/22/10		
Total Kjeldahl Nitrogen	2.61	0.20	0.05	mg/L	2.5		104	90-110		
LCS (BL02207-BS2)					Prepared:	12/21/10 Ar	nalyzed: 12	/22/10		
Total Kjeldahl Nitrogen	2.30	0.20	0.05	mg/L	2.5		92	90-110		
Matrix Spike (BL02207-MS1)		Source: 1	003007-42		Prepared:	12/21/10 Ar	nalyzed: 12	/22/10		
Total Kjeldahl Nitrogen	3.43	0.20	0.05	mg/L	2.5	1.07	94	80-120		
Matrix Spike (BL02207-MS2)		Source: 1	003007-60		Prepared:	12/21/10 Ar	nalyzed: 12	/22/10		
Total Kjeldahl Nitrogen	2.43	0.20	0.05	mg/L	2.5	ND	97	80-120		
Matrix Spike Dup (BL02207-MSD	1)	Source: 1	003007-42		Prepared:	12/21/10 Ar	nalyzed: 12	/22/10		
Total Kjeldahl Nitrogen	3.61	0.20	0.05	mg/L	2.5	1.07	101	80-120	5	20
Matrix Spike Dup (BL02207-MSD2	2)	Source: 1	003007-60		Prepared:	12/21/10 Ar	nalyzed: 12	/22/10		
Total Kjeldahl Nitrogen	2.50	0.20	0.05	mg/L	2.5	ND	100	80-120	3	20



December 24, 2010

Work Order: 1003007

### Hazen and Sawyer 10002 Princess Palm Avenue Suite 200 Tampa FLORIDA, 33619

Inorganic, Dissolved - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BL01104 - DOC prep										
Blank (BL01104-BLK1)					Prepared:	12/10/10 Ar	nalyzed: 12	/11/10		
Dissolved Organic Carbon	1.0 U	4.0	1.0	mg/L						
LCS (BL01104-BS1)					Prepared:	12/10/10 Ar	nalyzed: 12	/11/10		
Dissolved Organic Carbon	9.11	4.0	1.0	mg/L	10		91	90-110		
Matrix Spike (BL01104-MS1)		Source: 1	003007-71		Prepared:	12/10/10 Ar	nalyzed: 12	/11/10		
Dissolved Organic Carbon	10.8	4.0	1.0	mg/L	10	ND	108	85-125		
Matrix Spike Dup (BL01104-MSD1)		Source: 1	003007-71		Prepared:	12/10/10 Ar	nalyzed: 12	/11/10		
Dissolved Organic Carbon	10.9	4.0	1.0	mg/L	10	ND	109	85-125	0.5	25



December 24, 2010

Work Order: 1003007

Hazen and Sawyer 10002 Princess Palm Avenue Suite 200 Tampa FLORIDA, 33619

### \* Qualifiers, Notes and Definitions

Results followed by a "U" indicate that the sample was analyzed but the compound was not detected. Results followed by "I" indicate that the reported value is between the laboratory method detection limts and the laboratory practical quantitation limit.

A statement of estimated uncertainty of test results is available upon request.

For methods marked with \*\*, all QC criteria have been met for this method which is equivalent to a SAL certified method.

Test results in this report meet all the requirements of the NELAC standards. Any applicable qualifiers are shown below. Questions regarding this report should be directed to Client Services at 813-855-1844.



Francis I. Daniels, Laboratory Director Leslie C. Boardman, Q.A. Manager

SAL Project No. 1003007

Парта (Парта)         Нада (Парта)         Нада (Парта)         Парта (Па	Client Name								<u>ể ặ</u>	Contact / Phone: Josephin Edeback-Hirst	ne: back-Hirs	t 813-630-4498	-4498		
CORPORTING           CORPO		Hazan ar	nd Sawyer						jed	eback@ha	azanandse	awyer.com			
Definition         Definition         Definition         Definition         Definition           Results         Not of Considered from         Not of Considered from         Not of Considered from         Not of Considered from           Not investigate         Sample for the construction         Sample for the construction         Sample for the construction         Not of Considered from           Results         Sample for the construction         Sample for the construction         Sample for the construction         Sample for the construction           Results         Sample for the construction         Sample for the construction         Sample for the construction         Sample for the construction           Sample for the construction         Sample for the construction         Sample for the construction         Sample for the construction         Sample for the construction           Result for the construction         Sample for the construction         Sample for the construction         Sample for the construction           Result for the construction         Sample for the construction         Sample for the construction         Sample for the construction           Sample for the construction         Sample for the construction         Sample for the construction         Sample for the construction           Sample for the construction         Sample for the construction         Sample for the construction         Sample fo	oject Name / Location	GCRECI	Mound Grou	ndwater Analy	ses	F									
Полна Малилистики водания	Samplers: (Signature)							PARAN	AETER / CO	NTAINER	DESCRIP	TION			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	DW-Drinking Water WW-Wé DW-Drinking Water WW-Wé SW-SurfaceWater SL-Sludg GW-Groundwater SA-Saline Wé R-Reagent Water	astewater le SO-Soil ater O-Other											p		letoT) anenietr
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			9ts(	əmi	xittsM						Hq bl9i٦	Field DO	no⊃ blei∃		No. of Cor
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	00 V D C	btiou	12/4/10	14:50	Mg		-	-		S					
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	UP. 171 1- 7-		217.12.	0755		×		-		5	4	20	318.7		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	-2 4 4 4-				e No	×	-	-		2	S		29.2.2		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Do11. 612-2			1230	GW	×	-	-	_		5	$\sim$	291.8		
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12 - 14     1     1     1     1     1       12 - 31     Date/Time; 20     X     1     1     X     1       12 - 31     North State     North State     Date/Time; 20     Seat intact     Y     North State       12 - 31     North State     North State     Date/Time; 20     Seat intact     Y     North State       12 - 31     North State     Date/Time; 20     Seat intact     North State     North State       12 - 32     North State     Date/Time; 20     Seat intact     North State     North State       12 - 33     North State     Date/Time; 20     Seat intact     North State     North State       12 - 12 - 13     North State     North State     North State     North State     North State       13 - 13     North State     North State     North State     North State     North State       13 - 13     North State     North State     North State     North State     North State       14 - 33     Date/Time; Received:     Date/Time; North State     North State     North State       15 - 34     Date/Time; North State     North State     North State     North State       15 - 34     Date/Time; North State     North State     North State     North State				10 14	β	×	-	-			7.7	0.66	182.2	-+	
Z - 3 I     V 1     1     1       Z - 3 I     Date/Time     V 0:52     GW     X     1     1       Normation     Received:     Date/Time     Model     V N/V       Normation     Received:     Date/Time     N/V       Normation     Received:     Date/Time     N/V       Normation     Received:     Date/Time     N/V       Normation     Received:     Date/Time     N/V       Normation     Date/Time     Received:     N/V       Date/Time:     Received:     Date/Time:     N/V       Normation     Date/Time:     Received:     N/V       Date/Time:     Received:     Date/Time:     N/V       Date/Time:     Received:     Date/Time:     N/V       Date/Time:     Received:	101-10-10-10-10-10-10-10-10-10-10-10-10-			10:26	MB	×	-				$\mathbf{Y}$	1.28	163.4		
Let     Date/Time:     Meceived:       N     N     N       N     N     N       N     N     N       N     N     N       N     N     N       N     N     N       N     N     N       N     N	C CITACT		>	10:52	ew N9	×	-	-			4.9	1.91	304.1		
Weight     Date/Time:     Raceived of (ce)     Term     N       Note     Proper preservatives indicated?     N     N       Note     Note     N     N	1	Date/Time:/200	Received:	is lack		Date/Time	010	Seal intac Samples	t? ntact upon arr		z z	Instructior	ıs / Remarks		
And     Date/Time:     Proper preservatives indicated?     N N/       Date/Time:     Date/Time:     Proper preservatives indicated?     N N/       Rec d within holding time?     N N/       N     Date/Time:     Received:     N N/       N     Date/Time:     Rec d within holding time?     N N/       N     Date/Time:     Received:     N N/       N     Date/Time:     Received:     N N/       N     Date/Time:     Date/Time:     N N/       N     Date/Time:     Date/Time:     N N/	telinquiched:	01/2/1/2	Received	3		Date/Time		Received	ortice? Temp		N N/A				
Date/Time:     Received:     Date/Time:     Volatiles rec'd w/out headspace     Y       Date/Time:     Received:     Date/Time:     Proper containers used?     N	Relinquished:	Ω	Received:			Date/Time		Proper pr Rec'd wit	eservatives in hin holding tim		N NA				
Date/Time: Received: Date/Time:	Relinquished:	Date/Time:	Received:			Date/Time		Volatiles Proper co	rec'd w /out he		() V				
	Relinquished:	Date/Time:	Received:			Date/Time					VN N				
	Chain of Custody vis Rev Date 11/19/01										Ch	ain of Cust	bd		

SAL Project No. 1003007

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 B13-855-1844 fax B13-855-2218

	Hazan and Sawyer							Contact / Phone Josephin Edeba	Contact / Phone: Josephin Edeback-Hirst	st 813-630-4498	0-4498	
Project Name / Location								jedeback(6	Dhazanand	jedeback@hazanandsawyer.com		
	<b>GCREC Mound Groundwater</b>	undwater Ana	Analyses									
Samplers: (Signature) Len Wed	-					PARA	METER / (	CONTAINE	PARAMETER / CONTAINER DESCRIPTION	PTION		
Matrix Codes: DW-Drinking Water WW-Wastewater SW-SurfaceWater SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water							1					letoT) aner
SAL Use Only Sample No. Sample Description	Date	əmi⊺	Xatrix	Grab Grab	זבף, Cool Alkalinity	⊥КИ' ИН <sup>3+</sup> И( 520 णI Ь' Н <sup>3</sup>	40 ml aV, HC TOC	DOC 1LaG, Cool	Hq bleif	Field DO	bro <b>O bl</b> əiŦ	No. of Contair per each loca
DPMOT-15	ai/b/ei	1132	GW	×	-	-			4.8	0.80	304.0	
It-rowad		2411	GW	×					4.9	0.7.0	374.9	
12 DP-MO7-27.		LOCI	GW	×	-				4.8		B1.5	
200- 5 12-15		1225	GW	×					4.8	1.50	287.5	
+DP-J12-20		1239	GW	×	ę.a.				5.0	1,13	342.9	
212-20 D 019/10	and the second se	hhe!	GW	*	t				3.0		1200	
508- J-12 - 27		0001	GW	×	-	-			4.8	61.1	307.1	
40 00- 5 00- 14		1320	GW	×					4.51		232.1	
07-5-09-20		1336.	GW	×	+				4.9	N	138.1	-
2-28- J-09 21	->	522	GW	×	-				4.9	2.57	28.2	
			GW	×	·							
			GW	×	<del>~~</del>				1			
Containers Prepared Date/Time/2000 Relinquished: $(1)$ $(12-03-10)$	Received:	7 W	S	Date/Time:	2/10	Seal intact? Samples int	Seal intact? Samples intact upon arrival?	arrival?	Y N NA	Instruction	MA Instructions / Remarks	
Relinquished: Date Trans. Wind 1319/10	Received:			Date/Time:		Received	Received on ice? Temp		NA A			
Retinquished:	Received:			Date/Time:		Proper pre Rec'd with	Proper preservatives indicated? Rec'd within holding time?	indicated? (				
Reinquished: Date/Time:	Received:			Date/Time		Volaties r	Volatiles rec'd w /out headspace	dspace				
Relincuished: Date Time:	Received:			Date/Time:			n oper containers used?					

Chain of Custody

Onen of Orstody ets Rev Date 11-10-13

SAL Project No. 1003007

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218

Client Name	Hazan	Hazan and Sawver							Contact / Phone: Josephin Edebao	Contact / Phone: Josephin Edeback-Hirst		813-630-4498		
Droiect Name / Location	10701								iedehark@	iedeback@bazanandsawwer com	sawver con			
	GCREC	GCREC Mound Groundwater Analyses	ndwater Ana	lyses					lananya		awyel.coll	=1		
Samplers: (Signature)	C. Werl	/ garges	, First	<b>, )</b>			PARA	METER / C	CONTAINE	PARAMETER / CONTAINER DESCRIPTION	PTION			
Matrix Codes: DW-Drinking Water WW-Wastewater SW-SurfaceWater SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water	/astewater ge SO-Soil /ater O-Other													
SAL Use Only Sample No. Sample Description	ption	Date	∋miT	xittsM	Composite Grab	1LP, Cool Alkalinity	 1КИ' ИН <sup>3</sup> ' И( 520 Ш Б' Н <sup>5</sup>	40 ml aV, HC TOC	ראפי, Cool וראפי, Cool	Hq bləi7	Field DO	Field Cond		No. of Contai per each loca
5100-012-27		01/6/21	11:14	ВW	×	+	-	5	-	5.0	2.4.5	9.152		
- 5.FO -90		12/4/10	07:8	ЮW	×	+	+	2	-	7.01	01.1	432		
69 DP- D09 - 15		01/2/21	9:30	GW	×	-	-	2	1	5:30	3,20	433		
14 D1-E12- 42		01/6/21	11:05	GW	×	t	-	2	1	5,00	1,95	H9H		
or - 803 - 19 E		12/9/10	12:00	GW	×	L L	1	2	-	45.3	641	368		
21 DP - FII - 18		12/9/10	1:05	ΜŊ	×	-	-	5	-	570	1.13	3:048		
67 3 12-20		V	1239	6 W	X	-	-	~	1					
			. ,.											
Containers Prepared/ Relinquished:	Date/Time: //45	Received:	when		Date/Time://0	10 21/0	Seal intact? Samples int	Seal intact? Samples intact upon arrival?		Y N NN	Instructio	Instructions / Remarks	ks	
Relinquished:	Date/Time:	Received			Date/Time:	) ان	Received	Received on ice? Temp		N NA				
Relinavished	Date/Tifne:	Received:			Date/Time:		Proper pre	Proper preservatives indicated?	ndicated?	Ç)n wa				
							Rec'd w ith	Rec'd w ithin holding time?	ue?	N NA				
Relinquished:	Date/Time:	Received:			Date/Time	i di	Volatiles r	Volatiles rec'd w /out headspace		Z Z				Hab
Relinquished:	Date/Time:	Received:			Date/Time	υ			$\bigcirc$	V N NA				
Chain of Custody xis Rev.Date 11/19/01	-					-				Ch	Chain of Custody	ody		

SAL Project No. 1003007

Client Name								Contact / Phone Josephin Edeba	Contact / Phone: Josephin Edeback-Hirst		813-630-4498		
	Hazan and Sawyer							jedeback(	jedeback@hazanandsawyer.com	sawyer.con	-		
Project Name / Locauon GCRI	GCREC Mound Groundwater Analyses	undwater Ana	lyses										
Samplers: (Signature) Chefri Hurr						PAR	AMETER /	CONTAINE	PARAMETER / CONTAINER DESCRIPTION	PTION			
Matrix Codes: DW-Drinking Water WW-Wastewater SW-SurfaceWater SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water	0,					40× \$20*	CI				1		lainers (Total
SAL Use Only Sample Description	⊃fe <sub>916</sub> (	9miT	xinteM	Composite Grab	1LP, Cool Alkalinity	520 <sup>w</sup> l b' H 520 wl b' H	40 ml aV, H 70C	DOC	Hq bləiə	Field DO	Field Conc		No. of Con
n0, n1, c	17 19	75:0	MC	×					10.5	2.55	258		R
、   、	12/4	2. 46	M	: ×					10.6	2.01	a 95		っ
10-17-04		0		: ×	-	-			4.92	5.59	\$63		h
2 - DA . DO - 5	_	01:6	ew 6	×	-	-			4.65	3.52	380		え
>2	12/1	9:35	GW	×	-				5.30	3.20	433		ん
	12/4	9:50	θM	×	-	-			5.79	1-35	300		4
10. 604 -	12/9	10:05	GW	×	-	-			5.97	4.41	270		ト
121-10	12/9	10:02	GW	×	-	-			5.49	4.6	142		2
N. 7 12-	12/1	lo: 50	ВW	×	t				4.88	2,47	550		2
NO- EI2-		07:11	GW	×	-				s. 17	2.01	462		તે
	6/21	11:45	GW	×	<b>1</b>				7.04	6.09	1412		d
			GW	×	4-m-	<del></del>							
Containers Prepared: Date/Time:/2000	Received	いま	۲	Date/Time: 12-09-10	01-b	Seal intact? Samples int	Seal intact? Samples intact upon arrival?	$\bigcirc$	N N NA	Instructio	Instructions / Remarks	S	
Reinquistred: Date/Time:	Received:	1 rula		Date Time.	010	Received	Received on ice? Temp	)dw	N NA				
10 ml	Received:			Date/Time		Proper p Rec'd wi	Proper preservatives indicated? Rec'd w ithin holding time?	indicated?	N NVA N NVA				
Reinquished:	Received:			Date/Time	6	Volatiles	Volatiles rec'd w /out headspace	dspace					
Relinquistred: Date/Time:	Received:			Date/Time:	:0				VN NX				

SAL Project No. 100 300 7

110 BAYVIEW BUULEVAHU, ULUSIVIAH, FL 34977												
Client Name	U T						<u> </u>	Contact / Phone: Josephin Edebac	Contact / Phone: Josephin Edeback-Hirst	st 813-630-4498	0-4498	
	Hazan and Sawyer							edeback@	jedeback@hazanandsawyer.com	awyer.com		
	GCREC Mound Groundwater Analyses	ndwater Ana	lyses									
Samplers: (Signature) Bregain Hinne						PARAN	AETER / C	ONTAINE	PARAMETER / CONTAINER DESCRIPTION	PTION		
Matrix Codes: DW-Drinking Water WW-Wastewater SW-SurfaceWater SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water							CI					ainers (Total
SAL Use Only Sample	əteC	əmiT	xinteM	Composite Grab	1LP, Cool Alkalinity	250 ml P, H 750 ml P, H	40 ml aV, H 70C	1LaG, Cool	Hq bləi٦	Field DO	bno⊃ blei∃	No. of Cont per each lo
DU-FOR	10	2	ßW	+		-			11-2	1:33	332	ч
_	1) (a (10 1):30	1):30	MO	×	-	-			5.35	5.26	366	ત
DP - F 11 -	01/1/1	וניזך	NO NO	×	-				5.00	3.64	547	2
-+	11/2/11	57:1	GW	×					5.02	2.10	4Sh	4
	12/4/10 1:45	ا: 42	GW	×					5.00	١٠١٢	ふちょ	ત
	a/1/10	2:00	GW	×	-	-			5.17	0.92	447	<b>ત</b>
	•		AT	×	*	4						
			Dent	×	*	7						
			ß	×	$\mathbf{r}$	¥				/		
			No.	X	`*	Ź				~		
			X	X	$\mathbf{r}$	×						
			ž	X	7	7						
Containers Prepared: Date/Time/2000 Relinquisted: 7 ) 7 13 - 0 % - 11	Received:	· Hur		Date/Time: 12-09-10	a)-1	Seal intact? Samples int	Seał intact? Samples intact upon arrival?	rrival?	N NV	Instructio		
Reinquished: Date/Time:		when		Date/Time: 1 ユーマ・1 ひ	3:10	Received	Received on ice? Temp	di	NN NA			
	7 <sup>8</sup>			Date/Time:		Proper pre Rec'd with	Proper preservatives indicated? Rec'd within holding time?	ndicated? (	N NA			
	Received:			Date/Time		Volatiles / Proper cor	Volatiles rec'd w /out headspace Proper containers used?	eadspace d? /				
Reinquished: Date/Tane:	Received:			Date/Time:					YN NY			
					-							

Chain of Custody

Ohar of Gusted (24%) Rev.Date 11:1521 SAL Project No. 1003007

# SOUTHERN ANALYTICAL LABORATORIES, INC.

								Josephin Edeba	Josephin Edeback-Hirst	st 813-630-4498	0-4498		
Client Name Hazan a	Hazan and Sawyer		1				ei	deback@	hazanands	jedeback@hazanandsawyer.com			
Project Name / Location	Groundwater Analyses	vater Analv	ses										
	Mound Ground					PARAN	PARAMETER / CONTAINER DESCRIPTION	ONTAINER	R DESCRI	NOIT			
Samplers: (Digitature)	en werd				-								ls
Matrix Codes: DW-Drinking Water WW-Wastewater SW-SurfaceWater SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water				6		<sup>+3</sup> ' NN× ۵' H <sup>s</sup> SO'	A' HCI	1000	H	00	puog		Containers (Tot
SAL Use Only	91ı	əu	atrix	isomposi	LP, Coc	LKN' NH 520 WI E	40 ml a'	000 ורשפי (	q bləiə	T blai7	Field C		10.0N
Sample Description Sample Description			W						5.25	1-66	240		ଟ
74 08- 206-14		0-+	GW	×		-			5.63	1.70	367		え
29 DP- 106- 20		5.4	GW	×	-	-			5.31	9.44	1.49		2
	[7/10/10	1: >>	GW	×		-			£6.9	11.07	445	74	2
	12/10/10	8:00	GW	×	-				5.53	3.33	140		3
		8:22	GW	×					5.36	2.19	212	• •	Ц
20 Nr- 607 - 17		8= 35	МŨ	×					5.37	1.66	343	3	5
<b>b</b> <i>b</i> <sup>2</sup>	12/10/10	<b>9</b> :50	ßW	×	-	-			5.26	(.13	300		~
32 w- 607 - 24		90:2	GW	×	-	-			5.19	1.37	293	**	2
	12/10/10	51:6	м С	×	-				L'H	er.0	12.73	• 4	3
GO STEVE EXPLONE TOWE	12/20/00	9:51	GW	×	-	-			2.32	0.10	rs3	ъ	2
	12/00/00	20:01	GW	×	+						18811		ļ
	12/10/0652	0652	GW	× 				-		Instructio	Instructions / Remarks		
Containers Prepared		كمالي	R	Date/ meg 10	220	Seal intact Samples int	Seal intact / Samples intact upon arrival?	arrival?	N NA				
Reinquished: Date Time 7.10	Receiver	•		Date/Time	ne:	Receive	Received on ice? Tenp	) du	DN NA				
Zen Word Date/Time:	Received:			Date/Time:	ne:	Proper F	Proper preservatives indicated? Rec'd within holding time?	indicated? ime?	N NA				
Relinquished:	Received:			Date: Time:	ieu.	Volatile: Proper-	Volatites rec'd w/out héadspace Pigner containers used?	headspace ed?					
Rehnquishet: Date:Time:	Received:			Date/Aime:	me:				)				}
				_					Ö	Chain of Custody	ody		

Orain of Oustody 248 Rev. Date: 11, 1991

SAL Project No. 1003007

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218

Project Name / Location Samplers: (Signature)			A Counter						-						
Samplers: (Signature)										edeback@	jedeback@hazanandsawyer.com	sawyer.corr	-		
Samplers: (Signature)	=	GCREC	GCREC Mound Groundwater	ndwater Analyses	/ses	ŀ									
	<i>M</i>	Jul						PARA	PARAMETER / CONTAINER DESCRIPTION	CNTAINE	R DESCRIF	PTION		F	
DW-Drinking DW-Drinking SW-Surface GW-Groundwatt R-I	Matrix Codes: DW-Drinking Water WW-Wastewater SW-SurfaceWater SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water	2 Sther							CI				Only R.		lstoT) arenis:
SAL Use Only Sample			9î6(	əmi	kintsM	Grab Composite	Alkalinity Alkalinity	 LKN' NH <sup>3'</sup> і 220 ЧЧ Б' Н <sup>'</sup>	40 ml aV, H TOC	DOC 11ag, Cool	Hq bl9i٦	Lield DO	Field Cond		No. of Con
, 6 7	Sample Description		10	0652	- MB	-		-			5. l	34	7:3017		
2	11/100			0120	GW	×	-	-	Ł	f	5.4		649		
	5.26			8741	GW	×	-	-			4.9		3.066		
3400- GI	612-15			0936	GW	×	-	-				T	508		
10(0 MD- 612	612-150			0938	GW	×	-	-			Т	T	325		
500	2-2(			2530	GW	×	-	-					636		
34 00-612	C # 2		<b>`</b>	1005	GW	×	-	-			< L	0,45			
Found	m		r	2460	GW	×	-	-			2.5	2.31	13.2		
1.4					MO	¥	À	¥					-		
					CHA	K	f	+							
					Ma	k	£	*							
					SW	k	4	<i>+</i>							
Containers Prepared/ Relinquished:	Date/Time	.eu	Received:	s Ma	J	Date/Time:	6.10 2.0	Seal intact? Samples int	Seal intact? Samples intact upon arrival?	arrival?	v Z Z Z Z	Instructio	Instructions / Kemai Ka	•	
Relinquished:	Date/Time	10/10	Received:			Date/Time	ë	Received	Received on ice? Temp	- du	× Z Q				
Relinguished:	Date/Time	<b>&gt;</b>	Received:			Date/Time	ë	Proper p Rec'd wr	Proper preservatives indicated? Rec'd w ithin holding time?	indicated?					
Relinquished:	Date/Time:	me:	Received:			Date/Time	ë	Volatiles Proper ci	Volatiles rec'd w /out headspace Proner containers used?	r (	( V V V				
Relinquished:	Date/Time	me:	Received:			Date/Time:	::			-	YN NA				

SAL Project No. Lw 3w7

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218

Predent (and it)         Поли и и и и и и и и и и и и и и и и и и	Client Name	Hazan	Hazan and Sawyer	-	-				Contact / Phone: Josephin Edebad	Contact / Phone: Josephin Edeback-Hirst	st 813-630-4498	)-4498	
При советили         Организати (сонтанства)         Организати (сонтанизати (сонтанизи (сонтанизати (сонтанизати (сонтанизати (сонтанизи)	Project Name / Location								jedeback (G	phazanands	sawyer.com		
ник сартация макие саята. Систопалия Маке саята Систопалия		GCRE	C Mound Grou	undwater Ana	yses								ļ
Онобливания была в Ославновите инстриментация         Половите инстриментация         Половите инстриментация </td <td>-</td> <td>Hurry</td> <td>3</td> <td>ł</td> <td></td> <td></td> <td>PAF</td> <td>RAMETER /</td> <td>CONTAINE</td> <td>ER DESCRI</td> <td>PTION</td> <td></td> <td></td>	-	Hurry	3	ł			PAF	RAMETER /	CONTAINE	ER DESCRI	PTION		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		istewater e SO-Soil iter O-Other ition			xitteM	Grad 1 LP, Cool	320 WI B' H <sup>s</sup> 2O⁵	40 ml aV, HCl	DOC 1F8G, Cool	Hq blaif	Field DO	Field Cond	letoT) modicteo() to old
PTC-R5 200         BY 0+12         CM         N         I         Z         I         H         D         CH         Sandle           PZ 2H-R/G-1         I         052         GW         X         I         I         Z         Z	19-7 1		12/10/10	Sh:Ł	GW			2		5.01	2.36	302	5
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	14		al al la	0715	GW	*+ 		É	-				noled
P2     D4 $BFG-G$ $BFYO$ $GW$ $X$ $I$ $I$ $2$ $1$ $5$ P2 $17$ $11$ $11$ $2$ $1$ $1$ $2$ $1$ $DF$ $17$ $200$ $0$ $201$ $201$ $2$ $1$ $5$ $DP$ $FIS$ $200$ $2$ $2$ $1$ $1$ $2$ $1$ $DP$ $EIS$ $200$ $200$ $200$ $200$ $200$ $200$ $DP$ $EIS$ $200$ $200$ $200$ $200$ $200$ $DD$ $EIS$ $200$ $200$ $200$ $200$ $DD$ $EIS$ $200$ $200$ $200$ $200$ $DD$ $200$ $200$ $200$ $200$ <t< td=""><td></td><td><i>(</i></td><td></td><td>052)</td><td>GW</td><td>× -</td><td></td><td>7</td><td>t</td><td>5-11</td><td></td><td></td><td>&gt;</td></t<>		<i>(</i>		052)	GW	× -		7	t	5-11			>
PZ $11 - iIT - 3d$ $V$ $Dq17$ $GV$ $X$ $1$ $1$ $2$ $1$ $5$ $7$ $DP$ $FIT$ $2DO$ $R$ $X$ $X$ $T$ $Z$ $Z$ $Z$ $Z$ $DP$ $FIT$ $2DO$ $ZW$ $X$ $T$ $T$ $Z$ $Z$ $Z$ $Z$ $DP$ $FIT$ $ZDO$ $ZW$ $X$ $T$ $T$ $Z$ $Z$ $Z$ $Z$ $DP$ $EIT$ $DP$ $DP$ $EIT$ $Z$ $Z$ $Z$ $Z$ $Z$ $Z$ $DP$ $DP$ $DP$ $DP$ $DP$ $DP$ $Z$ $Z$ $Z$ $Z$ $Z$ $DP$ $DP$ $DP$ $DP$ $DP$ $DP$ $Z$				0640	GW	 		2	1	5,3	72.9	1.10	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	- [1		$\geq$	<b>L160</b>	GW			5	-			1.42€	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	OP-FIX-300			, g	P		7	ķ	¢				
Ender Fried     Date Time:     Date Time:     Date Time:     No       Fight     Date Time:     Date Time:     No     No       Fight     Date Time:     Date Time:     No     No       Fight     Date Time:     Date Time:     No     No       Pare Time:     Date Time:     Date Time:     No     No       Pare Time:     Date Time:     Date Time:     No     No       Pare Time:     Received:     Date Time:     No     No       Date Time:     Received:     Date Time:     No     No       Date Time:     Received:     Date Time:     No     No       Date Time:     Received:     Date Time:     No     No	DP-FIS-		arlarter		30	X						649	
Pate Time:     // ЦТ     Received:     Date Time:     Pate Time:			-										
cpare     Date/Time:     // L/L     Received:     Date/Time:     Real intact?     V     N       // 2     // 2     // 2     // 2     // 2     // 2     // 1     // 1       // 2     // 2     // 2     // 2     // 2     // 1     // 1       // 2     // 2     // 2     // 2     // 2     // 1     // 1       // 2     // 2     // 2     // 2     // 2     // 1     // 1       // 2     // 2     // 2     // 2     // 2     // 1     // 1       // 2     // 2     // 2     // 2     // 2     // 1     // 1       // 2     // 2     // 2     // 2     // 2     // 1     // 1       // 2     // 2     // 2     // 2     // 2     // 1     // 1       // 2     // 2     // 2     // 2     // 2     // 2     // 1       // 2     // 2     // 2     // 2     // 2     // 2     // 1       // 2     // 2     // 2     // 2     // 2     // 2     // 1       // 2     // 2     // 2     // 2     // 2     // 2     // 2       // 2     // 2     // 2     // 2     // 2     // 2     // 2       <													
Date/Time:     Date/Time:     Received on ice? Temp       Date/Time:     Received:     Date/Time:     Received on ice? Temp       Date/Time:     Received:     Date/Time:     Received on ice? Temp       Date/Time:     Received:     Date/Time:     Received on ice? Temp       Date/Time:     Date/Time:     Noter preservatives indicateu?       Date/Time:     Date/Time:     Noter preservatives indicateu?       Date/Time:     Date/Time:     Voluties racid w/out headspace       Date/Time:     Date/Time:     Voluties racid w/out headspace       Date/Time:     Date/Time:     Voluties racid w/out headspace		Date/Time: / ] (J] ] 2 - <b>3</b> - )(O]	Received:	when		5) 3/6/10	Seal int Sample:	act? s intact upon a		$\mathbf{r}$	Instruction	s / Remarks	
Date/Time:     Received:     Date/Time:     Proper preservatives indicated?       Date/Time:     Date/Time:     Provide the standard       Date/Time:     Date/Time:     Provide the standard       Date/Time:     Racid within holding time?     Volitiles racid w/out heatspace       Date/Time:     Date/Time:     Volitiles racid w/out heatspace       Date/Time:     Date/Time:     Volitiles racid w/out heatspace	y wind	Date/Time: 12/10/10 11 55	Received			Jate/Time:	Receive	ed on ice? Ter		NN NN			
Date Time:     Received:     Date Time:     Volaties racid w/out headspace       Date/Time:     Received:     Date/Time:     Proper containers used?		Date.Time:	Received:		<u> </u>	Jate/Time:	Rac'd w	preservatives vithin holding ti	indicated? (	N NA N NA			
Date/Time: Received: Date/Time:		Date Time:	Received:			Date/Time:	V olatiles	s rec'd w /out h	dspace				
		Date/Time:	Received:			bate/Time:				N NA			

