



February 12, 2013

10389612GW

Mr. Alan Whitehouse
Bureau of Mining and Minerals Regulation
Florida Department of Environmental Protection
2051 East Paul Dirac Drive
Tallahassee, Florida 32310

**RE: 2ND QUARTER GROUNDWATER MONITORING REPORT
CRYSTAL RIVER SYNTHETIC GYPSUM STORAGE AND HANDLING FACILITY
UNITED STATES GYPSUM COMPANY
CITRUS COUNTY, FLORIDA
ENVIRONMENTAL RESOURCE PERMIT NO. 312680-001 (DECEMBER 28, 2012)
FDEP WACS FACILITY 100934**

Dear Mr. Whitehouse:

Golder Associates Inc. (Golder) is pleased to submit this letter that summarizes results for groundwater samples collected on December 17, 2012 at the referenced facility (facility or site) as part of a second quarterly groundwater monitoring event. On December 28, 2012, the Florida Department of Environmental Protection (FDEP) issued to the United States Gypsum Company (USG) the referenced environmental resource permit (ERP No. 312680-001) for construction of a surface water management system for a proposed synthetic gypsum storage and handling facility; attached to the ERP is a monitoring plan implementation schedule (MPIS). This report is being submitted in general accordance with Specific Condition 31.b of the ERP No. 312680-001.

1.0 BACKGROUND

On January 14, 2013, site development commenced as proposed in ERP No. 312680-001 and the notification of commencement that was submitted by USG on January 2, 2013 to the FDEP. In a letter dated May 11, 2012, the FDEP was notified of USG's intent to design a groundwater monitoring plan (GWMP) for the site. During September 2012, four monitoring wells were installed and developed, as indicated on the monitoring well completion reports that we submitted to the FDEP on October 17, 2012 (stipulated by condition 13 of the MPIS). On September 24, 2012 groundwater samples were collected on from the four monitoring wells as Golder summarized in the November 14, 2012 letter report that we submitted to the FDEP, which included a figure depicting the monitoring well locations as surveyed by a Florida Licenses Surveyor and Mapper, and a copy of the surveyor's certified report (stipulated by condition 14 of the MPIS). The November 14, 2012 letter report included a plan to measure water levels and collect groundwater samples on a quarterly basis to further evaluate site specific groundwater conditions so that the results can be included in the GWMP that is currently due on August 31, 2013.

2.0 GROUNDWATER LEVELS

On December 17, 2012, the depth to water was measured to the nearest hundredth-foot below the top of the casing in monitoring wells MW-1 through MW-4. The December 2012 water-level measurements indicate a depth to water of approximately two to four feet below ground surface (ft bgs), whereas the September 2012 water levels were less than two ft bgs for monitoring well MW-2 through MW-4, and nearer to three ft bgs at monitoring well MW-1. Table 1 summarizes water-level data. The inferred direction of groundwater flow at the site on December 17, 2012 is approximately west-southwest, which is generally consistent with the southwest direction inferred from the data collected and reported for the

\\tam1-s-fs1-vm\data\projects\2010proj\10389612 usg crystal river gypsum & stormwater sampling\200 reports\224 draft 2nd qtr gw update\final\2nd qtr gw monitoring plan update rev.docx

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September 24, 2012 event. Figure 1 depicts water-level elevations, including interpolated water-level elevation isocontours for the December 17, 2012 event.

3.0 LABORATORY RESULTS

On December 17, 2012 groundwater samples were collected from monitoring wells MW-1 through MW-4 in accordance with the FDEP's standard operating procedures and sent to Accutest Laboratories Southeast, Inc. in Orlando, Florida, a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory, for analysis of aluminum, antimony, arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, sodium, chloride, nitrate as nitrogen, nitrite, sulfate, total dissolved solids (TDS), fluoride, gross alpha, radium-226, radium-228, boron, thallium, vanadium, and uranium. Attachment 1 provides copies of groundwater sampling logs for samples collected December 17, 2012. Table 2 summarizes laboratory reported concentrations for detected constituents.

For groundwater samples collected December 17, 2012, the laboratory reported that antimony, cadmium, chromium, copper, lead, nickel, nitrate, selenium, nitrite, thallium, uranium, and vanadium concentrations are below the laboratory method detection limits (MDLs) and that the MDLs are below groundwater criteria listed in Chapter 62-777 Florida Administrative Code (FAC). Chromium, nitrate, and uranium were detected by the laboratory in the groundwater samples collected on September 24, 2012 at the concentrations listed in Table 2. The laboratory reported detecting the remaining constituents analyzed in groundwater samples collected December 17, 2012 from at least one monitoring well, and select constituent concentrations are reportedly near or above the water quality criteria cited in Specific Condition 31(h) of the ERP 312680-001, as applicable. Attachment 2 provides a copy of the laboratory report.

4.0 CERTIFICATION

This document, titled *2nd Quarter Groundwater Monitoring Report...FDEP WACS Facility 100934*, dated February 12, 2013, was prepared in accordance with currently accepted practices in the field of hydrogeology under the supervision and oversight of the undersigned. No other warranties are expressed or implied.


Gregory A. O'Neal II, PG
Florida License No. 2400

2/12/13
Date

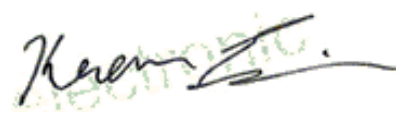
A separate notification will be emailed to you for the groundwater sampling event scheduled to be conducted during March 2013. If you have any questions, comments, and/or require additional information, please call and/or email the undersigned.

Sincerely,

GOLDER ASSOCIATES INC.



Gregory A. O'Neal II, PG
Senior Project Geologist



Kerem H. Esin, PE
Associate and Senior Consultant

cc: John Bolden, United States Gypsum Company (via email)
Tracy Friewald, FDEP (via email)

Attachments Table 1 – Water-Level Data
 Table 2 – Summary of Laboratory Analyses Results for Groundwater Samples
 Figure 1 – Water-Level Elevations December 17, 2012

 Attachment 1 – Groundwater Sampling Logs
 Attachment 2 – Laboratory Report

GAO/KHE/ev

TABLES

Table 1: Water-Level Data - WACS Facility 100934 - US Gypsum, Crystal River, Florida

Monitoring Well I.D.	Date	Measure Point Elevation ¹	Depth to Water ²	Water-Level Elevation ³
MW-1	9/24/2012	9.33	5.22	4.11
	12/17/2012	9.33	6.78	2.55
MW-2	9/24/2012	9.00	5.04	3.96
	12/17/2012	9.00	6.51	2.49
MW-3	9/24/2012	7.03	3.11	3.92
	12/17/2012	7.03	4.54	2.49
MW-4	9/24/2012	8.65	4.69	3.96
	12/17/2012	8.65	6.12	2.53

Checked: JD

Reviewed: GAO

Notes:

\1 Top of monitoring well casing surveyed September 24, 2012 by professional land surveyor in feet North American Vertical Datum of 1988 (NAVD 88).

\2 Depth to water in feet below measure point

\3 Feet NAVD 88

**Table 2: Summary of Laboratory Analyses Results for Groundwater Samples
WACS Facility 100934 - US Gypsum, Crystal River, Florida**

Constituent	unit	Sample Identification and Collection Date							
		MW-1		MW-2		MW-3		MW-4	
		9/24/2012	12/17/2012	9/24/2012	12/17/2012	9/24/2012	12/17/2012	9/24/2012	12/17/2012
Aluminum	µg/L	200	33.0 I	16.4 I	43.1 I	39.1 I	35.3 I	105 I	40.6 I
Arsenic	µg/L	19.2	21.1	7.1 I	8.0 I	5.4 I	5.5 I	9.6 I	25.5
Boron	µg/L	373	312	165	156	230	213	298	327
Chromium	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 I	2.0 U
Iron	mg/L	4.98	5.15	1.8	2.79	3.01	4.55	2.52	3.89
Manganese	µg/L	101	102	24.6	35.8	35.6	42	81.8	147
Molybdenum	µg/L	1.8 I	3.2 I	1.2 I	1.7 I	3.5 I	1.2 I	1.4 I	3.2 I
Sodium	mg/L	116	99.4	109	124	173	159	154	165
Vanadium	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 I	1.0 U
Chloride	mg/L	212	187	250	486	329	326	319	316
Fluoride	mg/L	0.25 U	0.38 I	1.5	0.30 U	0.42 I	0.38 I	0.29 I	0.30 U
Nitrate	mg/L	0.41 I	0.25 U	0.25 U	0.25 U	0.30 I	0.25 U	0.25 U	0.25 U
Total Dissolved Solids	mg/L	704	696	764	790	929	882	930	1020
Sulfate	mg/L	42.4	36.4	20.1	35.3	20	5.9 I	58.4	50.8
Gross Alpha	pCi/L	2.9±1.8	4.5±1.9	5.9±1.5	2.8 U±1.9	4.3±2.6	5.1±2.3	10.3±2.2	10.1±2.9
Radium 226	pCi/L	1.7±0.3	3.7±0.5	3.7±0.3	2.3±0.4	4.2±0.3	3.9±0.5	6.2±0.4	8.3±0.8
Radium 228	pCi/L	1.0±0.6	0.9±0.6	0.7 U±0.5	0.9 U±0.6	0.8 U±0.5	1.3±0.6	0.9±0.6	0.9 U±0.6
Sum of Radium-226 and Radium-228	pCi/L	2.7±0.9	4.6±1.1	4.4±0.8	3.2±1.0	5.0±0.8	5.2±1.1	8.1±1.0	9.2±1.4
Uranium	pCi/L	0.7±0.6	0.5 U±0.4	1.3±0.7	0.5 U±0.5	0.6 U±0.4	0.5 U±0.4	1.3±1.7	0.6 U±0.5

