# 2017 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

# ALABAMA POWER COMPANY PLANT BARRY GYPSUM STORAGE POND

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Prepared for

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# Plant Barry Gypsum Storage Pond 2017 Annual Groundwater Monitoring and Corrective Action Report

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#### **ABBREVATIONS**

AL Alabama

APC Alabama Power Company

APCEL Alabama Power Company Environmental Laboratory

ASTM American Society for Testing Materials

BGS below ground surface
CCR coal combustion residuals
CFR Code of Federal Regulations

COC chain of custody
DO dissolved oxygen

EPA United States Environmental Protection Agency

ft feet

GW groundwater

m meter

mg/L milligram per liter
MSL mean sea level

MW- denotes "Monitoring Well"

NELAP National Environmental Laboratory Accredidation Program

NTU nephelometric turbidity unit
ORP oxidation reduction potential

PE Professional Engineer
PG Professional Geologist

PL prediction limits

PQL practical quantitation limit PVC polymerizing vinyl chloride

RL reporting limit

RPD relative percent difference

SM Standard Method(s)

SSI statistically significant increase

TAL Test America laboratories

TOC top of casing

QA/QC quality assurance/quality control
USGS United States Geological Survey

# 1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015), this 2017 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2017 groundwater monitoring activities at the Plant Barry Gypsum Pond and satisfies the requirements of §257.90(e). Semi-annual monitoring and reporting for Plant Barry Gypsum Pond is performed in accordance with the monitoring requirements §257.90 through §257.94.

# 2.0 SITE LOCATION AND DESCRIPTION

Alabama Power Company's Plant James M. Barry Electric Generating Plant (Plant Barry) is in northeastern Mobile County, Alabama, approximately 23 miles north of Mobile, AL and 1 mile east of the city of Bucks, AL. The physical address is 153000 U.S. Highway 43 North, Bucks, Alabama 36512. Plant Barry lies in Section 36 of Township 1 North, Range 1 West, Sections 31 and 32 of Township 1 North, Range 1 East, Section 1 of Township 1 South, Range 1 West, and Sections 5 and 6 of Township 1 South, Range 1 East. Section/Township/Range data are based on visual inspection of USGS topographic quadrangle maps and GIS maps (USGS, 1980, 1982a, 1982b, 1983).

The Gypsum Pond is located south-southwest of the main plant and in between Sister's Creek to the north, Cold Creek to the south, and the plant's discharge canal to the east. **Figure 1**, **Site Location Map**, depicts the location of the Plant and Gypsum Pond with respect to the surrounding area..

# 3.0 SITE GEOLOGY AND HYDROGEOLOGY

## 3.1 Physical Setting

Plant Barry is located within the Southern Pine Hills and the Alluvial-deltaic Plain districts of the East Gulf Coastal Plain physiographic section. The Alluvial-deltaic Plain district is comprised of alluvium and terrace deposits of the Mobile River delta and is characterized by very little topographical relief (Gillet et al., 2000). The Southern Pine Hills district is a southward sloping plain developed on Miocene Series clay, sand, and gravel deposits. The Southern Pine Hills district is dissected by surface water features, and near Plant Barry, displays gentle topographic relief (Davis, 1987). Elevations near the Gypsum Pond slope from west to east and range from approximately 30 feet to 10 feet above mean sea level (MSL), respectively.

### 3.2 Geology and Hydrogeology

The geology of the site is characterized by sedimentary deposits ranging in age from Tertiary to Quaternary. The Pliocene age Citronelle formation, while present regionally, was not encountered at the site. Sedimentary alluvial and terrace deposits of the Quaternary Period overlie largely unconsolidated Tertiary deposits in and adjacent to the flood plains of the Mobile River. At the site, Holocene age alluvial and low terrace deposits overlie undifferentiated Miocene Series sediments. Miocene Series sediments were primarily deposited in a regressive marine depositional environment. The Miocene Series is comprised of fine to very coarse-grained sand with interbedded sandy clays, silts, and shell fragments (Walter and Kidd, 1979). Siliciclastic sediments of the Miocene Series are often micaceous and pyritic,

and contain wood fragments, shell debris, and heavy minerals (Chandler et al., 1985). Alluvial, low terrace, and coastal deposits reflect estuarine, deltaic, lagoonal, and shoreface deposition in lowland areas from late Pleistocene to Holocene time. These deposits consist of fine to coarse sand, which can be rich in heavy detrital minerals (Hsu, 1960), silt, sandy clay, clay, and shell fragments (Chandler et al., 1985). **Figure 2, Site Geologic Map**, illustrates the surface geology at the site and neighboring areas.

Generalized near-surface stratigraphy of the site, in descending order, consists of (1) lean to flat clay down to an elevation of 10 feet MSL, (2) a poorly to well sorted sand with lenses of clay down to elevations between -45 and -50 feet MSL, and (3) a basal clay layer (Unit 3). These units are considered part of the Pleistocene to Holocene age alluvial, low terrace, and coastal deposits described above.

The uppermost clay interval is described as a gray to brown to reddish-yellow, sandy lean clay that occasionally grades into an organic rich fat clay near the base of the unit. Some spatial heterogeneity is observed, as the clay is not present at boring location MW-1 and found to be much thicker at boring location MW-10. Portions of this clay rich interval are likely inclusive of fill materials placed during construction of the Gypsum Pond.

Underlying the clay, an interval consisting largely of coarse sediments and includes zones of clayey sand, well-sorted sand, poorly-sorted sand, and gravelly, sand to gravel. The vertical and horizontal heterogeneity of these sands are not uncommon as sand beds deposited in stream or creek valleys are very lenticular and generally, can be traced over only short distances (Davis, 1987). Clay stringers or clay rich intervals are also encountered, but are not prevalent. These clays represent low energy deposition, whereas sands and gravels represent higher energy environments. Gravel or sandy gravel intervals might be representative of buried creek beds.

Beneath the sandy layer, a mottled gray to brown fat clay with trace wood fragments and sand to medium to high plasticity organic clay is encountered. At some locations (MW-6 and MW-7), the upper surface of this unit has also been described as a clayey sand or clayey gravel. Borings conducted at the site, largely, did not penetrate the vertical extent of this clay unit; however, limited data suggests this unit to be 10 feet in thickness or greater beneath the site.

The two major aquifers in northern Mobile County are the Miocene-Pliocene Aquifer and the Watercourse Aquifer.

The thickness of the Miocene-Pliocene Aquifer, which consists of the Miocene Series undifferentiated and the Pliocene-age Citronelle Formation, is about 3,400 feet in coastal areas to the south, but it is

thinner in northern Mobile County. This aquifer consists of beds of sand, gravel and clay, where groundwater flows through sand and gravel beds that are irregular in thickness and of limited lateral extent. Clay intervals between the sand units are not laterally extensive enough to prevent downward movement of ground water, but they do provide semi-confinement in some areas. Correlation of one sand unit to another is difficult, due to the discontinuous nature of these deposits. In Northern Mobile County, the principal water-bearing sands in the aquifer are at the base of the Miocene- Pliocene sequence (Gillett et al., 2000).

The Watercourse Aquifer is comprised of Quaternary alluvial and low terrace deposits consisting of interbedded sand, gravel, and clay. Buried sand and gravel channels, which yield large amounts of water, are surrounded by silty and clayey sediments that do not yield significant amounts of water but allow infiltration of water to recharge the sand and gravel beds (Gillett et al., 2000).

# 3.3 Uppermost Aquifer

The uppermost aquifer beneath the site corresponds to alluvial, low terrace, and coastal deposit sands, which are part of the Watercourse Aquifer system. At the site, the Watercourse Aquifer consists of medium to coarse sands with discrete gravelly, sand and gravel. Clay nodules, lenses, and stringers are present, but are not prevalent. Depth to the top of the Watercourse Aquifer generally ranges between 15 and 25 feet below ground surface (BGS) and appears to extend down to approximately 65 to 70 feet BGS, where clays are encountered. Groundwater recharge to the Watercourse Aquifer is largely accomplished via infiltration of precipitation and subsequent percolation down to the water table. Temporary recharge to the aquifer might occur during high stage or flood events of the Mobile River where surface water could infiltrate via hydraulically connected sand beds or infiltration of flooded water. The latter would occur in areas where land has been inundated by flood waters. The Gypsum Pond is located above the 100 year storm stage. Regionally, the Watercourse and Miocene-Pliocene Aquifers are considered to be hydraulically connected due to the discontinuous nature of clay aquitards. However, locally semi-confined to confined conditions might be present when a sufficient aquitard separates the aquifers or sand units.

# 3.4 Flow Interpretation

Site groundwater has a flow pattern that is a subdued replica of the natural topography and has gravity as the dominant force driving its flow. Groundwater flows from higher topographic elevations south of the Gypsum Pond to lower topographic elevations to the north. East of the Gypsum Pond, groundwater flow bends towards the northeast. Groundwater flow is through porous sands of the Watercourse Aquifer

(rates can be estimated using Darcy's flow-equations). A potentiometric surface map for the site is presented in a later section.

# 4.0 GROUNDWATER MONITORING SYSTEM

Pursuant to §257.91, Plant Barry has installed a groundwater monitoring system to monitor groundwater within the uppermost aquifer. The PE-certified groundwater monitoring system for the Gypsum Pond is designed to monitor groundwater passing the waste boundary of the CCR unit within the uppermost aquifer. Wells were located to serve as upgradient or downgradient monitoring locations based on groundwater flow direction as determined by the potentiometric surface elevation measurements. Monitoring wells are screened in sands of the Watercourse Aquifer. All groundwater monitoring wells were designed and constructed using "Design and Installation of Groundwater Monitoring Wells in Aquifers", ASTM Subcommittee D18.21, as a guide.

# 4.1 Monitoring Wells

The groundwater monitoring network is comprised of 10 monitoring wells and 2 piezometers. The piezometers are utilized to provide data to enhance groundwater potentiometric surface interpretations and constrain flow direction. As required by §257.90(e)(1), monitoring well locations referenced to the Ash Pond are presented on **Figure 3**, **Monitoring Well Location Map**. **Table 1**, **Groundwater Monitoring Well Network Details**, summarizes the monitoring well construction details and design purpose for the Plant Barry Gypsum Pond.

#### 4.1.1 Upgradient Wells

Monitoring well locations BY-GSA-MW-1 through BY-GSA-MW-4 serve as upgradient locations for Gypsum Pond. Upgradient wells are located south of the Gypsum Pond as determined by water level monitoring and potentiometric surface maps constructed for the site.

### 4.1.2 Downgradient Wells

Monitoring well locations MW-5 through MW-10 are utilized as downgradient locations for the Gypsum Pond. Downgradient locations are located lateral to and north of the Gypsum Pond as determined by water level monitoring and potentiometric surface maps constructed for the site.

**Table 1. Groundwater Monitoring Well Network Details** 

Well Name	Installation Date	Northing	Easting	Ground Elevation	Top of Casing Elevation	Top of Screen Elevation	Bottom of Screen Elevation	Purpose
BY-GSA-MW-1	10/7/2015	362040.419	1808280.793	17.49	20.66	-16.741	-26.74	Upgradient
BY-GSA-MW-2	10/7/2015	361970.572	1807662.482	17.00	19.95	-20.58	-30.58	Upgradient
BY-GSA-MW-3	10/7/2015	361628.894	1807368.366	20.15	23.24	-18.375	-28.38	Upgradient
BY-GSA-MW-4	10/13/2015	361930.406	1806925.713	26.16	29.12	-27.898	-37.90	Upgradient
BY-GSA-MW-5	10/8/2015	362556.147	1807430.006	31.21	34.31	-27.913	-37.91	Downgradient
BY-GSA-MW-6	10/8/2015	363069.127	1807359.035	18.60	21.68	-9.277	-19.28	Downgradient
BY-GSA-MW-7	10/8/2015	363103.505	1807778.082	17.46	20.59	-18.071	-28.07	Downgradient
BY-GSA-MW-8	10/8/2015	362919.54	1808314.524	31.51	34.36	-27.326	-37.33	Downgradient
BY-GSA-MW-9	10/8/2015	362798.723	1808598.555	10.44	13.32	-25.697	-35.70	Downgradient
BY-GSA-MW-10	10/8/2015	362443.556	1808600.09	14.65	17.61	-20.04	-30.04	Downgradient
BY-GSA-PZ-11	10/8/2015	363464.097	1807619.818	23.56	25.92	-24.357	-34.36	Piezometer
BY-GSA-PZ-12	10/8/2015	363285.151	1808280.669	14.14	17.43	-19.338	-29.34	Piezometer

# Notes:

- 1. Northing and easting are in feet relative to the State Plane Alabama West North America Datum of 1983.
- 2. Elevations are in feet relative to the North American Vertical Datum of 1988 (ft MSL).

#### 5.0 GROUNDWATER MONITORING HISTORY

As required by §257.90(e), the following describes monitoring-related activities performed during the preceding year. Since this is the first Annual Groundwater Monitoring and Corrective Action Report, it also describes related activities performed prior to 2017.

## 5.1 Available Monitoring Data

In accordance with §257.94(b), the detection groundwater program was implemented by collecting 8 independent samples. Samples were collected from each background and downgradient well and analyzed for the constituents listed in Appendix III and IV. Background sampling was performed over the period from February 2016 to June 2017.

Following background monitoring, the initial detection monitoring event was completed by collecting an additional round of groundwater samples in September 2017. Groundwater samples were collected from each monitoring well and analyzed for Appendix III constituents according to §257.94(a). Analytical data from the background and initial groundwater monitoring events is included as **Appendix A, Groundwater Analytical Data**, in accordance with the requirements of §257.90(e)(3).

**Table 2**, **Historical Well Sampling Summary**, presents a summary of groundwater sampling events completed at the site for the preceding year, as well as background samples collected prior to 2017. Table 2 also identifies the purpose of the sampling event (i.e., background, detection, etc.).

# 5.2 Historical Groundwater Flow

Historical potentiometric data from the site show that groundwater flow generally is a subdued representation of topography. Groundwater flows from south to north across the site. East of the Gypsum Pond, groundwater flow bends towards the northeast and the Plant Barry barge canal.

Groundwater elevations fluctuate in response to rainfall. Seasonal variations of 3 to 4 feet are typical at the site. These fluctuations are consistent in monitoring wells across the site indicating a uniform response to rainfall events. Groundwater elevation data indicates that water levels tend to be higher in the early spring and lower during the fall and winter seasons. **Table 3, Historical Groundwater** 

**Elevations Summary** below provides a summary of the ranges of water level data observed at the site.

Table 2. Historical Well Sampling Summary									
		Background Detection							
Event	B.1	B.2	B.3	B.4	B.5	B.6	B.7	B.8	D.1
Date	2/2016	4/2016	6/2016	8/2016	10/2016	1/2017	5/2017	6/2017	9/2017

Notes: (1) B.# indicates background event

(2) D.# indicates detection monitoring event

**Table 3. Historical Groundwater Elevations Summary** 

Well ID	Average GW Elevation (ft MSL)	Highest GW Elevation (ft MSL)	Lowest GW Elevation (ft MSL)	GW Elevation Variation (ft)
BY-GSA-MW-1	6.18	7.92	4.59	3.33
BY-GSA-MW-2	6.03	7.77	4.50	3.27
BY-GSA-MW-3	6.76	8.45	5.19	3.26
BY-GSA-MW-4	6.44	8.13	4.93	3.20
BY-GSA-MW-5	5.60	7.41	4.09	3.32
BY-GSA-MW-6	5.04	6.96	3.47	3.49
BY-GSA-MW-7	5.05	6.98	3.48	3.50
BY-GSA-MW-8	5.35	7.21	3.79	3.42
BY-GSA-MW-9	5.19	7.02	3.65	3.37
BY-GSA-MW-10	5.59	7.40	4.05	3.35
BY-GSA-PZ-11	4.71	6.71	3.00	3.71
BY-GSA-PZ-12	5.14	7.09	3.52	3.57

<sup>\*</sup>Groundwater elevations are referenced to NAVD88

#### 6.0 GROUNDWATER SAMPLING AND ANALYSIS

## **6.1** Sampling Event Summary

Groundwater sampling for the initial detection monitoring event was performed in September 2017. Samples were analyzed for the constituents listed in Appendix III. Analytical data from the groundwater monitoring events is included as Appendix A

# **6.2** Groundwater Sample Collection

Groundwater samples were collected by Alabama Power Company (APC) Field Services in accordance with §257.93(a). All monitoring wells at the Plant Barry Gypsum Pond are equipped with a dedicated bladder pump. Monitoring wells were purged and sampled using low-flow sampling procedures whereby samples are collected when field water quality parameters (pH, turbidity, conductivity, and dissolved oxygen) were measured to determine stabilization. Groundwater samples were collected when the following stabilization criteria were met:

- 0.1 standard units for pH
- 5% for specific conductance
- 0.2 Mg/L or 10% for DO > 0.5 mg/l (whichever is greater)
- Turbidity measurements less than 5 NTU
- Temperature and ORP record only, no stabilization criteria

During purging and sampling a smarTROLL instrument was used to monitor and record field parameters. Once stabilization was achieved, samples were collected and submitted to the laboratory following standard chain-of-custody (COC) protocol.

#### **6.3** Sample Preservation and Handling

Groundwater samples were collected within the designated size and type of containers required for specific parameters. Sample bottles were pre-preserved by the laboratory and did not require field preservation. Where temperature control was required, samples were placed in an ice-packed cooler.

#### 6.4 Chain of Custody

All samples were handled under COC procedures beginning in the field through delivery to the laboratory. The COC forms contain the following information:

- Sample destination and transporter,
- Sample identification numbers,
- Signature of collector,
- Date and time of collection,
- Identification of monitoring well,
- Number of sample containers,
- Parameters requested for analysis,
- Signature of person(s) involved in the chain of possession, and
- Inclusive dates of possession.

# 6.5 Laboratory Analysis

Groundwater samples collected for background data included both Appendix III and Appendix IV parameters. Groundwater samples collected during the September 2017 detection monitoring event were analyzed for Appendix III monitoring parameters only. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in Appendix A.

Laboratory analyses were performed by the APC Environmental Laboratory (APCEL) in Calera, Alabama or Test America, Inc. (TAL), of Pensacola, Florida and St. Louis, Missouri. Both APCEL and TAL are accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintain a NELAP certification for all parameters analyzed. Groundwater data and chain of custody records for the monitoring events are presented in Appendix A.

## **6.6** Quality Assurance/Quality Control

During each sampling event, quality assurance/quality control samples (QA/QC) were collected at a rate of one sample per every 10 detection samples. Equipment blanks and duplicate samples were also collected during each sampling event. QA/QC sample data was evaluated during data validation and is included in Appendix A.

Groundwater quality data for the most recent sampling event was validated following guidance from the EPA Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (November 2001); the EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences, post digestion spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits.

Where appropriate, validation qualifiers and flags are applied to the data using the procedures in EPA National Functional Guidelines for Inorganic Data Review (USEPA, 2014), as guidance. Flagged data is identified in the statistical analysis reports.

# 7.0 GROUNDWATER DATA EVALUATION

# 7.1 Groundwater Elevation Data Evaluation

Prior to recording water levels, each well was opened and allowed to equilibrate to atmospheric pressure. Within a 24-hour period, depths to groundwater were measured to the nearest 0.01 foot with an electronic water level indicator. Depths are referenced from the top of the inner PVC well casing. Groundwater elevations are calculated by subtracting the depth to groundwater from surveyed top of casing (TOC) elevations.

During the initial detection monitoring event, static groundwater elevations obtained prior to purging and sampling ranged from 6.16 to 3.81 feet MSL. Groundwater levels for the most recent sampling event are included in **Table 4**, **Water Level Summary (September 2017)**.

The most recent potentiometric surface map presented in **Figure 4**, **Potentiometric Surface Map** (**September 2017**), shows that groundwater flows from south to north across the site. East of the Gypsum Pond, groundwater flow bends towards the northeast.

Table 4. Groundwater Elevations (September 2017)					
Well ID	TOC Elev (ft MSL)	Depth to GW (ft TOC)	GW Elevation		
BY-GSA-MW-1	20.66	15.21	5.45		
BY-GSA-MW-2	19.95	14.65	5.30		
BY-GSA-MW-3	23.24	17.08	6.16		
BY-GSA-MW-4	29.12	23.38	5.74		
BY-GSA-MW-5	34.31	25.72	8.59		
BY-GSA-MW-6	21.68	17.81	3.87		
BY-GSA-MW-7	20.60	16.79	3.81		
BY-GSA-MW-8	34.36	30.14	4.22		
BY-GSA-MW-9	13.32	9.15	4.17		
BY-GSA-MW-10	17.61	12.92	4.69		
BY-GSA-PZ-11	25.92				
BY-GSA-PZ-12	17.44	13.61	3.83		

<sup>\*</sup>Reading was not acquired at PZ-11 during the most recent sampling event

# 8.0 BACKGROUND GROUNDWATER QUALITY DATA

Groundwater elevation data and potentiometric surface maps were utilized to determine upgradient or "background" monitoring well locations. These well locations provide representative samples of groundwater quality as it enters the site.

# 8.1 Statistical Methodology and Tests

Statistical tests used to evaluate the groundwater monitoring data consist of interwell and intrawell prediction limit methods, combined with resampling strategies for each method. Intrawell prediction limits, combined with the 1-of-2 verification resample plan, were used for chloride and sulfate to determine whether there has been a statistically significant increase (SSI) over background groundwater quality. Interwell prediction limits, combined with the 1-of-2 verification resample plan, were used to evaluate boron, calcium, fluoride, pH, and TDS.

Intrawell prediction limits use historical data within a given well to establish limits for parameters at that well. The most recent sample from the same well is compared to its respective background to identify initial SSIs over background. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to identify initial SSIs.

Time series plots were used to screen proposed background data for suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective. Suspected outliers at all wells for Appendix III parameters are formally tested using Tukey's box plot method and, when identified, flagged in the computer database and deselected prior to construction of statistical limits.

No suspected outliers were observed for any of the detected data in any of the data sets. When any values are identified as outliers, they are plotted in a lighter font on the time series graph. A substitution of the most recent reporting limit was applied when varying detection limits existed in data.

No true seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data might be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

The results of the trend analyses show a few statistically significant increasing and decreasing trends. All trends noted were relatively low in magnitude compared to average concentrations, with the exception of the decreasing trend noted for boron in downgradient well BY-GSA-MW-6. No adjustments were required for this data set due to the earlier discussion of concentrations reported at this well. Additionally, no data in any other wells required adjustments.

Prediction limits are constructed as recommended in the USEPA Unified Guidance, and based on the following:

- Annual false positive rate of 10%
- 1-of-2 verification resample plan option Intrawell Prediction Limits
- 1-of-2 verification resample plan option Interwell Prediction Limits
- Semi-annual sampling
- Constituents = 7 (Appendix III)
- Downgradient wells = 6

Parametric prediction limits are used when the screened historical data follow a normal or transformed-normal distribution. When data could not be normalized or when the majority of data were non-detects, a non-parametric test was utilized. The confidence level associated with both tests is greater than 99%. The distribution of data was tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for

normality and performing any adjustments as discussed below (USEPA, 2009), data were analyzed using either parametric or non-parametric prediction limits.

The following adjustments were made:

- Statistical analyses are not performed on analytes containing 100% non-detects (EPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in the background, simple substitution of one-half the reporting limit may be utilized in the statistical analysis. The reporting limit utilized for non-detects is the practical quantitation limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data.
- Non-parametric prediction limits are used on data containing greater than 50% non-detects.

A summary table of the statistical limits accompanies the prediction limits in **Appendix B, Statistical Data Evaluation.** 

#### 8.2 Statistical Exceedances

Analytical data from the initial detection monitoring event in September 2017 at the Ash Pond was statistically analyzed in accordance with the PE-certified statistical methods described above. The statistical analysis and comparison to prediction limits are included as Appendix B.

Based on the statistical analysis included in Appendix B, SSIs of the prediction limit were identified. Summary tables identifying the SSIs are included in Appendix B.

# 8.3 Verification Sampling

The statistical methods incorporate the option of resampling to verify SSIs. Verification sampling was not conducted for the initial detection monitoring event; therefore, the initial SSIs are treated as verified.

#### 8.4 Appendix IV Background Data

Pursuant to §257.95, Appendix IV groundwater quality data is statistically analyzed and compared to groundwater protection standards if assessment monitoring is implemented. APC is currently performing detection monitoring at the Gypsum Pond per §257.94 and has not implemented assessment monitoring. Therefore, statistical analysis of the Appendix IV data has not been performed.

# 9.0 MONITORING PROGRAM STATUS

Plant Barry Gypsum Pond is in detection monitoring. SSIs of Appendix III parameters have been identified. Pursuant to §257.94(e)(1), Alabama Power Company has 90 days from the date of determination to either (1) prepare a demonstration that a source other than the Gypsum Pond was the cause, or (2) implement assessment monitoring per §257.95. APC will address the reported SSIs in accordance with the requirements, and options, of §257.94(e)(1-3) and (f).

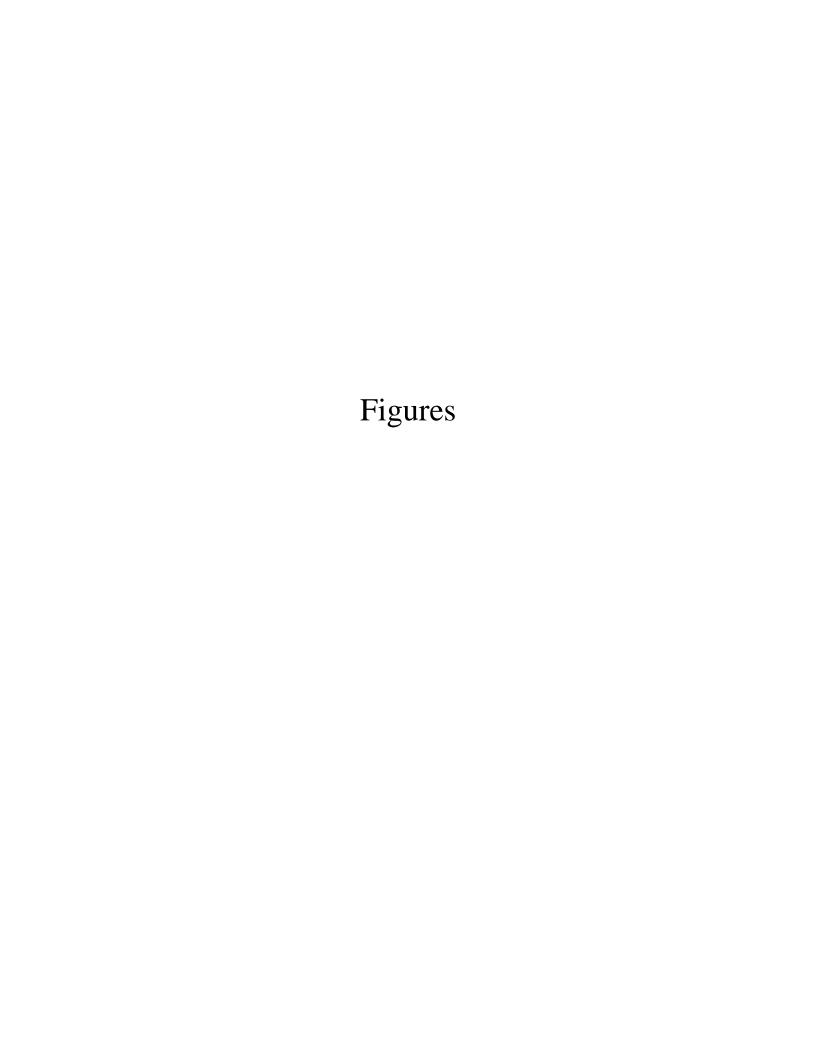
# 10.0 CONCLUSIONS AND FUTURE ACTIONS

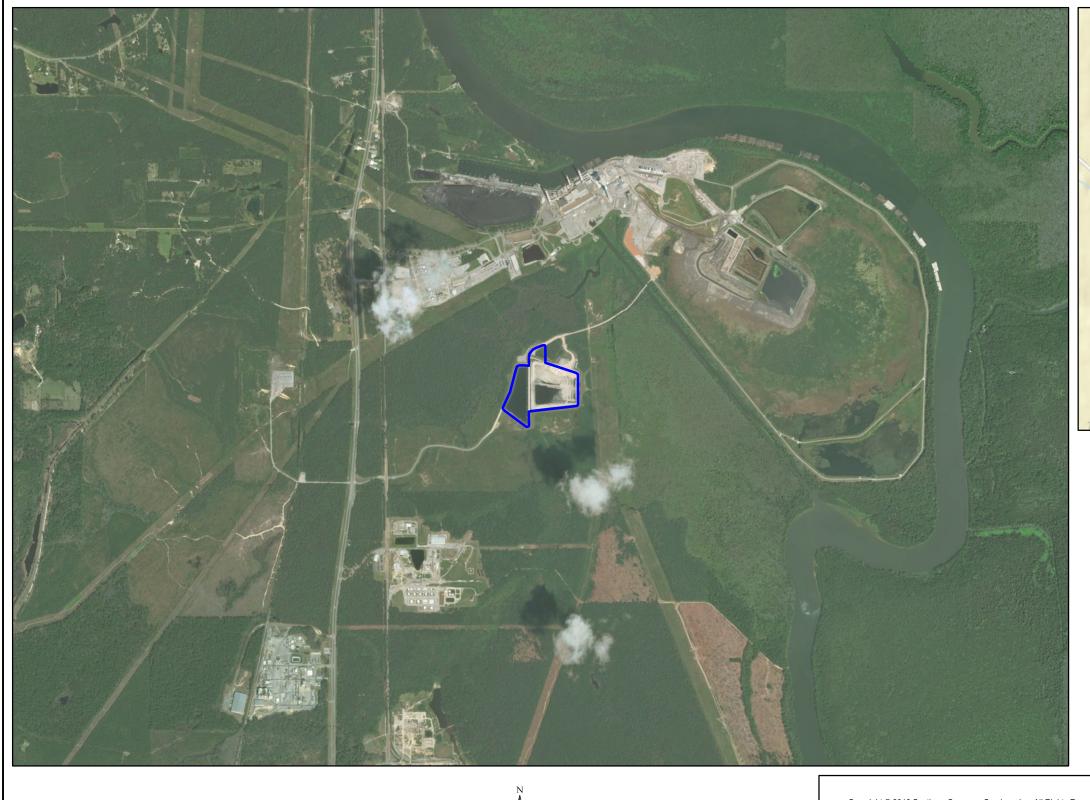
In accordance with §257.94(b), eight (8) independent samples were collected from each background and downgradient well and analyzed for the constituents listed in Appendices III and IV. Background sampling was performed over the period of February 2016 to June 2017. Groundwater sampling for the first detection monitoring event was performed in September 2017. Constituents listed in Appendix III were collected and analyzed for detection monitoring. APC will perform the following future actions:

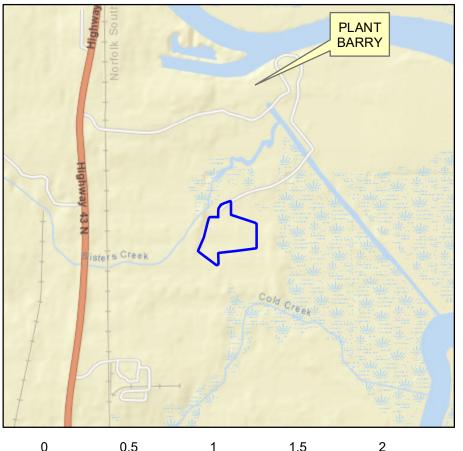
- Conduct alternate source demonstration or complete groundwater sampling for Assessment Monitoring within 90 days of determining the SSI, and
- Conduct the first semi-annual detection monitoring event by April 2018.

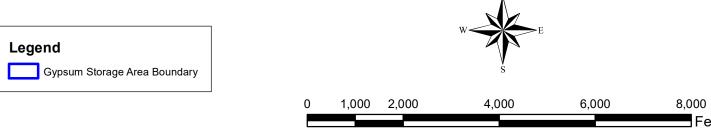
# 11.0 REFERENCES

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- United States Geological Survey (USGS), 1982a (Photorevised 1985), Creola Alabama Quadrangle, 7.5 Minute Series Topographic Map
- United States Geological Survey (USGS), 1982b, Mount Vernon Alabama Quadrangle, 7.5 Minute Series Topographic Map
- United States Geological Survey (USGS), 1983, Stiggins Lake Alabama Quadrangle, 7.5 Minute Series Topographic Map









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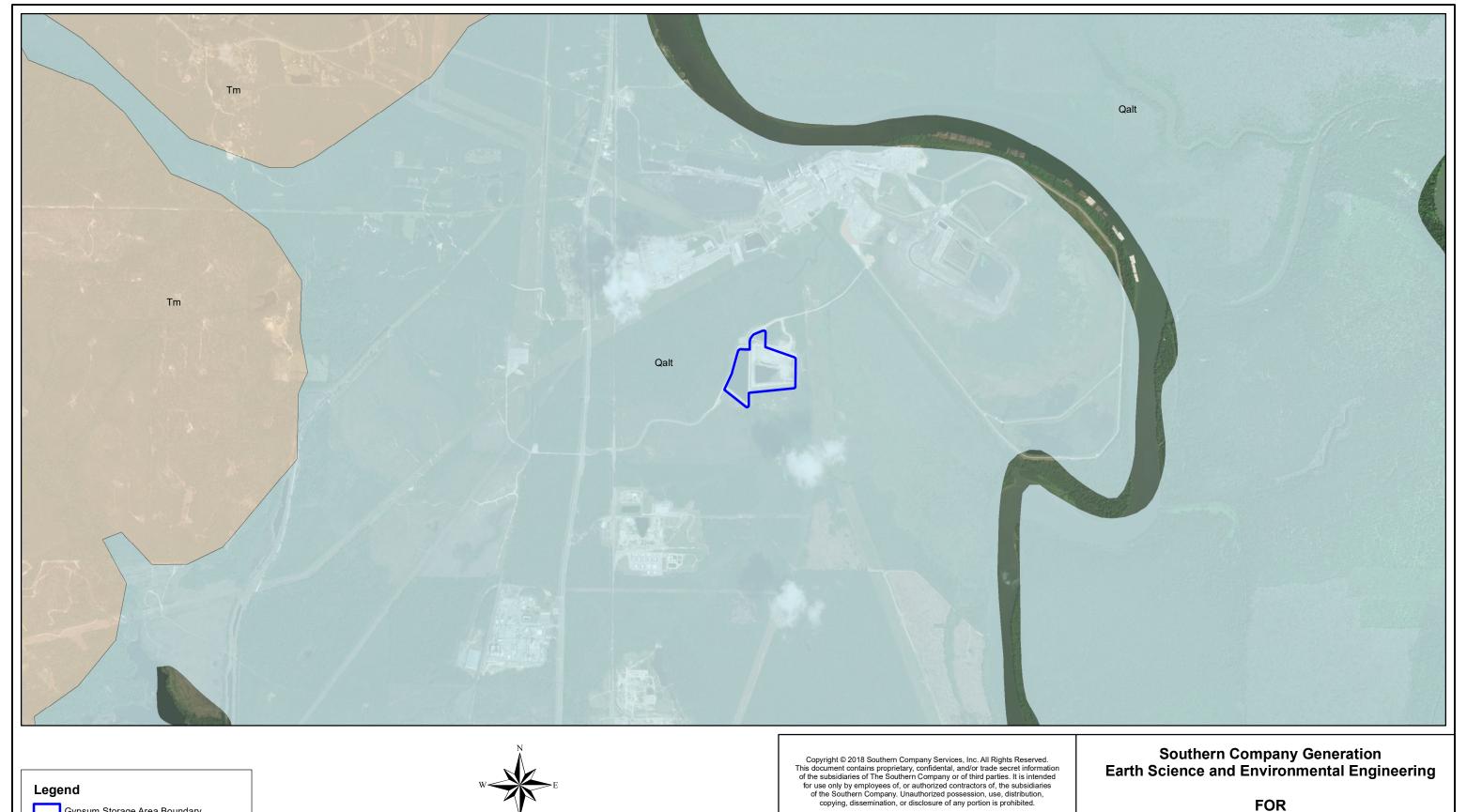
PLANT BARRY
GYPSUM STORAGE AREA
FIGURE 1
SITE LOCATION MAP

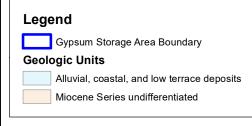
# Southern Company Generation Earth Science and Environmental Engineering

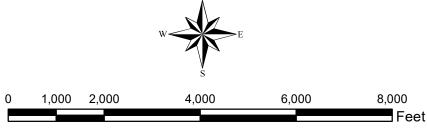
FOR

# **Alabama Power Company**

SCALE PROJ I.D. DRAWING NUMBER SHEET CONT	D REV
1:24k ES4052-S1 1	







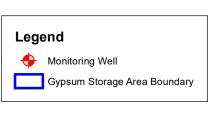
SITE GEOLOGIC MAP

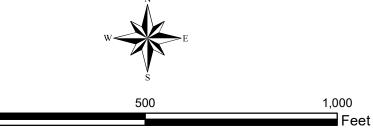
**PLANT BARRY GYPSUM STORAGE AREA** FIGURE 2

**FOR** 

SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:24k		ES4052-S2	1		







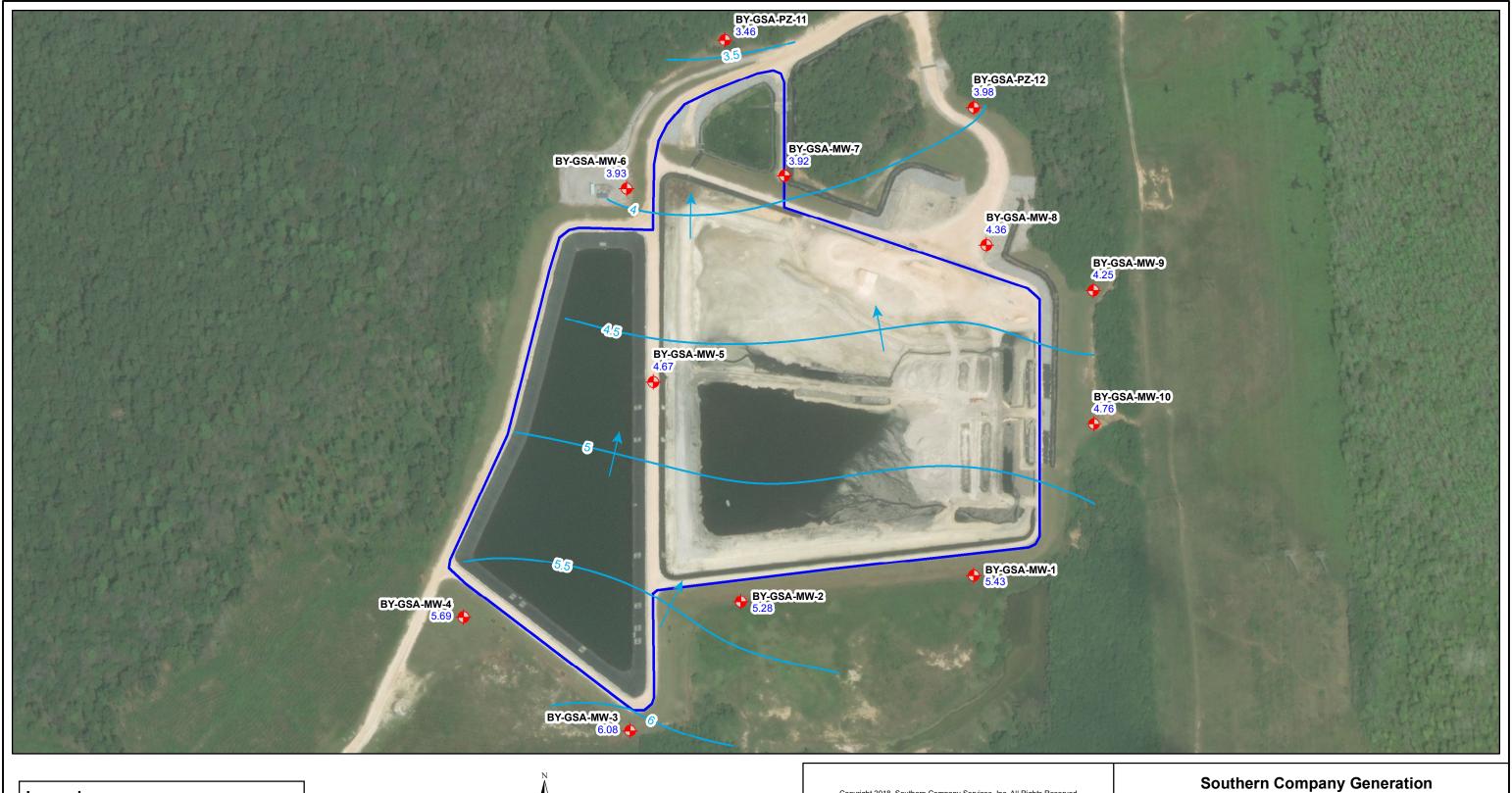
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**PLANT BARRY GYPSUM STORAGE AREA** FIGURE 3 MONITORING WELL LOCATION MAP

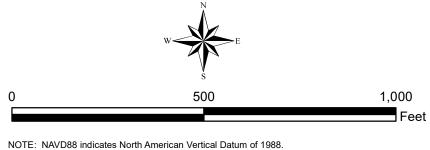
**FOR** 

# **Alabama Power Company**

				-	•	
SC	CALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1	:3k		ES4052-S3	1		







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PLANT BARRY GYPSUM STORAGE AREA FIGURE 4 POTENTIOMETRIC SURFACE MAP **NOVEMBER 15, 2017** 

# **Earth Science and Environmental Engineering**

**FOR** 

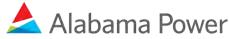
# **Alabama Power Company**

			•		
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:3k		ES4052-S4	1		

# Appendix A Groundwater Analytical Data

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654

# Analytical Report





Sample Group: WMWBARG\_15

Project/Site: Barry Gypsum

Bucks, AL 36512

For: Southern Company Services

42 Inverness Center Parkway Birmingham, AL 35242

Attention: Dustin Brooks & Greg Dyer

Released By: Sarah Copeland

sgcopela@southernco.com

(205) 664-6121

The following data has been reviewed and approved by:

Quality Control: Supervision:

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Anions

#### Barry Gypsum

#### WMWBARG\_15

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	<b>Chloride Batch ID</b>	Fluoride Batch ID	Sulfate Batch ID	Project ID
AW04631	564674	564677	564680	WMWBARG_15
AW04632	564674	564677	564680	WMWBARG_15
AW04633	564674	564677	564680	WMWBARG_15
AW04634	564674	564677	564680	WMWBARG_15
AW04635	564674	564677	564680	WMWBARG_15
AW04636	564674	564677	564680	WMWBARG_15
AW04637	564674	564677	564680	WMWBARG_15
AW04638	564674	564677	564680	WMWBARG_15
AW04639	564674	564677	564680	WMWBARG_15
AW04640	564671	564672	564673	WMWBARG_15
AW04641	564671	564672	564673	WMWBARG_15
AW04642	564671	564672	564673	WMWBARG_15
AW04644	564671	564672	564673	WMWBARG_15

- 4. All of the above samples were analyzed and prepared by EPA 300.0.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

# **General Quality Control Procedures:**

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met.
- All blanks were less than the method detection limits for the requested anions.
- All laboratory fortified blanks were within acceptance criteria for the anions requested.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical
  sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range,
  any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any
  qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of
  review.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A laboratory fortified matrix sample was analyzed with each batch. All acceptance criteria for accuracy were met.
- A sample duplicate and/or laboratory fortified matrix duplicate were analyzed with each batch. All acceptance criteria for precision were met. It is noted that separate and distinct criteria for duplicate precision calculations, based on sample and duplicate anion concentrations, are used to assess precision compliance. These are as follow: if the sample and duplicate are both greater than 5x anion Reporting Limit (RL) concentration, the precision is calculated and reported as relative percent difference (RPD), with an acceptance range of 0 20%; if either the sample or duplicate are less than 5x anion RL, the precision is calculated and reported as the absolute value of the difference between the two concentrations, with an acceptance range of less than or equal to the anion RL value.
- 7. All samples were analyzed without a dilution.
- 8. The raw data results are shown with dilution factors included, when dilutions are manually performed by the analyst.

The raw data results are shown without dilution factor corrections, when dilutions are run automatically by the instrument.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Metals ICP

#### Barry Gypsum

#### WMWBARG\_15

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW04631	20160308/20160310B2	WMWBARG_15
AW04632	20160308/20160310B2	WMWBARG_15
AW04633	20160308/20160310B2	WMWBARG_15
AW04634	20160308/20160310B2	WMWBARG_15
AW04635	20160308/20160310B2	WMWBARG_15
AW04636	20160308/20160310B2	WMWBARG_15
AW04637	20160308/20160310B2	WMWBARG_15
AW04638	20160308/20160310B2	WMWBARG_15
AW04639	20160308/20160310B2	WMWBARG_15
AW04640	20160308A/20160315	WMWBARG_15
AW04641	20160308A/20160315	WMWBARG_15
AW04642	20160308A/20160315	WMWBARG_15
AW04644	20160308A/20160315	WMWBARG_15

- 4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

# **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for all requested analytes except for the following: The sample batches 20160308 and 20160308A were reanalyzed for Boron due to ICB for Boron was greater than half the limit of quantitation. The reanalysis in batches 20160310B2 and 20160315 had passing ICB limits of less than half the limits of quantitation. Boron was reported from these batches.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below half the limit of quantitation for the requested analytes except
  for the following: The sample batches 20160308 and 20160308A were reanalyzed for Boron due to CCB for Boron
  was greater than half the limit of quantitation. The reanalysis in batches 20160310B2 and 20160315 had passing
  CCB limits of less than half the limits of quantitation. Boron was reported from these batches.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

## Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed without dilution.
- 8. The raw data results include both results corrected for dilution and results not corrected for dilution.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





Metals ICPMS

Barry Gypsum

WMWBARG\_15

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW04631	559010	WMWBARG_15
AW04632	559010	WMWBARG_15
AW04633	559010	WMWBARG_15
AW04634	559010	WMWBARG_15
AW04635	559010	WMWBARG_15
AW04636	559010	WMWBARG_15
AW04637	559010	WMWBARG_15
AW04638	559010	WMWBARG_15
AW04639	559010	WMWBARG_15
AW04640	559010	WMWBARG_15
AW04641	559011	WMWBARG_15
AW04642	559011	WMWBARG_15
AW04644	559011	WMWBARG 15

- 4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.
- 7. Cadmium MDL increased from 0.0001mg/L to 0.0002mg/L.

# **General Quality Control Procedures:**

- All tune and calibration met criteria for all requested analytes. The highest point of the calibration curve (1.25ppm) was removed for Be to improve linearity.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



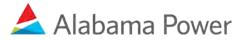
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

### Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
- 8. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
- 9. The raw data results are shown with dilution factors included.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Mercury

#### Barry Gypsum

#### WMWBARG\_15

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW04631	559334	WMWBARG_15
AW04632	559334	WMWBARG_15
AW04633	559334	WMWBARG_15
AW04634	559334	WMWBARG_15
AW04635	559334	WMWBARG_15
AW04636	559334	WMWBARG_15
AW04637	559334	WMWBARG_15
AW04638	559334	WMWBARG_15
AW04639	559334	WMWBARG_15
AW04640	559334	WMWBARG_15
AW04641	559335	WMWBARG_15
AW04642	559335	WMWBARG_15
AW04644	559335	WMWBARG 15

- 4. All of the above samples were analyzed and prepared by EPA 245.1.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

# **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed without a dilution.
- 8. The raw data results are shown with dilution factors included.

### Case Narrative

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





TDS

### Barry Gypsum

### WMWBARG\_15

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW04631	559195	WMWBARG_15
AW04632	559195	WMWBARG_15
AW04633	559195	WMWBARG_15
AW04634	559195	WMWBARG_15
AW04635	559195	WMWBARG_15
AW04636	559195	WMWBARG_15
AW04637	559195	WMWBARG_15
AW04638	559195	WMWBARG_15
AW04639	559195	WMWBARG_15
AW04640	559195	WMWBARG_15
AW04641	559195	WMWBARG_15
AW04642	559195	WMWBARG_15
AW04644	559195	WMWBARG 15

- 4. All of the above samples were analyzed by Standard Method 2540C.
- 5. All samples were analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.
- 7. The reporting limit for TDS was incorrectly reported as 2.5mg/L. This has been corrected based on filter volume and project limits. Samples AW04631 and AW04640 are now reported as Not Detected.

### **General Quality Control Procedures:**

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%. Only one duplicate was analyzed at the end of the 14 samples.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AW04632 and AW4635 which were <2.5 mg.



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-4

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04631

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological				,				
Total Radium, GPEL	SGC 9/23/2016	GA	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	J	0.000606	mg/L
* Arsenic, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01		0.0973	mg/L
* Beryllium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 3/10/2016	EPA 200.7	1.015	0.02	0.1	J	0.0257	mg/L
* Calcium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.1	0.5		1.42	mg/L
* Cadmium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 3/2/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 3/1/2016	SM 2540C	1		25	U	Not Detected	mg/L
* Chloride, Total	SES 2/24/2016	EPA 300.0	1	0.04	0.25		3.50	mg/L
* Fluoride, Total	SES 2/24/2016	EPA 300.0	1	0.01	0.3	J	0.02	mg/L
* Sulfate, Total	SES 2/24/2016	EPA 300.0	1	0.3	1		7.04	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L.