Client Name:		lazan and Sawye	r	Location:				Contact:			
Olent Name.	t	1		SAL Project				Phone:			
Date Sampled	12]	4/10		#	1003	3007		Project Name	GCREC Mo	und Groundwa	iter Analyses
Well Number	NOR 19	- 14		Sample ID	01			GPS LAT GPS LONG			
	NH N I			Р		<b>DATA</b>					
WELL		WELL		Screen				Static Depth		PURGE	PP GP
DIAMETER		CAPACITY		Interval	UNK	То	UNK	to Water		PUMP	IBP
(Inches)		(gal/ft)		(Feet)				(Feet)		CODE	
TOTAL WELL		REFERENCE ELEVATION			D WATER ATION			TUBING DIAMETER		TUBING CAPACITY	
DEPTH (Feet)		(NGVD)			CE-STATIC)			(Inches)		(gal/ft)	
Purge Tec	hnique: q Sul	bmerged Screen	(1,1/4,1/4 Well	) q Subme	rged Screen (1	IEQ Volume, 3	8, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
	OLUME = (TO	TAL DEPTH - ST		X WELL CAP	ICITY =	3 WELL			5 WELL		
ONE WELL VOLUME			1/4 WELL VOLUME			VOLUMES			VOLUMES		
		EQUIPMENT V	L DLUME = PUN	I /IP VOLUME +	(TUBING CA	PACITY X TU	BING LEGNTH	I) + FLOW CEL	L VOLUME		
PUMP			TUBING			FLOW CELL			EQUIPMEN		
VOLUME			LEGNTH			VOLUME			T VOLUME		
INITIAL TUBI	NG LEGNTH		FINAL TUBI	NG LEGNTH		PURGE		PURGE TIME		TOTAL	
IN WELL			IN WELI	L (FEET)		TIME START		END		PURGED	
INST.	$\overline{}$		$\smallsetminus$	$\smallsetminus$	SAL-SAM-63	SAL-SAM -	SAL-SAM-63	SAL-SAM-55-	SAL-SAM-	$\bigtriangledown$	$\searrow$
ID			$\searrow$	$\searrow$		65		—	0	$\bigtriangleup$	$\frown$
	VOLUME	TOTAL		Depth to	pН	TEMP	SP COND	DO	TURBIDITY	001.00	0000
TIME	PURGED	VOLUME PURGED	PURGE RATE (gpm)	Water	(SU)	(oC)	(uS/cm)	(mg/L)	(NTUs)	COLOR (Describe)	ODOR (Describe)
	(Gallons)	(Gallons)	(9pm)	(Feet)	(∆ <0.2)	(∆ <0.2)	(∆ <5%)	(% SAT <20)	(<20 NTU)		
0745					511	21.5	281.9	0,89			
	Well C	 Capacity (gallons/f	not): 0.75"=0	02, 1.25"=0	] ).06, 2"=0.1	16, 3"=0.37,	4"=0.65.	5"=1.02, 6	l "=1.47, 12'	'5.88	
TUBIN		A. CAPACITY (Ga					,	,	6; 1/2" = 0.0	010; 5/8" = 0	0.016
		·····			AMPLIN						
SAMPLED BY	COMPANY			<u> </u>			- LER(S)				
(PRI							TURES:				
TUBING MAT	ERIAL CODE			SAMPLE	TUBING			SAMPLE PU			
(CIRCLI	E ONE)	PP PE NF		LEGNTH IN	WELL (FEET)			RATE (r	nL/min)		
SAMPLING		SAMPLING		FIELD	Y N	CLEANING					
INITIATED FIELD		ENDED FILTER SIZE		CLEANED		STEPS	ECTED BY		SEMI-VOLS	COLLECTED	
FILTERED?	YN	μm)		DUPLICATE	Y N		E FLOW?	Y N N/A		GH TRAP?	Y N N/A
PRESER CHECKED		Y N N/A	1	ERVATIVES DED							
WEAT											
CONDI	10112										
COMM	IENTS										
			DE0. DE 0	detelli D		ible Orar He	Dume IDD- 1	place Pledd	Pump		
	TUR	PUMP CO	OES: PP=Per	Polypropylene	e. PE= Polveth	nylene. NP= N	lon-inert Plasti	-place Bladder c, TL= Teflon L	ined, TT= Te	flon	
Re	eviewed By:				., . <b>_</b> , o.you	· <u>,</u> , ··· ·	Date				
L	· · · - ]·	L									

Client Name:	F	lazan and Sawye	r	Location:		_		Contact: Phone:			
Date Sampled	DP 6	121 - 22		SAL Project #	100	3007	-	Project Name	GCREC Mou	und Groundwa	ater Analyses
Well Number	10	1 6 110	1	# Sample ID	02			GPS LAT			· ·
	1 54	<u>  1/10</u>						GPS LONG	<u></u>		
WELL		WELL		Screen		DAIA		Static Depth		PURGE	
DIAMETER (inches)		CAPACITY (gal/ft)		Interval (Feet)	UNK	То	UNK	to Water (Feet)		PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		GROUNE ELEV/ (REFERENC	ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		omerged Screen ( TAL DEPTH - ST		/	<u> </u>	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL			1/4 WELL			3 WELL			5 WELL		
VOLUME		EQUIPMENT V				VOLUMES		) + ELOW CEL			
PUMP VOLUME			TUBING LEGNTH	N VOLOME 1		FLOW CELL VOLUME		J TEON OLL	EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL			FINAL TUBII IN WELL			PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\triangleright$	$\ge$	$\succ$	$\ge$	SAL-SAM-63 	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- 	SAL-SAM- 0	$\geq$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	рН (SU) (∆ <0.2)	ТЕМР (оС) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
6754	1.5				4.9	23.3	318,7	1104			
										· · · · · ·	
	Well Capacity (gallons/foot): 0.75			.02, 1.25"=0	0.06. 2"=0.	16. 3"=0.37	4"=0.65,	5"=1.02, 6	<u>)</u> 5"=1.47, 12		<u> </u>
TUBI		A. CAPACITY (Gallons)			,		, ,	4; 3/8" = 0.00			0.016
						G DATA	1				
	Y / COMPANY					SAMF	LER(S) TURES:				
		PP PE N	P TL TŤ	-	E TUBING WELL (FEET)	)		-	UMP FLOW mL/min)		
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS		1			<u>.</u>
FIELD FILTERED?	Y N	FILTER SIZE (µm)		DUPLICATE	Y N		LECTED BY SE FLOW?	Y N N/A		GH TRAP?	Y N N/A
PRESE	RVATION D IN FIELD?	Υ Ν Ν/Α		SERVATIVES							
	THER										
COMI	MENTS										
		PUMP CO	DDES: PP=Pe	eristaltic Pump	, GP= Submer	sible Grundfos	Pump, IBP= I	n-place Bladde	r Pump Lined. TT= Te	eflon	
	TU Reviewed By			- r-oiypropyien			Date	e:			
	Cevieweu By	<u></u>									

Client Name:	ŀ	lazan and Sawye	r .	Location:				Contact: Phone:			
Date Sampled	EA	9-2-	7	SAL Project #	100	3007		Project Name	GCREC Mo	und Groundwa	ater Analyses
Well Number	1 12	<u> </u>	•	# Sample ID	03			GPS LAT			
								GPS LONG		_	
				<u> </u>	URGINO	<b>G</b> DATA					
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		GROUNE ELEV (REFEREN	ATION			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		bmerged Screen				EQ Volume, 3	s, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL	OLUME = (10)	TAL DEPTH - ST	1/4 WELL	X WELL CAPI		3 WELL	[	······································	5 WELL		
VOLUME			VOLUME			VOLUMES			VOLUMES		
		EQUIPMENT VO	DLUME = PUN	IP VOLUME +	(TUBING CAI	PACITY X TUE	BING LEGNTH	I) + FLOW CEL	L VOLUME		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI			FINAL TUBI	NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\left \right>$	$\ge$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- —	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	рН (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
0812					4.8	22.7	293,2	0.84			
								•			
							· · · ·				
	Well Capacity (gallons/foot): 0.75"=0										
	Well Capacity (gallons/foot): 0.75"=							5"=1.02, 6	"=1.47, 12	'5.88	
TUBIN	NG INSIDE DIA	A. CAPACITY (Ga	al./Ft.): 1/8" =	0.0006; 3/16"	' = 0.0014; 1	/4" = 0.0026;	5/16" = 0.004	4; 3/8" = 0.00	6; 1/2" = 0.0	010; 5/8" =	0.016
				S	AMPLIN	G DATA	1				
SAMPLED BY (PR							LER(S) TURES:				
TUBING MAT (CIRCL	ERIAL CODE E ONE)	PP PE NF	P TL TT		E TUBING WELL (FEET)			SAMPLE PU RATE (r		•	
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS			•••••		•
FIELD FILTERED?	Y N	FILTER SIZE (µm)		DUPLICATE	YN		LECTED BY SE FLOW?	Y N N/A		COLLECTED	Y N N/A
PRESER	IN FIELD?	Y N N/A	1	ERVATIVES DED							
WEA <sup>-</sup> CONDI	THER										
COMM	IENTS										
		PUMP CO	DES: PP=Pe	ristaltic Pump,	GP= Submers	sible Grundfos	Pump, IBP= Ir	n-place Bladder	Pump	0	
		SING MATERIAL	CODES: PP=	Polypropylene	e, PE= Polyeth	nylene, NP= N			.ined, TT=Te	tion	
LR	eviewed By:	1					Date	-	· · · · · · · · · · · · · · · · · · ·	_	

lient Name:		н	azan and Sawyer		Location:				Contact:			
		-1.			SAL Project	1 0 4 7	227		Phone:			
ate Sampled	12	1/10	)		#	10030 DP-D7.	00 T.	04	Project Name	GCREC Mou	nd Groundwa	ter Analyses
Vell Number					Sample ID	DP - D7.	5-14		GPS LAT GPS LONG			
					P	URGING	DATA		L <u></u>			
WELL	~1		WELL	ī	Screen				Static Depth		PURGE	PP GP
DIAMETER (Inches)	5/16		CAPACITY (gal/ft)		Interval (Feet)	UNK	То	UNK	to Water (Feet)		PUMP CODE	IBP
			REFERENCE		GROUNE	WATER			TUBING	Clu .	TUBING	
OTAL WELL EPTH (Feet)	14		ELEVATION		ELEV	ATION			DIAMETER	5/16	CAPACITY	
	•		(NGVD)		(REFEREN	CE-STATIC) ged Screen (1		2 Minuton)	(Inches) q Partially Sub	merced Scree	(gal/ft)	minutes)
WELL V	DLUME	q Suc = (TO	omerged Screen ( TAL DEPTH - ST/	ATIC DEPTH)				, o windes)		inciged bolog		
ONE WELL				1/4 WELL			3 WELL			5 WELL		
VOLUME			EQUIPMENT VO			TUBING CAL	VOLUMES		H) + FLOW CEL			
				TUBING		(100	FLOW CELL		/	EQUIPMEN		
PUMP VOLUME				LEGNTH		I	VOLUME			T VOLUME		
INITIAL TUBI		NITH		EINAL TUBI	L NG LEGNTH		PURGE		PURGE TIME		TOTAL	
IN WELL				IN WELL			TIME START		END		PURGED	
INST.					$\smallsetminus$	SAL-SAM-63	SAL-SAM -	SAL-SAM-63	SAL-SAM-55-	SAL-SAM-	$\searrow$	$\searrow$
ID	$\geq$	$\leq$	$\searrow$				65			0	$\angle $	$\swarrow$
	VOL	JME	TOTAL	DUDOF	Depth to	ρН	TEMP	SP COND	DÓ	TURBIDITY	COLOR	ODOR
TIME	PUR	GED	VOLUME PURGED	PURGE RATE (gpm)	Water	(SU)	(oC)	(uS/cm) (∆ <5%)	(mg/L) (% SAT <20)	(NTUs) (<20 NTU)	(Describe)	(Describe)
	(Gall	ons)	(Gallons)		(Feet)	(∆ <0.2)	(Δ <0.2)	(Δ < 5 %)	(/// GAT -20)	(1201110)		
8:20 am			3			7.01	21.2	432	1.10			
	ļ			ļ	<u> </u>	<u> </u>	<u> </u>		· · · · · · · · · · · · · · · · · · ·		ļ	
			1								 	
			<u> </u>		†					ł		
	<u> </u>		<u> </u>		+	+					+	1
	1	Well	Capacity (gallons)	/foot): 0.75"=0	.02, 1.25"=						2"5.88	0.016
TUBI	NG INS	IDE DI	A. CAPACITY (G	al./Ft.): 1/8" =				5/16" = 0.0	04; 3/8" = 0.0	06; 1/2 = 0	.010, 5/8 -	0.010
						AMPLIN						
SAMPLED B	Y / CON RINT)	IPANY	JM4 L	Harres of	Janyer	)		PLER(S) ATURES:	goul	is this		
<u>`</u>		0000	+			E TUBING				UMP FLOW		
TUBING MA (CIRCI	LE ONE		D PE N	NP TL TT		WELL (FEET	)		RATE	(mL/min)		
SAMPLING	d•		SAMPLING	8:	FIELD	Y N	CLEANING	÷				
INITIATED	\$.0	)	ENDED FILTER SIZE		CLEANED	) 	STEPS VOC COI	LLECTED BY	V NI 1978		S COLLECTE	D <sub>YNN</sub>
FIELD FILTERED?	Y Y	N	μm)		DUPLICAT	E Y N		SE FLOW?	Y N N/A	THROL	JGH TRAP?	
PRESE	RVATIO		Y N N/A		SERVATIVES							
CHECKE						<u></u>						
WEA	ATHEF	ર	cold									
CONE	DITION	1S										
<b>├</b> ────						<u></u>		<u></u>				
СОМ	MENT	S										
1									- In place Bladd	er Pump		
				ODES DD-C	Peristaltic Pum	p, GP= Subme	ersible Grundfo	os Pump, IBP	- m-place bladu			
		Τι	PUMP C UBING MATERIA	CODES: PP=F L CODES: PF	Peristaltic Pum P= Polypropyle	p, GP= Subme ene, PE= Poly	ersible Grundfo ethylene, NP=	Non-inert Pla	astic, TL= Teflor	n Lined, TT=	Teflon	

Client Name:	F	lazan and Sawye	r	Location:				Contact: Phone:			
Date Sampled	12/9/	10		SAL Project	1002	007-	05	Project Name	GCREC Mou	und Groundwa	iter Analyses
Well Number		7.5-20		# Sample ID	DP-1-	007-1	<u>~.</u>	GPS LAT			,
	<u> </u>	1.3 -0						GPS LONG			
WELL	I	WELL	<u> </u>	Screen	UNGING	JAIA		Static Depth	<u> </u>	PURGE	
DIAMETER (Inches)		CAPACITY (gal/ft)		Interval (Feet)	UNK	To	UNK	to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)	-	REFERENCE ELEVATION (NGVD)		GROUND ELEVA (REFERENC	ATION CE-STATIC)			TUBING DIAMETER (Inches)	5/1 <b>6</b> "	TUBING CAPACITY (gal/ft)	
		bmerged Screen (				EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
WELL V	OLUME = (TO	TAL DEPTH - ST	ATIC DEPTH) 1/4 WELL	X WELL CAPI		3 WELL		L	5 WELL		L
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES			VOLUMES		
	······	EQUIPMENT V		IP VOLUME +	(TUBING CAI		BING LEGNTH	I) + FLOW CEL			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL			FINAL TUBI	NG LEGNTH - (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\left \right>$	$\geq$	$\ge$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- —	SAL-SAM- 0	$\geq$	$\geq$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (Δ <0.2)	ТЕМР (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
9:35	1.5		3.5		7.01	22.2	258	2.55			
	<u> </u>	Capacity (gallons/	foot): 0.75"-0	.02, 1.25"=	0.06. 2"=0.	16. 3"=0.37	4"=0.65,	5"=1.02, 6	6"=1 <i>.</i> 47, 12	"5.88	1
T1 ID		Capacity (gallons/ A. CAPACITY (G					, 4 –0.63, 5/16" = 0.00	<b>,</b>			0.016
	Y / COMPANY RINT)	losche	n Hint			SAMF	PLER(S)	gente	c Hin	L.	
	TERIAL CODE LE ONE)			SAMPL	E TUBING WELL (FEET)				UMP FLOW mL/min)		
SAMPLING		SAMPLING	1	FIELD	Y N	CLEANING					
		ENDED FILTER SIZE	<u> </u>	CLEANED		STEPS VOC COL	LECTED BY				Y N N/A
FIELD FILTERED?	YN	FILTER SIZE (μm)		DUPLICATE	Y N	1	SE FLOW?	Y N N/A		GH TRAP?	I N N/A
PRESE	RVATION D IN FIELD?	Y N N/A		SERVATIVES							
1	THER										
СОМ	MENTS										
		PUMP C	ODES: PP=Pe	eristaltic Pump	, GP= Submer	sible Grundfos	s Pump, IBP=	In-place Bladde	er Pump	eflon	
		BING MATERIAL	CODES: PP	Polypropylen	e, PE= Polye	inylene, NP=	Non-inert Plas	uc, iL≓ letion	Lineu, 11=1		
F	Reviewed By	/:							<u> </u>		······································

					T					- <u></u>	
Client Name:	+	Hazan and Sawye	er	Location:				Contact: Phone:			
Date Sampled	12/4	1/10		SAL Project #	1003	007-	06	Project Name		und Groundwa	ater Analyses
Well Number				Sample ID		7.5-26		GPS LAT			
				LP				GPS LONG	<u> </u>	<u> </u>	
			<del></del>								
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL		REFERENCE			D WATER			TUBING	5/16	TUBING	
DEPTH (Feet)		ELEVATION (NGVD)		(REFEREN	ATION CE-STATIC)			DIAMETER (Inches)	- / -	CAPACITY (gal/ft)	
Purge Tec	hnique: q Sul	bmerged Screen	(1,1/4,1/4 Well	l) q Subme	rged Screen (1	1EQ Volume, 3	3, 3 Minutes)	q Partially Sub	omerged Scree	en (1 Well, 3,3	minutes)
	OLUME = (TO	TAL DEPTH - ST		X WELL CAP	ICITY =						
ONE WELL			1/4 WELL			3 WELL		I	5 WELL		
VOLUME	L				TUDINO OA	VOLUMES			VOLUMES		
	<u> </u>	EQUIPMENT V	JLUME = PUN	1P VOLUME +	· (TUBING CA	PACITY X TUE	BING LEGN IF	I) + FLOW CEL	LVOLUME	r	
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL				NG LEGNTH L (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\ge$	$\searrow$	$\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{$	SAL-SAM-63 	SAL-SAM - 65	SAL-SAM-63-	SAL-SAM-55- —	SAL-SAM- 0	$\times$	$\mathbf{i}$
TIME	VOLUME PURGED (Gailons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (Δ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
8:46	2				7.01	21.3	295	2.01			
					ļ!				L		
										· · · · ·	
									L		
<b></b>	Well C	apacity (gallons/fo	oot): 0.75"=0.0	02, 1.25"=0	0.06, 2"=0.1	6, 3"=0.37,	4"=0.65,	5"=1.02, 6"	"=1.47, 12"	5.88	
TUBIN		CAPACITY (Gal				-, -, ,	5/16" = 0.004				.016
						G DATA		,		· · · · ·	
SAMPLED BY	COMPANY		<u> </u>							·	
(PRII		Jøsch	n Hirst			SAMPL	LER(S) TURES:	Josebi	> Hand	۲	
TUBING MATE (CIRCLE		PP PE NP	YTL TT	SAMPLE LEGNTH IN V				SAMPLE PU RATE (m	MP FLOW		
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	ΥN	CLEANING STEPS				· · · · · · · · · · · · · · · · · · ·	
FIELD FILTERED?	Y N	FILTER SIZE (µm)		DUPLICATE	ΥN	VOC COLL REVERSE		Y N N/A	SEMI-VOLS ( THROUG		Y N N/A
PRESER		Y N N/A	LIST PRESE					I	1111000		
CHECKED			ADD	ED							
WEAT CONDI	1										
COMM	ENTS										
								place Bladder F			
		NG MATERIAL C	ODES: PP= F	'olypropylene,	PE= Polyethy	/lene, NP= No		, TL= Teflon Lir	ned, TT= Tefl	on	
Re	viewed By:						Date:				

Client Name:		н	lazan and Sawye	r	Location:	ł			Contact: Phone:				
Date Sampled	12	a	1		SAL Project	1003	N7-	12	Project Name	GCREC Mo	und Groundwa	ter Analyses	
	10	4	10		#	0005 07-70	207-	07	GPS LAT				
Well Number			·		Sample ID	-			GPS LONG				
					P	URGINO	<b>G DATA</b>						
WELL DIAMETER (Inches)			WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP	
TOTAL WELL DEPTH (Feet)			REFERENCE ELEVATION (NGVD)		GROUNE ELEV/ (REFERENC	ATION CE-STATIC)			TUBING DIAMETER (Inches)	Vy <sup>u</sup>	TUBING CAPACITY (gal/ft)		
			omerged Screen ( TAL DEPTH - ST				EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)	
ONE WELL		(10		1/4 WELL		0.111	3 WELL			5 WELL	·······		
VOLUME			EQUIPMENT V	VOLUME			VOLUMES			VOLUMES			
·	r		EQUIPMENT		IP VOLUME +	(TUBING CA					· · · · · · · · · · · · · · · · · · ·		
PUMP VOLUME				TUBING LEGNTH			FLOW CELL VOLUME	·	=	EQUIPMEN T VOLUME			
INITIAL TUBI		тн		FINAL TUBI IN WELI			PURGE TIME START		PURGE TIME END		TOTAL PURGED		
INST. ID	>	$\langle$	$\geq$	$\ge$	$\ge$	SAL-SAM-63 	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\ge$	$\ge$	
TIME	VOLUN PURGE (Gallon	D	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)	
9:05	0.5	•				7.01	17.0	363	5.59				
					ļ								
	ļ	1											
		Vell Capacity (gallons/foot):         0.75"=0.02,         1.25"=0.06,         2"=0.16,         3"=0.37,         4"=0.65,         5"=1.02,         6"=1.47,         12"5.88											
TUBI			A. CAPACITY (Ga				-,	5/16" = 0.004				0.016	
L	-						G DATA						
SAMPLED BY	/ COMP/	ANY	1010	6 deal				LER(S)	0.	• ,, •	· · · ·		
(PR	INT)		uvier	in itin-	r		SIGNA	TURES:	borg	i th			
TUBING MAT (CIRCL	ERIAL CO E ONE)	DDE	PP PE NI	P TL TT	1	E TUBING WELL (FEET)		. <u>.</u>	SAMPLE PU RATE (I				
SAMPLING INITIATED			SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS						
FIELD	Y N		FILTER SIZE	i	DUPLICATE	Y N	VOC COLI	LECTED BY	Y N N/A		COLLECTED	Y N N/A	
FILTERED?		• 	(μm)		ERVATIVES		REVERS	SE FLOW?			GH TRAP?		
CHECKED	IN FIELD	!?	Y N N/A		DED								
1	THER ITIONS												
COMN	MENTS												
	_		PUMP CC	DES: PP=Pe	ristaltic Pump,	GP= Submers	sible Grundfos	Pump, IBP= I	n-place Bladder	Pump			
L	eviewed		BING MATERIAL	CODES: PP=	Polypropylene	e, PE= Polyeti	nyiene, NP=N	Date					
	eviewed	Бу	·i						•				

Client Name:		Н	azan and Sawye	er	Location:				Contact: Phone:				
Date Sampled	12	٩	110		SAL Project #	1003	3007-	-08	Project Name	1	und Groundwa	ater Analyses	
Well Number		•			Sample ID	DP-D	107- 8		GPS LAT GPS LONG				
<u></u> _	I				P				GF3 LONG	I			
14/51.1		<u> </u>		r		1					<b>D</b> . <b>(D ()</b>		
WELL DIAMETER (Inches)			WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP	
TOTAL WELL DEPTH (Feet)			REFERENCE ELEVATION (NGVD)		ELEV	D WATER ATION CE-STATIC)	ĺ		TUBING DIAMETER (Inches)	19"	TUBING CAPACITY (gal/ft)		
Purge Tec	hnique: q	Sub	merged Screen	(1,1/4,1/4 Wel	) q Subme	rged Screen (*	1EQ Volume, 3	3, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)	
WELL V	OLUME = (	τοτ	AL DEPTH - ST	ATIC DEPTH)	x WELL CAP	ICITY =							
ONE WELL				1/4 WELL			3 WELL			5 WELL			
VOLUME				VOLUME			VOLUMES	1		VOLUMES			
			EQUIPMENT VO	DLUME = PUN	IP VOLUME +	+ (TUBING CA	PACITY X TU	BING LEGNTH	I) + FLOW CEL	L VOLUME			
PUMP VOLUME				TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME			
INITIAL TUBI IN WELL		н			NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED		
INST. ID	$\geq$		$\ge$	$\ge$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- —	SAL-SAM- 0	$\ge$	$\times$	
TIME	VOLUME PURGED (Gallons)		TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	рН (SU) (∆ <0.2)	TEMP (oC) (Δ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)	
9:20	0.5					4.65	18.4	390	3.52				
		1											
		Ţ								"=1.47, 12"5.88			
	We	l Ca	pacity (gallons/fo	oot): 0.75"=0.	02, 1.25"=0	).06, 2"=0.1	6, 3"=0.37,	4"=0.65,	5"=1.02, 6	"=1.47, 12"5.88			
TUBIN	IG INSIDE I	DiA.	CAPACITY (Ga	L/Ft.): 1/8" =					: 3/8" = 0.00	6; 1/2" = 0.0	)10; 5/8" = C	016	
				,					,				
						AMPLIN	G DATA	<u> </u>					
SAMPLED BY (PRI		Y	Josefin	Hist				LER(S) TURES:	Any	J His	<u>i</u>		
TUBING MATI (CIRCLE		E	PP PE NP	TL TT		TUBING WELL (FEET)			SAMPLE PU RATE (m				
SAMPLING INITIATED	····		SAMPLING ENDED		FIELD CLEANED	ΥN	CLEANING STEPS						
FIELD FILTERED?	Y N		FILTER SIZE (µm)		DUPLICATE	YN	VOC COLL REVERS	ECTED BY E FLOW?	Y N N/A	SEMI-VOLS		Y N N/A	
PRESER CHECKED		_	Y N N/A	LIST PRESE ADI									
WEAT CONDI													
СОММ	ENTS												
			PUMP COL	DES: PP=Peri	staltic Pump, (	GP= Submersi	ble Grundfos F	Pump, IBP= In-	place Bladder I	Pump			
	τί	JBIN	IG MATERIAL C								on		
Re	viewed B							Date:	<u> </u>				
		<u> </u>						<u> </u>					

Client Name:	ł	lazan and Sawye	r	Location:			-	Contact: Phone:		· · · · · · · · · · · · · · · · · · ·	
Date Sampled	12/2/	VO		SAL Project #	10030	007-1	29:63	Project Name	GCREC Mou	und Groundwa	iter Analyses
Well Number					NP - D	007-1 19-15	<u>~  }v</u> _	GPS LAT			
				<b>D</b>				GPS LONG			
WELL		WELL						Static Depth		PURGE	
DIAMETER (Inches)		CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	to Water (Feet)		PUMP	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)			OWATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		bmerged Screen				EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
	OLUME = (TO	TAL DEPTH - ST		X WELL CAP	CITY =		ſ	<u> </u>	EMELL		
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES		
		EQUIPMENT V	DLUME = PUN	IP VOLUME +	(TUBING CA	PACITY X TUE	BING LEGNTH	I) + FLOW CEL			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL				NG LEGNTH L (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\ge$	$\ge$	$\geq$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- 	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (Δ <0.2)	ТЕМР (оС) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
9:30	1				5.30	19.1	433	3.20			
				L							
				<u> </u>							
TUDIN		Capacity (gallons/f A. CAPACITY (Ga				•	4"=0.65, 5/16" = 0.004			5.88 010: 5/8" = 0	016
TUBIN			в./г.). 1/0 —	in the second		<b>G DATA</b>		+, 3/8 - 0.00	0, 172 - 0.0	, 5/6 -	
							LER(S)				
SAMPLED BY (PRI		105	ictm	kors +			TURES:	Jor	for the	nt	
TUBING MAT		PP PE NF		SAMPLE	TUBING WELL (FEET)			SAMPLE PL RATE (r			
SAMPLING		SAMPLING		FIELD	YN	CLEANING		I		L	
INITIATED FIELD		ENDED FILTER SIZE		CLEANED		STEPS VOC COLL	ECTED BY		SEMI-VOLS	COLLECTED	
FILTERED?	Y N	μm)		DUPLICATE	Y N		E FLOW?	Y N N/A		H TRAP?	Y N N/A
PRESER CHECKED		Y N N/A		ERVATIVES DED							
WEAT CONDI											
COMN	IENTS										
								n-place Bladder		flor	
	TUE eviewed By:	SING MATERIAL	CODES: PP=	Polypropylene	e, PE= Polyeth	nylene, NP= N	Ion-inert Plasti Date		linea, Li= Le	100	
	eviewed By:	·		_	<u></u>			·I			