Notes:

µg/L = micrograms per liter

mg/L = milligrams per liter

pCi/L = picocurie per liter

NA = not applicable

U = Indicates that the compound was analyzed for but not detected.

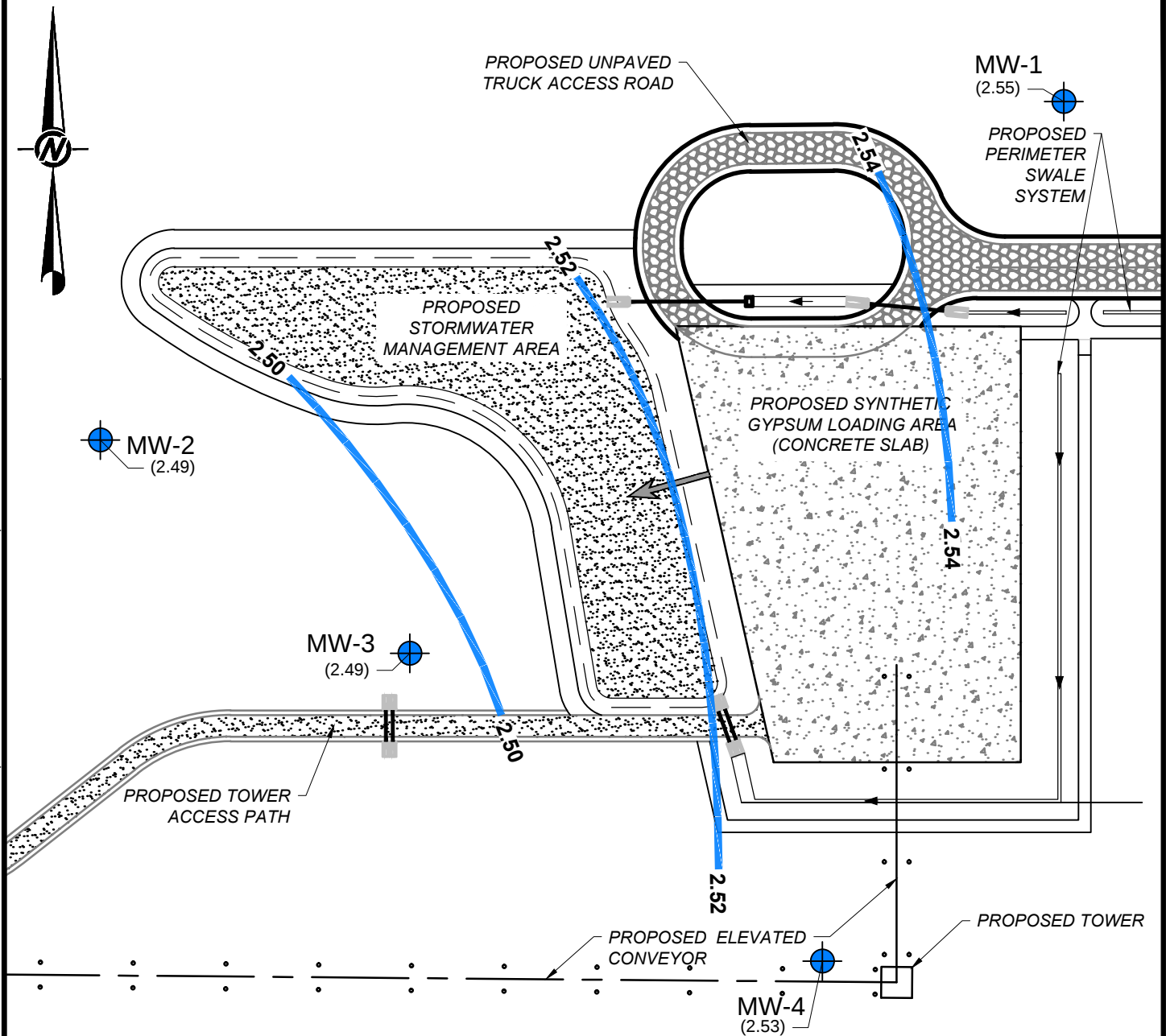
I = The reported value is between the laboratory method detection limit (MDL) and the laboratory practical quantitative limit.

Checked: ELV

Reviewed: GAO

FIGURE

N:\File\2010\103-89612F - RC Title\Active Drawings\10389612-F004.dwg | Layout: WATER LEVEL ELEVATIONS - SEPTEMBER 24 2012 - | Modified: blucero 01/29/2013 10:02 AM | Plotted: blucero 02/12/13 Jacksonville, FL



LEGEND

-  MONITORING WELL
- (2.49) WATER-LEVEL ELEVATION (FT. - NAVD88)
-  GROUNDWATER ELEVATION CONTOUR (DASHED WHERE EXTRAPOLATED)
-  ESTIMATED GROUNDWATER FLOW DIRECTION

NOTES

- 1) OTHER FEATURES SHOWN ARE PROPOSED AND DO NOT EXIST.

REFERENCES

- 1) BASE MAP TAKEN FROM CADD FILE ORIGINALLY PREPARED BY PROGRESSIVE WATER RESOURCES TITLED "STORMWATER MANAGEMENT PLAN", FILE NAME "USG STORMWATER PLAN 4-24-12.dwg", DATED APRIL 12, 2012.



												
REV	DATE	DES	REVISION DESCRIPTION						CADD	CHK	RVW	
PROJECT UNITED STATES GYPSUM COMPANY CRYSTAL RIVER FACILITY CITRUS COUNTY, FLORIDA												
TITLE WATER-LEVEL ELEVATIONS - DECEMBER 17, 2012 -												
			PROJECT No.			103-89612		FILE No.			10389612-F004	
			DESIGN		GAO	10/24/12		SCALE			AS SHOWN	
			CADD		BCL	10/24/12		FIGURE 1				
			CHECK		.	.						
			REVIEW		.	.						



ATTACHMENT 1
GROUNDWATER SAMPLING LOGS

Form FD 9000-24

SITE NAME: US Gypsum 103-89612GW		SITE LOCATION: Crystal River, FL	
WELL NO: MW-1	SAMPLE ID: MW-1	DATE: 12/17/12	

PURGING DATA

[illegible]

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Gene Morelli / Golder Associates				SAMPLER(S) SIGNATURE(S) 			SAMPLING INITIATED AT: 1128		SAMPLING ENDED AT: 1142	
PUMP OR TUBING DEPTH IN WELL (feet): 16				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <u>N</u> Filtration Equipment Type:		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y <u>N</u> TUBING Y <u>N (replaced)</u>							DUPLICATE: Y <u>N</u>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
MW-1	1	PE	1 L	Ice	-	-	Cl-, NO3--as N, NO2-, SO4, TDS, F-	APP	380	
MW-1	1	PE	0.5 L	HNO3	-	< 2	Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Na, B, Ti, V	APP	380	
MW-1	1	PE	1 L	HNO3	-	< 2	Gross Alpha	APP	380	
MW-1	1	PE	1 L	HNO3	-	< 2	Ra 226, Ra 228	APP	380	
MW-1	1	PE	1 L	HNO3	-	< 2	Uranium	APP	380	
REMARKS:										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)										

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally $+5$ NTU or $+10\%$ (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

SITE NAME: US Gypsum 103-89612GW		SITE LOCATION: Crystal River, FL	
WELL NO: MW-2	SAMPLE ID: MW-2		DATE: 12/17/12