The result for TDS is now Not Detected. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-4

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04631

		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AW04640 Mercury, Total by CVAA	mg/L 0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8 70 to 130	1.52	20
AW04640 Barium, Total	mg/L 0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108 70 to 130	1.26	20
AW04640 Molybdenum, Total	mg/L 0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6 70 to 130	1.34	20
AW04640 Selenium, Total	mg/L 0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103 70 to 130	2.55	20
AW04639 Lithium, Total	mg/L -0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112 70 to 130	0.889	20
AW04640 Antimony, Total	mg/L 0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108 70 to 130	2.02	20
AW04640 Cadmium, Total	mg/L 0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6 70 to 130	3.83	20
AW04640 Thallium, Total	mg/L 0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7 70 to 130	3.81	20
AW04639 Boron, Total	mg/L -0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105 70 to 130	5.44	20
AW04640 Arsenic, Total	mg/L 0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4 70 to 130	1.58	20
W04640 Beryllium, Total	mg/L 0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106 70 to 130	2.63	20
AW04640 Lead, Total	mg/L 0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3 70 to 130	2.96	20
AW04639 Calcium, Total	mg/L 0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100 70 to 130	2.61	20
AW04640 Chromium, Total	mg/L 0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3 70 to 130	1.46	20
AW04640 Cobalt, Total	mg/L 0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4 70 to 130	2.69	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. The result for TDS is now Not Detected. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

John Pugh

Description: Barry Gypsum - MW-4

To: Dustin Brooks

Greg Dyer

Laboratory ID Number: AW04631

	,											
		,	MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Sulfate, Total	mg/L 0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20
AW04635	Fluoride, Total	mg/L 0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	20
AW04635	Chloride, Total	mg/L 0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L -1	25			30.0	50.0	40 to 60			0.00	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Issued By: State of Florida, Department of Health Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. The result for TDS is now Not Detected. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARGEB Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW04632

To: Dustin Brooks

Greg Dyer

John Pugh

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Radiological							
Total Radium, GPEL	SGC 9/23/2016	GA	1			Attached	
Metals, Cyanide, Total Phenols							
* Antimony, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detecte	d mg/L
* Arsenic, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U Not Detecte	d mg/L
* Barium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U Not Detecte	d mg/L
* Beryllium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detecte	d mg/L
* Boron, Total	HRG 3/10/2016	EPA 200.7	1.015	0.02	0.1	U Not Detecte	d mg/L
* Calcium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.1	0.5	U Not Detecte	d mg/L
* Cadmium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detecte	d mg/L
* Cobalt, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U Not Detecte	d mg/L
* Chromium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U Not Detecte	d mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 3/2/2016	EPA 245.1	1	0.00025	0.0005	U Not Detecte	d mg/L
* Lithium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.01	0.05	U Not Detecte	d mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U Not Detecte	d mg/L
* Lead, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U Not Detecte	d mg/L
* Selenium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U Not Detecte	d mg/L
* Thallium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detecte	d mg/L
General Characteristics							
* Solids, Dissolved	DLJ 3/1/2016	SM 2540C	1		25	U Not Detecte	d mg/L
* Chloride, Total	SES 2/24/2016	EPA 300.0	1	0.04	0.25	J 0.21	mg/L
* Fluoride, Total	SES 2/24/2016	EPA 300.0	1	0.01	0.3	J 0.01	mg/L
* Sulfate, Total	SES 2/24/2016	EPA 300.0	1	0.3	1	U Not Detecte	d mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114 Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARGEB Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW04632

To: Dustin Brooks

Greg Dyer

John Pugh

		MB					LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W04640 Mercury, Total by CVAA	mg/L 0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20
W04640 Barium, Total	mg/L 0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20
W04640 Molybdenum, Total	mg/L 0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20
W04640 Selenium, Total	mg/L 0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20
W04639 Lithium, Total	mg/L -0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20
W04640 Antimony, Total	mg/L 0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20
W04640 Cadmium, Total	mg/L 0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20
W04640 Thallium, Total	mg/L 0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20
W04639 Boron, Total	mg/L -0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20
AW04640 Arsenic, Total	mg/L 0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20
W04640 Beryllium, Total	mg/L 0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20
W04640 Lead, Total	mg/L 0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20
W04639 Calcium, Total	mg/L 0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20
W04640 Chromium, Total	mg/L 0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20
AW04640 Cobalt, Total	mg/L 0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



# **Corrected Copy**

Customer Account: WMWBARGEB Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW04632

To: Dustin Brooks

Greg Dyer

John Pugh

Labora	itory id Number. Avvo4632											
			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Chloride, Total	mg/L 0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20
AW04635	Fluoride, Total	mg/L 0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	20
AW04635	Sulfate, Total	mg/L 0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L -1	25			30.0	50.0	40 to 60			0.00	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114 Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-1

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04633

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, GPEL	SGC 9/23/2016	GA	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01		0.117	mg/L
* Beryllium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 3/10/2016	EPA 200.7	1.015	0.02	0.1	J	0.0212	mg/L
* Calcium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.1	0.5		1.28	mg/L
* Cadmium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	J	0.00350	mg/L
* Chromium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 3/2/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 3/1/2016	SM 2540C	1		25		26.7	mg/L
* Chloride, Total	SES 2/24/2016	EPA 300.0	1	0.04	0.25		3.59	mg/L
* Fluoride, Total	SES 2/24/2016	EPA 300.0	1	0.01	0.3	J	0.03	mg/L
* Sulfate, Total	SES 2/24/2016	EPA 300.0	1	0.3	1		8.59	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-1

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04633

		MB					LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AW04640 Mercury, Total by CVAA	mg/L 0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20
W04640 Barium, Total	mg/L 0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20
W04640 Molybdenum, Total	mg/L 0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20
W04640 Selenium, Total	mg/L 0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20
.W04639 Calcium, Total	mg/L 0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20
W04640 Chromium, Total	mg/L 0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20
W04640 Cobalt, Total	mg/L 0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20
W04639 Lithium, Total	mg/L -0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20
.W04640 Antimony, Total	mg/L 0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20
W04640 Cadmium, Total	mg/L 0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20
.W04640 Thallium, Total	mg/L 0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20
.W04639 Boron, Total	mg/L -0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20
W04640 Arsenic, Total	mg/L 0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20
.W04640 Beryllium, Total	mg/L 0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20
AW04640 Lead, Total	mg/L 0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-1

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04633

Labore	tory in italiance. Avvo4033											
			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Sulfate, Total	mg/L 0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20
AW04635	Fluoride, Total	mg/L 0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L -1	25			30.0	50.0	40 to 60			0.00	5
AW04635	Chloride, Total	mg/L 0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-9

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04634

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, GPEL	SGC 9/23/2016	GA	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01		0.121	mg/L
* Beryllium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 3/10/2016	EPA 200.7	1.015	0.02	0.1	J	0.0297	mg/L
* Calcium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.1	0.5		1.15	mg/L
* Cadmium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 3/2/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 3/1/2016	SM 2540C	1		25		25.3	mg/L
* Chloride, Total	SES 2/24/2016	EPA 300.0	1	0.04	0.25		4.10	mg/L
* Fluoride, Total	SES 2/24/2016	EPA 300.0	1	0.01	0.3	J	0.05	mg/L
* Sulfate, Total	SES 2/24/2016	EPA 300.0	1	0.3	1		7.71	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-9

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04634

		MB					LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W04640 Mercury, Total by CVAA	mg/L 0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20
W04639 Lithium, Total	mg/L -0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20
W04640 Antimony, Total	mg/L 0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20
W04640 Cadmium, Total	mg/L 0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20
.W04640 Thallium, Total	mg/L 0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20
W04640 Barium, Total	mg/L 0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20
W04640 Molybdenum, Total	mg/L 0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20
W04640 Selenium, Total	mg/L 0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20
W04639 Boron, Total	mg/L -0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20
.W04640 Arsenic, Total	mg/L 0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20
.W04640 Beryllium, Total	mg/L 0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20
W04640 Lead, Total	mg/L 0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20
.W04639 Calcium, Total	mg/L 0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20
W04640 Chromium, Total	mg/L 0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20
W04640 Cobalt, Total	mg/L 0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-9

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04634

Labora	itory id Number: AVV04634											
-			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Chloride, Total	mg/L 0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L -1	25			30.0	50.0	40 to 60			0.00	5
AW04635	Sulfate, Total	mg/L 0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20
AW04635	Fluoride, Total	mg/L 0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114 Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARGFB Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW04635

To: Dustin Brooks

Greg Dyer

John Pugh

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Radiological				,			
Total Radium, GPEL	SGC 9/23/2016	GA	1			Attached	
Metals, Cyanide, Total Phenols							
* Antimony, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG 3/10/2016	EPA 200.7	1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 3/2/2016	EPA 245.1	1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.01	0.05	U Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics							
* Solids, Dissolved	DLJ 3/1/2016	SM 2540C	1		25	U Not Detected	mg/L
* Chloride, Total	SES 2/24/2016	EPA 300.0	1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES 2/24/2016	EPA 300.0	1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES 2/24/2016	EPA 300.0	1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARGFB Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW04635

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number. AW04633				_							
		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W04640 Mercury, Total by CVAA	mg/L 0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20
AW04639 Calcium, Total	mg/L 0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20
W04640 Chromium, Total	mg/L 0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20
W04640 Cobalt, Total	mg/L 0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20
W04639 Lithium, Total	mg/L -0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20
W04640 Antimony, Total	mg/L 0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20
W04640 Cadmium, Total	mg/L 0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20
W04640 Thallium, Total	mg/L 0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20
W04639 Boron, Total	mg/L -0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20
W04640 Arsenic, Total	mg/L 0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20
W04640 Beryllium, Total	mg/L 0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20
W04640 Lead, Total	mg/L 0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20
W04640 Barium, Total	mg/L 0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20
W04640 Molybdenum, Total	mg/L 0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20
W04640 Selenium, Total	mg/L 0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114 Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



## **Corrected Copy**

Customer Account: WMWBARGFB Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

**Description**: Barry Gypsum Field Blank

Laboratory ID Number: AW04635

To: Dustin Brooks

Greg Dyer

John Pugh

Luboit	tory is italiber. Avvotoss											
			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Sulfate, Total	mg/L 0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20
AW04635	Fluoride, Total	mg/L 0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	20
AW04635	Chloride, Total	mg/L 0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L -1	25			30.0	50.0	40 to 60			0.00	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-5

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04636

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, GPEL	SGC 9/23/2016	GA	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01		0.109	mg/L
* Beryllium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 3/10/2016	EPA 200.7	1.015	0.02	0.1		0.163	mg/L
* Calcium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.1	0.5		2.42	mg/L
* Cadmium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 3/2/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	J	0.00572	mg/L
* Thallium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 3/1/2016	SM 2540C	1		25		38.0	mg/L
* Chloride, Total	SES 2/24/2016	EPA 300.0	1	0.04	0.25		3.86	mg/L
* Fluoride, Total	SES 2/24/2016	EPA 300.0	1	0.01	0.3	J	0.02	mg/L
* Sulfate, Total	SES 2/24/2016	EPA 300.0	1	0.3	1		12.5	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-5

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04636

		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W04640 Mercury, Total by CVAA	mg/L 0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20
W04639 Lithium, Total	mg/L -0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20
.W04640 Antimony, Total	mg/L 0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20
.W04640 Cadmium, Total	mg/L 0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20
W04640 Thallium, Total	mg/L 0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20
W04639 Boron, Total	mg/L -0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20
W04640 Arsenic, Total	mg/L 0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20
W04640 Beryllium, Total	mg/L 0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20
W04640 Lead, Total	mg/L 0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20
W04639 Calcium, Total	mg/L 0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20
W04640 Chromium, Total	mg/L 0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20
W04640 Cobalt, Total	mg/L 0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20
.W04640 Barium, Total	mg/L 0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20
W04640 Molybdenum, Total	mg/L 0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20
W04640 Selenium, Total	mg/L 0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 

24-Feb-16

Description: Barry Gypsum - MW-5

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04636

			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Sulfate, Total	mg/L 0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L -1	25			30.0	50.0	40 to 60			0.00	5
AW04635	Chloride, Total	mg/L 0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20
AW04635	Fluoride, Total	mg/L 0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-3

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04637

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological				1				
Total Radium, GPEL	SGC 9/23/2016	GA	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01		0.0862	mg/L
* Beryllium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 3/10/2016	EPA 200.7	1.015	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.1	0.5		1.77	mg/L
* Cadmium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 3/2/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 3/1/2016	SM 2540C	1		25		40.0	mg/L
* Chloride, Total	SES 2/24/2016	EPA 300.0	1	0.04	0.25		3.68	mg/L
* Fluoride, Total	SES 2/24/2016	EPA 300.0	1	0.01	0.3	J	0.02	mg/L
* Sulfate, Total	SES 2/24/2016	EPA 300.0	1	0.3	1		7.44	mg/L

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MDL's and RL's are adjusted for sample dilution, as applicable

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-3

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04637

		MB				,	LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W04640 Mercury, Total by CVAA	mg/L 0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20
AW04639 Calcium, Total	mg/L 0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20
W04640 Chromium, Total	mg/L 0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20
AW04640 Cobalt, Total	mg/L 0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20
AW04639 Lithium, Total	mg/L -0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20
W04640 Antimony, Total	mg/L 0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20
W04640 Cadmium, Total	mg/L 0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20
W04640 Thallium, Total	mg/L 0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20
W04640 Barium, Total	mg/L 0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20
W04640 Molybdenum, Total	mg/L 0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20
W04640 Selenium, Total	mg/L 0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20
W04639 Boron, Total	mg/L -0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20
AW04640 Arsenic, Total	mg/L 0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20
W04640 Beryllium, Total	mg/L 0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20
AW04640 Lead, Total	mg/L 0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20

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Issued By: State of Florida, Department of Health

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## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-3

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04637

Labore	tory in italiance. Avvo4037											
			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Chloride, Total	mg/L 0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20
AW04635	Fluoride, Total	mg/L 0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L -1	25			30.0	50.0	40 to 60			0.00	5
AW04635	Sulfate, Total	mg/L 0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20

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Expiration: June 30, 2018

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-3 DUP

Laboratory ID Number: AW04638

To: Dustin Brooks

Greg Dyer

John Pugh

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological				,				
Total Radium, GPEL	SGC 9/23/2016	GA	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01		0.0864	mg/L
* Beryllium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 3/10/2016	EPA 200.7	1.015	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.1	0.5		1.77	mg/L
* Cadmium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW 3/2/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 3/1/2016	SM 2540C	1		25		33.3	mg/L
* Chloride, Total	SES 2/24/2016	EPA 300.0	1	0.04	0.25		3.69	mg/L
* Fluoride, Total	SES 2/24/2016	EPA 300.0	1	0.01	0.3	J	0.02	mg/L
* Sulfate, Total	SES 2/24/2016	EPA 300.0	1	0.3	1		7.44	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-3 DUP

Laboratory ID Number: AW04638

To: Dustin Brooks

Greg Dyer

John Pugh

•		MB					LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W04640 Mercury, Total by CVAA	mg/L 0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20
W04639 Lithium, Total	mg/L -0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20
W04640 Antimony, Total	mg/L 0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20
W04640 Cadmium, Total	mg/L 0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20
W04640 Thallium, Total	mg/L 0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20
W04640 Barium, Total	mg/L 0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20
W04640 Molybdenum, Total	mg/L 0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20
W04640 Selenium, Total	mg/L 0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20
W04639 Calcium, Total	mg/L 0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20
W04640 Chromium, Total	mg/L 0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20
AW04640 Cobalt, Total	mg/L 0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20
W04639 Boron, Total	mg/L -0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20
AW04640 Arsenic, Total	mg/L 0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20
W04640 Beryllium, Total	mg/L 0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20
AW04640 Lead, Total	mg/L 0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-3 DUP

Laboratory ID Number: AW04638

To: Dustin Brooks

Greg Dyer

John Pugh

	1017 12 11011112011 711101000											
'		,	MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Chloride, Total	mg/L 0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20
AW04635	Fluoride, Total	mg/L 0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L -1	25			30.0	50.0	40 to 60			0.00	5
AW04635	Sulfate, Total	mg/L 0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-6

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04639

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological				·				
Total Radium, GPEL	SGC 9/23/2016	GA	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01		0.237	mg/L
* Beryllium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 3/10/2016	EPA 200.7	1.015	0.02	0.1		0.638	mg/L
* Calcium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.1	0.5		18.3	mg/L
* Cadmium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	J	0.00209	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 3/2/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01		0.0266	mg/L
* Thallium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 3/1/2016	SM 2540C	1		25		128	mg/L
* Chloride, Total	SES 2/24/2016	EPA 300.0	1	0.04	0.25		6.06	mg/L
* Fluoride, Total	SES 2/24/2016	EPA 300.0	1	0.01	0.3	J	0.06	mg/L
* Sulfate, Total	SES 2/24/2016	EPA 300.0	1	0.3	1		36.5	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-6

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04639

Laboratory ID Number: AW0403	<u> </u>				1						
		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W04640 Mercury, Total by CVAA	mg/L 0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20
AW04639 Calcium, Total	mg/L 0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20
W04640 Chromium, Total	mg/L 0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20
W04640 Cobalt, Total	mg/L 0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20
W04639 Lithium, Total	mg/L -0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20
W04640 Antimony, Total	mg/L 0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20
W04640 Cadmium, Total	mg/L 0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20
AW04640 Thallium, Total	mg/L 0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20
AW04639 Boron, Total	mg/L -0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20
AW04640 Arsenic, Total	mg/L 0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20
W04640 Beryllium, Total	mg/L 0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20
AW04640 Lead, Total	mg/L 0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20
W04640 Barium, Total	mg/L 0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20
W04640 Molybdenum, Total	mg/L 0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20
W04640 Selenium, Total	mg/L 0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20

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Expiration: June 30, 2018

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-6

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AMAGACOO

Labora	tory iD Number: AVV04639											
-			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Fluoride, Total	mg/L 0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	20
AW04635	Sulfate, Total	mg/L 0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L -1	25			30.0	50.0	40 to 60			0.00	5
AW04635	Chloride, Total	mg/L 0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20

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MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-7

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04640

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, GPEL	SGC 9/23/2016	GA	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01		0.0546	mg/L
* Beryllium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 3/15/2016	EPA 200.7	1.015	0.02	0.1	J	0.0314	mg/L
* Calcium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.1	0.5		1.40	mg/L
* Cadmium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 3/2/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 3/1/2016	SM 2540C	1		25	U	Not Detected	mg/L
* Chloride, Total	SES 2/26/2016	EPA 300.0	1	0.04	0.25		4.08	mg/L
* Fluoride, Total	SES 2/26/2016	EPA 300.0	1	0.01	0.3	J	0.02	mg/L
* Sulfate, Total	SES 2/26/2016	EPA 300.0	1	0.3	1		3.82	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L.

The result for TDS is now Not Detected. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-7

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04640

		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W04640 Mercury, Total by CVAA	mg/L 0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20
W04640 Chromium, Total	mg/L 0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20
W04640 Cobalt, Total	mg/L 0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20
.W04640 Barium, Total	mg/L 0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20
W04640 Molybdenum, Total	mg/L 0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20
W04640 Selenium, Total	mg/L 0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20
W04644 Boron, Total	mg/L 0.0143	0.044	1.000	1.00	1.05	0.983	0.85 to 1.15	100	70 to 130	5.77	20
W04640 Antimony, Total	mg/L 0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20
W04640 Cadmium, Total	mg/L 0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20
W04640 Thallium, Total	mg/L 0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20
W04644 Calcium, Total	mg/L 0.000477	0.22	5.000	5.70	4.92	5.00	4.25 to 5.75	102	70 to 130	14.7	20
W04644 Lithium, Total	mg/L 0.0000825	0.022	0.200	0.209	0.202	0.205	0.17 to 0.23	104	70 to 130	3.41	20
W04640 Arsenic, Total	mg/L 0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20
.W04640 Beryllium, Total	mg/L 0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20
W04640 Lead, Total	mg/L 0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20

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Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. The result for TDS is now Not Detected. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-7

To: Dustin Brooks

Greg Dyer

John Pugh

Labora	atory ID Number: AW04640											
· · · · · · · · · · · · · · · · · · ·			MB			Sample		LFB	F	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec L	imit	Prec	Limit
AW04640	Chloride, Total	mg/L 0.00	0.25	10.0	14.0	4.09	10.0	9 to 11	99.2 8	0 to 120	0.245	20
AW04640	Sulfate, Total	mg/L 0.00	1.0	20.0	23.3	3.82	19.4	18 to 22	97.4 8	0 to 120	0.00	20
AW04640	Fluoride, Total	mg/L 0.00	0.3	2.0	2.07	0.018	2.12	1.8 to 2.2	102 8	0 to 120	10.5	20
AW04644	Solids, Dissolved	mg/L -1	25			30.0	50.0	40 to 60			0.00	5

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

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## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-2

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04641

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, GPEL	SGC 9/23/2016	GA	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01		0.111	mg/L
* Beryllium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 3/15/2016	EPA 200.7	1.015	0.02	0.1	J	0.0252	mg/L
* Calcium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.1	0.5		1.11	mg/L
* Cadmium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW 3/2/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 3/1/2016	SM 2540C	1		25		30.7	mg/L
* Chloride, Total	SES 2/26/2016	EPA 300.0	1	0.04	0.25		3.99	mg/L
* Fluoride, Total	SES 2/26/2016	EPA 300.0	1	0.01	0.3	J	0.02	mg/L
* Sulfate, Total	SES 2/26/2016	EPA 300.0	1	0.3	1		7.20	mg/L

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Expiration: June 30, 2018

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The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-2

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04641

		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
W04644 Barium, Total	mg/L 0.00000390	0.0044	0.10	0.143	0.151	0.101	0.085 to 0.115	108 70 to 13	0 4.90	20
W04644 Chromium, Total	mg/L 0.00000987	0.0044	0.10	0.0947	0.0982	0.0933	0.085 to 0.115	94.7 70 to 13	0 3.62	20
W04644 Selenium, Total	mg/L 0.0000321	0.0044	0.10	0.103	0.106	0.103	0.085 to 0.115	103 70 to 13	0 3.05	20
W04644 Arsenic, Total	mg/L 0.00000588	0.0022	0.10	0.0972	0.101	0.0965	0.085 to 0.115	97.2 70 to 13	0 4.01	20
W04644 Calcium, Total	mg/L 0.000477	0.22	5.000	5.70	4.92	5.00	4.25 to 5.75	102 70 to 13	0 14.7	20
W04644 Cobalt, Total	mg/L 0.00000121	0.0044	0.10	0.0935	0.0965	0.0957	0.085 to 0.115	93.5 70 to 13	0 3.07	20
W04644 Lead, Total	mg/L 0.00000490	0.0022	0.10	0.0967	0.0998	0.0961	0.085 to 0.115	96.7 70 to 13	0 3.14	20
W04644 Lithium, Total	mg/L 0.0000825	0.022	0.200	0.209	0.202	0.205	0.17 to 0.23	104 70 to 13	0 3.41	20
W04644 Beryllium, Total	mg/L 0.00000727	0.00132	0.10	0.108	0.109	0.104	0.085 to 0.115	108 70 to 13	0 1.10	20
W04644 Boron, Total	mg/L 0.0143	0.044	1.000	1.00	1.05	0.983	0.85 to 1.15	100 70 to 13	0 5.77	20
W04644 Mercury, Total by CVAA	mg/L 0.00005	0.0005	0.004	0.00412	0.00396	0.0039	0.0034 to 0.0046	103 70 to 13	0 3.96	20
W04644 Molybdenum, Total	mg/L 0.00000556	0.0044	0.10	0.0969	0.0997	0.0933	0.085 to 0.115	96.9 70 to 13	0 2.87	20
W04644 Thallium, Total	mg/L 0.00000447	0.00044	0.10	0.0980	0.101	0.0949	0.085 to 0.115	98.0 70 to 13	0 2.87	20
W04644 Antimony, Total	mg/L 0.000120	0.00132	0.10	0.107	0.111	0.101	0.085 to 0.115	107 70 to 13	0 3.07	20
W04644 Cadmium, Total	mg/L 0.000000404	0.00044	0.10	0.0934	0.0959	0.0921	0.085 to 0.115	93.4 70 to 13	0 2.65	20

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Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
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5

0.00

# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

30.0

50.0

40 to 60

Description: Barry Gypsum - MW-2

To: Dustin Brooks

Greg Dyer

John Pugh

AW04644 Solids, Dissolved

Labora	tory ID Number: AW04641											
		,	MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04640	Sulfate, Total	mg/L 0.00	1.0	20.0	23.3	3.82	19.4	18 to 22	97.4	80 to 120	0.00	20
AW04640	Chloride, Total	mg/L 0.00	0.25	10.0	14.0	4.09	10.0	9 to 11	99.2	80 to 120	0.245	20
AW04640	Fluoride, Total	mg/L 0.00	0.3	2.0	2.07	0.018	2.12	1.8 to 2.2	102	80 to 120	10.5	20

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

mg/L -1

25

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-10

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04642

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, GPEL	SGC 9/23/2016	GA	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01		0.134	mg/L
* Beryllium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 3/15/2016	EPA 200.7	1.015	0.02	0.1	J	0.0294	mg/L
* Calcium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.1	0.5		0.795	mg/L
* Cadmium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	J	0.00247	mg/L
* Chromium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 3/2/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 3/1/2016	SM 2540C	1		25		37.3	mg/L
* Chloride, Total	SES 2/26/2016	EPA 300.0	1	0.04	0.25		3.57	mg/L
* Fluoride, Total	SES 2/26/2016	EPA 300.0	1	0.01	0.3	J	0.05	mg/L
* Sulfate, Total	SES 2/26/2016	EPA 300.0	1	0.3	1		9.29	mg/L

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Expiration: June 30, 2018

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The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114 Issued By: State of Florida, Department of Health



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-10

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04642

		MB			'		LFB	ı	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec I	Limit	Prec	Limit
AW04644 Barium, Total	mg/L 0.00000390	0.0044	0.10	0.143	0.151	0.101	0.085 to 0.115	108 70	) to 130	4.90	20
W04644 Selenium, Total	mg/L 0.0000321	0.0044	0.10	0.103	0.106	0.103	0.085 to 0.115	103 70	to 130	3.05	20
W04644 Arsenic, Total	mg/L 0.00000588	0.0022	0.10	0.0972	0.101	0.0965	0.085 to 0.115	97.2 70	to 130	4.01	20
W04644 Chromium, Total	mg/L 0.00000987	0.0044	0.10	0.0947	0.0982	0.0933	0.085 to 0.115	94.7 70	to 130	3.62	20
W04644 Antimony, Total	mg/L 0.000120	0.00132	0.10	0.107	0.111	0.101	0.085 to 0.115	107 70	to 130	3.07	20
W04644 Cadmium, Total	mg/L 0.000000404	0.00044	0.10	0.0934	0.0959	0.0921	0.085 to 0.115	93.4 70	to 130	2.65	20
W04644 Beryllium, Total	mg/L 0.00000727	0.00132	0.10	0.108	0.109	0.104	0.085 to 0.115	108 70	to 130	1.10	20
W04644 Boron, Total	mg/L 0.0143	0.044	1.000	1.00	1.05	0.983	0.85 to 1.15	100 70	to 130	5.77	20
W04644 Mercury, Total by CVAA	mg/L 0.00005	0.0005	0.004	0.00412	0.00396	0.0039	0.0034 to 0.0046	103 70	to 130	3.96	20
W04644 Molybdenum, Total	mg/L 0.00000556	0.0044	0.10	0.0969	0.0997	0.0933	0.085 to 0.115	96.9 70	to 130	2.87	20
W04644 Thallium, Total	mg/L 0.00000447	0.00044	0.10	0.0980	0.101	0.0949	0.085 to 0.115	98.0 70	to 130	2.87	20
W04644 Calcium, Total	mg/L 0.000477	0.22	5.000	5.70	4.92	5.00	4.25 to 5.75	102 70	to 130	14.7	20
W04644 Cobalt, Total	mg/L 0.00000121	0.0044	0.10	0.0935	0.0965	0.0957	0.085 to 0.115	93.5 70	to 130	3.07	20
W04644 Lead, Total	mg/L 0.00000490	0.0022	0.10	0.0967	0.0998	0.0961	0.085 to 0.115	96.7 70	to 130	3.14	20
W04644 Lithium, Total	mg/L 0.0000825	0.022	0.200	0.209	0.202	0.205	0.17 to 0.23	104 70	to 130	3.41	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-10

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04642

Labora	itory id Number. Avvo4642											
			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec I	Limit	Prec	Limit
AW04640	Chloride, Total	mg/L 0.00	0.25	10.0	14.0	4.09	10.0	9 to 11	99.2 8	30 to 120	0.245	20
AW04640	Sulfate, Total	mg/L 0.00	1.0	20.0	23.3	3.82	19.4	18 to 22	97.4 8	80 to 120	0.00	20
AW04640	Fluoride, Total	mg/L 0.00	0.3	2.0	2.07	0.018	2.12	1.8 to 2.2	102 8	80 to 120	10.5	20
AW04644	Solids, Dissolved	mg/L -1	25			30.0	50.0	40 to 60			0.00	5

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Reported: 7/26/2017 Version: 2.0

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-8

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04644

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological					_			
Total Radium, GPEL	SGC 9/23/2016	GA	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01		0.0352	mg/L
* Beryllium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 3/15/2016	EPA 200.7	1.015	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.1	0.5		0.618	mg/L
* Cadmium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 3/2/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 3/8/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 2/29/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 2/29/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 3/1/2016	SM 2540C	1		25		30.0	mg/L
* Chloride, Total	SES 2/26/2016	EPA 300.0	1	0.04	0.25		4.47	mg/L
* Fluoride, Total	SES 2/26/2016	EPA 300.0	1	0.01	0.3	J	0.02	mg/L
* Sulfate, Total	SES 2/26/2016	EPA 300.0	1	0.3	1		3.33	mg/L

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Reported: 7/26/2017 Version: 2.0

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

Description: Barry Gypsum - MW-8

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW04644

		MB			'	'	LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
W04644 Barium, Total	mg/L 0.00000390	0.0044	0.10	0.143	0.151	0.101	0.085 to 0.115	108 70 to 13	30 4.90	20
AW04644 Selenium, Total	mg/L 0.0000321	0.0044	0.10	0.103	0.106	0.103	0.085 to 0.115	103 70 to 13	3.05	20
AW04644 Arsenic, Total	mg/L 0.00000588	0.0022	0.10	0.0972	0.101	0.0965	0.085 to 0.115	97.2 70 to 13	30 4.01	20
W04644 Chromium, Total	mg/L 0.00000987	0.0044	0.10	0.0947	0.0982	0.0933	0.085 to 0.115	94.7 70 to 13	30 3.62	20
W04644 Calcium, Total	mg/L 0.000477	0.22	5.000	5.70	4.92	5.00	4.25 to 5.75	102 70 to 13	30 14.7	20
W04644 Cobalt, Total	mg/L 0.00000121	0.0044	0.10	0.0935	0.0965	0.0957	0.085 to 0.115	93.5 70 to 13	30 3.07	20
W04644 Lead, Total	mg/L 0.00000490	0.0022	0.10	0.0967	0.0998	0.0961	0.085 to 0.115	96.7 70 to 13	30 3.14	20
W04644 Lithium, Total	mg/L 0.0000825	0.022	0.200	0.209	0.202	0.205	0.17 to 0.23	104 70 to 13	30 3.41	20
W04644 Beryllium, Total	mg/L 0.00000727	0.00132	0.10	0.108	0.109	0.104	0.085 to 0.115	108 70 to 13	30 1.10	20
W04644 Boron, Total	mg/L 0.0143	0.044	1.000	1.00	1.05	0.983	0.85 to 1.15	100 70 to 13	30 5.77	20
W04644 Mercury, Total by CVAA	mg/L 0.00005	0.0005	0.004	0.00412	0.00396	0.0039	0.0034 to 0.0046	103 70 to 13	30 3.96	20
W04644 Molybdenum, Total	mg/L 0.00000556	0.0044	0.10	0.0969	0.0997	0.0933	0.085 to 0.115	96.9 70 to 13	30 2.87	20
W04644 Thallium, Total	mg/L 0.00000447	0.00044	0.10	0.0980	0.101	0.0949	0.085 to 0.115	98.0 70 to 13	30 2.87	20
W04644 Antimony, Total	mg/L 0.000120	0.00132	0.10	0.107	0.111	0.101	0.085 to 0.115	107 70 to 13	3.07	20
AW04644 Cadmium, Total	mg/L 0.00000040	4 0.00044	0.10	0.0934	0.0959	0.0921	0.085 to 0.115	93.4 70 to 13	30 2.65	20

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MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Reported: 7/26/2017 Version: 2.0

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 23-Feb-16

**Customer ID:** 

**Delivery Date:** 24-Feb-16

30.0

50.0

40 to 60

Description: Barry Gypsum - MW-8

To: Dustin Brooks

Greg Dyer

John Pugh

AW04644 Solids, Dissolved

Labora	tory ID Number: AW04644											
			MB			Sample		LFB	F	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec L	_imit	Prec	Limit
AW04640	Chloride, Total	mg/L 0.00	0.25	10.0	14.0	4.09	10.0	9 to 11	99.2 8	0 to 120	0.245	20
AW04640	Sulfate, Total	mg/L 0.00	1.0	20.0	23.3	3.82	19.4	18 to 22	97.4 8	0 to 120	0.00	20
AW04640	Fluoride, Total	mg/L 0.00	0.3	2.0	2.07	0.018	2.12	1.8 to 2.2	102 8	0 to 120	10.5	20

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.

The RL has now been corrected to 25 mg/L. SGC 1/19/17

mg/L -1

25

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Reported: 7/26/2017 Version: 2.0

0.00

5

#### Alabama Power General Test Laboratory **Definitions** 744 County Road 87, GSC#8 (205) 664-6032 or 6171

Calera, AL 35040

FAX (205) 257-1654





Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the
	concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
В	Analyte found in reagent blank. Indicates possible reagent or background contamination.
Е	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
Р	Precision is out of range.
С	Analyte was verified by re-analysis.
Н	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as
	possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless
	otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



~	Field Complete
~	Lab Complete

Lab ETA 02/24/2016 11:00

Requested Complete Dat	Routine	Results To	Dustin Brooks
Site Representativ	Bo Cotton	Requested By	Greg Dyer
Collecto	Nick Pitts	Location	Barry Gypsum
, , , , , , , , , , , , , , , , , , ,	ls, Anions, TDS (2) 500mL Bottles; Radio Is and Radiologicals were pre-preserved		es .

			Bottle		Lab		Lab	
Sample #	Date	Time	Count	Description	Filter	Cooler	Preserve	Lab Id
MW-4	02/23/2016	08:45	4	Groundwater		4950-25061-10-1		AW04631
EB-1	02/23/2016	09:05	4	Equipment Blank		4950-25061-10-1		AW04632
MW-1	02/23/2016	10:05	4	Groundwater		4950-25061-10-1		AW04633
MW-9	02/23/2016	11:10	4	Groundwater		4950-25061-10-1		AW04634
FB-1	02/23/2016	12:05	4	Field Blank		4950-25062-10-2		AW04635
MW-5	02/23/2016	12:17	4	Groundwater		4950-25062-10-2		AW04636
				_				

Relinquished By	Received By	Date/Time
A Common of the	Services	02/24/2016 12:20

SmarTroll ID 4696-23441-1-1 Turbidity ID | 4677-23343-4-2

Thermometer ID | 1506-3968-4-4 pH Strip ID 4437-22295-10-1

Cooler Temp | 1.3 / 0.9 degrees Celsius



~	Fie	ld Complete
~	Lal	Complete

Lab ETA 02/24/2016 11:00

Requested Complete Date		Routine	Results To	Dustin Brooks			
Site Representative		Jason Arledge	Requested By	Greg Dyer			
Collector		Clarence Specht	Location	Barry Gypsum			
Analysis Requested	ted Metals, Anions, TDS (2) 500mL Bottles; Radiological (2) 2L Bottles						
Comments	Metals	Metals and Radiological samples were pre-preserved; AW04643 deleted-Radiological QC only. SGC					

			Bottle		Lab		Lab	
Sample #	Date	Time	Count	Description	Filter	Cooler	Preserve	Lab Id
MW-2	02/23/2016	08:56	4	Groundwater		4950-25066-10-6		AW04641
MW-10	02/23/2016	10:50	4	Groundwater		4950-25066-10-6		AW04642
MW-8	02/23/2016	12:46	4	Groundwater		4950-25066-10-6		AW04644
				<u> </u>				

Relinquished By	Received By	Date/Time
C. Joeth	SENGO	02/24/2016 12:05

SmarTroll ID | 4696-23443-3-2 Turbidity ID | 3901-20009-2-1

Thermometer ID | 1506-3968-4-4

Cooler Temp | 0.2 degrees Celsius pH Strip ID 4437-22295-10-1



<b>'</b>	Field Complete
~	Lab Complete

Lab ETA 02/24/2016 11:00

Requested Complete Date		Routine	Results To	Dustin Brooks			
Site Representative		Bo Cotton	Requested By	Greg Dyer			
Collector		Jason Rouss	Location	Barry Gypsum			
_							
Analysis Requested	Metals	Metals, Anions, TDS (2) 500mL Bottles; Radiological (2) 2L Bottles					
Comments	Metals	Metals and Radiological samples were pre-preserved					

			Bottle		Lab		Lab	
Sample #	Date	Time	Count	Description	Filter	Cooler	Preserve	Lab Id
MW-3	02/23/2016	08:53	4	Groundwater		4950-25063-10-3		AW04637
MW-3 Dup	02/23/2016	08:53	4	Sample Duplicate		4950-25063-10-3		AW04638
MW-6	02/23/2016	10:13	4	Groundwater		4950-25063-10-3		AW04639
MW-7	02/23/2016	11:11	4	Groundwater		4950-25063-10-3		AW04640
				<u>L</u>	L -	L		

Relinquished By	Received By	Date/Time
In Com	Sool God	02/24/2016 12:05

SmarTroll ID | 4696-23444-3-3 Turbidity ID | 4677-23342-4-1

Thermometer ID | 1506-3968-4-4

Cooler Temp | 1.0 degrees Celsius pH Strip ID 4437-22295-10-1

2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

Sarah Copeland APC GSC Building 8 **Report To** 

Sample #	Location	Sample Description	Customer Sample ID	Date Collected	Test Method
102221001	APC Lab	MW-4 Groundwater	AW04631, Water	2/23/2016 8:45:00 AM	Ga Tech
102221002	APC Lab	EB-1 Equipment	AW04632, Water	2/23/2016 9:05:00 AM	Ga Tech
102221003	APC Lab	MW-1 Groundwater	AW04633, Water	2/23/2016 10:05:00 AM	Ga Tech
102221004	APC Lab	MW-9 Groundwater	AW04634, Water	2/23/2016 11:10:00 AM	Ga Tech
102221005	APC Lab	FB-1Field Blank	AW04635, Water	2/23/2016 12:05:00 PM	Ga Tech
102221006	APC Lab	MW-5 Groundwater	AW04636, Water	2/23/2016 12:17:00 PM	Ga Tech
102221007	APC Lab	MW-3 Groundwater	AW04637, Water	2/23/2016 8:53:00 AM	Ga Tech
102221008	APC Lab	MW-3 Dup	AW04638, Water	2/23/2016 8:53:00 AM	Ga Tech
102221009	APC Lab	MW-6 Groundwater	AW04639, Water	2/23/2016 10:13:00 AM	Ga Tech
102221010	APC Lab	MW-7 Groundwater	AW04640, Water	2/23/2016 11:11:00 AM	Ga Tech
102221011	APC Lab	MW-2 Groundwater	AW04641, Water	2/23/2016 8:56:00 AM	Ga Tech
102221012	APC Lab	MW-10 Groundwater	AW04642, Water	2/23/2016 10:50:00 AM	Ga Tech
102221014	APC Lab	MW-8 Groundwater	AW04644, Water	2/23/2016 12:46:00 PM	Ga Tech
Certification	1				

Data approved by Gary Smith Georgia Power Company

2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland APC GSC Building 8

Location APC Lab Sample Number 102221001

Collection Date 2/23/2016 8:45:00 AM

Sampling Media Water Station AW04631

Sample ID MW-4 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.54E-01
Ra-228	Ga Tech	pCi/L	2.11E+00	<b>+/-</b> 1.71E+00	
Total Isotopic Radium	Ga Tech	pCi/L	2.11E+00		

2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

Report To

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 102221002

Collection Date 2/23/2016 9:05:00 AM

Sampling Media Water Station AW04632

Sample ID EB-1 Equipment Blank APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			2.53E-01 3.90E-01

2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland APC GSC Building 8

Location APC Lab Sample Number 102221003

Collection Date 2/23/2016 10:05:00 AM

Sampling Media Water Station AW04633

Sample ID MW-1 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L	1.12E+00	<b>+/-</b> 6.62E-01	
Ra-228	Ga Tech	pCi/L	1.77E+00	<b>+/-</b> 1.61E+00	
Total Isotopic Radium	Ga Tech	pCi/L	2.90E+00		

2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

Report To Sara

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 102221004

Collection Date 2/23/2016 11:10:00 AM

Sampling Media Water Station AW04634

Sample ID MW-9 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			5.38E-01 7.31E-01

2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

Report To Sara

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 102221005

Collection Date 2/23/2016 12:05:00 PM

Sampling Media Water Station AW04635

Sample ID FB-1Field Blank APC Lab

Nuclide	Method	Units /	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.62E-01
Ra-228	Ga Tech	pCi/L			5.90E-01

2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

Report To

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 102221006

Collection Date 2/23/2016 12:17:00 PM

Sampling Media Water Station AW04636

Sample ID MW-5 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			4.98E-01 5.66E-01

2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

Report To

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 102221007

Collection Date 2/23/2016 8:53:00 AM

Sampling Media Water Station AW04637

Sample ID MW-3 Groundwater APC Lab

Nuclide	Method	Units A	tivity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.67E-01
Ra-228	Ga Tech	pCi/L			6.16E-01

2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland

APC GSC Building 8

Location APC Lab Sample Number 102221008

Collection Date 2/23/2016 8:53:00 AM

Sampling Media Water Station AW04638

Sample ID MW-3 Dup Groundwater APC

Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			4.51E-01 6.57E-01

2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland APC GSC Building 8

Location APC Lab Sample Number 102221009

Collection Date 2/23/2016 10:13:00 AM

Sampling Media Water Station AW04639

Sample ID MW-6 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L	1.23E+00	<b>+/-</b> 7.03E-01	
Ra-228	Ga Tech	pCi/L			8.24E-01
Total Isotopic Radium	Ga Tech	pCi/L	1.23E+00		

2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland APC GSC Building 8

Location APC Lab Sample Number 102221010

Collection Date 2/23/2016 11:11:00 AM

Sampling Media Water Station AW04640

Sample ID MW-7 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			4.43E-01 8.09E-01

2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland

APC GSC Building 8

Location APC Lab Sample Number 102221011

Collection Date 2/23/2016 8:56:00 AM

Sampling Media Water Station AW04641

Sample ID MW-2 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			5.53E-01 6.54E-01

2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

Report To

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 102221012

Collection Date 2/23/2016 10:50:00 AM

Sampling Media Water Station AW04642

Sample ID MW-10 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			5.82E-01 7.59E-01

2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

Report To

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 102221014

Collection Date 2/23/2016 12:46:00 PM

Sampling Media Water Station AW04644

Sample ID MW-8 Groundwater APC Lab

Nuclide	Method	Units Ac	tivity Mean 95% CL	MDA
Ra-226	Ga Tech	pCi/L		5.03E-01
Ra-228	Ga Tech	pCi/L		7.18E-01

# Georgia Power Environmental Laboratory

2480 Maner Road, Bin 39110 Atlanta, Georgia 30339 Phone: (404) 799-2100 Company: 8-530-2100

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Report to Sarah (Opeland

Signature

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Phone/Fax: 3 205 - 16164 - 10121

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# Georgia Power Environmental Laboratory

2480 Maner Road, Bin 39110 Atlanta, Georgia 30339 Phone: (404) 799-2100 Company: 8-530-2100

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12 Page \_\_\_\_ of \_\_

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# Sample Receipt Checklist



Client:

Carrier:

APC Lab

102221

Workorder No.: COURIER # of Samples:

14

**Tracking No:** 

Question	Answer Comment
Radioactivity wasn't checked or is <= background as measured by	True
a survey meter	engesgystepten kreigen de vikkligt eende grote vag en de de vier de gesten het en hij die het. False
Custody seals were present on cooler	Construction of the contract o
Custody seals were present on sample	False
The cooler or samples do not appear to have been compromised or	True
tampered with Samples were received on ice	True / / / / / / / / / / / / / / / / / / /
Cooler temperature is acceptable	True
<ul> <li>As inventoring experience in service intermediate form that it is the first of a contract of the first of the</li></ul>	True 20
Cooler temperature is recorded	True
COC is present	True
COC is filled out in ink and is legible	True Mark through present on COC customer forgot to initial and date
COC is filled out with pertinent information	it.
The field sampler's name is on the COC	True
Sample containers have legible labels	True
Information on the sample label agrees with information on the COC	False Sample AW04643 sample description different from COC to sample container label, sample was logged in based on the information provided on sample container label.
Samples are received within holding times	True
Containers are not broken or leaking	True
Sample collection date/times are present	True
Appropriate sample containers are used	True
Sample bottles are completely filled	True
Sample preservation is checked	True
Sample preservation is acceptable	True
There is sufficient sample volume for all requested analyses	True
Containers requiring zero headspace have no headspace or the	True
bubble is < 6mm (1/4 inch)	ому на на маражен на вирамского и менерен менер и постор и посторова и метом болького было на было на было на б
Multiphasic samples are not present	True
Samples do not require splitting or compositing	True

**Receiving Narrative:** 

ENVERONMENTAL LABORATORY

#### **QUALITY CONTROL DATA**

Workorders: 102220, 102221

QC Batch: 16865 Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102220004 – 102220013, 102220015-102220022, 102221001

#### **METHOD BLANK:**

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.80E-01	1.0	
Radium-228	pCi/l	<3.45E-01	1.0	

#### **Laboratory Control Sample:**

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.791	5.248	110	70-130	
Radium-228	pCi/l	4.875	5.269	108	70-130	

#### **Laboratory Control Sample Duplicate:**

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	8.5	20	
Radium-228	pCi/l	15.4	20	

#### **Sample Duplicate:**

Parameter	Units	Original Resul	t DUP Result	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	ND	ND	NA	20	
Radium-228	pCi/l	ND	ND	NA	20	

#### **QUALITY CONTROL DATA**

Workorder: 102221, 102359, 102366

QC Batch: 16890 Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102221002-012, 102221014, 102359003-005, 102366001-004

#### **METHOD BLANK:**

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.597E-01	1.0	
Radium-228	pCi/l	<6.626E-01	1.0	

#### **Laboratory Control Sample:**

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.745	4.861	102	70-130	
Radium-228	pCi/l	4.850	5.462	113	70-130	

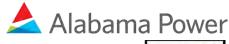
#### **Laboratory Control Sample Duplicate:**

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	6.4	20	
Radium-228	pCi/l	7.7	20	

#### **Sample Duplicate:**

Parameter	Units	Original Result	t DUP Result	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	ND	ND	NA	20	
Radium-228	pCi/l	ND	ND	NA	20	

# Analytical Report





 $\textbf{Sample Group:} \ \ \mathsf{WMWBARG\_20}$ 

Project/Site: Barry Gypsum

Bucks, AL 36512

For: Southern Company Services

42 Inverness Center Parkway Birmingham, AL 35242

Attention: Dustin Brooks & Greg Dyer

Released By: Sarah Copeland

sgcopela@southernco.com

(205) 664-6121

The following data has been reviewed and approved by:

Quality Control: Supervision:

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Anions

#### Barry Gypsum

#### WMWBARG\_20

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	<b>Chloride Batch ID</b>	Fluoride Batch ID	Sulfate Batch ID	Project ID
AW10312	564755	564756	564757	WMWBARG_20
AW10313	564755	564756	564757	WMWBARG_20
AW10314	564755	564756	564757	WMWBARG_20
AW10315	564755	564756	564757	WMWBARG_20
AW10316	564755	564756	564757	WMWBARG_20
AW10317	564755	564756	564757	WMWBARG_20
AW10318	564759	564761	564763	WMWBARG_20
AW10319	564759	564761	564763	WMWBARG_20
AW10320	564759	564761	564763	WMWBARG_20
AW10321	564759	564761	564763	WMWBARG_20
AW10322	564759	564761	564763	WMWBARG_20
AW10323	564759	564761	564763	WMWBARG_20
AW10324	564759	564761	564763	WMWBARG_20

- 4. All of the above samples were analyzed and prepared by EPA 300.0.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

#### **General Quality Control Procedures:**

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met.
- All laboratory reagent blanks were less than the method detection limits for the requested anions.
- All laboratory fortified blanks were within acceptance criteria for the anions requested.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A laboratory fortified matrix sample was analyzed with each batch. All acceptance criteria for accuracy were met.
- A sample duplicate and/or laboratory fortified matrix duplicate were analyzed with each batch. All acceptance criteria for precision were met. It is noted that separate and distinct criteria for duplicate precision calculations, based on sample and duplicate anion concentrations, are used to assess precision compliance. These are as follow: if the sample and duplicate are both greater than 5x anion Reporting Limit (RL) concentration, the precision is calculated and reported as relative percent difference (RPD), with an acceptance range of 0 20%; if either the sample or duplicate are less than 5x anion RL, the precision is calculated and reported as the absolute value of the difference between the two concentrations, with an acceptance range of less than or equal to the anion RL value.
- 7. All samples were analyzed without a dilution.
- 8. The raw data results are shown with dilution factors included, when dilutions are manually performed by the analyst.

The raw data results are shown without dilution factor corrections, when dilutions are run automatically by the instrument.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Metals ICP

#### **Barry Gypsum**

#### WMWBARG\_20

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW10312	20160517D	WMWBARG_20
AW10313	20160517D	WMWBARG_20
AW10314	20160517D	WMWBARG_20
AW10315	20160517D	WMWBARG_20
AW10316	20160517D	WMWBARG_20
AW10317	20160517D	WMWBARG_20
AW10318	20160517D	WMWBARG_20
AW10319	20160517D	WMWBARG_20
AW10320	20160517D	WMWBARG_20
AW10321	20160517D	WMWBARG_20
AW10322	20160517E	WMWBARG_20
AW10323	20160517E	WMWBARG_20
AW10324	20160517E	WMWBARG 20

- 4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

#### **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below half the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed without a dilution.
- 8. The raw data results include both results corrected for dilution and results not corrected for dilution.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





Metals ICPMS

Barry Gypsum

WMWBARG\_20

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW10312	563793	WMWBARG_20
AW10313	563793	WMWBARG_20
AW10314	563793	WMWBARG_20
AW10315	563793	WMWBARG_20
AW10316	563793	WMWBARG_20
AW10317	563793	WMWBARG_20
AW10318	563793	WMWBARG_20
AW10319	563793	WMWBARG_20
AW10320	563793	WMWBARG_20
AW10321	563793	WMWBARG_20
AW10322	563794	WMWBARG_20
AW10323	563794	WMWBARG_20
AW10324	563794	WMWBARG_20

- 4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.
- 7. Cadmium MDL increased from 0.0001mg/L to 0.0002mg/L. Sample AW10319 is now reported as Not Detected.

#### **General Quality Control Procedures:**

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

#### Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
- 8. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
- 9. The raw data results are shown with dilution factors included.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Mercury

#### Barry Gypsum

#### WMWBARG\_20

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW10312	564478	WMWBARG_20
AW10313	564478	WMWBARG_20
AW10314	564478	WMWBARG_20
AW10315	564478	WMWBARG_20
AW10316	564478	WMWBARG_20
AW10317	564478	WMWBARG_20
AW10318	564478	WMWBARG_20
AW10319	564478	WMWBARG_20
AW10320	564478	WMWBARG_20
AW10321	564478	WMWBARG_20
AW10322	564480	WMWBARG_20
AW10323	564480	WMWBARG_20
AW10324	564480	WMWBARG_20

- 4. All of the above samples were analyzed and prepared by EPA 245.1.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

#### **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



• All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed without a dilution.
- 8. The raw data results are shown with dilution factors included.

### Case Narrative

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





TDS

### Barry Gypsum

### WMWBARG\_20

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW10312	563583	WMWBARG_20
AW10313	563583	WMWBARG_20
AW10314	563583	WMWBARG_20
AW10315	563583	WMWBARG_20
AW10316	563583	WMWBARG_20
AW10317	563583	WMWBARG_20
AW10318	563583	WMWBARG_20
AW10319	563583	WMWBARG_20
AW10320	563583	WMWBARG_20
AW10321	563583	WMWBARG_20
AW10322	563583	WMWBARG_20
AW10323	563583	WMWBARG_20
AW10324	563583	WMWBARG 20

- 4. All of the above samples were analyzed by Standard Method 2540C.
- 5. All samples were analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.
- 7. The reporting limit for TDS was incorrectly listed as 2.5mg/L. This has been corrected based on filter volume and project limits. Samples AW10316, AW10321, AW10322 and AW10324 are now reported as Not Detected.