					-						
Client Name:	F	lazan and Sawye	r	Location:				Contact: Phone:			
Date Sampled	12/0	1/10		SAL Project #	1002	5007-	-10	Project Name	GCREC Mo	und Groundwa	ater Analyses
Well Number				Sample ID	no-Do	5007- 19-21	<u>.                                   </u>	GPS LAT			
				P	URGINO			GPS LONG		<u>.</u>	
14/571										BUBOE	
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV	D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)	5/14	TUBING CAPACITY (gal/ft)	
		omerged Screen				EQ Volume, 3	8, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
	OLUME = (TO)	TAL DEPTH - ST		X WELL CAPI							
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES		
VOLUNE	l	EQUIPMENT V									
	r							<u>1) 1 201 022</u>			
PUMP VOLUME			TUBING LEGNTH		<b></b>	FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL				NG LEGNTH L (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\geq$	$\ge$	$\geq$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- 	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
9:50	1.5				5.78	21.7	300	1.35			
		apacity (gallons/						,	5"=1.47, 12	"5.88	
TUBI	NG INSIDE DI	A. CAPACITY (Ga	al./Ft.): 1/8" =	0.0006; 3/16	'=0.0014; 1	/4" = 0.0026;	5/16" = 0.004	4; 3/8" = 0.00	)6; 1/2" = 0.	010; 5/8" =	0.016
<b>.</b>	_										
	( / COMPANY	Josefm	Herst				LER(S)	Jores	D H	int	
	ERIAL CODE E ONE)	PP PE N	P TL TT	-	E TUBING WELL (FEET)			SAMPLE PU RATE (r	JMP FLOW		
SAMPLING	· · · · · ·	SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS		L			
FIELD FILTERED?	Y N	FILTER SIZE (µm)		DUPLICATE	Y N		LECTED BY SE FLOW?	Y N N/A		COLLECTED	Y N N/A
PRESEF	RVATION IN FIELD?	Y N N/A		ERVATIVES DED		<b>_</b>					•
	THER ITIONS										
COMN	MENTS										
		PUMP CC	DES: PP=Pe	ristaltic Pump,	GP= Submers	sible Grundfos	Pump, IBP= I	n-place Bladder	Pump		
		BING MATERIAL	CODES: PP=	Polypropylene	e, PE= Polyet	hylene, NP= N			Lined, $TT = Te$	enon	
R	eviewed By						Date	:	····		

			GF	ROUNDV	VATER	SAMPLI	NG LOO	6			
Client Name:		Hazan and Sawye	۲	Location:				Contact:			
Date Sampled	12/1	1.0		SAL Project	10/2	107	-1)	Phone: Project Name	GCREC Mo	und Groundwa	iter Analyses
Well Number		110		# Sample ID	DP-D	,007 09-1	7	GPS LAT			
				P	URGINO		1	GPS LONG	•		
WELL DIAMETER (inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)	(4 4 (4 4 4)-11	ELEV (REFEREN)	D WATER ATION CE-STATIC)		2.14	TUBING DIAMETER (Inches)	5/14	TUBING CAPACITY (gai/ft)	
		bmerged Screen TAL DEPTH - ST				EQ Volume, 3	s, 3 Minutes)	q Partially Sub	merged Scree	en (1 vveil, 3,3	minutes)
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES		
		EQUIPMENT V	OLUME = PUN	1P VOLUME +	(TUBING CA	PACITY X TUE	BING LEGNTH	) + FLOW CEL			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBII IN WELL			FINAL TUBI IN WELL	NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\times$	$\succ$	$\ge$	$\times$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- 	SAL-SAM- 0	$\succ$	$\searrow$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (Δ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (Δ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
10:05	2		5		5.97	20.2	270	4.416			
TUDI		Capacity (gallons/					4"=0.65, 5/16" = 0.004		,	'5.88 010: 5/8" = (	0.016
TOBIN	IG INSIDE DI	A. CAPACITY (Ga	ii./Ft.): 1/8° =					·, 3/8 - 0.00	0, 1/2 - 0.0	510, 578 - 0	.010
SAMPLED BY (PRI		Josefin	Hors F	- 01		SAMP	LER(S) TURES:	Josep	i thre	ist	
TUBING MATI (CIRCLI	ERIAL CODE	PP PE N	P TL TT		TUBING WELL (FEET)			SAMPLE PU RATE (n	JMP FLOW		
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS					
FIELD FILTERED?	Y N	FILTER SIZE (µm)			Y N		ECTED BY E FLOW?	Y N N/A		COLLECTED	Y N N/A
PRESER CHECKED		Y N N/A	1	ERVATIVES DED							
WEAT CONDI											
СОММ	IENTS										
	T	PUMP CO BING MATERIAL						-place Bladder		flon	
Re	viewed By:			торроруюне	, r u- r oiyeu		Date:				

Client Name:	Н	azan and Sawye	ir	Location:				Contact: Phone:			
Date Sampled	(2)	1/10		SAL Project #	1003	007-	12	Project Name	GCREC Mou	ind Groundwa	iter Analyses
Well Number	<u>-</u>			" Sample ID	DP-EI	<u>007-</u> 2 · 10		GPS LAT GPS LONG			
				P				GPS LONG			ľ
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		GROUND ELEVA (REFERENC	ATION			TUBING DIAMETER (Inches)	1/4"	TUBING CAPACITY (gal/ft)	
		merged Screen				EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES		
PUMP VOLUME		EQUIPMENT V	OLUME = PUM TUBING LEGNTH	1P VOLUME +	(TUBING CAF	FLOW CELL VOLUME	BING LEGNTH	I) + FLOW CEL	EQUIPMEN T VOLUME		
INITIAL TUB	4			NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\mathbf{\mathbf{X}}$	$\ge$	$\mathbf{\mathbf{X}}$	$\mathbf{ imes}$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\geq$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	рН (SU) (∆ <0.2)	ТЕМР (оС) (∆ <0.2)	SP COND (uS/cm) (Δ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
10:45	0.5		3.5		5.48	19.2	491	4.68			 
		Capacity (gallons	(foot): 0 75"=0	.02. 1.25"=	0.06. 2"=0.	16, 3"=0.37	4"=0.65,	5"=1.02,	6"=1.47, 12	2"5.88	
TUB	ING INSIDE DI	A. CAPACITY (Gallons	Gal./Ft.): 1/8" =	= 0.0006; 3/16	i" = 0.0014;    1	/4" = 0.0026;	5/16" = 0.00	)4; 3/8" = 0.0	06; 1/2" = 0	.010; 5/8" =	0.016
L				S	AMPLIN	IG DAT				· ·	
	Y / COMPANY RINT)	Jokhin	Hirst				PLER(S) ATURES:	Jose	i H	ne	
	TERIAL CODE LE ONE)	PP PE I	NP TL TT	SAMPL LEGNTH IN	E TUBING I WELL (FEET	)			UMP FLOW (mL/min)		
SAMPLING INITIATED FIELD FILTERED	Y N	SAMPLING ENDED FILTER SIZE (µm)		FIELD CLEANED DUPLICATE			LECTED BY SE FLOW?	Y N N/A		S COLLECTE	D Y N N/A
PRESE	RVATION D IN FIELD?	Y N N/A		SERVATIVES					<u></u>		
	ATHER										
СОМ	MENTS			eristaltic Dumr	GP= Subme	rsible Grundfo	s Pump. IBP=	In-place Bladde	er Pump		
	ŤU	PUMP C BING MATERIA	L CODES: PP=P	= Polypropyler	ne, PE= Polye	thylene, NP=	Non-inert Plas	stic, TL= Teflon	Lined, TT=T	eflon	
	Reviewed By						Dat	e:			

GROUNDWATER SAMPLING L	OG
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							<u> </u>	Contact:		·····	
lient Name:	F	lazan and Sawyer		Location:			F	Phone:		·	
ate Sampled	12/9	10		SAL Project #	1003	007-	13	Project Name	GCREC Mou	nd Groundwa	ter Analyses
/ell Number				Şample ID	DO-F	12-15	-	GPS LAT			
		· <u> </u>		1			1	GPS LONG			
			<u></u>		JRGING	DATA				DUDOE	
WELL DIAMETER		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
(Inches) OTAL WELL		REFERENCE		GROUND				TUBING DIAMETER	5/164	TUBING CAPACITY	
EPTH (Feet)		(NGVD)		(REFERENC				(Inches)	- 1	(gal/ft)	
Purge Tech	nnique: q Su	ibmerged Screen (	1,1/4,1/4 Well	) q Submer	ged Screen (1	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	n (1 Well, 3,3	minutes)
	DLUME = (TC)	TAL DEPTH - ST	1/4 WELL	X WELL CAPI		3 WELL			5 WELL		
ONE WELL			VOLUME			VOLUMES			VOLUMES		<u></u>
		EQUIPMENT VO	DLUME = PUN	MP VOLUME +	(TUBING CAF	PACITY X TUE	BING LEGNTH	I) + FLOW CEL			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL				ING LEGNTH L (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST.	$\mathbf{\mathbf{X}}$	$\mathbf{\mathbf{x}}$	$\mathbf{\times}$	$\mathbf{i}$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- —	SAL-SAM- 0	$\searrow$	$\geq$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water ) (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe
10250		(Galions)	3.5		4.88	22.2	550	2.47			ļ
					- <u> </u>						
	Wel	Capacity (gallons	/foot): 0.75"=	0.02, 1.25"=						2"5.88	= 0.016
TUBI	NG INSIDE [	DIA. CAPACITY (C	ial./Ft.); 1/8"	= 0.0006; 3/16	5" = 0.0014;	1/4" = 0.0026;	5/16" = 0.0	04; 3/8" = 0.0	006; 1/2" = 0	7.010, 5/0	- 0.010
				S	AMPLIN	IG DAT	A				
SAMPLED B	Y / COMPAN RINT)	Joxh	n (tirs	+			PLER(S) ATURES:	`	p the		
TUBING MA (CIRC	TERIAL COD	PP PE	NP TL TT		LE TUBING N WELL (FEET				PUMP FLOW (mL/min)		
SAMPLING INITIATED	1	SAMPLING		FIELD	Y N	CLEANIN STEPS			SEMI VOI	SCOLLECTE	
FIELD	Y N	FILTER SIZE		DUPLICAT	EYN		LLECTED BY	Y N N/		JGH TRAP?	Y N
FILTERED?	?	(μm)		ESERVATIVES							
	RVATION D IN FIELD?	Y N N/A		ADDED	·				_,		
WE	ATHER DITIONS										
COM	IMENTS								las Dumo		
<b></b>		PUMP	CODES: PP=	Peristaltic Pum	np, GP= Subme	ersible Grundf	os Pump, IBP	= In-place Blado	n Lined TT=	Teflon	
		PUMP	L CODES: P	P= Polypropyle	ene, PE= Poly	ethylene, NP	= Non-inert Fia				
	Reviewed	By:					Da	ie.			

GROUNDWATER	SAMPLING LOG
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Client Name:	ŀ	lazan and Sawye	r	Location:				Contact: Phone:		<u></u>	
Date Sampled	12	9 ( to		SAL Project #	1003	007-22	14	Project Name	GCREC Mo	und Groundwa	iter Analyses
Well Number				Sample ID	DP-EN	2-22		GPS LAT GPS LONG			
				P	URGINO						
WELL		WELL		Screen				Static Depth		PURGE	PP GP
DIAMETER		CAPACITY		Interval	UNK	То	UNK	to Water		PUMP	IBP
(Inches)		(gal/ft)		(Feet)				(Feet)		CODE	
TOTAL WELL		REFERENCE ELEVATION			O WATER ATION			TUBING DIAMETER	5/16"	TUBING CAPACITY	
DEPTH (Feet)		(NGVD)			CE-STATIC)			(Inches)	/ 10	(gal/ft)	
Purge Tec	hnique: q Su	bmerged Screen	L	) q Subme	rged Screen (1	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
WELL V	OLUME = (TO	TAL DEPTH - ST	ATIC DEPTH)	x WELL CAP	CITY =						
ONE WELL			1/4 WELL			3 WELL			5 WELL		
VOLUME		FOURINELITY				VOLUMES			VOLUMES		
·····		EQUIPMENT V			(TUBING CA		BING LEGNTH	I) + FLOW CEL			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL				NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\searrow$	$\searrow$	$\searrow$	$\searrow$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\searrow$	$\searrow$
		$\leq$				0.0					
	VOLUME	TOTAL VOLUME	PURGE	Depth to	pН	TEMP	SP COND	DO	TURBIDITY	COLOR	ODOR
TIME .	PURGED	PURGED	RATE (gpm)	Water	(SU)	(OC)	(uS/cm)	(mg/L)	(NTUs)	(Describe)	(Describe)
	(Gallons)	(Gallons)		(Feet)	(∆ <0.2)	(∆ <0.2)	(∆ <5%)	(% SAT <20)	(<20 NTU)		
11:05	1.5	345	3.5		5.00	20.4	464	3/14/			
	Well C	apacity (gallons/f	oot): 0.75"=0.	02, 1.25"=0	).06, 2"=0.1	6, 3"=0.37,	4"=0.65,	5"=1.02, 6	"=1.47, 12"	5.88	
TUBIN		=			- 0.0014. 4/						
				0.0000, 0/10	= 0.0014; 1/	4" = 0.0026;	5/16" = 0.004	; 3/8" = 0.00	6; 1/2" = 0.0	010; 5/8" = 0	0.016
			,					; 3/8" = 0.00	6; 1/2" = 0.0	)10; 5/8" = 0	0.016
SAMPLED BY				S	<b>AMPLIN</b>	G DATA					0.016
SAMPLED BY (PRI			. Hirst	S		G DATA					0.016
	NT) ERIAL CODE		. Kirst	SAMPLE		G DATA	LER(S)		Hor Hon		0.016
(PRI TUBING MATE (CIRCLE	NT) ERIAL CODE	Jorchm PP PE NF	. Kirst	SAMPLE LEGNTH IN	AMPLIN TUBING WELL (FEET)	G DATA SAMPI SIGNA	LER(S)	SAMPLE PL	Hor Hon		0.016
(PRI	NT) ERIAL CODE	Joretm	. Kirst	SAMPLE		G DATA	LER(S)	SAMPLE PL	Hr Hr IMP FLOW hL/min)	ine	.016
(PRI TUBING MATE (CIRCLE SAMPLING INITIATED FIELD	NT) ERIAL CODE E ONE)	JOYCHM PP PE NF SAMPLING ENDED FILTER SIZE	. Kirst	SAMPLE LEGNTH IN FIELD	AMPLIN TUBING WELL (FEET) Y N	G DATA SAMPI SIGNA CLEANING STEPS VOC COLL	LER(S) TURES:	SAMPLE PL	Her Han IMP FLOW hL/min) SEMI-VOLS	COLLECTED	
(PRII TUBING MATE (CIRCLE SAMPLING INITIATED FIELD FILTERED?	NT) ERIAL CODE E ONE) Y N	JOYCAM PP PE NF SAMPLING ENDED	. <b>K`r&gt;t</b> ° T∟ TT	SAMPLE LEGNTH IN FIELD CLEANED DUPLICATE	AMPLIN TUBING WELL (FEET)	G DATA SAMPI SIGNA CLEANING STEPS VOC COLL	LER(S) TURES:	SAMPLE PU RATE (n	Her Han IMP FLOW hL/min) SEMI-VOLS	ine	9.016
(PRI TUBING MATE (CIRCLE SAMPLING INITIATED FIELD	NT) ERIAL CODE E ONE) Y N VATION	JOYCHM PP PE NF SAMPLING ENDED FILTER SIZE	TL TT	SAMPLE LEGNTH IN FIELD CLEANED	AMPLIN TUBING WELL (FEET) Y N	G DATA SAMPI SIGNA CLEANING STEPS VOC COLL	LER(S) TURES:	SAMPLE PU RATE (n	Her Han IMP FLOW hL/min) SEMI-VOLS	COLLECTED	
(PRII TUBING MATE (CIRCLE SAMPLING INITIATED FIELD FILTERED? PRESER CHECKED WEAT	NT) ERIAL CODE E ONE) Y N VATION IN FIELD? THER	JOYCOM PP PE NF SAMPLING ENDED FILTER SIZE (µm)	TL TT	SAMPLE LEGNTH IN FIELD CLEANED DUPLICATE ERVATIVES	AMPLIN TUBING WELL (FEET) Y N	G DATA SAMPI SIGNA CLEANING STEPS VOC COLL	LER(S) TURES:	SAMPLE PU RATE (n	Her Han IMP FLOW hL/min) SEMI-VOLS	COLLECTED	
(PRII TUBING MATE (CIRCLE SAMPLING INITIATED FIELD FILTERED? PRESER CHECKED	NT) ERIAL CODE E ONE) Y N VATION IN FIELD? THER	JOYCOM PP PE NF SAMPLING ENDED FILTER SIZE (µm)	TL TT	SAMPLE LEGNTH IN FIELD CLEANED DUPLICATE ERVATIVES	AMPLIN TUBING WELL (FEET) Y N	G DATA SAMPI SIGNA CLEANING STEPS VOC COLL	LER(S) TURES:	SAMPLE PU RATE (n	Her Han IMP FLOW hL/min) SEMI-VOLS	COLLECTED	
(PRII TUBING MATE (CIRCLE SAMPLING INITIATED FIELD FILTERED? PRESER CHECKED WEAT CONDI	NT) ERIAL CODE E ONE) Y N VATION IN FIELD? THER TIONS	JOYCOM PP PE NF SAMPLING ENDED FILTER SIZE (µm)	TL TT	SAMPLE LEGNTH IN FIELD CLEANED DUPLICATE ERVATIVES	AMPLIN TUBING WELL (FEET) Y N	G DATA SAMPI SIGNA CLEANING STEPS VOC COLL	LER(S) TURES:	SAMPLE PU RATE (n	Her Han IMP FLOW hL/min) SEMI-VOLS	COLLECTED	
(PRII TUBING MATE (CIRCLE SAMPLING INITIATED FIELD FILTERED? PRESER CHECKED WEAT	NT) ERIAL CODE E ONE) Y N VATION IN FIELD? THER TIONS	JOYCOM PP PE NF SAMPLING ENDED FILTER SIZE (µm)	TL TT	SAMPLE LEGNTH IN FIELD CLEANED DUPLICATE ERVATIVES	AMPLIN TUBING WELL (FEET) Y N	G DATA SAMPI SIGNA CLEANING STEPS VOC COLL	LER(S) TURES:	SAMPLE PU RATE (n	Her Han IMP FLOW hL/min) SEMI-VOLS	COLLECTED	
(PRII TUBING MATE (CIRCLE SAMPLING INITIATED FIELD FILTERED? PRESER CHECKED WEAT CONDI	NT) ERIAL CODE E ONE) Y N VATION IN FIELD? THER TIONS	JOYCAM PP PE NE SAMPLING ENDED FILTER SIZE (µm) Y N N/A	TL TT	SAMPLE LEGNTH IN FIELD CLEANED DUPLICATE ERVATIVES DED	AMPLIN TUBING WELL (FEET) Y N Y N	G DATA SAMPI SIGNA CLEANING STEPS VOC COLL REVERS	LER(S) TURES: ECTED BY E FLOW?	SAMPLE PU RATE (n	Wr FLOW hL/min) SEMI-VOLS THROUG	COLLECTED	
(PRII TUBING MATE (CIRCLE SAMPLING INITIATED FIELD FILTERED? PRESER CHECKED WEAT CONDI	NT) ERIAL CODE E ONE) Y N VATION IN FIELD? THER TIONS ENTS	JOYCAM PP PE NE SAMPLING ENDED FILTER SIZE (µm) Y N N/A	TL TT LIST PRES ADI	SAMPLE LEGNTH IN FIELD CLEANED DUPLICATE ERVATIVES DED	AMPLIN TUBING WELL (FEET) Y N Y N	G DATA SAMPI SIGNA CLEANING STEPS VOC COLL REVERS	LER(S) TURES: ECTED BY E FLOW?	SAMPLE PL RATE (n Y N N/A	Yer Han IMP FLOW hL/min) SEMI-VOLS THROUG	COLLECTED	

Client Name:		Hazan and Sawye	er	Location:	········			Contact:			
Date Sampled	12	7/10		SAL Project	1003	2007	15	Phone: Project Name	GCREC Mor	und Groundwa	ter Analyses
· · · ·		1/10		#	1000	3007. 12 - 28	-13	GPS LAT			
Well Number				Sample ID			, 	GPS LONG			
				P	URGING	<b>G</b> DATA					
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		GROUNE ELEV (REFERENC	ATION			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		Submerged Screen				EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL	OLUME = (1)	TOTAL DEPTH - ST	1/4 WELL			3 WELL			5 WELL		
VOLUME			VOLUME			VOLUMES			VOLUMES		
		EQUIPMENT V	OLUME = PUN	1P VOLUME +	(TUBING CAI	PACITY X TÚE	BING LEGNTH	I) + FLOW CEL			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI		4		NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\geq$	$\searrow$	$\geq$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- 	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)		PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
11:20	2				5.17	21.9	217	2.01			
			<u> </u>								
	We	I Capacity (gallons/	foot): 0.75"=0	02, 1.25"=(	0.06, 2"=0.1	6, 3"=0.37	4"=0.65,	<u> </u>	<u> </u> "=1.47, 12'	"5.88	
TUBIN		DIA. CAPACITY (G			,			4; 3/8" = 0.00	6; 1/2" = 0.0	010; 5/8" =	0.016
				S	AMPLIN	G DATA	1		_		
SAMPLED BY (PR		Josefi	n Hirst	2			LER(S) TURES:	Jos	offici to	list	
TUBING MAT (CIRCL		PP PE N	P TL TT		E TUBING WELL (FEET)			SAMPLE PU RATE (r			
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	YN	CLEANING STEPS					
FIELD FILTERED?	Y N	FILTER SIZE (µm)		DUPLICATE	Y N		LECTED BY SE FLOW?	Y N N/A		COLLECTED	Y N N/A
	RVATION	Y N N/A		ERVATIVES							
	THER										
COMN	IENTS										
		PUMP CO	DES: PP=Pe	ristaltic Pump,	GP= Submers	sible Grundfos	Pump, IBP= In	n-place Bladder	Pump	flon	
	T eviewed E		CODES: PP=	Polypropylene	e, PE= Polyeti	nyiene, NP=N	Date		11=16		
		אין.עי						<u>·I</u>			

					1				<u>,                                    </u>		
Client Name:	ŀ	lazan and Sawye	er	Location:				Contact: Phone:			
Date Sampled	12/9	110	<u> </u>	SAL Project #	1003	3007 - F <b>08- 1</b> 4	-16	Project Name		und Groundwa	ater Analyses
Well Number				Sample ID	DP-F	F08-14	1	GPS LAT GPS LONG			
	l			P	URGINO		<u> </u>		I		
14/511				· ·····					1	DUDOE	
WELL		WELL		Screen		<b>T</b> -		Static Depth		PURGE	PP GP
DIAMETER	ļ	CAPACITY		Interval	UNK	То	UNK	to Water		PUMP	IBP
(Inches)		(gal/ft)		(Feet)				(Feet)		CODE	
		REFERENCE		GROUNI	D WATER			TUBING		TUBING	
TOTAL WELL				1	ATION						
DEPTH (Feet)		ELEVATION		•		1		DIAMETER	í i	CAPACITY	
, í		(NGVD)		(REFEREN	CE-STATIC)			(Inches)		(gal/ft)	
Purge Tec	hnique: a Su	bmerged Screen	(1 1/4 1/4 Wel	l) a Subme	rged Screen (1	IEO Volume	3 3 Minutes)	q Partially Sub	merged Scree	en (1 Well 33	minutes)
		TAL DEPTH - ST				T	5, 0 Minu(65)				(((((((((((((((((((((((((((((((((((((((
		TAL DEFIN- ST		X WELL CAP			<u> </u>	I			
ONE WELL			1/4 WELL			3 WELL			5 WELL		
VOLUME	1		VOLUME	1		VOLUMES			VOLUMES		
	L	EQUIPMENT V									
	·				(TODINO CA					······	
PUMP	1		TUBING	l		FLOW CELL	}		EQUIPMEN		
VOLUME			LEGNTH			VOLUME			TVOLUME		
VOLUME			LEGINIT			VOLUME			I VOLUME		
					1						_
INITIAL TUBI				NG LEGNTH		PURGE		PURGE TIME		TOTAL	
IN WELL	. (FEET)		IN WELI	L (FEET)		TIME START		END		PURGED	
		<u> </u>	k	<u> </u>			<u> </u>			<u> </u>	<u> </u>
INST.	$\backslash$	$\sim$			SAL-SAM-63	SAL-SAM -	SAL-SAM-63	SAL-SAM-55-	SAL-SAM-	$\sim$	$\sim$
ID		$\sim$				65			0	$\sim$	
									·		
		TOTAL		D. 11.1.		TEMP					
	VOLUME	VOLUME	PURGE	Depth to	рН	TEMP	SP COND	DO	TURBIDITY	COLOR	ODOR
TIME	PURGED	PURGED	RATE (gpm)	Water	(SU)	(oC)	(uS/cm)	(mg/L)	(NTUs)	(Describe)	(Describe)
	(Gallons)			(Feet)	(∆ <0.2)	(∆ <0.2)	(∆ <5%)	(% SAT <20)	(<20 NTU)	(Describe)	(Desenbe)
		(Gallons)								······	
112.10				ſ	7.04	22.4	1/1/2	1 00			
11:45	1				1.09	a-c )	1412	6,09			
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						,	<u> </u>	· · · · · · · · · · · · · · · · · · ·			
				}	} .	1	Į				
	L		L	1	1	l	L		L		
		apacity (gallons/f					. ,	,	,	5.88	
TUBIN	IG INSIDE DIA	. CAPACITY (Ga	l./Ft.): 1/8" =	0.0006; 3/16"	'= 0.0014; 1/	/4" = 0.0026;	5/16" = 0.004	; 3/8" = 0.00	6; 1/2" = 0.0	)10; 5/8" = (	0.016
	······										
				5/	AMPLIN	GDATA	1				
SAMPLED BY						SAMP	LER(S)	0		- 1	
(PRI		Joirth	n 145-5	F			TURES:	Um	yri H	7000	
("Ki	INT)	0-7014		,		SIGNA	TURES.		0	· · ·	
TUBING MAT				SAMPLE	TUBING			SAMPLE PL			
		PP PE NF	P TL TT								
(CIRCLE					WELL (FEET)			RATE (n			
SAMPLING		SAMPLING		FIELD		CLEANING	[				
INITIATED		ENDED		CLEANED	YN	STEPS	ľ				
				OLLANED			COTED DV				
FIELD	Y N	FILTER SIZE		DUPLICATE	YN	1	ECTED BY	Y N N/A		COLLECTED	Y N N/A
FILTERED?		(µm)				REVERS	E FLOW?		THROUG	H TRAP?	
PRESER	VATION		LIST PRES	ERVATIVES							
CHECKED	IN FIELD?	Y N N/A	ADI	DED	]						
		······································			L						
] WEAT	HER J										
CONDI	TIONS										
		foan in	1AAL	at lasa	MINNIA	Lin	السمد	6.11			
сомм	IENTS	10000 10		~ ~	K"""'	Q IN 7	anye	Ø0H(]			
]				· ·	v		•				
								-place Bladder			
	TUB	NG MATERIAL C	CODES: PP=	Polypropylene	, PE= Polyeth	ylene, NP= N	on-inert Plastic	, TL= Teflon L	ined, TT= Tef	lon	
	100										
Po	viewed By:						Date:				

Client Name:		Ha	zan and Sawyei		Location:				Contact: Phone:			
Date Sampled	121		10		SAL Project	1002	007-	.17	Pnone: Project Name	GCREC Mou	und Groundwa	iter Analyses
Well Number	V 04	9			# Sample ID	NA- CO	007- 18-20	11	GPS LAT			
	<u> </u>				·				GPS LONG			
						URGINO	DATA			<u> </u>	DUDOC	
WELL DIAMETER (Inches)			WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)			REFERENCE ELEVATION (NGVD)		GROUNE ELEVA (REFERENC	ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
			merged Screen (				EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL	OLUME = (1)		AL DEPTH - ST	1/4 WELL			3 WELL			5 WELL		
VOLUME				VOLUME			VOLUMES			VOLUMES		
	L		EQUIPMENT VO	DLUME = PUN	1P VOLUME +	(TUBING CA	PACITY X TUE	BING LEGNTH	I) + FLOW CEL	L VOLUME		
PUMP VOLUME				TUBING LEGNTH			FLOW CELL VOLUME	L		EQUIPMEN T VOLUME		<b>.</b>
INITIAL TUBI IN WELL		н			NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\searrow$		$\succ$	$\ge$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGEE (Gallons)		TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
12:00	1.5			Ч		6.34	23.2	368	1.77			
			apacity (gallons/	foot): 0.75"=0	.02, 1.25"=	0.06. 2"=0.	16. 3"=0.37	4"=0.65,	5"=1.02, 6	;"=1.47, 12		
TUR			. CAPACITY (Galions/	1000; 0.75 = 0				5/16" = 0.00			010; 5/8" =	0.016
ТОВГ					S		IG DATA	<u> </u>				
SAMPLED B	Y / COMPAN	٩Y	Jokhin	Hirst			SAMF	PLER(S)	gore	la the	iit	
TUBING MA (CIRCL	TERIAL COI LE ONE)	DE	PP PE N	P TL TT		E TUBING WELL (FEET)			SAMPLE P RATE (	UMP FLOW mL/min)		
SAMPLING INITIATED			SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS	LECTED BY	1	ISEMI-VOLS		
FIELD FILTERED?	YN		FILTER SIZE (µm)		DUPLICATE	YN		SE FLOW?	Y N N/A		GH TRAP?	Y N N/A
	RVATION D IN FIELD?	,	Y N N/A		BERVATIVES							
	THER											
COM	MENTS									<u></u>		
			PUMP CO	DDES: PP=P€	eristaltic Pump	, GP= Submer	sible Grundfos	s Pump, IBP=	In-place Bladde		eflon	
		_	ING MATERIAL	CODES: PP=	Polypropylen	e, PE= Polye	thylene, NP=					
F	Reviewed	By:	L					Date	5.			