PURGING DATA

WELL DIAMETER (inches): 2		TUBING DIAMETER (inches): 1/4		WELL SCREEN INTERVAL DEPTH: 10 feet to 15 feet		STATIC DEPTH TO WATER (feet): 6.51		PURGE PUMP TYPE OR BAILER: PP				
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) $= (\text{feet} - \text{feet}) \times \text{gallons/foot} = \text{gallons}$												
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) $= 0 \text{ gallons} + (0.0026 \text{ gallons/foot} \times 30 \text{ feet}) + 0.2 \text{ gallons} = 0.3 \text{ gallons}$												
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12.5			FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12.5			PURGING INITIATED AT: 1249		PURGING ENDED AT: 1339		TOTAL VOLUME PURGED (gallons): 5.0		
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) $\frac{\text{mg/L}}{\% \text{ saturation}}$		TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1333	4.4	4.4	0.1	7.15	6.87	22.03	1292	0.11	1.2	9.04	none	none
1336	0.3	4.7	0.10	7.15	6.86	22.00	1292	0.11	1.2	8.24	none	none
1339	0.3	5.0	0.1	7.15	6.86	21.95	1292	0.11	1.3	7.90	none	none
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 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												
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)												

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Gene Morelli / Golder Associates				SAMPLE(S) SIGNATURE(S): 			SAMPLING INITIATED AT: 1340		SAMPLING ENDED AT: 1355	
PUMP OR TUBING DEPTH IN WELL (feet): 12.5				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y ☒ N ☐		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y ☒ N ☐ TUBING Y ☒ N (replaced)							DUPLICATE: Y ☒ N ☐			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
MW-2	1	PE	1 L	Ice	-	-	Cl-, NO3- as N, NO2-, SO4, TDS, F-		APP	380
MW-2	1	PE	0.5 L	HNO3	-	< 2	Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Na, B, Ti, V		APP	380
MW-2	1	PE	1 L	HNO3	-	< 2	Gross Alpha		APP	380
MW-2	1	PE	1 L	HNO3	-	< 2	Ra 226, Ra 228		APP	380
MW-2	1	PE	1 L	HNO3	-	< 2	Uranium		APP	380
REMARKS:										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)										

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, $+0.2$ mg/L or $+10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally $+5$ NTU or $+10\%$ (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

SITE NAME: US Gypsum 103-89612GW		SITE LOCATION: Crystal River, FL	
WELL NO: Mw-3	SAMPLE ID: mw-3	DATE: 12/17/12	

PURGING DATA

[illegible]

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Gene Morelli / Golder Associates				SAMPLER(S) SIGNATURE(S): 			SAMPLING INITIATED AT: 1440		SAMPLING ENDED AT: 1455	
PUMP OR TUBING DEPTH IN WELL (feet): 12				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y ☒ N		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y ☒ N TUBING Y ☒ N (replaced)							DUPLICATE: Y ☒ N			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
MW-7	1	PE	1 L	Ice	-	-	Cl-, NO3- as N, NO2-, SO4, TDS, F-	APP	380	
MW-3	1	PE	0.5 L	HNO3	-	< 2	Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Na, B, Ti, V	APP	380	
MW-3	1	PE	1 L	HNO3	-	< 2	Gross Alpha	APP	380	
MW-3	1	PE	1 L	HNO3	-	< 2	Ra 226, Ra 228	APP	380	
MW-3	1	PE	1 L	HNO3	-	< 2	Uranium	APP	380	
REMARKS:										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)										

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, $+0.2$ mg/L or $+10\%$ (whichever is greater) **Turbidity:** all readings < 20 NTU; optionally $+5$ NTU or $+10\%$ (whichever is greater)

Revision Date: February 12, 2009

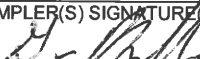
Form FD 9000-24

SITE NAME: US Gypsum 103-89612GW		SITE LOCATION: Crystal River, FL	
WELL NO: MW-8	SAMPLE ID: MW-8	DATE: 12/17/12	

PURGING DATA

[illegible]

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Gene Morelli / Golder Associates				SAMPLER(S) SIGNATURE(S): 			SAMPLING INITIATED AT: 1225		SAMPLING ENDED AT: 1240	
PUMP OR TUBING DEPTH IN WELL (feet): 15.5				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y ☒ N ☒ Filtration Equipment Type:		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y ☒ N ☒ TUBING Y ☒ N (replaced)							DUPLICATE: Y ☒ N ☒			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
MW-4	1	PE	1 L	Ice	-	-	Cl-, NO3- as N, NO2-, SO4, TDS, F-	APP		380
MW-4	1	PE	0.5 L	HNO3	-	< 2	Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Na, B, Ti, V	APP		380
MW-4	1	PE	1 L	HNO3	-	< 2	Gross Alpha	APP		380
MW-4	1	PE	1 L	HNO3	-	< 2	Ra 226, Ra 228	APP		380
MW-4	1	PE	1 L	HNO3	-	< 2	Uranium	APP		380
REMARKS:										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)										

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally $+ 5$ NTU or $+ 10\%$ (whichever is greater)

Revision Date: February 12, 2009

ATTACHMENT 2
LABORATORY REPORT(S)



12/31/12

Technical Report for

Golder Associates, Inc

US Gypsum; Crystal River, FL

103-89612GW/0200

Accutest Job Number: FA98

Sampling Date: 12/17/12

Report to:

Golder Associates, Inc
5100 W Lemon St Suite 208
Tampa, FL 33609
gregory_o'neal@golder.com

ATTN: Gregory O'Neal

Total number of pages in report: **49**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi
Harry Behzadi, Ph.D.
Laboratory Director

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Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001)
DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), AK, AR, GA, KY, MA, NV, OK, UT, VA, WA, WI

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Test results relate only to samples analyzed.

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Sample Summary

Golder Associates, Inc

Job No: FA98

US Gypsum; Crystal River, FL
Project No: 103-89612GW/0200

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
FA98-1	12/17/12	11:28 GM	12/19/12	AQ	Ground Water	MW-1
FA98-2	12/17/12	12:25 GM	12/19/12	AQ	Ground Water	MW-4
FA98-3	12/17/12	13:40 GM	12/19/12	AQ	Ground Water	MW-2
FA98-4	12/17/12	14:40 GM	12/19/12	AQ	Ground Water	MW-3

Summary of Hits

Job Number: FA98
Account: Golder Associates, Inc
Project: US Gypsum; Crystal River, FL
Collected: 12/17/12

Lab Sample ID	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
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FA98-1 MW-1

Aluminum	33.0 I	200	15	ug/l	SW846 6010C
Arsenic	21.1	10	2.5	ug/l	SW846 6010C
Boron ^a	312	100	1.1	ug/l	SW846 6010C
Iron	5150	300	29	ug/l	SW846 6010C
Manganese	102	15	0.70	ug/l	SW846 6010C
Mercury	0.036 I	0.50	0.030	ug/l	SW846 7470A
Molybdenum	3.2 I	50	1.0	ug/l	SW846 6010C
Nickel	0.80 I	40	0.50	ug/l	SW846 6010C
Sodium	99400	20000	1000	ug/l	SW846 6010C
Chloride	187	10	4.0	mg/l	EPA 300/SW846 9056A
Fluoride ^b	0.38 I	1.0	0.30	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrite ^c	0.26 I	0.50	0.25	mg/l	EPA 300/SW846 9056A
Solids, Total Dissolved	696	100	10	mg/l	SM19 2540C
Sulfate	36.4	10	3.0	mg/l	EPA 300/SW846 9056A

FA98-2 MW-4

Aluminum	40.6 I	200	15	ug/l	SW846 6010C
Arsenic	25.5	10	2.5	ug/l	SW846 6010C
Boron ^a	327	100	1.1	ug/l	SW846 6010C
Iron	3890	300	29	ug/l	SW846 6010C
Manganese	147	15	0.70	ug/l	SW846 6010C
Mercury	0.038 I	0.50	0.030	ug/l	SW846 7470A
Molybdenum	3.2 I	50	1.0	ug/l	SW846 6010C
Nickel	0.90 I	40	0.50	ug/l	SW846 6010C
Sodium	165000	40000	2000	ug/l	SW846 6010C
Chloride	316	10	4.0	mg/l	EPA 300/SW846 9056A
Solids, Total Dissolved	1020	100	10	mg/l	SM19 2540C
Sulfate	50.8	10	3.0	mg/l	EPA 300/SW846 9056A