### **General Quality Control Procedures:**

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%. However, the duplicate was analyzed after 20 samples.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AW10312 and AW10313 which were <2.5 mg.



## **Corrected Copy**

Customer Account: WMWBARGFB Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

**Description:** Barry Gypsum Field Blank

Laboratory ID Number: AW10312

To: Dustin Brooks

Greg Dyer

John Pugh

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
* Arsenic, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG 5/17/2016	EPA 200.7	1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detected	mg/L
* Antimony, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	J 0.00062	mg/L
* Cobalt, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 5/3/2016	EPA 245.1	1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.01	0.05	U Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics							
* Solids, Dissolved	DLJ 4/25/2016	SM 2540C	1		25	U Not Detected	mg/L
* Chloride, Total	SES 4/23/2016	EPA 300.0	1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES 4/23/2016	EPA 300.0	1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES 4/23/2016	EPA 300.0	1	0.3	1	U Not Detected	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARGFB Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW10312

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Nulliber. AVV 10312	<u> </u>									
		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limi
W10321 Lead, Total	mg/L -0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2 70 to 130	1.14	20
W10321 Chromium, Total	mg/L 0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5 70 to 130	0.178	20
W10321 Arsenic, Total	mg/L 0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2 70 to 130	0.249	20
W10321 Antimony, Total	mg/L 0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8 70 to 130	1.71	20
W10321 Boron, Total	mg/L 0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8 70 to 130	3.73	20
W10321 Barium, Total	mg/L 0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9 70 to 130	1.63	20
W10321 Beryllium, Total	mg/L 0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108 70 to 130	4.93	20
W10321 Lithium, Total	mg/L 0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5 70 to 130	0.514	20
W10321 Molybdenum, Total	mg/L 0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6 70 to 130	0.338	20
W10321 Thallium, Total	mg/L -0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5 70 to 130	0.502	20
W10321 Cadmium, Total	mg/L 0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0 70 to 130	0.260	20
W10321 Cobalt, Total	mg/L -0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2 70 to 130	0.157	20
W10321 Selenium, Total	mg/L 0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8 70 to 130	9.24	20
W10321 Calcium, Total	mg/L 0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4 70 to 130	0.337	20
W10321 Mercury, Total by CVAA	mg/L 0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2 70 to 130	0.257	20

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## **Corrected Copy**

Customer Account: WMWBARGFB Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW10312

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number. AVV	0312								
	,	MB			Sample		LFB	Rec	Prec
Sample Analysis	Units MB	Limit	Spike	LFM	Duplica	te LFB	Limit	Rec Limit Pre	ec Limit
AW10312 Chloride, Total	mg/L 0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104 80 to 120 0	20
AW10312 Fluoride, Total	mg/L 0.00	0.3	2.0	2.15	0.00	2.10	1.8 to 2.2	108 80 to 120 0	20
AW10312 Sulfate, Total	mg/L 0.00	1.0	20.0	19.3	0.00	19.1	18 to 22	96.5 80 to 120 0	20
AW10329 Solids, Dissolved	mg/L 2.0	25			249	41.0	40 to 60	1.9	7 5

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2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114 Issued By: State of Florida, Department of Health Expiration: June 30, 2018



# **Corrected Copy**

Customer Account: WMWBARGEB Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW10313

To: Dustin Brooks

Greg Dyer

John Pugh

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols				,	·		
* Arsenic, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U Not Detected	mg/L
Barium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
Beryllium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detected	mg/L
Boron, Total	HRG 5/17/2016	EPA 200.7	1.015	0.02	0.1	U Not Detected	mg/L
Calcium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.1	0.5	U Not Detected	mg/L
Cadmium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detected	mg/L
Antimony, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detected	mg/L
Cobalt, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
Chromium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
Mercury, Total by CVAA	MCW 5/3/2016	EPA 245.1	1	0.00025	0.0005	U Not Detected	mg/L
Lithium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.01	0.05	U Not Detected	mg/L
Molybdenum, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
Lead, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
Thallium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics							
* Solids, Dissolved	DLJ 4/27/2016	SM 2540C	1		25	U Not Detected	mg/L
Chloride, Total	SES 4/23/2016	EPA 300.0	1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES 4/23/2016	EPA 300.0	1	0.01	0.3	U Not Detected	mg/L
Sulfate, Total	SES 4/23/2016	EPA 300.0	1	0.3	1	U Not Detected	mg/L

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARGEB Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

**Description**: Barry Gypsum Equipment Blank

Laboratory ID Number: AW10313

To: Dustin Brooks

Greg Dyer

John Pugh

		MB	•				LFB	Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limi
W10321 Lead, Total	mg/L -0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2 70 to 130	1.14	20
W10321 Arsenic, Total	mg/L 0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2 70 to 130	0.249	20
W10321 Chromium, Total	mg/L 0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5 70 to 130	0.178	20
.W10321 Antimony, Total	mg/L 0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8 70 to 130	1.71	20
.W10321 Boron, Total	mg/L 0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8 70 to 130	3.73	20
W10321 Calcium, Total	mg/L 0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4 70 to 130	0.337	20
W10321 Mercury, Total by CVAA	mg/L 0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2 70 to 130	0.257	20
.W10321 Barium, Total	mg/L 0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9 70 to 130	1.63	20
W10321 Beryllium, Total	mg/L 0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108 70 to 130	4.93	20
.W10321 Lithium, Total	mg/L 0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5 70 to 130	0.514	20
W10321 Molybdenum, Total	mg/L 0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6 70 to 130	0.338	20
W10321 Thallium, Total	mg/L -0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5 70 to 130	0.502	20
W10321 Cadmium, Total	mg/L 0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0 70 to 130	0.260	20
W10321 Cobalt, Total	mg/L -0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2 70 to 130	0.157	20
W10321 Selenium, Total	mg/L 0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8 70 to 130	9.24	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



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Customer Account: WMWBARGEB Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

**Description**: Barry Gypsum Equipment Blank

Laboratory ID Number: AW10313

To: Dustin Brooks

Greg Dyer

John Pugh

Labora	tory in italiance. Avvious											
		,	MB			Sample		LFB	1	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec I	Limit	Prec	Limit
AW10312	Chloride, Total	mg/L 0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104 8	30 to 120	0	20
AW10312	Fluoride, Total	mg/L 0.00	0.3	2.0	2.15	0.00	2.10	1.8 to 2.2	108 8	30 to 120	0	20
AW10312	Sulfate, Total	mg/L 0.00	1.0	20.0	19.3	0.00	19.1	18 to 22	96.5 8	30 to 120	0	20
AW10329	Solids, Dissolved	mg/L 2.0	25			249	41.0	40 to 60			1.97	5

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2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-5

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10314

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
* Arsenic, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01		0.135	mg/L
* Beryllium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 5/17/2016	EPA 200.7	1.015	0.02	0.1		0.361	mg/L
* Calcium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.1	0.5		4.65	mg/L
* Cadmium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Antimony, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Cobalt, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	J	0.00278	mg/L
* Chromium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 5/3/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01		0.0141	mg/L
* Thallium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 4/25/2016	SM 2540C	1		25		62.0	mg/L
* Chloride, Total	SES 4/23/2016	EPA 300.0	1	0.04	0.25		4.46	mg/L
* Fluoride, Total	SES 4/23/2016	EPA 300.0	1	0.01	0.3	J	0.040	mg/L
* Sulfate, Total	SES 4/23/2016	EPA 300.0	1	0.3	1		28.6	mg/L

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-5

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10314

		MB	•				LFB	Re	:C	Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Lir	nit Prec	Limi
W10321 Lead, Total	mg/L -0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2 70 to	130 1.14	20
W10321 Chromium, Total	mg/L 0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5 70 to	130 0.178	20
W10321 Arsenic, Total	mg/L 0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2 70 to	130 0.249	20
W10321 Calcium, Total	mg/L 0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4 70 to	130 0.337	20
W10321 Mercury, Total by CVAA	mg/L 0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2 70 to	130 0.257	20
W10321 Antimony, Total	mg/L 0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8 70 to	130 1.71	20
W10321 Boron, Total	mg/L 0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8 70 to	130 3.73	20
.W10321 Barium, Total	mg/L 0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9 70 to	130 1.63	20
.W10321 Beryllium, Total	mg/L 0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108 70 to	130 4.93	20
.W10321 Lithium, Total	mg/L 0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5 70 to	130 0.514	20
W10321 Molybdenum, Total	mg/L 0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6 70 to	130 0.338	20
.W10321 Thallium, Total	mg/L -0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5 70 to	130 0.502	20
W10321 Cadmium, Total	mg/L 0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0 70 to	130 0.260	20
W10321 Cobalt, Total	mg/L -0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2 70 to	130 0.157	20
W10321 Selenium, Total	mg/L 0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8 70 to	130 9.24	20

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MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-5

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10314

Labora	tory in rumber. Avv 10314											
			MB			Sample		LFB	- 1	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec I	Limit	Prec	Limit
AW10312	Chloride, Total	mg/L 0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104 8	30 to 120	0	20
AW10312	Fluoride, Total	mg/L 0.00	0.3	2.0	2.15	0.00	2.10	1.8 to 2.2	108 8	30 to 120	0	20
AW10312	Sulfate, Total	mg/L 0.00	1.0	20.0	19.3	0.00	19.1	18 to 22	96.5 8	30 to 120	0	20
AW10329	Solids, Dissolved	mg/L 2.0	25			249	41.0	40 to 60			1.97	5

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-8

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10315

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
Arsenic, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
Barium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01		0.0251	mg/L
Beryllium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
Boron, Total	HRG 5/17/2016	EPA 200.7	1.015	0.02	0.1	U	Not Detected	mg/L
Calcium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.1	0.5		0.505	mg/L
Cadmium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
Antimony, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
Cobalt, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Chromium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	J	0.00201	mg/L
Mercury, Total by CVAA	MCW 5/3/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
Molybdenum, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Lead, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
Selenium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Thallium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
Solids, Dissolved	DLJ 4/25/2016	SM 2540C	1		25		27.3	mg/L
Chloride, Total	SES 4/23/2016	EPA 300.0	1	0.04	0.25		4.74	mg/L
Fluoride, Total	SES 4/23/2016	EPA 300.0	1	0.01	0.3	J	0.019	mg/L
Sulfate, Total	SES 4/23/2016	EPA 300.0	1	0.3	1		3.78	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-8

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10315

Laboratory ID Nulliber. AVV 10313	<u> </u>									
		MB					LFB	Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limi
W10321 Lead, Total	mg/L -0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2 70 to 13	0 1.14	20
W10321 Chromium, Total	mg/L 0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5 70 to 13	0 0.178	20
W10321 Arsenic, Total	mg/L 0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2 70 to 13	0 0.249	20
W10321 Antimony, Total	mg/L 0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8 70 to 13	0 1.71	20
W10321 Boron, Total	mg/L 0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8 70 to 13	0 3.73	20
W10321 Cadmium, Total	mg/L 0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0 70 to 13	0 0.260	20
W10321 Cobalt, Total	mg/L -0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2 70 to 13	0 0.157	20
W10321 Selenium, Total	mg/L 0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8 70 to 13	0 9.24	20
W10321 Calcium, Total	mg/L 0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4 70 to 13	0 0.337	20
W10321 Mercury, Total by CVAA	mg/L 0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2 70 to 13	0 0.257	20
W10321 Barium, Total	mg/L 0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9 70 to 13	0 1.63	20
W10321 Beryllium, Total	mg/L 0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108 70 to 13	0 4.93	20
W10321 Lithium, Total	mg/L 0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5 70 to 13	0 0.514	20
W10321 Molybdenum, Total	mg/L 0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6 70 to 13	0 0.338	20
W10321 Thallium, Total	mg/L -0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5 70 to 13	0 0.502	20

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Issued By: State of Florida, Department of Health



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-8

Laboratory ID Number AMAGOAE

To: Dustin Brooks

Greg Dyer

John Pugh

Labora	tory id Number: AW10315											
-			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10312	Chloride, Total	mg/L 0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10312	Fluoride, Total	mg/L 0.00	0.3	2.0	2.15	0.00	2.10	1.8 to 2.2	108	80 to 120	0	20
AW10312	Sulfate, Total	mg/L 0.00	1.0	20.0	19.3	0.00	19.1	18 to 22	96.5	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L 2.0	25			249	41.0	40 to 60			1.97	5

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-1

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10316

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
* Arsenic, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01		0.0990	mg/L
* Beryllium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 5/17/2016	EPA 200.7	1.015	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.1	0.5		1.19	mg/L
* Cadmium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Antimony, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Cobalt, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	J	0.00380	mg/L
* Chromium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 5/3/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 4/25/2016	SM 2540C	1		25	U	Not Detected	mg/L
* Chloride, Total	SES 4/23/2016	EPA 300.0	1	0.04	0.25		2.89	mg/L
* Fluoride, Total	SES 4/23/2016	EPA 300.0	1	0.01	0.3	J	0.023	mg/L
* Sulfate, Total	SES 4/23/2016	EPA 300.0	1	0.3	1		8.27	mg/L

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Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS is now Not Detected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-1

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10316

Laboratory ID Number. AW 10310	3										
		MB					LFB	F	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec I	Limit	Prec	Limit
W10321 Chromium, Total	mg/L 0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5 70	) to 130	0.178	20
W10321 Lead, Total	mg/L -0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2 70	to 130	1.14	20
W10321 Arsenic, Total	mg/L 0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2 70	to 130	0.249	20
W10321 Calcium, Total	mg/L 0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4 70	to 130	0.337	20
W10321 Mercury, Total by CVAA	mg/L 0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2 70	to 130	0.257	20
W10321 Antimony, Total	mg/L 0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8 70	to 130	1.71	20
W10321 Boron, Total	mg/L 0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8 70	to 130	3.73	20
W10321 Barium, Total	mg/L 0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9 70	to 130	1.63	20
W10321 Beryllium, Total	mg/L 0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108 70	to 130	4.93	20
W10321 Lithium, Total	mg/L 0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5 70	to 130	0.514	20
W10321 Molybdenum, Total	mg/L 0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6 70	to 130	0.338	20
W10321 Thallium, Total	mg/L -0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5 70	to 130	0.502	20
W10321 Cadmium, Total	mg/L 0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0 70	to 130	0.260	20
W10321 Cobalt, Total	mg/L -0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2 70	to 130	0.157	20
W10321 Selenium, Total	mg/L 0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8 70	to 130	9.24	20

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Expiration: June 30, 2018

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-1

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10316

Labora	itory in Number. AW10310											
		,	MB			Sample	,	LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10312	Chloride, Total	mg/L 0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10312	Fluoride, Total	mg/L 0.00	0.3	2.0	2.15	0.00	2.10	1.8 to 2.2	108	80 to 120	0	20
AW10312	Sulfate, Total	mg/L 0.00	1.0	20.0	19.3	0.00	19.1	18 to 22	96.5	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L 2.0	25			249	41.0	40 to 60			1.97	5

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Expiration: June 30, 2018

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

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## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-9

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10317

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
* Arsenic, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01		0.0926	mg/L
* Beryllium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 5/17/2016	EPA 200.7	1.015	0.02	0.1	J	0.0269	mg/L
* Calcium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.1	0.5		1.04	mg/L
* Cadmium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
<ul> <li>Antimony, Total</li> </ul>	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Cobalt, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 5/3/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 4/25/2016	SM 2540C	1		25		28.0	mg/L
* Chloride, Total	SES 4/23/2016	EPA 300.0	1	0.04	0.25		3.11	mg/L
* Fluoride, Total	SES 4/23/2016	EPA 300.0	1	0.01	0.3	J	0.039	mg/L
* Sulfate, Total	SES 4/23/2016	EPA 300.0	1	0.3	1		7.85	mg/L

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2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-9

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10317

		MB					LFB	Rec	Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit Prec	Limi
W10321 Lead, Total	mg/L -0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2 70 to 130 1.14	20
W10321 Arsenic, Total	mg/L 0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2 70 to 130 0.249	20
W10321 Chromium, Total	mg/L 0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5 70 to 130 0.178	20
W10321 Cadmium, Total	mg/L 0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0 70 to 130 0.260	20
W10321 Cobalt, Total	mg/L -0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2 70 to 130 0.157	20
W10321 Selenium, Total	mg/L 0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8 70 to 130 9.24	20
W10321 Barium, Total	mg/L 0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9 70 to 130 1.63	20
W10321 Beryllium, Total	mg/L 0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108 70 to 130 4.93	20
W10321 Lithium, Total	mg/L 0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5 70 to 130 0.514	20
W10321 Molybdenum, Total	mg/L 0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6 70 to 130 0.338	20
W10321 Thallium, Total	mg/L -0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5 70 to 130 0.502	20
W10321 Calcium, Total	mg/L 0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4 70 to 130 0.337	20
W10321 Mercury, Total by CVAA	mg/L 0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2 70 to 130 0.257	20
W10321 Antimony, Total	mg/L 0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8 70 to 130 1.71	20
W10321 Boron, Total	mg/L 0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8 70 to 130 3.73	20

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MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-9

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10317

Luboit	ANTOST											
· · · · · · · · · · · · · · · · · · ·			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10312	Chloride, Total	mg/L 0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10312	Fluoride, Total	mg/L 0.00	0.3	2.0	2.15	0.00	2.10	1.8 to 2.2	108	80 to 120	0	20
AW10312	Sulfate, Total	mg/L 0.00	1.0	20.0	19.3	0.00	19.1	18 to 22	96.5	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L 2.0	25			249	41.0	40 to 60			1.97	5

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Expiration: June 30, 2018

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2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-10

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10318

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
* Arsenic, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01		0.114	mg/L
* Beryllium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 5/17/2016	EPA 200.7	1.015	0.02	0.1	J	0.0257	mg/L
* Calcium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.1	0.5		0.761	mg/L
* Cadmium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Antimony, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Cobalt, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	J	0.00241	mg/L
* Chromium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW 5/3/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 4/25/2016	SM 2540C	1		25		34.0	mg/L
* Chloride, Total	SES 4/23/2016	EPA 300.0	1	0.04	0.25		3.12	mg/L
* Fluoride, Total	SES 4/23/2016	EPA 300.0	1	0.01	0.3	J	0.050	mg/L
* Sulfate, Total	SES 4/23/2016	EPA 300.0	1	0.3	1		9.92	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-10

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10318

		MB				,	LFB	Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limi
	mg/L -0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2 70 to 130	1.14	20
W10321 Chromium, Total	mg/L 0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5 70 to 130	0.178	20
W10321 Arsenic, Total	mg/L 0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2 70 to 130	0.249	20
W10321 Antimony, Total	mg/L 0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8 70 to 130	1.71	20
W10321 Boron, Total	mg/L 0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8 70 to 130	3.73	20
W10321 Cadmium, Total	mg/L 0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0 70 to 130	0.260	20
W10321 Cobalt, Total	mg/L -0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2 70 to 130	0.157	20
W10321 Selenium, Total	mg/L 0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8 70 to 130	9.24	20
W10321 Calcium, Total	mg/L 0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4 70 to 130	0.337	20
W10321 Mercury, Total by CVAA	mg/L 0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2 70 to 130	0.257	20
.W10321 Barium, Total	mg/L 0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9 70 to 130	1.63	20
W10321 Beryllium, Total	mg/L 0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108 70 to 130	4.93	20
.W10321 Lithium, Total	mg/L 0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5 70 to 130	0.514	20
W10321 Molybdenum, Total	mg/L 0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6 70 to 130	0.338	20
W10321 Thallium, Total	mg/L -0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5 70 to 130	0.502	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-10

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW/10318

Labora	atory id Number: AW10318											
			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10328	Chloride, Total	mg/L 0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10328	Sulfate, Total	mg/L 0.00	1.0	20.0	19.8	0.00	19.2	18 to 22	99.0	80 to 120	0	20
AW10328	Fluoride, Total	mg/L 0.00	0.3	2.0	2.22	0.00	2.11	1.8 to 2.2	111	80 to 120	0	20
AW10329	Solids. Dissolved	ma/L 2.0	25			249	41.0	40 to 60			1.97	5

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-6

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10319

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols	,							
* Arsenic, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01		0.263	mg/L
* Beryllium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	J	0.000681	mg/L
* Boron, Total	HRG 5/17/2016	EPA 200.7	1.015	0.02	0.1		0.908	mg/L
* Calcium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.1	0.5		23.2	mg/L
* Cadmium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Antimony, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Cobalt, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	J	0.00338	mg/L
* Chromium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	J	0.00324	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 5/3/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01		0.0529	mg/L
* Thallium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 4/25/2016	SM 2540C	1		25		166	mg/L
* Chloride, Total	SES 4/23/2016	EPA 300.0	1	0.04	0.25		6.13	mg/L
* Fluoride, Total	SES 4/23/2016	EPA 300.0	1	0.01	0.3	J	0.138	mg/L
* Sulfate, Total	SES 4/23/2016	EPA 300.0	1	0.3	1		80.2	mg/L

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Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. The result for Cd has been

corrected to Not Detected. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-6

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10319

		MB				'	LFB	Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limi
W10321 Chromium, Total	mg/L 0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5 70 to 130	0.178	20
W10321 Lead, Total	mg/L -0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2 70 to 130	1.14	20
W10321 Arsenic, Total	mg/L 0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2 70 to 130	0.249	20
W10321 Antimony, Total	mg/L 0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8 70 to 130	1.71	20
W10321 Boron, Total	mg/L 0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8 70 to 130	3.73	20
W10321 Calcium, Total	mg/L 0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4 70 to 130	0.337	20
W10321 Mercury, Total by CVAA	mg/L 0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2 70 to 130	0.257	20
W10321 Cadmium, Total	mg/L 0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0 70 to 130	0.260	20
.W10321 Cobalt, Total	mg/L -0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2 70 to 130	0.157	20
W10321 Selenium, Total	mg/L 0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8 70 to 130	9.24	20
W10321 Barium, Total	mg/L 0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9 70 to 130	1.63	20
.W10321 Beryllium, Total	mg/L 0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108 70 to 130	4.93	20
.W10321 Lithium, Total	mg/L 0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5 70 to 130	0.514	20
W10321 Molybdenum, Total	mg/L 0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6 70 to 130	0.338	20
W10321 Thallium, Total	mg/L -0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5 70 to 130	0.502	20

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2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. The result for Cd has been

corrected to Not Detected. SGC 3/17/17



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-6

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10319

Luboru	tory in italiance. Avvious											
			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10328	Sulfate, Total	mg/L 0.00	1.0	20.0	19.8	0.00	19.2	18 to 22	99.0	80 to 120	0	20
AW10328	Chloride, Total	mg/L 0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10328	Fluoride, Total	mg/L 0.00	0.3	2.0	2.22	0.00	2.11	1.8 to 2.2	111	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L 2.0	25			249	41.0	40 to 60			1.97	5

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Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. The result for Cd has been

corrected to Not Detected. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-6 Dup

Laboratory ID Number: AW10320

To: Dustin Brooks

Greg Dyer

John Pugh

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
* Arsenic, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01		0.265	mg/L
* Beryllium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	J	0.000702	mg/L
* Boron, Total	HRG 5/17/2016	EPA 200.7	1.015	0.02	0.1		0.905	mg/L
* Calcium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.1	0.5		22.3	mg/L
* Cadmium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Antimony, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Cobalt, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	J	0.00349	mg/L
* Chromium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	J	0.00330	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 5/3/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01		0.0529	mg/L
* Thallium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 4/25/2016	SM 2540C	1		25		171	mg/L
* Chloride, Total	SES 4/23/2016	EPA 300.0	1	0.04	0.25		6.09	mg/L
* Fluoride, Total	SES 4/23/2016	EPA 300.0	1	0.01	0.3	J	0.129	mg/L
* Sulfate, Total	SES 4/23/2016	EPA 300.0	1	0.3	1		79.5	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-6 Dup

Laboratory ID Number: AW10320

To: Dustin Brooks

Greg Dyer

John Pugh

Eustratory ID Italiason 7111110021	0										
		MB				'	LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limi
W10321 Chromium, Total	mg/L 0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5 7	70 to 130	0.178	20
W10321 Lead, Total	mg/L -0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2 7	70 to 130	1.14	20
W10321 Arsenic, Total	mg/L 0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2 7	70 to 130	0.249	20
W10321 Antimony, Total	mg/L 0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8 7	70 to 130	1.71	20
.W10321 Boron, Total	mg/L 0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8 7	70 to 130	3.73	20
W10321 Calcium, Total	mg/L 0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4 7	70 to 130	0.337	20
W10321 Mercury, Total by CVAA	mg/L 0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2 7	70 to 130	0.257	20
.W10321 Barium, Total	mg/L 0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9 7	70 to 130	1.63	20
.W10321 Beryllium, Total	mg/L 0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108 7	70 to 130	4.93	20
.W10321 Lithium, Total	mg/L 0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5 7	70 to 130	0.514	20
W10321 Molybdenum, Total	mg/L 0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6 7	70 to 130	0.338	20
.W10321 Thallium, Total	mg/L -0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5 7	70 to 130	0.502	20
W10321 Cadmium, Total	mg/L 0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0 7	70 to 130	0.260	20
.W10321 Cobalt, Total	mg/L -0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2 7	70 to 130	0.157	20
W10321 Selenium, Total	mg/L 0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8 7	70 to 130	9.24	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-6 Dup

Laboratory ID Number: AW10320

To: Dustin Brooks

Greg Dyer

John Pugh

Labora	tory in italiance. Avv 10320											
			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10328	Sulfate, Total	mg/L 0.00	1.0	20.0	19.8	0.00	19.2	18 to 22	99.0	80 to 120	0	20
AW10328	Chloride, Total	mg/L 0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10328	Fluoride, Total	mg/L 0.00	0.3	2.0	2.22	0.00	2.11	1.8 to 2.2	111 8	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L 2.0	25			249	41.0	40 to 60			1.97	5

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CC:

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Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-7

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10321

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
Arsenic, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U Not Detec	cted mg/L
Barium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	0.0421	mg/L
Beryllium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detec	cted mg/L
Boron, Total	HRG 5/17/2016	EPA 200.7	1.015	0.02	0.1	U Not Detec	cted mg/L
Calcium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.1	0.5	1.20	mg/L
Cadmium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detec	cted mg/L
Antimony, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detec	cted mg/L
Cobalt, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detec	cted mg/L
Chromium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detec	cted mg/L
Mercury, Total by CVAA	MCW 5/3/2016	EPA 245.1	1	0.00025	0.0005	U Not Detec	cted mg/L
Lithium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.01	0.05	U Not Detec	cted mg/L
Molybdenum, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detec	cted mg/L
Lead, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U Not Detec	cted mg/L
Selenium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detec	cted mg/L
Thallium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detec	cted mg/L
General Characteristics							
Solids, Dissolved	DLJ 4/25/2016	SM 2540C	1		25	U Not Detec	cted mg/L
Chloride, Total	SES 4/23/2016	EPA 300.0	1	0.04	0.25	4.14	mg/L
Fluoride, Total	SES 4/23/2016	EPA 300.0	1	0.01	0.3	J 0.018	mg/L
Sulfate, Total	SES 4/23/2016	EPA 300.0	1	0.3	1	3.48	mg/L

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2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS is now Not Detected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-7

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10321

Laboratory ID Number: AW1032	<u> </u>									
		MB					LFB	Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limi
W10321 Chromium, Total	mg/L 0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5 70 to 130	0 0.178	20
.W10321 Lead, Total	mg/L -0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2 70 to 130	0 1.14	20
W10321 Arsenic, Total	mg/L 0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2 70 to 130	0 0.249	20
W10321 Antimony, Total	mg/L 0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8 70 to 130	0 1.71	20
W10321 Boron, Total	mg/L 0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8 70 to 130	0 3.73	20
W10321 Cadmium, Total	mg/L 0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0 70 to 130	0 0.260	20
.W10321 Cobalt, Total	mg/L -0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2 70 to 130	0 0.157	20
W10321 Selenium, Total	mg/L 0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8 70 to 130	0 9.24	20
.W10321 Calcium, Total	mg/L 0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4 70 to 130	0 0.337	20
W10321 Mercury, Total by CVAA	mg/L 0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2 70 to 130	0 0.257	20
.W10321 Barium, Total	mg/L 0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9 70 to 130	0 1.63	20
.W10321 Beryllium, Total	mg/L 0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108 70 to 130	0 4.93	20
.W10321 Lithium, Total	mg/L 0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5 70 to 130	0 0.514	20
W10321 Molybdenum, Total	mg/L 0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6 70 to 130	0.338	20
.W10321 Thallium, Total	mg/L -0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5 70 to 130	0 0.502	20

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2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS is now Not Detected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-7

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW/10321

Labora	atory id Number: AW10321											
-			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10328	Sulfate, Total	mg/L 0.00	1.0	20.0	19.8	0.00	19.2	18 to 22	99.0	80 to 120	0	20
AW10328	Chloride, Total	mg/L 0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10328	Fluoride, Total	mg/L 0.00	0.3	2.0	2.22	0.00	2.11	1.8 to 2.2	111	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L 2.0	25			249	41.0	40 to 60			1.97	5

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2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS is now Not Detected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-4

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10322

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols				,	·		
* Arsenic, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U Not Detect	ed mg/L
Barium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	0.0802	mg/L
Beryllium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detect	ed mg/L
Boron, Total	HRG 5/17/2016	EPA 200.7	1.015	0.02	0.1	U Not Detect	ed mg/L
Calcium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.1	0.5	1.31	mg/L
Cadmium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detect	ed mg/L
Antimony, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detect	ed mg/L
Cobalt, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detect	ed mg/L
Chromium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detect	ed mg/L
Mercury, Total by CVAA	MCW 5/4/2016	EPA 245.1	1	0.00025	0.0005	U Not Detect	ed mg/L
Lithium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.01	0.05	U Not Detect	ed mg/L
Molybdenum, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detect	ed mg/L
Lead, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U Not Detect	ed mg/L
* Selenium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detect	ed mg/L
Thallium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detect	ed mg/L
General Characteristics							
* Solids, Dissolved	DLJ 4/25/2016	SM 2540C	1		25	U Not Detect	ed mg/L
* Chloride, Total	SES 4/23/2016	EPA 300.0	1	0.04	0.25	3.63	mg/L
Fluoride, Total	SES 4/23/2016	EPA 300.0	1	0.01	0.3	J 0.015	mg/L
Sulfate, Total	SES 4/23/2016	EPA 300.0	1	0.3	1	6.74	mg/L

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Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS is now Not Detected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-4

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10322

		MB					LFB	Rec	Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit Prec	Limit
	mg/L -0.0000263	0.0044	0.10	0.0954	0.0968	0.0921	0.085 to 0.115	93.3 70 to 130 1.49	20
W10331 Lead, Total	mg/L -0.0000249	0.0022	0.10	0.0949	0.0956	0.0937	0.085 to 0.115	94.9 70 to 130 0.713	20
W10331 Calcium, Total	mg/L -0.00111	0.22	5.00	24.6	24.6	4.85	4.25 to 5.75	90.0 70 to 130 0.00	20
W10331 Mercury, Total by CVAA	mg/L 0.00007	0.0005	0.004	0.00396	0.00395	0.00405	0.0034 to 0.0046	99.0 70 to 130 0.253	20
W10331 Selenium, Total	mg/L 0.0000491	0.0044	0.10	0.0984	0.0993	0.104	0.085 to 0.115	98.4 70 to 130 0.933	20
W10331 Boron, Total	mg/L 0.00421	0.044	1.00	1.06	1.04	0.984	0.85 to 1.15	99.3 70 to 130 1.90	20
W10331 Thallium, Total	mg/L -0.0000321	0.00044	0.10	0.0959	0.0965	0.0939	0.085 to 0.115	95.9 70 to 130 0.670	20
W10331 Arsenic, Total	mg/L 0.0000118	0.0022	0.10	0.118	0.120	0.0977	0.085 to 0.115	96.6 70 to 130 1.42	20
W10331 Cadmium, Total	mg/L 0.000000717	0.00044	0.10	0.0987	0.100	0.0965	0.085 to 0.115	98.7 70 to 130 1.30	20
W10331 Antimony, Total	mg/L 0.000176	0.00132	0.10	0.0929	0.0943	0.0898	0.085 to 0.115	92.9 70 to 130 1.44	20
W10331 Chromium, Total	mg/L 0.0000485	0.0044	0.10	0.100	0.101	0.0926	0.085 to 0.115	96.6 70 to 130 0.585	20
W10331 Barium, Total	mg/L 0.00000493	0.0044	0.10	0.161	0.162	0.0881	0.085 to 0.115	91.8 70 to 130 0.577	20
W10331 Lithium, Total	mg/L 0.000225	0.022	0.20	0.207	0.203	0.194	0.17 to 0.23	104 70 to 130 1.95	20
W10331 Beryllium, Total	mg/L 0.0000204	0.00132	0.10	0.0989	0.0983	0.103	0.085 to 0.115	98.9 70 to 130 0.605	20
W10331 Molybdenum, Total	mg/L 0.0000131	0.0044	0.10	0.0960	0.0963	0.0921	0.085 to 0.115	96.0 70 to 130 0.330	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-4

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW/10322

Labora	itory id Number. AW 10322											
			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10328	Sulfate, Total	mg/L 0.00	1.0	20.0	19.8	0.00	19.2	18 to 22	99.0	80 to 120	0	20
AW10328	Chloride, Total	mg/L 0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10328	Fluoride, Total	mg/L 0.00	0.3	2.0	2.22	0.00	2.11	1.8 to 2.2	111	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L 2.0	25			249	41.0	40 to 60			1.97	5

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Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS is now Not Detected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-3

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10323

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
Arsenic, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
Barium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01		0.0718	mg/L
Beryllium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
Boron, Total	HRG 5/17/2016	EPA 200.7	1.015	0.02	0.1	U	Not Detected	mg/L
Calcium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.1	0.5		1.68	mg/L
* Cadmium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
Antimony, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
Cobalt, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Chromium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Mercury, Total by CVAA	MCW 5/4/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
Molybdenum, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Lead, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Thallium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 4/25/2016	SM 2540C	1		25		32.0	mg/L
* Chloride, Total	SES 4/23/2016	EPA 300.0	1	0.04	0.25		3.72	mg/L
Fluoride, Total	SES 4/23/2016	EPA 300.0	1	0.01	0.3	J	0.016	mg/L
Sulfate, Total	SES 4/23/2016	EPA 300.0	1	0.3	1		7.66	mg/L

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MDL's and RL's are adjusted for sample dilution, as applicable

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-3

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10323

Edboratory ID Italinbor 71111002	<u> </u>										
	,	MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W10331 Lead, Total	mg/L -0.0000249	0.0022	0.10	0.0949	0.0956	0.0937	0.085 to 0.115	94.9	70 to 130	0.713	20
.W10331 Cobalt, Total	mg/L -0.0000263	0.0044	0.10	0.0954	0.0968	0.0921	0.085 to 0.115	93.3	70 to 130	1.49	20
W10331 Calcium, Total	mg/L -0.00111	0.22	5.00	24.6	24.6	4.85	4.25 to 5.75	90.0	70 to 130	0.00	20
W10331 Mercury, Total by CVAA	mg/L 0.00007	0.0005	0.004	0.00396	0.00395	0.00405	0.0034 to 0.0046	99.0	70 to 130	0.253	20
W10331 Selenium, Total	mg/L 0.0000491	0.0044	0.10	0.0984	0.0993	0.104	0.085 to 0.115	98.4	70 to 130	0.933	20
.W10331 Beryllium, Total	mg/L 0.0000204	0.00132	0.10	0.0989	0.0983	0.103	0.085 to 0.115	98.9	70 to 130	0.605	20
W10331 Molybdenum, Total	mg/L 0.0000131	0.0044	0.10	0.0960	0.0963	0.0921	0.085 to 0.115	96.0	70 to 130	0.330	20
.W10331 Barium, Total	mg/L 0.00000493	0.0044	0.10	0.161	0.162	0.0881	0.085 to 0.115	91.8	70 to 130	0.577	20
.W10331 Lithium, Total	mg/L 0.000225	0.022	0.20	0.207	0.203	0.194	0.17 to 0.23	104	70 to 130	1.95	20
.W10331 Boron, Total	mg/L 0.00421	0.044	1.00	1.06	1.04	0.984	0.85 to 1.15	99.3	70 to 130	1.90	20
.W10331 Thallium, Total	mg/L -0.0000321	0.00044	0.10	0.0959	0.0965	0.0939	0.085 to 0.115	95.9	70 to 130	0.670	20
W10331 Arsenic, Total	mg/L 0.0000118	0.0022	0.10	0.118	0.120	0.0977	0.085 to 0.115	96.6	70 to 130	1.42	20
W10331 Cadmium, Total	mg/L 0.000000717	0.00044	0.10	0.0987	0.100	0.0965	0.085 to 0.115	98.7	70 to 130	1.30	20
.W10331 Antimony, Total	mg/L 0.000176	0.00132	0.10	0.0929	0.0943	0.0898	0.085 to 0.115	92.9	70 to 130	1.44	20
W10331 Chromium, Total	mg/L 0.0000485	0.0044	0.10	0.100	0.101	0.0926	0.085 to 0.115	96.6	70 to 130	0.585	20

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Issued By: State of Florida, Department of Health

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Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-3

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10323

	$\sim$	4	
F	Rec		Prec
Rec L	imit	Prec	Limit

		,	MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10328	Sulfate, Total	mg/L 0.00	1.0	20.0	19.8	0.00	19.2	18 to 22	99.0	80 to 120	0	20
AW10328	Chloride, Total	mg/L 0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10328	Fluoride, Total	mg/L 0.00	0.3	2.0	2.22	0.00	2.11	1.8 to 2.2	111	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L 2.0	25			249	41.0	40 to 60			1.97	5

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114 Issued By: State of Florida, Department of Health Expiration: June 30, 2018



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-2

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10324

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols				,	·		
* Arsenic, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U Not Detec	ted mg/L
Barium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	0.0875	mg/L
Beryllium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detec	ted mg/L
Boron, Total	HRG 5/17/2016	EPA 200.7	1.015	0.02	0.1	U Not Detec	ted mg/L
Calcium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.1	0.5	1.09	mg/L
* Cadmium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detec	ted mg/L
Antimony, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detec	ted mg/L
Cobalt, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detec	ted mg/L
Chromium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detec	ted mg/L
Mercury, Total by CVAA	MCW 5/4/2016	EPA 245.1	1	0.00025	0.0005	U Not Detec	ted mg/L
Lithium, Total	HRG 5/17/2016	EPA 200.7	1.015	0.01	0.05	U Not Detec	ted mg/L
Molybdenum, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detec	ted mg/L
Lead, Total	ABB 5/2/2016	EPA 200.8	5.075	0.001	0.005	U Not Detec	ted mg/L
* Selenium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.002	0.01	U Not Detec	ted mg/L
Thallium, Total	ABB 5/2/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detec	ted mg/L
General Characteristics							
* Solids, Dissolved	DLJ 4/25/2016	SM 2540C	1		25	U Not Detec	ted mg/L
* Chloride, Total	SES 4/23/2016	EPA 300.0	1	0.04	0.25	4.08	mg/L
Fluoride, Total	SES 4/23/2016	EPA 300.0	1	0.01	0.3	J 0.021	mg/L
Sulfate, Total	SES 4/23/2016	EPA 300.0	1	0.3	1	7.22	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS is now Not Detected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114

# Batch QC Summary



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-2

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10324

Laboratory ID Number: AVV10324	4									
		MB					LFB	Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit F	Prec	Limit
W10331 Lead, Total	mg/L -0.0000249	0.0022	0.10	0.0949	0.0956	0.0937	0.085 to 0.115	94.9 70 to 130 0	).713	20
W10331 Cobalt, Total	mg/L -0.0000263	0.0044	0.10	0.0954	0.0968	0.0921	0.085 to 0.115	93.3 70 to 130 1	.49	20
W10331 Arsenic, Total	mg/L 0.0000118	0.0022	0.10	0.118	0.120	0.0977	0.085 to 0.115	96.6 70 to 130 1	.42	20
W10331 Cadmium, Total	mg/L 0.000000717	0.00044	0.10	0.0987	0.100	0.0965	0.085 to 0.115	98.7 70 to 130 1	.30	20
W10331 Barium, Total	mg/L 0.00000493	0.0044	0.10	0.161	0.162	0.0881	0.085 to 0.115	91.8 70 to 130 0	).577	20
W10331 Lithium, Total	mg/L 0.000225	0.022	0.20	0.207	0.203	0.194	0.17 to 0.23	104 70 to 130 1	.95	20
W10331 Antimony, Total	mg/L 0.000176	0.00132	0.10	0.0929	0.0943	0.0898	0.085 to 0.115	92.9 70 to 130 1	.44	20
W10331 Chromium, Total	mg/L 0.0000485	0.0044	0.10	0.100	0.101	0.0926	0.085 to 0.115	96.6 70 to 130 0	).585	20
W10331 Beryllium, Total	mg/L 0.0000204	0.00132	0.10	0.0989	0.0983	0.103	0.085 to 0.115	98.9 70 to 130 0	0.605	20
W10331 Molybdenum, Total	mg/L 0.0000131	0.0044	0.10	0.0960	0.0963	0.0921	0.085 to 0.115	96.0 70 to 130 0	0.330	20
W10331 Calcium, Total	mg/L -0.00111	0.22	5.00	24.6	24.6	4.85	4.25 to 5.75	90.0 70 to 130 0	0.00	20
W10331 Mercury, Total by CVAA	mg/L 0.00007	0.0005	0.004	0.00396	0.00395	0.00405	0.0034 to 0.0046	99.0 70 to 130 0	).253	20
W10331 Selenium, Total	mg/L 0.0000491	0.0044	0.10	0.0984	0.0993	0.104	0.085 to 0.115	98.4 70 to 130 0	0.933	20
W10331 Boron, Total	mg/L 0.00421	0.044	1.00	1.06	1.04	0.984	0.85 to 1.15	99.3 70 to 130 1	.90	20
W10331 Thallium, Total	mg/L -0.0000321	0.00044	0.10	0.0959	0.0965	0.0939	0.085 to 0.115	95.9 70 to 130 0	0.670	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 19-Apr-16

**Customer ID:** 

**Delivery Date:** 21-Apr-16

Description: Barry Gypsum - MW-2

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW10324

Luboit	ANTOSZT											
· · · · · · · · · · · · · · · · · · ·			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10328	Sulfate, Total	mg/L 0.00	1.0	20.0	19.8	0.00	19.2	18 to 22	99.0	80 to 120	0	20
AW10328	Chloride, Total	mg/L 0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10328	Fluoride, Total	mg/L 0.00	0.3	2.0	2.22	0.00	2.11	1.8 to 2.2	111	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L 2.0	25			249	41.0	40 to 60			1.97	5

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Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS is now Not Detected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

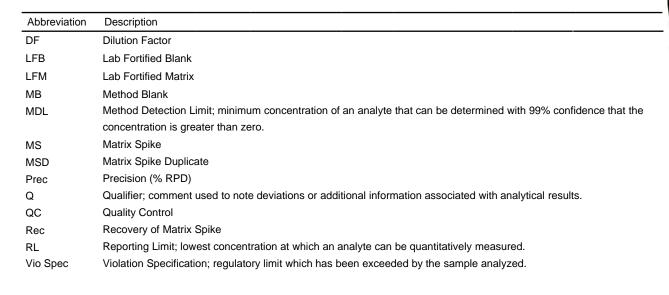
CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114

# t Laboratory B Definitions

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





Qualifier	Description
В	Analyte found in reagent blank. Indicates possible reagent or background contamination.
Е	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
Р	Precision is out of range.
С	Analyte was verified by re-analysis.
Н	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as
	possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless
	otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information

ALABAMA A POWER	Chain of Custody
Lab&	Groundwater APC General Testing Laboratory
SERVICES	APC General Testing Laboratory
	General Service Complex Building 8

′	Field Complete
~	Lab Complete

Lab ETA 04/21/2016 12:30

Requested Complete Date		Routine	Results To	Dustin Brooks		
Site Represent	tative	Angie Jimmerson	Requested By	Greg Dyer		
Collector		Nick Pitts	Location	Barry Gypsum		
Analysis Requested	Bottle 1: Metals and Hg (1) 500 mL bottle, Bottle 2: TDS and Anions (1) 500 mL bottle					
Comments	3 different packs of pH strips used: 4831-24377-20-4; 4826-24363-2-1; 4831-24379-20-6					
<u>L</u>						

			Bottle		Lab	Cooler	Cooler	
Sample #	Date	Time	Count	Description	Filter	ID	Temp	Lab Id
FB-1	04/18/2016	15:10	2	Field Blank		4950-25061-10-1	1.4	AW10312
EB-1	04/19/2016	09:15	2	Equipment Blank		4950-25061-10-1	1.4	AW10313
			l		<u> </u>			

Relinquished By	Received By	Date/Time
Kennquished by	CC. I	
Also la	000 Op	04/21/2016 08:06

SmarTroll ID | 4696-23441-1-1 Turbidity ID 4677-23343-4-2 All metals and radiological bottles have pH < 2

Thermometer ID 1506-3968-4-4 pH Strip ID see comments
Page 51 of 54

ALABAMA POWER	Chain of Custody
&ab&	Groundwater APC General Testing Laboratory
SERVICES	APC General Testing Laboratory
	General Service Complex Building 8

~	Field Complete
~	Lab Complete

Lab ETA 04/20/2016 16:58

te Routine	Results To	Dustin Brooks			
ve Angie Jimmerson	Requested By	Greg Dyer			
or Clarence Specht	Location	Barry Gypsum			
Bottle 1: Metals and Hg (1) 500 mL bottle, Bottle 2: TDS and Anions (1) 500 mL bottle					
3 different packs of pH strips were used: 4831-24377-20-4; 4826-24363-2-1; 4831-24379-20-6					
		Angie Jimmerson Clarence Specht Location  le 1: Metals and Hg (1) 500 mL bottle, Bottle 2: TDS and Anions (1) 50			

			Bottle		Lab	Cooler	Cooler	
Sample #	Date	Time	Count	Description	Filter	ID	Temp	Lab Id
MW-5	04/18/2016	17:43	2	Groundwater		4950-25070-10-1	1.4	AW10314
MW-8	04/18/2016	16:40	2	Groundwater		4950-25070-10-1	1.4	AW10315
MW-1	04/19/2016	09:24	2	Groundwater		4950-25070-10-1	1.4	AW10316
MW-9	04/19/2016	11:33	2	Groundwater		4950-25066-10-6	1.0	AW10317
MW-10	04/19/2016	13:00	2	Groundwater		4950-25066-10-6	1.0	AW10318
				•				

Relinquished By	Received By	Date/Time
C. Joseph	Souther	04/21/2016 08:22

SmarTroll ID 5141-26150-1-1 Turbidity ID 4950-25070-10-10 All metals and radiological bottles have pH < 2

Thermometer ID 1506-3968-4-4 pH Strip ID see comments
Page 52 of 54

ALABAMA A POWER	Chain of Custody
Lab&	Groundwater APC General Testing Laboratory
SERVICES	APC General Testing Laboratory
	General Service Complex Building 8

~	Field Complete
~	Lab Complete

Lab ETA 04/21/2016 08:00

Requested Complete Da	ate Routine	Results To	Dustin Brooks		
Site Representati	ive Angie Jimmerson	Requested By	Greg Dyer		
Collect	tor Jason Rouss	Location	Barry Gypsum		
Analysis Requested Bot	Bottle 1: Metals and Hg (1) 500 mL bottle, Bottle 2: TDS and Anions (1) 500 mL bottle				
Comments 3 di	3 different packs of pH strips were used: 4831-24377-20-4; 4826-24363-2-1; 4831-24379-20-6				

			Bottle		Lab	Cooler	Cooler	
Sample #	Date	Time	Count	Description	Filter	ID	Temp	Lab Id
MW-6	04/18/2016	15:55	2	Groundwater		4950-25068-10-8	2.4	AW10319
MW-6Dup	04/18/2016	15:55	2	Sample Duplicate		4950-25068-10-8	2.4	AW10320
MW-7	04/18/2016	17:10	2	Groundwater		4950-25068-10-8	2.4	AW10321
MW-4	04/19/2016	10:05	2	Groundwater		4950-25068-10-8	2.4	AW10322
MW-3	04/19/2016	11:30	2	Groundwater		4950-25061-10-1	1.4	AW10323
MW-2	04/19/2016	12:50	2	Groundwater		4950-25061-10-1	1.4	AW10324
					_			

Relinquished By	Received By	Date/Time
In Com	Societ	04/21/2016 08:04

SmarTroll ID | 4696-23444-3-3 Turbidity ID 4677-23342-4-1

All metals and radiological bottles have pH < 2

Thermometer ID 1506-3968-4-4 pH Strip ID see comments
Page 53 of 54

ALABAMA POWER	Chain of Custody
Lab&	Groundwater  APC General Testing Laboratory
	General Service Complex Building 8

′	Field Complete
~	Lab Complete

Lab ETA 04/20/2016 16:58

Requested Complete Date		Routine	Results To	Dustin Brooks	
Site Representative		Angie Jimmerson	Requested By	Greg Dyer	
Collector		Clarence Specht	Location	Barry Gypsum	
Analysis Requested	Bottle 1: Metals and Hg (1) 500 mL bottle, Bottle 2: TDS and Anions (1) 500 mL bottle				
Comments	3 different packs of pH strips were used: 4831-24377-20-4; 4826-24363-2-1; 4831-24379-20-6				

			Bottle		Lab	Cooler	Cooler	
Sample #	Date	Time	Count	Description	Filter	ID	Temp	Lab Id
MW-5	04/18/2016	15:43	2	Groundwater		4950-25070-10-1	1.4	AW10314
MW-8	04/18/2016	16:40	2	Groundwater		4950-25070-10-1	1.4	AW10315
MW-1	04/19/2016	09:24	2	Groundwater		4950-25070-10-1	1.4	AW10316
MW-9	04/19/2016	11:33	2	Groundwater		4950-25066-10-6	1.0	AW10317
MW-10	04/19/2016	13:00	2	Groundwater		4950-25066-10-6	1.0	AW10318
					<u></u>			
				-				

Source	04/21/2016 08:22

SmarTroll ID 5141-26150-1-1 Turbidity ID 4950-25070-10-10

All metals and radiological bottles have pH < 2

Thermometer ID 1506-3968-4-4

pH Strip ID see comments
Page 54 of 54





2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

**Report To** 

Sarah Copeland APC GSC Building 8

Sample #	Location	Sample Description	Customer Sample ID	Date Collected	Test Method
103083001	Barry Gypsum	FB-1 Field Blank	AW10346, Water	4/18/2016 3:11:00 PM	Ga Tech
103083002	Barry Gypsum	EB-1 Equipment	AW10347, Water	4/19/2016 9:16:00 AM	Ga Tech
103083003	Barry Gypsum	MW-5	AW10348, Water	4/18/2016 3:40:00 PM	Ga Tech
103083004	Barry Gypsum	MW-8	AW10349, Water	4/18/2016 4:38:00 PM	Ga Tech
103083005	Barry Gypsum	MW-1	AW10350, Water	4/19/2016 9:22:00 AM	Ga Tech
103083006	Barry Gypsum	MW-9	AW10351, Water	4/19/2016 11:31:00 AM	Ga Tech
103083007	Barry Gypsum	MW-10	AW10352, Water	4/19/2016 1:43:00 PM	Ga Tech
103083009	Barry Gypsum	MW-6	AW10354, Water	4/18/2016 3:56:00 PM	Ga Tech
103083010	Barry Gypsum	MW-6 Dup	AW10355, Water	4/18/2016 3:56:00 PM	Ga Tech
103083011	Barry Gypsum	MW-7	AW10356, Water	4/18/2016 5:11:00 PM	Ga Tech
103083012	Barry Gypsum	MW-4	AW10357, Water	4/19/2016 10:06:00 AM	Ga Tech
103083013	Barry Gypsum	MW-3	AW10358, Water	4/19/2016 11:31:00 AM	Ga Tech
103083014	Barry Gypsum	MW-2	AW10359, Water	4/19/2016 12:51:00 PM	Ga Tech
Certification	1				

Data approved by Gary Smith Georgia Power Company



2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

**Report To** 

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 103083001

Collection Date 4/18/2016 3:11:00 PM

Sampling Media Water Station AW10346

Sample ID FB-1 Field Blank Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			5.67E-01 7.30E-01



2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

**Report To** 

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 103083002

Collection Date 4/19/2016 9:16:00 AM

Sampling Media Water Station AW10347

Sample ID EB-1 Equipment Blank Barry

Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			5.53E-01 7.25E-01



2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

**Report To** 

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 103083003

Collection Date 4/18/2016 3:40:00 PM

Sampling Media Water Station AW10348

Sample ID MW-5 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			5.66E-01 7.89E-01



2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

**Report To** 

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 103083004

Collection Date 4/18/2016 4:38:00 PM

Sampling Media Water Station AW10349

Sample ID MW-8 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			5.43E-01 6.65E-01



2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

**Report To** 

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 103083005

Collection Date 4/19/2016 9:22:00 AM

Sampling Media Water Station AW10350

Sample ID MW-1 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			4.22E-01 5.82E-01



2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

**Report To** 

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 103083006

Collection Date 4/19/2016 11:31:00 AM

Sampling Media Water Station AW10351

Sample ID MW-9 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L	1.40E+00	<b>+/-</b> 7.49E-01	
Ra-228	Ga Tech	pCi/L	2.42E+00	<b>+/-</b> 1.79E+00	



2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

**Report To** 

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 103083007

Collection Date 4/19/2016 1:43:00 PM

Sampling Media Water Station AW10352

Sample ID MW-10 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			4.64E-01 7.00E-01



2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

**Report To** 

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 103083009

Collection Date 4/18/2016 3:56:00 PM

Sampling Media Water Station AW10354

Sample ID MW-6 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L	1.92E+00	<b>+/-</b> 1.41E+00	5.41E-01



2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

**Report To** 

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 103083010

Collection Date 4/18/2016 3:56:00 PM

Sampling Media Water Station AW10355

Sample ID MW-6 Dup Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			5.18E-01 7.33E-01



2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

**Report To** 

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 103083011

Collection Date 4/18/2016 5:11:00 PM

Sampling Media Water Station AW10356

Sample ID MW-7 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			4.32E-01 6.60E-01



2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

**Report To** 

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 103083012

Collection Date 4/19/2016 10:06:00 AM

Sampling Media Water Station AW10357

Sample ID MW-4 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			4.96E-01 6.03E-01



2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

**Report To** 

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 103083013

Collection Date 4/19/2016 11:31:00 AM

Sampling Media Water Station AW10358

Sample ID MW-3 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			5.35E-01 6.41E-01



2480 Maner Road Atlanta, Ga. 30339 (404) 799-2100 fax (404) 799-2141

**Report To** 

Sarah Copeland APC GSC Building 8 Location APC Lab Sample Number 103083014

Collection Date 4/19/2016 12:51:00 PM

Sampling Media Water Station AW10359

Sample ID MW-2 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 Ra-228	Ga Tech Ga Tech	pCi/L pCi/L			5.28E-01 8.11E-01

Georgia Power Environmental Laboratory 2480 Maner Road, Bin 39110 Atlanta, Georgia 30339 Phone: (404) 799-2100 Company: 8-530-2100

# CHAIN OF CUSTODY RECORD ANALYSIS REQUEST AND

Work Order No.	Reviewed By.