	ł	lazan and Sawye	r	Location:				Contact: Phone:			
Data Carralad		1.5		SAL Project	1003	2007	10			und Groundwa	
Date Sampled	129			#		3007	-18	Project Name		una Grounawa	
Well Number	1			Sample ID	PP-FC	18-28		GPS LAT GPS LONG			
				P	URGING	<b>G DATA</b>		·			
WELL		WELL		Screen		_		Static Depth		PURGE	PP GP
DIAMETER (Inches)		CAPACITY (gal/ft)		Interval (Feet)	UNK	То	UNK	to Water (Feet)		PUMP CODE	IBP
TOTAL WELL		REFERENCE		GROUNE				TUBING	<u> </u>	TUBING	
DEPTH (Feet)		ELEVATION (NGVD)		ELEV/ (REFEREN)				DIAMETER (Inches)	5/16"	CAPACITY (gal/ft)	
Purge Tec	hnique: q Sul	omerged Screen	(1,1/4,1/4 Well			LEQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree		minutes)
	OLUME = (TO	TAL DEPTH - ST		x WELL CAPI	CITY =		r				
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES		
		EQUIPMENT V		IP VOLUME +	(TUBING CA		L BING LEGNTH	I) + FLOW CEL			
PUMP			TUBING			FLOW CELL			EQUIPMEN		
VOLUME			LEGNTH			VOLUME			T VOLUME		
INITIAL TUBI			FINAL TUBI			PURGE		PURGE TIME		TOTAL	
IN WELL	. (FEET)					TIME START		END			
INST. ID	$\left \right\rangle$	$\searrow$	$\mathbf{\times}$	$\mathbf{\mathbf{X}}$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\left \right\rangle$	$\left \right\rangle$
	$\langle \ \rangle$	TOTAL		$\leq$		00					
ТІМЕ	VOLUME PURGED	VOLUME	PURGE	Depth to Water	pH (SU)	TEMP (oC)	SP COND (uS/cm)	DO (mg/L)	TURBIDITY (NTUs)	COLOR	ODOR
THVIL	(Gallons)	PURGED (Gallons)	RATE (gpm)	(Feet)	(∆ <0.2)	(Δ <0.2)	(∆ <5%)	(% SAT <20)	(<20 NTU)	(Describe)	(Describe)
12:10	RI	2	4		5.96	22.2	322	3.90			
			4	· · · · · · · · · · · · · · · · · · ·	1	0 . 1	332	1.45			
12:15	2	2	7		6.11	23,1	332	1.43			
	1						1	1			1
							1				
					4,			· · · · · · · · · · · · · · · · · · ·			
					<i>.</i> ,						
		Capacity (gallons/			).06, 2"=0.1					5.88	
TUBIN		Capacity (gallons/		0.0006; 3/16"	0.06, 2"=0.1 = 0.0014; 1	/4" = 0.0026;	5/16" = 0.004				0.016
	NG INSIDE DIA	A. CAPACITY (Ga	I./Ft.): 1/8" =	0.0006; 3/16"	0.06, 2"=0.1 = 0.0014; 1	/4" = 0.0026; G DATA	5/16" = 0.004	4; 3/8" = 0.00	6; 1/2" = 0.0	010; 5/8" =	0.016
TUBIN SAMPLED BY (PRI	NG INSIDE DIA		I./Ft.): 1/8" =	0.0006; 3/16"	0.06, 2"=0.1 = 0.0014; 1	/4" = 0.0026; G DATA SAMP	5/16" = 0.004	4; 3/8" = 0.00	6; 1/2" = 0.0	010; 5/8" =	0.016
SAMPLED BY (PRI	NG INSIDE DIA	A. CAPACITY (Ge Jogc fin	1./Ft.): 1/8" =	0.0006; 3/16" S <i>I</i>	0.06, 2"=0.1 = 0.0014; 1	/4" = 0.0026; G DATA SAMP	5/16" = 0.004 LER(S)	4; 3/8" = 0.00	6; 1/2" = 0.1	010; 5/8" =	0.016
SAMPLED BY (PRI	NG INSIDE DIA 7 / COMPANY INT) FERIAL CODE	A. CAPACITY (Ga	1./Ft.): 1/8" =	0.0006; 3/16" <b>S</b> Z SAMPLE	0.06, 2"=0.1 2 = 0.0014; 1 AMPLIN	/4" = 0.0026; G DATA SAMP SIGNA	5/16" = 0.004 LER(S)	4; 3/8" = 0.00	6; 1/2" = 0.1	010; 5/8" =	0.016
SAMPLED BY (PRI TUBING MAT (CIRCLI SAMPLING	NG INSIDE DIA 7 / COMPANY INT) FERIAL CODE	A. CAPACITY (Ga Joychn PP PE NI SAMPLING	1./Ft.): 1/8" =	0.0006; 3/16" SAMPLE LEGNTH IN FIELD	0.06, 2"=0.1 2 = 0.0014; 1 AMPLIN = TUBING	/4" = 0.0026; G DATA SAMP SIGNA CLEANING	5/16" = 0.004 LER(S)	4; 3/8" = 0.00	6; 1/2" = 0.1	010; 5/8" =	0.016
SAMPLED BY (PRI TUBING MAT (CIRCL	NG INSIDE DIA ( / COMPANY INT) ERIAL CODE E ONE)	JOSCAN PP PE NI	1./Ft.): 1/8" =	0.0006; 3/16" SAMPLE LEGNTH IN FIELD CLEANED	2.06, 2"=0.1 2 = 0.0014; 1 AMPLIN E TUBING WELL (FEET) Y N	/4" = 0.0026; G DATA SAMP SIGNA CLEANING STEPS VOC COLL	5/16" = 0.004 LER(S) TURES: 	4; 3/8" = 0.00	6; 1/2" = 0.0 	010; 5/8" = 1 <b>1</b> COLLECTED	
SAMPLED BY (PRI TUBING MAT (CIRCLI SAMPLING INITIATED FIELD FILTERED?	NG INSIDE DIA ( / COMPANY INT) ERIAL CODE E ONE) Y N	A. CAPACITY (Ga Joyc fin PP PE NI SAMPLING ENDED	I./Ft.): 1/8" = <b>Hirst</b> > тц тт	0.0006; 3/16" SAMPLE LEGNTH IN FIELD CLEANED DUPLICATE	2.06, 2"=0.1 2 = 0.0014; 1 AMPLIN E TUBING WELL (FEET) Y N	/4" = 0.0026; G DATA SAMP SIGNA CLEANING STEPS VOC COLL	5/16" = 0.004 LER(S) TURES:	4; 3/8" = 0.00	6; 1/2" = 0.0 	010; 5/8" = +	
SAMPLED BY (PRI TUBING MAT (CIRCLI SAMPLING INITIATED FIELD FILTERED? PRESER	NG INSIDE DIA ( / COMPANY INT) ERIAL CODE E ONE) Y N	A. CAPACITY (Ga Joychn PP PE NI SAMPLING ENDED FILTER SIZE	I./Ft.): 1/8" = <b>Hirst</b> P TL TT LIST PRES	0.0006; 3/16" SAMPLE LEGNTH IN FIELD CLEANED	2.06, 2"=0.1 2 = 0.0014; 1 AMPLIN E TUBING WELL (FEET) Y N	/4" = 0.0026; G DATA SAMP SIGNA CLEANING STEPS VOC COLL	5/16" = 0.004 LER(S) TURES: 	4; 3/8" = 0.00	6; 1/2" = 0.0 	010; 5/8" = 1 <b>1</b> COLLECTED	
SAMPLED BY (PRI TUBING MAT (CIRCL) SAMPLING INITIATED FIELD FILTERED? PRESER CHECKED	Y N VATION IN FIELD?	A. CAPACITY (Ga <b>Joyc ήι</b> PP PE NI SAMPLING ENDED FILTER SIZE (μm)	I./Ft.): 1/8" = <b>Hirst</b> P TL TT LIST PRES	0.0006; 3/16" SAMPLE LEGNTH IN FIELD CLEANED DUPLICATE ERVATIVES	2.06, 2"=0.1 2 = 0.0014; 1 AMPLIN E TUBING WELL (FEET) Y N	/4" = 0.0026; G DATA SAMP SIGNA CLEANING STEPS VOC COLL	5/16" = 0.004 LER(S) TURES: 	4; 3/8" = 0.00	6; 1/2" = 0.0 	010; 5/8" = 1 <b>1</b> COLLECTED	
SAMPLED BY (PRI TUBING MAT (CIRCL) SAMPLING INITIATED FIELD FILTERED? PRESER CHECKED WEA <sup>-</sup>	NG INSIDE DIA	A. CAPACITY (Ga <b>Joyc ήι</b> PP PE NI SAMPLING ENDED FILTER SIZE (μm)	I./Ft.): 1/8" = <b>Hirst</b> P TL TT LIST PRES	0.0006; 3/16" SAMPLE LEGNTH IN FIELD CLEANED DUPLICATE ERVATIVES	2.06, 2"=0.1 2 = 0.0014; 1 AMPLIN E TUBING WELL (FEET) Y N	/4" = 0.0026; G DATA SAMP SIGNA CLEANING STEPS VOC COLL	5/16" = 0.004 LER(S) TURES: 	4; 3/8" = 0.00	6; 1/2" = 0.0 	010; 5/8" = 1 <b>1</b> COLLECTED	
SAMPLED BY (PRI TUBING MAT (CIRCL) SAMPLING INITIATED FIELD FILTERED? PRESER CHECKED	NG INSIDE DIA	A. CAPACITY (Ga <b>Joyc ήι</b> PP PE NI SAMPLING ENDED FILTER SIZE (μm)	I./Ft.): 1/8" = <b>Hirst</b> P TL TT LIST PRES	0.0006; 3/16" SAMPLE LEGNTH IN FIELD CLEANED DUPLICATE ERVATIVES	2.06, 2"=0.1 2 = 0.0014; 1 AMPLIN E TUBING WELL (FEET) Y N	/4" = 0.0026; G DATA SAMP SIGNA CLEANING STEPS VOC COLL	5/16" = 0.004 LER(S) TURES: 	4; 3/8" = 0.00	6; 1/2" = 0.0 	010; 5/8" = 1 <b>1</b> COLLECTED	
SAMPLED BY (PRI TUBING MAT (CIRCL) SAMPLING INITIATED FIELD FILTERED? PRESER CHECKED WEA <sup>-</sup> CONDI	VG INSIDE DIA	A. CAPACITY (Ga <b>Joyc ήι</b> PP PE NI SAMPLING ENDED FILTER SIZE (μm)	I./Ft.): 1/8" = <b>Hirst</b> P TL TT LIST PRES	0.0006; 3/16" SAMPLE LEGNTH IN FIELD CLEANED DUPLICATE ERVATIVES	2.06, 2"=0.1 2 = 0.0014; 1 AMPLIN E TUBING WELL (FEET) Y N	/4" = 0.0026; G DATA SAMP SIGNA CLEANING STEPS VOC COLL	5/16" = 0.004 LER(S) TURES: 	4; 3/8" = 0.00	6; 1/2" = 0.0 	010; 5/8" = 1 <b>1</b> COLLECTED	
SAMPLED BY (PRI TUBING MAT (CIRCL) SAMPLING INITIATED FIELD FILTERED? PRESER CHECKED WEA <sup>-</sup> CONDI	NG INSIDE DIA	A. CAPACITY (Ga <b>Joyc ήι</b> PP PE NI SAMPLING ENDED FILTER SIZE (μm)	I./Ft.): 1/8" = <b>Hirst</b> P TL TT LIST PRES	0.0006; 3/16" SAMPLE LEGNTH IN FIELD CLEANED DUPLICATE ERVATIVES	2.06, 2"=0.1 2 = 0.0014; 1 AMPLIN E TUBING WELL (FEET) Y N	/4" = 0.0026; G DATA SAMP SIGNA CLEANING STEPS VOC COLL	5/16" = 0.004 LER(S) TURES: 	4; 3/8" = 0.00	6; 1/2" = 0.0 	010; 5/8" = 1 <b>1</b> COLLECTED	
SAMPLED BY (PRI TUBING MAT (CIRCL) SAMPLING INITIATED FIELD FILTERED? PRESER CHECKED WEA <sup>-</sup> CONDI	VG INSIDE DIA (/ COMPANY INT) ERIAL CODE E ONE) Y N RVATION IN FIELD? THER ITIONS	A. CAPACITY (Ga Joyc fin PP PE NI SAMPLING ENDED FILTER SIZE (μm) Y N N/A PUMP CC	I./Ft.): 1/8" = Hist TL TT LIST PRES AD	0.0006; 3/16" SAMPLE LEGNTH IN ' FIELD CLEANED DUPLICATE ERVATIVES DED	0.06, 2"=0.1 = 0.0014; 1 <b>AMPLIN</b> E TUBING WELL (FEET) Y N Y N Y N GP= Submers	/4" = 0.0026; G DATA SAMP SIGNA CLEANING STEPS VOC COLL REVERS sible Grundfos	5/16" = 0.004 LER(S) TURES: 	4; 3/8" = 0.00 SAMPLE PU RATE (r Y N N/A	6; 1/2" = 0.0 JMP FLOW nL/min) SEMI-VOLS THROUC	010; 5/8" = 4	
SAMPLED BY (PRI TUBING MAT (CIRCLI SAMPLING INITIATED FIELD FILTERED? PRESER CHECKED WEAT CONDI	VG INSIDE DIA (/ COMPANY INT) ERIAL CODE E ONE) Y N RVATION IN FIELD? THER ITIONS	A. CAPACITY (Ga Joyc fin PP PE NI SAMPLING ENDED FILTER SIZE (μm) Y N N/A Y N N/A PUMP CC ING MATERIAL	I./Ft.): 1/8" = Hist TL TT LIST PRES AD	0.0006; 3/16" SAMPLE LEGNTH IN ' FIELD CLEANED DUPLICATE ERVATIVES DED	0.06, 2"=0.1 = 0.0014; 1 <b>AMPLIN</b> E TUBING WELL (FEET) Y N Y N Y N GP= Submers	/4" = 0.0026; G DATA SAMP SIGNA CLEANING STEPS VOC COLL REVERS sible Grundfos	5/16" = 0.004 LER(S) TURES: 	4; 3/8" = 0.00 SAMPLE PU RATE (r Y N N/A Y N N/A	6; 1/2" = 0.0 JMP FLOW nL/min) SEMI-VOLS THROUC	010; 5/8" = 4	

Client Name:	Hazan and Sawyer			r	Location:				Contact:	······		
Date Sampled	14/	<u> </u>			SAL Project	1603	2017	_10	Phone: Project Name	GCREC Ma	und Groundwa	ater Analyson
	12	2/10			#	100	3007	-1-1	Project Name GPS LAT			
Well Number					Sample ID	DP-FII	-11		GPS LONG			
					Р	URGING	<b>DATA</b>					
WELL DIAMETER		WELL			Screen		Te		Static Depth		PURGE PUMP	PP GP
(Inches)		(gal/ft			Interval (Feet)	UNK	То	UNK	to Water (Feet)		CODE	IBP
TOTAL WELL		REFERE			GROUND				TUBING		TUBING	
DEPTH (Feet)		ELEVAT (NGVI			ELEV/				DIAMETER (Inches)		CAPACITY (gal/ft)	
Purge Tec	hnique: q Sut	omerged S	creen (	(1,1/4,1/4 Well	) q Submer	ged Screen (1	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
	OLUME = (TO	TAL DEPT	H - ST		X WELL CAPI	CITY =		· · · · · · · · · · · · · · · · · · ·		C ) A/E		
ONE WELL VOLUME				1/4 WELL VOLUME	-		3 WELL VOLUMES			5 WELL VOLUMES		
TOLOME		EQUIPME	ENT V		IP VOLUME +	(TUBING CAI		BING LEGNTH	I) + FLOW CEL	L VOLUME		
PUMP VOLUME				TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL					NG LEGNTH L (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\bigtriangledown$	>	$\langle$	$\mathbf{\mathbf{X}}$	$\boxtimes$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- —	SAL-SAM- 0	$\searrow$	
	VOLUME	TOTA		<b>F</b> `	Depth to	рН	ТЕМР	SP COND	DO	TURBIDITY	COLOR	ODOR
TIME	PURGED (Gallons)	VOLU PURG	ED	PURGE RATE (gpm)	Water (Feet)	(SU) (∆ <0.2)	(oC) (∆ <0.2)	(uS/cm) (∆ <5%)	(mg/L) (% SAT <20)	(NTUs) (<20 NTU)	(Describe)	(Describe)
12: 30	(Galions)	(Gallo	ins)		5.3		19.5	366	5.24			
12.50				┼───	<u> </u>		11.2				<u> </u>	+
									ļ		<b></b>	<u></u>
				<u> </u>				-			1	
		ļ				<u> </u>						+
												<u> </u>
<u> </u>	Well	Capacity (g	allons	/foot): 0.75"=0	).02, 1.25"=						2"5.88	0.016
TUBI	NG INSIDE DI	A. CAPAC	ITY (G	al./Ft.): 1/8" =	= 0.0006; 3/16	" = 0.0014; 1	1/4" = 0.0026;	5/16" = 0.00	4; 3/8" = 0.0	06; 1/2" = 0	.010; 5/8" =	0.016
					<u>S</u>							
1	Y / COMPANY RINT)	امل	<i>Kfi</i>	in Hons	+			PLER(S) ATURES:	Gore	low H.	m	
	TERIAL CODE LE ONE)	PP	PE N	IP TL TT		E TUBING I WELL (FEET	)			UMP FLOW (mL/min)		
SAMPLING		SAMP		1	FIELD	Y N	CLEANING	6				
		FILTER			CLEANED	-	STEPS VOC COI	LLECTED BY	Y N N/A		S COLLECTE	DYN N/A
FIELD FILTERED?	, Y N	(μr			DUPLICATI		REVER	SE FLOW?		THROU	JGH TRAP?	
	RVATION D IN FIELD?	Y N	N/A		SERVATIVES							
	ATHER DITIONS		_									
СОМ	COMMENTS									- Dump		
	· · · · · · · · · · · · · · · · · · ·	P	UMP C	ODES: PP=P	eristaltic Pump	o, GP= Subme	rsible Grundfo	s Pump, IBP=	In-place Bladde stic, TL= Teflon	Lined, TT= T	Feflon	
	TL Reviewed B							Dat	e:			
	VENEMED D	y • I										

Client Name:		lazan and Sawye	r	Location:				Contact: Phone:			
Date Sampled	laf.	2/10		SAL Project #	1003	007-	20	Project Name	GCREC Mou	und Groundwa	iter Analyses
Well Number				Sample ID	NP-EI	1-15		GPS LAT			
								GPS LONG			
					URGINO	DATA					1
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		GROUND ELEVA (REFERENC	ATION			TUBING DIAMETER (Inches)	5/14"	TUBING CAPACITY (gal/ft)	
		bmerged Screen				EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL	OLUME = (TO	TAL DEPTH - ST	ATIC DEPTH) 1/4 WELL	X WELL CAPI	CITY =	3 WELL			5 WELL		
VOLUME			VOLUME			VOLUMES			VOLUMES		
		EQUIPMENT V	DLUME = PUN	1P VOLUME +	(TUBING CA	PACITY X TUE	BING LEGNTH	) + FLOW CEL	L VOLUME		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL			FINAL TUBI IN WELI	NG LEGNTH - (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\times$	$\ge$	$\ge$	$\times$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- 	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons) VOLUME PURGED (Gallons) VOLUME PURGED (Gallons) VOLUME PURGED (Gallons) VOLUME PURGED PURGED VOLUME PURGED PURGED (Gallons) VOLUME PURGED (Gallons) VOLUME PURGED (Gallons) VOLUME PURGED (Gallons) VOLUME PURGED (Gallons) VOLUME PURGED (Gallons) VOLUME PURGED (Gallons) VOLUME PURGED (Gallons) VOLUME PURGED (Gallons) VOLUME PURGED (Gallons) VOLUME PURGED (Gallons) VOLUME PURGED (Gallons) VOLUME (Gallons) VO			Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (Δ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
12:55			4		5.00	22.8	547	3.64			
		· · · · · · · · · · · · · · · · · · ·									
					<u> </u>			<u> </u>	1		
	Well (	Capacity (gallons/	foot): 0.75"=0.	02, 1.25"=0	<u> </u>	16. 3"=0.37	4"=0.65,	5"=1.02, 6	L	'5.88	
TUBIN		A. CAPACITY (Ga			,			4; 3/8" = 0.00	0 <del>6</del> ; 1/2" = 0.	010; 5/8" =	0.016
	<u> </u>					G DATA					
SAMPLED BY (PR		Jox A.	Hirst				LER(S) TURES:	Jonefor	: Hin		
<u>`````````````````````````````````````</u>	ERIAL CODE	PP PE N			E TUBING WELL (FEET)			SAMPLE PU RATE (I	JMP FLOW		
SAMPLING	1	SAMPLING	T	FIELD	T	CLEANING	T				
INITIATED		ENDED		CLEANED	Y N	STEPS		T		001100700	
FIELD FILTERED?	YN	FILTER SIZE		DUPLICATE	Y N		LECTED BY SE FLOW?	Y N N/A		COLLECTED	Y N N/A
PRESER	RVATION IN FIELD?	Y N N/A		ERVATIVES							
	WEATHER CONDITIONS										
COMN	COMMENTS										
	PUMP CODES: PP=				GP= Submer	sible Grundfos	Pump, IBP= I	n-place Bladder	Pump	flon	
			CODES: PP=	Polypropylene	e, PE= Polyet	nylene, NP= N	Date	stic, TL= Teflon Lined, TT= Teflon			
	eviewed By	•					Date	•			

Client Name:	н	azan and Sawyer	.	Location:			ļ	Contact: Phone:			
Date Sampled	62/9	110		SAL Project #	1002	-F00	.21	Project Name	GCREC Mou	und Groundwa	ter Analyses
Well Number				" Sample ID	DD-FI	007- 1-18		GPS LAT	· · · · · · · · · · · · · · · · · · ·		
					URGING			GPS LONG			J
10/511		WELL		Screen	UKGING	DATA		Static Depth		PURGE	7
WELL DIAMETER (Inches)		CAPACITY (gal/ft)		Interval (Feet)	UNK	То	UNK	to Water (Feet)		PUMP	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		GROUND ELEV/	1			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
Purge Tec	hnique: a Su	bmerged Screen (	(1.1/4.1/4 Wel	· ·	,	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree		minutes)
WELL V	OLUME = (TO	TAL DEPTH - ST	ATIC DEPTH)	X WELL CAPI	CITY =		· · · · · · · · · · · · · · · · · · ·				
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES		: 	5 WELL VOLUMES		
	· · · · · · · · · · · · · · · · · · ·	EQUIPMENT VO	OLUME = PUN	IP VOLUME +	(TUBING CA	PACITY X TUE	BING LEGNTH	1) + FLOW CEL		<b></b>	
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
	I ING LEGNTH _ (FEET)			ING LEGNTH L (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\bigtriangledown$	$\mathbf{\succ}$	$\mathbf{\mathbf{X}}$	$\square$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\geq$	$\geq$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (Δ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
1:05	1.25				5.02	23.1	497	2.48			
				, , , , , , , , , , , , , , , , , , ,							
				1						ļ	
	Well	Capacity (gallons	s/foot): 0.75"=	0.02, 1.25"=						2"5.88	= 0.016
TÜB	ING INSIDE D	IA. CAPACITY (G	Sal./Ft.): 1/8"	= 0.0006; 3/16	6" = 0.0014;	1/4" = 0.0026;	5/16" = 0.0	04; 3/8" = 0.0	06; 1/2" = 0	).010; 5/8 =	. 0.010
				S	SAMPLIN	the second s					
	BY / COMPAN' RINT)	Josch	a thirst	-	- 		PLER(S) ATURES:	Josef	je su	ч 	
TUBING MA	TERIAL CODI	-	NP TL TT	SAMPI	LE TUBING N WELL (FEET	г)			VMP FLOW (mL/min)		
	1	SAMPLING ENDED		FIELD CLEANED	) Y N	CLEANING STEPS				S COLLECTE	
FIELD	Y N	FILTER SIZE (µm)		DUPLICAT			LLECTED BY RSE FLOW?	Y N N/4		UGH TRAP?	Y N N//
	ERVATION D IN FIELD?	Y N N/A		SERVATIVES	;   			<u> </u>			
	ATHER DITIONS										
CON	IMENTS					oroible Crundfe		= In-place Bladd	er Pump		
		PUMP C UBING MATERIA	CODES: PP=	Peristaltic Pum	ne, PE= Subme	ethylene, NP=	Non-inert Pla	= In-place Bladd istic, TL= Teflor	Lined, TT=	Teflon	
	Reviewed E						Da	te:			
L	. conorrou L	· / · ·									

### SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 FAX 813-855-2218

Client Name:					100	0300	7	Contact: Phone:				
Date Sampled	12/0	1/10		SAL Project #		22		Project Name	GCREC Mou	und Groundwa	iter Analyses	
Well Number		· ] [ ·		# Sample ID				GPS LAT				
wennumber						11-2]		GPS LONG				
·····				P	URGING	<u>G DATA</u>						
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP	
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		GROUNE ELEV/ (REFEREN(	ATION			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)		
Purge Tec	hnique: q Sul	bmerged Screen	(1,1/4,1/4 Well	) q Submer	ged Screen (1	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)	
	OLUME = (TO	TAL DEPTH - ST		X WELL CAPI	CITY =							
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES			
		EQUIPMENT VO	DLUME = PUN	IP VOLUME +	(TUBING CAR	PACITY X TUE	BING LEGNTH	I) + FLOW CEL	L VOLUME			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME			
INITIAL TUBI IN WELL				NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED		
INST. ID	$\mathbf{\mathbf{X}}$	$\ge$	$\mathbf{X}$	$\searrow$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- 	SAL-SAM- 0	$\ge$	$\ge$	
TIME	(Gallons) (Gallons) (Gallons)			Depth to Water (Feet)	рН (SU) (∆ <0.2)	ТЕМР (оС) (∆ <0.2)	SP COND (uS/cm) (Δ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)	
[:21	(Gallons)				4.98	21.7	465	7.99				
1:25	0.5				5.02	22.7	458	0.10				
										-		
	Well C	Capacity (gallons/	oot): 0.75"=0	.02, 1.25"=(	).06, 2"=0.1	16, 3"=0.37	, 4"=0.65,		,	"5.88		
TUBI	NG INSIDE DI	A. CAPACITY (Ga	al./Ft.): 1/8" =	0.0006; 3/16"	'= 0.0014; 1	/4" = 0.0026;	5/16" = 0.004	4; 3/8" = 0.00	6; 1/2" = 0.0	010; 5/8" =	0.016	
				S	AMPLIN	G DATA	۱					
	/ / COMPANY INT)	Jorem	Hirst				LER(S) TURES:	Joseb	e Hir	st		
	ERIAL CODE E ONE)	PP PE N	P TL TT	-	E TUBING WELL (FEET)			SAMPLE PU RATE (I				
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS		· · · · · · · · · · · · · · · · · · ·			,	
FIELD	Y N	FILTER SIZE		DUPLICATE	YN		LECTED BY SE FLOW?	Y N N/A		COLLECTED	Y N N/A	
PRESEF	PRESERVATION V N N/A LIST PF			ERVATIVES DED							· · · · ·	
	THER				······································							
COMN	IENTS											
		PUMP CC	DES: PP=Pe	ristaltic Pump,	GP= Submers	sible Grundfos	Pump, IBP= II	n-place Bladder	Pump	flon		
			CODES: PP=	PP= Polypropylene, PE= Polyethylene, NP= Non-inert F								
I R	eviewed By	4					Date	·				

Client Name: Hazan and Sawyer				Location: 1003007		Contact: Phone:					
Date Sampled	12/1/	LD		SAL Project #		23	•	Project Name		und Groundwa	ater Analyses
Well Number				Sample ID		11-24		GPS LAT			
				P	URGIN		<u></u>	GPS LONG	1		
WELL		WELL		Screen		JUAIA		Static Depth	1	PURGE	
DIAMETER (Inches)		CAPACITY (gal/ft)		Interval (Feet)	UNK	То	UNK	to Water (Feet)			PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV	D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		bmerged Screen TAL DEPTH - ST				IEQ Volume, 3	8, 3 Minutes)	q Partially Sub	omerged Scree	en (1 Well, 3,3	minutes)
ONE WELL VOLUME	<u>, , , , , , , , , , , , , , , , , , , </u>		1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES		
		EQUIPMENT V	OLUME = PUN	IP VOLUME +	(TUBING CA	PACITY X TUE	BING LEGNTH	I) + FLOW CEL	( (		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL	1		FINAL TUBI IN WELI			PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\geq$	$\ge$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63-	SAL-SAM-55-	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
1:40	1	1.5			5.08	21.9	484	3.28			
j=4 <b>5</b>	0.5	1.5			5.00	22.9	475	1.15			
			V		· · · · · · · · · · · · · · · · · · ·						
	Well C	apacity (gallons/f	oot): 0.75"=0.0	)2, 1.25"=0	.06, 2"=0.1	6, 3"=0.37,	4"=0.65,	5"=1.02, 6'	 "≈1.47, 12"	I 5.88	
TUBIN	G INSIDE DIA	. CAPACITY (Ga	I./Ft.): 1/8" =	0.0006; 3/16"	= 0.0014; 1/	4" = 0.0026;	5/16" = 0.004	; 3/8" = 0.000	6; 1/2" = 0.0	010; 5/8" = C	.016
				SA		G DATA	L				
SAMPLED BY (PRI		Jo sc fn	n Hirs	ť		SAMPI SIGNAT		galo	i Hu	متر	
TUBING MATE (CIRCLE		PP PE NP	, т. тт	SAMPLE LEGNTH IN V				SAMPLE PU RATE (m			
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	ΥN	CLEANING STEPS		,			
FIELD FILTERED?	ΥN	FILTER SIZE (µm)		DUPLICATE	Y N	VOC COLL REVERS		Y N N/A	SEMI-VOLS ( THROUG		Y N N/A
PRESERV CHECKED I		Y N N/A	LIST PRESE ADE								
WEAT CONDIT	1										
COMMI	ENTS										
	TUC							place Bladder F			
Re	viewed By:	NG MATERIAL C	ODES: PP=1	ovypropylene,	PE= Polyeth	yiene, NP= No		, IL= Ietlon Li	ned, IT=Tefl	on	
rte	vieweu by.						Date:				

### SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 FAX 813-855-2218

			GR	OUNDW	ATER S	SAMPLII	NG LOG	i			
lient Name:	Н	azan and Sawyer		Location:	HAE	5		Contact: Phone:			
ate Sampled	12/9/	10		SAL Project #			,24	Project Name	GCREC Mou	ind Groundwa	ter Analyses
Vell Number				Sample ID	DP-FI	<u>3007</u> 1- 27		GPS LAT GPS LONG			
				Pl	JRGING	<b>DATA</b>					
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
OTAL WELL EPTH (Feet)		REFERENCE ELEVATION (NGVD)		GROUND ELEVA (REFERENC	TION E-STATIC)	<u> </u>	2 Minutoo)	TUBING DIAMETER (Inches) q Partially Sub	merced Scree	TUBING CAPACITY (gal/ft)	minutes)
Purge Tech	nique: q Sub MMF = (TO)	omerged Screen ( TAL DEPTH - ST/	1,1/4,1/4 Well) ATIC DEPTH)			EQ Volume, 3	, 3 Minutes)	ų Fartially Sub	merged Scree		
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES		
PUMP VOLUME		EQUIPMENT VC	TUBING LEGNTH	IP VOLUME +	(TUBING CAI	FLOW CELL VOLUME		1) + 1 LOW OLL	EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL			FINAL TUBI	NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\times$	$\mathbf{\times}$	$\times$	$\mathbf{ imes}$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63 	SAL-SAM-55- —	SAL-SAM- 0	$\geq$	$\geq$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	ТЕМР (oC) (∆ <0.2)	SP COND (uS/cm) (Δ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
1:55	1	2	4		5.24	- 27.1	301	1.79			<u> </u>
2:00	2	2	Y		5.19	23.3	297	0.82		<b>_</b>	
· · · · · · · · · · · · · · · · · · ·						.16. 3"=0.37	7. 4"=0.65,	5"=1.02,	6 <sup>w</sup> =1.47, 1	2"5.88	
TUD		Capacity (gallons IA. CAPACITY (G	/foot): 0.75"=0	0.02, 1.25"= 0.0006: 3/16			., .		06; 1/2" = 0	).010; 5/8" :	= 0.016
				S	AMPLIN	NG DAT	A				
	Y / COMPANY RINT)	Jorf	~ Hirst			SAM	PLER(S) ATURES:	gose	gni H.	vist	
TUBING MA	TERIAL CODE			SAMPL	E TUBING I WELL (FEET	г)		1	PUMP FLOW (mL/min)		
SAMPLING INITIATED	1	SAMPLING ENDED		FIELD CLEANED	YN	CLEANING STEPS	LLECTED BY	<del></del>	SEMI-VOL	S COLLECTE	
FIELD FILTERED?	Y N	FILTER SIZE (µm)		DUPLICAT SERVATIVES			RSE FLOW?	Y N N//		UGH TRAP?	Y N N
	D IN FIELD?	Y N N/A		DDED					<del></del>		
1	ATHER DITIONS										
COM	MENTS			Deviataltia Dum	n GP= Subm	ersible Grundfr	os Pump. IBP=	In-place Bladd	er Pump		
	T	PUMP C	CODES: PP=F	eristaltic Pum = Polypropyle	ne, PE= Poly	ethylene, NP=	Non-inert Pla	ISUC, IL-TEIIO	n Lined, TT=	Teflon	
	Reviewed E						Da	te:			