FA98-3 MW-2

Aluminum	43.1 I	200	15	ug/l	SW846 6010C
Arsenic	8.0 I	10	2.5	ug/l	SW846 6010C
Boron ^a	156	100	1.1	ug/l	SW846 6010C
Iron	2790	300	29	ug/l	SW846 6010C
Manganese	35.8	15	0.70	ug/l	SW846 6010C
Mercury	0.037 I	0.50	0.030	ug/l	SW846 7470A
Molybdenum	1.7 I	50	1.0	ug/l	SW846 6010C
Selenium	2.7 I	10	2.0	ug/l	SW846 6010C
Sodium	124000	40000	2000	ug/l	SW846 6010C
Chloride	486	10	4.0	mg/l	EPA 300/SW846 9056A
Solids, Total Dissolved	790	100	10	mg/l	SM19 2540C

Summary of Hits

Job Number: FA98
Account: Golder Associates, Inc
Project: US Gypsum; Crystal River, FL
Collected: 12/17/12

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
Sulfate		35.3	10	3.0	mg/l	EPA 300/SW846 9056A
FA98-4	MW-3					
Aluminum		35.3 I	200	15	ug/l	SW846 6010C
Arsenic		5.5 I	10	2.5	ug/l	SW846 6010C
Boron ^a		213	100	1.1	ug/l	SW846 6010C
Iron		4550	300	29	ug/l	SW846 6010C
Manganese		42.0	15	0.70	ug/l	SW846 6010C
Mercury		0.039 I	0.50	0.030	ug/l	SW846 7470A
Molybdenum		1.2 I	50	1.0	ug/l	SW846 6010C
Sodium		159000	40000	2000	ug/l	SW846 6010C
Chloride		326	10	4.0	mg/l	EPA 300/SW846 9056A
Fluoride ^b		0.38 I	1.0	0.30	mg/l	EPA 300/SW846 9056A
Solids, Total Dissolved		882	100	10	mg/l	SM19 2540C
Sulfate ^b		5.9 I	10	3.0	mg/l	EPA 300/SW846 9056A

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

(b) Dilution required due to matrix interference.

(c) Sample received near the end of hold time. Analyzed as soon as possible. Dilution required due to matrix interference.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: MW-1
Lab Sample ID: FA98-1
Matrix: AQ - Ground Water
Project: US Gypsum; Crystal River, FL

Date Sampled: 12/17/12

Date Received: 12/19/12

Percent Solids: n/a

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	33.0 I	200	15	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Antimony	1.3 U	6.0	1.3	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Arsenic	21.1	10	2.5	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Boron ^a	312	100	1.1	ug/l	1	12/21/12	12/21/12 AMA	SW846 6010C ¹	SW846 3010A ⁵
Cadmium	0.50 U	5.0	0.50	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Chromium	2.0 U	10	2.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Copper	1.0 U	25	1.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Iron	5150	300	29	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Lead	1.1 U	5.0	1.1	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Manganese	102	15	0.70	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Mercury	0.036 I	0.50	0.030	ug/l	1	12/20/12	12/20/12 JL	SW846 7470A ²	SW846 7470A ⁶
Molybdenum	3.2 I	50	1.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Nickel	0.80 I	40	0.50	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Selenium	2.0 U	10	2.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Sodium	99400	20000	1000	ug/l	2	12/21/12	12/28/12 LM	SW846 6010C ⁴	SW846 3010A ⁷
Thallium	1.3 U	10	1.3	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Vanadium	1.0 U	50	1.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷

(1) Instrument QC Batch: M:MA15105

(2) Instrument QC Batch: MA10404

(3) Instrument QC Batch: MA10418

(4) Instrument QC Batch: MA10420

(5) Prep QC Batch: M:MP20267

(6) Prep QC Batch: MP24318

(7) Prep QC Batch: MP24333

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	MW-1	Date Sampled:	12/17/12
Lab Sample ID:	FA98-1	Date Received:	12/19/12
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	US Gypsum; Crystal River, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Chloride	187	10	4.0	mg/l	5	12/19/12 12:03 AA	EPA 300/SW846	9056A
Fluoride ^a	0.38 I	1.0	0.30	mg/l	5	12/19/12 12:03 AA	EPA 300/SW846	9056A
Nitrogen, Nitrate ^b	0.25 U	0.50	0.25	mg/l	5	12/19/12 12:03 AA	EPA 300/SW846	9056A
Nitrogen, Nitrite ^b	0.26 I	0.50	0.25	mg/l	5	12/19/12 12:03 AA	EPA 300/SW846	9056A
Solids, Total Dissolved	696	100	10	mg/l	1	12/20/12	KV	SM19 2540C
Sulfate	36.4	10	3.0	mg/l	5	12/19/12 12:03 AA	EPA 300/SW846	9056A

(a) Dilution required due to matrix interference.

(b) Sample received near the end of hold time. Analyzed as soon as possible. Dilution required due to matrix interference.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID: MW-4
Lab Sample ID: FA98-2
Matrix: AQ - Ground Water
Project: US Gypsum; Crystal River, FL

Date Sampled: 12/17/12
Date Received: 12/19/12
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	40.6 I	200	15	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Antimony	1.3 U	6.0	1.3	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Arsenic	25.5	10	2.5	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Boron ^a	327	100	1.1	ug/l	1	12/21/12	12/21/12 AMA	SW846 6010C ¹	SW846 3010A ⁵
Cadmium	0.50 U	5.0	0.50	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Chromium	2.0 U	10	2.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Copper	1.0 U	25	1.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Iron	3890	300	29	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Lead	1.1 U	5.0	1.1	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Manganese	147	15	0.70	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Mercury	0.038 I	0.50	0.030	ug/l	1	12/20/12	12/20/12 JL	SW846 7470A ²	SW846 7470A ⁶
Molybdenum	3.2 I	50	1.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Nickel	0.90 I	40	0.50	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Selenium	2.0 U	10	2.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Sodium	165000	40000	2000	ug/l	4	12/21/12	12/28/12 LM	SW846 6010C ⁴	SW846 3010A ⁷
Thallium	1.3 U	10	1.3	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Vanadium	1.0 U	50	1.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷

(1) Instrument QC Batch: M:MA15105

(2) Instrument QC Batch: MA10404

(3) Instrument QC Batch: MA10418

(4) Instrument QC Batch: MA10420

(5) Prep QC Batch: M:MP20267

(6) Prep QC Batch: MP24318

(7) Prep QC Batch: MP24333

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID: MW-4
Lab Sample ID: FA98-2
Matrix: AQ - Ground Water
Project: US Gypsum; Crystal River, FL

Date Sampled: 12/17/12
Date Received: 12/19/12
Percent Solids: n/a

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Chloride	316	10	4.0	mg/l	5	12/19/12 12:18 AA	EPA 300/SW846	9056A
Fluoride ^a	0.30 U	1.0	0.30	mg/l	5	12/19/12 12:18 AA	EPA 300/SW846	9056A
Nitrogen, Nitrate ^a	0.25 U	0.50	0.25	mg/l	5	12/19/12 12:18 AA	EPA 300/SW846	9056A
Nitrogen, Nitrite ^a	0.25 U	0.50	0.25	mg/l	5	12/19/12 12:18 AA	EPA 300/SW846	9056A
Solids, Total Dissolved	1020	100	10	mg/l	1	12/20/12	KV	SM19 2540C
Sulfate	50.8	10	3.0	mg/l	5	12/19/12 12:18 AA	EPA 300/SW846	9056A

(a) Dilution required due to matrix interference.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID: MW-2	Date Sampled: 12/17/12
Lab Sample ID: FA98-3	Date Received: 12/19/12
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: US Gypsum; Crystal River, FL	

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	43.1 I	200	15	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Antimony	1.3 U	6.0	1.3	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Arsenic	8.0 I	10	2.5	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Boron ^a	156	100	1.1	ug/l	1	12/21/12	12/21/12 AMA	SW846 6010C ¹	SW846 3010A ⁵
Cadmium	0.50 U	5.0	0.50	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Chromium	2.0 U	10	2.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Copper	1.0 U	25	1.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Iron	2790	300	29	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Lead	1.1 U	5.0	1.1	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Manganese	35.8	15	0.70	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Mercury	0.037 I	0.50	0.030	ug/l	1	12/20/12	12/20/12 JL	SW846 7470A ²	SW846 7470A ⁶
Molybdenum	1.7 I	50	1.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Nickel	0.50 U	40	0.50	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Selenium	2.7 I	10	2.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Sodium	124000	40000	2000	ug/l	4	12/21/12	12/28/12 LM	SW846 6010C ⁴	SW846 3010A ⁷
Thallium	1.3 U	10	1.3	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Vanadium	1.0 U	50	1.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷