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Georgia Power Environmental Laboratory 2480 Maner Road, Bin 39110 Atlanta, Georgia 30339 Phone: (404) 799-2100 Company: 8-530-2100

# CHAIN OF CUSTODY RECORD ANALYSIS REQUEST AND

0.8083 Work Order No. \_ Reviewed By

12 Page

<sup>ta</sup>Standard Tumaround Time

Sample Shipment Date: 8 4 25

Sampled By: 9 N.P.

Report to Sacopela (a Saithenia, con).
Address: 2

Company: 1 AR

# of Business Days (Rush) (Must be cleared through Env. Leb. prior to shipment)

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Contact 4	Contact 4 Saron Copeland	<b>5</b>		Sample Received By: 11		7	1	2			22 22	
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(See Sack for Instructions)

60LDENROD-Ongunator

WHITE, CANARY & PINK—Laboratory

# Sample Receipt Checklist



Client:

APC Lab

# of Samples:

14

Workorder No.:

103083

Tracking No:

Carrier: COURIER

Question	Answe	r Comment
Radioactivity wasn't checked or is <= background as measured by	True	
a survey meter		
Custody seals were present on cooler	False	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	-True Fa	15e 1864 5-4-16
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	22
COC is present	True	
COC is filled out in ink and is legible	False	Missing matrix field and sample type
COC is filled out with pertinent information	True	de dinopi.ig dinopi. Too dinopi.ig and a series of the ser
The field sampler's name is on the COC	False	Only collector initials were provided on COC and sample
		container labels, samples were logged in based on contact
		Information provided on COC.
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	False	All samples are logged in based on the information provided on COC per customer request.
Samples are received within holding times	True	Session the interpretation of a diagram and a session of the sessi
Containers are not broken or leaking	True	
Sample collection date/times are present	True	grande de grande grande de grande arrecte parece a ser exemple de la completa de la completa de la completa de Considerante grande de grande de grande parece a ser exemple, que en completa de la completa de la completa de
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the	True	edition and an extension of the extension of
bubble is < 6mm (1/4 inch)	erada azotat balanda azota azota	was engember en en er engenemment atten entre entre ett om entre entre tre entre partie en en en en en en en e
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

**Receiving Narrative:** 

ENVIRONMENTAL LABORATORY

#### Jassim, Ayssar

From:

Davis, Dwight A.

Sent:

Thursday, April 28, 2016 8:16 AM

To:

Jassim, Äyssar; Sutton, Nick A.; Locke, Jolynn K.

Cc:

Philpotts, Don K.; Dickerson, Robert S.

Subject:

FW: Radium samples

FYI

From: Copeland, Sarah Garst

Sent: Wednesday, April 27, 2016 2:56 PM

**To:** Davis, Dwight A. **Subject:** Radium samples

Hey Dwight,

I just spoke with Anne regarding confusion with the Radium samples we send you. We would like for you to use the sample ID (AWXXXXX) as your ID. It should be listed on all COCs. I can see where that would be confusing, but we use the AW as the ID and the bottom label as the sample description. Also, the discrepancy with the times is due to an issue we had with our electronic COCs. We had to adjust sample times on the Radium samples for two sets because it was overwriting the original samples. Don't worry about the difference, I put the time we have on our COC on the COCs I sent you all so everything would match. Just use the times listed on the COCs.

Please let me know if you have any further questions.

Thank you!

# Sarah Copeland

Environmental Affairs Specialist APC GSC Building 8

Ext: 205-664-6121/ Int: 8-255-6121

Mobile: 205-910-3511 sgcopela@southernco.com

#### **QUALITY CONTROL DATA**

Workorder: 102958, 102975, 103083

QC Batch: 17001 Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102958001, 102975001-007, 103083001-007, 103083009-012

#### **METHOD BLANK:**

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<2.037E-01	1.0	
Radium-228	pCi/l	<2.738E-01	1.0	

#### **Laboratory Control Sample:**

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.790	5.083	106	70-130	
Radium-228	pCi/l	4.891	5.804	119	70-130	

# **Laboratory Control Sample Duplicate:**

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	13.4	20	
Radium-228	pCi/l	14.4	20	

#### **Sample Duplicate:**

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	ND	ND	NA	20	
Radium-228	pCi/l	ND	ND	NA	20	

#### **QUALITY CONTROL DATA**

Workorder: 103083, 103084

QC Batch: 17014 Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 103083013-014, 103084001-018

#### **METHOD BLANK:**

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.147E-01	1.0	
Radium-228	pCi/l	<6.809E-01	1.0	

#### **Laboratory Control Sample:**

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.785	5.093	106	70-130	
Radium-228	pCi/l	4.961	5.473	110	70-130	

### **Laboratory Control Sample Duplicate:**

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	0.94	20	
Radium-228	pCi/l	7.9	20	

#### **Sample Duplicate:**

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	ND	ND	NA	20	
Radium-228	pCi/l	ND	ND	NA	20	

ALABAMA A A A A A A A A A A A A A A A A A	Chain of Custody
Lab&	Groundwater APC General Testing Laboratory
SERVICES	APC General Testing Laboratory
	General Service Complex Building 8

SmarTroll ID 4696-23444-3-3

Turbidity ID 4677-23342-4-1

′	Field Complete
~	Lab Complete

Lab ETA 04/21/2016 08:00

General vervice complex Bunding o									
Requested	l Complete	e Date Routi	ne		Res	ults To	Dustin Brook	<s .<="" td=""><td></td></s>	
Site	e Represen	tative Angi	e Jimmer	son	Reques	sted By	Greg Dyer		
	Col	lector Jaso	n Rouss		Lo	cation	Barry Gyps	um	
Analysis F	•			228 (2) 2 L bottles					
C	omments			ion times for all samples on 4 of sample information into Ll					
				5, and anions analysis. JR. pH					
			Bottle		La	ab	Cooler	Cooler	
Sample #	Date	Time	Count	Description	Fil	ter	ID	Temp	Lab Id
MW-6R	04/18/201	6 15:56	2	Groundwater		495	0-25068-10-8	2.4	AW10354
MW-6RDur	04/18/201	6 15:56	2	Sample Duplicate		495	0-25068-10-8	2.4	AW10355
MW-7R	04/18/201	6 17:11	2	Groundwater		495	0-25068-10-8	2.4	AW10356
MW-4R	04/19/201	6 10:06	2	Groundwater		495	0-25068-10-8	2.4	AW10357
MW-3R	04/19/201	6 11:31	2	Groundwater		495	0-25061-10-1	1.4	AW10358
MW-2R	04/19/201	6 12:51	2	Groundwater		495	0-25061-10-1	1.4	AW10359
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	Relinq	uished By		<b>———</b>	Receiv	ed By			te/Time
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3.0

All metals and radiological bottles have pH < 2

Thermometer ID 1506-3968-4-4

pH Strip ID see comments

ALABAMA A POWER	Chain of Custody
Lab&	Groundwater APC General Testing Laboratory
SERVICES	APC General Testing Laboratory
	General Service Complex Building 8

′	Field Complete
~	Lab Complete

Lab ETA 04/20/2016 16:58

Requested Complete Date		Routine	Results To	Dustin Brooks			
Site Representative		Angie Jimmerson	Requested By	Greg Dyer			
Collector		Clarence Specht	Location	Barry Gypsum			
1							
Analysis Requested	Radiological: RA-226, RA-228 (2) 2 L bottles						
Comments	Time was set 2 minutes prior to time on sample label due to software issue. 3 different packs of pH strips were used: 4831-24377-20-4; 4826-24363-2-1; 4831-24379-20-6 AW10353 deleted-Radiological QC only. SGC						

			Bottle		Lab	Cooler	Cooler	
Sample #	Date	Time	Count	Description	Filter	ID	Temp	Lab Id
MW-5R	04/18/2016	15:40	2	Groundwater		4950-25070-10-1	1.4	AW10348
MW-8R	04/18/2016	16:38	2	Groundwater		4950-25070-10-1	1.4	AW10349
MW-1R	04/19/2016	09:22	2	Groundwater		4950-25070-10-1	1.4	AW10350
MW-9R	04/19/2016	11:31	2	Groundwater		4950-25066-10-6	1.0	AW10351
MW-10R	04/19/2016	13:43	2	Groundwater		4950-25066-10-6	1.0	AW10352
					_			
Relinquished By Bate/Time								

Relinquished By	Received By	Date/Time
C. Joseph	Source	04/21/2016 08:22

SmarTroll ID 5141-26150-1-1 Turbidity ID 4950-25070-10-10

All metals and radiological bottles have pH < 2

Thermometer ID 1506-3968-4-4

pH Strip ID see comments

ALABAMA POWER	Chain of Custody
Lab&	Groundwater  APC General Testing Laboratory
	General Service Complex Building 8

~	Field Complete
~	Lab Complete

Lab ETA 04/21/2016 12:30

Requested Complete Date		Routine	Results To	Dustin Brooks
Site Representative		Angie Jimmerson	Requested By	Greg Dyer
Collector		Nick Pitts	Location	Barry Gypsum
Analysis Requested	Radiolo	gical: RA-226, RA-228 (2) 2 L bottles		
Comments Changed sample time by adding 1 minute on 4-21-				
3 different packs of pH strips were used: 4831-24377-2			4; 4826-24363-2-1; 483	1-24379-20-6

			Bottle		Lab	Cooler	Cooler	
Sample #	Date	Time	Count	Description	Filter		Temp	Lab Id
FB-1 R	04/18/2016	15:11	2	Field Blank		4950-25061-10-1	1.4	AW10346
EB-1 R	04/19/2016	09:16	2	Equipment Blank		4950-25061-10-1	1.4	AW10347
				-				
					<u></u>			
			l	<u> </u>		l		

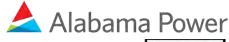
Relinquished By	Received By	Date/Time
Store	Seller	04/21/2016 08:07

SmarTroll ID 4696-23441-1-1 Turbidity ID 4677-23343-4-2 All metals and radiological bottles have pH < 2

Thermometer ID 1506-3968-4-4

pH Strip ID see comments

# Analytical Report





Sample Group: WMWBARG\_27

Project/Site: Barry Gypsum

Bucks, AL 36512

For: Southern Company Services

42 Inverness Center Parkway Birmingham, AL 35242

Attention: Dustin Brooks & Greg Dyer

Released By: Sarah Copeland

sgcopela@southernco.com

(205) 664-6121

The following data has been reviewed and approved by:

Quality Control: Supervision:

#### Case Narrative

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Anions

#### Barry Gypsum

#### WMWBARG\_27

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	<b>Chloride Batch ID</b>	Fluoride Batch ID	Sulfate Batch ID	Project ID
AW14671	567148	567151	567154	WMWBARG_27
AW14672	567148	567151	567154	WMWBARG_27
AW14673	567148	567151	567154	WMWBARG_27
AW14674	567148	567151	567154	WMWBARG_27
AW14675	567148	567151	567154	WMWBARG_27
AW14676	567185	567186	567187	WMWBARG_27
AW14677	567185	567186	567187	WMWBARG_27
AW14678	567185	567186	567187	WMWBARG_27
AW14679	567185	567186	567187	WMWBARG_27
AW14680	567185	567186	567187	WMWBARG_27
AW14681	567185	567186	567187	WMWBARG_27
AW14682	567185	567186	567187	WMWBARG_27
AW14683	567185	567186	567187	WMWBARG_27

- 4. All of the above samples were analyzed and prepared by EPA 300.0.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

#### **General Quality Control Procedures:**

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met.
- All laboratory reagent blanks were less than the method detection limits for the requested anions, with the following exceptions:
  - The blank for anion sulfate in batch 567154 presented a concentration above the MDL of 0.3 mg/L, at 0.483 mg/L. Batch samples AW14671 and AW14672 presented sulfate concentrations above the MDL value but below 10x the blank result, and are qualified as quantitatively estimated with indication of potential high bias on the reported results.
  - 2. The blank for anion sulfate in batch 567187 presented a concentration above the MDL of 0.3 mg/L, at 0.483 mg/L. Batch samples AW14677, AW14678 and AW14683 presented sulfate concentrations above the MDL value but below 10x the blank result, and are qualified as quantitatively estimated with indication of potential high bias on the reported results.

#### Case Narrative

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



- All laboratory fortified blanks were within acceptance criteria for the anions requested.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A laboratory fortified matrix sample was analyzed with each batch. All acceptance criteria for accuracy were met.
- A sample duplicate and/or laboratory fortified matrix duplicate were analyzed with each batch. All acceptance criteria for precision were met. It is noted that separate and distinct criteria for duplicate precision calculations, based on sample and duplicate anion concentrations, are used to assess precision compliance. These are as follow: if the sample and duplicate are both greater than 5x anion Reporting Limit (RL) concentration, the precision is calculated and reported as relative percent difference (RPD), with an acceptance range of 0 20%; if either the sample or duplicate are less than 5x anion RL, the precision is calculated and reported as the absolute value of the difference between the two concentrations, with an acceptance range of less than or equal to the anion RL value.
- 7. All batch samples were analyzed without a dilution.
- 8. The raw data results are shown with dilution factors included, when dilutions are manually performed by the analyst.

The raw data results are shown without dilution factor corrections, when dilutions are run automatically by the instrument.

### Case Narrative

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Metals ICP

#### **Barry Gypsum**

#### WMWBARG\_27

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW14671	20160628C	WMWBARG_27
AW14672	20160628C	WMWBARG_27
AW14673	20160628C	WMWBARG_27
AW14674	20160628C	WMWBARG_27
AW14675	20160628C	WMWBARG_27
AW14676	20160628C	WMWBARG_27
AW14677	20160628C	WMWBARG_27
AW14678	20160628C	WMWBARG_27
AW14679	20160628C	WMWBARG_27
AW14680	20160628D_20160629	WMWBARG_27
AW14681	20160628D_20160629	WMWBARG_27
AW14682	20160628D_20160629	WMWBARG_27
AW14683	20160628D_20160629	WMWBARG_27
	AW14672 AW14673 AW14674 AW14675 AW14676 AW14677 AW14678 AW14679 AW14680 AW14681 AW14682	AW14671 20160628C AW14672 20160628C AW14673 20160628C AW14674 20160628C AW14675 20160628C AW14676 20160628C AW14677 20160628C AW14678 20160628C AW14679 20160628C AW14680 20160628D_20160629 AW14681 20160628D_20160629 AW14682 20160628D_20160629

- 4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

#### **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed without a dilution.
- 8. The raw data results include both results corrected for dilution and results not corrected for dilution.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





Metals ICPMS

Barry Gypsum

WMWBARG\_27

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW14671	567581	WMWBARG_27
AW14672	567581	WMWBARG_27
AW14673	567581	WMWBARG_27
AW14674	567581	WMWBARG_27
AW14675	567581	WMWBARG_27
AW14676	567581	WMWBARG_27
AW14677	567581	WMWBARG_27
AW14678	567581	WMWBARG_27
AW14679	567581	WMWBARG_27
AW14680	567582	WMWBARG_27
AW14681	567582	WMWBARG_27
AW14682	567582	WMWBARG_27
AW14683	567582	WMWBARG_27

- 4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.
- 7. Cadmium MDL increased from 0.0001mg/L to 0.0002mg/L. Sample AW14671 is now reported as Not Detected.

### **General Quality Control Procedures:**

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

### Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
- 8. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
- 9. The raw data results are shown with dilution factors included.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





### Mercury

### Barry Gypsum

### WMWBARG\_27

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW14671	568232	WMWBARG_27
AW14672	568233	WMWBARG_27
AW14673	568233	WMWBARG_27
AW14674	568233	WMWBARG_27
AW14675	568233	WMWBARG_27
AW14676	568233	WMWBARG_27
AW14677	568233	WMWBARG_27
AW14678	568233	WMWBARG_27
AW14679	568233	WMWBARG_27
AW14680	568233	WMWBARG_27
AW14681	568233	WMWBARG_27
AW14682	567765	WMWBARG_27
AW14683	567765	WMWBARG_27

- 4. All of the above samples were analyzed and prepared by EPA 245.1.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

### **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.

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- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

### Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed without a dilution.
- 8. The raw data results are shown with dilution factors included.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





TDS

### Barry Gypsum

### WMWBARG\_27

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	<b>Project ID</b>
AW14671	567321	WMWBARG_27
AW14672	567321	WMWBARG_27
AW14673	567321	WMWBARG_27
AW14674	567321	WMWBARG_27
AW14675	567321	WMWBARG_27
AW14676	567321	WMWBARG_27
AW14677	567321	WMWBARG_27
AW14678	567321	WMWBARG_27
AW14679	567321	WMWBARG_27
AW14680	567321	WMWBARG_27
AW14681	567322	WMWBARG_27
AW14682	567322	WMWBARG_27
AW14683	567322	WMWBARG_27

- 4. All of the above samples were analyzed by Standard Method 2540C.
- 5. All samples were analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.
- 7. The reporting limit for TDS was incorrectly listed as 2.5mg/L. This has been corrected based on filter volume and project limits. Samples AW14678 and AW14683 are now reported as Not Detected.

### **General Quality Control Procedures:**

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AW14678 and AW14683 which were <2.5 mg.



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 06-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-6

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14671

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 11/1/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	J	0.000633	mg/L
* Arsenic, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01		0.206	mg/L
* Beryllium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 6/28/2016	EPA 200.7	1.015	0.02	0.1		0.733	mg/L
* Calcium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.1	0.5		19.7	mg/L
* Cadmium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	J	0.00361	mg/L
* Chromium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	J	0.00310	mg/L
* Mercury, Total by CVAA	MCW 6/24/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01		0.0382	mg/L
* Thallium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 6/13/2016	SM 2540C	1		25		131	mg/L
* Chloride, Total	SES 6/10/2016	EPA 300.0	1	0.04	0.25		5.52	mg/L
* Fluoride, Total	SES 6/10/2016	EPA 300.0	1	0.01	0.3	J	0.148	mg/L
* Sulfate, Total	SES 6/10/2016	EPA 300.0	1	0.3	1	J	0.498	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. The result for Cd has been

correctly changed to Not Detected. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 06-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-6

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14671

Laboratory ID Number. AW 1467	<u> </u>										
		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W14679 Chromium, Total	mg/L 0.00000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3	70 to 130	4.86	20
AW14679 Lead, Total	mg/L 0.00000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7	70 to 130	4.73	20
AW14679 Lithium, Total	mg/L 0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0	70 to 130	3.64	20
W14679 Calcium, Total	mg/L 0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0	70 to 130	2.31	20
W14679 Selenium, Total	mg/L 0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7	70 to 130	5.04	20
W14679 Arsenic, Total	mg/L 0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0	70 to 130	3.79	20
W14679 Cadmium, Total	mg/L 0.00000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9	70 to 130	5.24	20
W14679 Molybdenum, Total	mg/L 0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4	70 to 130	5.25	20
W14671 Mercury, Total by CVAA	mg/L 0.00009	0.0005	0.004	0.00403	0.00401	0.00392	0.0034 to 0.0046	101	70 to 130	0.498	20
W14679 Boron, Total	mg/L 0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100	70 to 130	0.100	20
W14679 Thallium, Total	mg/L 0.00000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5	70 to 130	4.88	20
W14679 Beryllium, Total	mg/L 0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108	70 to 130	2.85	20
W14679 Cobalt, Total	mg/L 0.00000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101	70 to 130	5.29	20
W14679 Antimony, Total	mg/L 0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8	70 to 130	3.99	20
W14679 Barium, Total	mg/L 0.00000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6	70 to 130	4.10	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. The result for Cd has been

correctly changed to Not Detected. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114

# Batch QC Summary



## **Corrected Copy**

**Customer Account:** WMWBARG **Sample Date:** 06-Jun-16

**Customer ID:** 

Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-6

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14671

	11019 12 114111112011 7111111011											
			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW14671	Solids, Dissolved	mg/L 5.0	25			143	56	40 to 60			4.38	5
AW14675	Sulfate, Total	mg/L 0.483	1.0	20.00	29.3	8.76	20.1	18 to 22	103	80 to 120	0.229	20
AW14675	Chloride, Total	mg/L 0.000	0.25	10.00	13.3	3.16	9.88	9 to 11	102	80 to 120	0.317	20
AW14675	Fluoride, Total	mg/L 0.000	0.3	2.00	2.22	0.064	2.02	1.8 to 2.2	108	80 to 120	1.57	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. The result for Cd has been

correctly changed to Not Detected. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 06-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-7

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14672

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 11/1/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
Antimony, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
Arsenic, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
Barium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01		0.0457	mg/L
Beryllium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
Boron, Total	HRG 6/28/2016	EPA 200.7	1.015	0.02	0.1	U	Not Detected	mg/L
Calcium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.1	0.5		1.48	mg/L
Cadmium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
Cobalt, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Chromium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Mercury, Total by CVAA	MCW 6/24/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
Molybdenum, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Lead, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
Selenium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Thallium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
Solids, Dissolved	DLJ 6/13/2016	SM 2540C	1		25		32.7	mg/L
Chloride, Total	SES 6/10/2016	EPA 300.0	1	0.04	0.25		4.09	mg/L
Fluoride, Total	SES 6/10/2016	EPA 300.0	1	0.01	0.3	J	0.051	mg/L
Sulfate, Total	SES 6/10/2016	EPA 300.0	1	0.3	1		3.76	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 06-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-7

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14672

Laboratory ID Number. AW 14672											
		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AW14679 Lithium, Total	mg/L 0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0	70 to 130	3.64	20
AW14679 Chromium, Total	mg/L 0.00000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3	70 to 130	4.86	20
W14679 Lead, Total	mg/L 0.00000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7	70 to 130	4.73	20
AW14679 Arsenic, Total	mg/L 0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0	70 to 130	3.79	20
W14679 Cadmium, Total	mg/L 0.00000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9	70 to 130	5.24	20
W14679 Molybdenum, Total	mg/L 0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4	70 to 130	5.25	20
W14679 Antimony, Total	mg/L 0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8	70 to 130	3.99	20
W14679 Barium, Total	mg/L 0.00000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6	70 to 130	4.10	20
W14679 Calcium, Total	mg/L 0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0	70 to 130	2.31	20
W14679 Selenium, Total	mg/L 0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7	70 to 130	5.04	20
W14681 Mercury, Total by CVAA	mg/L 0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8	70 to 130	0.764	20
W14679 Beryllium, Total	mg/L 0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108	70 to 130	2.85	20
W14679 Cobalt, Total	mg/L 0.00000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101	70 to 130	5.29	20
W14679 Boron, Total	mg/L 0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100	70 to 130	0.100	20
W14679 Thallium, Total	mg/L 0.00000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5	70 to 130	4.88	20

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To: Dustin Brooks

Greg Dyer

John Pugh

AW14675 Fluoride, Total



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 06-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

0.064

2.02

1.8 to 2.2

108 80 to 120 1.57

20

Description: Barry Gypsum - MW-7

mg/L 0.000

0.3

Labora	tory ID Number: AW14672											
			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW14671	Solids, Dissolved	mg/L 5.0	25		,	143	56	40 to 60			4.38	5
AW14675	Sulfate, Total	mg/L 0.483	1.0	20.00	29.3	8.76	20.1	18 to 22	103	80 to 120	0.229	20
AW14675	Chloride, Total	mg/L 0.000	0.25	10.00	13.3	3.16	9.88	9 to 11	102	80 to 120	0.317	20

2.22

2.00

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CC:

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## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 06-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-4

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14673

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 11/1/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01		0.0862	mg/L
* Beryllium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 6/28/2016	EPA 200.7	1.015	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.1	0.5		1.35	mg/L
* Cadmium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW 6/24/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 6/13/2016	SM 2540C	1		25		28.7	mg/L
* Chloride, Total	SES 6/10/2016	EPA 300.0	1	0.04	0.25		3.60	mg/L
* Fluoride, Total	SES 6/10/2016	EPA 300.0	1	0.01	0.3	J	0.050	mg/L
* Sulfate, Total	SES 6/10/2016	EPA 300.0	1	0.3	1		7.04	mg/L

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<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 06-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-4

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14673

Laboratory ID Number. AVV 1467.	3									
		MB					LFB	Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limi	t Prec	Limi
	mg/L 0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0 70 to	130 3.64	20
W14679 Chromium, Total	mg/L 0.00000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3 70 to 1	130 4.86	20
W14679 Lead, Total	mg/L 0.00000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7 70 to	130 4.73	20
W14679 Boron, Total	mg/L 0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100 70 to 1	130 0.100	20
W14679 Thallium, Total	mg/L 0.00000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5 70 to 1	130 4.88	20
W14679 Beryllium, Total	mg/L 0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108 70 to 1	130 2.85	20
W14679 Cobalt, Total	mg/L 0.00000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101 70 to 1	130 5.29	20
W14679 Arsenic, Total	mg/L 0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0 70 to 1	130 3.79	20
W14679 Cadmium, Total	mg/L 0.00000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9 70 to 1	130 5.24	20
W14679 Molybdenum, Total	mg/L 0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4 70 to 1	130 5.25	20
W14679 Calcium, Total	mg/L 0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0 70 to 1	130 2.31	20
W14679 Selenium, Total	mg/L 0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7 70 to 1	130 5.04	20
W14681 Mercury, Total by CVAA	mg/L 0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8 70 to	130 0.764	20
W14679 Antimony, Total	mg/L 0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8 70 to	130 3.99	20
W14679 Barium, Total	mg/L 0.00000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6 70 to	130 4.10	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 06-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-4

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14673

Labore	tory in Humber. AW 14075											
		,	MB			Sample	,	LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW14671	Solids, Dissolved	mg/L 5.0	25			143	56	40 to 60			4.38	5
AW14675	Sulfate, Total	mg/L 0.483	1.0	20.00	29.3	8.76	20.1	18 to 22	103	80 to 120	0.229	20
AW14675	Chloride, Total	mg/L 0.000	0.25	10.00	13.3	3.16	9.88	9 to 11	102	80 to 120	0.317	20
AW14675	Fluoride, Total	mg/L 0.000	0.3	2.00	2.22	0.064	2.02	1.8 to 2.2	108	80 to 120	1.57	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 06-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-1

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14674

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 11/1/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
Antimony, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
Arsenic, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
Barium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01		0.107	mg/L
Beryllium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	J	0.000612	mg/L
Boron, Total	HRG 6/28/2016	EPA 200.7	1.015	0.02	0.1	U	Not Detected	mg/L
Calcium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.1	0.5		1.19	mg/L
Cadmium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
Cobalt, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	J	0.00427	mg/L
Chromium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Mercury, Total by CVAA	MCW 6/24/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
Molybdenum, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Lead, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
Selenium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Thallium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
Solids, Dissolved	DLJ 6/13/2016	SM 2540C	1		25		32.7	mg/L
Chloride, Total	SES 6/10/2016	EPA 300.0	1	0.04	0.25		3.12	mg/L
Fluoride, Total	SES 6/10/2016	EPA 300.0	1	0.01	0.3	J	0.062	mg/L
Sulfate, Total	SES 6/10/2016	EPA 300.0	1	0.3	1		8.66	mg/L

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## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 06-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-1

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14674

		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
W14679 Chromium, Total	mg/L 0.00000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3 70 to 130	4.86	20
W14679 Lead, Total	mg/L 0.00000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7 70 to 130	4.73	20
W14679 Lithium, Total	mg/L 0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0 70 to 130	3.64	20
AW14679 Arsenic, Total	mg/L 0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0 70 to 130	3.79	20
W14679 Cadmium, Total	mg/L 0.00000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9 70 to 130	5.24	20
W14679 Molybdenum, Total	mg/L 0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4 70 to 130	5.25	20
W14679 Calcium, Total	mg/L 0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0 70 to 130	2.31	20
W14679 Selenium, Total	mg/L 0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7 70 to 130	5.04	20
W14681 Mercury, Total by CVAA	mg/L 0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8 70 to 130	0.764	20
W14679 Antimony, Total	mg/L 0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8 70 to 130	3.99	20
W14679 Barium, Total	mg/L 0.00000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6 70 to 130	4.10	20
W14679 Boron, Total	mg/L 0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100 70 to 130	0.100	20
W14679 Thallium, Total	mg/L 0.00000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5 70 to 130	4.88	20
W14679 Beryllium, Total	mg/L 0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108 70 to 130	2.85	20
AW14679 Cobalt, Total	mg/L 0.00000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101 70 to 130	5.29	20

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Customer Account: WMWBARG Sample Date: 06-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

John Pugh

Description: Barry Gypsum - MW-1

To: Dustin Brooks

Greg Dyer

Laboratory ID Number: AW14674

Labore	tiony in Humber. Avv 14074											
			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW14675	Sulfate, Total	mg/L 0.483	1.0	20.00	29.3	8.76	20.1	18 to 22	103	80 to 120	0.229	20
AW14671	Solids, Dissolved	mg/L 5.0	25			143	56	40 to 60			4.38	5
AW14675	Chloride, Total	mg/L 0.000	0.25	10.00	13.3	3.16	9.88	9 to 11	102	80 to 120	0.317	20
AW14675	Fluoride, Total	mg/L 0.000	0.3	2.00	2.22	0.064	2.02	1.8 to 2.2	108	80 to 120	1.57	20

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Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 06-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-1 Dup

Laboratory ID Number: AW14675

To: Dustin Brooks

Greg Dyer

John Pugh

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 11/1/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01		0.106	mg/L
* Beryllium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	J	0.000805	mg/L
* Boron, Total	HRG 6/28/2016	EPA 200.7	1.015	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.1	0.5		1.19	mg/L
* Cadmium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	J	0.00420	mg/L
* Chromium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW 6/24/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 6/13/2016	SM 2540C	1		25		33.3	mg/L
* Chloride, Total	SES 6/10/2016	EPA 300.0	1	0.04	0.25		3.15	mg/L
* Fluoride, Total	SES 6/10/2016	EPA 300.0	1	0.01	0.3	J	0.063	mg/L
* Sulfate, Total	SES 6/10/2016	EPA 300.0	1	0.3	1		8.74	mg/L

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## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 06-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-1 Dup

Laboratory ID Number: AW14675

To: Dustin Brooks

Greg Dyer

John Pugh

		MB			,	,	LFB	Rec	Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit Prec	Limit
AW14679 Chromium, Total	mg/L 0.00000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3 70 to 130 4.86	20
AW14679 Lithium, Total	mg/L 0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0 70 to 130 3.64	20
AW14679 Lead, Total	mg/L 0.00000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7 70 to 130 4.73	20
AW14679 Antimony, Total	mg/L 0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8 70 to 130 3.99	20
AW14679 Barium, Total	mg/L 0.00000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6 70 to 130 4.10	20
AW14679 Beryllium, Total	mg/L 0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108 70 to 130 2.85	20
AW14679 Cobalt, Total	mg/L 0.00000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101 70 to 130 5.29	20
AW14679 Boron, Total	mg/L 0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100 70 to 130 0.100	20
AW14679 Thallium, Total	mg/L 0.00000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5 70 to 130 4.88	20
AW14679 Calcium, Total	mg/L 0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0 70 to 130 2.31	20
AW14679 Selenium, Total	mg/L 0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7 70 to 130 5.04	20
AW14681 Mercury, Total by CVAA	mg/L 0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8 70 to 130 0.764	20
AW14679 Arsenic, Total	mg/L 0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0 70 to 130 3.79	20
AW14679 Cadmium, Total	mg/L 0.00000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9 70 to 130 5.24	20
AW14679 Molybdenum, Total	mg/L 0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4 70 to 130 5.25	20

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**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-1 Dup

Laboratory ID Number: AW14675

To: Dustin Brooks

Greg Dyer

John Pugh

Labora	atory in Number. Avv 14075											
		,	MB			Sample	,	LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW14671	Solids, Dissolved	mg/L 5.0	25			143	56	40 to 60			4.38	5
AW14675	Sulfate, Total	mg/L 0.483	1.0	20.00	29.3	8.76	20.1	18 to 22	103	80 to 120	0.229	20
AW14675	Chloride, Total	mg/L 0.000	0.25	10.00	13.3	3.16	9.88	9 to 11	102	80 to 120	0.317	20
AW14675	Fluoride, Total	mg/L 0.000	0.3	2.00	2.22	0.064	2.02	1.8 to 2.2	108	80 to 120	1.57	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

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Issued By: State of Florida, Department of Health



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-5

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14676

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 11/1/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01		0.0892	mg/L
* Beryllium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 6/28/2016	EPA 200.7	1.015	0.02	0.1		0.169	mg/L
* Calcium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.1	0.5		3.10	mg/L
* Cadmium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW 6/24/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	J	0.00698	mg/L
* Thallium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 6/13/2016	SM 2540C	1		25		51.3	mg/L
* Chloride, Total	SES 6/10/2016	EPA 300.0	1	0.04	0.25		3.74	mg/L
* Fluoride, Total	SES 6/10/2016	EPA 300.0	1	0.01	0.3	J	0.066	mg/L
* Sulfate, Total	SES 6/10/2016	EPA 300.0	1	0.3	1		18.7	mg/L

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<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-5

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14676

		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limi
W14679 Lithium, Total	mg/L 0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0 70	) to 130	3.64	20
W14679 Chromium, Total	mg/L 0.00000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3 70	to 130	4.86	20
W14679 Lead, Total	mg/L 0.00000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7 70	0 to 130	4.73	20
W14679 Boron, Total	mg/L 0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100 70	0 to 130	0.100	20
W14679 Thallium, Total	mg/L 0.00000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5 70	0 to 130	4.88	20
W14679 Antimony, Total	mg/L 0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8 70	0 to 130	3.99	20
W14679 Barium, Total	mg/L 0.00000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6 70	0 to 130	4.10	20
AW14679 Arsenic, Total	mg/L 0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0 70	0 to 130	3.79	20
W14679 Cadmium, Total	mg/L 0.00000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9 70	0 to 130	5.24	20
W14679 Molybdenum, Total	mg/L 0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4 70	0 to 130	5.25	20
W14679 Beryllium, Total	mg/L 0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108 70	0 to 130	2.85	20
W14679 Cobalt, Total	mg/L 0.00000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101 70	0 to 130	5.29	20
W14679 Calcium, Total	mg/L 0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0 70	0 to 130	2.31	20
W14679 Selenium, Total	mg/L 0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7 70	0 to 130	5.04	20
AW14681 Mercury, Total by CVAA	mg/L 0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8 70	0 to 130	0.764	20

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## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-5

To: Dustin Brooks

Greg Dyer

John Pugh

Labora	atory ID Number: AW14676										
		,	MB			Sample		LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicat	e LFB	Limit	Rec Limit	Prec	Limit
AW14683	Sulfate, Total	mg/L 0.483	1.0	20.00	20.5	0.498	20.0	18 to 22	99.9 80 to 120 2	2.58	20
AW14671	Solids, Dissolved	mg/L 5.0	25			143	56	40 to 60	4	4.38	5
AW14683	Chloride, Total	mg/L 0.00	0.25	10.00	9.76	0.00	9.87	9 to 11	97.6 80 to 120 (	)	20
AW14683	Fluoride, Total	mg/L 0.00	0.3	2.00	2.23	0.043	2.03	1.8 to 2.2	109 80 to 120 2	2.30	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

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Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG 07-Jun-16 Sample Date:

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-8

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14677

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 11/1/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01		0.0299	mg/L
* Beryllium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 6/28/2016	EPA 200.7	1.015	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.1	0.5		0.587	mg/L
* Cadmium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW 6/24/2016	EPA 245.1	1	0.00025	0.0005	J	0.00031	mg/L
* Lithium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 6/13/2016	SM 2540C	1		25		32.0	mg/L
* Chloride, Total	SES 6/10/2016	EPA 300.0	1	0.04	0.25		4.52	mg/L
* Fluoride, Total	SES 6/10/2016	EPA 300.0	1	0.01	0.3	J	0.053	mg/L
* Sulfate, Total	SES 6/10/2016	EPA 300.0	1	0.3	1		4.44	mg/L

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<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-8

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14677

		MB					LFB	Rec	Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit Pred	Limit
W14679 Lithium, Total	mg/L 0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0 70 to 130 3.64	20
W14679 Chromium, Total	mg/L 0.00000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3 70 to 130 4.86	20
W14679 Lead, Total	mg/L 0.00000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7 70 to 130 4.73	20
W14679 Arsenic, Total	mg/L 0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0 70 to 130 3.79	20
W14679 Cadmium, Total	mg/L 0.00000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9 70 to 130 5.24	20
W14679 Molybdenum, Total	mg/L 0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4 70 to 130 5.25	20
W14679 Calcium, Total	mg/L 0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0 70 to 130 2.31	20
W14679 Selenium, Total	mg/L 0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7 70 to 130 5.04	20
W14681 Mercury, Total by CVAA	mg/L 0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8 70 to 130 0.764	1 20
.W14679 Beryllium, Total	mg/L 0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108 70 to 130 2.85	20
W14679 Cobalt, Total	mg/L 0.00000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101 70 to 130 5.29	20
.W14679 Antimony, Total	mg/L 0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8 70 to 130 3.99	20
W14679 Barium, Total	mg/L 0.00000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6 70 to 130 4.10	20
W14679 Boron, Total	mg/L 0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100 70 to 130 0.100	20
W14679 Thallium, Total	mg/L 0.00000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5 70 to 130 4.88	20

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\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Laboratory ID Number: AW14677

Description: Barry Gypsum - MW-8

To: Dustin Brooks

Greg Dyer

John Pugh

Labora	atory in Number. Avv 14077										
			MB			Sample		LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit
AW14671	Solids, Dissolved	mg/L 5.0	25			143	56	40 to 60		4.38	5
AW14683	Sulfate, Total	mg/L 0.483	1.0	20.00	20.5	0.498	20.0	18 to 22	99.9 80 to 120	2.58	20
AW14683	Chloride, Total	mg/L 0.00	0.25	10.00	9.76	0.00	9.87	9 to 11	97.6 80 to 120	0	20
AW14683	Fluoride, Total	mg/L 0.00	0.3	2.00	2.23	0.043	2.03	1.8 to 2.2	109 80 to 120	2.30	20

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Issued By: State of Florida, Department of Health



# **Corrected Copy**

Customer Account: WMWBARGFB Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

**Description:** Barry Gypsum Field Blank

Laboratory ID Number: AW14678

To: Dustin Brooks

Greg Dyer

John Pugh

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Radiological							
Total Radium, Test America	SGC 11/1/2016	EPA 9315/9320	1			Attached	
Metals, Cyanide, Total Phenols							
* Antimony, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detecte	ed mg/L
* Arsenic, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U Not Detecte	ed mg/L
* Barium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U Not Detecte	ed mg/L
* Beryllium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detecte	ed mg/L
* Boron, Total	HRG 6/28/2016	EPA 200.7	1.015	0.02	0.1	U Not Detecte	ed mg/L
* Calcium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.1	0.5	U Not Detecte	ed mg/L
* Cadmium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detecte	ed mg/L
* Cobalt, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U Not Detecte	ed mg/L
* Chromium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U Not Detecte	ed mg/L
* Mercury, Total by CVAA	MCW 6/24/2016	EPA 245.1	1	0.00025	0.0005	U Not Detecte	ed mg/L
* Lithium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.01	0.05	U Not Detecte	ed mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U Not Detecte	ed mg/L
* Lead, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U Not Detecte	ed mg/L
* Selenium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U Not Detecte	ed mg/L
* Thallium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detecte	ed mg/L
General Characteristics							
* Solids, Dissolved	DLJ 6/13/2016	SM 2540C	1		25	U Not Detecte	ed mg/L
* Chloride, Total	SES 6/10/2016	EPA 300.0	1	0.04	0.25	U Not Detecte	ed mg/L
* Fluoride, Total	SES 6/10/2016	EPA 300.0	1	0.01	0.3	U Not Detecte	ed mg/L
* Sulfate, Total	SES 6/10/2016	EPA 300.0	1	0.3	1	J 0.487	mg/L

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



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**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW14678

To: Dustin Brooks

Greg Dyer

John Pugh

Units MB	MB					LFB		Rec		Dros
Units MB	Limeia							Rec		Prec
	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
mg/L 0.000006	05 0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3	70 to 130	4.86	20
mg/L 0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0	70 to 130	3.64	20
mg/L 0.000003	00 0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7	70 to 130	4.73	20
mg/L 0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100	70 to 130	0.100	20
mg/L 0.000008	61 0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5	70 to 130	4.88	20
mg/L 0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108	70 to 130	2.85	20
mg/L 0.000001	89 0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101	70 to 130	5.29	20
mg/L 0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0	70 to 130	2.31	20
mg/L 0.000075	7 0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7	70 to 130	5.04	20
mg/L 0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8	70 to 130	0.764	20
mg/L 0.000012	4 0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0	70 to 130	3.79	20
mg/L 0.000003	71 0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9	70 to 130	5.24	20
mg/L 0.000028	1 0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4	70 to 130	5.25	20
mg/L 0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8	70 to 130	3.99	20
mg/L 0.000005	74 0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6	70 to 130	4.10	20
	mg/L 0.000006 mg/L 0.00003 mg/L 0.0000449 mg/L 0.000008 mg/L 0.000001 mg/L 0.000001 mg/L 0.000075 mg/L 0.000011 mg/L 0.000012 mg/L 0.00003 mg/L 0.000028 mg/L 0.000028	mg/L         0.00000605         0.0044           mg/L         0.000437         0.022           mg/L         0.00000300         0.0022           mg/L         0.000449         0.044           mg/L         0.00000861         0.00044           mg/L         0.00000189         0.0044           mg/L         0.00273         0.22           mg/L         0.0000757         0.0044           mg/L         0.00011         0.0005           mg/L         0.0000371         0.00044           mg/L         0.0000281         0.0044           mg/L         0.000266         0.00132	mg/L         0.00000605         0.0044         0.10           mg/L         0.000437         0.022         0.20           mg/L         0.0000300         0.0022         0.10           mg/L         0.000449         0.044         1.00           mg/L         0.00000861         0.00044         0.10           mg/L         0.00000189         0.0044         0.10           mg/L         0.00273         0.22         5.00           mg/L         0.0000757         0.0044         0.10           mg/L         0.00011         0.0005         0.004           mg/L         0.0000371         0.00044         0.10           mg/L         0.0000281         0.0044         0.10           mg/L         0.000266         0.00132         0.10	mg/L         0.00000605         0.0044         0.10         0.0983           mg/L         0.000437         0.022         0.20         0.196           mg/L         0.0000300         0.0022         0.10         0.0977           mg/L         0.000449         0.044         1.00         1.00           mg/L         0.00000861         0.00044         0.10         0.0975           mg/L         0.00         0.00132         0.10         0.108           mg/L         0.00273         0.22         5.00         6.58           mg/L         0.0000757         0.0044         0.10         0.0997           mg/L         0.0000124         0.0022         0.10         0.0970           mg/L         0.0000371         0.00044         0.10         0.0989           mg/L         0.0000281         0.0044         0.10         0.0984           mg/L         0.000266         0.00132         0.10         0.0908	mg/L         0.00000605         0.0044         0.10         0.0983         0.0936           mg/L         0.000437         0.022         0.20         0.196         0.189           mg/L         0.00000300         0.0022         0.10         0.0977         0.0932           mg/L         0.000449         0.044         1.00         1.00         0.999           mg/L         0.00000861         0.00044         0.10         0.108         0.105           mg/L         0.00         0.00132         0.10         0.108         0.105           mg/L         0.00000189         0.0044         0.10         0.101         0.0961           mg/L         0.00273         0.22         5.00         6.58         6.43           mg/L         0.0000757         0.0044         0.10         0.0997         0.0948           mg/L         0.0000124         0.0022         0.10         0.0970         0.0934           mg/L         0.00000371         0.00044         0.10         0.0984         0.0934           mg/L         0.0000281         0.0044         0.10         0.0984         0.0934           mg/L         0.000266         0.00132         0.10         0.0	mg/L         0.00000605         0.0044         0.10         0.0983         0.0936         0.0978           mg/L         0.000437         0.022         0.20         0.196         0.189         0.198           mg/L         0.00000300         0.0022         0.10         0.0977         0.0932         0.0985           mg/L         0.000449         0.044         1.00         1.00         0.999         0.959           mg/L         0.00000861         0.00044         0.10         0.0975         0.0929         0.0980           mg/L         0.00         0.00132         0.10         0.108         0.105         0.105           mg/L         0.00000189         0.0044         0.10         0.101         0.0961         0.101           mg/L         0.00273         0.22         5.00         6.58         6.43         4.99           mg/L         0.0000757         0.0044         0.10         0.0997         0.0948         0.0999           mg/L         0.0000124         0.0022         0.10         0.0970         0.0934         0.0989           mg/L         0.0000371         0.00044         0.10         0.0989         0.0934         0.0968           m	mg/L         0.00000605         0.0044         0.10         0.0983         0.0936         0.0978         0.085 to 0.115           mg/L         0.000437         0.022         0.20         0.196         0.189         0.198         0.17 to 0.23           mg/L         0.00000300         0.0022         0.10         0.0977         0.0932         0.0985         0.085 to 0.115           mg/L         0.000449         0.044         1.00         1.00         0.999         0.959         0.85 to 1.15           mg/L         0.00000861         0.00044         0.10         0.0975         0.0929         0.0980         0.085 to 0.115           mg/L         0.00         0.00132         0.10         0.108         0.105         0.105         0.085 to 0.115           mg/L         0.0000189         0.0044         0.10         0.101         0.0961         0.101         0.085 to 0.115           mg/L         0.00273         0.22         5.00         6.58         6.43         4.99         4.25 to 5.75           mg/L         0.0000757         0.0044         0.10         0.0997         0.0948         0.0999         0.085 to 0.115           mg/L         0.0000124         0.0022         0.10 <t< td=""><td>mg/L         0.00000605         0.0044         0.10         0.0983         0.0936         0.0978         0.085 to 0.115         98.3           mg/L         0.000437         0.022         0.20         0.196         0.189         0.198         0.17 to 0.23         98.0           mg/L         0.00000300         0.0022         0.10         0.0977         0.0932         0.0985         0.085 to 0.115         97.7           mg/L         0.000449         0.044         1.00         1.00         0.999         0.959         0.85 to 1.15         100           mg/L         0.00000861         0.00044         0.10         0.0975         0.0929         0.0980         0.085 to 0.115         97.5           mg/L         0.00         0.00132         0.10         0.108         0.105         0.105         0.085 to 0.115         108           mg/L         0.00000189         0.0044         0.10         0.101         0.0961         0.101         0.085 to 0.115         101           mg/L         0.00273         0.22         5.00         6.58         6.43         4.99         4.25 to 5.75         98.0           mg/L         0.0000757         0.0044         0.10         0.0997         0.0948</td><td>mg/L         0.00000605         0.0044         0.10         0.0983         0.0936         0.0978         0.085 to 0.115         98.3 70 to 130           mg/L         0.000437         0.022         0.20         0.196         0.189         0.198         0.17 to 0.23         98.0 70 to 130           mg/L         0.00000300         0.0022         0.10         0.0977         0.0932         0.0985         0.085 to 0.115         97.7 70 to 130           mg/L         0.000449         0.044         1.00         1.00         0.999         0.959         0.85 to 1.15         100         70 to 130           mg/L         0.00000861         0.00044         0.10         0.0975         0.0929         0.0980         0.085 to 0.115         97.5 70 to 130           mg/L         0.00         0.00132         0.10         0.108         0.105         0.085 to 0.115         108 70 to 130           mg/L         0.0000189         0.0044         0.10         0.101         0.0961         0.101         0.085 to 0.115         101 70 to 130           mg/L         0.00273         0.22         5.00         6.58         6.43         4.99         4.25 to 5.75         98.0 70 to 130           mg/L         0.000011         0.0005</td><td>mg/L         0.00000605         0.0044         0.10         0.0983         0.0936         0.0978         0.085 to 0.115         98.3 70 to 130 4.86           mg/L         0.000437         0.022         0.20         0.196         0.189         0.198         0.17 to 0.23         98.0 70 to 130 3.64           mg/L         0.00000300         0.0022         0.10         0.0977         0.0932         0.0985         0.085 to 0.115         97.7 70 to 130 4.73           mg/L         0.000449         0.044         1.00         1.00         0.999         0.959         0.85 to 1.15         100 70 to 130 0.100           mg/L         0.00000861         0.0044         0.10         0.0975         0.0929         0.0980         0.085 to 0.115         97.5 70 to 130 4.88           mg/L         0.00         0.00132         0.10         0.108         0.105         0.105         0.085 to 0.115         108 70 to 130 2.85           mg/L         0.00000189         0.0044         0.10         0.101         0.0961         0.101         0.085 to 0.115         101 70 to 130 5.29           mg/L         0.00273         0.22         5.00         6.58         6.43         4.99         4.25 to 5.75         98.0 70 to 130 5.04           mg/L</td></t<>	mg/L         0.00000605         0.0044         0.10         0.0983         0.0936         0.0978         0.085 to 0.115         98.3           mg/L         0.000437         0.022         0.20         0.196         0.189         0.198         0.17 to 0.23         98.0           mg/L         0.00000300         0.0022         0.10         0.0977         0.0932         0.0985         0.085 to 0.115         97.7           mg/L         0.000449         0.044         1.00         1.00         0.999         0.959         0.85 to 1.15         100           mg/L         0.00000861         0.00044         0.10         0.0975         0.0929         0.0980         0.085 to 0.115         97.5           mg/L         0.00         0.00132         0.10         0.108         0.105         0.105         0.085 to 0.115         108           mg/L         0.00000189         0.0044         0.10         0.101         0.0961         0.101         0.085 to 0.115         101           mg/L         0.00273         0.22         5.00         6.58         6.43         4.99         4.25 to 5.75         98.0           mg/L         0.0000757         0.0044         0.10         0.0997         0.0948	mg/L         0.00000605         0.0044         0.10         0.0983         0.0936         0.0978         0.085 to 0.115         98.3 70 to 130           mg/L         0.000437         0.022         0.20         0.196         0.189         0.198         0.17 to 0.23         98.0 70 to 130           mg/L         0.00000300         0.0022         0.10         0.0977         0.0932         0.0985         0.085 to 0.115         97.7 70 to 130           mg/L         0.000449         0.044         1.00         1.00         0.999         0.959         0.85 to 1.15         100         70 to 130           mg/L         0.00000861         0.00044         0.10         0.0975         0.0929         0.0980         0.085 to 0.115         97.5 70 to 130           mg/L         0.00         0.00132         0.10         0.108         0.105         0.085 to 0.115         108 70 to 130           mg/L         0.0000189         0.0044         0.10         0.101         0.0961         0.101         0.085 to 0.115         101 70 to 130           mg/L         0.00273         0.22         5.00         6.58         6.43         4.99         4.25 to 5.75         98.0 70 to 130           mg/L         0.000011         0.0005	mg/L         0.00000605         0.0044         0.10         0.0983         0.0936         0.0978         0.085 to 0.115         98.3 70 to 130 4.86           mg/L         0.000437         0.022         0.20         0.196         0.189         0.198         0.17 to 0.23         98.0 70 to 130 3.64           mg/L         0.00000300         0.0022         0.10         0.0977         0.0932         0.0985         0.085 to 0.115         97.7 70 to 130 4.73           mg/L         0.000449         0.044         1.00         1.00         0.999         0.959         0.85 to 1.15         100 70 to 130 0.100           mg/L         0.00000861         0.0044         0.10         0.0975         0.0929         0.0980         0.085 to 0.115         97.5 70 to 130 4.88           mg/L         0.00         0.00132         0.10         0.108         0.105         0.105         0.085 to 0.115         108 70 to 130 2.85           mg/L         0.00000189         0.0044         0.10         0.101         0.0961         0.101         0.085 to 0.115         101 70 to 130 5.29           mg/L         0.00273         0.22         5.00         6.58         6.43         4.99         4.25 to 5.75         98.0 70 to 130 5.04           mg/L