Client Name: Hazan and Sawyer			er	Location:				Contact:		· · · · · · · · · · · · · · · · · · ·	
Date Sampled	13.14	olio		SAL Project	100	1200-	 7.	Phone: Project Name	GCREC Mo	und Groundwa	ter Analyses
	, • / 10			#	100	) <u>300-</u> 25	1	GPS LAT			ner Analyses
Well Number	DP-	F15-14		Sample ID				GPS LONG			
					URGIN	G DATA					
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV (REFEREN	D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
WELL V	OLUME = (TO	bmerged Screen TAL DEPTH - ST	ATIC DEPTH)	x WELL CAP	rged Screen (´ ICITY =	EQ Volume, a	s, 3 Minutes)	q Partially Sub	mergea Scree	en († vveil, 3,3	minutes)
ONE WELL			1/4 WELL			3 WELL			5 WELL		
VOLUME		EQUIPMENT V		P VOLUME +	· (TUBING CA	VOLUMES	L BING LEGNTH	I) + FLOW CEL	VOLUMES		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME		,,	EQUIPMEN T VOLUME		
INITIAL TUBI				NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	ID VOLUME TOTAL VOLUME PUR				SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63-	SAL-SAM-55- 	SAL-SAM- 0	$\ge$	$\ge$
TIME	TIME PURGED VOLUME PURG (Gallons) (Gallons)			Depth to Water (Feet)	рН (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (Δ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
0652					511	21.5	408.4	1.11			
		apacity (gallons/f	,		,			, -	,	5.88	
TUBIN	IG INSIDE DIA	. CAPACITY (Ga	l./Ft.): 1/8" =					; 3/8" = 0.000	6; 1/2" = 0.0	010; 5/8" = 0	.016
				S/	AMPLIN						
SAMPLED BY (PRI	1						LER(S) TURES:	Zon	Wing	/	
TUBING MATI (CIRCLE		PP PE NF	° 🕐 TT	LEGNTH IN V	TUBING WELL (FEET)			SAMPLE PU RATE (m	-		
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	YN	CLEANING STEPS					
FIELD FILTERED?	FIELD Y K FILTER SIZE				YN		ECTED BY E FLOW?	Y N MAR	SEMI-VOLS THROUG		Y N N/Æ
PRESERVATION N N/A LIST PR				ERVATIVES DED	t			• • • • • • • • • • • • • • • • • • •		· · · · · · · · · · · · · · · · · · ·	
WEATHER CONDITIONS CHIM											
COMMENTS					-						
	TUO	PUMP COI						-place Bladder		lon	
Re	viewed By:	ING MATERIAL (	00E2: PP=	rolypropylene	, PE-Polyeth	yiene, NP= N	Date:	, IL- Ierion Li	neu, II=Ief		

			<u> </u>	ROUND	VATER	SAMPL	ING LOO	j			
Client Name:	H	lazan and Sawye	r	Location:				Contact: Phone:			
Date Sampled	12/10	110	-	SAL Project #	100-	3007	-	Project Name	GCREC Mo	ound Groundwa	ater Analyses
Well Number		5- 20-1		# Sample ID	8/2	and	65	GPS LAT			
	04-40	3-00	00	P			<u>v</u> )	GPS LONG			
14/511			í	· · · · · ·				Statia Danth		DUDOG	
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV.	D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		omerged Screen TAL DEPTH - ST			rged Screen (1	IEQ Volume, 3	3, 3 Minutes)	q Partially Sub	omerged Scre	en (1 Well, 3,3	minutes)
ONE WELL			1/4 WELL			3 WELL		<b>I</b>	5 WELL		L
VOLUME		EQUIPMENT V	VOLUME	/ /P VOLUME +	· (TUBING CA	VOLUMES	BING LEGNTH	I) + FLOW CEL	L VOLUMES		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME		, , , , , , , , , , , , , , , , ,	EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL				NG LEGNTH L (FEET)	b.	PURGE TIME START	T	PURGE TIME END		TOTAL PURGED	
INST. ID	$\mathbf{\times}$	$\succ$	$\searrow$	$\searrow$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\ge$	$\geq$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	ТЕМР (оС) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
0715		J. O			4.9	2211	649	0.42			
		apacity (gallons/f	,	,		,	, ,			"5.88	
TUBIN	IG INSIDE DIA	. CAPACITY (Ga	II./Ft.): 1/8" =		' = 0.0014; 1/ AMPLIN			4; 3/8" = 0.00	6; 1/2" = 0.	010; 5/8" = (	0.016
SAMPLED BY		· .				SAMP	PLER(S)	4	, /		
(PRI TUBING MAT	ERIAL CODE	PP PE N	» <i>(</i> т.) тт	1			TURES:	Joy h SAMPLE PL	JMP FLOW		
(CIRCLI SAMPLING		SAMPLING		FIELD		CLEANING		RATE (r			
INITIATED FIELD	<u>,</u> <u>(</u> )	ENDED FILTER SIZE			Q N	STEPS VOC COLI	DZ X-		SEMI-VOLS	COLLECTED	
FILTERED? PRESER		(μm)		DUPLICATE ERVATIVES	O&		SE FLOW?	Y N MA		GH TRAP?	Y N N/A
CHECKED	IN FIELD?	<u>v</u>		DED	I		,:				
WEAT CONDI		Crem					· · · · · ·				
COMN	IENTS										
	יסווד	PUMP CO						-place Bladder		flon	
Re	viewed By:	ING WATERIAL	JUDES. PP=	roiypropyiene	, FE- Polyeth	iyiene, ive=iv	Date:		cu, 11-16		
1.0								1			

. . . . . . . . . .

			GR	OUNDW	ATER S	SAMPLII	NG LOG	i			
lient Name:	Hi	azan and Sawyer		Location:				Contact: Phone:	·····		
ate Sampled	API	75 12/	10/12	SAL Project #	1003	007		Project Name	GCREC Mol	ind Groundwa	ter Analyses
/ell Number	DPP	-15 26	·····	Sample ID	27			GPS LAT			
				PI				GPS LONG			
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
OTAL WELL EPTH (Feet)		REFERENCE ELEVATION (NGVD)		GROUND ELEVA (REFERENC	TION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
Purge Teck	hnique: q Sut	omerged Screen TAL DEPTH - ST	(1,1/4,1/4 Well ATIC DEPTH)			EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL VOLUME		EQUIPMENT	1/4 WELL VOLUME			3 WELL VOLUMES		1) + FLOW CEL	5 WELL VOLUMES L VOLUME		
PUMP VOLUME		EQUIPMENT				FLOW CELL VOLUME		<u>,</u>	EQUIPMEN T VOLUME		T
INITIAL TUBI IN WELL				ING LEGNTH L (FEET)		PURGE TIME START		PURGË TIME END		TOTAL PURGED	
INST. ID	$\bigtriangledown$	$\ge$	$\mathbf{\mathbf{X}}$	$\triangleright$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM-	$\geq$	
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	ТЕМР (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
1741		2.0			4.9	DIR	240,8	6.52			
				<u> </u>	<u> </u>						
											_
								511-1-02	6"=1.47, 1	2"5.88	
	Well	Capacity (gallon: IA. CAPACITY (C	s/foot): 0.75"=	0.02, 1.25"= = 0.0006: 3/16				•,			= 0.016
	ING INSIDE D			S	AMPLIN	IG DAT	A				
-	BY / COMPAN' RINT)						PLER(S) ATURES:	7-	, wa	4	
	ATERIAL CODI	PP PE	NP TL TT		E TUBING				PUMP FLOW (mL/min)		
SAMPLING		SAMPLING ENDED		FIELD CLEANED	y N	CLEANING STEPS			SEMI-VOL	S COLLECTE	
FIELD FILTERED	? Y N ERVATION	FILTER SIZE	LIST PRE	DUPLICAT			RSE FLOW?	Y N N/	A THRO	UGH TRAP?	
	ED IN FIELD?	<u> </u>		ADDED							<u></u>
	ATHER DITIONS	CIENO	L								
CON	MENTS							la place Dia f	Hor Pump		<u></u>
		PUMP UBING MATERIA	CODES: PP=	Peristaltic Pum	ip, GP= Subm ine, PE= Polv	ersible Grundf ethylene. NP	os Pump, IBP = Non-inert Pla	= In-place Blado astic, TL= Teflo	n Lined, TT=	Teflon	
	T Reviewed E						Da	ite:			
		· / I									

Client Name:								Contact: Phone:			
Date Sampled	12/10	10	. ,	SAL Project #	1003	3007-	. 29	Project Name	GCREC Mo	und Groundwa	iter Analyses
Well Number	<b>R</b>			Sample ID	DP-(	107-1	5	GPS LAT			
				P	URGINO			GPS LONG			
WELL DIAMETER		WELL CAPACITY		Screen Interval	UNK	То	UNK	Static Depth to Water		PURGE PUMP	PP GP IBP
(Inches) TOTAL WELL DEPTH (Feet)		(gal/ft) REFERENCE ELEVATION (NGVD)		ELEV	) WATER ATION CE-STATIC)			(Feet) TUBING DIAMETER (Inches)		CODE TUBING CAPACITY (gal/ft)	
Purge Tec	hnique: q Sul	bmerged Screen	(1,1/4,1/4 Well	,	,	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree		minutes)
	OLUME = (TO	TAL DEPTH - ST		X WELL CAPI	ICITY =						
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES		
		EQUIPMENT V		IP VOLUME +	(TUBING CA		L BING LEGNTH	I) + FLOW CEL			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL				NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\times$	$\ge$	$\ge$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- —	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)		COLOR (Describe)	ODOR (Describe)
8:25					5.53	21.4	271	3,33 3.629t			
··		· · · · · · · · · · · · · · · · · · ·									
	Well C	l Capacity (gallons/f	l oot): 0.75"=0.	02, 1.25"=0	1 ).06, 2"=0.1	6, 3"=0.37,	4"=0.65,	5"=1.02, 6	"=1.47, 12'	5.88	I
TUBIN	IG INSIDE DIA	A. CAPACITY (Ga	il./Ft.): 1/8" =				5/16" = 0.004	1; 3/8" = 0.00	6; 1/2" = 0.0	010; 5/8" = 0	0.016
				S	AMPLIN	G DATA	L				
SAMPLED BY (PRI		Joxan	Hin +		÷		LER(S) TURES:	Jonbi	Him	1	-
TUBING MAT (CIRCLI		PP PE NF	P TL TT		E TUBING WELL (FEET)			SAMPLE PL RATE (n			
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS		•			
FIELD FILTERED?	Y N	FILTER SIZE (µm)		DUPLICATE	Y N		ECTED BY E FLOW?	Y N N/A		COLLECTED	Y N N/A
				ERVATIVES DED							
WEATHER CONDITIONS				· · · · ·							
COMM	COMMENTS										
								-place Bladder		lion	
	TUB eviewed By:	ING MATERIAL (	JODES: PP=	Polypropylene	e, PE= Polyeth	iyiene, NP= N	Date:	1	inea, 11=1e		
L	weweu by.							l			

Ť.

Client Name:				Location:				Contact:			
	12/10/			SAL Project	100-	7007	-70	Phone:			
Date Sampled	[[[]]]	[0		#	100:	3007	-30	Project Name	GCREC MO	und Groundwa	iter Analyses
Well Number				Sample ID	DP-6	07-1	7	GPS LAT GPS LONG			
				P	URGINO						
WELL		WELL		Screen				Static Depth		PURGE	PP GP
DIAMETER (Inches)		CAPACITY (gal/ft)		Interval (Feet)	UNK	Τo	UNK	to Water (Feet)		PUMP CODE	IBP
		REFERENCE		· · · · · ·	D WATER			TUBING	<u>c</u> [ ,	TUBING	
TOTAL WELL DEPTH (Feet)					ATION			DIAMETER	5/16 "	CAPACITY	
Purge Tec	hnique: a Su	(NGVD) bmerged Screen	(1.1/4.1/4 Well		CE-STATIC)	EQ Volume, 3	3 Minutes)	(Inches) q Partially Sub	merged Scree	(gal/ft) en (1 Well, 3.3	minutes)
WELL V	OLUME = (TO	TAL DEPTH - ST	ATIC DEPTH)	x WELL CAP	ICITY =		,				
ONE WELL VOLUME			1/4 WELL VOLUME	8		3 WELL VOLUMES			5 WELL VOLUMES		
VOLOMIL		EQUIPMENT V		L 1P VOLUME +	(TUBING CA		L BING LEGNTH	I) + FLOW CEL			
PUMP			TUBING			FLOW CELL			EQUIPMEN		
VOLUME			LEGNTH			VOLUME			T VOLUME		
INITIAL TUBI				NG LEGNTH		PURGE		PURGE TIME		TOTAL	
IN WELL	(FEET)		IN WELL	(FEET)		TIME START		END		PURGED	
INST. ID	$\searrow$	$\searrow$	$\searrow$	$\searrow$	SAL-SAM-63		SAL-SAM-63	SAL-SAM-55-	SAL-SAM-	$\searrow$	$\searrow$
	$\leq $	TOTAL	$\langle \ \rangle$			65			0	$\langle \ \rangle$	
тімғ	TIME PURGED PURGED BATE (				pH (SU)	TEMP (oC)	SP COND (uS/cm)	DO (mg/L)	TURBIDITY (NTUs)	COLOR	ODOR
	TIME PURGED PURGED RATE (g (Gallons) (Gallons)			Water (Feet)	(∆ <0.2)	(∆ <0.2)	(∆ <5%)	(% SAT <20)	(<20 NTU)	(Describe)	(Describe)
0.25	35 1-25				5.34	21 @	2/17	2.19			
8.35	1-00				5.74	21.9	312	<b>4</b> ·11			
	Well C	apacity (gallons/f	oot): 0.75"=0.	02, 1.25"=0	1 ).06, 2"=0.1	6, 3"=0.37,	4"=0.65,	5"=1.02, 6	l "=1.47, 12"	5.88	
TUBIN	IG INSIDE DIA	A. CAPACITY (Ga	I./Ft.): 1/8" =					; 3/8" = 0.00	6; 1/2" = 0.0	)10; 5/8" = (	).016
				S	AMPLIN	G DATA					
SAMPLED BY (PRI		Josefr	Hirst			-	LER(S) TURES:	Joelan	> Hr	in	
		000		SAMPLE	TUBING			SAMPLE PU			
(CIRCLE		PP PE NF	O TL TT		WELL (FEET)			RATE (n			
SAMPLING		SAMPLING		FIELD	Y N	CLEANING					
INITIATED FIELD		ENDED FILTER SIZE				STEPS VOC COLL	ECTED BY		SEMI-VOLS	COLLECTED	
FILTERED?	Y N	(μm)		DUPLICATE	Y N	1	E FLOW?	Y N N/A		H TRAP?	Y N N/A
PRESER CHECKED		Y N N/A	LIST PRESI ADI	ERVATIVES DED							
	/ / / / / / / / / / / / / / / / /										
1	WEATHER CONDITIONS										
	CONDITIONS										
00111								<u></u>			
СОММ	ENIS										
								-place Bladder			
		ING MATERIAL (	CODES: PP=	Polypropylene	, PE= Polyeth	ylene, NP= N		c, TL= Teflon L	ined, TT= Tef	lon	
L Re	viewed By:						Date:				

### SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 FAX 813-855-2218

			GF	ROUND	WATER	SAMPL	ING LO	G			
Client Name:		Hazan and Sawy	er	Location:				Contact Phone:			
Date Sampled	12/1	0/10		SAL Project #	1003	1007-	-31	Project Name	GCREC Mo	ound Groundwa	ater Analyses
Well Number				Sample ID	DP-GI	07-21		GPS LAT GPS LONG			
	<u> </u>			P		<b>G</b> DATA			L		·····
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV (REFEREN	D WATER ATION ICE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		bmerged Screen			rged Screen ( ICITY =	IEQ Volume, 3	3, 3 Minutes)	q Partially Sut	omerged Scre	en (1 Well, 3,3	minutes)
ONE WELL VOLUME		EQUIPMENT	1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES		····
PUMP VOLUME		EQUIPMENT			F (TUBING CA	FLOW CELL VOLUME		1) + FLOW CEL	EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL				NG LEGNTH L (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\geq$	$\geq$	$\geq$	$\ge$	SAL-SAM-63 	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- —	SAL-SAM- 0	$\ge$	$\times$
TIME	VOLUME PURGED (Gallons)	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)	
8;45	1.10						3.48				
8:50	0.5	1.5			5.37	22.9	343	1.66			
	•		· · ·								
		apacity (gallons/f	aat): 0.75"-0.	00 1.05%-0	000 01-0.4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	41-0.05	51-100 01		5.00	
TUBIN		A CAPACITY (Gallons/								'5.88 010; 5/8" = 0	0.016
	1				AMPLIN						
SAMPLED BY (PRI	I	Jores	m ftra			SAMPI	LER(S) TURES:	Joseph	1tin	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
TUBING MATI (CIRCLE	1	PP PE NF	Y TL TT	SAMPLE LEGNTH IN \	TUBING WELL (FEET)			SAMPLE PU RATE (m			
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	ΥN	CLEANING STEPS				0.0115.0750	
FIELD FILTERED?	Y N	FILTER SIZE (µm)		DUPLICATE	Y N	VOC COLL REVERS		Y N N/A		COLLECTED	Y N N/A
PRESER CHECKED		Y N N/A	LIST PRESE ADD								
WEAT CONDI											
СОММ	ENTS										
								-place Bladder I			
Ra	TUBI	NG MATERIAL C	ODES: PP=	olypropylene,	, PE= Polyeth	vlene, NP= No		, TL= Teflon Li	ned, TT= Tef	lon	
	The wear by.						Date:			·	

Client Name: Hazan and Sawyer			er	Location:				Contact:			
		1		SAL Project			22	Phone:			
Date Sampled	12/10/	10		#	100	3007	Ja	Project Name	GCREC Mo	und Groundwa	iter Analyses
Well Number				Sample ID	PP- Go	7-24		GPS LAT GPS LONG			
				Р	URGING	<b>G DATA</b>		· ····································	·		· ·
WELL		WELL		Screen				Static Depth		PURGE	PP GP
DIAMETER (Inches)		CAPACITY (gal/ft)		Interval (Feet)	UNK	То	UNK	to Water (Feet)		PUMP CODE	IBP
TOTAL WELL		REFERENCE		· · · · ·	) WATER			TUBING		TUBING	
DEPTH (Feet)		ELEVATION (NGVD)			ATION CE-STATIC)			DIAMETER		CAPACITY	
Purge Tec	hnique: q Su	bmerged Screen	[ (1,1/4,1/4 Well	<u> </u>	· · ·	EQ Volume, 3	3. 3 Minutes)	(Inches) q Partially Sub	merged Scree	(gal/ft) en (1 Well, 3.3	minutes)
WELL V		TAL DEPTH - ST	ATIC DEPTH)				······································			· · · · · · · · · · · · · · · · · · ·	/
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES		
		EQUIPMENT V		L /P VOLUME +	(TUBING CA		L BING LEGNT⊦	I) + FLOW CEL			
PUMP			TUBING			FLOW CELL			EQUIPMEN		
VOLUME			LEGNTH			VOLUME			T VOLUME		
INITIAL TUBI				NG LEGNTH		PURGE		PURGE TIME		TOTAL	
IN WELL				_ (FEET)		TIME START		END		PURGED	
INST. ID	$\sim$	$\searrow$		$\searrow$	SAL-SAM-63		SAL-SAM-63	SAL-SAM-55-	SAL-SAM-	$\searrow$	$\mathbf{\mathbf{X}}$
		TOTAL				65			0		
TIME	VOLUME PURGED	VOLUME	PURGE	Depth to Water	pH (SU)	TEMP (oC)	SP COND (uS/cm)	DO (mg/L)	TURBIDITY (NTUs)	COLOR	ODOR
Time	(Gallons)	PURGED (Gallons)	RATE (gpm)	(Feet)	(∆ <0.2)	(∆ <0.2)	(∆ <5%)	(% SAT <20)	(<20 NTU)	(Describe)	(Describe)
P:55	1	1.75			5.25	22.2	302	2.61			
9:00	175	1.75			5.26	22.9	300	1.13			
9.00	115	[•7]			5.20	24.1	,				
		i.									
TUBIN		apacity (gallons/f						5"=1.02, 6	,	5.88 )10; 5/8" = (	0.016
						G DATA		,	-,		
SAMPLED BY	/ COMPANY	1 1	14. 1			-	LER(S)			*	
(PRI	NT)	Joxfru	must			SIGNA	TURES:	goseg	ri Hir	L	
TUBING MAT		PP PE N	P TL TT		TUBING WELL (FEET)			SAMPLE PL RATE (n			
(CIRCLE		SAMPLING	I			CLEANING	1				
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	YN	STEPS					
FIELD FILTERED?	ΥN	FILTER SIZE		DUPLICATE	Y N		ECTED BY E FLOW?	Y N N/A		COLLECTED	Y N N/A
PRESER	VATION	(μm) Υ Ν Ν/Α	LIST PRES	I ERVATIVES			LILOW				
CHECKED	IN FIELD?	T IN IN/A	ADI	DED				<u> </u>			
WEAT	HER										
CONDI											
		· · · · · · · · · · · · · · · · · · ·									
сомм	ENTS										
					00 C I						
	TUBING MATERIAL CODES: P Reviewed By:				. PE= Polveth	vlene, NP= N	on-inert Plastic	C, IL≃ Tenon L	ined, 11=1et	lon	
Re		ING MATERIAL (	CODES: PP=	Polypropylene	, PE= Polyeth	ylene, NP= N	Date:	c, IL= Terion L	ined, 11=1et	lon	

			GF	ROUND	NATER	SAMPLI	ING LOC	j			
Client Name:				Location:				Contact: Phone:			
Date Sampled	12/1	110		SAL Project #	1003	007-	33	Project Name	GCREC Mo	und Groundwa	ater Analyses
Well Number				" Sample ID				GPS LAT GPS LONG			
1				P			-	GIGLONG			
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV (REFEREN	D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		bmerged Screen TAL DEPTH - ST			rged Screen (1 ICITY =	EQ Volume, 3	3, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	miņutes)
ONE WELL VOLUME			, 1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES		
		EQUIPMENT V		IP VOLUME +	+ (TUBING CAI		I BING LEGNTH	) + FLOW CEL			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL				NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\ge$	$\ge$	$\ge$	SAL-SAM-63-	SAL-SAM - 65	SAL-SAM-63-	SAL-SAM-55-	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
9:05	-1	2			5,39	20.5	302	3.11			
9:15	1	2			5.19	22.5	293	1.37			
						•					
		Capacity (gallons/f	,			,				5.88	
TUBIN	NG INSIDE DIA	A. CAPACITY (Ga	i./Ft.): 1/8" =					; 3/8" = 0.00	6; 1/2" = 0.0	010; 5/8" = (	0.016
				S	AMPLIN			······			
SAMPLED BY (PRI		Josef	this f				LER(S) TURES:	Derb	s Ha		
TUBING MAT (CIRCLI		PP PE NF	P TL TT		E TUBING WELL (FEET)			SAMPLE PU RATE (n			
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS					
FIELD FILTERED?	Y N	FILTER SIZE (µm)		DUPLICATE	Y N		ECTED BY E FLOW?	Y N N/A		COLLECTED	Y N N/A
PRESER CHECKED		Y N N/A		ERVATIVES DED							
WEAT CONDI											
COMM	IENTS										
								-place Bladder		ilon	
D <sub>c</sub>	viewed By:	ING MATERIAL (	JUUES: PP=	rolypropylene	e, r⊏= Polyeth	iyierie, NP= N	Date:		ineu, 11=10	ion.	
	Jano Harou Dy.	F					Date.				

### SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 FAX 813-855-2218

Client Name:	H	lazan and Sawye	r	Location:				Contact: Phone:			
Date Sampled	1:1	10/10		SAL Project	1002	3007		Project Name	GCREC Mou	und Groundwa	ter Analyses
Well Number	<u> </u>	10   10 -		# Sample ID	7	<u>ч</u>		GPS LAT			
	NP	- JIL- [)		· · · ·				GPS LONG			
WELL	I	WELL		Screen		- SAIA		Static Depth		PURGE	PP GP
DIAMETER (Inches)		CAPACITY (gal/ft)		Interval (Feet)	UNK	То	UNK	to Water (Feet)		PUMP CODE	IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		GROUNE	O WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		bmerged Screen				EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
WELL V	ULUME = (TO	TAL DEPTH - ST	1/4 WELL		<u> </u>	3 WELL			5 WELL		L
VOLUME		EQUIPMENT V	VOLUME			VOLUMES	BING LEGNTH	I) + FLOW CFI	VOLUMES		
PUMP VOLUME			TUBING LEGNTH		<u>, 25, 10 0A</u>	FLOW CELL VOLUME		,	EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL				NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\triangleright$	$\ge$	$\searrow$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\geq$	$\geq$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	ТЕМР (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
0974					4.7	22.3	509	0.89			
	†			1							
				+		1	+		†	<u> </u>	
		<b> </b>		<u> </u>		<u> </u>	<u> </u>				
		L				10 0# 0.07	A#=0.65	5"=1.02, 0	<u>.</u> 5"=1.47, 12	2"5.88	
TUR		Capacity (gallons/ A. CAPACITY (G	foot): 0.75"=0	.02, 1.25"=			, 4"=0.65, 5/16" = 0.00	<u> </u>			0.016
L						IG DATA	<i>\</i>				
	Y / COMPANY		·				PLER(S) ATURES:	Jun	wh		
TUBING MA	RINT) TERIAL CODE LE ONE)	PP PE N	IP TL TT	-	E TUBING WELL (FEET)			SAMPLE P	UMP FLOW mL/min)		
SAMPLING	·	SAMPLING		FIELD	Y N	CLEANING		<u> </u>		<u> </u>	
INITIATED FIELD		ENDED FILTER SIZE		DUPLICATE			LECTED BY	Y N N/A		COLLECTED	Y N N/A
FILTERED?	Y N RVATION	(μm)		SERVATIVES		REVERS	SE FLOW?		I IHROU	GH_TRAP?	
	D IN FIELD?	Y N N/A		DED							<u></u>
	THER		C-1-entr								
СОМ	MENTS										
		PUMP C	ODES: PP=Pe	eristaltic Pump	, GP= Submer	thylene NP=	Non-inert Place	n-place Bladde tic, TL= Teflon	r Pump Lined, TT= T	eflon	
	TU Reviewed By		<u></u>				Date				
·											

Client Name:	ŀ	Hazan and Sawye	ſ	Location:				Contact: Phone:			
Date Sampled	12/1	0/10	· · · · .	SAL Project #	100	3007		Project Name	GCREC Mo	und Groundwa	iter Analyses
Well Number	DP-	612-	21	" Sample ID		<u>55</u>		GPS LAT GPS LONG	· · · · · · · · · · · · · · · · · · ·		
				P	URGINO				[		
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV	D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
Purge Tec	hnique: q Sul	bmerged Screen TAL DEPTH - ST	(1,1/4,1/4 Well	) q Subme	rged Screen (1	IEQ Volume, 3	3, 3 Minutes)	q Partially Sub	omerged Scree	en (1 Well, 3,3	minutes)
ONE WELL	0LOME - (10	TAL DEPTH-31	1/4 WELL	X WELL CAP		3 WELL		L	5 WELL		
VOLUME		EQUIPMENT V							VOLUMES		
						FLOW CELL					
PUMP VOLUME			TUBING LEGNTH		<b>.</b>	VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\times$	$\ge$	$\ge$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- —	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
0952					4,9	22:7	636	0,99			
	Well C	apacity (gallons/f	oot): 0.75"=0.	02, 1.25"=0	).06, 2"=0.1	6, 3"=0.37,	,	,		5.88	
TUBIN	IG INSIDE DIA	. CAPACITY (Ga	I./Ft.): 1/8" =	,	,		5/16" = 0.004	; 3/8" = 0.00	6; 1/2" = 0.0	010; 5/8" = 0	0.016
				S/	AMPLIN						
SAMPLED BY (PRII	1						LER(S) TURES:	Long	Wind	/	
TUBING MATE (CIRCLE	I	PP PE NF	P TL TT		TUBING WELL (FEET)			SAMPLE PL RATE (n			
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS					
FIELD FILTERED?	ΥN	FILTER SIZE (μm)		DUPLICATE	Y N		ECTED BY E FLOW?	Y N N/A		COLLECTED H TRAP?	Y N N/A
PRESER		Y N N/A	LIST PRESI ADI	ERVATIVES DED							
WEAT CONDI	1										
СОММ	ENTS										
								-place Bladder			
Ra	TUB viewed By:	ING MATERIAL C	ODES: PP=1	Polypropylene	, PE= Polyeth	ylene, NP= N	on-inert Plastic Date:	c, IL= Ieflon Li	ined, II=Tef	ion	
	vieweu by.						L Date:				

Client Name:			r	Location:	ion:		Contact: Phone:				
Date Sampled	12/	10/10		SAL Project	1027	007		Project Name	GCREC Mo	und Groundwa	ter Analyses
				#	10030			GPS LAT			
Well Number	DP	612.2-	77	Sample ID		6		GPS LONG			
				P	URGING	<b>JATA</b>					
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		GROUNE ELEV (REFEREN	ATION			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		bmerged Screen				EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL		TAL DEPTH - ST	1/4 WELL	X WELL CAPI		3 WELL		· · · · · ·	5 WELL		
VOLUME			VOLUME			VOLUMES			VOLUMES		
		EQUIPMENT V	OLUME = PUN	IP VOLUME +	(TUBING CAI	PACITY X TUE	BING LEGNTH	I) + FLOW CEL	L VOLUME		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL				NG LEGNTH - (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\geq$	$\ge$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	рН (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
10.08					4.7	23.1	509	0.45-			
										<u></u>	
		Capacity (gallons/l								'5.88	
TUBIN	NG INSIDE DI	A. CAPACITY (Ga	al./Ft.): 1/8" =				5/16" = 0.004	4; 3/8" = 0.00	6; 1/2" = 0.0	010; 5/8" =	0.016
				S	AMPLIN	<u>G DATA</u>	۱				
SAMPLED BY (PR	//COMPANY INT)						LER(S) TURES:	Z	in u	or l	
TUBING MAT (CIRCL		PP PE NI	P TL TT		E TUBING WELL (FEET)			SAMPLE PU RATE (r			
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS					
FIELD FILTERED?	Y N	FILTER SIZE		DUPLICATE	YN	VOC COLI	ECTED BY	Y N N/A		COLLECTED	Y N N/A
PRESEF	RVATION IN FIELD?	Y N N/A		ERVATIVES DED							
WEA <sup>-</sup> CONDI											
COMM	IENTS										
		PUMP CC	DES: PP=Pe	istaltic Pump,	GP= Submers	ible Grundfos	Pump, IBP= Ir	n-place Bladder	Pump	<u>f</u> l	
			CODES: PP=	Polypropylene	e, PE= Polyeth	nylene, NP= N			ined, TT= Te		
	eviewed By	•					Date	·1		<b></b>	