(1) Instrument QC Batch: M:MA15105

(2) Instrument QC Batch: MA10404

(3) Instrument QC Batch: MA10418

(4) Instrument QC Batch: MA10420

(5) Prep QC Batch: M:MP20267

(6) Prep QC Batch: MP24318

(7) Prep QC Batch: MP24333

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID: MW-2
Lab Sample ID: FA98-3
Matrix: AQ - Ground Water
Project: US Gypsum; Crystal River, FL

Date Sampled: 12/17/12
Date Received: 12/19/12
Percent Solids: n/a

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Chloride	486	10	4.0	mg/l	5	12/19/12 12:33 AA	EPA 300/SW846	9056A
Fluoride ^a	0.30 U	1.0	0.30	mg/l	5	12/19/12 12:33 AA	EPA 300/SW846	9056A
Nitrogen, Nitrate ^a	0.25 U	0.50	0.25	mg/l	5	12/19/12 12:33 AA	EPA 300/SW846	9056A
Nitrogen, Nitrite ^a	0.25 U	0.50	0.25	mg/l	5	12/19/12 12:33 AA	EPA 300/SW846	9056A
Solids, Total Dissolved	790	100	10	mg/l	1	12/20/12	KV	SM19 2540C
Sulfate	35.3	10	3.0	mg/l	5	12/19/12 12:33 AA	EPA 300/SW846	9056A

(a) Dilution required due to matrix interference.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID: MW-3

Lab Sample ID: FA98-4

Matrix: AQ - Ground Water

Project: US Gypsum; Crystal River, FL

Date Sampled: 12/17/12

Date Received: 12/19/12

Percent Solids: n/a

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	35.3 I	200	15	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Antimony	1.3 U	6.0	1.3	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Arsenic	5.5 I	10	2.5	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Boron ^a	213	100	1.1	ug/l	1	12/21/12	12/21/12 AMA	SW846 6010C ¹	SW846 3010A ⁵
Cadmium	0.50 U	5.0	0.50	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Chromium	2.0 U	10	2.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Copper	1.0 U	25	1.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Iron	4550	300	29	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Lead	1.1 U	5.0	1.1	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Manganese	42.0	15	0.70	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Mercury	0.039 I	0.50	0.030	ug/l	1	12/20/12	12/20/12 JL	SW846 7470A ²	SW846 7470A ⁶
Molybdenum	1.2 I	50	1.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Nickel	0.50 U	40	0.50	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Selenium	2.0 U	10	2.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Sodium	159000	40000	2000	ug/l	4	12/21/12	12/28/12 LM	SW846 6010C ⁴	SW846 3010A ⁷
Thallium	1.3 U	10	1.3	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷
Vanadium	1.0 U	50	1.0	ug/l	1	12/21/12	12/24/12 LM	SW846 6010C ³	SW846 3010A ⁷

(1) Instrument QC Batch: M:MA15105

(2) Instrument QC Batch: MA10404

(3) Instrument QC Batch: MA10418

(4) Instrument QC Batch: MA10420

(5) Prep QC Batch: M:MP20267

(6) Prep QC Batch: MP24318

(7) Prep QC Batch: MP24333

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID: MW-3
Lab Sample ID: FA98-4
Matrix: AQ - Ground Water
Project: US Gypsum; Crystal River, FL

Date Sampled: 12/17/12
Date Received: 12/19/12
Percent Solids: n/a

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Chloride	326	10	4.0	mg/l	5	12/19/12 12:48 AA	EPA 300/SW846	9056A
Fluoride ^a	0.38 I	1.0	0.30	mg/l	5	12/19/12 12:48 AA	EPA 300/SW846	9056A
Nitrogen, Nitrate ^a	0.25 U	0.50	0.25	mg/l	5	12/19/12 12:48 AA	EPA 300/SW846	9056A
Nitrogen, Nitrite ^a	0.25 U	0.50	0.25	mg/l	5	12/19/12 12:48 AA	EPA 300/SW846	9056A
Solids, Total Dissolved	882	100	10	mg/l	1	12/20/12	KV	SM19 2540C
Sulfate ^a	5.9 I	10	3.0	mg/l	5	12/19/12 12:48 AA	EPA 300/SW846	9056A

(a) Dilution required due to matrix interference.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

[illegible]

FA98: Chain of Custody

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ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA98 CLIENT: Colder PROJECT: U.S. Gypsum
 DATE/TIME RECEIVED: 12-19-12 0800 (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: _____

COOLER INFORMATION

- ☐ CUSTODY SEAL NOT PRESENT OR NOT INTACT
- ☐ CHAIN OF CUSTODY NOT RECEIVED (COC)
- ☐ ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- ☐ SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- ☐ TEMPERATURE CRITERIA NOT MET
- ☐ WET ICE PRESENT

TRIP BLANK INFORMATION

- ☐ TRIP BLANK PROVIDED
- ☒ TRIP BLANK NOT PROVIDED
- ☒ TRIP BLANK NOT ON COC
- ☐ TRIP BLANK INTACT
- ☐ TRIP BLANK NOT INTACT
- ☐ RECEIVED WATER TRIP BLANK
- ☐ RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES? 25-GRAM _____ 5-GRAM _____
 NUMBER OF 5035 FIELD KITS? _____
 NUMBER OF LAB FILTERED METALS? _____

TEMPERATURE INFORMATION

IR THERM ID 3 CORR. FACTOR +0.4
 OBSERVED TEMPS: 3.8
 CORRECTED TEMPS: 4.2

SAMPLE INFORMATION

- ☐ SAMPLE LABELS PRESENT ON ALL BOTTLES
- ☐ INCORRECT NUMBER OF CONTAINERS USED
- ☐ SAMPLE RECEIVED IMPROPERLY PRESERVED
- ☐ INSUFFICIENT VOLUME FOR ANALYSIS
- ☐ DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- ☐ ID'S ON COC DO NOT MATCH LABEL
- ☐ VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- ☐ BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- ☐ NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- ☐ UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- ☐ SAMPLE CONTAINER(S) RECEIVED BROKEN
- ☐ % SOLIDS JAR NOT RECEIVED
- ☐ 5035 FIELD KIT FROZEN WITHIN 48 HOURS
- ☐ RESIDUAL CHLORINE PRESENT

(APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS: _____

TECHNICIAN SIGNATURE/DATE [Signature] 12-19-12 REVIEWER SIGNATURE/DATE [Signature] 12-19-12
 NF 12/10 receipt confirmation 122910.xls

FA98: Chain of Custody

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Metals Analysis

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA98
Account: GOLDFLT - Golder Associates, Inc
Project: US Gypsum; Crystal River, FL

QC Batch ID: MP24318
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 12/20/12

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.50	.03	.03	0.034	<0.50

Associated samples MP24318: FA98-1, FA98-2, FA98-3, FA98-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

5.1.1

5

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA98
 Account: GOLDFLT - Golder Associates, Inc
 Project: US Gypsum; Crystal River, FL

QC Batch ID: MP24318
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 12/20/12 12/20/12

Metal	FA66-3F Original DUP		RPD	QC Limits	FA66-3F Original MS		Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.034	200.0(a)	0-20	0.0	2.9	3	96.7	80-120

Associated samples MP24318: FA98-1, FA98-2, FA98-3, FA98-4

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA98
 Account: GOLDFLT - Golder Associates, Inc
 Project: US Gypsum; Crystal River, FL

QC Batch ID: MP24318
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 12/20/12

Metal	FA66-3F Original	MSD	SpikeLot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.9	3	96.7	0.0	20

Associated samples MP24318: FA98-1, FA98-2, FA98-3, FA98-4

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA98
 Account: GOLDFLT - Golder Associates, Inc
 Project: US Gypsum; Crystal River, FL

QC Batch ID: MP24318
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 12/20/12

Metal	BSP Result	SpikeLot HGFLWS1	% Rec	QC Limits
Mercury	3.0	3	100.0	80-120

Associated samples MP24318: FA98-1, FA98-2, FA98-3, FA98-4

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

5.1.3
5

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA98
 Account: GOLDFLT - Golder Associates, Inc
 Project: US Gypsum; Crystal River, FL

QC Batch ID: MP24318
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 12/20/12

Metal	FA66-3F		%DIF	QC Limits
	Original	SDL 1:5		
Mercury	0.00	0.00	NC	0-10

Associated samples MP24318: FA98-1, FA98-2, FA98-3, FA98-4

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

5.1.4

5

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA98
Account: GOLDFLT - Golder Associates, Inc
Project: US Gypsum; Crystal River, FL

QC Batch ID: MP24333
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 12/21/12