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Issued By: State of Florida, Department of Health

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



## **Corrected Copy**

Customer Account: WMWBARGFB Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

**Description**: Barry Gypsum Field Blank

Laboratory ID Number: AW14678

To: Dustin Brooks

Greg Dyer

John Pugh

Luboit	atory in italianci. Avv 14070										
	,	,	MB			Sample		LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit
AW14671	Solids, Dissolved	mg/L 5.0	25			143	56	40 to 60		4.38	5
AW14683	Sulfate, Total	mg/L 0.483	1.0	20.00	20.5	0.498	20.0	18 to 22	99.9 80 to 120	2.58	20
AW14683	Chloride, Total	mg/L 0.00	0.25	10.00	9.76	0.00	9.87	9 to 11	97.6 80 to 120	0	20
AW14683	Fluoride, Total	mg/L 0.00	0.3	2.00	2.23	0.043	2.03	1.8 to 2.2	109 80 to 120	2.30	20

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## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-3

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14679

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 11/1/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01		0.0754	mg/L
* Beryllium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 6/28/2016	EPA 200.7	1.015	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.1	0.5		1.68	mg/L
* Cadmium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW 6/24/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 6/13/2016	SM 2540C	1		25		38.7	mg/L
* Chloride, Total	SES 6/10/2016	EPA 300.0	1	0.04	0.25		3.66	mg/L
* Fluoride, Total	SES 6/10/2016	EPA 300.0	1	0.01	0.3	J	0.052	mg/L
* Sulfate, Total	SES 6/10/2016	EPA 300.0	1	0.3	1		8.16	mg/L

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MDL's and RL's are adjusted for sample dilution, as applicable

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-3

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14679

		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W14679 Lithium, Total	mg/L 0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0	70 to 130	3.64	20
W14679 Lead, Total	mg/L 0.00000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7	70 to 130	4.73	20
W14679 Chromium, Total	mg/L 0.00000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3	70 to 130	4.86	20
W14679 Arsenic, Total	mg/L 0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0	70 to 130	3.79	20
W14679 Cadmium, Total	mg/L 0.00000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9	70 to 130	5.24	20
W14679 Molybdenum, Total	mg/L 0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4	70 to 130	5.25	20
W14679 Calcium, Total	mg/L 0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0	70 to 130	2.31	20
W14679 Selenium, Total	mg/L 0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7	70 to 130	5.04	20
W14681 Mercury, Total by CVAA	mg/L 0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8	70 to 130	0.764	20
W14679 Beryllium, Total	mg/L 0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108	70 to 130	2.85	20
W14679 Cobalt, Total	mg/L 0.00000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101	70 to 130	5.29	20
W14679 Boron, Total	mg/L 0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100	70 to 130	0.100	20
W14679 Thallium, Total	mg/L 0.00000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5	70 to 130	4.88	20
W14679 Antimony, Total	mg/L 0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8	70 to 130	3.99	20
W14679 Barium, Total	mg/L 0.00000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6	70 to 130	4.10	20

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## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-3

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14679

Labora	atory in italianci. Avv 14079										
· · · · · · · · · · · · · · · · · · ·		,	MB			Sample	,	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit
AW14671	Solids, Dissolved	mg/L 5.0	25			143	56	40 to 60		4.38	5
AW14683	Chloride, Total	mg/L 0.00	0.25	10.00	9.76	0.00	9.87	9 to 11	97.6 80 to 120	0	20
AW14683	Fluoride, Total	mg/L 0.00	0.3	2.00	2.23	0.043	2.03	1.8 to 2.2	109 80 to 120	2.30	20
AW14683	Sulfate, Total	mg/L 0.483	1.0	20.00	20.5	0.498	20.0	18 to 22	99.9 80 to 120	2.58	20

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CC:



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-2

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14680

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 11/1/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
Antimony, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
Arsenic, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
Barium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01		0.0979	mg/L
Beryllium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	J	0.000930	mg/L
Boron, Total	HRG 6/28/2016	EPA 200.7	1.015	0.02	0.1	J	0.0202	mg/L
Calcium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.1	0.5		1.16	mg/L
Cadmium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
Cobalt, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Mercury, Total by CVAA	MCW 6/24/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
Molybdenum, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Lead, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
Thallium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 6/13/2016	SM 2540C	1		25		35.3	mg/L
Chloride, Total	SES 6/10/2016	EPA 300.0	1	0.04	0.25		4.28	mg/L
* Fluoride, Total	SES 6/10/2016	EPA 300.0	1	0.01	0.3	J	0.060	mg/L
Sulfate, Total	SES 6/10/2016	EPA 300.0	1	0.3	1		7.92	mg/L

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<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-2

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14680

Edbordtory ID Italiibor 71111-100	<u> </u>										
		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limi
W14683 Cobalt, Total	mg/L 0.00000189	0.0044	0.10	0.0949	0.0969	0.101	0.085 to 0.115	94.9	70 to 130	2.10	20
W14683 Antimony, Total	mg/L 0.000266	0.00132	0.10	0.0883	0.0897	0.0907	0.085 to 0.115	88.3	70 to 130	1.59	20
W14683 Beryllium, Total	mg/L 0.00	0.00132	0.10	0.100	0.103	0.105	0.085 to 0.115	100	70 to 130	2.84	20
W14681 Mercury, Total by CVAA	mg/L 0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8	70 to 130	0.764	20
W14683 Arsenic, Total	mg/L 0.0000124	0.0022	0.10	0.0953	0.0965	0.0989	0.085 to 0.115	95.3	70 to 130	1.29	20
W14683 Cadmium, Total	mg/L 0.00000371	0.00044	0.10	0.0951	0.0991	0.101	0.085 to 0.115	95.1	70 to 130	4.08	20
W14683 Selenium, Total	mg/L 0.0000757	0.0044	0.10	0.0975	0.0988	0.0999	0.085 to 0.115	97.5	70 to 130	1.28	20
W15623 Calcium, Total	mg/L 0.00206	0.22	5.00	333	343	4.69	4.25 to 5.75	120	70 to 130	2.96	20
W15623 Lithium, Total	mg/L 0.000377	0.022	0.20	0.409	0.416	0.195	0.17 to 0.23	119	70 to 130	1.70	20
W14683 Barium, Total	mg/L 0.00000574	0.0044	0.10	0.0937	0.0935	0.0957	0.085 to 0.115	93.7	70 to 130	0.164	20
W14683 Molybdenum, Total	mg/L 0.0000281	0.0044	0.10	0.0941	0.0942	0.0968	0.085 to 0.115	94.1	70 to 130	0.127	20
W15623 Boron, Total	mg/L 0.00244	0.044	1.00	1.18	1.11	1.05	0.85 to 1.15	110	70 to 130	6.11	20
W14683 Chromium, Total	mg/L 0.00000605	0.0044	0.10	0.0957	0.0971	0.0978	0.085 to 0.115	95.7	70 to 130	1.48	20
W14683 Lead, Total	mg/L 0.00000300	0.0022	0.10	0.0957	0.0963	0.0985	0.085 to 0.115	95.7	70 to 130	0.640	20
W14683 Thallium, Total	mg/L 0.00000861	0.00044	0.10	0.0961	0.0953	0.0980	0.085 to 0.115	96.1	70 to 130	0.773	20

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## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-2

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14680

	,	,	MB			Sample		LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit
AW14671	Solids, Dissolved	mg/L 5.0	25			143	56	40 to 60		4.38	5
AW14683	Sulfate, Total	mg/L 0.483	1.0	20.00	20.5	0.498	20.0	18 to 22	99.9 80 to 120	2.58	20
AW14683	Chloride, Total	mg/L 0.00	0.25	10.00	9.76	0.00	9.87	9 to 11	97.6 80 to 120	0	20
AW14683	Fluoride, Total	mg/L 0.00	0.3	2.00	2.23	0.043	2.03	1.8 to 2.2	109 80 to 120	2.30	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114 Issued By: State of Florida, Department of Health Expiration: June 30, 2018



#### **Corrected Copy**

Customer Account: WMWBARG 07-Jun-16 Sample Date:

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-9

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14681

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 11/1/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01		0.0998	mg/L
* Beryllium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 6/28/2016	EPA 200.7	1.015	0.02	0.1	J	0.0271	mg/L
* Calcium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.1	0.5		1.22	mg/L
* Cadmium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW 6/24/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 6/13/2016	SM 2540C	1		25		34.7	mg/L
* Chloride, Total	SES 6/10/2016	EPA 300.0	1	0.04	0.25		3.72	mg/L
* Fluoride, Total	SES 6/10/2016	EPA 300.0	1	0.01	0.3	J	0.085	mg/L
* Sulfate, Total	SES 6/10/2016	EPA 300.0	1	0.3	1		7.76	mg/L

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<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



#### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-9

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14681

		MB				,	LFB	Red		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Lim	t Prec	Limi
AW14683 Cobalt, Total	mg/L 0.00000189	0.0044	0.10	0.0949	0.0969	0.101	0.085 to 0.115	94.9 70 to	130 2.10	20
W14683 Beryllium, Total	mg/L 0.00	0.00132	0.10	0.100	0.103	0.105	0.085 to 0.115	100 70 to	130 2.84	20
W14683 Antimony, Total	mg/L 0.000266	0.00132	0.10	0.0883	0.0897	0.0907	0.085 to 0.115	88.3 70 to	130 1.59	20
W14681 Mercury, Total by CVAA	mg/L 0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8 70 to	130 0.764	20
W14683 Arsenic, Total	mg/L 0.0000124	0.0022	0.10	0.0953	0.0965	0.0989	0.085 to 0.115	95.3 70 to	130 1.29	20
W14683 Cadmium, Total	mg/L 0.00000371	0.00044	0.10	0.0951	0.0991	0.101	0.085 to 0.115	95.1 70 to	130 4.08	20
.W14683 Barium, Total	mg/L 0.00000574	0.0044	0.10	0.0937	0.0935	0.0957	0.085 to 0.115	93.7 70 to	130 0.164	20
W14683 Molybdenum, Total	mg/L 0.0000281	0.0044	0.10	0.0941	0.0942	0.0968	0.085 to 0.115	94.1 70 to	130 0.127	20
W15623 Boron, Total	mg/L 0.00244	0.044	1.00	1.18	1.11	1.05	0.85 to 1.15	110 70 to	130 6.11	20
W14683 Selenium, Total	mg/L 0.0000757	0.0044	0.10	0.0975	0.0988	0.0999	0.085 to 0.115	97.5 70 to	130 1.28	20
W15623 Calcium, Total	mg/L 0.00206	0.22	5.00	333	343	4.69	4.25 to 5.75	120 70 to	130 2.96	20
W15623 Lithium, Total	mg/L 0.000377	0.022	0.20	0.409	0.416	0.195	0.17 to 0.23	119 70 to	130 1.70	20
W14683 Chromium, Total	mg/L 0.00000605	0.0044	0.10	0.0957	0.0971	0.0978	0.085 to 0.115	95.7 70 to	130 1.48	20
W14683 Lead, Total	mg/L 0.00000300	0.0022	0.10	0.0957	0.0963	0.0985	0.085 to 0.115	95.7 70 to	130 0.640	20
W14683 Thallium, Total	mg/L 0.00000861	0.00044	0.10	0.0961	0.0953	0.0980	0.085 to 0.115	96.1 70 to	130 0.773	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-9

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14681

Labora	atory in Number. AW 14661											
			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW14683	Chloride, Total	mg/L 0.00	0.25	10.00	9.76	0.00	9.87	9 to 11	97.6	80 to 120	0	20
AW14654	Solids, Dissolved	mg/L 5.0	25			465	56	40 to 60			0.432	5
AW14683	Fluoride, Total	mg/L 0.00	0.3	2.00	2.23	0.043	2.03	1.8 to 2.2	109	80 to 120	2.30	20
AW14683	Sulfate. Total	mg/L 0.483	1.0	20.00	20.5	0.498	20.0	18 to 22	99 9	80 to 120	2.58	20

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Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected. SGC 1/26/17

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114 Issued By: State of Florida, Department of Health



#### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-10

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14682

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 11/1/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01		0.118	mg/L
* Beryllium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 6/28/2016	EPA 200.7	1.015	0.02	0.1	J	0.0257	mg/L
* Calcium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.1	0.5		0.799	mg/L
* Cadmium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	J	0.00247	mg/L
* Chromium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW 6/17/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 6/13/2016	SM 2540C	1		25		38.7	mg/L
* Chloride, Total	SES 6/10/2016	EPA 300.0	1	0.04	0.25		3.14	mg/L
* Fluoride, Total	SES 6/10/2016	EPA 300.0	1	0.01	0.3	J	0.098	mg/L
* Sulfate, Total	SES 6/10/2016	EPA 300.0	1	0.3	1		10.0	mg/L

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Issued By: State of Florida, Department of Health

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



#### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

Description: Barry Gypsum - MW-10

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14682

	. ,	MB	_				LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W14683 Beryllium, Total	mg/L 0.00	0.00132	0.10	0.100	0.103	0.105	0.085 to 0.115	100	70 to 130	2.84	20
W14683 Cobalt, Total	mg/L 0.00000189	0.0044	0.10	0.0949	0.0969	0.101	0.085 to 0.115	94.9	70 to 130	2.10	20
W14683 Selenium, Total	mg/L 0.0000757	0.0044	0.10	0.0975	0.0988	0.0999	0.085 to 0.115	97.5	70 to 130	1.28	20
W15623 Calcium, Total	mg/L 0.00206	0.22	5.00	333	343	4.69	4.25 to 5.75	120	70 to 130	2.96	20
W15623 Lithium, Total	mg/L 0.000377	0.022	0.20	0.409	0.416	0.195	0.17 to 0.23	119	70 to 130	1.70	20
W14683 Antimony, Total	mg/L 0.000266	0.00132	0.10	0.0883	0.0897	0.0907	0.085 to 0.115	88.3	70 to 130	1.59	20
W15009 Mercury, Total by CVAA	mg/L 0.00005	0.0005	0.004	0.00393	0.00399	0.00395	0.0034 to 0.0046	98.2	70 to 130	1.52	20
AW14683 Arsenic, Total	mg/L 0.0000124	0.0022	0.10	0.0953	0.0965	0.0989	0.085 to 0.115	95.3	70 to 130	1.29	20
W14683 Cadmium, Total	mg/L 0.00000371	0.00044	0.10	0.0951	0.0991	0.101	0.085 to 0.115	95.1	70 to 130	4.08	20
W14683 Chromium, Total	mg/L 0.00000605	0.0044	0.10	0.0957	0.0971	0.0978	0.085 to 0.115	95.7	70 to 130	1.48	20
W14683 Lead, Total	mg/L 0.00000300	0.0022	0.10	0.0957	0.0963	0.0985	0.085 to 0.115	95.7	70 to 130	0.640	20
W14683 Thallium, Total	mg/L 0.00000861	0.00044	0.10	0.0961	0.0953	0.0980	0.085 to 0.115	96.1	70 to 130	0.773	20
W14683 Barium, Total	mg/L 0.00000574	0.0044	0.10	0.0937	0.0935	0.0957	0.085 to 0.115	93.7	70 to 130	0.164	20
W14683 Molybdenum, Total	mg/L 0.0000281	0.0044	0.10	0.0941	0.0942	0.0968	0.085 to 0.115	94.1	70 to 130	0.127	20
AW15623 Boron, Total	mg/L 0.00244	0.044	1.00	1.18	1.11	1.05	0.85 to 1.15	110	70 to 130	6.11	20

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# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 

09-Jun-16

Description: Barry Gypsum - MW-10

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW14682

		'	MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW14683	Sulfate, Total	mg/L 0.483	1.0	20.00	20.5	0.498	20.0	18 to 22	99.9 8	80 to 120	2.58	20
AW14683	Chloride, Total	mg/L 0.00	0.25	10.00	9.76	0.00	9.87	9 to 11	97.6 8	80 to 120	0	20
AW14654	Solids, Dissolved	mg/L 5.0	25			465	56	40 to 60			0.432	5
AW14683	Fluoride, Total	mg/L 0.00	0.3	2.00	2.23	0.043	2.03	1.8 to 2.2	109 8	80 to 120	2.30	20

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# **Corrected Copy**

Customer Account: WMWBARGEB Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

**Description:** Barry Gypsum Equipment Blank

Laboratory ID Number: AW14683

To: Dustin Brooks

Greg Dyer

John Pugh

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Radiological							
Total Radium, Test America	SGC 11/1/2016	EPA 9315/9320	1			Attached	
Metals, Cyanide, Total Phenols							
* Antimony, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detecte	ed mg/L
* Arsenic, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U Not Detecte	ed mg/L
* Barium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U Not Detecte	ed mg/L
* Beryllium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detecte	ed mg/L
* Boron, Total	HRG 6/28/2016	EPA 200.7	1.015	0.02	0.1	U Not Detecte	ed mg/L
* Calcium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.1	0.5	U Not Detecte	ed mg/L
* Cadmium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detecte	ed mg/L
* Cobalt, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U Not Detecte	ed mg/L
* Chromium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U Not Detecte	ed mg/L
* Mercury, Total by CVAA	MCW 6/17/2016	EPA 245.1	1	0.00025	0.0005	U Not Detecte	ed mg/L
* Lithium, Total	HRG 6/28/2016	EPA 200.7	1.015	0.01	0.05	U Not Detecte	ed mg/L
<ul> <li>Molybdenum, Total</li> </ul>	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U Not Detecte	ed mg/L
* Lead, Total	ABB 6/16/2016	EPA 200.8	5.075	0.001	0.005	U Not Detecte	ed mg/L
* Selenium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.002	0.01	U Not Detecte	ed mg/L
* Thallium, Total	ABB 6/16/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detecte	ed mg/L
General Characteristics							
* Solids, Dissolved	DLJ 6/13/2016	SM 2540C	1		25	U Not Detecte	ed mg/L
* Chloride, Total	SES 6/10/2016	EPA 300.0	1	0.04	0.25	U Not Detecte	ed mg/L
* Fluoride, Total	SES 6/10/2016	EPA 300.0	1	0.01	0.3	J 0.044	mg/L
* Sulfate, Total	SES 6/10/2016	EPA 300.0	1	0.3	1	J 0.511	mg/L

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**Customer ID:** 

**Delivery Date:** 09-Jun-16

**Description**: Barry Gypsum Equipment Blank

Laboratory ID Number: AW14683

To: Dustin Brooks

Greg Dyer

John Pugh

		MB				,	LFB	Red	;	Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Lim	t Prec	Limit
W14683 Beryllium, Total	mg/L 0.00	0.00132	0.10	0.100	0.103	0.105	0.085 to 0.115	100 70 to	130 2.84	20
W14683 Selenium, Total	mg/L 0.0000757	0.0044	0.10	0.0975	0.0988	0.0999	0.085 to 0.115	97.5 70 to	130 1.28	20
W15623 Calcium, Total	mg/L 0.00206	0.22	5.00	333	343	4.69	4.25 to 5.75	120 70 to	130 2.96	20
W15623 Lithium, Total	mg/L 0.000377	0.022	0.20	0.409	0.416	0.195	0.17 to 0.23	119 70 to	130 1.70	20
W14683 Cobalt, Total	mg/L 0.00000189	0.0044	0.10	0.0949	0.0969	0.101	0.085 to 0.115	94.9 70 to	130 2.10	20
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W15009 Mercury, Total by CVAA	mg/L 0.00005	0.0005	0.004	0.00393	0.00399	0.00395	0.0034 to 0.0046	98.2 70 to	130 1.52	20
W14683 Chromium, Total	mg/L 0.00000605	0.0044	0.10	0.0957	0.0971	0.0978	0.085 to 0.115	95.7 70 to	130 1.48	20
W14683 Lead, Total	mg/L 0.00000300	0.0022	0.10	0.0957	0.0963	0.0985	0.085 to 0.115	95.7 70 to	130 0.640	20
W14683 Thallium, Total	mg/L 0.00000861	0.00044	0.10	0.0961	0.0953	0.0980	0.085 to 0.115	96.1 70 to	130 0.773	20
W14683 Barium, Total	mg/L 0.00000574	0.0044	0.10	0.0937	0.0935	0.0957	0.085 to 0.115	93.7 70 to	130 0.164	20
W14683 Molybdenum, Total	mg/L 0.0000281	0.0044	0.10	0.0941	0.0942	0.0968	0.085 to 0.115	94.1 70 to	130 0.127	20
W15623 Boron, Total	mg/L 0.00244	0.044	1.00	1.18	1.11	1.05	0.85 to 1.15	110 70 to	130 6.11	20
W14683 Arsenic, Total	mg/L 0.0000124	0.0022	0.10	0.0953	0.0965	0.0989	0.085 to 0.115	95.3 70 to	130 1.29	20
AW14683 Cadmium, Total	mg/L 0.00000371	0.00044	0.10	0.0951	0.0991	0.101	0.085 to 0.115	95.1 70 to	130 4.08	20

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#### **Corrected Copy**

Customer Account: WMWBARGEB Sample Date: 07-Jun-16

**Customer ID:** 

**Delivery Date:** 09-Jun-16

John Pugh

**Description**: Barry Gypsum Equipment Blank

Laboratory ID Number: AW14683

To: Dustin Brooks

Greg Dyer

	, , , , , , , , , , , , , , , , , , , ,										
		,	MB			Sample		LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit
AW14654	Solids, Dissolved	mg/L 5.0	25			465	56	40 to 60		0.432	5
AW14683	Chloride, Total	mg/L 0.00	0.25	10.00	9.76	0.00	9.87	9 to 11	97.6 80 to 120	0	20
AW14683	Fluoride, Total	mg/L 0.00	0.3	2.00	2.23	0.043	2.03	1.8 to 2.2	109 80 to 120	2.30	20
AW14683	Sulfate, Total	mg/L 0.483	1.0	20.00	20.5	0.498	20.0	18 to 22	99.9 80 to 120	2.58	20

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CC:

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FAX (205) 257-1654





Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the
	concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
В	Analyte found in reagent blank. Indicates possible reagent or background contamination.
Е	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
Р	Precision is out of range.
С	Analyte was verified by re-analysis.
Н	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as
	possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless
	otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



~	Field Complete
~	Lab Complete

Lab ETA 06/09/2016 11:00

Requested Complete D	ate Routine	Results To	Dustin Brooks
Site Representat	ive Angie Jimmerson	Requested By	Greg Dyer
Collec	tor Nick Pitts	Location	Barry Gypsum
Comments Rad	tle 3: Metals and Hg (1) 500 mL bottle, Bottle 4: TDS a Dup on MW-9 tle 1: Radiological; Bottle 2: Metals & Hg; Bottle 3: Ani		oottle, Bottles 1&2: Radiological (2) 2 L bottles

			Bottle		Lab	
Sample #	Date	Time	Count	Description	Filter	Lab Id
MW-3	06/07/2016	09:45	3	Groundwater		AW14679
MW-2	06/07/2016	10:40	3	Groundwater		AW14680
MW-9	06/07/2016	12:00	4	Groundwater		AW14681
MW-10	06/07/2016	12:55	3	Groundwater		AW14682
EB-1	06/07/2016	13:45	3	Equipment Blank		AW14683

Relinquished By	Received By	Date/Time
Stor Box	Sarah Copeland Digitally signed by Sarah Copeland DN: cn-Sarah Copeland, o, ou, email-segcopela@southernco.com, c=US Date: 2016.06.09 16.17.29 -0.500	06/09/2016 12:14

SmarTroll ID | 4696-23443-3-2 Turbidity ID | 3901-20010-2-2 All metals and radiological bottles have pH < 2 🔽 Cooler Temp 0.0 degrees Celsius

Thermometer ID 4303-21829-1-1

Page 51 of 52 PH Strip ID 4831-24376-20-3



~	Field Complete
~	Lab Complete

Lab ETA 06/09/2016 12:15

Requested Complete Da	ate Routine	Results To	Dustin Brooks
Site Representat	ive Angie Jimmerson	Requested By	Greg Dyer
Collect	tor Jason Rouss	Location	Barry Gypsum
Comments Bott	tle 3: Metals and Hg (1) 500 mL bottle, Bottle 4: TDS a tle 1: Radiological tle 2: Metals & Hg tle 3: Anions & TDS	nd Anions (1) 500 mL b	oottle, Bottles 1&2: Radiological (2) 2 L bottles

			Bottle		Lab	
Sample #	Date	Time	Count	Description	Filter	Lab Id
MW-6	06/06/2016	14:35	3	Groundwater		AW14671
MW-7	06/06/2016	15:38	4	Groundwater		AW14672
MW-4	06/06/2016	16:50	3	Groundwater		AW14673
MW-1	06/06/2016	18:00	3	Groundwater		AW14674
MW-1 Dup	06/06/2016	18:00	3	Sample Duplicate		AW14675
MW-5	06/07/2016	09:50	3	Groundwater		AW14676
MW-8	06/07/2016	10:50	3	Groundwater		AW14677
FB-1	06/07/2016	11:01	3	Field Blank		AW14678

Relinquished By	Received By	Date/Time
John	Sarah Copeland  Digitally signed by Sarah Copeland DN: cn-Sarah Copeland, o, ou, Date: 2016.06.10 09:3842 - 05:00' Date: 2016.06.10 09:3842 - 05:00'	06/09/2016 12:14

SmarTroll ID | 4696-23444-3-3 Turbidity ID LaMotte 112-3410

All metals and radiological bottles have pH < 2 🔽 Cooler Temp 0.0 degrees Celsius

Thermometer ID 4303-21829-1-1 Page 52 of 52

PH Strip ID 4831-24376-20-3



THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola 3355 McLemore Drive Pensacola, FL 32514 Tel: (850)474-1001

TestAmerica Job ID: 400-123616-1

TestAmerica Sample Delivery Group: Barry Gypsum (3)

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory 744 County Rd 87 GSC #8 Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by: 7/29/2016 5:39:23 PM

Cheyenne Whitmire, Project Manager II (850)471-6222

cheyenne.whitmire@testamericainc.com

·····LINKS ·······

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# **Method Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

#### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates. TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

#### **Laboratory References:**

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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# **Sample Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-123616-1	AW14671 MW-6	Water	06/06/16 14:35	06/28/16 15:41
400-123616-2	AW14672 MW-7	Water	06/06/16 15:38	06/28/16 15:41
400-123616-3	AW14673 MW-4	Water	06/06/16 16:50	06/28/16 15:41
400-123616-4	AW14674 MW-1	Water	06/06/16 18:00	06/28/16 15:41
400-123616-5	AW14675 MW-1 DUP	Water	06/06/16 18:00	06/28/16 15:41
400-123616-6	AW14676 MW-5	Water	06/07/16 09:50	06/28/16 15:41
400-123616-7	AW14677 MW-8	Water	06/07/16 10:50	06/28/16 15:41
400-123616-8	AW14678 FB-1	Water	06/07/16 11:01	06/28/16 15:41
400-123616-9	AW14679 MW-3	Water	06/07/16 09:45	06/28/16 15:41
400-123616-10	AW14680 MW-2	Water	06/07/16 10:40	06/28/16 15:41
400-123616-11	AW14681 MW-9	Water	06/07/16 12:00	06/28/16 15:41
400-123616-12	AW14682 MW-10	Water	06/07/16 12:55	06/28/16 15:41
400-123616-13	AW14683 EB-1	Water	06/07/16 13:45	06/28/16 15:41

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry SDG

Client Sample ID: AW14671 MW-6

Date Collected: 06/06/16 14:35 Date Received: 06/28/16 15:41 TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

Lab Sample ID: 400-123616-1

Matrix: Water

Method: 9315 - Ra	dium-226 (	(GFPC)								
		•	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.834		0.147	0.165	1.00	0.116	pCi/L	07/05/16 20:25	07/27/16 07:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					07/05/16 20:25	07/27/16 07:58	1

Method: 9320 - F	Radium-228 (	(GFPC)	Count	Total						
Analyte	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.636		0.315	0.320	1.00	0.468	pCi/L	07/05/16 20:47	07/22/16 14:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					07/05/16 20:47	07/22/16 14:06	1
Y Carrier	86.4		40 - 110					07/05/16 20:47	07/22/16 14:06	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radium	1-228					
_			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.47		0.347	0.360	5.00	0.468	pCi/L		07/28/16 20:03	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1

SDG: Barry Gypsum (3)

Client Sample ID: AW14672 MW-7

Date Collected: 06/06/16 15:38 Date Received: 06/28/16 15:41

Lab Sample ID: 400-123616-2

**Matrix: Water** 

Method: 9315 - Ra	ıdium-226 (	(GFPC)	Count Uncert.	Total Uncert.					
Analyte Radium-226	Result 0.236	Qualifier	(2σ+/-) 0.0863	(2σ+/-) 0.0888	<b>RL</b> 1.00	MDC 0.0989	 Prepared 07/05/16 20:25	Analyzed 07/27/16 07:58	Dil Fac
<b>Carrier</b> Ba Carrier	% <b>Yield</b> 90.3	Qualifier	Limits 40 - 110				<b>Prepared</b> 07/05/16 20:25	Analyzed 07/27/16 07:58	Dil Fac

Ba Carrier	90.3		40 - 110					07/05/16 20:25	07/27/16 07:58	1
Method: 9320 - Ra	adium-228 (	(GFPC)								
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.191	U	0.200	0.201	1.00	0.325	pCi/L	07/05/16 20:47	07/22/16 14:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					07/05/16 20:47	07/22/16 14:06	1
Y Carrier	95.3		40 - 110					07/05/16 20:47	07/22/16 14:06	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radiun	1-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.427		0.218	0.219	5.00	0.325	pCi/L		07/28/16 20:03	1

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-123616-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (3)

Lab Sample ID: 400-123616-3

**Matrix: Water** 

Client Sample ID: AW14673 MW-4

Date Collected: 06/06/16 16:50 Date Received: 06/28/16 15:41

Method: 9315 - R	adium-226 (	GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.277		0.0930	0.0963	1.00	0.100	pCi/L	07/05/16 20:25	07/27/16 07:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					07/05/16 20:25	07/27/16 07:58	1

Method: 9320 - F	Radium-228 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.480		0.288	0.291	1.00	0.435	pCi/L	07/05/16 20:47	07/22/16 14:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6	-	40 - 110					07/05/16 20:47	07/22/16 14:07	1
Y Carrier	80.4		40 - 110					07/05/16 20:47	07/22/16 14:07	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radiun	1-228					
_			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.757		0.302	0.306	5.00	0.435	pCi/L		07/28/16 20:03	1

7/29/2016

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

Lab Sample ID: 400-123616-4

**Matrix: Water** 

Client Sample ID: AW14674 MW-1

Date Collected: 06/06/16 18:00 Date Received: 06/28/16 15:41

Method: 9315 - R	adium-226 (	(GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.482		0.103	0.112	1.00	0.0662	pCi/L	07/05/16 20:25	07/27/16 07:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.6		40 - 110					07/05/16 20:25	07/27/16 07:58	1

Method: 9320 - I	Radium-228 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.359	U	0.237	0.239	1.00	0.364	pCi/L	07/05/16 20:47	07/22/16 14:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.6		40 - 110					07/05/16 20:47	07/22/16 14:07	1
Y Carrier	84.5		40 - 110					07/05/16 20:47	07/22/16 14:07	1

Method: Ra226_Ra	228 - Combine	ed Radium-226 a	and Radiur	n-228					
_		Count	Total						
		Uncert.	Uncert.						
Analyte	Result Qual	ifier (2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.841	0.258	0.264	5.00	0.364	pCi/L		07/28/16 20:03	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

Client Sample ID: AW14675 MW-1 DUP

Date Collected: 06/06/16 18:00 Date Received: 06/28/16 15:41

Method: 9320 - Radium-228 (GFPC)

Result Qualifier

%Yield Qualifier

0.399

97.2

86.0

Analyte

Carrier

Ba Carrier

Y Carrier

226 + 228

Radium-228

Lab Sample ID: 400-123616-5

**Matrix: Water** 

Method: 9315 - Ra	dium-226 (	GFPC)								
		•	Count Uncert.	Total Uncert.						
Analyte		Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC		Prepared	Analyzed	Dil Fac
Radium-226	0.356		0.0968	0.102	1.00	0.0997	pCi/L	07/05/16 20:25	07/27/16 07:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.2		40 - 110					07/05/16 20:25	07/27/16 07:57	1

RL

1.00

Total

Uncert.

(2σ+/-)

0.240

Count

Uncert.

(2σ+/-)

Limits

40 - 110

40 - 110

0.238

07/05/16 20:47 07/22/16 14:07

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radiun	n-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium	0.755		0.257	0.261	5.00	0.359	pCi/L		07/28/16 20:03	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

OBO. Burry Gypsum (o

Client Sample ID: AW14676 MW-5

Date Collected: 06/07/16 09:50 Date Received: 06/28/16 15:41 Lab Sample ID: 400-123616-6

Matrix: Water

Method: 9315 - R	Radium-226 (	(GFPC)								
		•	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.317		0.0964	0.101	1.00	0.105	pCi/L	07/05/16 20:25	07/27/16 07:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					07/05/16 20:25	07/27/16 07:57	1

Ba Carrier	89.7		40 - 110					07/05/16 20:25	07/27/16 07:57	1
Method: 9320 - R	Radium-228 (	(GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.711		0.280	0.287	1.00	0.384	pCi/L	07/05/16 20:47	07/22/16 14:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					07/05/16 20:47	07/22/16 14:07	1
Y Carrier	84.9		40 - 110					07/05/16 20:47	07/22/16 14:07	1

Method: Ra226_Ra	228 - Con	nbined Ra	dium-226 a	nd Radiun	1-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.03		0.296	0.304	5.00	0.384	pCi/L		07/28/16 20:03	1

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-123616-1 Project/Site: CCR Plant Barry

SDG: Barry Gypsum (3)

Client Sample ID: AW14677 MW-8

Lab Sample ID: 400-123616-7 Date Collected: 06/07/16 10:50 **Matrix: Water** 

Date Received: 06/28/16 15:41

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.319		0.0938	0.0981	1.00	0.0971	pCi/L	07/05/16 20:25	07/27/16 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					07/05/16 20:25	07/27/16 07:56	1

Method: 9320 - F	Radium-228 (	(GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.371	U	0.248	0.251	1.00	0.383	pCi/L	07/05/16 20:47	07/22/16 14:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					07/05/16 20:47	07/22/16 14:07	1
Y Carrier	87.5		40 - 110					07/05/16 20:47	07/22/16 14:07	1

Method: Ra226_Ra	228 - Combi	ned Radii	um-226 a	nd Radiun	1-228					
_			Count Uncert.	Total Uncert.						
Analyte	Result Qu	ualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.690		0.266	0.269	5.00	0.383	pCi/L		07/28/16 20:03	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

Client Sample ID: AW14678 FB-1

Date Collected: 06/07/16 11:01 Date Received: 06/28/16 15:41

Lab Sample ID: 400-123616-8 **Matrix: Water** 

Method: 9315 - R	Radium-226 (	GFPC)								
		,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0893	U	0.0704	0.0709	1.00	0.108	pCi/L	07/05/16 20:25	07/27/16 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					07/05/16 20:25	07/27/16 07:56	1

Method: 9320 -	Radium-228 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.217	Ū	0.262	0.262	1.00	0.432	pCi/L	07/05/16 20:47	07/22/16 14:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					07/05/16 20:47	07/22/16 14:07	1
Y Carrier	87.9		40 - 110					07/05/16 20:47	07/22/16 14:07	1

Method: Ra226_Ra	228 - Con	nbined Ra	dium-226 a	nd Radiun	1-228					
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226	0.306	U	0.271	0.272	5.00	0.432	pCi/L	<del></del>	07/28/16 20:03	1

+ 228

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

Client Sample ID: AW14679 MW-3

Date Collected: 06/07/16 09:45 Date Received: 06/28/16 15:41 Lab Sample ID: 400-123616-9

. Matrix: Water

Method: 9315 - Ra	dium-226 (	(GFPC)	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.179		0.0757	0.0774	1.00	0.0895	pCi/L	07/05/16 20:25	07/27/16 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					07/05/16 20:25	07/27/16 07:56	1

Method: 9320 - I	Radium-228 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.163	U	0.253	0.253	1.00	0.425	pCi/L	07/05/16 20:47	07/22/16 14:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					07/05/16 20:47	07/22/16 14:07	1
Y Carrier	82.6		40 - 110					07/05/16 20:47	07/22/16 14:07	1

Method: Ra226_Ra2	228 - Con	nbined Ra	dium-226 a	nd Radiun	n- <b>228</b>					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226	0.342	U	0.264	0.265	5.00	0.425	pCi/L		07/28/16 20:03	1

+ 228

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Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

Client Sample ID: AW14680 MW-2

Lab Sample ID: 400-123616-10 Date Collected: 06/07/16 10:40 **Matrix: Water** Date Received: 06/28/16 15:41

Method: 9315 - Ra	ndium-226 (	(GFPC)	Count Uncert.	Total Uncert.					
Analyte Radium-226	Result 0.307	Qualifier	( <b>2σ+/-)</b> 0.0913	( <b>2σ+/-)</b> 0.0954	RL 1.00	MDC 0.0914	 Prepared 07/05/16 20:25	Analyzed 07/27/16 07:56	Dil Fac
<b>Carrier</b> Ba Carrier	% <b>Yield</b> 95.2	Qualifier	Limits 40 - 110				<b>Prepared</b> 07/05/16 20:25	<b>Analyzed</b> 07/27/16 07:56	Dil Fac

Method: 9320 - I	Radium-228 (	(GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.344	U	0.250	0.252	1.00	0.391	pCi/L	07/05/16 20:47	07/22/16 14:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					07/05/16 20:47	07/22/16 14:08	1
Y Carrier	85.2		40 - 110					07/05/16 20:47	07/22/16 14:08	1

Method: Ra226_Ra	228 - Con	bined Rad	dium-226 a	nd Radiun	1-228					
_			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.652		0.266	0.270	5.00	0.391	pCi/L		07/28/16 20:03	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1

Lab Sample ID: 400-123616-11

SDG: Barry Gypsum (3)

Client Sample ID: AW14681 MW-9

Date Collected: 06/07/16 12:00 **Matrix: Water** Date Received: 06/28/16 15:41

Method: 9315 - R	Radium-226 (	(GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.568		0.120	0.130	1.00	0.101	pCi/L	07/05/16 20:25	07/27/16 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					07/05/16 20:25	07/27/16 07:56	1

Method: 9320 - Ra	ndium-228 (	(GFPC)								
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.373		0.234	0.237	1.00	0.356	pCi/L	07/05/16 20:47	07/22/16 14:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					07/05/16 20:47	07/22/16 14:08	1
Y Carrier	88.2		40 - 110					07/05/16 20:47	07/22/16 14:08	1

Method: Ra226_Ra2	228 - Con	nbined Ra	dium-226 a	nd Radiun	1-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.941		0.263	0.270	5.00	0.356	pCi/L		07/28/16 20:03	1

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-123616-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (3)

Client Sample ID: AW14682 MW-10

Date Collected: 06/07/16 12:55 Date Received: 06/28/16 15:41

Lab Sample ID: 400-123616-12 **Matrix: Water** 

Method: 9315 - F	Radium-226 (	(GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.484	-	0.107	0.115	1.00	0.0858	pCi/L	07/05/16 20:25	07/27/16 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					07/05/16 20:25	07/27/16 07:56	1

Method: 9320 - R	adium-228 (	(GFPC)								
		•	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.542		0.279	0.284	1.00	0.417	pCi/L	07/05/16 20:47	07/22/16 14:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					07/05/16 20:47	07/22/16 14:08	1
Y Carrier	89.0		40 - 110					07/05/16 20:47	07/22/16 14:08	1

Method: Ra226_Ra	228 - Con	nbined Ra	dium-226 a	nd Radiun	n-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium	1.03		0.299	0.306	5.00	0.417	pCi/L		07/28/16 20:03	1

226 + 228

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

Client Sample ID: AW14683 EB-1

Date Collected: 06/07/16 13:45 Date Received: 06/28/16 15:41 Lab Sample ID: 400-123616-13

Matrix: Water

Method: 9315 - Ra	dium-226 (	(GFPC)	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0180	Ū	0.0402	0.0402	1.00	0.0733	pCi/L	07/05/16 20:25	07/27/16 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					07/05/16 20:25	07/27/16 07:56	1

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.388	U	0.263	0.266	1.00	0.408	pCi/L	07/05/16 20:47	07/22/16 14:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					07/05/16 20:47	07/22/16 14:08	1
Y Carrier	84.9		40 - 110					07/05/16 20:47	07/22/16 14:08	1

Method: Ra226_Ra	228 - Con	nbined Ra	ıdium-226 a	nd Radiur	m-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226	0.406	U	0.266	0.269	5.00	0.408	pCi/L		07/28/16 20:03	1

+ 228

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#### **Definitions/Glossary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

#### **Qualifiers**

#### Rad

escription

U Result is less than the sample detection limit.

#### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
0/ 0	

Percent Recovery %R **CFL** Contains Free Liquid **CNF** Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision level concentration MDA Minimum detectable activity **EDL Estimated Detection Limit** MDC Minimum detectable concentration

MDL Method Detection Limit MLMinimum Level (Dioxin) NC Not Calculated

Not detected at the reporting limit (or MDL or EDL if shown) ND

**PQL Practical Quantitation Limit** 

**Quality Control** QC **RER** Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

**RPD** Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF **TEQ** Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

Lab Sample ID: 400-123616-1

**Matrix: Water** 

**Matrix: Water** 

**Matrix: Water** 

Client Sample ID: AW14671 MW-6 Date Collected: 06/06/16 14:35

Date Received: 06/28/16 15:41

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262335	07/27/16 07:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:06	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Lab Sample ID: 400-123616-2 Client Sample ID: AW14672 MW-7 **Matrix: Water** 

Date Collected: 06/06/16 15:38

Date Received: 06/28/16 15:41

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262335	07/27/16 07:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:06	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW14673 MW-4 Lab Sample ID: 400-123616-3

Date Collected: 06/06/16 16:50

Date Received: 06/28/16 15:41

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262335	07/27/16 07:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:07	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW14674 MW-1 Lab Sample ID: 400-123616-4

Date Collected: 06/06/16 18:00 Date Received: 06/28/16 15:41

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262335	07/27/16 07:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:07	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

SDG: Barry Gypsum (3)

Client Sample ID: AW14675 MW-1 DUP

Client: Alabama Power General Test Laboratory

Date Collected: 06/06/16 18:00 Date Received: 06/28/16 15:41

Project/Site: CCR Plant Barry

Lab Sample ID: 400-123616-5

**Matrix: Water** 

**Matrix: Water** 

**Matrix: Water** 

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:07	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Lab Sample ID: 400-123616-6 Client Sample ID: AW14676 MW-5

Date Collected: 06/07/16 09:50

Date Received: 06/28/16 15:41

<del></del>	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:07	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Lab Sample ID: 400-123616-7 Client Sample ID: AW14677 MW-8

Date Collected: 06/07/16 10:50 Date Received: 06/28/16 15:41

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:07	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Lab Sample ID: 400-123616-8 Client Sample ID: AW14678 FB-1

Date Collected: 06/07/16 11:01 Date Received: 06/28/16 15:41

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:07	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Lab Sample ID: 400-123616-9

Client Sample ID: AW14679 MW-3 Date Collected: 06/07/16 09:45

**Matrix: Water** 

Date Received: 06/28/16 15:41

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:07	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW14680 MW-2 Lab Sample ID: 400-123616-10

**Matrix: Water** 

Date Collected: 06/07/16 10:40 Date Received: 06/28/16 15:41

Γ	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:08	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW14681 MW-9 Lab Sample ID: 400-123616-11

**Matrix: Water** 

**Matrix: Water** 

Date Collected: 06/07/16 12:00 Date Received: 06/28/16 15:41

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:08	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Lab Sample ID: 400-123616-12 Client Sample ID: AW14682 MW-10

Date Collected: 06/07/16 12:55 Date Received: 06/28/16 15:41

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:08	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

#### **Lab Chronicle**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

Date Received: 06/28/16 15:41

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

Lab Sample ID: 400-123616-13

Client Sample ID: AW14683 EB-1 Date Collected: 06/07/16 13:45 **Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:08	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

#### **Laboratory References:**

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# **QC Association Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

#### Rad

**Prep Batch: 259247** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123616-1	AW14671 MW-6	Total/NA	Water	PrecSep-21	-
400-123616-2	AW14672 MW-7	Total/NA	Water	PrecSep-21	
400-123616-3	AW14673 MW-4	Total/NA	Water	PrecSep-21	
400-123616-4	AW14674 MW-1	Total/NA	Water	PrecSep-21	
400-123616-5	AW14675 MW-1 DUP	Total/NA	Water	PrecSep-21	
400-123616-6	AW14676 MW-5	Total/NA	Water	PrecSep-21	
400-123616-7	AW14677 MW-8	Total/NA	Water	PrecSep-21	
400-123616-8	AW14678 FB-1	Total/NA	Water	PrecSep-21	
400-123616-9	AW14679 MW-3	Total/NA	Water	PrecSep-21	
400-123616-10	AW14680 MW-2	Total/NA	Water	PrecSep-21	
400-123616-11	AW14681 MW-9	Total/NA	Water	PrecSep-21	
400-123616-12	AW14682 MW-10	Total/NA	Water	PrecSep-21	
400-123616-13	AW14683 EB-1	Total/NA	Water	PrecSep-21	
MB 160-259247/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-259247/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-123616-2 DU	AW14672 MW-7	Total/NA	Water	PrecSep-21	

#### **Prep Batch: 259249**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123616-1	AW14671 MW-6	Total/NA	Water	PrecSep_0	_
400-123616-2	AW14672 MW-7	Total/NA	Water	PrecSep_0	
400-123616-3	AW14673 MW-4	Total/NA	Water	PrecSep_0	
400-123616-4	AW14674 MW-1	Total/NA	Water	PrecSep_0	
400-123616-5	AW14675 MW-1 DUP	Total/NA	Water	PrecSep_0	
400-123616-6	AW14676 MW-5	Total/NA	Water	PrecSep_0	
400-123616-7	AW14677 MW-8	Total/NA	Water	PrecSep_0	
400-123616-8	AW14678 FB-1	Total/NA	Water	PrecSep_0	
400-123616-9	AW14679 MW-3	Total/NA	Water	PrecSep_0	
400-123616-10	AW14680 MW-2	Total/NA	Water	PrecSep_0	
400-123616-11	AW14681 MW-9	Total/NA	Water	PrecSep_0	
400-123616-12	AW14682 MW-10	Total/NA	Water	PrecSep_0	
400-123616-13	AW14683 EB-1	Total/NA	Water	PrecSep_0	
MB 160-259249/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-259249/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-123616-2 DU	AW14672 MW-7	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

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Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-259247/1-A

**Matrix: Water** 

**Matrix: Water** 

**Analysis Batch: 262335** 

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 259247

Count Total MB MB Uncert. Uncert. **Analyte** Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ RL **MDC** Unit Prepared Analyzed Dil Fac Radium-226 0.01406 U 0.0628 0.0628 1.00 0.115 pCi/L 07/05/16 20:24 07/27/16 07:58

MB MB

Carrier Qualifier Limits %Yield Ba Carrier 96.6 40 - 110

**Client Sample ID: Lab Control Sample** 

07/05/16 20:24 07/27/16 07:58

Prepared

Prep Type: Total/NA

Prep Batch: 259247

Dil Fac

Analyzed

**Analysis Batch: 262335** Total

Spike LCS LCS %Rec. Uncert. Analyte Added Result Qual  $(2\sigma + / -)$ RL**MDC** Unit %Rec Limits Radium-226 11.2 14.08 1.38 1.00 0.125 pCi/L 126 68 - 137

LCS LCS

Lab Sample ID: LCS 160-259247/2-A

Carrier %Yield Qualifier Limits Ba Carrier 93.4 40 - 110

Lab Sample ID: 400-123616-2 DU Client Sample ID: AW14672 MW-7

**Matrix: Water** 

**Analysis Batch: 262335** 

Prep Type: Total/NA

Prep Batch: 259247

Total Sample Sample DU DU Uncert. **RER** Analyte Result Qual Result Qual  $(2\sigma + / -)$ RL **MDC** Unit RER Limit Radium-226 0.236 0.1492 0.0842 1.00 0.118 pCi/L 0.50

DU DU

Carrier %Yield Qualifier Limits Ba Carrier 95.4 40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-259249/1-A

**Matrix: Water** 

**Analysis Batch: 261711** 

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 259249

			Count	Total						
	MB	MB	Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.02547	U	0.188	0.188	1.00	0.346	pCi/L	07/05/16 20:47	07/22/16 14:06	1

MB MB

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	96.6		40 - 110	07/05/16 20:47	07/22/16 14:06	1
Y Carrier	87.9		40 - 110	07/05/16 20:47	07/22/16 14:06	1

## **QC Sample Results**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

\_\_\_\_\_

### Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-259249/2-A

Matrix: Water

Analysis Batch: 261711

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 259249

			i otai				
\$	Spike LC	S LCS	Uncert.				%Rec.
Analyte A	dded Resu	t Qual	(2σ+/-)	RL	MDC Unit	%Rec	Limits
Radium-228	14.8 20.2	1	2.10	1.00	0.354 pCi/L	136	56 - 140

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	93.4		40 - 110
Y Carrier	86.4		40 - 110

Lab Sample ID: 400-123616-2 DU Client Sample ID: AW14672 MW-7

Matrix: Water Prep Type: Total/NA Analysis Batch: 261711 Prep Batch: 259249

					Total						
	Sample	Sample	DU	DU	Uncert.						RER
Analyte	Result	Qual	Result	Qual	(2σ+/-)	RL	MDC	Unit	RE	٦ ا	Limit
Radium-228	0.191	U	0.09004	U	0.199	1.00	0.343	pCi/L	 0.2	5	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	95.4		40 - 110
Y Carrier	89.0		40 - 110

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TestAmerica Pensacola

State   Control Horizontal Con		Sampler: Nick Pitts Phone: Due Date Requested (days TAT Requested (days WO #: 40007143 SSOW#: Sample Date 6/7/16	n l l l l l l l l l l l l l l l l l l l	Matr (w-wat S-soli O-wate Wate	.e. Cheyenna Ms/MSD: (Yes/Grido), 2316_Rs226, 9320_Ra226, Ra226Ra228_GFPC  — 9316_Ra226, 9320_Ra226, Ra226Ra228_GFPC  — 9316_Rs226, 9320_Ra226, Ra226Ra228_GFPC  — 10. Whit in the control of the contro	Sec Sec	rTracking No(s):	CCC No: 400-56825-2453 Page: Page 2 of 2 Job #: Preservation Cox A - HCL B - NaCH C - A Acetate D - Ninc Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid G - Amchlor H - Ascorbic Acid E - NaHSO4 F - MeOH C - Amchlor H - Ascorbic Acid A - DI Water K - EDTA C - EDA Other:  Special In	1. Hexane 1. Hexane 1. None 1. None 1. Na202 2. Na2045 2. Na203 3. Na25203 4. Na2803 7. Na2046 7. TSP Dodedahydrate 1. TSP Dodedahydrate 1. And Ab 1. Mc Ab
The Control of Contr	Laboratory	Phone:  Due Date Requested (days TAT Requested (days #: #0007143 SSOW#: 677/16 677/16		Matr (www Second Owner Wate	0. White	Rednesi	pe	Page: Page 2 of 2 Job #: Preservation Coc - Can Acetate D. Nitric Acid E. NathSO4 F. MeOH G. Amothior H. Ascorbic Acid I. Ice H. Ascorbic Acid G. Amothior H. Ascorbic Acid G. Amothior H. EDIA Other:  Special In	: 1- Hexane
Libroritory	Laboratory	Due Date Requested (days TAT Requested (days PO #: WO #: 40007143 SSOW#: 677/16 677/16	utine e	Matr (w-wat S-soli O-wate BT-Tissue Wate	Perform MS/MSDL(Yes/0g/NG), 5:34, 15;  Perform MS/MSDL(Yes/NG), 5:34, 15	Request	Day .	Preservation Coc Preservation Coc A + HCL B - NaCH C - Zn Acetate C - Zn Acetate C - NarkSO4 F - MeOH G - Amothlor H - Ascorbic Acid L - Le L - EDA Other:  Special In	1. Hexane 1. Hexane 1. AsNaO2 1. Na2SO3 1. Na2SO3 1. Hazso4 1. Hazso4 1. Hazso4 1. Hazso4 1. Hazso4 1. Hazso4 1. Hazso5 1. Haz
The Represented Front Head   The Representation Front Head   T		TAT Requested (days TAT Requested (days PO #: WO #: Project #: 40007143 Sample Date 6/7/16	ntine e	Matrix (wewater, Seconda, Owater Water	(on, io, eac) was with the state of the stat	Part Spirit		A- HCL B- NaOH C- Zn Acetate D- Ninric Acid E- NaHSO4 E- NaHSO4 E- NaHSO4 E- NaHSO4 E- NaOH G- Amothor H- Ascorbic Acid G- Pull Water K- EDTA L- EDA Other:  Special In	1. Hexane 1. None 1. None 1. None 1. No203 1. No203 1. No203 1. No203 1. No203 1. No203 1. No204 1. No None 1. Acetine 1.
The Representation of the Part   Fourtree		TAT Requested (days PO #: WO #: Project #: 40007143 SSOW#: 6/7/16 6/7/16	utine e e (e (c	Matrix (Wewater, Sesolid, Orwoster, Code,	Reflorm MS/MSD (Yes/Ot/No) / (S.) II [4]	Panificial		B - NaOH C - Zn Acetate D - Ninto Acid E - NaHSO Acid E - NaHSO Acid E - NaHSO Acid G - Amchlor H - Ascorbic Acid G - D I Water K - EDTA L - EDA Other:  Special In	- None - Ashado - Ashado - Ashado - Ashado - Ashado - Nazoso - Arcetine - Acetine - A
Total   Companies   Companie		PO #: WO #: Project #: 40007143 SSOW#: 677/16 677/16		Matrix (W=water, S=cold, O=wester) BT=TESUS, A=AP, Water Water	Perform MS/MSD (Yes Orlyo)	Pane Said		D - Ninric Acid E - NaH5O4 F - MeOH F - MeOH H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:  Special In	- Na204S - Na2203 - Na2803 - H2804 - TSP Dodecahydrate - MCAA - ph 4-5 - other (spedify)
Some continued   Some	Company of the compan	PO #: WO #: 40007143 SSOW#: 677/16 677/16		Matrix (wwwith, orwater, orwater) BT-Tresue, A-Akr) atton-Codes Water	Pérform MS/MSD (Yea or /bo)	Panthid		Special In	- H2504 - 159 Dodecahydrate - Acetone - Acetone - AmcAa - other (specify)
Sample Date   Sample   Sample   Cocone   Sample   Cocone   Cocon		wo #: Project #: 40007143 SSOW#: 6/7/16	<u> </u>	Matrix (Wewater, Sesolid, Orwestellid, BT-TESUE A-PAIL) attoric Codes: Water	(ON 10 8eY) GZM\ZM m10h94	Panthall		I - i ce J - Di Water K - EDTA L - EDA Other: Special In	- Acetone - MCAA - Ph 4-5 other (specify)
Sample   Creame   Sample   S		Project #: 40007143 SSOW#: Sample Date 677/16	<u> </u>	Matrix (W=water, Sesolid, O=watefold, O=wa	io set) GZM/ZM miohet	Paret and		C-EDA Other: Special In	- other (specify)
Sample   Carpet   C	A Control of the Cont	Ssow#: Sample Date 6/7/16	<u> </u>	Matrix (w=water, S=solid, O=watsfolil, BT=Tesue, A=Ar) attor.Codec	Y) demom msomer	Tanah ad		Otther:	ructions/Note:
Sample   Caronic   Time   Caronic		Sample Date 6/7/16 6/7/16	υ <u>0</u> /	Matrix (www.ee, Seeold, Cowesteold, BT-Tresue A-Alt) attoric Codes Water Water	M/SM miories	1 style of		MW-3	uctions/Note:
Sample Date   Time   Gegrab)   In-Treme, Analy   E. St.	A CONTRACTOR OF THE PROPERTY O	Sample Date 6/7/16		atton Code:  Water  Water	9d X	A Park April		MW-3	ructions/Note:
67716   0945   G   Water   X		6/7/16	<b>/</b>	Water	××	ø .			001 88410
6/17/16   1040   G   Water   X				Water	×				
6/7/16   1255   G   Water   X   X			_	, Alexan				-	
Fig. 1255   G   Water   X				Water	<u> </u>			2 MW-9	
Figure   F				Water	×				
				Water	×				nk)
Skin Intriant									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 mc   Sample Disposal By Lab   Archive For   Archive For   Special Instructions (OC Requirementis:   Method of Shipment   Date:   Time:   Time:   Method of Shipment   Date:   Date:   Time:   A PC   APC				-					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 mc							W. 72	and the	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 mc   Sample Disposal By Lab								,	
Skin Irritant	I to a material and the second				Sample Disposal	ssesse od new ood P/	ed if samples are reta	fained longer than 1 mo	outh)
her (specify)         Special Instructions/QC Requirements:           her (specify)         Date:         Time:         Time:         Date/Time:           Date/Time:         6/28/16; 1350         APC         Received by:         Date/Time:         Date/Time:           Date/Time:         Company         Received by:         Pate/Time:         Date/Time:         Company           Date/Time:         Company         Received by:         Pate/Time:         Date/Time:           Cooler Temperature(s) **C and Other Remarks:         Cooler Temperature(s) **C and Other Remarks:         Date/Time:	ant	L	Radiologica	1	Return To CI	lient Dispose	al By Lab	Archive For	Months
Date/Time: 6/27/16; 1350   Company   Received by.   Method of Shipment					Special Instructions	s/QC Requirements:			
Date/Time: 6/27/16; 1350   Company   Received by.   Date/Time:   Dat	quished by:	Date	ö	Ţ		V	Method of Shipment:		
Date/Time: Date/Time: Company Received by: Received by: Received by: Received by: Bet-Time: Date/Time: Date/Ti	ırah Copeland	Date/Time: 6/27/16; 1350		Company APC	Received by:		Date/Time:	Ö	Company
Date/Time: Company Received by: Date/Time: D	Legy tree		1541	Company	Received by:	Les	Date/Time: (C	14:	Company
Custody Seal No.:				Company	Received by:	<b>/</b>		Ö	Company
					Cooler Temperatur	ıre(s) °C and Other Remarks:			

# Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-123616-1 SDG Number: Barry Gypsum (3)

List Source: TestAmerica Pensacola

Login Number: 123616

List Number: 1

Creator: Siddoway, Benjamin

oreator. Siddoway, Denjamin		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica Pensacola

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

### **Laboratory: TestAmerica Pensacola**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-16 *
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	08-31-16

### Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	07-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

<sup>\*</sup> Certification renewal pending - certification considered valid.

TestAmerica Pensacola

7/29/2016

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## **Certification Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-123616-1 SDG: Barry Gypsum (3)

### **Laboratory: TestAmerica St. Louis (Continued)**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
Oklahoma	State Program	6	9997	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16 *
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-16 *
West Virginia DEP	State Program	3	381	08-31-16 *

sum (3)

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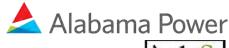
11

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<sup>\*</sup> Certification renewal pending - certification considered valid.

TestAmerica Pensacola

# Analytical Report





 $\textbf{Sample Group:} \ \ \mathsf{WMWBARG\_39}$ 

Project/Site: Barry Gypsum

Bucks, AL 36512

For: Southern Company Services

42 Inverness Center Parkway Birmingham, AL 35242

Attention: Dustin Brooks & Greg Dyer

Released By: Sarah Copeland

sgcopela@southernco.com

(205) 664-6121

The following data has been reviewed and approved by:

Quality Control: Supervision:

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





### **Anions**

### Barry Gypsum

### WMWBARG\_39

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	<b>Chloride Batch ID</b>	Fluoride Batch ID	Sulfate Batch ID	Project ID
AW22371	574534	574536	574538	WMWBARG_39
AW22372	574534	574536	574538	WMWBARG_39
AW22373	574534	574536	574538	WMWBARG_39
AW22374	574534	574536	574538	WMWBARG_39
AW22375	574534	574536	574538	WMWBARG_39
AW22376	574534	574536	574538	WMWBARG_39
AW22377	574534	574536	574538	WMWBARG_39
AW22378	574534	574536	574538	WMWBARG_39
AW22379	574534	574536	574538	WMWBARG_39
AW22380	574535	574537	574539	WMWBARG_39
AW22381	574535	574537	574539	WMWBARG_39
AW22382	574535	574537	574539	WMWBARG_39
AW22383	574535	574537	574539	WMWBARG_39

- 4. All of the above samples were analyzed and prepared by EPA 300.0.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

### **General Quality Control Procedures:**

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met.
- All laboratory reagent blanks were less than the method detection limits for the requested anions.
- All laboratory fortified blanks were within acceptance criteria for the anions requested.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical
  sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range,
  any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any
  qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of
  review.

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Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A laboratory fortified matrix (LFM) sample was analyzed with each batch. All acceptance criteria for accuracy were met.
- A sample duplicate and/or laboratory fortified matrix duplicate were analyzed with each batch. All acceptance criteria for precision were met. It is noted that separate and distinct criteria for duplicate precision calculations, based on sample and duplicate anion concentrations, are used to assess precision compliance. These are as follow: if the sample and duplicate are both greater than 5x anion Reporting Limit (RL) concentration, the precision is calculated and reported as relative percent difference (RPD), with an acceptance range of 0 20%; if either the sample or duplicate are less than 5x anion RL, the precision is calculated and reported as the absolute value of the difference between the two concentrations, with an acceptance range of less than or equal to the anion RL value.
- 7. All batch samples were analyzed without a dilution.
- 8. The raw data results are shown with dilution factors included, when dilutions are manually performed by the analyst.

The raw data results are shown without dilution factor corrections, when dilutions are run automatically by the instrument.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





### Metals ICP

### **Barry Gypsum**

### WMWBARG\_39

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW22371	20160921C	WMWBARG_39
AW22372	20160921C	WMWBARG_39
AW22373	20160921C	WMWBARG_39
AW22374	20160921C	WMWBARG_39
AW22375	20160921C	WMWBARG_39
AW22376	20160921C	WMWBARG_39
AW22377	20160921C	WMWBARG_39
AW22378	20160921C	WMWBARG_39
AW22379	20160921C	WMWBARG_39
AW22380	20160921D	WMWBARG_39
AW22381	20160921D	WMWBARG_39
AW22382	20160921D	WMWBARG_39
AW22383	20160921D	WMWBARG_39

- 4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

### **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed without a dilution.
- 8. The raw data results include both results corrected for dilution and results not corrected for dilution.

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Metals ICPMS

Barry Gypsum

WMWBARG\_39

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW22371	575508	WMWBARG_39
AW22372	575508	WMWBARG_39
AW22373	575508	WMWBARG_39
AW22374	575508	WMWBARG_39
AW22375	575508	WMWBARG_39
AW22376	575508	WMWBARG_39
AW22377	575508	WMWBARG_39
AW22378	575508	WMWBARG_39
AW22379	575509	WMWBARG_39
AW22380	575509	WMWBARG_39
AW22381	575509	WMWBARG_39
AW22382	575509	WMWBARG_39
AW22383	575509	WMWBARG_39

- 4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.
- 7. Cadmium MDL increased from 0.0001mg/L to 0.0002mg/L.

### **General Quality Control Procedures:**

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

### Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
- 8. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
- 9. The raw data results are shown with dilution factors included.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





### Mercury

### Barry Gypsum

### WMWBARG\_39

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW22371	575061	WMWBARG_39
AW22372	575061	WMWBARG_39
AW22373	575061	WMWBARG_39
AW22374	575061	WMWBARG_39
AW22375	575061	WMWBARG_39
AW22376	575061	WMWBARG_39
AW22377	575872	WMWBARG_39
AW22378	575872	WMWBARG_39
AW22379	575872	WMWBARG_39
AW22380	575872	WMWBARG_39
AW22381	575872	WMWBARG_39
AW22382	575872	WMWBARG_39
AW22383	575872	WMWBARG 39

- 4. All of the above samples were analyzed and prepared by EPA 245.1.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

### **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed without a dilution.
- 8. The raw data results are shown with dilution factors included.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





TDS

### Barry Gypsum

### WMWBARG\_39

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW22371	574712	WMWBARG_39
AW22372	574712	WMWBARG_39
AW22373	574712	WMWBARG_39
AW22374	574712	WMWBARG_39
AW22375	574712	WMWBARG_39
AW22376	574712	WMWBARG_39
AW22377	574712	WMWBARG_39
AW22378	574712	WMWBARG_39
AW22379	574712	WMWBARG_39
AW22380	574713	WMWBARG_39
AW22381	574713	WMWBARG_39
AW22382	574713	WMWBARG_39
AW22383	574713	WMWBARG_39

- 4. All of the above samples were analyzed by Standard Method 2540C.
- 5. All samples were analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.
- 7. The reporting limit for TDS was incorrectly listed as 2.5mg/L. This has been corrected based on filter volume and project limits. Samples AW22377 and AW22380 are now reported as Not Detected.

### **General Quality Control Procedures:**

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AW22375 and AW22378 which were
   <2.5 mg.</li>



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-10

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22371

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 12/5/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01		0.126	mg/L
* Beryllium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 9/21/2016	EPA 200.7	1	0.02	0.1	J	0.0317	mg/L
* Calcium, Total	HRG 9/21/2016	EPA 200.7	1	0.1	0.5		0.788	mg/L
* Cadmium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	J	0.00251	mg/L
* Chromium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 9/9/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 9/21/2016	EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 9/7/2016	SM 2540C	1		25		34.0	mg/L
* Chloride, Total	SES 9/2/2016	EPA 300.0	1	0.04	0.25		2.93	mg/L
* Fluoride, Total	SES 9/2/2016	EPA 300.0	1	0.01	0.3	J	0.089	mg/L
* Sulfate, Total	SES 9/2/2016	EPA 300.0	1	0.3	1		11.1	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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2.5 mg/L. The RL has now been corrected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



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**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-10

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22371

·		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
W22378 Antimony, Total	mg/L 0.0000585	0.00132	0.10	0.0948	0.0963	0.0993	0.085 to 0.115	94.8 70 to 130	1.56	20
W22378 Beryllium, Total	mg/L 0.00000700	0.00132	0.10	0.105	0.105	0.107	0.085 to 0.115	105 70 to 130	0.106	20
W22378 Selenium, Total	mg/L 0.0000552	0.0044	0.10	0.0994	0.0987	0.103	0.085 to 0.115	99.4 70 to 130	0.772	20
W22378 Arsenic, Total	mg/L 0.0000152	0.0022	0.10	0.0999	0.102	0.103	0.085 to 0.115	99.9 70 to 130	2.07	20
W22378 Lead, Total	mg/L 0.00000940	0.0022	0.10	0.103	0.104	0.102	0.085 to 0.115	103 70 to 130	0.643	20
W22378 Cobalt, Total	mg/L -0.00000217	0.0044	0.10	0.0966	0.0986	0.1000	0.085 to 0.115	96.6 70 to 130	2.11	20
W22378 Molybdenum, Total	mg/L 0.0000118	0.0044	0.10	0.0976	0.100	0.102	0.085 to 0.115	97.6 70 to 130	2.65	20
W22378 Thallium, Total	mg/L 0.0000226	0.00044	0.10	0.102	0.103	0.0994	0.085 to 0.115	102 70 to 130	0.965	20
W22376 Mercury, Total by CVAA	mg/L 0.0000980	0.0005	0.004	0.00391	0.00391	0.00388	0.0034 to 0.0046	97.8 70 to 130	0.251	20
W22379 Lithium, Total	mg/L 0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107 70 to 130	7.73	20
W22378 Barium, Total	mg/L -0.00000123	0.0044	0.10	0.0972	0.0992	0.0988	0.085 to 0.115	97.2 70 to 130	2.06	20
W22379 Calcium, Total	mg/L -0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8 70 to 130	0.528	20
W22378 Cadmium, Total	mg/L 0.000000619	0.00044	0.10	0.101	0.104	0.104	0.085 to 0.115	101 70 to 130	2.83	20
W22378 Chromium, Total	mg/L 0.0000102	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103 70 to 130	2.49	20
W22379 Boron, Total	mg/L 0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4 70 to 130	1.70	20

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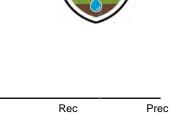
Description: Barry Gypsum - MW-10

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22371



			MB			Sample		LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit
AW22370	Solids, Dissolved	mg/L -1.0	25			450	47	40 to 60		0.662	5
AW22379	Sulfate, Total	mg/L 0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4 80 to 12	0 1.67	20
AW22379	Chloride, Total	mg/L 0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100 80 to 12	0.218	20
AW22379	Fluoride, Total	mg/L 0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101 80 to 12	5.26	20

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CC:

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Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-9

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22372

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 12/5/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
<ul> <li>Antimony, Total</li> </ul>	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01		0.106	mg/L
* Beryllium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 9/21/2016	EPA 200.7	1	0.02	0.1	J	0.0272	mg/L
* Calcium, Total	HRG 9/21/2016	EPA 200.7	1	0.1	0.5		1.18	mg/L
* Cadmium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW 9/9/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 9/21/2016	EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 9/7/2016	SM 2540C	1		25		26.7	mg/L
* Chloride, Total	SES 9/2/2016	EPA 300.0	1	0.04	0.25		4.80	mg/L
* Fluoride, Total	SES 9/2/2016	EPA 300.0	1	0.01	0.3	J	0.078	mg/L
* Sulfate, Total	SES 9/2/2016	EPA 300.0	1	0.3	1		8.22	mg/L

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## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-9

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22372

		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AW22378 Antimony, Total	mg/L 0.0000585	0.00132	0.10	0.0948	0.0963	0.0993	0.085 to 0.115	94.8 70 to 130	1.56	20
AW22378 Cadmium, Total	mg/L 0.000000619	0.00044	0.10	0.101	0.104	0.104	0.085 to 0.115	101 70 to 130	2.83	20
AW22378 Chromium, Total	mg/L 0.0000102	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103 70 to 130	2.49	20
AW22379 Boron, Total	mg/L 0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4 70 to 130	1.70	20
AW22378 Arsenic, Total	mg/L 0.0000152	0.0022	0.10	0.0999	0.102	0.103	0.085 to 0.115	99.9 70 to 130	2.07	20
AW22378 Lead, Total	mg/L 0.00000940	0.0022	0.10	0.103	0.104	0.102	0.085 to 0.115	103 70 to 130	0.643	20
AW22378 Beryllium, Total	mg/L 0.00000700	0.00132	0.10	0.105	0.105	0.107	0.085 to 0.115	105 70 to 130	0.106	20
AW22378 Selenium, Total	mg/L 0.0000552	0.0044	0.10	0.0994	0.0987	0.103	0.085 to 0.115	99.4 70 to 130	0.772	20
AW22378 Barium, Total	mg/L -0.00000123	0.0044	0.10	0.0972	0.0992	0.0988	0.085 to 0.115	97.2 70 to 130	2.06	20
AW22379 Calcium, Total	mg/L -0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8 70 to 130	0.528	20
AW22378 Cobalt, Total	mg/L -0.00000217	0.0044	0.10	0.0966	0.0986	0.1000	0.085 to 0.115	96.6 70 to 130	2.11	20
AW22378 Molybdenum, Total	mg/L 0.0000118	0.0044	0.10	0.0976	0.100	0.102	0.085 to 0.115	97.6 70 to 130	2.65	20
AW22378 Thallium, Total	mg/L 0.0000226	0.00044	0.10	0.102	0.103	0.0994	0.085 to 0.115	102 70 to 130	0.965	20
AW22376 Mercury, Total by CVAA	mg/L 0.0000980	0.0005	0.004	0.00391	0.00391	0.00388	0.0034 to 0.0046	97.8 70 to 130	0.251	20
AW22379 Lithium, Total	mg/L 0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107 70 to 130	7.73	20

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Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-9

To: Dustin Brooks

Greg Dyer

John Pugh

Labora	atory ID Number: AW22372										
		,	MB			Sample		LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplica	te LFB	Limit	Rec Limit	Prec	Limit
AW22370	Solids, Dissolved	mg/L -1.0	25			450	47	40 to 60		0.662	5
AW22379	Sulfate, Total	mg/L 0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4 80 to 120	) 1.67	20
AW22379	Chloride, Total	mg/L 0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100 80 to 120	0.218	20
AW22379	Fluoride, Total	ma/L 0 000	0.3	2 00	2.05	0.037	2 01	1.8 to 2.2	101 80 to 120	) 5 26	20

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## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-1

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22373

Name	Analyst Test D	ate Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological				·				
Total Radium, Test America	SGC 12/5/2	016 EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	JHK 9/14/2	016 EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	JHK 9/14/2	016 EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 9/14/2	016 EPA 200.8	5.075	0.002	0.01		0.106	mg/L
* Beryllium, Total	JHK 9/14/2	016 EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 9/21/2	016 EPA 200.7	1	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 9/21/2	016 EPA 200.7	1	0.1	0.5		1.11	mg/L
* Cadmium, Total	JHK 9/14/2	016 EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	JHK 9/14/2	016 EPA 200.8	5.075	0.002	0.01	J	0.00348	mg/L
* Chromium, Total	JHK 9/14/2	016 EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW 9/9/20	16 EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 9/21/2	016 EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 9/14/2	016 EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 9/14/2	016 EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 9/14/2	016 EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 9/14/2	016 EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 9/7/20	16 SM 2540C	1		25		33.3	mg/L
* Chloride, Total	SES 9/2/20	16 EPA 300.0	1	0.04	0.25		3.91	mg/L
* Fluoride, Total	SES 9/2/20	16 EPA 300.0	1	0.01	0.3	J	0.053	mg/L
* Sulfate, Total	SES 9/2/20	16 EPA 300.0	1	0.3	1		9.74	mg/L

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Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-1

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22373

		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AW22378 Antimony, Total	mg/L 0.0000585	0.00132	0.10	0.0948	0.0963	0.0993	0.085 to 0.115	94.8 70 to 1	30 1.56	20
AW22378 Barium, Total	mg/L -0.00000123	0.0044	0.10	0.0972	0.0992	0.0988	0.085 to 0.115	97.2 70 to 1	30 2.06	20
W22379 Calcium, Total	mg/L -0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8 70 to 1	30 0.528	20
AW22378 Cobalt, Total	mg/L -0.00000217	0.0044	0.10	0.0966	0.0986	0.1000	0.085 to 0.115	96.6 70 to 1	30 2.11	20
W22378 Molybdenum, Total	mg/L 0.0000118	0.0044	0.10	0.0976	0.100	0.102	0.085 to 0.115	97.6 70 to 1	30 2.65	20
W22378 Thallium, Total	mg/L 0.0000226	0.00044	0.10	0.102	0.103	0.0994	0.085 to 0.115	102 70 to 1	30 0.965	20
W22378 Arsenic, Total	mg/L 0.0000152	0.0022	0.10	0.0999	0.102	0.103	0.085 to 0.115	99.9 70 to 1	30 2.07	20
W22378 Lead, Total	mg/L 0.00000940	0.0022	0.10	0.103	0.104	0.102	0.085 to 0.115	103 70 to 1	30 0.643	20
W22378 Beryllium, Total	mg/L 0.00000700	0.00132	0.10	0.105	0.105	0.107	0.085 to 0.115	105 70 to 1	30 0.106	20
W22378 Selenium, Total	mg/L 0.0000552	0.0044	0.10	0.0994	0.0987	0.103	0.085 to 0.115	99.4 70 to 1	30 0.772	20
W22378 Cadmium, Total	mg/L 0.000000619	0.00044	0.10	0.101	0.104	0.104	0.085 to 0.115	101 70 to 1	30 2.83	20
W22378 Chromium, Total	mg/L 0.0000102	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103 70 to 1	30 2.49	20
W22379 Boron, Total	mg/L 0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4 70 to 1	30 1.70	20
W22376 Mercury, Total by CVAA	mg/L 0.0000980	0.0005	0.004	0.00391	0.00391	0.00388	0.0034 to 0.0046	97.8 70 to 1	30 0.251	20
AW22379 Lithium, Total	mg/L 0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107 70 to 1	30 7.73	20

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MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

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2.5 mg/L. The RL has now been corrected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-1

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number:	AW22373

	, := :::::::::::::::::::::::::::::::										
		,	MB			Sample	,	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit
AW22370	Solids, Dissolved	mg/L -1.0	25			450	47	40 to 60		0.662	5
AW22379	Sulfate, Total	mg/L 0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4 80 to 120	1.67	20
AW22379	Chloride, Total	mg/L 0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100 80 to 120	0.218	20
AW22379	Fluoride, Total	mg/L 0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101 80 to 120	5.26	20

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\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114 Issued By: State of Florida, Department of Health Expiration: June 30, 2018

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-2

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22374

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 12/5/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01		0.108	mg/L
* Beryllium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 9/21/2016	EPA 200.7	1	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 9/21/2016	EPA 200.7	1	0.1	0.5		1.08	mg/L
* Cadmium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 9/9/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 9/21/2016	EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 9/7/2016	SM 2540C	1		25		27.3	mg/L
* Chloride, Total	SES 9/2/2016	EPA 300.0	1	0.04	0.25		4.26	mg/L
* Fluoride, Total	SES 9/2/2016	EPA 300.0	1	0.01	0.3	J	0.050	mg/L
* Sulfate, Total	SES 9/2/2016	EPA 300.0	1	0.3	1		8.17	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-2

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22374

Laboratory ID Number. AVV22374										
		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
W22378 Antimony, Total	mg/L 0.0000585	0.00132	0.10	0.0948	0.0963	0.0993	0.085 to 0.115	94.8 70 to 130	1.56	20
W22378 Cadmium, Total	mg/L 0.00000061	9 0.00044	0.10	0.101	0.104	0.104	0.085 to 0.115	101 70 to 130	2.83	20
W22378 Chromium, Total	mg/L 0.0000102	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103 70 to 130	2.49	20
AW22379 Boron, Total	mg/L 0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4 70 to 130	1.70	20
AW22378 Arsenic, Total	mg/L 0.0000152	0.0022	0.10	0.0999	0.102	0.103	0.085 to 0.115	99.9 70 to 130	2.07	20
W22378 Lead, Total	mg/L 0.00000940	0.0022	0.10	0.103	0.104	0.102	0.085 to 0.115	103 70 to 130	0.643	20
W22378 Cobalt, Total	mg/L -0.0000021	7 0.0044	0.10	0.0966	0.0986	0.1000	0.085 to 0.115	96.6 70 to 130	2.11	20
W22378 Molybdenum, Total	mg/L 0.0000118	0.0044	0.10	0.0976	0.100	0.102	0.085 to 0.115	97.6 70 to 130	2.65	20
W22378 Thallium, Total	mg/L 0.0000226	0.00044	0.10	0.102	0.103	0.0994	0.085 to 0.115	102 70 to 130	0.965	20
W22378 Beryllium, Total	mg/L 0.00000700	0.00132	0.10	0.105	0.105	0.107	0.085 to 0.115	105 70 to 130	0.106	20
AW22378 Selenium, Total	mg/L 0.0000552	0.0044	0.10	0.0994	0.0987	0.103	0.085 to 0.115	99.4 70 to 130	0.772	20
AW22378 Barium, Total	mg/L -0.0000012	3 0.0044	0.10	0.0972	0.0992	0.0988	0.085 to 0.115	97.2 70 to 130	2.06	20
W22379 Calcium, Total	mg/L -0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8 70 to 130	0.528	20
AW22376 Mercury, Total by CVAA	mg/L 0.0000980	0.0005	0.004	0.00391	0.00391	0.00388	0.0034 to 0.0046	97.8 70 to 130	0.251	20
W22379 Lithium, Total	mg/L 0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107 70 to 130	7.73	20

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Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-2

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22374

Labora	atory in Number. Avv22374											
		,	MB			Sample	,	LFB	R	ес		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Li	imit	Prec	Limit
AW22370	Solids, Dissolved	mg/L -1.0	25			450	47	40 to 60			0.662	5
AW22379	Sulfate, Total	mg/L 0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4 80	) to 120	1.67	20
AW22379	Chloride, Total	mg/L 0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100 80	to 120	0.218	20
AW22379	Fluoride, Total	mg/L 0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101 80	) to 120	5.26	20

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CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



# **Corrected Copy**

Customer Account: WMWBARGEB Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW22375

To: Dustin Brooks

Greg Dyer

John Pugh

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Radiological							
Total Radium, Test America	SGC 12/5/2016	EPA 9315/9320	1			Attached	
Metals, Cyanide, Total Phenols							
* Antimony, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG 9/21/2016	EPA 200.7	1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG 9/21/2016	EPA 200.7	1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW 9/9/2016	EPA 245.1	1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG 9/21/2016	EPA 200.7	1	0.01	0.05	U Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics							
* Solids, Dissolved	DLJ 9/7/2016	SM 2540C	1		25	U Not Detected	mg/L
* Chloride, Total	SES 9/2/2016	EPA 300.0	1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES 9/2/2016	EPA 300.0	1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES 9/2/2016	EPA 300.0	1	0.3	1	U Not Detected	mg/L

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Issued By: State of Florida, Department of Health

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<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARGEB Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW22375

To: Dustin Brooks

Greg Dyer

John Pugh

		MB					LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W22378 Antimony, Total	mg/L 0.0000585	0.00132	0.10	0.0948	0.0963	0.0993	0.085 to 0.115	94.8	70 to 130	1.56	20
W22378 Barium, Total	mg/L -0.00000123	0.0044	0.10	0.0972	0.0992	0.0988	0.085 to 0.115	97.2	70 to 130	2.06	20
W22379 Calcium, Total	mg/L -0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8	70 to 130	0.528	20
W22378 Beryllium, Total	mg/L 0.00000700	0.00132	0.10	0.105	0.105	0.107	0.085 to 0.115	105	70 to 130	0.106	20
.W22378 Selenium, Total	mg/L 0.0000552	0.0044	0.10	0.0994	0.0987	0.103	0.085 to 0.115	99.4	70 to 130	0.772	20
.W22378 Arsenic, Total	mg/L 0.0000152	0.0022	0.10	0.0999	0.102	0.103	0.085 to 0.115	99.9	70 to 130	2.07	20
.W22378 Lead, Total	mg/L 0.00000940	0.0022	0.10	0.103	0.104	0.102	0.085 to 0.115	103	70 to 130	0.643	20
.W22378 Cadmium, Total	mg/L 0.000000619	0.00044	0.10	0.101	0.104	0.104	0.085 to 0.115	101	70 to 130	2.83	20
W22378 Chromium, Total	mg/L 0.0000102	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.49	20
W22379 Boron, Total	mg/L 0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4	70 to 130	1.70	20
.W22378 Cobalt, Total	mg/L -0.00000217	0.0044	0.10	0.0966	0.0986	0.1000	0.085 to 0.115	96.6	70 to 130	2.11	20
W22378 Molybdenum, Total	mg/L 0.0000118	0.0044	0.10	0.0976	0.100	0.102	0.085 to 0.115	97.6	70 to 130	2.65	20
W22378 Thallium, Total	mg/L 0.0000226	0.00044	0.10	0.102	0.103	0.0994	0.085 to 0.115	102	70 to 130	0.965	20
W22376 Mercury, Total by CVAA	mg/L 0.0000980	0.0005	0.004	0.00391	0.00391	0.00388	0.0034 to 0.0046	97.8	70 to 130	0.251	20
W22379 Lithium, Total	mg/L 0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107	70 to 130	7.73	20

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## **Corrected Copy**

Customer Account: WMWBARGEB Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW22375

To: Dustin Brooks

Greg Dyer

John Pugh

Labore	itory in italianer. Avvzzoro											
			MB			Sample		LFB	F	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec L	_imit	Prec	Limit
AW22370	Solids, Dissolved	mg/L -1.0	25			450	47	40 to 60			0.662	5
AW22379	Sulfate, Total	mg/L 0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4 8	80 to 120	1.67	20
AW22379	Chloride, Total	mg/L 0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100 8	0 to 120	0.218	20
AW22379	Fluoride, Total	mg/L 0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101 8	80 to 120	5.26	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

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<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-5

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22376

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 12/5/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01		0.0830	mg/L
* Beryllium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 9/21/2016	EPA 200.7	1	0.02	0.1	J	0.0858	mg/L
* Calcium, Total	HRG 9/21/2016	EPA 200.7	1	0.1	0.5		2.19	mg/L
* Cadmium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 9/9/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 9/21/2016	EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	J	0.00420	mg/L
* Thallium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 9/7/2016	SM 2540C	1		25		38.0	mg/L
* Chloride, Total	SES 9/2/2016	EPA 300.0	1	0.04	0.25		3.50	mg/L
* Fluoride, Total	SES 9/2/2016	EPA 300.0	1	0.01	0.3	J	0.046	mg/L
* Sulfate, Total	SES 9/2/2016	EPA 300.0	1	0.3	1		13.8	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-5

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22376

		MB					LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W22378 Antimony, Total	mg/L 0.0000585	0.00132	0.10	0.0948	0.0963	0.0993	0.085 to 0.115	94.8	70 to 130	1.56	20
W22378 Barium, Total	mg/L -0.00000123	0.0044	0.10	0.0972	0.0992	0.0988	0.085 to 0.115	97.2	70 to 130	2.06	20
W22379 Calcium, Total	mg/L -0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8	70 to 130	0.528	20
AW22378 Arsenic, Total	mg/L 0.0000152	0.0022	0.10	0.0999	0.102	0.103	0.085 to 0.115	99.9	70 to 130	2.07	20
W22378 Lead, Total	mg/L 0.00000940	0.0022	0.10	0.103	0.104	0.102	0.085 to 0.115	103	70 to 130	0.643	20
W22378 Beryllium, Total	mg/L 0.00000700	0.00132	0.10	0.105	0.105	0.107	0.085 to 0.115	105	70 to 130	0.106	20
W22378 Selenium, Total	mg/L 0.0000552	0.0044	0.10	0.0994	0.0987	0.103	0.085 to 0.115	99.4	70 to 130	0.772	20
W22378 Cobalt, Total	mg/L -0.00000217	0.0044	0.10	0.0966	0.0986	0.1000	0.085 to 0.115	96.6	70 to 130	2.11	20
W22378 Molybdenum, Total	mg/L 0.0000118	0.0044	0.10	0.0976	0.100	0.102	0.085 to 0.115	97.6	70 to 130	2.65	20
W22378 Thallium, Total	mg/L 0.0000226	0.00044	0.10	0.102	0.103	0.0994	0.085 to 0.115	102	70 to 130	0.965	20
W22376 Mercury, Total by CVAA	mg/L 0.0000980	0.0005	0.004	0.00391	0.00391	0.00388	0.0034 to 0.0046	97.8	70 to 130	0.251	20
W22379 Lithium, Total	mg/L 0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107	70 to 130	7.73	20
.W22378 Cadmium, Total	mg/L 0.000000619	0.00044	0.10	0.101	0.104	0.104	0.085 to 0.115	101	70 to 130	2.83	20
W22378 Chromium, Total	mg/L 0.0000102	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.49	20
W22379 Boron, Total	mg/L 0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4	70 to 130	1.70	20

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## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-5

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22376

Labora	itory in italianer. Avvzzoro											
			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22379	Sulfate, Total	mg/L 0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4	80 to 120	1.67	20
AW22370	Solids, Dissolved	mg/L -1.0	25			450	47	40 to 60			0.662	5
AW22379	Chloride, Total	mg/L 0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100	80 to 120	0.218	20
AW22379	Fluoride, Total	mg/L 0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101	80 to 120	5.26	20

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CC:

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Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-8

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22377

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 12/5/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01		0.0287	mg/L
* Beryllium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 9/21/2016	EPA 200.7	1	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 9/21/2016	EPA 200.7	1	0.1	0.5	J	0.495	mg/L
* Cadmium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	J	0.00205	mg/L
* Mercury, Total by CVAA	MCW 9/16/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 9/21/2016	EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 9/7/2016	SM 2540C	1		25	U	Not Detected	mg/L
* Chloride, Total	SES 9/2/2016	EPA 300.0	1	0.04	0.25		4.71	mg/L
* Fluoride, Total	SES 9/2/2016	EPA 300.0	1	0.01	0.3	J	0.038	mg/L
* Sulfate, Total	SES 9/2/2016	EPA 300.0	1	0.3	1		4.29	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has

been correctly changed to Not Detected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-8

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22377

		MB			•		LFB	Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
W22379 Lithium, Total	mg/L 0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107 70 to 130	7.73	20
W22378 Arsenic, Total	mg/L 0.0000152	0.0022	0.10	0.0999	0.102	0.103	0.085 to 0.115	99.9 70 to 130	2.07	20
W22378 Lead, Total	mg/L 0.00000940	0.0022	0.10	0.103	0.104	0.102	0.085 to 0.115	103 70 to 130	0.643	20
W22378 Cadmium, Total	mg/L 0.000000619	0.00044	0.10	0.101	0.104	0.104	0.085 to 0.115	101 70 to 130	2.83	20
W22378 Chromium, Total	mg/L 0.0000102	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103 70 to 130	2.49	20
W22379 Boron, Total	mg/L 0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4 70 to 130	1.70	20
W22378 Barium, Total	mg/L -0.00000123	0.0044	0.10	0.0972	0.0992	0.0988	0.085 to 0.115	97.2 70 to 130	2.06	20
W22379 Calcium, Total	mg/L -0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8 70 to 130	0.528	20
W22378 Beryllium, Total	mg/L 0.00000700	0.00132	0.10	0.105	0.105	0.107	0.085 to 0.115	105 70 to 130	0.106	20
W22378 Selenium, Total	mg/L 0.0000552	0.0044	0.10	0.0994	0.0987	0.103	0.085 to 0.115	99.4 70 to 130	0.772	20
W22378 Cobalt, Total	mg/L -0.00000217	0.0044	0.10	0.0966	0.0986	0.1000	0.085 to 0.115	96.6 70 to 130	2.11	20
W22378 Molybdenum, Total	mg/L 0.0000118	0.0044	0.10	0.0976	0.100	0.102	0.085 to 0.115	97.6 70 to 130	2.65	20
W22378 Thallium, Total	mg/L 0.0000226	0.00044	0.10	0.102	0.103	0.0994	0.085 to 0.115	102 70 to 130	0.965	20
W22378 Antimony, Total	mg/L 0.0000585	0.00132	0.10	0.0948	0.0963	0.0993	0.085 to 0.115	94.8 70 to 130	1.56	20
AW22766 Mercury, Total by CVAA	mg/L 0.000106	0.0005	0.004	0.00391	0.00391	0.00393	0.0034 to 0.0046	97.8 70 to 130	0.159	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-8

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW/22377

Labora	atory iD Number: AVV22377											
-			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22370	Solids, Dissolved	mg/L -1.0	25			450	47	40 to 60			0.662	5
AW22379	Sulfate, Total	mg/L 0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4 8	80 to 120	1.67	20
AW22379	Chloride, Total	mg/L 0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100 8	80 to 120	0.218	20
AW22379	Fluoride, Total	mg/L 0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101 {	30 to 120	5.26	20

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been correctly changed to Not Detected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



# **Corrected Copy**

Customer Account: WMWBARGFB Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

**Description:** Barry Gypsum Field Blank

Laboratory ID Number: AW22378

To: Dustin Brooks

Greg Dyer

John Pugh

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Radiological							
Total Radium, Test America	SGC 12/5/2016	EPA 9315/9320	1			Attached	
Metals, Cyanide, Total Phenols							
* Antimony, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG 9/21/2016	EPA 200.7	1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG 9/21/2016	EPA 200.7	1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW 9/16/2016	EPA 245.1	1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG 9/21/2016	EPA 200.7	1	0.01	0.05	U Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics							
* Solids, Dissolved	DLJ 9/7/2016	SM 2540C	1		25	U Not Detected	mg/L
* Chloride, Total	SES 9/2/2016	EPA 300.0	1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES 9/2/2016	EPA 300.0	1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES 9/2/2016	EPA 300.0	1	0.3	1	U Not Detected	mg/L

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# **Corrected Copy**

Customer Account: WMWBARGFB Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW22378

To: Dustin Brooks

Greg Dyer

John Pugh

		MB		'		'	LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AW22379 Lithium, Total	mg/L 0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107 70 to 130	7.73	20
AW22378 Antimony, Total	mg/L 0.0000585	0.00132	0.10	0.0948	0.0963	0.0993	0.085 to 0.115	94.8 70 to 130	1.56	20
AW22766 Mercury, Total by CVAA	mg/L 0.000106	0.0005	0.004	0.00391	0.00391	0.00393	0.0034 to 0.0046	97.8 70 to 130	0.159	20
AW22378 Barium, Total	mg/L -0.00000123	0.0044	0.10	0.0972	0.0992	0.0988	0.085 to 0.115	97.2 70 to 130	2.06	20
AW22379 Calcium, Total	mg/L -0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8 70 to 130	0.528	20
AW22378 Cobalt, Total	mg/L -0.00000217	0.0044	0.10	0.0966	0.0986	0.1000	0.085 to 0.115	96.6 70 to 130	2.11	20
AW22378 Molybdenum, Total	mg/L 0.0000118	0.0044	0.10	0.0976	0.100	0.102	0.085 to 0.115	97.6 70 to 130	2.65	20
AW22378 Thallium, Total	mg/L 0.0000226	0.00044	0.10	0.102	0.103	0.0994	0.085 to 0.115	102 70 to 130	0.965	20
AW22378 Beryllium, Total	mg/L 0.00000700	0.00132	0.10	0.105	0.105	0.107	0.085 to 0.115	105 70 to 130	0.106	20
AW22378 Selenium, Total	mg/L 0.0000552	0.0044	0.10	0.0994	0.0987	0.103	0.085 to 0.115	99.4 70 to 130	0.772	20
AW22378 Arsenic, Total	mg/L 0.0000152	0.0022	0.10	0.0999	0.102	0.103	0.085 to 0.115	99.9 70 to 130	2.07	20
AW22378 Lead, Total	mg/L 0.00000940	0.0022	0.10	0.103	0.104	0.102	0.085 to 0.115	103 70 to 130	0.643	20
AW22378 Cadmium, Total	mg/L 0.00000061	0.00044	0.10	0.101	0.104	0.104	0.085 to 0.115	101 70 to 130	2.83	20
AW22378 Chromium, Total	mg/L 0.0000102	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103 70 to 130	2.49	20
AW22379 Boron, Total	mg/L 0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4 70 to 130	1.70	20

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Issued By: State of Florida, Department of Health



# **Corrected Copy**

Customer Account: WMWBARGFB Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

**Description**: Barry Gypsum Field Blank

Laboratory ID Number: AW22378

To: Dustin Brooks

Greg Dyer

John Pugh

Luboit	itory ib italliber. Avvzzoro											
			MB			Sample	,	LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22370	Solids, Dissolved	mg/L -1.0	25			450	47	40 to 60			0.662	5
AW22379	Sulfate, Total	mg/L 0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4 8	30 to 120	1.67	20
AW22379	Chloride, Total	mg/L 0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100 8	30 to 120	0.218	20
AW22379	Fluoride, Total	mg/L 0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101 8	30 to 120	5.26	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-7

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22379

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 12/5/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01		0.0469	mg/L
* Beryllium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 9/21/2016	EPA 200.7	1	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 9/21/2016	EPA 200.7	1	0.1	0.5		1.13	mg/L
* Cadmium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 9/16/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 9/21/2016	EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 9/7/2016	SM 2540C	1		25		25.3	mg/L
* Chloride, Total	SES 9/2/2016	EPA 300.0	1	0.04	0.25		4.60	mg/L
* Fluoride, Total	SES 9/2/2016	EPA 300.0	1	0.01	0.3	J	0.039	mg/L
* Sulfate, Total	SES 9/2/2016	EPA 300.0	1	0.3	1		3.62	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-7

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22379

		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W22379 Calcium, Total	mg/L -0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8	70 to 130	0.528	20
W22383 Antimony, Total	mg/L 0.0000585	0.00132	0.10	0.0915	0.0918	0.0993	0.085 to 0.115	91.5	70 to 130	0.345	20
W22383 Barium, Total	mg/L -0.00000123	0.0044	0.10	0.169	0.172	0.0988	0.085 to 0.115	92.2	70 to 130	1.78	20
W22383 Cadmium, Total	mg/L 0.000000619	0.00044	0.10	0.1000	0.101	0.104	0.085 to 0.115	100	70 to 130	0.646	20
W22383 Arsenic, Total	mg/L 0.0000152	0.0022	0.10	0.0975	0.0996	0.103	0.085 to 0.115	97.5	70 to 130	2.14	20
.W22383 Cobalt, Total	mg/L -0.00000217	0.0044	0.10	0.0956	0.0956	0.1000	0.085 to 0.115	95.6	70 to 130	0.0458	20
W22766 Mercury, Total by CVAA	mg/L 0.000106	0.0005	0.004	0.00391	0.00391	0.00393	0.0034 to 0.0046	97.8	70 to 130	0.159	20
.W22383 Lead, Total	mg/L 0.00000940	0.0022	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.0100	20
W22383 Molybdenum, Total	mg/L 0.0000118	0.0044	0.10	0.0939	0.0956	0.102	0.085 to 0.115	93.9	70 to 130	1.79	20
W22383 Selenium, Total	mg/L 0.0000552	0.0044	0.10	0.0962	0.0968	0.103	0.085 to 0.115	96.2	70 to 130	0.670	20
W22379 Boron, Total	mg/L 0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4	70 to 130	1.70	20
W22383 Beryllium, Total	mg/L 0.00000700	0.00132	0.10	0.104	0.104	0.107	0.085 to 0.115	104	70 to 130	0.448	20
.W22379 Lithium, Total	mg/L 0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107	70 to 130	7.73	20
W22383 Chromium, Total	mg/L 0.0000102	0.0044	0.10	0.101	0.102	0.103	0.085 to 0.115	101	70 to 130	1.38	20
W22383 Thallium, Total	mg/L 0.0000226	0.00044	0.10	0.102	0.101	0.0994	0.085 to 0.115	102	70 to 130	0.103	20