Client Name:	ł	lazan and Sawye	r	Location:				Contact: Phone:			
Date Sampled	12/10	ht		SAL Project	1003	3/177-	-37	Project Name	GCREC Mo	und Groundwa	ater Analyses
Well Number				# Sample ID	NI_TO	<u>3007-</u> 6-14		GPS LAT	· · · · · · · · · · · ·		
	·							GPS LONG			
					URGING	JUATA				BURGE	<u> </u>
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV	) WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		bmerged Screen				EQ Volume, 3	l, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL		TAL DEPTH - ST	1/4 WELL	X WELL CAPI		3 WELL			5 WELL		1
VOLUME			VOLUME			VOLUMES			VOLUMES		
		EQUIPMENT V	DLUME = PUN	IP VOLUME +	(TUBING CA	PACITY X TUE	BING LEGNTH	I) + FLOW CEL	L VOLUME		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBII IN WELL			FINAL TUBII IN WELL			PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\succ$	$\succ$	$\succ$	$\succ$	SAL-SAM-63 	SAL-SAM - 65	SAL-SAM-63-	SAL-SAM-55- 	SAL-SAM- 0	$\ge$	$\geq$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	рН (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
7:10	1				5.25	20.4	240	1.66			
· · · · · ·								·····			
	Moll C	apacity (gallons/f	oot): 0.75"-0	02, 1.25 <sup>"</sup> =0	).06, 2"=0.1	6, 3"=0.37,	4"=0.65,	5"=1.02, 6	"=1.47. 12"	'5.88	
TUBIN		A. CAPACITY (Galloris/I									0.016
						G DATA					
SAMPLED BY	/ COMPANY	•	11.5 1		area and a		LER(S)	_		1-	
(PRI		Joseph	Hirst				TURES:	Gon	bi Hir	se	
TUBING MATI (CIRCLE		PP PE NF	P TL TT		TUBING WELL (FEET)			SAMPLE PU RATE (n			
		SAMPLING			ΥN	CLEANING STEPS		. —			
FIELD		ENDED FILTER SIZE			X/ N1		ECTED BY			COLLECTED	Y N N/A
FILTERED?	YN	(µm)	<u>-</u>	DUPLICATE	YN	REVERS	E FLOW?	Y N N/A	THROUG	GH TRAP?	
PRESER CHECKED		Y N N/A	LIST PRESI ADI	ERVATIVES DED							
WEAT CONDI											
СОММ	ENTS										
		PUMP CO	DES: PP=Per	istaltic Pump,	GP= Submers	ible Grundfos I	Pump, IBP= In	-place Bladder	Pump	0	
		ING MATERIAL (	CODES: PP=	Polypropylene	, PE= Polyeth	iylene, NP= N			ined, fI= fei	lion	
L Re	eviewed By:				· · · · ·		Date:	l			

#### **GROUNDWATER SAMPLING LOG**

Client Name:	: Hazan and Sawyer			Location:				Contact: Phone:			
Date Sampled	12/10	lin		SAL Project #	1002	007 -	38	Project Name	GCREC Mo	und Groundwa	iter Analyses
Well Number	- (* -	10		# Sample ID	NO. T.	06- 20	<u> </u>	GPS LAT			
				•				GPS LONG			
					URGINO	DATA				DUDOF	
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV (REFEREN	D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)	5/16"	TUBING CAPACITY (gal/ft)	
		bmerged Screen TAL DEPTH - ST			rged Screen (1	IEQ Volume, 3	8, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL		TAL DEPTH-ST	1/4 WELL	X WELL CAPI		3 WELL			5 WELL		
VOLUME			VOLUME			VOLUMES	-		VOLUMES		
		EQUIPMENT V	DLUME = PUN	IP VOLUME +	(TUBING CA	PACITY X TU	BING LEGNTH	I) + FLOW CEL	L VOLUME		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI				NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\ge$	$\ge$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- 	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	рН (SU) (∆ <0.2)	ТЕМР (oC) (Δ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
7:22	ļ	1.5			5.07	21.1	359	2.98			
7:25	0.5	1.5			5. • 3	21.4	367	1.80			
											,
	Well C	Capacity (gallons/f	oot): 0.75"=0.	02, 1.25"=0	).06, 2"=0.1	6, 3"=0.37	4"=0.65,	5"=1.02, 6	"=1.47, 12"	5.88	
TUBIN	NG INSIDE DIA	A. CAPACITY (Ga	ıl./Ft.): 1/8" =	0.0006; 3/16"	' = 0.0014;    1,	/4" = 0.0026;	5/16" = 0.004	l; 3/8" = 0.00	6; 1/2" = 0.0	)10; 5/8" = (	0.016
				S	AMPLIN	G DATA					
SAMPLED BY (PRI		Josefin	, Hirs	:+			LER(S) TURES:	Jone	in the	iir.	
TUBING MAT (CIRCLI		PP PE NF	P TL TT		E TUBING WELL (FEET)			SAMPLE PL RATE (r			
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS		L			
FIELD FILTERED?	Y N	FILTER SIZE		DUPLICATE	Y N	VOC COLL	ECTED BY	Y N N/A		COLLECTED	Y N N/A
PRESER		(μm) Υ Ν Ν/Α		L ERVATIVES DED							
WEAT CONDI	THER				J						
COMM	IENTS										
		PUMP CO						-place Bladder		flon	
	viewed By:		JUDES: PP=	rolypropylene	e, PE- Polyetr	iyiene, NP= N	Date:				
LR	eviewed By:						L Date:	I			

Client Name: Hazan and Sawyer			r	Location:				Contact:			
	1- 1	1		SAL Project			70	Phone:			
Date Sampled	12/10	0   10		#	1003	3007-	- 37	Project Name	GCREC Mo	und Groundwa	iter Analyses
Well Number				Sample ID	DP-IC	)6-26		GPS LAT GPS LONG			
				Р	URGIN	<b>G DATA</b>			<b>.</b>		
WELL		WELL		Screen				Static Depth		PURGE	PP GP
DIAMETER (Inches)		CAPACITY (gal/ft)		Interval (Feet)	UNK	То	UNK	to Water (Feet)		PUMP CODE	IBP
		REFERENCE		· · · ·	D WATER			TUBING	_1	TUBING	
TOTAL WELL DEPTH (Feet)		ELEVATION		ELEV	ATION			DIAMETER	5/16"	CAPACITY	
Purge Tec	hnique: a Su	(NGVD) bmerged Screen	(1 1/4 1/4 Well		CE-STATIC)	IEQ Volume, 3	3 Minutes)	(Inches) q Partially Sub	merced Scree	(gal/ft)	minutes)
		TAL DEPTH - ST					, • • • • • • • • • • • • • • • • • • •				minutesy
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES		
VOLONIL		EQUIPMENT V		IP VOLUME +	(TUBING CA		L BING LEGNTH	) + FLOW CEL			
PUMP			TUBING			FLOW CELL			EQUIPMEN		
VOLUME			LEGNTH			VOLUME			T VOLUME		
INITIAL TUBI			FINAL TUBI	NG LEGNTH		PURGE		PURGE TIME		TOTAL	
IN WELL	(FEET)		IN WELL	. (FEET)		TIME START		END		PURGED	
INST.	$\searrow$	$\searrow$	$\searrow$	$\searrow$	SAL-SAM-63		SAL-SAM-63	SAL-SAM-55-	SAL-SAM-	$\searrow$	$\searrow$
iD	$\langle \  \  \  \  \  \  \  \  \  \  \  \  \ $		$\angle $	$\angle $		65			0	$\leq $	$\leq >$
TIME	VOLUME PURGED	TOTAL VOLUME	PURGE	Depth to	pH (SU)	TEMP	SP COND	DO		COLOR	ODOR
	(Gallons)	PURGED (Gallons)	RATE (gpm)	Water (Feet)	(SU) (∆ <0.2)	(oC) (∆ <0.2)	(uS/cm) (∆ <5%)	(mg/L) (% SAT <20)	(NTUs) (<20 NTU)	(Describe)	(Describe)
<b>a</b>											
7:34	1	2			5.11	20.2	31(	2-63			
7:46	1	2			5.01	21.3	302	2.36			
	Well C	apacity (gallons/f	oot): 0.75"=0.	02, 1.25"=0	).06, 2"=0.1	6, 3"=0.37,	4"=0.65,	5"=1.02, 6	"=1.47, 12"	5.88	
TUBIN	IG INSIDE DIA	. CAPACITY (Ga	l./Ft.): 1/8" =		,	· · · · · · · · · · · · · · · · · · ·		; 3/8" = 0.00	6; 1/2" = 0.0	010; 5/8" = 0	0.016
				S/	AMPLIN	<u>G DATA</u>					
SAMPLED BY (PRII		Jokhn	thist			SAMPI	LER(S) TURES:	Jordy	- Hin	1.	
TUBING MATE				SAMPI E	TUBING			SAMPLE PU		-	
(CIRCLE		PP PE NF	Y TL TT	LEGNTH IN \				RATE (n			
SAMPLING		SAMPLING		FIELD	ΥN	CLEANING					
INITIATED FIELD		ENDED FILTER SIZE		CLEANED		STEPS VOC COLL	ECTED BY		SEMI-VOLS	COLLECTED	
FILTERED?	ΥN	(μm)		DUPLICATE	Y N	REVERSI		Y N N/A		H TRAP?	Y N N/A
PRESER' CHECKED		Y N N/A	LIST PRESE ADI								
WEAT											
CONDI	IIUNS										
			· · · · ·								
COMM	ENTS										
		PUMP CO	DES: PP=Peri	staltic Pump, (	GP= Submersi	ble Grundfos F	Pump, IBP= In	-place Bladder I	Pump		
		NG MATERIAL C					on-inert Plastic	· · · · · · · · · · · · · · · · · · ·		lon	
Re	viewed By:			<u> </u>			Date:				

Client Name: Hazan and Sawyer			er	Location:				Contact: Phone:			
Date Sampled	121	9/10		SAL Project #	100	03007	7	Project Name	GCREC Mo	und Groundwa	ater Analyses
Well Number	509			# Sample ID	100	$\frac{1}{1}$	·	GPS LAT			
					URGIN			GPS LONG			
WELL		WELL		,		JUATA		Static Depth		DUDOE	
DIAMETER (Inches)		CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV	D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		bmerged Screen				IEQ Volume, 3	8, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL	OLUME = (10)	TAL DEPTH - ST	1/4 WELL	X WELL CAP		3 WELL			5 WELL		
VOLUME			VOLUME			VOLUMES			VOLUMES		
		EQUIPMENT V	DLUME = PUN	IP VOLUME +	+ (TUBING CA	PACITY X TU	BING LEGNTH	I) + FLOW CEL	L VOLUME		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBII IN WELL				NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\ge$	$\succ$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- 	SAL-SAM- 0	$\succ$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	рН (SU) (∆ <0.2)	ТЕМР (oC) (Δ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
1320					4.5	21.4	232.1	3.29			
		apacity (gallons/f								5.88	
TUBIN	G INSIDE DIA	. CAPACITY (Ga	l./Ft.): 1/8" ≃				5/16" = 0.004	; 3/8" = 0.006	6; 1/2" = 0.0	)10; 5/8" = 0	.016
				<u> </u>	AMPLIN	<u>G DATA</u>	L				
SAMPLED BY (PRII						SAMPI SIGNAT					
TUBING MATE (CIRCLE	1	PP PE NF	TL TT		TUBING WELL (FEET)			SAMPLE PU RATE (m			
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	YN	CLEANING STEPS					
FIELD FILTERED?	ΥN	FILTER SIZE (µm)		DUPLICATE	Y N	VOC COLL REVERSI		Y N N/A	SEMI-VOLS		Y N N/A
PRESER CHECKED	1	Y N N/A	LIST PRESE ADD								
WEAT CONDIT											
СОММ	ENTS									_	
								place Bladder I			
D-		NG MATERIAL C	ODES: PP=	Polypropylene,	PE= Polyeth	ylene, NP= No		, TL= Teflon Li	ned, TT= Tef	on	
Ке	viewed By:						Date:				

GROUNDWATER SAMPLING LOG	GRC	DUNDW	ATER	SAMPL	.ING	LOG
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lient Name:		Haz	zan and Sawyer		Location:				Contact: Phone:			
ate Sampled	Ft	79	- 7 <sup>-</sup> 171 - 20	19/19	SAL Project #	100	300	7	Project Name	GCREC Mou	nd Groundwa	ter Analyses
Vell Number		<u> </u>	4.1	- 110	# Sample ID	100			GPS LAT			
	<u> </u>	1	- 20	l		/	1		GPS LONG			
			_		Pl	JRGING	<b>DATA</b>					
WELL DIAMETER (Inches)			WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	To	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
OTAL WELL EPTH (Feet)			REFERENCE ELEVATION (NGVD)		GROUND ELEVA (REFERENC	TION			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
Purge Tech	nnique: q	Subn	nerged Screen (	1,1/4,1/4 Well	) q Submer	ged Screen (1	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	n (1 Well, 3,3	minutes)
	DLUME = (	TOT	AL DEPTH - ST		x WELL CAPI	CITY =	3 WELL		L	5 WELL		۱ <u></u>
ONE WELL VOLUME				1/4 WELL VOLUME			VOLUMES			VOLUMES		
		E	EQUIPMENT VO		/P VOLUME +	(TUBING CAR	PACITY X TUE	BING LEGNTH	I) + FLOW CEL			
PUMP VOLUME				TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBII		Н			NG LEGNTH L (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\searrow$	$\uparrow$	$\overline{}$	$\mathbf{\times}$	$\bigtriangledown$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\geq$	$\geq$
TIME	VOLUM PURGE (Gallons	D	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
1326					[	4.9	23.2	338.1	1.57			
										011 4 47 47	2"5.88	
	W	/ell C	apacity (gallons	/foot): 0.75"=(	0.02, 1.25"=							= 0.016
TUBI	NG INSIDE	E DIA	. CAPACITY (G	al./Ft.): 1/8"	= 0.0006; 3/16		IG DAT	∧				
SAMPLED B	Y / COMPA	ANY			5		SAM	PLER(S) ATURES:				
TUBING MA	TERIAL CO	DDE	PP PE 1			E TUBING				PUMP FLOW (mL/min)		
SAMPLING	Τ		SAMPLING ENDED	1	FIELD	Y N	CLEANING	3				<u></u>
FIELD	Y I	N	FILTER SIZE		DUPLICAT			LLECTED BY RSE FLOW?	Y N N/A		S COLLECTE IGH TRAP?	Y N N/
	RVATION D IN FIELD	)?	Y N N/A		SERVATIVES							
	ATHER DITIONS											
СОМ	MENTS											
<b> </b>			PUMP C	ODES: PP=	Peristaltic Pum	p, GP= Subme	ersible Grundfo	os Pump, IBP	In-place Bladd	er Pump	Toflon	
		TU	PUMP C BING MATERIA	L CODES: PI	P= Polypropyle	ne, PE= Polye	ethylene, NP=	Non-Inen Pla		i Linea, 11=		
	Reviewe							Da	te:			

Client Name:	ŀ	lazan and Sawye	r	Location:				Contact: Phone:			
Date Sampled	1219	110		SAL Project #	100	300-	7	Project Name	GCREC Mou	Ind Groundwa	iter Analyses
Well Number	The	9 26		Sample ID		2		GPS LAT			
	00	1 0 4		P				GPS LONG	<u> </u>		
WELL		WELL		Screen		DAIA		Static Depth		PURGE	
DIAMETER (Inches)		CAPACITY (gal/ft)		Interval (Feet)	UNK	То	UNK	to Water (Feet)		PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)			D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		bmerged Screen			rged Screen (1	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL		TAL DEPTH - ST	1/4 WELL			3 WELL			5 WELL		· · · · · · · · · · · · · · · · · · ·
VOLUME			VOLUME	L		VOLUMES			VOLUMES		
		EQUIPMENT V	DLUME = PUN	1P VOLUME +	(TUBING CA	PACITY X TUE	BING LEGNTH	I) + FLOW CEL			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL				NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\triangleright$	$\ge$	$\succ$	$\succ$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\ge$	$\geq$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	рН (SU) (∆ <0.2)	ТЕМР (оС) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
1358					4.9	23.0	298.2	2.51			<u> </u>
		Capacity (gallons/					, 4"=0.65, 5/16" = 0.00			"5.88 010: 5/8" =	0.016
TUBI	NG INSIDE DI	A. CAPACITY (Ga	al./Ft.): 1/8" =					4, 3/8 - 0.00		010, 3/0 -	0.010
SAMPLED B	Y / COMPANY			3			PLER(S)		<u> </u>		<u></u>
(PR	RINT)			<b></b>		SIGNA	TURES:	ļ		l	
	FERIAL CODE LE ONE)	PP PE N	P TL TT		E TUBING WELL (FEET)			SAMPLE P RATE (	UMP FLOW mL/min)		
SAMPLING		SAMPLING		FIELD	Y N	CLEANING STEPS					
INITIATED FIELD		ENDED FILTER SIZE	+	CLEANED DUPLICATE	Y N	VOC COL	LECTED BY	Y N N/A		COLLECTED	Y N N/A
FILTERED?		(μm)				REVERS	SE FLOW?		THROUG	GH TRAP?	
	RVATION	Y N N/A		BERVATIVES							······································
	THER										
СОМ	MENTS		_								
		PUMP CO	DDES: PP=Pe	ristaltic Pump	, GP= Submer	sible Grundfos	Pump, IBP= I	n-place Bladde	r Pump	efion	
			CODES: PP=	Polypropylen	e, PE= Polyet	nyiene, NP=1	Date				
LR	leviewed By	•						<u></u>			

Client Name:	me: Hazan and Sawyer		Location:				Contact:				
Data Carry Luit	1010	1		SAL Project	100	7 21-		Phone:			
Date Sampled	12/9	<u> </u>		##	100	300-	t	Project Name	GCREC Mou	und Groundwa	iter Analyses
Well Number	512-15			Sample ID	4	3		GPS LAT GPS LONG			
PURGING DATA											
WELL		WELL		Screen				Static Depth		PURGE	PP GP
DIAMETER (Inches)		CAPACITY (gal/ft)		Interval (Feet)	UNK	То	UNK	to Water (Feet)		PUMP CODE	IBP
(inches)		REFERENCE		GROUND	WATER			TUBING		TUBING	
TOTAL WELL DEPTH (Feet)		ELEVATION		ELEV	ATION			DIAMETER		CAPACITY	
		(NGVD)		(REFERENC				(Inches)		(gal/ft)	
		omerged Screen ( TAL DEPTH - ST			rged Screen (1 CITY =	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (T weil, 3,3	minutes)
ONE WELL			1/4 WELL			3 WELL			5 WELL		·
VOLUME			VOLUME		(7) (2) (2) (2)	VOLUMES			VOLUMES	L	
		EQUIPMENT V	DLUME = PUN	/P VOLUME +	(TUBING CAI		BING LEGNTE	I) + FLOW CEL			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI				NG LEGNTH L (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\times$	$\boldsymbol{\times}$	$\mathbf{\succ}$	$\searrow$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM-	$\geq$	$\left \right>$
	VOLUME	TOTAL	<b></b> `	Depth to	рН	ТЕМР	SP COND	DO	TURBIDITY		0000
TIME	PURGED	VOLUME PURGED	PURGE RATE (gpm)	Water	(SU)	(oC)	(uS/cm)	(mg/L)	(NTUs)	COLOR (Describe)	ODOR (Describe)
	(Gallons)	(Gallons)	(gpm)	(Feet)	(∆ <0.2)	(∆ <0.2)	(∆ <5%)	(% SAT <20)	(<20 NTU)	ļ`	
12:28					4.8	22.	287.5	1.50			
						1	1				
	<u> </u>		<u> </u>				<u> </u>				
	1										
		<u> </u>	<u> </u>					┼─────	1	+	<u> </u>
	Well (	Capacity (gallons/	(foot): 0.75"=0	0.02, 1.25"=			-			2"5.88	0.016
TUBI	NG INSIDE DI	A. CAPACITY (G	al./Ft.): 1/8" =				5/16" = 0.00	4; 3/8" = 0.00	06; 1/2" = 0	.010; 5/8 =	0.016
				<u> </u>	AMPLIN					<u>,                                     </u>	
SAMPLED BY / COMPANY (PRINT)			· • · · · · · · · · · · · · · · · · · ·		1	PLER(S) ATURES:					
TUBING MATERIAL CODE (CIRCLE ONE)		PP PE N	IP TL TT	TL TT LEGNTH IN V		)			UMP FLOW mL/min)		
SAMPLING		SAMPLING	Ţ	FIELD	Y N	CLEANING STEPS	;				
FIELD	<u> </u>	ENDED FILTER SIZE	+	CLEANED		VOC COL	LECTED BY	Y N N/A	SEMI-VQL	S COLLECTE	
FILTERED?	Y N	(μm)		DUPLICATE	E Y N	REVER	SE FLOW?		THROU	IGH TRAP?	
	RVATION D IN FIELD?	Y N N/A	1	SERVATIVES							
WEATHER CONDITIONS											
СОМІ	COMMENTS						- D	n place Diadate	Nr Pumo		
		PUMP C BING MATERIAL	ODES: PP=P	eristaltic Pump	o, GP= Subme	rsible Grundfo	s Pump, IBP= Non-inert Plas	In-place Bladde	Lined, TT= T	Feflon	
	TU Reviewed By		UDES: PP				Date	e:			
	veniewen b)	/ .]				_					

	T										
Client Name:	ame: Hazan and Sawyer			Location:				Contact Phone			
Date Sampled	3d			SAL Project #	1003007			Project Name	j		
Well Number	Der J-12-20			Sample ID	GPS LAT						
PURGING DATA											
			<del></del>					<u></u>			·
DIAMETER		WELL CAPACITY		Screen Interval	UNK	То	UNK	Static Depth to Water		PURGE PUMP	PP GP
(Inches)	ļ	(gal/ft)		(Feet)				(Feet)		CODE	IBP
TOTAL WELL	.]	REFERENCE			D WATER			TUBING		TUBING	
DEPTH (Feet)		ELEVATION (NGVD)		1	ATION CE-STATIC)			DIAMETER (Inches)		CAPACITY (gal/ft)	}
		ubmerged Screen				1EQ Volume, 3	3, 3 Minutes)	q Partially Sul	Dimerged Scre		minutes)
	/OLUME = (T	OTAL DEPTH - S	1 ·····	) x WELL CAP	ICITY =	ļ	·	l			
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL	1		5 WELL		
VOLUME	<u> </u>	EQUIPMENT V	-	AR VOLUME	TURING CA				VOLUMES	<u> </u>	
<u> </u>	T					T	T	1) + FLOW CEL		г	
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUB IN WELI	ING LEGNTH L (FEET)		1	ING LEGNTH L (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\geq$	$\triangleright$	$\triangleright$	$\triangleright$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\succ$	$\succ$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (Δ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
1239		(Gallons)			5.0	22.9	342.4	1.13			
		1			- <b>v</b>		<u>v.</u>	¥			
		<u></u>									
		Capacity (gallons/f					4"=0.65,	5"=1.02, 6"	=1.47, 12"	5.88	
TUBIN	G INSIDE DI	A. CAPACITY (Ga	./Ft.): 1/8" =	0.0006; 3/16"	= 0.0014; 1/4	4" = 0.0026;	5/16" = 0.004	; 3/8" = 0.006	; 1/2" = 0.0	10; 5/8" = 0	.016
				SA	MPLIN	G DATA					
SAMPLED BY / COMPANY				· · ·	i	SAMPL	ER(S)				· · · · · · · · · · · · · · · · · · ·
(PRIN					SIGNAT	URES:					
TUBING MATERIAL CODE (CIRCLE ONE)		PP PE NP TL TT		SAMPLE TUBING LEGNTH IN WELL (FEET)				SAMPLE PUMP FLOW RATE (mL/min)			
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	YN	CLEANING STEPS	<u> </u>				
FIELD FILTERED?	ΥN	FILTER SIZE (µm)	1	DUPLICATE	YN	VOC COLLE		Y N N/A	SEMI-VOLS C	OLLECTED	Y N N/A
PRESERV CHECKED I		Υ Ν Ν/Α	LIST PRESE ADD			REVERSE	FLOW?		THROUGH	I TRAP?	
WEATHER CONDITIONS		I	ADD								
СОММЕ	NTS				_						
		PUMP CODE	S: PP=Perist	altic Pump, GF	P≈ Submersibl	e Grundfos Pu	mp, IBP= In-pl	ace Bladder Pu	mp		·
De	IUBIN	NG MATERIAL CO	DES: PP=Pc	lypropylene, I	PE= Polyethyle	ene, NP= Non	-inert Plastic,	TL= Teflon Line	d, TT= Teflor	) )	
Kevi	iewed By:						Date:				

Client Name:	ame: Hazan and Sawyer			Location:		-		Contact: Phone:			
Date Sampled	mpled 2/9/10			SAL Project	1003007			Project Name			
/ Well Number				# Sample ID	45			GPS LAT			
	-II Number 512-27					1 -		GPS LONG			
PURGING DATA											
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)			) WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
Purge Technique: q Submerged Screen (1,1/4,1/4 Well					rged Screen (1	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
WELL VOLUME = (TOTAL DEPTH - STATIC DEPTH) ONE WELL 1/4 WELL					3 WELL			5 WELL			
VOLUME			VOLUME			VOLUMES			VOLUMES		
		EQUIPMENT V	DLUME = PUN	IP VOLUME +	(TUBING CAI	PACITY X TUE	BING LEGNTH	I) + FLOW CEL	L VOLUME		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBII IN WELL			FINAL TUBI IN WELL	NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\geq$	$\ge$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- 	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
13.00					4.8	22.6	307.1	1.14			
							-				
	Well C	L Capacity (gallons/I	foot): 0.75"=0.	02, 1.25"=0	1 ).06, 2"=0.1	16, 3"=0.37	4"=0.65,	5"=1.02, 6	"=1.47, 12'	'5.88	
TUBIN	NG INSIDE DIA	A. CAPACITY (Ga	ıl./Ft.): 1/8" =	0.0006; 3/16"	'= 0.0014; 1	/4" = 0.0026;	5/16" = 0.004	4; 3/8" = 0.00	6; 1/2" = 0.0	010; 5/8" =	0.016
				S	AMPLIN	G DATA	۱.				
SAMPLED BY / COMPANY (PRINT)					SAMPLER(S) SIGNATURES:						
TUBING MATERIAL CODE (CIRCLE ONE)					SAMPLE TUBING EGNTH IN WELL (FEET)				SAMPLE PUMP FLOW RATE (mL/min)		
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS		L			
FIELD	Y N	FILTER SIZE		DUPLICATE	Y N	VOC COLI	ECTED BY	Y N N/A		COLLECTED	Y N N/A
PRESER	I VATION IN FIELD?	Y N N/A		ERVATIVES				L	<b>.</b>		
WEATHER CONDITIONS				J							
COMM	IENTS							_			
								n-place Bladder		6)	
		BING MATERIAL	CODES: PP=	Polypropylene	e, PE= Polyeth	nylene, NP= N			linea, II=Te	non	
L Re	eviewed By:		-				Date	•			

#### SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 FAX 813-855-2218

Client Name:	Hazan and Sawyer			Location:				Contact: Phone:		<u></u>	
Date Sampled	ma	7-1-5	10/10	SAL Project	1007	3007		Project Name	GCREC Mou	und Groundwa	ter Analyses
Well Number		7-15	71/10	# Sample ID	 	3007		GPS LAT	· · · · · · · · · · · · · · · · · · ·		-
	1001	-15				DATA	ĺ	GPS LONG	_		
		14/55			URGING	JAIA		Statio D.	1	PURCE	
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		GROUND ELEVA (REFERENC	ATION			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
						EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
WELL V		TAL DEPTH - ST	ATIC DEPTH) 1/4 WELL	A VVELL CAPI	<u></u>	3 WELL	[]	L	5 WELL		
VOLUME			VOLUME			VOLUMES		<u> </u>	VOLUMES		
		EQUIPMENT V	OLUME = PUN	IP VOLUME +	(TUBING CAI		BING LEGNTH	i) + FLOW CEL			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL				NG LEGNTH L (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	,
INST. ID	$\ge$	$\ge$	$\geq$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\geq$	$\geq$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	ТЕМР (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
1132					4.8	22.2	304.0	0.80		L	ļ
	1		$\bot$						<u> </u>		<u> </u>
-		Capacity (gallons/								"5.88 010: 5/8" =	0.016
TUBI	NG INSIDE DI	A. CAPACITY (G	al./Ft.): 1/8" =				5/16" = 0.004	4; 3/8" = 0.00	06; 1/2" = 0.	.010; 5/8" =	0.010
		,		S.		IG DATA		T			
SAMPLED BY (PR	( / COMPANY INT)						PLER(S) ATURES:			r	
	ERIAL CODE E ONE)	PP PE N	IP TL TT		E TUBING WELL (FEET)				UMP FLOW mL/min)		
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS			SEMI VOLO	COLLECTED	<del></del> -
FIELD FILTERED?	Y N	FILTER SIZE (µm)		DUPLICATE	Y N		LECTED BY SE FLOW?	Y N N/A		GH TRAP?	Y N N/A
PRESER	RVATION IN FIELD?	Υ Ν Ν/Α		SERVATIVES							
WEATHER CONDITIONS											
COM	COMMENTS								- Duese		
		PUMP CO BING MATERIAL	ODES: PP=Pe	eristaltic Pump	, GP= Submer	sible Grundfos	s Pump, IBP= I	in-place Bladde tic. TL≂ Teflon	r Pump Lined. TT= Tr	əflon	
	tu eviewed By		CODES. PP	и отургорујећ			Date				
	CAICANED Dy	<u> </u>									

	·										
Client Name:	۴	lazan and Sawye	r	Location:				Contact: Phone:			
Date Sampled	-AA 10=	7 12/9/	N	SAL Project #	1003	3007		Project Name	GCREC Mou	und Groundwa	iter Analyses
Well Number		7-21		Sample ID		7		GPS LAT GPS LONG			
L	<u></u>	-,		P	URGINO				L		
	1										
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV	O WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
Durge Tee	hniques a Sul	, ,				EQ.) (always 2	2.14(1)				
		omerged Screen ( TAL DEPTH - ST			rged Screen (1 CITY =	EQ volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (T vveil, 3,3	minutes)
ONE WELL	<b>`</b>		1/4 WELL			3 WELL			5 WELL		
VOLUME			VOLUME			VOLUMES			VOLUMES		
		EQUIPMENT VO	DLUME = PUN	1P VOLUME +	(TUBING CAI	PACITY X TUBING LEGNTH		) + FLOW CEL	L VOLUME		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL	1		FINAL TUBI	NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\times$	$\left \right>$	$\ge$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- 	SAL-SAM- 0	$\ge$	$\times$
TIME	(Gallons) PURGED RATE (gr (Gallons)			Depth to Water (Feet)	pH (SU) (Δ <0.2)	TEMP (oC) (Δ <0.2)	SP COND (uS/cm) (Δ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
1147					4.9	22.5	374.9	0.58			
											· · · · ·
	Well C	Capacity (gallons/f	ioot): 0.75"=0.	02, 1.25"=0	).06, 2"=0.1	6, 3"=0.37,	4"=0.65,	5"=1.02, 6	"=1.47, 12"	5.88	
TUBIN		A. CAPACITY (Ga					5/16" = 0.004	4; 3/8" = 0.00	6; 1/2" = 0.0	010; 5/8" = 0	0.016
SAMPLED BY		Г				r ·		· · · ·			
SAMPLED BY (PRI							LER(S) TURES:				
TUBING MAT (CIRCLI		PP PE NF	P TL TT		E TUBING WELL (FEET)			SAMPLE PL RATE (r			
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS				· · · · · ·	
FIELD FILTERED?	Y N	FILTER SIZE		DUPLICATE	Y N	VOC COLI	ECTED BY E FLOW?	Y N N/A		COLLECTED	Y N N/A
PRESER		Υ Ν Ν/Α		ERVATIVES DED		<b></b>		<u> </u>			• • • • •
WEAT CONDI	THER			<b>.</b>				1,			
COMMENTS											
								n-place Bladder			
	TUB	SING MATERIAL	CODES: PP=	Polypropylene	e, PE= Polyeth	iylene, NP= N			ined, TT= Te	flon	
Re	eviewed By:						Date				

#### SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 FAX 813-855-2218

Client Name:	e: Hazan and Sawyer			ır	Location:				Contact: Phone:			
Date Sampled	12	9]	R		SAL Project #	100	3007	7	Project Name	GCREC Mo	und Groundwa	ater Analyses
Well Number	MOT				# Sample ID		<u></u> 48		GPS LAT			
		c	<u> </u>		P	URGINC	DATA		GPS LONG			
WELL DIAMETER (Inches)		CA	WELL APACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		EL	FERENCE EVATION NGVD)		GROUNE ELEVA (REFERENC	ATION			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
				(1,1/4,1/4 Well ATIC DEPTH)			EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL VOLUME				1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES		
		EQL	JIPMENT V		IP VOLUME +	(TUBING CA		BING LEGNTH	I) + FLOW CEL			
PUMP VOLUME				TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		·····
INITIAL TUBI IN WELL					NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\succ$		$\prec$	$\succ$	$\succ$	SAL-SAM-63 	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\ge$	$\geq$
TIME	VOLUME PURGED (Gallons)	V   P	TOTAL /OLUME PURGED Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	рН (SU) (∆ <0.2)	ТЕМР (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
1207						4.8	22.5	301.5	0.49			
				foot): 0.75"=0				, 4"=0.65, 5/16" = 0.00			"5.88 010; 5/8" =	0.016
TUBI		A. CA	PACITY (G	al./Ft.): 1/8" =			<b>G DATA</b>		4, 3/8 - 0.00	<u> </u>	010, 0/0 -	0.010
SAMPLED B	Y / COMPANY						SAMP	LER(S)				
(PR	INT)	<u> </u>			T		SIGNA	TURES:				
-	ERIAL CODE E ONE)		PP PE N	P TL TT	LEGNTH IN	E TUBING WELL (FEET)		T		UMP FLOW mL/min) 		
SAMPLING INITIATED		1	AMPLING ENDED		FIELD CLEANED	ΥN	CLEANING STEPS		······			
FIELD FILTERED?	Y N	FIL	LTER SIZE (µm)		DUPLICATE	Y N		LECTED BY SE FLOW?	Y N N/A		COLLECTED	Y N N/A
PRESER	RVATION	Y	N N/A		SERVATIVES							
	THER											
COM	MENTS											
				DDES: PP=Pe	ristaltic Pump,	GP= Submer	sible Grundfos	Pump, IBP= I	n-place Bladde ic, TL= Teflon	r Pump Lined. TT= Te	eflon	
R	Eviewed By	And the Rest of Lot of	MATERIAL	CODES: PP=	orypropyleni	e, re-roiyet		Date				
		<u> </u>						•				

Client Name:	Hazan and Sawyer			Location:				Contact: Phone:			
Date Sampled	*			SAL Project #	1007	3007		Project Name	GCREC Mor	und Groundwa	ter Analyses
Well Number		NIZ				19		GPS LAT			
	NI	NIC	4			<u> </u>		GPS LONG			_
				P	URGINO	<b>DATA</b>					
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)			O WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		bmerged Screen				EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
· · · · · · · · · · · · · · · · · · ·	OLUME = (TO	TAL DEPTH - ST		X WELL CAPI	CITY =	3 WELL			5 M(E1 )		
ONE WELL VOLUME			1/4 WELL VOLUME			VOLUMES			5 WELL VOLUMES		
		EQUIPMENT V	DLUME = PUN	IP VOLUME +	(TUBING CA	PACITY X TUE	BING LEGNTH	) + FLOW CEL	L VOLUME		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBII IN WELL				NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\geq$	$\ge$	$\geq$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
1036					5.0	22.1	14.7.4	1.28			
			· · · · · · · · · · · · · · · · · · ·								
				00 105# (		0 0 0 0 7	411-0.05	5"=1.02. 6	"=1.47, 12'	5.88	L
TURIN		Capacity (gallons/l A. CAPACITY (Ga									0.016
						G DATA			-,		
		I	_	3			LER(S)				
SAMPLED BY (PRI							TURES:				
TUBING MAT (CIRCL)		PP PE N	P TL TT		E TUBING WELL (FEET)			SAMPLE PL RATE (r			
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS					
FIELD	Y N	FILTER SIZE		DUPLICATE	YN	VOC COLI	ECTED BY	Y N N/A		COLLECTED	Y N N/A
FILTERED? PRESER		(μm) Υ Ν Ν/Α		I ERVATIVES				1	1 111000		L
CHECKED	IN FIELD?		AD	DED	<u> </u>				· · · · ·	_	
WEAT CONDI											
COMMENTS			- 19 -								
		PUMP CC	DES: PP=Pe	ristaltic Pump,	GP= Submers	ble Grundfos	Pump, IBP= Ir	n-place Bladder	Pump		
		SING MATERIAL	CODES: PP=	Polypropylene	e, PE= Polyeth	nylene, NP= N			.inea, 11=1e		
L Re	eviewed By:						Date	·			

								Contact:			
Client Name:	ł	lazan and Sawye	r	Location:				Phone:			
Date Sampled				SAL Project #	100	3007	7	Project Name	GCREC Mor	und Groundwa	iter Analyses
Well Number	nl	12- 31	1	Sample ID		50		GPS LAT			
	10							GPS LONG			· · ·
				<u></u>	URGINO	5 DATA					
WELL		WELL		Screen		_		Static Depth		PURGE	PP GP
DIAMETER		CAPACITY		Interval	UNK	То	UNK	to Water		PUMP	IBP
(Inches)		(gal/ft)		(Feet)		[		(Feet)		CODE	
TOTAL WELL		REFERENCE			D WATER			TUBING		TUBING	
DEPTH (Feet)		ELEVATION			ATION CE-STATIC)			DIAMETER		CAPACITY	
		(NGVD)	l	•				(Inches)		(gal/ft)	
		bmerged Screen			rged Screen (1	IEQ Volume, 3	s, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
	OLUME = (10)	TAL DEPTH - ST	, ,				r	L			
ONE WELL			1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES		
VOLUME		EQUIPMENT V									
		EQUIPMENT V			- (TUBING CA						
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI			FINAL TUB	NG LEGNTH	1	PURGE		PURGE TIME		TOTAL	
IN WELL			= . = = .	(FEET)		TIME START		END		PURGED	
		/	<hr/>							~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<u> </u>
INST.	$\searrow$				SAL-SAM-63		SAL-SAM-63	SAL-SAM-55-	SAL-SAM-	$\searrow$	$\searrow$
ID			$\sim$	$\nearrow$		65			0	$\nearrow$	
		TOTAL				темр					·
TIME	VOLUME PURGED	VOLUME	PURGE	Depth to Water	pH (SU)	TEMP (oC)	SP COND (uS/cm)	DO (mg/L)	TURBIDITY (NTUs)	COLOR	ODOR
TIME	(Gallons)	PURGED	RATE (gpm)	(Feet)	(30) (∆ <0.2)	(0C) (∆ <0.2)	(u3/cm) (∆ <5%)	(mg/L) (% SAT <20)	(<20 NTU)	(Describe)	(Describe)
	(Galions)	(Gallons)		(1 661)	(23 < 0.2)	(Δ <0.2)	(2 < 5 %)	(70 041 -20)	(-201110)		
1052					4.9	22.3	304.1	1.91			
			-								
											•
		apacity (gallons/f								5.88	
TUBIN	IG INSIDE DIA	A. CAPACITY (Ga	l./Ft.): 1/8" =	0.0006; 3/16"	'= 0.0014; 1/	/4" = 0.0026;	5/16" = 0.004	; 3/8" = 0.00	6; 1/2" = 0.0	010; 5/8" = (	0.016
				S	AMPLIN	<b>G DATA</b>					
SAMPLED BY			· · ·			SAMP	LER(S)				
(PRI							TURES:				
							·····				
TUBING MATI		PP PE NF	P TL TT		E TUBING WELL (FEET)			SAMPLE PU RATE (n			
	E ONE)		-	LEGINITAIN							
SAMPLING		SAMPLING		FIELD	YN	CLEANING					
INITIATED		ENDED		CLEANED		STEPS					
FIELD	YN	FILTER SIZE		DUPLICATE	YN		ECTED BY E FLOW?	Y N N/A		COLLECTED	Y N N/A
FILTERED? PRESER		(μm)		L ERVATIVES		REVERS			11110000		
CHECKED	-	Y N N/A		DED							
			•		-				· · · · · · · · · · · · · · · · · · ·		
WEAT	THER										
CONDI											
<b></b>			·		.,						
СОММ	IENTS										
		PUMP CO	DES: PP=Per	istaltic Pump	GP= Submers	ible Grundfos	Pump, IBP= In	-place Bladder	Pump		
	TUB	ING MATERIAL								flon	
R	eviewed By:						Date:				
	wieweu by.	l						I			

#### SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 FAX 813-855-2218

Client Name:	Hazan and Sawyer		r	Location:	ation:		_	Contact: Phone:				
Date Sampled				SAL Project	100	2017		Project Name	GCREC Mo	und Groundwa	ter Analyses	
	<u> </u>			#	NO LI	3007	,	GPS LAT				
Well Number	NIZ	1-27				55	/	GPS LONG				
				P	URGING	<b>DATA</b>						
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP	
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		GROUNE ELEV (REFEREN	ATION			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)		
		omerged Screen TAL DEPTH - ST				EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)	
ONE WELL V		IAL DEPIN-SI	1/4 WELL	X VVELL CAP	<u> </u>	3 WELL			5 WELL		L	
VOLUME			VOLUME	L		VOLUMES			VOLUMES	L <u></u>		
	· · · · · · · · · · · · · · · · · · ·	EQUIPMENT V	DLUME = PUN	1P VOLUME +	(TUBING CAI		BING LEGNTH	I) + FLOW CEL		<b></b>		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME			
INITIAL TUBI IN WELL	1			NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED		
INST. ID	$\ge$	$\geq$	$\geq$	$\geq$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\geq$	$\geq$	
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	рН (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)	
1164					5. U	21.4	331.6	2.45				
╞┹┖┹╶┺╼╸						<b>t</b>						
						 				<u> </u>		
			····									
ļ	<u> </u>		 			1						
		Capacity (gallons/					, 4"=0.65, 5/16" = 0.00			"5.88 010; 5/8" =	0.016	
TUBI	NG INSIDE DI	A. CAPACITY (G	al./Ft.): 1/8" =			/4" = 0.0026; IG DATA		-, 0/0 - 0.00	, , , , , , , , , , , , , , , , , , ,			
							LER(S)	<u> </u>				
	Y / COMPANY						TURES:			*		
	ERIAL CODE E ONE)	PP PE N	P TL TT		E TUBING WELL (FEET)			SAMPLE PI RATE (I	JMP FLOW mL/min)			
SAMPLING		SAMPLING		FIELD	Y N	CLEANING STEPS						
FIELD		ENDED FILTER SIZE	<u> </u>	DUPLICATE	Y N	VOC COL	LECTED BY	Y N N/A			Y N N/A	
FILTERED?		(μm)			- 1 IN	REVERS	SE FLOW?	L	I THROU	GH TRAP?	I	
	PRESERVATION V N N/A LIST PR											
WEATHER CONDITIONS												
COMMENTS												
		PUMP CO	DDES: PP=Pe	ristaltic Pump	, GP≃ Submer	sible Grundfos	Pump, IBP= I	n-place Bladde	r Pump	oflon		
		BING MATERIAL	CODES: PP=	Polypropylen	e, PE= Polyet	nylene, NP= N						
	eviewed By	•	Reviewed By: Date:									

Client Name:	Hazan and Sawyer			Location:	ation:			Contact: Phone:			
Date Sampled	<u>~ ^ ^</u>	MIA . 17		SAL Project	100	3003	7	Project Name	GCREC Mou	und Groundwa	ter Analyses
Well Number	NP.	010-12	,	# Sample ID	 	<u>3007</u> T2	/	GPS LAT			-
								GPS LONG			
WELL	<u> </u>	WELL		Screen	UKGING	DATA		Static Depth		PURGE	
DIAMETER (Inches)		CAPACITY (gal/ft)		Interval (Feet)	UNK	То	UNK	to Water (Feet)		PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		(REFEREN	ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		omerged Screen ( TAL DEPTH - ST				EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL VOLUME	<u> </u>		1/4 WELL VOLUME	X WELL ON W		3 WELL VOLUMES		L	5 WELL VOLUMES		
VOLUME		EQUIPMENT V		NP VOLUME +	(TUBING CA	PACITY X TUE	BING LEGNTH	I) + FLOW CEL	L VOLUME		······
PUMP VOLUME	f		TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI				NG LEGNTH L (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\mathbf{\times}$	$\ge$	$\ge$	$\triangleright$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- —	SAL-SAM- 0	$\geq$	$\geq$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
09.15					4.3	21.1	186,4	1.31			
											· _
			<u> </u>								
		<u> </u>									
	Well (	L Capacity (gallons/	foot): 0.75"=0	1.02, 1.25"=		,				2"5.88	0.016
TUBI	NG INSIDE DI	A. CAPACITY (G	al./Ft.): 1/8" =				5/16" = 0.00	4; 3/8" = 0.00	06; 1/2" = 0	.010; 5/8" =	0.016
				5				T			
	Y / COMPANY IINT)						ATURES:			T	. <u></u>
	TERIAL CODE .E ONE)	PP PE N	IP TL TT		E TUBING WELL (FEET				UMP FLOW mL/min)		
SAMPLING INITIATED		SAMPLING ENDED	Ţ	FIELD CLEANED	Y N	CLEANING STEPS					
FIELD FILTERED?	Y N	FILTER SIZE	1	DUPLICATE			LECTED BY SE FLOW?	Y N N/A		S COLLECTEL GH TRAP?	Y N N/A
PRESE	I RVATION D IN FIELD?	Y N N/A		SERVATIVES							
	THER										
СОМІ	MENTS						D	In place Bladds	ar Dump		
			ODES: PP=P	eristaltic Pump	o, GP= Submer	rsible Grundfos thylene, NP=	s Pump, IBP= Non-inert Plas	In-place Bladde tic, TL= Teflon	Lined, TT= T	eflon	
	Reviewed By			PP= Polypropylene, PE= Polyethylene, NP= Non-inert Plastic, TL= Teflon Lined, TT= Teflon Date:							

Client Name:	ame: Hazan and Sawyer		er	Location:				Contact Phone			
Date Sampled				SAL Project #	100	300-	7-	Project Name		ound Groundwa	ater Analyses
Well Number	DPO	10-18		Sample ID	5		I	GPS LAT			
<u></u>				P	URGIN			GPS LONG	<u> </u>	<u></u>	
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV (REFEREN	D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
Purge Tec WFLL V	hnique: q Su	bmerged Screen TAL DEPTH - ST	(1,1/4,1/4 Wel	I) q Subme	rged Screen (*	1EQ Volume, 3	3, 3 Minutes)	q Partially Sut	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL		
VOLGIVIL		EQUIPMENT V		I /IP VOLUME +	- (TUBING CA		L BING LEGNTH	) + FLOW CEL	VOLUMES	<u>.</u>	
PUMP <sup>®</sup> VOLUME			TUBING LEGNTH		· · · · · · · · · · · · · · · · · · ·	FLOW CELL VOLUME		<u>,</u>	EQUIPMEN T VOLUME		
INITIAL TUBI				NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\ge$	$\ge$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63-	SAL-SAM-55-	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME TOTAL PURGED VOLUME PURGE (Gallons) (Gallons)			Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
0958					4.8	22,2	298.4	0.77			
			······		· · · · · · · · · · · · · · · · · · ·						
TUBIN		apacity (gallons/formations) A. CAPACITY (Ga								5.88	0.1.0
			1./rt.): 1/0 –					; 3/8" = 0.006	5; 1/2" ≈ 0.0	5/8" = 0	.016
SAMPLED BY	/ COMPANY	<u> </u>				_	LER(S)				
(PRI	NT)					SIGNA	TURÈS:	····			
TUBING MATE (CIRCLE		PP PE NF	TL TT	SAMPLE LEGNTH IN V				SAMPLE PU RATE (n			
SAMPLING		SAMPLING ENDED		FIELD CLEANED	ΥN	CLEANING STEPS			<b>_</b>		
FIELD FILTERED?	YN	FILTER SIZE (µm)		DUPLICATE	YN	VOC COLL REVERSI		Y N N/A	SEMI-VOLS ( THROUG		Y N N/A
PRESERVATION Y N N/A LIST PRE				ERVATIVES DED							
WEAT CONDIT											
COMM	ENTS										
·								place Bladder F			
Rev		NG MATERIAL C	UDES: PP=F	olypropylene,	PE= Polyethy	/lene, NP= No		, TL= Teflon Li	ned, TT= Tefl	on	
1/6	Reviewed By: Date:										

Client Name:	Client Name: Hazan and Sawyer		r	Location:				Contact: Phone:			
Date Sampled			· · · · · · · · · · · · · · · · · · ·	SAL Project #	100	3007	7	Project Name	GCREC Mo	und Groundwa	ater Analyses
Well Number	DP.	010-24		" Sample ID	+	54		GPS LAT			
				P	URGINO	G DATA		GPS LONG			
WELL		WELL		Screen				Static Depth		PURGE	PP GP
DIAMETER (Inches)		CAPACITY (gal/ft)		Interval (Feet)	UNK	То	UNK	to Water (Feet)		PUMP CODE	IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV	D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		bmerged Screen		l) q Subme	rged Screen (1	IEQ Volume, 3	3, 3 Minutes)	q Partially Sub	merged Scree		minutes)
	OLUME = (TO	TAL DEPTH - ST		X WELL CAP	ICITY =		Γ		EMELL		
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES		
	<u>.</u> .	EQUIPMENT VO	DLUME = PUN	IP VOLUME +	(TUBING CA	PACITY X TUE	BING LEGNTH	I) + FLOW CEL	L VOLUME		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBII IN WELL				NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\times$	$\succ$	$\times$	$\succ$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- —	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGE PURGED RATE (gpm) (Galions)		Depth to Water (Feet)	pH (SU) (∆ <0.2)	ТЕМР (оС) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
1014					4.2	21.8	182.2	0.44			
				· · · · · · · · ·							
	Well C	apacity (gallons/f	oot): 0.75"=0.	02, 1.25"=0	1 ).06, 2"=0.1	6, 3"=0.37,	4"=0.65,	5"=1.02, 6	l "=1.47, 12'	5.88	
TUBIN	IG INSIDE DIA	A. CAPACITY (Ga	I./Ft.): 1/8" =				5/16" = 0.004	l; 3/8" = 0.00	6; 1/2" = 0.0	)10; 5/8" = (	).016
				S/	AMPLIN	<u>G DATA</u>	<b>\</b>				
SAMPLED BY (PRI							LER(S) TURES:				
TUBING MATE (CIRCLE		PP PE NF	P TL TT		TUBING WELL (FEET)			SAMPLE PL RATE (n			
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS		L <u></u>		L	
FIELD	YN	FILTER SIZE		DUPLICATE	Y N	VOC COLL	ECTED BY E FLOW?	Y N N/A		COLLECTED	Y N N/A
FILTERED? PRESER		(μm) Υ Ν Ν/Α		ERVATIVES		REVERS	EFLOW	I	1111000		
CHECKED	IN FIELD?		ADI	DED						<u></u>	
WEATHER CONDITIONS											
COMMENTS											
								-place Bladder		lan	
Re	TUB viewed By:	ING MATERIAL C	ODES: PP=1	Polypropylene	, PE= Polyeth	iyiene, NP= N	on-inert Plastic Date:		inea, TT=Tel	ion	
	wieweu by.	l						1			

#### SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 FAX 813-855-2218

Client Name:	н	lazan and Sawyei	r	Location:				Contact: Phone:			
Date Sampled	-	15-15 1	19/10	SAL Project	1003	3007		Project Name	GCREC Mou	Ind Groundwa	ter Analyses
	<u> </u>	[ <u>] //</u>	1110	#				GPS LAT			
Well Number	6	15-15		Sample ID	55			GPS LONG			
				Ρ	URGING	<b>DATA</b>					
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)			OWATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
Purge Tec	hnique: q Sul	omerged Screen (	1,1/4,1/4 Wel		rged Screen (1	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
	OLUME = (TO	TAL DEPTH - ST		X WELL CAPI	CITY =				5 WELL		
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES			VOLUMES		
		EQUIPMENT V	DLUME = PUN	IP VOLUME +	(TUBING CAP	PACITY X TUP	BING LEGNTH	I) + FLOW CEL	L VOLUME		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL				NG LEGNTH L (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\ge$	$\mathbf{X}$	$\triangleright$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\ge$	$\geq$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	ТЕМР (оС) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
0853					4.7	20.7	303.4	231			
		Capacity (gallons/						_		"5.88 010; 5/8" =	0.016
TUBI	NG INSIDE DI	A. CAPACITY (Ga	al./Ft.): 1/8" =				5/16" = 0.00	4; 3/8" = 0.00	06; <u>1/2"</u> = 0.	010; 5/8 =	0.016
				S	AMPLIN		A				
	Y / COMPANY						PLER(S) ATURES:			<b>-</b>	
1	ERIAL CODE	PP PE N	P TL TT		E TUBING WELL (FEET)				UMP FLOW mL/min)		
SAMPLING INITIATED	0153	SAMPLING ENDED		FIELD CLEANED	YN	CLEANING STEPS			1		<u></u>
FIELD FILTERED?	ΥN	FILTER SIZE (µm)		DUPLICATE	Y N		LECTED BY SE FLOW?	Y N N/A		GH TRAP?	Y N N/A
	RVATION D IN FIELD?	Y N N/A		SERVATIVES		<del></del>					
	THER										
СОМ	MENTS								i r Dump		
		PUMP CO BING MATERIAL	DDES: PP≠P	eristaltic Pump	, GP= Submer	sible Grundfos	s Pump, IBP=	In-place Bladde tic. TL= Teflon	r Pump Lined, TT= Te	eflon	
<u>-</u> _	TU Reviewed By		CODES: PP	oiypropyien			Date				
<u>к</u>	eviewed B)	/·L									

Client Name:	ŀ	Hazan and Sawyer		Location:				Contact:			
Date Sampled	A	1 71		SAL Project	1001	2 2 2 2		Phone:	00050 14-		
Date Sampled	¥	15-21		#		3007		Project Name	GCREC Mo	und Groundwa	ater Analyses
Well Number				Sample ID	50	, e	·	GPS LAT GPS LONG			
				Р	URGIN	<b>G DATA</b>					
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV.	D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
Purge Tec	hnique: q Sul	bmerged Screen TAL DEPTH - ST	(1,1/4,1/4 Well	) q Subme	rged Screen (1	EQ Volume, 3	8, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL		TAL DEPTH - 51	1/4 WELL	X WELL CAP		3 WELL			5 WELL		
VOLUME			VOLUME			VOLUMES			VOLUMES		
	······································	EQUIPMENT V	DLUME = PUN	1P VOLUME +	(TUBING CA	PACITY X TUE	BING LEGNTH	I) + FLOW CEL	L VOLUME		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBII IN WELL				NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\ge$	$\ge$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- 	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (Δ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
0905					5.0	22.6	323.4	1.44			
								-			
· · · ·	Well C	apacity (gallons/f	oot): 0.75"=0.	02, 1.25"=0	1 ).06, 2"=0.1	6, 3"=0.37,	4"=0.65,	5"=1.02, 6'	'=1.47, 12'	5.88	
TUBIN		. CAPACITY (Ga			= 0.0014; 1/	4" = 0.0026;	5/16" = 0.004	; 3/8" = 0.006	6; 1/2" = 0.0	010; 5/8" = 0	).016
				S	AMPLIN	G DATA	1				
SAMPLED BY (PRI							LER(S) TURES:				
TUBING MATI (CIRCLE	1	PP PE NF	Y TL TT		TUBING WELL (FEET)			SAMPLE PU RATE (m			
SAMPLING INITIATED		SAMPLING ENDED FILTER SIZE		FIELD CLEANED	Y N	CLEANING STEPS	ECTED BY	· · · · · · · · · · · · · · · · · · ·	SEMILVOIS	COLLECTED	
FIELD FILTERED?	ΥN	μm)		DUPLICATE	YN		E FLOW?	Y N N/A		GOLLEGTED	Y N N/A
	PRESERVATION V N N/A LIST PR			ERVATIVES DED							
WEATHER CONDITIONS											
COMMENTS											
								-place Bladder I		loo	
R	viewed By:	ING MATERIAL C	JODES: PP=1	ropylene	, PE= Polyeth	yiene, NP= N	Date:	, IL= Letion Li	nea, i i = i ei	ION	
	meneu by.							L			

								and the second s			
Client Name:		lazan and Sawye	r	Location:				Contact: Phone:			
Date Sampled				SAL Project #	100	3007		Project Name	GCREC Mou	und Groundwa	iter Analyses
Well Number	A IS	5 24		Sample ID		7		GPS LAT			
	<u> </u>	<u>, 24</u>	- 181 - 2	P				GPS LONG			
		······································									
WELL		WELL		Screen		_		Static Depth		PURGE	PP GP
DIAMETER		CAPACITY		Interval	UNK	То	UNK	to Water		PUMP	IBP
(inches)		(gal/ft)		(Feet)				(Feet)		CODE	
		REFERENCE		GROUNE	) WATER			TUBING		TUBING	
TOTAL WELL		ELEVATION			ATION			DIAMETER		CAPACITY	
DEPTH (Feet)											
		(NGVD)			CE-STATIC)			(Inches)		(gal/ft)	L
Purge Tec	hnique: q Sul	bmerged Screen (	1,1/4,1/4 Well	) q Submer	rged Screen (1	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
WELL V	OLUME = (TO	TAL DEPTH - ST	ATIC DEPTH)	<b>x WELL CAPI</b>	ICITY =						
ONE WELL	<u>,</u>		1/4 WELL			3 WELL			5 WELL		
VOLUME			VOLUME			VOLUMES			VOLUMES		
VOLUME											
		EQUIPMENT VO	DLUME = PUK	IP VOLUME +	(TUBING CA		SING LEGNTP	I) + PLOW CEL			
PUMP			TUBING			FLOW CELL			EQUIPMEN		
VOLUME			LEGNTH			VOLUME			T VOLUME		
VOLONIC								_		_	r
INITIAL TUBI				NG LEGNTH		PURGE		PURGE TIME	) )	TOTAL	)
				L (FEET)		TIME START		END		PURGED	
IN WELL	(FEE!)					TIME START		LND			
INICT	$\smallsetminus$	$\overline{}$	$\smallsetminus$	$\sim$	SAL-SAM-63	SAL-SAM -	SAL-SAM-63	SAL-SAM-55-	SAL-SAM-	$\sim$	$\smallsetminus$
INST.	$\sim$	$\sim$	$\sim$	$\mid$ $\times$	SAL-SAW-03	65	SAL-SAM-05		0	$\sim$	
ID	arsigma	$\checkmark$	$\checkmark$	$\checkmark$		03					$\checkmark$
		TOTAL				TEMP	SP COND	DO	TURBIDITY		
	VOLUME	VOLUME	PURGE	Depth to	pH		1	•	(NTUs)	COLOR	ODOR
TIME	PURGED	PURGED	RATE (gpm)	Water	(SU)	(oC)	(uS/cm)	(mg/L)		(Describe)	(Describe)
l	(Gallons)	(Gallons)	(SP)	(Feet)	(∆ <0.2)	(∆ <0.2)	(∆ <5%)	(% SAT <20)	(<20 NTU)		ļ
<b> </b>		(00.00.0)									
0019					5.1	215	324.0	DOL			:
0923					7.1	211	US NU	0.14			
	1	ļ		ļ		1					
	<u>                                     </u>			1							
L					<u> </u>	<u> </u>	<u> </u>		+		
						ļ	ļ		<b></b>		
			1								
	Well (	Capacity (gallons/i	$\frac{1}{10000000000000000000000000000000000$	.02, 1.25"=	0.06, 2"=0.1	16. 3"=0.37	4"=0.65	5"=1.02, 6	5"=1.47, 12	"5.88	
						,	5/16" = 0.00	4; 3/8" = 0.00	6: 1/2" = 0.	010: 5/8" =	0.016
TUBI	NG INSIDE DI	A. CAPACITY (Ga	al./Ft.): 1/8" =					4, 3/0 = 0.00	10, 17 <u>2</u> - 0.	010, 0.0	
				S	AMPLIN		7				
								T		-	
	//COMPANY						PLER(S)				
(PR	INT)	1				SIGNA	TURES:	<b>_</b>		τ	
TUDING MAT	ERIAL CODE			SAMPLI	E TUBING			SAMPLE P	JMP FLOW	1	
		PP PE N	PTLTT		WELL (FEET)				mL/min)		
(CIRCL	E ONE)										
SAMPLING		SAMPLING		FIELD	Y N	CLEANING					
INITIATED		ENDED	ļ	CLEANED	Y N	STEPS			_		
FIELD	<u> </u>	FILTER SIZE				VOC COL	LECTED BY		SEMI-VOLS	COLLECTED	Y N N/A
FILTERED?	YN	(μm)		DUPLICATE	E Y N	REVERS	SE FLOW?	Y N N/A	THROUG	GH TRAP?	
	RVATION	(µ)		SERVATIVES		-4					
	IN FIELD?	Y N N/A		DED							
WEA	THER										
COND	ITIONS										
<b> </b>											
COM	IENTS										
					_						
		PUMP CC	DES: PP=Pe	ristaltic Pump	, GP= Submer	sible Grundfos	Pump, IBP= 1	n-place Bladder	Pump		
	тш	BING MATERIAL	CODES: PP=	Polypropylen	e, PE= Polvet	hylene, NP= N	Non-inert Plast	ic, TL= Teflon	Lined, TT= Te	eflon	
						-	Date				
	eviewed By	·						<u></u>			

	t Name: Hazan and Sawyer Location: Contact:										
Client Name:	H	Hazan and Sawye	er	Location:		W iatio	かつ	Phone:			
Date Sampled	Ĉ	-12.2	٢	SAL Project #	30	07 10	103007	Project Name	GCREC Mo	und Groundwa	ater Analyses
Well Number				Sample ID		8		GPS LAT			
			:	D		ý –		GPS LONG			
					UKGINC	DATA					
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)	0.02	Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)	4.03	PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)	25.8	REFERENCE ELEVATION (NGVD)		ELEV	D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
Purge Tec	hnique: q Sul	bmerged Screen	(1,1/4,1/4 Well	l) q Subme	rged Screen (1	EQ Volume, 3	3, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
		TAL DEPTH - ST		X WELL CAP	ICITY =		1				
ONE WELL VOLUME	0.4	3	1/4 WELL VOLUME			3 WELL VOLUMES			5 WËLL VOLUMES		
VOLONIE		EQUIPMENT V		I 4P.VOLUME +	TUBING CA						
		EQUI MENT V			(100110 0/1			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME		, , , , ,	EQUIPMEN T VOLUME		
INITIAL TUBII IN WELL				NG LEGNTH L (FEET)		PURGE TIME START	0825	PURGE TIME END		TOTAL PURGED	
INST. `ID	$\ge$	$\ge$	$\ge$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63-	SAL-SAM-55-	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	ТЕМР (оС) - (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
	0.50	0.50			5.4	27.2	289.8				
	2.50	1.0			5.4	97.2	2901	0,77			
0 831	0.50	1.50			5.6	<b>えい</b> と	991.8				
	Well C	apacity (gallons/f	oot): 0.75"=0.	02, 1.25"=0	L 0.06, 2"=0.1	6, 3"=0.37	, 4"=0.65,	5"=1.02, 6	"=1.47, 12'	5.88	
TUBIN		A. CAPACITY (Ga			'= 0.0014; 1	/4" = 0.0026;	5/16" = 0.004	l; 3/8" = 0.00	6; 1/2" = 0.0	)10; 5/8" = (	0.016
					AMPLIN						
SAMPLED BY	/ COMPANY					-	LER(S)				
(PRI							TURES:				
TUBING MAT		PP PE NF	P TL TT		E TUBING WELL (FEET)			SAMPLE PL RATE (n			
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS		<u> </u>			
FIELD FILTERED?	Y N	FILTER SIZE (µm)		DUPLICATE	Y N	VOC COLL	LECTED BY	Y N N/A		COLLECTED	Y N N/A
PRESER		Y N N/A		ERVATIVES				L			
WEAT CONDI					<b>F</b>						
COMMENTS											
								-place Bladder			
		ING MATERIAL (	CODES: PP=	Polypropylene	, PE= Polyeth	iylene, NP= N			ined, TT= Te	lion	
Re	eviewed By:						Date:				