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	15	15	9.7	<200
Antimony	6.0	1.3	1.3	0.50	<6.0
Arsenic	10	1.6	2.5	-0.30	<10
Barium	200	1	1		
Beryllium	4.0	.5	.5		
Cadmium	5.0	.5	.5	-0.10	<5.0
Calcium	1000	50	50		
Chromium	10	1.8	2	0.30	<10
Cobalt	50	.5	.5		
Copper	25	1	1	0.20	<25
Iron	300	29	29	8.2	<300
Lead	5.0	1.1	1.1	-0.30	<5.0
Magnesium	5000	74	74		
Manganese	15	.7	.7	0.30	<15
Molybdenum	50	.6	1	0.10	<50
Nickel	40	.5	.5	0.10	<40
Potassium	10000	200	200		
Selenium	10	2	2	2.2	<10
Silver	10	.5	.5		
Sodium	10000	500	500	1.3	<10000
Strontium	10	.5	.5		
Thallium	10	1.3	1.3	0.50	<10
Tin	50	.7	1.8		
Titanium	10	.9	1		
Vanadium	50	.5	1	0.20	<50
Zinc	20	3	5		

Associated samples MP24333: FA98-1, FA98-2, FA98-3, FA98-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA98
 Account: GOLDFLT - Golder Associates, Inc
 Project: US Gypsum; Crystal River, FL

QC Batch ID: MP24333
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date:

12/21/12

12/21/12

Metal	FA139-1 Original	DUP	RPD	QC Limits	FA139-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	12800	13000	1.6	0-20	12800	42000	27000	108.1	80-120
Antimony	718	706	1.7	0-20	718	1160	500	88.4	80-120
Arsenic	29.0	29.5	1.7	0-20	29.0	2080	2000	102.6	80-120
Barium	anr								
Beryllium									
Cadmium	6.5	6.5	0.0	0-20	6.5	56.7	50	100.4	80-120
Calcium									
Chromium	306	304	0.7	0-20	306	491	200	92.5	80-120
Cobalt									
Copper	4390	4380	0.2	0-20	4390	4420	250	12.0 (b)	80-120
Iron	132000	133000	0.8	0-20	132000	149000	26000	65.4 (b)	80-120
Lead	676	678	0.3	0-20	676	1120	500	88.8	80-120
Magnesium									
Manganese	1240	1250	0.8	0-20	1240	1710	500	94.0	80-120
Molybdenum	216	215	0.5	0-20	216	713	500	99.4	80-120
Nickel	116	117	0.9	0-20	116	636	500	104.0	80-120
Potassium									
Selenium	2.0	0.0	200.0(a)	0-20	2.0	1900	2000	94.9	80-120
Silver	anr								
Sodium	34900	35200	0.9	0-20	34900	62600	25000	110.8	80-120
Strontium									
Thallium	0.0	0.0	NC	0-20	0.0	2010	2000	100.5	80-120
Tin									
Titanium									
Vanadium	35.6	35.4	0.6	0-20	35.6	549	500	102.7	80-120
Zinc	anr								

Associated samples MP24333: FA98-1, FA98-2, FA98-3, FA98-4

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) RPD acceptable due to low duplicate and sample concentrations.

(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA98
 Account: GOLDFLT - Golder Associates, Inc
 Project: US Gypsum; Crystal River, FL

QC Batch ID: MP24333
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 12/21/12

Metal	FA139-1 Original	MSD	SpikeLot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum	12800	41200	27000	105.2	1.9	20
Antimony	718	1170	500	90.4	0.9	20
Arsenic	29.0	2040	2000	100.6	1.9	20
Barium	anr					
Beryllium						
Cadmium	6.5	56.5	50	100.0	0.4	20
Calcium						
Chromium	306	496	200	95.0	1.0	20
Cobalt						
Copper	4390	4610	250	88.0	4.2	20
Iron	132000	150000	26000	69.2 (a)	0.7	20
Lead	676	1140	500	92.8	1.8	20
Magnesium						
Manganese	1240	1720	500	96.0	0.6	20
Molybdenum	216	706	500	98.0	1.0	20
Nickel	116	627	500	102.2	1.4	20
Potassium						
Selenium	2.0	1830	2000	91.4	3.8	20
Silver	anr					
Sodium	34900	62600	25000	110.8	0.0	20
Strontium						
Thallium	0.0	1960	2000	98.0	2.5	20
Tin						
Titanium						
Vanadium	35.6	534	500	99.7	2.8	20
Zinc	anr					

Associated samples MP24333: FA98-1, FA98-2, FA98-3, FA98-4

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA98
 Account: GOLDFLT - Golder Associates, Inc
 Project: US Gypsum; Crystal River, FL

QC Batch ID: MP24333
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 12/21/12

Metal	BSP Result	Spike lot MPFLICP1	% Rec	QC Limits
Aluminum	30000	27000	111.1	80-120
Antimony	533	500	106.6	80-120
Arsenic	2040	2000	102.0	80-120
Barium	anr			
Beryllium				
Cadmium	51.4	50	102.8	80-120
Calcium				
Chromium	217	200	108.5	80-120
Cobalt				
Copper	284	250	113.6	80-120
Iron	27900	26000	107.3	80-120
Lead	503	500	100.6	80-120
Magnesium				
Manganese	556	500	111.2	80-120
Molybdenum	527	500	105.4	80-120
Nickel	545	500	109.0	80-120
Potassium				
Selenium	2050	2000	102.5	80-120
Silver	anr			
Sodium	27900	25000	111.6	80-120
Strontium				
Thallium	2100	2000	105.0	80-120
Tin				
Titanium				
Vanadium	525	500	105.0	80-120
Zinc	anr			

Associated samples MP24333: FA98-1, FA98-2, FA98-3, FA98-4

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA98
Account: GOLDFLT - Golder Associates, Inc
Project: US Gypsum; Crystal River, FL

QC Batch ID: MP24333
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 12/21/12

Metal	FA139-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	12800	13500	5.5	0-10
Antimony	718	753	4.9	0-10
Arsenic	29.0	30.5	5.2	0-10
Barium	anr			
Beryllium				
Cadmium	6.50	6.00	7.7	0-10
Calcium				
Chromium	306	326	6.4	0-10
Cobalt				
Copper	4390	4610	5.1	0-10
Iron	132000	144000	9.6	0-10
Lead	676	718	6.2	0-10
Magnesium				
Manganese	1240	1350	8.7	0-10
Molybdenum	216	225	3.8	0-10
Nickel	116	125	7.8	0-10
Potassium				
Selenium	2.00	0.00	100.0(a)	0-10
Silver	anr			
Sodium	34900	36600	4.9	0-10
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium	35.6	37.0	3.9	0-10
Zinc	anr			

Associated samples MP24333: FA98-1, FA98-2, FA98-3, FA98-4

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: FA98
 Account: GOLDFLT - Golder Associates, Inc
 Project: US Gypsum; Crystal River, FL

QC Batch ID: MP24333
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date:

12/21/12

Metal	Sample ml	Final ml	FA139-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum	9.8	10	12810	12553.8	15320	.2	125	2500	110.6	80-120
Antimony	9.8	10	718.1	703.738	814.9	.2	5	100	111.2	80-120
Arsenic	9.8	10	29	28.42	131.7	.2	5	100	103.3	80-120
Barium										
Beryllium										
Cadmium	9.8	10	6.5	6.37	57.3	.2	2.5	50	101.9	80-120
Calcium										
Chromium	9.8	10	305.9	299.782	349.4	.2	2.5	50	99.2	80-120
Cobalt										
Copper	9.8	10	4385	4297.3	4439	.2	5	100	141.7*(a	80-120
Iron	9.8	10	131700	129066	133200	.2	150	3000	137.8*(a	80-120
Lead	9.8	10	676.4	662.872	715.2	.2	2.5	50	104.7	80-120
Magnesium										
Manganese	9.8	10	1240	1215.2	1266	.2	2.5	50	101.6	80-120
Molybdenum	9.8	10	216.4	212.072	313.3	.2	5	100	101.2	80-120
Nickel	9.8	10	116.1	113.778	216.4	.2	5	100	102.6	80-120
Potassium										
Selenium	9.8	10	2	1.96	106.9	.2	5	100	104.9	80-120
Silver										
Sodium	9.8	10	34860	34162.8	45820	.2	500	10000	116.6	80-120
Strontium										
Thallium	9.8	10	0	0	99.3	.2	5	100	99.3	80-120
Tin										
Titanium										
Vanadium	9.8	10	35.6	34.888	85.3	.2	2.5	50	100.8	80-120
Zinc										

Associated samples MP24333: FA98-1, FA98-2, FA98-3, FA98-4

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(**) Corr. sample result = Raw * (sample volume / final volume)

(anr) Analyte not requested

(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA98
Account: GOLDFLT - Golder Associates, Inc
Project: US Gypsum; Crystal River, FL