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Customer Account: WMWBARG Sample Date: 30-Aug-16

**Delivery Date:** 01-Sep-16

Greg Dyer John Pugh **Customer ID:** 

Description: Barry Gypsum - MW-7

To: Dustin Brooks

Laboratory ID Number: AW22379

Labore	ttory in italianer. Avvzzora											
			MB			Sample		LFB	F	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec I	Limit	Prec	Limit
AW22370	Solids, Dissolved	mg/L -1.0	25			450	47	40 to 60			0.662	5
AW22379	Sulfate, Total	mg/L 0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4 8	30 to 120	1.67	20
AW22379	Chloride, Total	mg/L 0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100 8	30 to 120	0.218	20
AW22379	Fluoride, Total	mg/L 0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101 8	30 to 120	5.26	20

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CC:

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Issued By: State of Florida, Department of Health



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-7 Dup

Laboratory ID Number: AW22380

To: Dustin Brooks

Greg Dyer

John Pugh

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological				'				
Total Radium, Test America	SGC 12/5/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01		0.0456	mg/L
* Beryllium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 9/21/2016	EPA 200.7	1	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 9/21/2016	EPA 200.7	1	0.1	0.5		1.16	mg/L
* Cadmium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 9/16/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 9/21/2016	EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 9/7/2016	SM 2540C	1		25	U	Not Detected	mg/L
* Chloride, Total	SES 9/2/2016	EPA 300.0	1	0.04	0.25		4.59	mg/L
* Fluoride, Total	SES 9/2/2016	EPA 300.0	1	0.01	0.3	J	0.037	mg/L
* Sulfate, Total	SES 9/2/2016	EPA 300.0	1	0.3	1		3.36	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has

been correctly changed to Not Detected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-7 Dup

Laboratory ID Number: AW22380

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number. AVV22360	<u> </u>										
		MB					LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AW22383 Antimony, Total	mg/L 0.0000585	0.00132	0.10	0.0915	0.0918	0.0993	0.085 to 0.115	91.5	70 to 130	0.345	20
AW22383 Calcium, Total	mg/L -0.0408	0.22	5.00	6.36	6.33	4.85	4.25 to 5.75	94.7	70 to 130	0.473	20
AW22383 Barium, Total	mg/L -0.00000123	0.0044	0.10	0.169	0.172	0.0988	0.085 to 0.115	92.2	70 to 130	1.78	20
AW22383 Cadmium, Total	mg/L 0.000000619	0.00044	0.10	0.1000	0.101	0.104	0.085 to 0.115	100	70 to 130	0.646	20
AW22383 Arsenic, Total	mg/L 0.0000152	0.0022	0.10	0.0975	0.0996	0.103	0.085 to 0.115	97.5	70 to 130	2.14	20
AW22383 Cobalt, Total	mg/L -0.00000217	0.0044	0.10	0.0956	0.0956	0.1000	0.085 to 0.115	95.6	70 to 130	0.0458	20
AW22766 Mercury, Total by CVAA	mg/L 0.000106	0.0005	0.004	0.00391	0.00391	0.00393	0.0034 to 0.0046	97.8	70 to 130	0.159	20
AW22383 Lead, Total	mg/L 0.00000940	0.0022	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.0100	20
AW22383 Molybdenum, Total	mg/L 0.0000118	0.0044	0.10	0.0939	0.0956	0.102	0.085 to 0.115	93.9	70 to 130	1.79	20
AW22383 Selenium, Total	mg/L 0.0000552	0.0044	0.10	0.0962	0.0968	0.103	0.085 to 0.115	96.2	70 to 130	0.670	20
AW22383 Beryllium, Total	mg/L 0.00000700	0.00132	0.10	0.104	0.104	0.107	0.085 to 0.115	104	70 to 130	0.448	20
AW22383 Boron, Total	mg/L 0.00407	0.044	1.00	0.956	0.945	0.970	0.85 to 1.15	95.6	70 to 130	1.16	20
AW22383 Chromium, Total	mg/L 0.0000102	0.0044	0.10	0.101	0.102	0.103	0.085 to 0.115	101	70 to 130	1.38	20
AW22383 Lithium, Total	mg/L 0.000427	0.022	0.20	0.209	0.179	0.216	0.17 to 0.23	104	70 to 130	15.5	20
AW22383 Thallium, Total	mg/L 0.0000226	0.00044	0.10	0.102	0.101	0.0994	0.085 to 0.115	102	70 to 130	0.103	20

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has

been correctly changed to Not Detected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



# **Corrected Copy**

Customer Account: WMWBARG 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

To: Dustin Brooks Greg Dyer Sample Date: John Pugh

Description: Barry Gypsum - MW-7 Dup

Laboratory ID Number: AW22380

	11017 12 114111110011 7111122000											
			MB			Sample		LFB	1	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec I	Limit	Prec	Limit
AW22383	Chloride, Total	mg/L 0.000	0.25	10.00	13.7	3.71	9.85	9 to 11	100 8	30 to 120	0.270	20
AW22380	Solids, Dissolved	mg/L -1.0	25			26.0	47	40 to 60			0	5
AW22383	Fluoride, Total	mg/L 0.000	0.3	2.00	2.09	0.039	2.03	1.8 to 2.2	103 8	30 to 120	2.60	20
AW22383	Sulfate, Total	mg/L 0.003	1.0	20.00	28.1	8.47	19.7	18 to 22	98.4 8	30 to 120	0.473	20

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2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-6

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22381

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 12/5/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01		0.165	mg/L
* Beryllium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 9/21/2016	EPA 200.7	1	0.02	0.1		0.448	mg/L
* Calcium, Total	HRG 9/21/2016	EPA 200.7	1	0.1	0.5		10.9	mg/L
* Cadmium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	J	0.00227	mg/L
* Mercury, Total by CVAA	MCW 9/16/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 9/21/2016	EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01		0.0140	mg/L
* Thallium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 9/7/2016	SM 2540C	1		25		86.7	mg/L
* Chloride, Total	SES 9/2/2016	EPA 300.0	1	0.04	0.25		5.35	mg/L
* Fluoride, Total	SES 9/2/2016	EPA 300.0	1	0.01	0.3	J	0.072	mg/L
* Sulfate, Total	SES 9/2/2016	EPA 300.0	1	0.3	1		27.8	mg/L

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# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-6

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22381

	_	MB		•	•		LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AW22383 Antimony, Total	mg/L 0.0000585	0.00132	0.10	0.0915	0.0918	0.0993	0.085 to 0.115	91.5	70 to 130	0.345	20
W22383 Calcium, Total	mg/L -0.0408	0.22	5.00	6.36	6.33	4.85	4.25 to 5.75	94.7	70 to 130	0.473	20
W22383 Lead, Total	mg/L 0.00000940	0.0022	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.0100	20
W22383 Molybdenum, Total	mg/L 0.0000118	0.0044	0.10	0.0939	0.0956	0.102	0.085 to 0.115	93.9	70 to 130	1.79	20
W22383 Selenium, Total	mg/L 0.0000552	0.0044	0.10	0.0962	0.0968	0.103	0.085 to 0.115	96.2	70 to 130	0.670	20
W22383 Arsenic, Total	mg/L 0.0000152	0.0022	0.10	0.0975	0.0996	0.103	0.085 to 0.115	97.5	70 to 130	2.14	20
W22383 Cobalt, Total	mg/L -0.00000217	0.0044	0.10	0.0956	0.0956	0.1000	0.085 to 0.115	95.6	70 to 130	0.0458	20
W22766 Mercury, Total by CVAA	mg/L 0.000106	0.0005	0.004	0.00391	0.00391	0.00393	0.0034 to 0.0046	97.8	70 to 130	0.159	20
.W22383 Barium, Total	mg/L -0.00000123	0.0044	0.10	0.169	0.172	0.0988	0.085 to 0.115	92.2	70 to 130	1.78	20
.W22383 Cadmium, Total	mg/L 0.000000619	0.00044	0.10	0.1000	0.101	0.104	0.085 to 0.115	100	70 to 130	0.646	20
W22383 Chromium, Total	mg/L 0.0000102	0.0044	0.10	0.101	0.102	0.103	0.085 to 0.115	101	70 to 130	1.38	20
W22383 Lithium, Total	mg/L 0.000427	0.022	0.20	0.209	0.179	0.216	0.17 to 0.23	104	70 to 130	15.5	20
.W22383 Thallium, Total	mg/L 0.0000226	0.00044	0.10	0.102	0.101	0.0994	0.085 to 0.115	102	70 to 130	0.103	20
W22383 Beryllium, Total	mg/L 0.00000700	0.00132	0.10	0.104	0.104	0.107	0.085 to 0.115	104	70 to 130	0.448	20
W22383 Boron, Total	mg/L 0.00407	0.044	1.00	0.956	0.945	0.970	0.85 to 1.15	95.6	70 to 130	1.16	20

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-6

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22381



		,	MB			Sample	'	LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22383	Chloride, Total	mg/L 0.000	0.25	10.00	13.7	3.71	9.85	9 to 11	100	80 to 120	0.270	20
AW22380	Solids, Dissolved	mg/L -1.0	25			26.0	47	40 to 60			0	5
AW22383	Fluoride, Total	mg/L 0.000	0.3	2.00	2.09	0.039	2.03	1.8 to 2.2	103	80 to 120	2.60	20
AW22383	Sulfate, Total	mg/L 0.003	1.0	20.00	28.1	8.47	19.7	18 to 22	98.4	80 to 120	0.473	20

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2.5 mg/L. The RL has now been corrected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114 Issued By: State of Florida, Department of Health Expiration: June 30, 2018



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-4

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22382

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 12/5/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01		0.0841	mg/L
* Beryllium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 9/21/2016	EPA 200.7	1	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 9/21/2016	EPA 200.7	1	0.1	0.5		1.31	mg/L
* Cadmium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW 9/16/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 9/21/2016	EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 9/7/2016	SM 2540C	1		25		25.3	mg/L
* Chloride, Total	SES 9/2/2016	EPA 300.0	1	0.04	0.25		3.54	mg/L
* Fluoride, Total	SES 9/2/2016	EPA 300.0	1	0.01	0.3	J	0.036	mg/L
* Sulfate, Total	SES 9/2/2016	EPA 300.0	1	0.3	1		7.57	mg/L

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Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-4

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22382

Eustratory ID Italiasor /11122002											
		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W22383 Calcium, Total	mg/L -0.0408	0.22	5.00	6.36	6.33	4.85	4.25 to 5.75	94.7	70 to 130	0.473	20
W22383 Antimony, Total	mg/L 0.0000585	0.00132	0.10	0.0915	0.0918	0.0993	0.085 to 0.115	91.5	70 to 130	0.345	20
W22383 Barium, Total	mg/L -0.0000012	3 0.0044	0.10	0.169	0.172	0.0988	0.085 to 0.115	92.2	70 to 130	1.78	20
W22383 Cadmium, Total	mg/L 0.00000061	9 0.00044	0.10	0.1000	0.101	0.104	0.085 to 0.115	100	70 to 130	0.646	20
W22383 Lead, Total	mg/L 0.00000940	0.0022	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.0100	20
W22383 Molybdenum, Total	mg/L 0.0000118	0.0044	0.10	0.0939	0.0956	0.102	0.085 to 0.115	93.9	70 to 130	1.79	20
W22383 Selenium, Total	mg/L 0.0000552	0.0044	0.10	0.0962	0.0968	0.103	0.085 to 0.115	96.2	70 to 130	0.670	20
W22383 Beryllium, Total	mg/L 0.00000700	0.00132	0.10	0.104	0.104	0.107	0.085 to 0.115	104	70 to 130	0.448	20
AW22383 Boron, Total	mg/L 0.00407	0.044	1.00	0.956	0.945	0.970	0.85 to 1.15	95.6	70 to 130	1.16	20
AW22383 Arsenic, Total	mg/L 0.0000152	0.0022	0.10	0.0975	0.0996	0.103	0.085 to 0.115	97.5	70 to 130	2.14	20
AW22383 Cobalt, Total	mg/L -0.0000021	7 0.0044	0.10	0.0956	0.0956	0.1000	0.085 to 0.115	95.6	70 to 130	0.0458	20
AW22766 Mercury, Total by CVAA	mg/L 0.000106	0.0005	0.004	0.00391	0.00391	0.00393	0.0034 to 0.0046	97.8	70 to 130	0.159	20
AW22383 Chromium, Total	mg/L 0.0000102	0.0044	0.10	0.101	0.102	0.103	0.085 to 0.115	101	70 to 130	1.38	20
W22383 Lithium, Total	mg/L 0.000427	0.022	0.20	0.209	0.179	0.216	0.17 to 0.23	104	70 to 130	15.5	20
W22383 Thallium, Total	mg/L 0.0000226	0.00044	0.10	0.102	0.101	0.0994	0.085 to 0.115	102	70 to 130	0.103	20

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Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-4

Laboratory ID Number: AW22382

To: Dustin Brooks

Greg Dyer

John Pugh

Labora	itory in Number. Avvzzooz											
		,	MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22383	Chloride, Total	mg/L 0.000	0.25	10.00	13.7	3.71	9.85	9 to 11	100	80 to 120	0.270	20
AW22380	Solids, Dissolved	mg/L -1.0	25			26.0	47	40 to 60			0	5
AW22383	Fluoride, Total	mg/L 0.000	0.3	2.00	2.09	0.039	2.03	1.8 to 2.2	103	80 to 120	2.60	20
AW22383	Sulfate, Total	mg/L 0.003	1.0	20.00	28.1	8.47	19.7	18 to 22	98.4	80 to 120	0.473	20

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# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-3

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22383

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 12/5/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01		0.0768	mg/L
* Beryllium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 9/21/2016	EPA 200.7	1	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 9/21/2016	EPA 200.7	1	0.1	0.5		1.62	mg/L
* Cadmium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 9/16/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 9/21/2016	EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 9/14/2016	EPA 200.8	5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 9/14/2016	EPA 200.8	5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 9/7/2016	SM 2540C	1		25		31.3	mg/L
* Chloride, Total	SES 9/2/2016	EPA 300.0	1	0.04	0.25		3.70	mg/L
* Fluoride, Total	SES 9/2/2016	EPA 300.0	1	0.01	0.3	J	0.038	mg/L
* Sulfate, Total	SES 9/2/2016	EPA 300.0	1	0.3	1		8.43	mg/L

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Customer Account: WMWBARG Sample Date: 30-Aug-16

**Customer ID:** 

**Delivery Date:** 01-Sep-16

Description: Barry Gypsum - MW-3

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22383

Laboratory ID Number: AW22303				-	'	-	. ==				
		MB					LFB		Rec		Pre
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limi
W22383 Antimony, Total	mg/L 0.0000585	0.00132	0.10	0.0915	0.0918	0.0993	0.085 to 0.115	91.5	70 to 130	0.345	20
W22383 Calcium, Total	mg/L -0.0408	0.22	5.00	6.36	6.33	4.85	4.25 to 5.75	94.7	70 to 130	0.473	20
W22383 Beryllium, Total	mg/L 0.00000700	0.00132	0.10	0.104	0.104	0.107	0.085 to 0.115	104	70 to 130	0.448	20
AW22383 Boron, Total	mg/L 0.00407	0.044	1.00	0.956	0.945	0.970	0.85 to 1.15	95.6	70 to 130	1.16	20
W22383 Barium, Total	mg/L -0.00000123	0.0044	0.10	0.169	0.172	0.0988	0.085 to 0.115	92.2	70 to 130	1.78	20
W22383 Cadmium, Total	mg/L 0.000000619	0.00044	0.10	0.1000	0.101	0.104	0.085 to 0.115	100	70 to 130	0.646	20
W22383 Lead, Total	mg/L 0.00000940	0.0022	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.0100	20
W22383 Molybdenum, Total	mg/L 0.0000118	0.0044	0.10	0.0939	0.0956	0.102	0.085 to 0.115	93.9	70 to 130	1.79	20
W22383 Selenium, Total	mg/L 0.0000552	0.0044	0.10	0.0962	0.0968	0.103	0.085 to 0.115	96.2	70 to 130	0.670	20
AW22383 Arsenic, Total	mg/L 0.0000152	0.0022	0.10	0.0975	0.0996	0.103	0.085 to 0.115	97.5	70 to 130	2.14	20
AW22383 Cobalt, Total	mg/L -0.00000217	0.0044	0.10	0.0956	0.0956	0.1000	0.085 to 0.115	95.6	70 to 130	0.0458	20
AW22766 Mercury, Total by CVAA	mg/L 0.000106	0.0005	0.004	0.00391	0.00391	0.00393	0.0034 to 0.0046	97.8	70 to 130	0.159	20
AW22383 Chromium, Total	mg/L 0.0000102	0.0044	0.10	0.101	0.102	0.103	0.085 to 0.115	101	70 to 130	1.38	20
W22383 Lithium, Total	mg/L 0.000427	0.022	0.20	0.209	0.179	0.216	0.17 to 0.23	104	70 to 130	15.5	20
W22383 Thallium, Total	mg/L 0.0000226	0.00044	0.10	0.102	0.101	0.0994	0.085 to 0.115	102	70 to 130	0.103	20

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**Customer ID:** 

01-Sep-16

Sample Date:

**Delivery Date:** 

Description: Barry Gypsum - MW-3

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW22383

			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22383	Chloride, Total	mg/L 0.000	0.25	10.00	13.7	3.71	9.85	9 to 11	100	80 to 120	0.270	20
AW22380	Solids, Dissolved	mg/L -1.0	25			26.0	47	40 to 60			0	5
AW22383	Fluoride, Total	mg/L 0.000	0.3	2.00	2.09	0.039	2.03	1.8 to 2.2	103	80 to 120	2.60	20
AW22383	Sulfate, Total	mg/L 0.003	1.0	20.00	28.1	8.47	19.7	18 to 22	98.4	80 to 120	0.473	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

## Alabama Power General Test Laboratory **Definitions** 744 County Road 87, GSC#8 (205) 664-6032 or 6171

Calera, AL 35040

FAX (205) 257-1654





Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the
	concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description				
В	Analyte found in reagent blank. Indicates possible reagent or background contamination.				
Е	Estimated reported value exceeded calibration range.				
J	Reported value is an estimate because concentration is less than reporting limit.				
N	Organic constituents tentatively identified. Confirmation is needed.				
R	Matrix spike recovery is out of range.				
U	Compound was analyzed, but not detected.				
Р	Precision is out of range.				
С	Analyte was verified by re-analysis.				
Н	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as				
	possible after receipt by the laboratory.				
L	Check standard is outside of the required specification limit.				
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless				
	otherwise noted.				
F	Water Field Group (WFG) qualifier; see comments for more information				

ALABAMA POWER	Chain of Custody
Lab&	Groundwater  APC General Testing Laboratory
SERVICES	APC General Testing Laboratory
	General Service Complex Building 8

~	Field Complete
~	Lab Complete

Lab ETA	

	General Service Complex building 8							
Requested Complete Date		Date Routine	<del></del>		Results To	Dustin Brooks, John Pugh, Greg Dyer		
	Site Represen	resentative Angie Jimmerson			Requested By	Greg Dyer		
Collector		lector Nick P	itts		Location	Barry Gypsum		
Anal	ysis Requested Comments	Bottle 1: Radium 2	26 & 228 (1) 1L	bottle, Bott	le 2: Metals and Hg (1) 500 mL bot	tle, Bottle 3: TDS and	Anions (1) 500 mL b	ottle
	Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	
	MW-10	08/30/2016	10:25	3	Groundwater		AW22371	

			Bottle		Lab	
Sample #	Date	Time	Count	Description	Filter	Lab Id
MW-10	08/30/2016	10:25	3	Groundwater		AW22371
MW-9	08/30/2016	11:20	3	Groundwater		AW22372
MW-1	08/30/2016	12:43	3	Groundwater		AW22373
MW-2	08/30/2016	13:40	3	Groundwater		AW22374
EB-1	08/30/2016	15:55	3	Equipment Blank		AW22375

Relinquished By	Received By	Date/Time
Stor Boot	Sarah Copeland  Dictin	09/01/2016 17:16
-		

SmarTroll ID 5141-26150-1-1 Turbidity ID 3901-20010-2-2

All metals and radiological bottles have pH < 2 🗹 Cooler Temp 2.2 degrees C

Thermometer ID 5408-27568-2-2

pH Strip ID 4831-24392-20-19
Page 51 of 53



~	Field Complete
~	Lab Complete

Lab ETA 09/01/2016 12:30

	General Service Complex Building 8									
Requested Complete Date Routine Site Representative Angie Jimmerson Collector Jason Rouss						Results To Requested By Location	Greg Dy	/er	nn Pugh, Greg Dye	gr
Anal	ysis Requested Comments	Bottle 1: Radium 22	26 & 228 (1) 1L	bottle, Bott	le 2: Metals :	and Hg (1) 500 mL bo	ottle, Bottle 3	3: TDS and a	Anions (1) 500 mL bo	ottle
	Sample #	Date	Time	Bottle Count		Description		Lab Filter	Lab Id	
[	MW-5	08/30/2016	10:23	4	Ground	water			AW22376	
	MW-8	08/30/2016	11:28	3	Ground	water			AW22377	
	FB-1	08/30/2016	11:35	3	Ground	water			AW22378	
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						<i>v</i>				$\neg$
	m 11 rs			1	A 11	. 1 1 1	1 . 11	,,1 1		
SmarTroll ID 4696-23441-1-1				$\dashv$		etals and radio			have pH $< 2$	
Turbidity ID 4677-23342-4-1					The	Cooler Temp   rmometer ID	5409 275	69 2 2		
					ine	I Ct ctain ID	/831 2/2	02-20 10	)	
				Page	52 of 5	pH Strip ID	-10J 1-Z43	JZ ZU-13		

ALABAMA A POWER	Chain of Custody
Lab&	Groundwater APC General Testing Laboratory
Field	APC General Testing Laboratory
	General Service Complex Building 8

~	Field Complete
•	Lab Complete

Lab ETA	

	merar oer vi	0011	iipien i	ounding (	,							
Requested Complete Date		Date R	Routine				Results To	Dustin Brooks, John Pugh, Greg Dyer				
Site Representative		ative [	Angie Jimmerson				Requested By	Greg Dyer				
Collector		ector	Anthony Goggins			Location	Barry Gypsum					
'			adium 226	5 & 228 (1) 1L	bottle, Bottl	e 2: Metals	and Hg (1) 500 mL bot	tle, Bottle 3: TDS a	nd A	Anions (1) 500 mL bo	ottle	
Sa	mple #	Dat	te	Time	Bottle		Description	Lab		I ah Id		

			Bottle		Lab	
Sample #	Date	Time	Count	Description	Filter	Lab Id
MW-7	08/30/2016	10:18	3	Groundwater		AW22379
MW-7DUP	08/30/2016	10:18	3	Sample Duplicate		AW22380
MW-6	08/30/2016	11:25	3	Groundwater		AW22381
MW-4	08/30/2016	12:35	3	Groundwater		AW22382
MW-3	08/30/2016	13:40	3	Groundwater		AW22383
					-	

Relinquished By	Received By	Date/Time
anthony Goggins	Sarah Copeland Dictally signed by Sarah Copeland DNc cn-Sarah Copeland, o. ou, email-sopelandspouthernco.com, c=US Date: 2016.09.01 17:19:10 -05:00	09/01/2016 17:19
_	-	

SmarTroll ID 5151-26193-1-1 Turbidity ID 5160-26211-1-1

All metals and radiological bottles have pH < 2 🗹 Cooler Temp 2.2 degrees C

Thermometer ID 5408-27568-2-2 pH Strip ID 4831-24392-20-19
Page 53 of 53



THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola 3355 McLemore Drive Pensacola, FL 32514 Tel: (850)474-1001

TestAmerica Job ID: 400-126931-1

TestAmerica Sample Delivery Group: Barry Gypsum (4)

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory 744 County Rd 87 GSC #8 Calera, Alabama 35040

Attn: Sarah Copeland

Cheyroud Whitmin

Authorized for release by: 10/10/2016 6:03:44 PM

Cheyenne Whitmire, Project Manager II (850)471-6222

cheyenne.whitmire@testamericainc.com

.....LINKS .....

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**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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## **Case Narrative**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-126931-1

SDG: Barry Gypsum (4)

Job ID: 400-126931-1

Laboratory: TestAmerica Pensacola

**Narrative** 

Job Narrative 400-126931-1

### **RAD**

Method(s) PrecSep 0: Radium-228 Prep Batch 160-270098: The following samples were prepared at a reduced aliquot due to limited volume: AW22371 MW-10 (400-126931-1), AW22372 MW-9 (400-126931-2), AW22373 MW-10 (400-126931-3), AW22374 MW-2 (400-126931-4), AW22375 EB-1 (400-126931-5), AW22376 MW-5 (400-126931-6), AW22376 MW-5 (400-126931-6)DU]), AW22377 MW-8 (400-126931-7), AW22378 FB-1 (400-126931-8), AW22379 MW-7 (400-126931-9), AW22380 MW-7 DUP (400-126931-10), AW22381 MW-6 (400-126931-11), AW22382 MW-4 (400-126931-12) and AW22383 MW-3 (400-126931-13).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-270097: The following samples were prepared at a reduced aliquot due to limited volume: AW22371 MW-10 (400-126931-1), AW22372 MW-9 (400-126931-2), AW22373 MW-10 (400-126931-3), AW22374 MW-2 (400-126931-4), AW22375 EB-1 (400-126931-5), AW22376 MW-5 (400-126931-6), AW22376 MW-5 (400-126931-6)DU]), AW22377 MW-8 (400-126931-7), AW22378 FB-1 (400-126931-8), AW22379 MW-7 (400-126931-9), AW22380 MW-7 DUP (400-126931-10), AW22381 MW-6 (400-126931-11), AW22382 MW-4 (400-126931-12) and AW22383 MW-3 (400-126931-13).

# **Method Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-126931-1 SDG: Barry Gypsum (4)

SDG: Barry Gypsum (4)

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

## **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates. TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

## **Laboratory References:**

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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# **Sample Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-126931-1

SDG: Barry Gypsum (4)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-126931-1	AW22371 MW-10	Water	08/30/16 10:25	09/09/16 15:30
400-126931-2	AW22372 MW-9	Water	08/30/16 11:20	09/09/16 15:30
400-126931-3	AW22373 MW-10	Water	08/30/16 12:43	09/09/16 15:30
400-126931-4	AW22374 MW-2	Water	08/30/16 13:40	09/09/16 15:30
400-126931-5	AW22375 EB-1	Water	08/30/16 15:55	09/09/16 15:30
400-126931-6	AW22376 MW-5	Water	08/30/16 10:23	09/09/16 15:30
400-126931-7	AW22377 MW-8	Water	08/30/16 11:28	09/09/16 15:30
400-126931-8	AW22378 FB-1	Water	08/30/16 11:35	09/09/16 15:30
400-126931-9	AW22379 MW-7	Water	08/30/16 10:18	09/09/16 15:30
400-126931-10	AW22380 MW-7 DUP	Water	08/30/16 10:18	09/09/16 15:30
400-126931-11	AW22381 MW-6	Water	08/30/16 11:25	09/09/16 15:30
400-126931-12	AW22382 MW-4	Water	08/30/16 12:35	09/09/16 15:30
400-126931-13	AW22383 MW-3	Water	08/30/16 13:40	09/09/16 15:30

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-126931-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (4)

Client Sample ID: AW22371 MW-10

Lab Sample ID: 400-126931-1 Date Collected: 08/30/16 10:25 **Matrix: Water** 

Date Received: 09/09/16 15:30

Method: 9315 - R	Radium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.667		0.159	0.170	1.00	0.161	pCi/L	09/15/16 18:10	10/07/16 10:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.9		40 - 110					09/15/16 18:10	10/07/16 10:52	1

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.383	U	0.355	0.357	1.00	0.572	pCi/L	09/15/16 18:42	10/01/16 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.9		40 - 110					09/15/16 18:42	10/01/16 18:57	1
Y Carrier	81.5		40 - 110					09/15/16 18:42	10/01/16 18:57	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radium	-228					
_			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.05		0.389	0.395	5.00	0.572	pCi/L	_	10/10/16 04:03	1

10/10/2016

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-126931-1 SDG: Barry Gypsum (4) Project/Site: CCR Plant Barry

Client Sample ID: AW22372 MW-9

Lab Sample ID: 400-126931-2 Date Collected: 08/30/16 11:20 **Matrix: Water** 

Date Received: 09/09/16 15:30

Method: 9315 - R	adium-226 (	(GFPC)	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.640	·	0.154	0.165	1.00	0.152	pCi/L	09/15/16 18:10	10/07/16 10:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					09/15/16 18:10	10/07/16 10:52	1

Analysis	Danulé	Ovalities.	Count Uncert.	Total Uncert.	DI	MDC	11	Dunnamad	Anahmad	Dil F
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.340	U	0.384	0.385	1.00	0.630	pCi/L	09/15/16 18:42	10/01/16 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					09/15/16 18:42	10/01/16 18:57	1
Y Carrier	80.4		40 - 110					09/15/16 18:42	10/01/16 18:57	1

Method: Ra226_Ra	228 - Combine	d Radium-226	and Radiui	m-228					
_		Count	Total						
		Uncert.	Uncert.						
Analyte	Result Qualit	fier (2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.980	0.413	0.419	5.00	0.630	pCi/L		10/10/16 04:03	1

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-126931-1 SDG: Barry Gypsum (4) Project/Site: CCR Plant Barry

Client Sample ID: AW22373 MW-10

Lab Sample ID: 400-126931-3 Date Collected: 08/30/16 12:43 **Matrix: Water** 

Date Received: 09/09/16 15:30

Method: 9315 - R	Radium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.730		0.150	0.164	1.00	0.120	pCi/L	09/15/16 18:10	10/07/16 12:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					09/15/16 18:10	10/07/16 12:52	1

Method: 9320 - F		(0.1.5)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.01		0.499	0.508	1.00	0.750	pCi/L	09/15/16 18:42	10/01/16 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					09/15/16 18:42	10/01/16 18:57	1
Y Carrier	80.7		40 - 110					09/15/16 18:42	10/01/16 18:57	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radiun	1-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.74		0.521	0.533	5.00	0.750	pCi/L		10/10/16 04:03	1

10/10/2016

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-126931-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (4)

Client Sample ID: AW22374 MW-2

Lab Sample ID: 400-126931-4 Date Collected: 08/30/16 13:40 **Matrix: Water** 

Date Received: 09/09/16 15:30

Method: 9315 - R	adium-226 (	(GFPC)								
		,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.459		0.139	0.145	1.00	0.159	pCi/L	09/15/16 18:10	10/07/16 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					09/15/16 18:10	10/07/16 10:53	1

Method: 9320 -		,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0471	U	0.341	0.341	1.00	0.619	pCi/L	09/15/16 18:42	10/01/16 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					09/15/16 18:42	10/01/16 18:57	1
Y Carrier	79.3		40 - 110					09/15/16 18:42	10/01/16 18:57	1

Method: Ra226_Ra	228 - Comb	bined Ra	dium-226 a	nd Radiui	m-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result (	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226	0.411	U	0.368	0.370	5.00	0.619	pCi/L		10/10/16 04:03	1

+ 228

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-126931-1 SDG: Barry Gypsum (4)

Lab Sample ID: 400-126931-5

Client Sample ID: AW22375 EB-1

Date Collected: 08/30/16 15:55 Date Received: 09/09/16 15:30

**Matrix: Water** 

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analvzed	Dil Fac
Radium-226	0.0271		0.0541	0.0542	1.00	0.0974		09/15/16 18:10	10/07/16 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					09/15/16 18:10	10/07/16 10:53	1

Method: 9320 - I		(011 0)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.217	U	0.357	0.358	1.00	0.604	pCi/L	09/15/16 18:42	10/01/16 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					09/15/16 18:42	10/01/16 18:57	1
Y Carrier	80.0		40 - 110					09/15/16 18:42	10/01/16 18:57	1

Method: Ra226_Ra2	228 - Con	nbined Ra	dium-226 a	nd Radium	<b>-228</b>					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.244	Ū	0.361	0.362	5.00	0.604	pCi/L		10/10/16 04:03	1

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-126931-1 SDG: Barry Gypsum (4) Project/Site: CCR Plant Barry

Client Sample ID: AW22376 MW-5

Lab Sample ID: 400-126931-6 Date Collected: 08/30/16 10:23 **Matrix: Water** 

Date Received: 09/09/16 15:30

Method: 9315 - R	adium-226 (	GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.363	·-	0.112	0.117	1.00	0.110	pCi/L	09/15/16 18:10	10/07/16 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					09/15/16 18:10	10/07/16 10:53	1

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.332	U	0.384	0.385	1.00	0.632	pCi/L	09/15/16 18:42	10/01/16 18:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					09/15/16 18:42	10/01/16 18:58	1
Y Carrier	72.9		40 - 110					09/15/16 18:42	10/01/16 18:58	1

Method: Ra226_Ra	1228 - Con	nbined Ra	dium-226 a	ınd Radiui	m-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.696		0.400	0.402	5.00	0.632	pCi/L		10/10/16 04:03	1

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-126931-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (4)

Client Sample ID: AW22377 MW-8

Date Collected: 08/30/16 11:28 Date Received: 09/09/16 15:30

Lab Sample ID: 400-126931-7 **Matrix: Water** 

Method: 9315 - Radium-226 (GFPC) Total Count Uncert. Uncert. Analyte Result Qualifier **MDC** Unit Dil Fac  $(2\sigma + / -)$  $(2\sigma + / -)$ RL Prepared Analyzed 09/15/16 18:10 0.120 1.00 Radium-226 0.290 0.117 0.148 pCi/L 10/07/16 10:54 Carrier **%Yield Qualifier** Limits Prepared Analyzed Dil Fac 82.6 40 - 110 09/15/16 18:10 10/07/16 10:54 Ba Carrier

Method: 9320 - Radium-228 (GFPC) Count Total Uncert. Uncert. Analyte Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ RL **MDC** Unit Prepared Analyzed Dil Fac Radium-228 0.396 Ū 0.378 0.380 1.00 0.610 pCi/L 09/15/16 18:42 10/01/16 18:58 Carrier **%Yield Qualifier** Limits Prepared Analyzed Dil Fac Ba Carrier 82.6 40 - 110 09/15/16 18:42 10/01/16 18:58 Y Carrier 81.5 40 - 110 09/15/16 18:42 10/01/16 18:58

Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228 Count Total Uncert. Uncert. Analyte Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ RL **MDC** Unit Prepared Analyzed Dil Fac **Combined Radium** 0.687 0.395 0.398 5.00 0.610 pCi/L 10/10/16 04:03 226 + 228

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-126931-1 SDG: Barry Gypsum (4) Project/Site: CCR Plant Barry

Lab Sample ID: 400-126931-8

Client Sample ID: AW22378 FB-1

Date Collected: 08/30/16 11:35 **Matrix: Water** Date Received: 09/09/16 15:30

Method: 9315 - R	adium-226 (	(GFPC)								
		,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0788	U	0.0849	0.0852	1.00	0.138	pCi/L	09/15/16 18:10	10/07/16 10:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					09/15/16 18:10	10/07/16 10:54	1

	•							00, 10, 10 10, 10		•
	Radium-228 (	(GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0717	U	0.327	0.327	1.00	0.598	pCi/L	09/15/16 18:42	10/01/16 18:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					09/15/16 18:42	10/01/16 18:58	1
Y Carrier	80.0		40 - 110					09/15/16 18:42	10/01/16 18:58	1

Method: Ra226 Ra	228 - Combined Rad	dium-226 a	nd Radium	1-228					
_		Count	Total						
		Uncert.	Uncert.						
Analyte	Result Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226	0.00715 U	0.337	0.338	5.00	0.598	pCi/L	_	10/10/16 04:03	1

+ 228

10/10/2016

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-126931-1 SDG: Barry Gypsum (4) Project/Site: CCR Plant Barry

Client Sample ID: AW22379 MW-7

Lab Sample ID: 400-126931-9 Date Collected: 08/30/16 10:18 **Matrix: Water** 

Date Received: 09/09/16 15:30

Method: 9315 - R	adium-226 (	(GFPC)	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.169		0.103	0.104	1.00	0.147	pCi/L	09/15/16 18:10	10/07/16 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.2		40 - 110					09/15/16 18:10	10/07/16 10:55	1
	,,,,		.5 - 7 7 6					23, 27, 10, 10, 10		

Method: 9320 - I	·	,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.700	U	0.474	0.478	1.00	0.736	pCi/L	09/15/16 18:42	10/01/16 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.2		40 - 110					09/15/16 18:42	10/01/16 18:53	1
Y Carrier	77.4		40 - 110					09/15/16 18:42	10/01/16 18:53	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radiun	n- <b>228</b>					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.869		0.485	0.489	5.00	0.736	pCi/L		10/10/16 04:03	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-126931-1 SDG: Barry Gypsum (4)

Client Sample ID: AW22380 MW-7 DUP

Date Collected: 08/30/16 10:18 Date Received: 09/09/16 15:30 Lab Sample ID: 400-126931-10 Matrix: Water

Method: 9315 - Ra	adium-226 (	(GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.167		0.0982	0.0994	1.00	0.140	pCi/L	09/15/16 18:10	10/07/16 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					09/15/16 18:10	10/07/16 10:55	1

	adium-228 (	(GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.377	U	0.387	0.388	1.00	0.630	pCi/L	09/15/16 18:42	10/01/16 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					09/15/16 18:42	10/01/16 18:53	1
Y Carrier	77.0		40 - 110					09/15/16 18:42	10/01/16 18:53	1

Method: Ra226_Ra2	228 - Con	nbined Ra	dium-226 a	nd Radium	1-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.543	Ū	0.399	0.401	5.00	0.630	pCi/L		10/10/16 04:03	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-126931-1 SDG: Barry Gypsum (4)

obe. Burry Gypouri (1)

Client Sample ID: AW22381 MW-6

Date Collected: 08/30/16 11:25 Date Received: 09/09/16 15:30 Lab Sample ID: 400-126931-11 Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Count Total
Uncert. Uncert.

Analyte Result Qualifier (2\sigma+/-) (2\sigma+/-) RL MDC Unit Prepared Analyzed

09/15/16 18:10 0.165 0.179 1.00 0.154 pCi/L Radium-226 0.768 10/07/16 10:55 Carrier **%Yield Qualifier** Limits Prepared Analyzed Dil Fac 83.5 40 - 110 09/15/16 18:10 10/07/16 10:55 Ba Carrier

Method: 9320 - Radium-228 (GFPC) Count Total Uncert. Uncert. Analyte Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ RL **MDC** Unit Prepared Analyzed Dil Fac 0.486 1.00 0.680 pCi/L 09/15/16 18:42 10/01/16 18:53 Radium-228 1.14 0.475 Carrier %Yield Qualifier Limits Prepared Analyzed Dil Fac Ba Carrier 83.5 40 - 110 09/15/16 18:42 10/01/16 18:53 Y Carrier 80.7 40 - 110 09/15/16 18:42 10/01/16 18:53

Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228 Count Total Uncert. Uncert. Analyte Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ RL **MDC** Unit Prepared Analyzed Dil Fac **Combined Radium** 1.91 0.503 0.518 5.00 0.680 pCi/L 10/10/16 04:03

226 + 228

3

4

5

Dil Fac

7

10

11

12

1.

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-126931-1 SDG: Barry Gypsum (4) Project/Site: CCR Plant Barry

Client Sample ID: AW22382 MW-4

Lab Sample ID: 400-126931-12 Date Collected: 08/30/16 12:35 **Matrix: Water** 

Date Received: 09/09/16 15:30

Method: 9315 - F		, ,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.528		0.129	0.137	1.00	0.110	pCi/L	09/15/16 18:10	10/07/16 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					09/15/16 18:10	10/07/16 10:55	1

Method: 9320 - I	·	,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.464	U	0.387	0.390	1.00	0.618	pCi/L	09/15/16 18:42	10/01/16 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					09/15/16 18:42	10/01/16 18:53	1
Y Carrier	80.0		40 - 110					09/15/16 18:42	10/01/16 18:53	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radiun	n- <b>228</b>					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.992		0.408	0.413	5.00	0.618	pCi/L		10/10/16 04:03	1

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-126931-1 SDG: Barry Gypsum (4) Project/Site: CCR Plant Barry

Client Sample ID: AW22383 MW-3

Lab Sample ID: 400-126931-13 Date Collected: 08/30/16 13:40 **Matrix: Water** 

Date Received: 09/09/16 15:30

Method: 9315 - Ra	dium-226 (	(GFPC)	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.323		0.118	0.122	1.00	0.139	pCi/L	09/15/16 18:10	10/07/16 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					09/15/16 18:10	10/07/16 10:55	1

Method: 9320 - I	·	,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.379	U	0.396	0.398	1.00	0.647	pCi/L	09/15/16 18:42	10/01/16 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					09/15/16 18:42	10/01/16 18:53	1
Y Carrier	77.8		40 - 110					09/15/16 18:42	10/01/16 18:53	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radium	1-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.702		0.414	0.416	5.00	0.647	pCi/L		10/10/16 04:03	1

# **Definitions/Glossary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-126931-1

# SDG: Barry Gypsum (4)

## **Qualifiers**

#### Rad

PQL

QC

RER

RPD

TEF

**TEQ** 

RL

Qualifier	Qualifier Description
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U Result is less than the sample detection limit.

**Practical Quantitation Limit** 

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

**Quality Control** 

Relative error ratio

# **Glossary**

¤ %R	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Percent
	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)

Project/Site: CCR Plant Barry

Client Sample ID: AW22371 MW-10

Client: Alabama Power General Test Laboratory

Date Collected: 08/30/16 10:25 Date Received: 09/09/16 15:30

Lab Sample ID: 400-126931-1

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273592	10/07/16 10:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272614	10/01/16 18:57	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Lab Sample ID: 400-126931-2 Client Sample ID: AW22372 MW-9

Date Collected: 08/30/16 11:20

Date Received: 09/09/16 15:30

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273592	10/07/16 10:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272614	10/01/16 18:57	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Client Sample ID: AW22373 MW-10 Lab Sample ID: 400-126931-3

Date Collected: 08/30/16 12:43 Date Received: 09/09/16 15:30

**Matrix: Water** 

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273592	10/07/16 12:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272614	10/01/16 18:57	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Client Sample ID: AW22374 MW-2 Lab Sample ID: 400-126931-4

Date Collected: 08/30/16 13:40 Date Received: 09/09/16 15:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21	<del></del>		270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273592	10/07/16 10:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272614	10/01/16 18:57	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

TestAmerica Pensacola

**Matrix: Water** 

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

Client Sample ID: AW22375 EB-1

Date Collected: 08/30/16 15:55 Date Received: 09/09/16 15:30

Lab Sample ID: 400-126931-5

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273592	10/07/16 10:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272614	10/01/16 18:57	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Lab Sample ID: 400-126931-6 Client Sample ID: AW22376 MW-5

Date Collected: 08/30/16 10:23

Date Received: 09/09/16 15:30

 	Matrix: Water

Lab Sample ID: 400-126931-8

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273592	10/07/16 10:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272614	10/01/16 18:58	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Client Sample ID: AW22377 MW-8

Date Collected: 08/30/16 11:28

Lab Sample ID: 400-126931-7 **Matrix: Water** Date Received: 09/09/16 15:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273593	10/07/16 10:54	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272614	10/01/16 18:58	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Client Sample ID: AW22378 FB-1

Date Collected: 08/30/16 11:35

Date Received: 09/09/16 15:30

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273593	10/07/16 10:54	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272614	10/01/16 18:58	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

TestAmerica Pensacola

**Matrix: Water** 

SDG: Barry Gypsum (4)

Client Sample ID: AW22379 MW-7

Client: Alabama Power General Test Laboratory

Date Collected: 08/30/16 10:18 Date Received: 09/09/16 15:30

Project/Site: CCR Plant Barry

Lab Sample ID: 400-126931-9

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273593	10/07/16 10:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272615	10/01/16 18:53	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Lab Sample ID: 400-126931-10 Client Sample ID: AW22380 MW-7 DUP

Date Collected: 08/30/16 10:18 Date Received: 09/09/16 15:30

**Matrix: Water** 

Batch Batch Dilution Batch Prepared Prep Type Method Type Run Factor Number or Analyzed Analyst Lab Total/NA PrecSep-21 270097 09/15/16 18:10 MCJ TAL SL Prep Total/NA Analysis 9315 1 273593 10/07/16 10:55 RTM TAL SL TAL SL Total/NA Prep PrecSep\_0 270098 09/15/16 18:42 MCJ Total/NA Analysis 9320 1 272615 10/01/16 18:53 ALS TAL SL TAL SL Total/NA Analysis Ra226\_Ra228 1 273696 10/10/16 04:03 ALS

Client Sample ID: AW22381 MW-6 Lab Sample ID: 400-126931-11

Date Collected: 08/30/16 11:25 **Matrix: Water** 

Date Received: 09/09/16 15:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273593	10/07/16 10:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272615	10/01/16 18:53	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Client Sample ID: AW22382 MW-4 Lab Sample ID: 400-126931-12

Date Collected: 08/30/16 12:35 Date Received: 09/09/16 15:30

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273593	10/07/16 10:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272615	10/01/16 18:53	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

TestAmerica Pensacola

**Matrix: Water** 

## **Lab Chronicle**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

Client Sample ID: AW22383 MW-3

TestAmerica Job ID: 400-126931-1 SDG: Barry Gypsum (4)

Lab Sample ID: 400-126931-13

Date Collected: 08/30/16 13:40 **Matrix: Water** Date Received: 09/09/16 15:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273593	10/07/16 10:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272615	10/01/16 18:53	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

#### **Laboratory References:**

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# **QC Association Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-126931-1 SDG: Barry Gypsum (4)

#### Rad

# **Prep Batch: 270097**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126931-1	AW22371 MW-10	Total/NA	Water	PrecSep-21	
400-126931-2	AW22372 MW-9	Total/NA	Water	PrecSep-21	
400-126931-3	AW22373 MW-10	Total/NA	Water	PrecSep-21	
400-126931-4	AW22374 MW-2	Total/NA	Water	PrecSep-21	
400-126931-5	AW22375 EB-1	Total/NA	Water	PrecSep-21	
400-126931-6	AW22376 MW-5	Total/NA	Water	PrecSep-21	
400-126931-7	AW22377 MW-8	Total/NA	Water	PrecSep-21	
400-126931-8	AW22378 FB-1	Total/NA	Water	PrecSep-21	
400-126931-9	AW22379 MW-7	Total/NA	Water	PrecSep-21	
400-126931-10	AW22380 MW-7 DUP	Total/NA	Water	PrecSep-21	
400-126931-11	AW22381 MW-6	Total/NA	Water	PrecSep-21	
400-126931-12	AW22382 MW-4	Total/NA	Water	PrecSep-21	
400-126931-13	AW22383 MW-3	Total/NA	Water	PrecSep-21	
MB 160-270097/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-270097/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-126931-6 DU	AW22376 MW-5	Total/NA	Water	PrecSep-21	

### **Prep Batch: 270098**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126931-1	AW22371 MW-10	Total/NA	Water	PrecSep_0	-
400-126931-2	AW22372 MW-9	Total/NA	Water	PrecSep_0	
400-126931-3	AW22373 MW-10	Total/NA	Water	PrecSep_0	
400-126931-4	AW22374 MW-2	Total/NA	Water	PrecSep_0	
400-126931-5	AW22375 EB-1	Total/NA	Water	PrecSep_0	
400-126931-6	AW22376 MW-5	Total/NA	Water	PrecSep_0	
400-126931-7	AW22377 MW-8	Total/NA	Water	PrecSep_0	
400-126931-8	AW22378 FB-1	Total/NA	Water	PrecSep_0	
400-126931-9	AW22379 MW-7	Total/NA	Water	PrecSep_0	
400-126931-10	AW22380 MW-7 DUP	Total/NA	Water	PrecSep_0	
400-126931-11	AW22381 MW-6	Total/NA	Water	PrecSep_0	
400-126931-12	AW22382 MW-4	Total/NA	Water	PrecSep_0	
400-126931-13	AW22383 MW-3	Total/NA	Water	PrecSep_0	
MB 160-270098/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-270098/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-126931-6 DU	AW22376 MW-5	Total/NA	Water	PrecSep_0	

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SDG: Barry Gypsum (4)

Client: Alabama Power General Test Laboratory Project/Site: CCR Plant Barry

# Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-270097/1-A

**Matrix: Water** 

**Analysis Batch: 273592** 

<b>Client Sample ID: Method Blank</b>
Pren Type: Total/NA

**Prep Batch: 270097** 

	МВ	MB	Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05066	U	0.0665	0.0667	1.00	0.111	pCi/L	09/15/16 18:10	10/07/16 10:51	1

Total

Count

MB MB

**%Yield Qualifier** Carrier I imits Ba Carrier 86.0 40 - 110

09/15/16 18:10 10/07/16 10:51

Prepared

**Client Sample ID: Lab Control Sample** 

Analyzed

Lab Sample ID: LCS 160-270097/2-A **Matrix: Water** Prep Type: Total/NA Analysis Batch: 273670 Prep Batch: 270097

Total Spike LCS LCS %Rec. Uncert. Analyte Added Result Qual  $(2\sigma + / -)$ RL**MDC** Unit %Rec Limits Radium-226 14.8 18.61 1.82 1.00 0.154 pCi/L 126 68 - 137

LCS LCS Carrier %Yield Qualifier Limits Ba Carrier 86.0 40 - 110

Lab Sample ID: 400-126931-6 DU Client Sample ID: AW22376 MW-5

**Matrix: Water** 

Y Carrier

**Analysis Batch: 273592** 

**Prep Type: Total/NA** 

Prep Batch: 270097

Total Sample Sample FD FD Uncert. **RER** Analyte Result Qual Result Qual  $(2\sigma + / -)$ RL **MDC** Unit RER Limit Radium-226 0.117 pCi/L 0.363 0.3455 0.116 1.00 0.08

FD FD Carrier %Yield Qualifier Limits Ba Carrier 90.3 40 - 110

#### Method: 9320 - Radium-228 (GFPC)

79.3

Lab Sample ID: MB 160-270098/1-A **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA **Analysis Batch: 272614** 

Count Total MB MB Uncert. Uncert. Analyte Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ RL **MDC** Unit Prepared Analyzed Dil Fac Radium-228 0.06678 U 0.314 0.314 1.00 0.556 pCi/L 09/15/16 18:42 10/01/16 18:55

MB MB Carrier **%Yield Qualifier** Limits Prepared Dil Fac Analyzed 40 - 110 09/15/16 18:42 10/01/16 18:55 Ba Carrier 86.0

40 - 110

09/15/16 18:42 10/01/16 18:55

Dil Fac

10

Prep Batch: 270098

10

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-126931-1 SDG: Barry Gypsum (4)

# Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-270098/2-A **Matrix: Water** 

Analysis Batch: 272614

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Prep Batch: 270098

				i otai									
	Spike	LCS	LCS	Uncert.				%Rec.					
Analyte	Added	Result	Qual	(2σ+/-)	RL	MDC Unit	%Rec	Limits					
Radium-228	19.3	21.05		2.31	1.00	0.692 pCi/L	109	56 - 140					

LCS LCS **%Yield Qualifier** Limits 86.0 40 - 110 81.1 40 - 110

Lab Sample ID: 400-126931-6 DU

**Matrix: Water** 

Carrier

Ba Carrier

Y Carrier

Analysis Batch: 272614

Client Sample ID: AW22376 MW-5

**Prep Type: Total/NA Prep Batch: 270098** 

Total Sample Sample FD FD Uncert. **RER** Analyte Result Qual Result Qual  $(2\sigma + / -)$ RL **MDC** Unit RER Limit Radium-228 0.332 U 0.1480 U 0.368 1.00 0.635 pCi/L 0.24

FD FD Carrier %Yield Qualifier Limits Ba Carrier 90.3 40 - 110 Y Carrier 74.0 40 - 110

# Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-126931-6 DU Client Sample ID: AW22376 MW-5 Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 273696

, , , , , , , , , , , , , , , , , , , ,					Total						
	Sample	Sample	FD	FD	Uncert.						RER
Analyte	Result	Qual	Result	Qual	(2σ+/-)	RL	MDC	Unit		RER	Limit
Combined	0.696		0.4935	Ū	0.386	5.00	0.635	pCi/L	 	0.26	

Radium 226 +

228

# Chain of Custody Record

TestAmerica	COC No: 400-56525-24537.1	Page: Page 1 of 2	1000 :# qor	ration Cod	A - HCL M - Hexane B - Nacht N - None C - Zn Archte C - Arnaco	D - Vitro Acid P - Na2O4S E - NaHSO4 Q - Na2SO3		I - Ice J - DI Water	K-EDTA L-EDA	Or Other:	tedminki leto		MW-10	6-MW	MW-10	MW-2	EB-1 (Equipment Blank)	2 MW-5	8-MM (F)	FB-1 (Field Blank)	Į.	retained longer than 1 month)	Archive For Months		Company		1530 Conneany	25.
	Carrier Tracking No(s):	sricainc.com	Analysis Requested	ESPES:			400-126931 COC	J														Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)	ort Disposal By Lab  QC Requirements:	Method of Shipment:	Date/Time:	Date/Time:	L Date Time 6	M. Daysurd of the D. (s)
in of Custody Record	Lab PM: Whitmire, Cheyenne R	E-Mail: cheyenne.whitmire@testamericainc.com				Dd≟	1 1 111	(on	IO SE	v) ası	Matrix or or (Wengter Street Second of Orwardsold, Orw		Water	Water	Water X	Water	Water	Water Y X	Water	Water		Sample Disposal ( ,	Return To Client Diss Special Instructions/QC Requirements:	Time:	Company Received by: APC	Company Received by:	Company Received of Land	Cooler Temperature(s) °C and Othe
Chain of Cus	Sampler: Nick Pitts / Jason Rouss	.e.		Due Date Requested:	TAT Requested (days): Routine			Ŧ.	Project #: 40007143	W#.	Sample Type Sample (C=comp.		8/30/16 1025 G	8/30/16 1120 G	8/30/16 1243 G	8/30/16 1340 G	8/30/16 1555 G	8/30/16 1023 G	8/30/16 1128 G	8/30/16 1135 G		L	Unknown Radiological	Date:	Date/Time: 09/08/2016; 1050			
<b>TestAmerica Pensacola</b> 3355 McLemore Drive Pensacola, FL 32514 Phone (850) 474-1001 Fax (850) 478-2671			Company: Alabama Power General Test Laboratory			State, Zip. AL, 35040	21(Tel)	Email: WO #: 89copela@southernco.com	Project Name:   Project #:   Project #:   400071			Sample Identification	AW22371	AW22372	AW22373	AW22374	AW22375	AW22376	AW22377	AW22378			Non-Hazard Flammable Skin Intiant Poison B Deliverable Requested: I, II, III, VV, Other (specify)	Empty Kit Relinquished by:	Relinquished by: Sarah Copeland	Reinquished by: Date/Time:	Relinquished by: Date/Time-	Custody Seals Intact: Custody Seal No.:

AW22382 AW22381

AW22383

AW22379 AW22380

State, Zip: AL, 35040

City: Calera

roject Name:

Relinquished by: elinquished by:

# Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-126931-1 SDG Number: Barry Gypsum (4)

Login Number: 126931 List Source: TestAmerica Pensacola

List Number: 1

Creator: Whitmire, Cheyenne R

Grouter: Williams, Groyeline R		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	27.3°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

2

TestAmerica Pensacola

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-126931-1 SDG: Barry Gypsum (4)

## Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

## Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
lowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

<sup>\*</sup> Certification renewal pending - certification considered valid.