Client Name:	F	lazan and Sawye	r	Location:			-68	Contact: Phone:			
Date Sampled	12/10	10		SAL Project #	1003	3007-		Project Name	GCREC Mou	und Groundwa	ater Analyses
Well Number				Sample ID	STE - F	3007- Ex.P.n.p	Tank	GPS LAT GPS LONG			
			1	P	URGINO			GF3 LONG			
WELL		WELL		Screen				Static Depth		PURGE	
DIAMETER (Inches)		CAPACITY (gal/ft)		Interval (Feet)	UNK	То	UNK	to Water (Feet)		PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		GROUNE ELEV (REFEREN	ATION			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
Purge Tec	hnique: q Su	omerged Screen	1 (1,1/4,1/4 Well	) q Submei	rged Screen (1	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
	OLUME = (TO	TAL DEPTH - ST	1	x WELL CAP	CITY =				5 WELL		1
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES		I	VOLUMES		
	l	EQUIPMENT V	OLUME = PUN	L /IP VOLUME +	(TUBING CA	PACITY X TUE	BING LEGNTH	I) + FLOW CEL	L VOLUME		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME		• •	EQUIPMEN T VOLUME		
	L ING LEGNTH L (FEET)			NG LEGNTH L (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\bigtriangledown$	$\mathbf{\times}$	$\mathbf{\mathbf{X}}$	$\triangleright$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55-	SAL-SAM- 0	$\geq$	$\geq$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (Δ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
9:55					7.33	17.7	1273	0.10			
									· · · · · · · · · · · · · · · · · · ·		
		<u> </u>	+					1			
<b>├</b> ────	Well	Capacity (gallons	/foot): 0.75"=0	).02, 1.25"=				,		2"5.88	
TUB	ING INSIDE D	A. CAPACITY (C	Gal./Ft.): 1/8"	= 0.0006; 3/16	6" = 0.0014;	1/4" = 0.0026;	5/16" = 0.00	)4; 3/8" = 0.0	06; 1/2" = 0	.010; 5/8" =	= 0.016
				S	AMPLIN	IG DAT	۹				
	BY / COMPANY RINT)	Josefr	~ think				PLER(S) ATURES:	90	et i H	in	, 
	TERIAL CODE	PP PE I	NP TL TT		E TUBING WELL (FEET			SAMPLE F	UMP FLOW (mL/min)		
SAMPLING		SAMPLING		FIELD	Y N	CLEANING STEPS	ì				
INITIATED FIELD FILTERED	Y N	ENDED FILTER SIZE		DUPLICAT		VOC COI	LECTED BY SE FLOW?	Y N N/A		S COLLECTE JGH TRAP?	D Y N N/A
PRESE	RVATION	Y N N/A		SERVATIVES							
	ATHER DITIONS										
COM	IMENTS					veible Grundfe	s Pumn IRD=	In-place Bladd	er Pump		
		PUMP C	CODES: PP=F	eristaltic Pum	p, GP= Subme ne, PE= Polve	ethylene, NP=	Non-inert Pla	In-place Bladd stic, TL= Teflor	Lined, TT=	Feflon	
	Reviewed B		2 00020. 11				Dat	e:			
		<u> </u>									

					r			0 1 1			
Client Name:	Name: Hazan and Sawyer			Location:				Contact: Phone:			
Date Sampled	12/10/	[ D		SAL Project #	1003	5007-	60	Project Name	GCREC Mo	und Groundwa	iter Analyses
Well Number	·· ••··			Sample ID	Field	<u>8   anil -</u>	DI	GPS LAT			
					URGINO		-	GPS LONG	<u></u>		
				F	UKGINC	<u>J DATA</u>					
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV	D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
Purge Tec	hnique: q Sul	bmerged Screen	1,1/4,1/4 Well	) q Subme	rged Screen (1	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
		TAL DEPTH - ST						· · · · · · · · · · · · · · · · · · ·			
ONE WELL			1/4 WELL			3 WELL			5 WELL		
VOLUME			VOLUME			VOLUMES			VOLUMES		
		EQUIPMENT VO	DLUME = PUN	1P VOLUME +	(TUBING CA	PACITY X TU	BING LEGNTH	I) + FLOW CEL	L VOLUME		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL	,		FINAL TUBII IN WELL	NG LEGNTH . (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\succ$	$\ge$	$\ge$	$\ge$	SAL-SAM-63- 	SAL-SAM - 65	SAL-SAM-63 	SAL-SAM-55- 	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	рН (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
7:53					5,71	12.1	1.49	9.44			
	Well C	apacity (gallons/f	oot): 0.75"=0.	02, 1.25"=0	0.06, 2"=0.1	6, 3"=0.37,	4"=0.65,	5"=1.02, 6'	'=1.47, 12"	5.88	
TUBIN	IG INSIDE DIA	. CAPACITY (Ga	l./Ft.): 1/8" =	0.0006; 3/16"	= 0.0014; 1/	4" = 0.0026;	5/16" = 0.004	; 3/8" = 0.006	6; 1/2" = 0.0	010; 5/8" = C	.016
				S	AMPLIN	G DATA					
	(00101010)		·····							· · · · · · · · · · · · · · · · · · ·	
SAMPLED BY (PRII		Jorfm	Hint				LER(S) TURES:	Joreb	i the	1	
TUBING MATE (CIRCLE		PP PE NF	TL TT		TUBING WELL (FEET)			SAMPLE PU RATE (m			
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	ΥN	CLEANING STEPS					
FIELD FILTERED?	ΥN	FILTER SIZE (µm)		DUPLICATE	ΥN	VOC COLL REVERS	ECTED BY E FLOW?	Y N N/A	SEMI-VOLS		Y N N/A
PRESER CHECKED	I	Y N N/A	LIST PRESE ADI								
WEATHER CONDITIONS											
COMMENTS								-			
								place Bladder F			
TUBING MATERIAL CODES: PP= Polypropylene, PE= Polyethylene, NP					ylene, NP= N	on-inert Plastic	, TL= Teflon Li	ned, TT= Tef	on		
Re	viewed By:						Date:				

#### **GROUNDWATER SAMPLING LOG**

Client Name:	Hazan and Sawyer	Location;		Contact:	
olient traine.		Location.		Phone:	
Date Sampled	12/10/10	SAL Project #	1003007-61	Project Name	GCREC Mound Groundwater Analyses
Well Number		Sample ID	Field Plante - TAP	GPS LAT	
wen wunder		Sample ID	rua parte 141	GPS LONG	

### **PURGING DATA**

WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		(gaint) REFERENCE ELEVATION (NGVD)		GROUND ELEVA (REFERENC	ATION			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
Purge Tec	hnique: q Su	omerged Screen	1,1/4,1/4 Well	) q Submer	ged Screen (1	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
WELL V	OLUME = (TO	TAL DEPTH - ST	ATIC DEPTH)	x WELL CAPI	CITY =						
ONE WELL VOLUME			1/4 WELL VOLUME		(7110110.041	3 WELL VOLUMES			5 WELL VOLUMES		
PUMP VOLUME		EQUIPMENT V	TUBING LEGNTH	IP VOLUME +	(TUBING CAP	FLOW CELL VOLUME		<u>)                                    </u>	EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL				NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIMÉ END		TOTAL PURGED	
INST. ID	$\mathbf{\mathbf{X}}$	$\mathbf{\mathbf{X}}$	$\mathbf{\mathbf{X}}$	$\mathbf{ imes}$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- —	SAL-SAM- 0	$\ge$	$\geq$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (Δ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
9:00					6.97	9.4	445	11.07			 
1.00	1	<u>+</u>		<u>.</u>							
			<u> </u>						1		
					1						
	Well	Capacity (gallons	/foot): 0.75"=(	).02, 1.25"=						2"5.88	0.010
тив	ING INSIDE D	IA. CAPACITY (C	al./Ft.): 1/8" :	= 0.0006; 3/16	6" = 0.0014; ·	1/4" = 0.0026;	5/16" = 0.00	3/8" = 0.0	06; 1/2" = 0	0.010; 5/8" =	0.016
<u> </u>				S	AMPLIN	IG DAT	A				
	BY / COMPAN	VOKA	n Hors.	4			PLER(S) ATURES:	Gou	'n th	nil	
	TERIAL COD	E PP PE I	NP TL TT		LE TUBING N WELL (FEET	)			PUMP FLOW (mL/min)		
SAMPLING		SAMPLING ENDED		FIELD CLEANED	) Y N	CLEANING STEPS			SEMI VOI	S COLLECTE	<u></u>
FIELD FILTERED	Y N	FILTER SIZE (µm)		DUPLICAT			LLECTED BY SE FLOW?	Y N N/A		JGH TRAP?	Y N N/
	ERVATION	Y N N/A		SERVATIVES	<u> </u>			<u> </u>			
	ATHER DITIONS										
COM	IMENTS										

	PUMP CODES: PP=Peristaltic Pump, GP= Submersible Grun	ndfos Pump, IBP= In-place B	Bladder Pump	
	NG MATERIAL CODES: PP= Polypropylene, PE= Polyethylene, N	IP= Non-inert Plastic, TL= T	Feflon Lined, TT= Teflon	
TUB	ING MATERIAL CODES: PP= Polypropylene, FE- Polyeinylene, K	Deter		
Reviewed By:		Date:		

F

Client Name:		azan and Sawyer		Location:				Contact:			
								Phone:			
Date Sampled	12/11	O/D		SAL Project #		3007	}	Project Name	GCREC Mou	nd Groundwa	ter Analyses
Well Number	Equi	n Rin	SATE	Sample ID	6	12		GPS LAT GPS LONG			
				P	URGING	DATA			<u></u>		
WELL		WELL	<u> </u>	Screen				Static Depth		PURGE	
DIAMETER (Inches)		CAPACITY (gal/ft)		Interval (Feet)	UNK	То	UNK	to Water (Feet)		PUMP CODE	PP GP IBP
		REFERENCE		GROUND	WATER			TUBING		TUBING	
TOTAL WELL DEPTH (Feet)		ELEVATION (NGVD)		ELEVA (REFERENC				DIAMETER (Inches)		CAPACITY (gal/ft)	
Purge Tec	hnique: q Sub	merged Screen (	1,1/4,1/4 Well)	) q Submer	ged Screen (1	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
	OLUME = (TOT	TAL DEPTH - ST		x WELL CAPI	CITY =				5 WELL		
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES			VOLUMES		
VOLUME		EQUIPMENT V		IP VOLUME +	(TUBING CAR	-	BING LEGNTH	I) + FLOW CEL			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI IN WELL				NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\mathbf{\mathbf{X}}$	$\ge$	$\mathbf{ imes}$	$\boxtimes$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63 	SAL-SAM-55-	SAL-SAM- 0	$\geq$	$\geq$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (Δ <0.2)	SP COND (uS/cm) (Δ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
0942					7.2	11.9	13.2	231			
			 	<u> </u>	<u> </u>						
			 								<u></u>
L					<u> </u>		<u> </u>				<u></u>
	Well (	Capacity (gallons	/foot): 0.75"=0	.02, 1.25"=		,				2"5.88	
TUB	ING INSIDE DI	A. CAPACITY (G	al./Ft.): 1/8" =	= 0.0006; 3/16	s" = 0.0014;	1/4" = 0.0026;	5/16" = 0.00	3/8'' = 0.0	06; 1/2" = 0	.010; 5/8" =	0.016
	<u> </u>					IG DAT	4				
-	BY / COMPANY RINT)						PLER(S) ATURES:	Zaz	Word	2	
TUBING MA	TERIAL CODE	PP PE N	IP TL TT		E TUBING			SAMPLE P	PUMP FLOW (mL/min)		
SAMPLING	· · · · · · · · · · · · · · · · · · ·	SAMPLING		FIELD	V N	CLEANING	3				
FIELD		ENDED FILTER SIZE		DUPLICAT		VOC COL	LECTED BY	Y N N/A		S COLLECTE	DYN N/A
FILTERED	? Y N	(µm)				REVER	SE FLOW?	_L			
	RVATION	Y N N/A		SERVATIVES							
	ATHER DITIONS	Che	the state								
COM	IMENTS										
		PUMP C	ODES: PP=P	eristaltic Pum	o, GP= Subme	rsible Grundfo	s Pump, IBP=	In-place Bladde	er Pump	eflon	
			CODES: PP	= Polypropyle	ne, PE= Polye	ethylene, NP=	Non-inert Pla				
	Reviewed B	y:					Dai				

Client Name:				Location:				Contact: Phone:			
Date Sampled	ish	0/10		SAL Project #	100	300-	7	Project Name	GCREC Mo	und Groundwa	iter Analyses
Well Number		-F15-2	D K	Sample ID	64		·	GPS LAT GPS LONG			
[]		101 0		P		<b>G</b> DATA		GF3 LONG			
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV	D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		bmerged Screen TAL DEPTH - ST				EQ Volume, 3	8, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL VOLUME			1/4 WELL VOLUME			3 WELL VOLUMES		L	5 WELL VOLUMES		
		EQUIPMENT V	OLUME = PUN	IP VOLUME +	(TUBING CA	PACITY X TU	BING LEGNTH	I) + FLOW CEL	L VOLUME		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBII IN WELL				NG LEGNTH _ (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\times$	$\succ$	$\succ$	$\succ$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- 	SAL-SAM- 0	$\ge$	$\ge$
TIME	(Gallons) PURGED RATE (gp			Depth to Water (Feet)	pH (SU) (Δ <0.2)	TEMP (oC) (Δ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
6720	720 1.50				4.4	22.1	644	0,62			
TUBIN		apacity (gallons/f						5"=1.02, 6		'5.88 010: 5/8" = 0	016
						G DATA		.,			
SAMPLED BY (PRI						SAMP	- LER(S) TURES:	Za	Wor	1	
TUBING MATI (CIRCLE		PP PE NF	P TL TT		TUBING WELL (FEET)	,		SAMPLE PL RATE (n	IMP FLOW		
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS		· · · · · · · · · · · · · · · · · · ·			
FIELD FILTERED?	ΥN	FILTER SIZE (μm)		DUPLICATE	Y N		ECTED BY E FLOW?	Y N N/A		COLLECTED	Y N N/A
	PRESERVATION V NI N/A LIST PRE			ERVATIVES DED							
WEATHER CONDITIONS											
COMMENTS											
								-place Bladder		lan	
Re	TUB viewed By:	ING MATERIAL (	JODES: PP=	Polypropylene	e, PE= Polyeth	iyiene, NP=N	on-inert Plastic Date:	P	inea, i i = i et		
		L.,						I			

	-										
Client Name:	1	Hazan and Sawye	er	Location:				Contact: Phone:			
Date Sampled				SAL Project #	100	3007		Project Name	GCREC Mo	und Groundwa	iter Analyses
Well Number	DP GI	2-150	-	Sample ID		<u>3007</u> 66		GPS LAT GPS LONG			
L				<u></u> Р	URGIN					· · · · · ·	
									·		
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		ELEV	D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
Purge Tec	hnique: a Su	bmerged Screen	1.1/4.1/4 Wel		rged Screen (1	I 1EQ Volume, 3	3. 3 Minutes)	q Partially Sub	merged Scree		minutes)
WELL V	OLUME = (TO	TAL DEPTH - ST	ATIC DEPTH)	x WELL CAP	ICITY =		, • • • • • • • • • • • • • • • • • • •	q randing out		511 (1 11011, 0,0	(()))
ONE WELL			1/4 WELL			3 WELL		•	5 WELL		
VOLUME			VOLUME			VOLUMES		_	VOLUMES		
	r	EQUIPMENT V	OLUME = PUN	IP VOLUME +	+ (TUBING CA	PACITY X TU	BING LEGNTH	i) + FLOW CEL	L VOLUME		
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI				NG LEGNTH L (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\ge$	$\ge$	$\geq$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- —	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME TOTAL PURGED VOLUME PURGE (Gallons) (Gallons)			Depth to Water (Feet)	pH (SU) (Δ <0.2)	TEMP (oC) (∆ <0.2)	SP COND * (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
0938					4.7	22.3	508	D.89			
											· · · · ·
						• — — — — — — — — — — — — — — — — — — —		·····			
		apacity (gallons/f							. , .=	5.88	
TUBIN	IG INSIDE DIA	. CAPACITY (Ga	l./Ft.): 1/8" =	0.0006; 3/16"	= 0.0014; 1/	4" = 0.0026;	5/16" = 0.004	; 3/8" = 0.00	6; 1/2" = 0.0	)10; 5/8" = 0	.016
				S	AMPLIN	G DATA					
SAMPLED BY							LER(S)				
(PRI	NT)						TURES:	Ju	Wiry	/	
TUBING MATE (CIRCLE		PP PE NF	YTL TT		TUBING WELL (FEET)			SAMPLE PU RATE (m			
SAMPLING INITIATED		SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS					
FIELD FILTERED?	Y N	FILTER SIZE (µm)		DUPLICATE	ΥN	VOC COLL REVERS	-	Y N N/A	SEMI-VOLS		Y N N/A
PRESER CHECKED		Y N N/A	LIST PRESE ADD							<b></b>	
WEATHER CONDITIONS											
СОММ	ENTS										
	l							place Bladder I			
		NG MATERIAL C								on	
Re	viewed By:						Date:				

Client Name:	Hazan and Sawyer			Location:				Contact:			
				SAL Project		7 3 4 5	~	Phone:			
Date Sampled		. <u> </u>		#	100	3007	<i>†</i>	Project Name	GCREC Mou	nd Groundwa	ter Analyses
Well Number	J12.	-200		Sample ID	X	67		GPS LAT GPS LONG			
				P	URGING	DATA					
WELL DIAMETER (Inches)		WELL CAPACITY (gal/ft)		Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)		PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)		REFERENCE ELEVATION (NGVD)		GROUNE ELEV (REFEREN	ATION			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		omerged Screen (			rged Screen (1	EQ Volume, 3	, 3 Minutes)	q Partially Sub	merged Scree	n (1 Well, 3,3	minutes)
ONE WELL V ONE WELL VOLUME	OLUME = (10	TAL DEPTH - ST	1/4 WELL VOLUME			3 WELL VOLUMES			5 WELL VOLUMES	······································	
		EQUIPMENT VO	DLUME = PUN	IP VOLUME +	(TUBING CA	PACITY X TUE	BING LEGNTH	I) + FLOW CEL			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
	ING LEGNTH L (FEET)			NG LEGNTH L (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\mathbf{\bigvee}$	$\mathbf{\times}$	$\mathbf{X}$	$\triangleright$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- 	SAL-SAM- 0	$\ge$	$\geq$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	ТЕМР (оС) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
1244					5.0	22.9	342.9	1.13			
											<u> </u>
	Well	Capacity (gallons/	(foot): 0.75"=0	).02, 1.25"=			7, 4"=0.65, 5/16" = 0.00			"5.88 010 <sup>.</sup> 5/8" =	0.016
TUB	ING INSIDE D	A. CAPACITY (G	al./Ft.): 1/8" :								
	BY / COMPANY	,				SAMF	PLER(S) ATURES:				
TUBING MA	RINT) TERIAL CODE LE ONE)	PP PE N	IP TL TT		E TUBING				UMP FLOW (mL/min)		
SAMPLING		SAMPLING		FIELD	Y N	CLEANING STEPS		······································			
FIELD	Y N	FILTER SIZE (µm)		DUPLICAT			LECTED BY SE FLOW?	Y N N/A		S COLLECTE GH TRAP?	Y N N/4
	RVATION D IN FIELD?	Y N N/A		SERVATIVES					<u></u>		
	ATHER DITIONS										
CON	IMENTS			Perietaltic Pum	n GP= Subme	rsible Grundfo	s Pump, IBP=	In-place Bladde	er Pump		
	TI	JBING MATERIAL	CODES: PF=F	= Polypropyle	ne, PE= Polye	thylene, NP=	Non-inert Plas	stic, IL= leflon	Lined, TT= T	eflon	
	Reviewed B						Dat	e:			

Client Name:	ł	Hazan and Sawye	r	Location:				Contact:			
				SAL Project	100-	2007	,	Phone: Project Name	GCREC Mo	und Groundwa	ter Analyses
Date Sampled		0/11	· •	#		3007		GPS LAT	GERECIMO		
Well Number	5.d	04- BKG	o 9	Sample ID		9		GPS LONG			
				P	URGINO	<u>G DATA</u>					
WELL DIAMETER (Inches)	1.25	WELL CAPACITY (gal/ft)	0.04	Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)	7.21	PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)	9.0	REFERENCE ELEVATION (NGVD)		ELEV	D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)	
		bmerged Screen			rged Screen (1	EQ Volume, 3	8, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)
ONE WELL	``	TAL DEPTH - ST	ATIC DEPTH) 1/4 WELL	X WELL CAP	ICITY =	3 WELL			5 WELL		
VOLUME	0.1		VOLUME			VOLUMES			VOLUMES		
		EQUIPMENT V	DLUME = PUN	1P VOLUME +	(TUBING CA		BING LEGNTH	I) + FLOW CEL			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME		r	EQUIPMEN T VOLUME		
INITIAL TUBII IN WELL			FINAL TUBI IN WELI	NG LEGNTH . (FEET)		PURGE TIME START		PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\ge$	$\ge$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- —	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	PURGED VOLUME PURGE			pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
0840	0.50	0.50		7.27	5.3	21.6	72.9	1.10			
				`							
	Well C	L Capacity (gallons/f	 oot): 0.75"=0.	02, 1.25"=0	<u> </u> ).06, 2"=0.1	6, 3"=0.37,	4"=0.65,	5"=1.02, 6	l "=1.47, 12'	'5.88	
TUBIN		A. CAPACITY (Ga		0.0006; 3/16"				4; 3/8" = 0.00	6; 1/2" = 0.0	010; 5/8" = 0	).016
				S	AMPLIN	G DATA	۱.				
SAMPLED BY (PRI						•	LER(S) TURES:				
TUBING MATI (CIRCLE		PP PE NF	Ρ ΤΙ ΤΤ		TUBING WELL (FEET)			SAMPLE PL RATE (n			
SAMPLING INITIATED	DFYD	SAMPLING ENDED		FIELD CLEANED	Y N	CLEANING STEPS		<b>.</b>			
FIELD FILTERED?	ΥN	FILTER SIZE		DUPLICATE	Y N		ECTED BY	Y N N/A		COLLECTED	Y N N/A
PRESER	?   (μm) ERVATION V N N/A LIST PRE			ERVATIVES DED							· · · · · · · · · · · · · · · · · · ·
1	WEATHER CONDITIONS										
COMMENTS											
								-place Bladder		flon	
TUBING MATERIAL CODES: PP= Polypropylene, PE= Polyethylene, NP= Non-inert Plastic, TL= Reviewed By: Date:						- T	meu, 11=10				
	moneu by.							L			

Client Name: Hazan and Sawyer Location: Contact:													
Client Name:	F	lazan and Sawye	r	Location:									
Date Sampled	•			SAL Project	100	3007		Phone: Project Name	GCREC Mo	und Groundwa	ter Analyses		
Well Number	12/10 PZ 21	1. BKG	37	# Sample 1D		<u>, 100</u>		GPS LAT					
			¥4	P				GPS LONG					
	-				UNGINC	DATA		· · · · · · · · · · · ·					
WELL DIAMETER (Inches)	2.0	WELL CAPACITY (gal/ft)	0.1428	Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)	10,11	PURGE PUMP CODE	PP GP IBP		
TOTAL WELL DEPTH (Feet)	24.0	REFERENCE ELEVATION (NGVD)			D WATER ATION CE-STATIC)			TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)			
		omerged Screen TAL DEPTH - ST				EQ Volume, 3	s, 3 Minutes)	q Partially Sub	merged Scree	en (1 Well, 3,3	minutes)		
ONE WELL	J.5		1/4 WELL			3 WELL			5 WELL				
VOLUME	2.5		VOLUME	D. U		VOLUMES			VOLUMES				
0.000					(TUBING CAI								
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME				
INITIAL TUBII IN WELL				NG LEGNTH _ (FEET)		PURGE TIME START	0803	PURGE TIME END		TOTAL PURGED			
INST. ID	$\ge$	$>\!$	$\geq$	$\succ$	SAL-SAM-63- 	SAL-SAM - 65	SAL-SAM-63-	SAL-SAM-55- —	SAL-SAM- 0	$\succ$	$\succ$		
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	рН (SU) (∆ <0.2)	ТЕМР (oC) (Δ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)		
0814	2.75	2.74	0.25	10.17	5.2	24.0	297.9	1.12					
0817	0.75	3.50	el .	10.17	5.1	24.1	295.1	0.72					
0820	0.75	4.25	0	10.17	5.1	24.1	295.2	0.70					
	Well C	apacity (gallons/f	oot): 0.75"=0.	02, 1.25"=0	1. ).06, 2"=0.1	6, 3"=0.37,	4"=0.65,	5"=1.02, 6	"=1.47, 12'	5.88			
TUBIN		. CAPACITY (Ga			= 0.0014; 1/	/4" = 0.0026;	5/16" = 0.004	; 3/8" = 0.00	6; 1/2" = 0.0	)10; 5/8" = (	0.016		
hi		······		S	AMPLIN	G DATA	1						
SAMPLED BY (PRI						1	LER(S) TURES:						
TUBING MAT		PP PE NF	P TL TT		TUBING WELL (FEET)			SAMPLE PL RATE (n					
SAMPLING INITIATED	0821	SAMPLING ENDED		FIELD CLEANED	YN	CLEANING STEPS		L.,					
FIELD FILTERED?	Y N	FILTER SIZE (µm)		DUPLICATE	Y N		ECTED BY E FLOW?	Y N N/A		COLLECTED 6H TRAP?	Y N N/A		
PRESER CHECKED		Y N N/A		ERVATIVES DED									
WEAT CONDI													
СОММ	ENTS												
	<u> </u>							-place Bladder		lon			
		ING MATERIAL (	JODES: PP=	Polypropylene	, PE= Polyeth	iyiene, NP= N			inea, LI=Tei				
<u>ке</u>	eviewed By:						Date:	I					

Client Name:	: Hazan and Sawyer			Location:				Contact: Phone:			
Date Sampled	12/10/10			SAL Project #	1003007			Project Name	GCREC Mound Groundwater Analyses		
Well Number	PZ17-115-24			Sample ID	71			GPS LAT GPS LONG			
PURGING DATA											
WELL DIAMETER (Inches)	0.75	WELL CAPACITY (gal/ft)	0.02	Screen Interval (Feet)	UNK	То	UNK	Static Depth to Water (Feet)	4.04	PURGE PUMP CODE	PP GP IBP
TOTAL WELL DEPTH (Feet)			GROUND WATER ELEVATION (REFERENCE-STATIC)				TUBING DIAMETER (Inches)		TUBING CAPACITY (gal/ft)		
Purge Technique:       q Submerged Screen (1,1/4,1/4 Well)       q Submerged Screen (1EQ Volume, 3, 3 Minutes)       q Partially Submerged Screen (1 Well, 3,3 minutes)         WELL VOLUME = (TOTAL DEPTH - STATIC DEPTH) x WELL CAPICITY =										minutes)	
ONE WELL VOLUME	<i>D</i> . 3		1/4 WELL VOLUME	X WELL OAT		3 WELL VOLUMES	1.01		5 WELL VOLUMES		
EQUIPMENT VOLUME = PUN			1P VOLUME +	(TUBING CA	PACITY X TUE	BING LEGNTH	I) + FLOW CEL	L VOLUME			
PUMP VOLUME			TUBING LEGNTH			FLOW CELL VOLUME			EQUIPMEN T VOLUME		
INITIAL TUBI			FINAL TUBI	NG LEGNTH _ (FEET)		PURGE TIME START	0905	PURGE TIME END		TOTAL PURGED	
INST. ID	$\ge$	$\ge$	$\ge$	$\ge$	SAL-SAM-63	SAL-SAM - 65	SAL-SAM-63	SAL-SAM-55- 	SAL-SAM- 0	$\ge$	$\ge$
TIME	VOLUME PURGED (Gallons)	TOTAL VOLUME PURGED (Gallons)	PURGE RATE (gpm)	Depth to Water (Feet)	pH (SU) (∆ <0.2)	TEMP (oC) (∆ <0.2)	SP COND (uS/cm) (∆ <5%)	DO (mg/L) (% SAT <20)	TURBIDITY (NTUs) (<20 NTU)	COLOR (Describe)	ODOR (Describe)
0909	0.40	0.40	0.10	9.04	5.7	22.1	290,1	0,88			
0912	0.110	0.80	j(	9.05	5.7	22.1	292.4	D.40			
0914	0.40	1.20	11	9.05	5.7	22.1	294.1	0.52			
TUBIN		CAPACITY (Gallons/f		-					'5.88 010; 5/8" = (	0.016	
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016 SAMPLING DATA											
SAMPLED BY / COMPANY (PRINT)					SAMPLER(S) SIGNATURES:		Zm	W-O			
TUBING MATERIAL CODE (CIRCLE ONE) PP PE N		TL TT SAMPLE TUBING					SAMPLE PL	SAMPLE PUMP FLOW RATE (mL/min)			
SAMPLING DOID S		SAMPLING		FIELD	Y (N)	CLEANING					
FIELD	Y N	ENDED FILTER SIZE		CLEANED DUPLICATE			ECTED BY	Y N NÃ		COLLECTED	Y N MA
FILTERED?				ERVATIVES DED		REVERSE FLOW?					
WEATHER CONDITIONS		Q1ë4h							-		
COMM	IENTS										
		PUMP CO						-place Bladder		flon	
Re	eviewed By:		JUDEO. PP=	- отургорутеле	, ı ∟– roiyeti		Date				
h		• · · · · · · · · · · · · · · · · · · ·									