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP20647/GN53347	2.0	0.0	mg/l	50	52.0	104.0	90-110%
Fluoride	GP20647/GN53347	0.20	0.0	mg/l	2.5	2.65	106.0	90-110%
Nitrogen, Nitrate	GP20647/GN53347	0.10	0.0	mg/l	2.5	2.51	100.4	90-110%
Nitrogen, Nitrite	GP20647/GN53347	0.10	0.0	mg/l	2.5	2.59	103.6	90-110%
Solids, Total Dissolved	GN53367	100	0.0	mg/l				
Sulfate	GP20647/GN53347	2.0	0.0	mg/l	50	53.1	106.2	90-110%

Associated Samples:

Batch GN53367: FA98-1, FA98-2, FA98-3, FA98-4

Batch GP20647: FA98-1, FA98-2, FA98-3, FA98-4

(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA98
Account: GOLDFLT - Golder Associates, Inc
Project: US Gypsum; Crystal River, FL

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN53367	FA98-4	mg/l	882	890	0.9	0-5%

Associated Samples:

Batch GN53367: FA98-1, FA98-2, FA98-3, FA98-4
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA98
Account: GOLDFLT - Golder Associates, Inc
Project: US Gypsum; Crystal River, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP20647/GN53347	FA93-1	mg/l	56.5	50	105	97.0	90-110%
Fluoride	GP20647/GN53347	FA93-1	mg/l	0.23	2.5	1.9	67.3N(a)	90-110%
Nitrogen, Nitrate	GP20647/GN53347	FA93-1	mg/l	0.13	2.5	2.5	94.8	90-110%
Nitrogen, Nitrite	GP20647/GN53347	FA93-1	mg/l	0.050 U	2.5	2.5	100.0	90-110%
Sulfate	GP20647/GN53347	FA93-1	mg/l	17.0	50	63.4	92.8	90-110%

Associated Samples:

Batch GP20647: FA98-1, FA98-2, FA98-3, FA98-4

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA98
Account: GOLDFLT - Golder Associates, Inc
Project: US Gypsum; Crystal River, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP20647/GN53347	FA93-1	mg/l	56.5	50	105	0.0	
Fluoride	GP20647/GN53347	FA93-1	mg/l	0.23	2.5	1.9	2.3N(a)	
Nitrogen, Nitrate	GP20647/GN53347	FA93-1	mg/l	0.13	2.5	2.5	0.0	
Nitrogen, Nitrite	GP20647/GN53347	FA93-1	mg/l	0.050 U	2.5	2.5	0.0	
Sulfate	GP20647/GN53347	FA93-1	mg/l	17.0	50	64.4	1.6	

Associated Samples:

Batch GP20647: FA98-1, FA98-2, FA98-3, FA98-4

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Spike recovery indicates possible matrix interference.

6.4

6

Misc. Forms

Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Chain of Custody



Accutest Laboratories Southeast Subcontract Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, FL 32811
TEL 407-425-6700 FAX: 407-425-0707
www.accutest.com

PAGE 1 OF 1

Client / Reporting Information				Project Information				Analytical Information												Matrix Codes	
Company Name: Accutest Laboratories				Project Name: FA98																DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe	
Address: 4405 Vineland Rd.				Please send report to dawnd@accutest.com																	
City: Orlando State: FL Zip: 32811				For any other issues contact munam@accutest.com																	
Phone #: (407) 425-6700 Fax#: (407) 425-0707																					
COLLECTION				CONTAINER INFORMATION												LAB USE ONLY					
Lab ID #	Sample ID	DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	ISO	INCH	INCH3	H2654	INCH+INCH3	DI WATER	MECH						
	FA98-1	12/17/12	11:28		GW	1					X					X					
	FA98-2	12/17/12	12:25		GW	1					X					X					
	FA98-3	12/17/12	13:40		GW	1					X					X					
	FA98-4	12/17/12	14:40		GW	1					X					X					
																6A					
Turnaround Time (Business days)				Data Deliverable Information				Comments / Remarks													
Std. 10 Business Days 7 Day RUSH 5 Day RUSH 3 Day EMERGENCY 2 Day EMERGENCY 1 Day EMERGENCY Other				Approved By: / Date/Rush Code: 12-26-12 ☐ COMMERCIAL "A" (RESULTS ONLY) ☒ COMMERCIAL "B" (RESULTS PLUS QC) ☐ REDT1 (EPA LEVEL 3) ☐ FULLT1 (EPA LEVEL 4) ☐ EDD'S				Ship to Laboratory - ALNE Approved by - Munam													
Sample Custody must be documented below each time samples change possession, including courier delivery.																					
Relinquished by Sampler/Affiliation		Date Time		Received By/Affiliation		Relinquished By/Affiliation		Date Time		Received By/Affiliation		Relinquished By/Affiliation		Date Time		Received By/Affiliation					
1 ASE		12/19/12		FED EX		FED EX		12-20-12		Way Munam											
5																					
Lab Use Only : Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved Where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 16.5																					

FA98: Chain of Custody
Page 1 of 3
Accutest Labs of New England, Inc.

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: FA98

Client: ACFL

Immediate Client Services Action Required: No

Date / Time Received: 12/20/2012 11:00

Delivery Method: FedEx

Project: SUB

No. Coolers: 1

Airbill #'s:

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | ☒ | ☐ | 3. COC Present: | ☒ | ☐ |
| 2. Custody Seals Intact: | ☒ | ☐ | 4. Smpl Dates/Time OK | ☒ | ☐ |

Cooler Temperature

Y or N

- | | | |
|------------------------------|--------------------------|-------------------------------------|
| 1. Temp criteria achieved: | ☐ | ☒ |
| 2. Cooler temp verification: | Infared gun | |
| 3. Cooler media: | No Ice | |

Quality Control Preservation

Y

N

N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | ☐ | ☐ | |
| 2. Trip Blank listed on COC: | ☐ | ☐ | |
| 3. Samples preserved properly: | ☒ | ☐ | |
| 4. VOCs headspace free: | ☐ | ☐ | ☒ |

Comments

-No ice in cooler came in at 16.5c

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | ☒ | ☐ |
| 2. Container labeling complete: | ☒ | ☐ |
| 3. Sample container label / COC agree: | ☒ | ☐ |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample rec'd within HT: | ☒ | ☐ |
| 2. All containers accounted for: | ☒ | ☐ |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y N N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | ☒ | ☐ | |
| 2. Bottles received for unspecified tests | ☐ | ☒ | |
| 3. Sufficient volume rec'd for analysis: | ☒ | ☐ | |
| 4. Compositing instructions clear: | ☐ | ☐ | ☒ |
| 5. Filtering instructions clear: | ☐ | ☐ | ☒ |



Sample Receipt Summary - Problem Resolution

Accutest Job Number: FA98

CSR: Frank D'Agostino

Response Date

12/21/2012

Response: Run samples per FL

7.1
7

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www.accutest.com

FA98: Chain of Custody
Page 3 of 3

Metals Analysis

QC Data Summaries

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA98
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: GOLDFLT: US Gypsum; Crystal River, FL

QC Batch ID: MP20267
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 12/21/12

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	31	31		
Antimony	6.0	1.8	1.8		
Arsenic	4.0	.83	1.9		
Barium	50	.78	.78		
Beryllium	4.0	.19	.28		
Boron	100	1.1	1.1	2.0	<100
Cadmium	4.0	.21	.21		
Calcium	5000	50	50		
Chromium	10	.39	.7		
Cobalt	50	.16	.4		
Copper	25	.92	1.4		
Gold	50	2.5	2.7		
Iron	100	5.1	11		
Lead	5.0	2.3	2.3		
Magnesium	5000	43	60		
Manganese	15	.19	.54		
Molybdenum	100	.58	1.5		
Nickel	40	.7	.7		
Palladium	50	2.9	7.9		
Platinum	50	7.9	9.6		
Potassium	5000	88	190		
Selenium	10	2.4	2.4		
Silicon	100	1.5	8.4		
Silver	5.0	1.5	1.5		
Sodium	5000	64	64		
Strontium	10	.33	.35		
Thallium	5.0	1.1	1.5		
Tin	100	.54	1.2		
Titanium	50	.59	.72		
Tungsten	100	6.9	14		
Vanadium	10	.75	1.3		
Zinc	20	2.9	4		

Associated samples MP20267: FA98-1, FA98-2, FA98-3, FA98-4

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA98
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: GOLDFLT: US Gypsum; Crystal River, FL

QC Batch ID: MP20267
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.1.1

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA98
 Account: ALSE - Accutest Laboratories Southeast, Inc.
 Project: GOLDFLT: US Gypsum; Crystal River, FL

QC Batch ID: MP20267
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 12/21/12

Metal	MC17014-9 Original MS	Spikelot MPICP	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium				
Boron	9.1	969	1000	96.0
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Gold				
Iron				
Lead	anr			
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Palladium				
Platinum				
Potassium				
Selenium	anr			
Silicon				
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium	anr			
Zinc	anr			

Associated samples MP20267: FA98-1, FA98-2, FA98-3, FA98-4

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA98
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: GOLDFLT: US Gypsum; Crystal River, FL

QC Batch ID: MP20267
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA98
 Account: ALSE - Accutest Laboratories Southeast, Inc.
 Project: GOLDFLT: US Gypsum; Crystal River, FL

QC Batch ID: MP20267
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 12/21/12

Metal	MC17014-9 Original MSD	SpikeLot MPICP	% Rec	MSD RPD	QC Limit
Aluminum					
Antimony					
Arsenic	anr				
Barium	anr				
Beryllium					
Boron	9.1	958	1000	94.9	1.1
Cadmium	anr				20
Calcium					
Chromium	anr				
Cobalt	anr				
Copper	anr				
Gold					
Iron					
Lead	anr				
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Palladium					
Platinum					
Potassium					
Selenium	anr				
Silicon					
Silver	anr				
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium	anr				
Zinc	anr				

Associated samples MP20267: FA98-1, FA98-2, FA98-3, FA98-4

8.1.2
8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA98
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: GOLDFLT: US Gypsum; Crystal River, FL

QC Batch ID: MP20267
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA98
 Account: ALSE - Accutest Laboratories Southeast, Inc.
 Project: GOLDFLT: US Gypsum; Crystal River, FL

QC Batch ID: MP20267
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 12/21/12 12/21/12

Metal	BSP Result	SpikeLot MPICP	% Rec	QC Limits	BSD Result	SpikeLot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	anr								
Barium	anr								
Beryllium									
Boron	959	1000	95.9	80-120	961	1000	96.1	0.2	20
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Gold									
Iron									
Lead	anr								
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Palladium									
Platinum									
Potassium									
Selenium	anr								
Silicon									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

Associated samples MP20267: FA98-1, FA98-2, FA98-3, FA98-4

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA98
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: GOLDFLT: US Gypsum; Crystal River, FL

QC Batch ID: MP20267
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA98
 Account: ALSE - Accutest Laboratories Southeast, Inc.
 Project: GOLDFLT: US Gypsum; Crystal River, FL

QC Batch ID: MP20267
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 12/21/12

Metal	MC17014-9		%DIF	QC Limits
	Original	SDL 1:5		
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium				
Boron	9.10	12.1	33.0 (a)	0-10
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Gold				
Iron				
Lead	anr			
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Palladium				
Platinum				
Potassium				
Selenium	anr			
Silicon				
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium	anr			
Zinc	anr			

Associated samples MP20267: FA98-1, FA98-2, FA98-3, FA98-4

8.1.4
8

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA98
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: GOLDFLT: US Gypsum; Crystal River, FL

QC Batch ID: MP20267
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

8.1.4

8



Florida Radiochemistry Services, Inc.

Contact: Michael J. Naumann

5456 Hoffner Ave., Suite 201 Orlando, FL 32812

Phone: (407) 382-7733 Fax: (407)382-7744

Certification I. D. # E83033

Work Order #: 1212138

Report Date: 01/07/13

Report to:

Accutest Labs

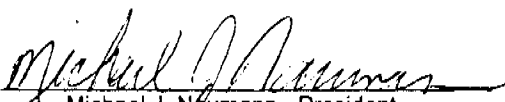
4405 Vineland Rd., Suite C-15

Orlando, FL 32811

Attention: Dawn

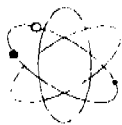
I do hereby affirm that this record contains no willful misrepresentations and that this information given by me is true to the best of my knowledge and belief. I further certify that the methods and quality control measures used to produce these laboratory results were implemented in accordance with the requirements of this laboratory's certification and NELAC Standards. The test results in this report relate only to the samples received.

Signed


Michael J. Naumann - President
Shawn M. Naumann - Laboratory Manager

Date

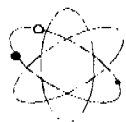
1-7-13



Florida Radiochemistry Services, Inc.

Sample Login

Client:	Accutest Labs	Date / Time Received	Work order #
		12/20/12 11:16	1212138
Client Contact:	Dawn		
Client P.O.			
Project I.D.	FA98X		
Lab Sample I.D.	Client Sample I.D.	Sample Date/Time	Analysis Requested
1212138-01	MW-1	12/17/12 11:28	Ga, Ra226, Ra228 U
1212138-02	MW-4	12/17/12 12:25	Ga, Ra226, Ra228 U
1212138-03	MW-2	12/17/12 13:40	Ga, Ra226, Ra228 U
1212138-04	MW-3	12/17/12 14:40	Ga, Ra226, Ra228 U



Florida Radiochemistry Services, Inc.

Analysis Report

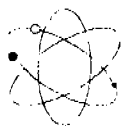
Lab Sample I.D.	1212138-01	1212138-02	1212138-03	1212138-04
Client I.D.	MW-1	MW-4	MW-2	MW-3
Gross Alpha	4.5	10.1	2.8U	5.1
Error +/-	1.9	2.9	1.9	2.3
MDL	2.4	3.3	2.8	3.1
EPA Method	900.0	900.0	900.0	900.0
Prep Date	12/26/12	12/26/12	12/26/12	12/26/12
Prep Time	06:20	06:20	06:20	06:20
Analysis Date	12/27/12	12/27/12	12/27/12	12/27/12
Analysis Time	13:27	13:27	13:27	13:27
Analyst	MJN	MJN	MJN	MJN
Radium 226	3.7	8.3	2.3	3.9
Error +/-	0.5	0.8	0.4	0.5
MDL	0.1	0.1	0.1	0.2
EPA Method	903.1	903.1	903.1	903.1
Prep Date	12/24/12	12/24/12	12/24/12	12/24/12
Prep Time	08:50	08:50	08:50	08:50
Analysis Date	01/04/13	01/04/13	01/04/13	01/04/13
Analysis Time	12:47	12:47	12:47	12:47
Analyst	MJN	MJN	MJN	MJN
Radium 228	0.9	0.9U	0.9U	1.3
Error +/-	0.6	0.6	0.6	0.6
MDL	0.9	0.9	0.9	0.8
EPA Method	Ra-05	Ra-05	Ra-05	Ra-05
Prep Date	12/24/12	12/24/12	12/24/12	12/24/12
Prep Time	08:50	08:50	08:50	08:50
Analysis Date	01/03/13	01/03/13	01/03/13	01/03/13
Analysis Time	12:03	12:03	12:03	12:03
Analyst	SN	SN	SN	SN
Units	pCi/l	pCi/l	pCi/l	pCi/l



Florida Radiochemistry Services, Inc.

Analysis Report

Lab Sample I.D.	1212138-01	1212138-02	1212138-03	1212138-04
Client I.D.	MW-1	MW-4	MW-2	MW-3
Uranium	0.5U	0.6U	0.5U	0.5U
Error +/-	0.4	0.5	0.5	0.4
MDL	0.5	0.6	0.5	0.5
EPA Method	908.0	908.0	908.0	908.0
Prep Date	01/02/13	01/02/13	01/02/13	01/02/13
Prep Time	10:15	10:15	10:15	10:15
Analysis Date	01/03/13	01/03/13	01/03/13	01/03/13
Analysis Time	08:03	08:03	08:03	08:03
Analyst	MJN	MJN	MJN	MJN
Units	pCi/l	pCi/l	pCi/l	pCi/l



Florida Radiochemistry Services, Inc.

QA Page

Analyte	Sample #	Date Analyzed	Sample Result	Amount Spiked	Spike Result	Spike /Dup Result	Spike % Rec.	Spike Dup % Rpd
Gross Alpha	1212142-01	12/27/12	<1.7	11.7	12.8	12.9	109	0.8
Radium 226	1212143-01	01/04/13	0.4	25.2	23.7	23.4	92	1.3
Radium 228	1212143-01	01/03/13	1.7	9.8	11.2	10.4	97	7.4
Uranium	1212103-01	01/03/13	<0.5	10.1	9.4	9.9	93	5.2

	Quality	Control	Limits
	% RPD		% Rec.
Gross Alpha	25.0		60-125
Radium 226	23.4		78-125
Radium 228	23.9		67-125
Uranium	25.0		66-125



4405 Vineland Road, Suite C-15 Orlando, FL 32811
TEL 407-425-0700 FAX 407-425-0707

PAGE OF

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