TestAmerica Pensacola

10/10/2016

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# **Certification Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-126931-1 SDG: Barry Gypsum (4)

# **Laboratory: TestAmerica St. Louis (Continued)**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-16-10	07-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

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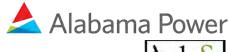
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<sup>\*</sup> Certification renewal pending - certification considered valid.

# Analytical Report





Sample Group: WMWBARG\_1052

Project/Site: Barry Gypsum

Bucks, AL 36512

For: Southern Company Services

42 Inverness Center Parkway Birmingham, AL 35242

Attention: Dustin Brooks & Greg Dyer

Released By: Sarah Copeland

sgcopela@southernco.com

(205) 644-6121

The following data has been reviewed and approved by:

Quality Control: Supervision:

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Anions

#### Barry Gypsum

#### WMWBARG\_1052

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	<b>Chloride Batch ID</b>	Fluoride Batch ID	Sulfate Batch ID	Project ID
AW26441	579666	579669	579672	WMWBARG_1052
AW26442	579666	579669	579672	WMWBARG_1052
AW26443	579666	579669	579672	WMWBARG_1052
AW26444	579666	579669	579672	WMWBARG_1052
AW26445	579666	579669	579672	WMWBARG_1052
AW26446	579666	579669	579672	WMWBARG_1052
AW26447	579666	579669	579672	WMWBARG_1052
AW26448	579666	579669	579672	WMWBARG_1052
AW26449	579666	579669	579672	WMWBARG_1052
AW26450	579666	579669	579672	WMWBARG_1052
AW26451	579667	579670	579673	WMWBARG_1052
AW26452	579667	579670	579673	WMWBARG_1052
AW26453	579667	579670	579673	WMWBARG_1052

- 4. All of the above samples were analyzed and prepared by EPA 300.0.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

#### **General Quality Control Procedures:**

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met. It is noted that the Instrument Performance Check standard analyzed after the initial calibration of 10/21/2016 was utilized as the opening LFB for the analysis sequence in batches 579666, 579669 and 579672.
- All laboratory reagent blanks were less than the method detection limits for the requested anions.
- All laboratory fortified blanks (LFB) were within acceptance criteria for the anions requested.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



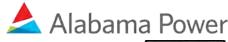
Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A laboratory fortified matrix sample was analyzed with each batch. All acceptance criteria for accuracy were met.
- A sample duplicate and/or laboratory fortified matrix duplicate were analyzed with each batch. All acceptance criteria for precision were met. It is noted that separate and distinct criteria for duplicate precision calculations, based on sample and duplicate anion concentrations, are used to assess precision compliance. These are as follow: if the sample and duplicate are both greater than 5x anion Reporting Limit (RL) concentration, the precision is calculated and reported as relative percent difference (RPD), with an acceptance range of 0 20%; if either the sample or duplicate are less than 5x anion RL, the precision is calculated and reported as the absolute value of the difference between the two concentrations, with an acceptance range of less than or equal to the anion RL value.
- 7. All batch samples were analyzed without a dilution.
- 8. The raw data results are shown with dilution factors included, when dilutions are manually performed by the analyst.

The raw data results are shown without dilution factor corrections, when dilutions are run automatically by the instrument.

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#### Metals ICP

#### Barry Gypsum

#### WMWBARG\_1052

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW26441	20161031C	WMWBARG_1052
AW26442	20161031C	WMWBARG_1052
AW26443	20161031C	WMWBARG_1052
AW26444	20170414G_20170518A	WMWBARG_1052
AW26445	20170414G_20170518A	WMWBARG_1052
AW26446	20161116D	WMWBARG_1052
AW26447	20161116D	WMWBARG_1052
AW26448	20161116D	WMWBARG_1052
AW26449	20161116D	WMWBARG_1052
AW26450	20161116D	WMWBARG_1052
AW26451	20161116D	WMWBARG_1052
AW26452	20161116D	WMWBARG_1052
AW26453	20161116D	WMWBARG_1052

- 4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times, with the following exceptions: samples AW26444 and AW26445 Lithium reanalysis in batch 20170518A.
- 6. All in house quality control procedures were followed, as described below.
- 7. Samples AW26444 and AW26445 from 20161031C and 20161116D were rescheduled and re-analyzed due to potential bottle swap/sample mislabeling. Calcium and Boron were prepared and analyzed in batch 20170414G. Lithium was prepared and analyzed in batch 20170518A. The original batch QC tied to AW26444 was moved to AW26443. Samples AW26441-26443 will not have any spike QC information.

#### **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.

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- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

#### Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
- 8. All samples were analyzed without a dilution, with the exception of batches 20170414G and 20170518A, which were run at a 2x dilution to compensate for any potential matrix effects.
- 9. The raw data results include both results corrected for dilution and results not corrected for dilution.

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#### Metals ICPMS

#### Barry Gypsum

#### WMWBARG\_1052

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW26441	580547	WMWBARG_1052
AW26442	580547	WMWBARG_1052
AW26443	580547	WMWBARG_1052
AW26444	581113	WMWBARG_1052
AW26445	581113	WMWBARG_1052
AW26446	581113	WMWBARG_1052
AW26447	581113	WMWBARG_1052
AW26448	581113	WMWBARG_1052
AW26449	581113	WMWBARG_1052
AW26450	581113	WMWBARG_1052
AW26451	581113	WMWBARG_1052
AW26452	581113	WMWBARG_1052
AW26453	581113	WMWBARG_1052

- 4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.
- 7. Cadmium MDL increased from 0.0001mg/L to 0.0002mg/L.

#### **General Quality Control Procedures:**

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

#### Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
- 8. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
- 9. The raw data results are shown with dilution factors included.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Mercury

#### Barry Gypsum

#### WMWBARG\_1052

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW26441	579849	WMWBARG_1052
AW26442	580284	WMWBARG_1052
AW26443	580284	WMWBARG_1052
AW26444	580284	WMWBARG_1052
AW26445	580284	WMWBARG_1052
AW26446	580284	WMWBARG_1052
AW26447	580284	WMWBARG_1052
AW26448	580284	WMWBARG_1052
AW26449	580284	WMWBARG_1052
AW26450	580284	WMWBARG_1052
AW26451	580284	WMWBARG_1052
AW26452	580285	WMWBARG_1052
AW26453	580285	WMWBARG_1052

- 4. All of the above samples were analyzed and prepared by EPA 245.1.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

#### **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



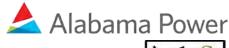
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.
- MB, LCS, samples AW26442-451, AW26451ms, AW26451msd, CCV, and CCB (all from batch 580284) were run twice because the instrument reductant reagent was not flowing correctly sometime during that time. Issue was corrected, above samples were run again, and the 2nd run results were reported in LabWorks.

#### Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed without a dilution.
- 8. The raw data results are shown with dilution factors included.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





TDS

#### Barry Gypsum

#### WMWBARG\_1052

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW26441	579852	WMWBARG_1052
AW26442	579852	WMWBARG_1052
AW26443	579852	WMWBARG_1052
AW26444	579852	WMWBARG_1052
AW26445	579852	WMWBARG_1052
AW26446	579852	WMWBARG_1052
AW26447	579852	WMWBARG_1052
AW26448	579852	WMWBARG_1052
AW26449	579852	WMWBARG_1052
AW26450	579852	WMWBARG_1052
AW26451	579853	WMWBARG_1052
AW26452	579853	WMWBARG_1052
AW26453	579853	WMWBARG_1052

- 4. All of the above samples were analyzed by Standard Method 2540C.
- 5. All samples were analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.
- 7. The reporting limit for TDS was incorrectly listed as 2.5mg/L. This has been corrected based on filter volume and project limits. Samples AW26444, AW26445 and AW26447 are now reported as Not Detected.

#### **General Quality Control Procedures:**

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AW26443 and AW26453 which were <2.5 mg.



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-5

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26441

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 12/13/2010	6 EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	TAS 11/3/2016	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
* Arsenic, Total	TAS 11/3/2016	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Barium, Total	TAS 11/3/2016	EPA 200.8	5	0.0020	0.010		0.0859	mg/L
* Beryllium, Total	TAS 11/3/2016	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
* Boron, Total	HRG 10/31/2016	6 EPA 200.7	1	0.02	0.1	J	0.0778	mg/L
* Calcium, Total	HRG 10/31/2016	6 EPA 200.7	1	0.1	0.5		1.97	mg/L
* Cadmium, Total	TAS 11/3/2016	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
* Cobalt, Total	TAS 11/3/2016	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
* Chromium, Total	TAS 11/3/2016	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW 10/26/2016	6 EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 10/31/2016	6 EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	TAS 11/3/2016	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
* Lead, Total	TAS 11/3/2016	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	TAS 11/3/2016	EPA 200.8	5	0.0020	0.010	J	0.00386	mg/L
* Thallium, Total	TAS 11/3/2016	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 10/26/2016	SM 2540C	1		25		28.7	mg/L
* Chloride, Total	SES 10/21/2016	6 EPA 300.0	1	0.04	0.25		3.50	mg/L
* Fluoride, Total	SES 10/21/2016	6 EPA 300.0	1	0.01	0.3	J	0.034	mg/L
* Sulfate, Total	SES 10/21/2016	6 EPA 300.0	1	0.3	1		12.2	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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2.5 mg/L. The RL has now been corrected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-5

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26441

Laboratory ID Number: AW2644	1										
		MB					LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AW26443 Thallium, Total	mg/L 0.00000905	0.00044	0.10	0.110	0.110	0.107	0.085 to 0.115	110	70 to 130	0.0094	420
AW26443 Lead, Total	mg/L 0.00000860	0.0022	0.10	0.111	0.111	0.108	0.085 to 0.115	111	70 to 130	0.352	20
AW25924 Mercury, Total by CVAA	mg/L 0.0000550	0.0005	0.004	0.00383	0.00384	0.00369	0.0034 to 0.0046	95.8	70 to 130	0.133	20
AW26443 Calcium, Total	mg/L -0.0300	0.22				4.72	4.25 to 5.75		70 to 130		20
AW26443 Arsenic, Total	mg/L 0.0000251	0.0022	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.353	20
AW26443 Cadmium, Total	mg/L 0.00000715	0.00044	0.10	0.106	0.104	0.103	0.085 to 0.115	106	70 to 130	2.04	20
AW26443 Molybdenum, Total	mg/L 0.0000346	0.0044	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.623	20
AW26443 Antimony, Total	mg/L 0.0000396	0.00132	0.10	0.0999	0.0993	0.0998	0.085 to 0.115	99.9	70 to 130	0.614	20
AW26443 Boron, Total	mg/L 0.00901	0.044				0.968	0.85 to 1.15		70 to 130		20
AW26443 Selenium, Total	mg/L 0.0000324	0.0044	0.10	0.104	0.102	0.105	0.085 to 0.115	104	70 to 130	1.34	20
AW26443 Barium, Total	mg/L 0.0000114	0.0044	0.10	0.103	0.103	0.102	0.085 to 0.115	103	70 to 130	0.428	20
AW26443 Beryllium, Total	mg/L 0.0000862	0.00132	0.10	0.103	0.101	0.103	0.085 to 0.115	103	70 to 130	1.68	20
AW26443 Chromium, Total	mg/L 0.0000153	0.0044	0.10	0.106	0.106	0.104	0.085 to 0.115	106	70 to 130	0.473	20
AW26443 Cobalt, Total	mg/L 0.00000523	0.0044	0.10	0.105	0.104	0.105	0.085 to 0.115	105	70 to 130	1.12	20
AW26443 Lithium, Total	mg/L 0.000132	0.022				0.214	0.17 to 0.23		70 to 130		20

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<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-5

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26441

Labore	atory in Humber. Avv20441										
· · · · · · · · · · · · · · · · · · ·		,	MB			Sample		LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit
AW26450	Sulfate, Total	mg/L -0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6 80 to 120	3.05	20
AW26450	Chloride, Total	mg/L 0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8 80 to 120	0.241	20
AW26450	Fluoride, Total	mg/L 0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8 80 to 120	7.69	20
AW26450	Solids, Dissolved	mg/L 1.00	25			28.0	45.0	40 to 60		0.00	5

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CC:

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# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-8

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26442

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								ľ
Total Radium, Test America	SGC 12/13/201	6 EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	TAS 11/3/2016	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
* Arsenic, Total	TAS 11/3/2016	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Barium, Total	TAS 11/3/2016	EPA 200.8	5	0.0020	0.010		0.0309	mg/L
* Beryllium, Total	TAS 11/3/2016	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
* Boron, Total	HRG 10/31/201	6 EPA 200.7	1	0.02	0.1	J	0.0207	mg/L
* Calcium, Total	HRG 10/31/201	6 EPA 200.7	1	0.1	0.5		0.503	mg/L
* Cadmium, Total	TAS 11/3/2016	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
* Cobalt, Total	TAS 11/3/2016	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
* Chromium, Total	TAS 11/3/2016	EPA 200.8	5	0.0020	0.010	J	0.00218	mg/L
* Mercury, Total by CVAA	MCW 10/31/201	6 EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 10/31/201	6 EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	TAS 11/3/2016	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
* Lead, Total	TAS 11/3/2016	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	TAS 11/3/2016	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
* Thallium, Total	TAS 11/3/2016	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 10/26/201	6 SM 2540C	1		25		28.0	mg/L
* Chloride, Total	SES 10/21/201	6 EPA 300.0	1	0.04	0.25		4.73	mg/L
* Fluoride, Total	SES 10/21/201	6 EPA 300.0	1	0.01	0.3	J	0.028	mg/L
* Sulfate, Total	SES 10/21/201	6 EPA 300.0	1	0.3	1		4.27	mg/L

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Issued By: State of Florida, Department of Health

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-8

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26442

Laboratory ID Number. AVV2044											
		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W26443 Calcium, Total	mg/L -0.0300	0.22				4.72	4.25 to 5.75		70 to 130		20
W26443 Thallium, Total	mg/L 0.00000905	0.00044	0.10	0.110	0.110	0.107	0.085 to 0.115	110	70 to 130	0.0094	420
W26443 Lead, Total	mg/L 0.00000860	0.0022	0.10	0.111	0.111	0.108	0.085 to 0.115	111	70 to 130	0.352	20
W26443 Antimony, Total	mg/L 0.0000396	0.00132	0.10	0.0999	0.0993	0.0998	0.085 to 0.115	99.9	70 to 130	0.614	20
W26443 Boron, Total	mg/L 0.00901	0.044				0.968	0.85 to 1.15		70 to 130		20
W26443 Selenium, Total	mg/L 0.0000324	0.0044	0.10	0.104	0.102	0.105	0.085 to 0.115	104	70 to 130	1.34	20
W26443 Arsenic, Total	mg/L 0.0000251	0.0022	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.353	20
W26443 Cadmium, Total	mg/L 0.00000715	0.00044	0.10	0.106	0.104	0.103	0.085 to 0.115	106	70 to 130	2.04	20
W26443 Molybdenum, Total	mg/L 0.0000346	0.0044	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.623	20
W26451 Mercury, Total by CVAA	mg/L 0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20
W26443 Barium, Total	mg/L 0.0000114	0.0044	0.10	0.103	0.103	0.102	0.085 to 0.115	103	70 to 130	0.428	20
W26443 Beryllium, Total	mg/L 0.0000862	0.00132	0.10	0.103	0.101	0.103	0.085 to 0.115	103	70 to 130	1.68	20
W26443 Chromium, Total	mg/L 0.0000153	0.0044	0.10	0.106	0.106	0.104	0.085 to 0.115	106	70 to 130	0.473	20
W26443 Cobalt, Total	mg/L 0.00000523	0.0044	0.10	0.105	0.104	0.105	0.085 to 0.115	105	70 to 130	1.12	20
W26443 Lithium, Total	mg/L 0.000132	0.022				0.214	0.17 to 0.23		70 to 130		20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17



# **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-8

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26442

Luboit	AND HAMBON ANZOTTE									
		,	MB			Sample		LFB	Rec	Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit Prec	Limit
AW26450	Chloride, Total	mg/L 0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8 80 to 120 0.241	20
AW26450	Sulfate, Total	mg/L -0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6 80 to 120 3.05	20
AW26450	Fluoride, Total	mg/L 0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8 80 to 120 7.69	20
AW26450	Solids, Dissolved	mg/L 1.00	25			28.0	45.0	40 to 60	0.00	5

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



# **Corrected Copy**

Customer Account: WMWBARGEB Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW26443

To: Dustin Brooks

Greg Dyer

John Pugh

Name	Analyst Test Date	e Reference	Vio Spec DF	MDL	RL	Q Results	Units
Radiological							
Total Radium, Test America	SGC 12/13/20	16 EPA 9315/9320	1			Attached	
Metals, Cyanide, Total Phenols							
Antimony, Total	TAS 11/3/201	6 EPA 200.8	5	0.00060	0.0030	U Not Detected	mg/L
Arsenic, Total	TAS 11/3/201	6 EPA 200.8	5	0.0010	0.005	U Not Detected	mg/L
Barium, Total	TAS 11/3/201	6 EPA 200.8	5	0.0020	0.010	U Not Detected	mg/L
Beryllium, Total	TAS 11/3/201	6 EPA 200.8	5	0.00060	0.0030	U Not Detected	mg/L
Boron, Total	HRG 10/31/20	16 EPA 200.7	1	0.02	0.1	U Not Detected	mg/L
Calcium, Total	HRG 10/31/20	16 EPA 200.7	1	0.1	0.5	U Not Detected	mg/L
Cadmium, Total	TAS 11/3/201	6 EPA 200.8	5	0.0002	0.0010	U Not Detected	mg/L
Cobalt, Total	TAS 11/3/201	6 EPA 200.8	5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS 11/3/201	6 EPA 200.8	5	0.0020	0.010	U Not Detected	mg/L
Mercury, Total by CVAA	MCW 10/31/20	16 EPA 245.1	1	0.00025	0.0005	U Not Detected	mg/L
Lithium, Total	HRG 10/31/20	16 EPA 200.7	1	0.01	0.05	U Not Detected	mg/L
Molybdenum, Total	TAS 11/3/201	6 EPA 200.8	5	0.0020	0.010	U Not Detected	mg/L
Lead, Total	TAS 11/3/201	6 EPA 200.8	5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS 11/3/201	6 EPA 200.8	5	0.0020	0.010	U Not Detected	mg/L
Thallium, Total	TAS 11/3/201	6 EPA 200.8	5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics							
* Solids, Dissolved	DLJ 10/26/20	16 SM 2540C	1		25	U Not Detected	mg/L
Chloride, Total	SES 10/21/20	16 EPA 300.0	1	0.04	0.25	U Not Detected	mg/L
Fluoride, Total	SES 10/21/20	16 EPA 300.0	1	0.01	0.3	U Not Detected	mg/L
Sulfate, Total	SES 10/21/20	16 EPA 300.0	1	0.3	1	U Not Detected	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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# **Corrected Copy**

Customer Account: WMWBARGEB Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW26443

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW20443	<u> </u>	MD		-							
		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limi
AW26443 Calcium, Total	mg/L -0.0300	0.22				4.72	4.25 to 5.75		70 to 130		20
AW26443 Thallium, Total	mg/L 0.00000905	0.00044	0.10	0.110	0.110	0.107	0.085 to 0.115	110	70 to 130	0.0094	420
AW26443 Lead, Total	mg/L 0.00000860	0.0022	0.10	0.111	0.111	0.108	0.085 to 0.115	111	70 to 130	0.352	20
AW26443 Arsenic, Total	mg/L 0.0000251	0.0022	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.353	20
AW26443 Cadmium, Total	mg/L 0.00000715	0.00044	0.10	0.106	0.104	0.103	0.085 to 0.115	106	70 to 130	2.04	20
W26443 Molybdenum, Total	mg/L 0.0000346	0.0044	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.623	20
AW26451 Mercury, Total by CVAA	mg/L 0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20
AW26443 Antimony, Total	mg/L 0.0000396	0.00132	0.10	0.0999	0.0993	0.0998	0.085 to 0.115	99.9	70 to 130	0.614	20
AW26443 Boron, Total	mg/L 0.00901	0.044				0.968	0.85 to 1.15		70 to 130		20
AW26443 Selenium, Total	mg/L 0.0000324	0.0044	0.10	0.104	0.102	0.105	0.085 to 0.115	104	70 to 130	1.34	20
AW26443 Barium, Total	mg/L 0.0000114	0.0044	0.10	0.103	0.103	0.102	0.085 to 0.115	103	70 to 130	0.428	20
AW26443 Beryllium, Total	mg/L 0.0000862	0.00132	0.10	0.103	0.101	0.103	0.085 to 0.115	103	70 to 130	1.68	20
AW26443 Chromium, Total	mg/L 0.0000153	0.0044	0.10	0.106	0.106	0.104	0.085 to 0.115	106	70 to 130	0.473	20
AW26443 Cobalt, Total	mg/L 0.00000523	0.0044	0.10	0.105	0.104	0.105	0.085 to 0.115	105	70 to 130	1.12	20
AW26443 Lithium, Total	mg/L 0.000132	0.022				0.214	0.17 to 0.23		70 to 130		20

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Expiration: June 30, 2018

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



## **Corrected Copy**

Customer Account: WMWBARGEB Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

**Description**: Barry Gypsum Equipment Blank

Laboratory ID Number: AW26443

To: Dustin Brooks

Greg Dyer

John Pugh

Labora	atory ID Number: AVV26443									
			MB			Sample		LFB	Rec	Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit Pre	c Limit
AW26450	Chloride, Total	mg/L 0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8 80 to 120 0.2	41 20
AW26450	Sulfate, Total	mg/L -0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6 80 to 120 3.0	5 20
AW26450	Fluoride, Total	mg/L 0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8 80 to 120 7.6	9 20
AW26450	Solids. Dissolved	mg/L 1.00	25			28.0	45.0	40 to 60	0.0	) 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-4

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26444

Name	Analyst Test Dat	e Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 12/13/20	16 EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	TAS 11/9/201	6 EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
* Arsenic, Total	TAS 11/9/201	6 EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Barium, Total	TAS 11/9/201	6 EPA 200.8	5	0.0020	0.010		0.0715	mg/L
* Beryllium, Total	TAS 11/9/201	6 EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
* Boron, Total	HRG 4/14/201	7 EPA 200.7	2	0.02	0.1	J	0.0220	mg/L
* Calcium, Total	HRG 4/14/201	7 EPA 200.7	2	0.1	0.5		1.22	mg/L
* Cadmium, Total	TAS 11/9/201	6 EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
* Cobalt, Total	TAS 11/9/201	6 EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
* Chromium, Total	TAS 11/9/201	6 EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW 10/31/20	16 EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 5/18/201	7 EPA 200.7	2	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	TAS 11/9/201	6 EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
* Lead, Total	TAS 11/9/201	6 EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	TAS 11/9/201	6 EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
* Thallium, Total	TAS 11/9/201	6 EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 10/26/20	16 SM 2540C	1		25	U	Not Detected	mg/L
* Chloride, Total	SES 10/21/20	16 EPA 300.0	1	0.04	0.25		3.68	mg/L
* Fluoride, Total	SES 10/21/20	16 EPA 300.0	1	0.01	0.3	J	0.025	mg/L
* Sulfate, Total	SES 10/21/20	16 EPA 300.0	1	0.3	1		6.62	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS

has been correctly changed to Not Detected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Recovery for Calcium is out of range.

Spike amount is less than 30% sample amount, therefore will not be qualified. SGC 12/13/16

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-4

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26444

		MB					LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W26453 Cadmium, Total	mg/L 0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20
W26453 Lead, Total	mg/L 0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20
W26453 Thallium, Total	mg/L 0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20
W26451 Mercury, Total by CVAA	mg/L 0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20
W26453 Barium, Total	mg/L 0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20
W26453 Antimony, Total	mg/L 0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20
W26453 Chromium, Total	mg/L 0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20
W26445 Boron, Total	mg/L 0.00118	0.044	1.00	0.997	0.993	0.976	0.85 to 1.15	99.7	70 to 130	0.402	20
W26445 Lithium, Total	mg/L -0.0000280	0.022	0.20	0.203	0.192	0.202	0.17 to 0.23	102	70 to 130	5.69	20
W26453 Beryllium, Total	mg/L 0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20
W26453 Cobalt, Total	mg/L 0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20
W26453 Molybdenum, Total	mg/L 0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20
W26445 Calcium, Total	mg/L 0.000447	0.22	5.00	6.15	6.21	4.95	4.25 to 5.75	98.7	70 to 130	0.952	20
W26453 Arsenic, Total	mg/L 0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20
W26453 Selenium, Total	mg/L 0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS

has been correctly changed to Not Detected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Recovery for Calcium is out of range.

Spike amount is less than 30% sample amount, therefore will not be qualified. SGC 12/13/16

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-4

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26444

Luboit	tory in italianci. Avvzort									
		,	MB			Sample		LFB	Rec	Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit Prec	Limit
AW26450	Chloride, Total	mg/L 0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8 80 to 120 0.241	20
AW26450	Sulfate, Total	mg/L -0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6 80 to 120 3.05	20
AW26450	Fluoride, Total	mg/L 0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8 80 to 120 7.69	20
AW26450	Solids, Dissolved	mg/L 1.00	25			28.0	45.0	40 to 60	0.00	5

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS

has been correctly changed to Not Detected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Recovery for Calcium is out of range.

Spike amount is less than 30% sample amount, therefore will not be qualified. SGC 12/13/16

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-4 Dup

Laboratory ID Number: AW26445

To: Dustin Brooks

Greg Dyer

John Pugh

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Result	s	Units
Radiological								
Total Radium, Test America	SGC 12/13/2016	EPA 9315/9320	1			Attach	ned	
Metals, Cyanide, Total Phenols								
* Antimony, Total	TAS 11/9/2016	EPA 200.8	5	0.00060	0.0030	U Not D	etected	mg/L
* Arsenic, Total	TAS 11/9/2016	EPA 200.8	5	0.0010	0.005	U Not D	etected	mg/L
* Barium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	0.070	9	mg/L
* Beryllium, Total	TAS 11/9/2016	EPA 200.8	5	0.00060	0.0030	U Not D	etected	mg/L
* Boron, Total	HRG 4/14/2017	EPA 200.7	2	0.02	0.1	U Not D	etected	mg/L
* Calcium, Total	HRG 4/14/2017	EPA 200.7	2	0.1	0.5	1.22		mg/L
* Cadmium, Total	TAS 11/9/2016	EPA 200.8	5	0.0002	0.0010	U Not D	etected	mg/L
* Cobalt, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U Not D	etected	mg/L
* Chromium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U Not D	etected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 10/31/2016	EPA 245.1	1	0.00025	0.0005	U Not D	etected	mg/L
* Lithium, Total	HRG 5/18/2017	EPA 200.7	2	0.01	0.05	U Not D	etected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U Not D	etected	mg/L
* Lead, Total	TAS 11/9/2016	EPA 200.8	5	0.0010	0.005	U Not D	etected	mg/L
* Selenium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U Not D	etected	mg/L
* Thallium, Total	TAS 11/9/2016	EPA 200.8	5	0.00020	0.0010	U Not D	etected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 10/26/2016	SM 2540C	1		25	U Not D	etected	mg/L
* Chloride, Total	SES 10/21/2016	EPA 300.0	1	0.04	0.25	3.68		mg/L
* Fluoride, Total	SES 10/21/2016	EPA 300.0	1	0.01	0.3	J 0.026		mg/L
* Sulfate, Total	SES 10/21/2016	EPA 300.0	1	0.3	1	6.48		mg/L

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2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS

has been correctly changed to Not Detected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-4 Dup

Laboratory ID Number: AW26445

To: Dustin Brooks

Greg Dyer

John Pugh

		MB					LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W26451 Mercury, Total by CVAA	mg/L 0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20
W26453 Barium, Total	mg/L 0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20
W26445 Calcium, Total	mg/L 0.000447	0.22	5.00	6.15	6.21	4.95	4.25 to 5.75	98.7	70 to 130	0.952	20
W26453 Arsenic, Total	mg/L 0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20
.W26453 Selenium, Total	mg/L 0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20
W26453 Antimony, Total	mg/L 0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20
.W26453 Chromium, Total	mg/L 0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20
.W26453 Beryllium, Total	mg/L 0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20
W26453 Cobalt, Total	mg/L 0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20
W26453 Molybdenum, Total	mg/L 0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20
W26445 Boron, Total	mg/L 0.00118	0.044	1.00	0.997	0.993	0.976	0.85 to 1.15	99.7	70 to 130	0.402	20
.W26445 Lithium, Total	mg/L -0.0000280	0.022	0.20	0.203	0.192	0.202	0.17 to 0.23	102	70 to 130	5.69	20
W26453 Cadmium, Total	mg/L 0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20
W26453 Lead, Total	mg/L 0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20
W26453 Thallium, Total	mg/L 0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20

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\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS

has been correctly changed to Not Detected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17



## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-4 Dup

Laboratory ID Number: AMOCAAT

To: Dustin Brooks

Greg Dyer

John Pugh

Labora	atory ID Number: AVV26445									
			MB			Sample		LFB	Rec	Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit Prec	Limit
AW26450	Sulfate, Total	mg/L -0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6 80 to 120 3.05	20
AW26450	Chloride, Total	mg/L 0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8 80 to 120 0.241	20
AW26450	Fluoride, Total	mg/L 0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8 80 to 120 7.69	20
AW26450	Solids, Dissolved	mg/L 1.00	25			28.0	45.0	40 to 60	0.00	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS

has been correctly changed to Not Detected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-3

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26446

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	QR	Results	Units
Radiological								
Total Radium, Test America	SGC 12/13/2016	6 EPA 9315/9320	1			A	Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	TAS 11/9/2016	EPA 200.8	5	0.00060	0.0030	UN	Not Detected	mg/L
* Arsenic, Total	TAS 11/9/2016	EPA 200.8	5	0.0010	0.005	UN	Not Detected	mg/L
* Barium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	0	0.0727	mg/L
* Beryllium, Total	TAS 11/9/2016	EPA 200.8	5	0.00060	0.0030	UN	Not Detected	mg/L
* Boron, Total	HRG 11/16/2016	6 EPA 200.7	1	0.02	0.1	UN	Not Detected	mg/L
* Calcium, Total	HRG 11/16/2016	6 EPA 200.7	1	0.1	0.5	1	1.53	mg/L
* Cadmium, Total	TAS 11/9/2016	EPA 200.8	5	0.0002	0.0010	UN	Not Detected	mg/L
* Cobalt, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	UN	Not Detected	mg/L
* Chromium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	UN	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 10/31/2016	6 EPA 245.1	1	0.00025	0.0005	UN	Not Detected	mg/L
* Lithium, Total	HRG 11/16/2016	6 EPA 200.7	1	0.01	0.05	UN	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	UN	Not Detected	mg/L
* Lead, Total	TAS 11/9/2016	EPA 200.8	5	0.0010	0.005	UN	Not Detected	mg/L
* Selenium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	UN	Not Detected	mg/L
* Thallium, Total	TAS 11/9/2016	EPA 200.8	5	0.00020	0.0010	UN	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 10/26/2016	S SM 2540C	1		25	2	26.7	mg/L
* Chloride, Total	SES 10/21/2016	6 EPA 300.0	1	0.04	0.25	3	3.77	mg/L
* Fluoride, Total	SES 10/21/2016	6 EPA 300.0	1	0.01	0.3	JO	0.030	mg/L
* Sulfate, Total	SES 10/21/2016	6 EPA 300.0	1	0.3	1	8	3.47	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-3

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26446

	_	MB	•				LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W26453 Lithium, Total	mg/L -0.0000292	0.022	0.20	0.195	0.200	0.202	0.17 to 0.23	97.7	70 to 130	2.53	20
W26451 Mercury, Total by CVAA	mg/L 0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20
W26453 Barium, Total	mg/L 0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20
W26453 Boron, Total	mg/L -0.0157	0.044	1.00	0.901	0.931	0.930	0.85 to 1.15	90.1	70 to 130	3.28	20
W26453 Arsenic, Total	mg/L 0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20
W26453 Calcium, Total	mg/L -0.108	0.22	5.00	4.65	4.72	4.70	4.25 to 5.75	93.0	70 to 130	1.49	20
W26453 Selenium, Total	mg/L 0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20
W26453 Beryllium, Total	mg/L 0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20
W26453 Cobalt, Total	mg/L 0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20
W26453 Molybdenum, Total	mg/L 0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20
W26453 Antimony, Total	mg/L 0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20
W26453 Chromium, Total	mg/L 0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20
W26453 Cadmium, Total	mg/L 0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20
W26453 Lead, Total	mg/L 0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20
W26453 Thallium, Total	mg/L 0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20

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MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-3

Laboratory ID Number: AW26446

To: Dustin Brooks

Greg Dyer

John Pugh

Labora	atory in Number. Avv20440										
		,	MB			Sample	'	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit
AW26450	Sulfate, Total	mg/L -0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6 80 to 120 3	3.05	20
AW26450	Chloride, Total	mg/L 0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8 80 to 120 (	).241	20
AW26450	Fluoride, Total	mg/L 0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8 80 to 120 7	7.69	20
AW26450	Solids, Dissolved	mg/L 1.00	25			28.0	45.0	40 to 60	(	0.00	5

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Expiration: June 30, 2018

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2.5 mg/L. The RL has now been corrected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

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Issued By: State of Florida, Department of Health



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-2

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26447

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Radiological							
Total Radium, Test America	SGC 12/13/2016	6 EPA 9315/9320	1			Attached	
Metals, Cyanide, Total Phenols							
* Antimony, Total	TAS 11/9/2016	EPA 200.8	5	0.00060	0.0030	U Not Detecte	d mg/L
* Arsenic, Total	TAS 11/9/2016	EPA 200.8	5	0.0010	0.005	U Not Detecte	d mg/L
* Barium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	0.103	mg/L
* Beryllium, Total	TAS 11/9/2016	EPA 200.8	5	0.00060	0.0030	U Not Detecte	d mg/L
* Boron, Total	HRG 11/16/2016	6 EPA 200.7	1	0.02	0.1	U Not Detecte	d mg/L
* Calcium, Total	HRG 11/16/2016	6 EPA 200.7	1	0.1	0.5	1.03	mg/L
* Cadmium, Total	TAS 11/9/2016	EPA 200.8	5	0.0002	0.0010	U Not Detecte	d mg/L
* Cobalt, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U Not Detecte	d mg/L
* Chromium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U Not Detecte	d mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 10/31/2016	6 EPA 245.1	1	0.00025	0.0005	U Not Detecte	d mg/L
* Lithium, Total	HRG 11/16/2016	6 EPA 200.7	1	0.01	0.05	U Not Detecte	d mg/L
<ul> <li>Molybdenum, Total</li> </ul>	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U Not Detecte	d mg/L
* Lead, Total	TAS 11/9/2016	EPA 200.8	5	0.0010	0.005	U Not Detecte	d mg/L
* Selenium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U Not Detecte	d mg/L
* Thallium, Total	TAS 11/9/2016	EPA 200.8	5	0.00020	0.0010	U Not Detecte	d mg/L
General Characteristics							
* Solids, Dissolved	DLJ 10/26/2016	S SM 2540C	1		25	U Not Detecte	d mg/L
* Chloride, Total	SES 10/21/2016	6 EPA 300.0	1	0.04	0.25	4.26	mg/L
* Fluoride, Total	SES 10/21/2016	6 EPA 300.0	1	0.01	0.3	J 0.040	mg/L
* Sulfate, Total	SES 10/21/2016	6 EPA 300.0	1	0.3	1	7.99	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS

has been correctly changed to Not Detected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-2

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26447

		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W26453 Lithium, Total	mg/L -0.0000292	0.022	0.20	0.195	0.200	0.202	0.17 to 0.23	97.7	70 to 130	2.53	20
W26453 Antimony, Total	mg/L 0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20
W26453 Chromium, Total	mg/L 0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20
W26453 Arsenic, Total	mg/L 0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20
W26453 Calcium, Total	mg/L -0.108	0.22	5.00	4.65	4.72	4.70	4.25 to 5.75	93.0	70 to 130	1.49	20
W26453 Selenium, Total	mg/L 0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20
W26453 Cadmium, Total	mg/L 0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20
W26453 Lead, Total	mg/L 0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20
W26453 Thallium, Total	mg/L 0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20
W26451 Mercury, Total by CVAA	mg/L 0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20
W26453 Barium, Total	mg/L 0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20
W26453 Boron, Total	mg/L -0.0157	0.044	1.00	0.901	0.931	0.930	0.85 to 1.15	90.1	70 to 130	3.28	20
W26453 Beryllium, Total	mg/L 0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20
W26453 Cobalt, Total	mg/L 0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20
W26453 Molybdenum, Total	mg/L 0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20

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### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-2

Laboratory ID Number: AW26447

To: Dustin Brooks

Greg Dyer

John Pugh

Labora	ttory in Humber. Avvz0447										
		'	MB			Sample	,	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit Pr	ес	Limit
AW26450	Chloride, Total	mg/L 0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8 80 to 120 0.2	241	20
AW26450	Sulfate, Total	mg/L -0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6 80 to 120 3.0	)5	20
AW26450	Fluoride, Total	mg/L 0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8 80 to 120 7.6	69	20
AW26450	Solids, Dissolved	mg/L 1.00	25			28.0	45.0	40 to 60	0.0	00	5

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has been correctly changed to Not Detected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-1

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26448

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	QF	Results	Units
Radiological								
Total Radium, Test America	SGC 12/13/2016	6 EPA 9315/9320	1			P	Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	TAS 11/9/2016	EPA 200.8	5	0.00060	0.0030	U N	Not Detected	mg/L
* Arsenic, Total	TAS 11/9/2016	EPA 200.8	5	0.0010	0.005	U N	Not Detected	mg/L
* Barium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	C	0.102	mg/L
* Beryllium, Total	TAS 11/9/2016	EPA 200.8	5	0.00060	0.0030	UN	Not Detected	mg/L
* Boron, Total	HRG 11/16/2016	6 EPA 200.7	1	0.02	0.1	U N	Not Detected	mg/L
* Calcium, Total	HRG 11/16/2016	6 EPA 200.7	1	0.1	0.5	1	1.04	mg/L
* Cadmium, Total	TAS 11/9/2016	EPA 200.8	5	0.0002	0.0010	U N	Not Detected	mg/L
* Cobalt, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	JC	0.00338	mg/L
* Chromium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U N	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 10/31/2016	6 EPA 245.1	1	0.00025	0.0005	U N	Not Detected	mg/L
* Lithium, Total	HRG 11/16/2016	6 EPA 200.7	1	0.01	0.05	U N	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U N	Not Detected	mg/L
* Lead, Total	TAS 11/9/2016	EPA 200.8	5	0.0010	0.005	U N	Not Detected	mg/L
* Selenium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U N	Not Detected	mg/L
* Thallium, Total	TAS 11/9/2016	EPA 200.8	5	0.00020	0.0010	U N	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 10/26/2016	S SM 2540C	1		25	2	27.3	mg/L
* Chloride, Total	SES 10/21/2016	6 EPA 300.0	1	0.04	0.25	3	3.90	mg/L
* Fluoride, Total	SES 10/21/2016	6 EPA 300.0	1	0.01	0.3	J	0.042	mg/L
* Sulfate, Total	SES 10/21/2016	6 EPA 300.0	1	0.3	1	1	10.2	mg/L

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### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-1

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26448

		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W26453 Lithium, Total	mg/L -0.0000292	0.022	0.20	0.195	0.200	0.202	0.17 to 0.23	97.7	70 to 130	2.53	20
W26451 Mercury, Total by CVAA	mg/L 0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20
W26453 Barium, Total	mg/L 0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20
W26453 Boron, Total	mg/L -0.0157	0.044	1.00	0.901	0.931	0.930	0.85 to 1.15	90.1	70 to 130	3.28	20
W26453 Cadmium, Total	mg/L 0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20
W26453 Lead, Total	mg/L 0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20
W26453 Thallium, Total	mg/L 0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20
W26453 Beryllium, Total	mg/L 0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20
W26453 Cobalt, Total	mg/L 0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20
W26453 Molybdenum, Total	mg/L 0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20
W26453 Arsenic, Total	mg/L 0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20
.W26453 Calcium, Total	mg/L -0.108	0.22	5.00	4.65	4.72	4.70	4.25 to 5.75	93.0	70 to 130	1.49	20
W26453 Selenium, Total	mg/L 0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20
W26453 Antimony, Total	mg/L 0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20
W26453 Chromium, Total	mg/L 0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

John Pugh

Description: Barry Gypsum - MW-1

To: Dustin Brooks

Greg Dyer

Laboratory ID Number: AW26448

Labore	atory in Humber. Avv20440										
· · · · · · · · · · · · · · · · · · ·			MB			Sample		LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit
AW26450	Sulfate, Total	mg/L -0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6 80 to 120	3.05	20
AW26450	Chloride, Total	mg/L 0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8 80 to 120	0.241	20
AW26450	Fluoride, Total	mg/L 0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8 80 to 120	7.69	20
AW26450	Solids, Dissolved	mg/L 1.00	25			28.0	45.0	40 to 60	(	0.00	5

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MDL's and RL's are adjusted for sample dilution, as applicable

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as

2.5 mg/L. The RL has now been corrected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114 Issued By: State of Florida, Department of Health Expiration: June 30, 2018



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-6

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26449

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological								
Total Radium, Test America	SGC 12/13/2016	S EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	TAS 11/9/2016	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
* Arsenic, Total	TAS 11/9/2016	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Barium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010		0.148	mg/L
* Beryllium, Total	TAS 11/9/2016	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
* Boron, Total	HRG 11/16/2016	6 EPA 200.7	1	0.02	0.1		0.249	mg/L
* Calcium, Total	HRG 11/16/2016	6 EPA 200.7	1	0.1	0.5		8.74	mg/L
* Cadmium, Total	TAS 11/9/2016	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
* Cobalt, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
* Chromium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 10/31/2016	6 EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 11/16/2016	S EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
* Lead, Total	TAS 11/9/2016	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010		0.0105	mg/L
* Thallium, Total	TAS 11/9/2016	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 10/26/2016	S SM 2540C	1		25		67.3	mg/L
* Chloride, Total	SES 10/21/2016	6 EPA 300.0	1	0.04	0.25		4.55	mg/L
* Fluoride, Total	SES 10/21/2016	6 EPA 300.0	1	0.01	0.3	J	0.049	mg/L
* Sulfate, Total	SES 10/21/2016	S EPA 300.0	1	0.3	1		22.5	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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2.5 mg/L. The RL has now been corrected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-6

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26449

Zaboratory is Italiasor. 700204-10	<u> </u>				-	-					
		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limi
W26453 Lithium, Total	mg/L -0.0000292	0.022	0.20	0.195	0.200	0.202	0.17 to 0.23	97.7	70 to 130	2.53	20
AW26451 Mercury, Total by CVAA	mg/L 0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20
AW26453 Barium, Total	mg/L 0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20
AW26453 Boron, Total	mg/L -0.0157	0.044	1.00	0.901	0.931	0.930	0.85 to 1.15	90.1	70 to 130	3.28	20
AW26453 Beryllium, Total	mg/L 0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20
AW26453 Cobalt, Total	mg/L 0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20
W26453 Molybdenum, Total	mg/L 0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20
AW26453 Cadmium, Total	mg/L 0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20
AW26453 Lead, Total	mg/L 0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20
AW26453 Thallium, Total	mg/L 0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20
AW26453 Arsenic, Total	mg/L 0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20
AW26453 Calcium, Total	mg/L -0.108	0.22	5.00	4.65	4.72	4.70	4.25 to 5.75	93.0	70 to 130	1.49	20
AW26453 Selenium, Total	mg/L 0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20
AW26453 Antimony, Total	mg/L 0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20
AW26453 Chromium, Total	mg/L 0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20

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## **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-6

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26449

Labora	tory in Humber. Avvz0443										
			MB			Sample		LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit F	Prec	Limit
AW26450	Sulfate, Total	mg/L -0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6 80 to 120 3	3.05	20
AW26450	Chloride, Total	mg/L 0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8 80 to 120 0	.241	20
AW26450	Fluoride, Total	mg/L 0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8 80 to 120 7	'.69	20
AW26450	Solids, Dissolved	mg/L 1.00	25			28.0	45.0	40 to 60	0	0.00	5

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CC:

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Issued By: State of Florida, Department of Health



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-7

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26450

Name	Analyst	Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological									
Total Radium, Test America	SGC	12/13/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols									
Antimony, Total	TAS	11/9/2016	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
Arsenic, Total	TAS	11/9/2016	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	TAS	11/9/2016	EPA 200.8	5	0.0020	0.010		0.0611	mg/L
Beryllium, Total	TAS	11/9/2016	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
Boron, Total	HRG	11/16/2016	EPA 200.7	1	0.02	0.1	U	Not Detected	mg/L
Calcium, Total	HRG	11/16/2016	EPA 200.7	1	0.1	0.5		1.45	mg/L
Cadmium, Total	TAS	11/9/2016	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
Cobalt, Total	TAS	11/9/2016	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Chromium, Total	TAS	11/9/2016	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Mercury, Total by CVAA	MCW	10/31/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG	11/16/2016	EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
Molybdenum, Total	TAS	11/9/2016	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Lead, Total	TAS	11/9/2016	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	TAS	11/9/2016	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Thallium, Total	TAS	11/9/2016	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics									
Solids, Dissolved	DLJ	10/26/2016	SM 2540C	1		25		28.0	mg/L
Chloride, Total	SES	10/21/2016	EPA 300.0	1	0.04	0.25		8.32	mg/L
Fluoride, Total	SES	10/21/2016	EPA 300.0	1	0.01	0.3	J	0.025	mg/L
Sulfate, Total	SES	10/21/2016	EPA 300.0	1	0.3	1		2.58	mg/L

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### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-7

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26450

		MB					LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W26453 Lithium, Total	mg/L -0.0000292	0.022	0.20	0.195	0.200	0.202	0.17 to 0.23	97.7	70 to 130	2.53	20
W26453 Arsenic, Total	mg/L 0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20
W26453 Calcium, Total	mg/L -0.108	0.22	5.00	4.65	4.72	4.70	4.25 to 5.75	93.0	70 to 130	1.49	20
W26453 Selenium, Total	mg/L 0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20
W26453 Antimony, Total	mg/L 0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20
W26453 Chromium, Total	mg/L 0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20
W26451 Mercury, Total by CVAA	mg/L 0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20
W26453 Barium, Total	mg/L 0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20
W26453 Boron, Total	mg/L -0.0157	0.044	1.00	0.901	0.931	0.930	0.85 to 1.15	90.1	70 to 130	3.28	20
W26453 Cadmium, Total	mg/L 0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20
W26453 Lead, Total	mg/L 0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20
W26453 Thallium, Total	mg/L 0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20
W26453 Beryllium, Total	mg/L 0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20
W26453 Cobalt, Total	mg/L 0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20
W26453 Molybdenum, Total	mg/L 0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20

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Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-7

To: Dustin Brooks

Greg Dyer

John Pugh

Labora	atory ID Number: AW26450										
· · · · · · · · · · · · · · · · · · ·		,	MB			Sample		LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit
AW26450	Sulfate, Total	mg/L -0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6 80 to 120 3	3.05	20
AW26450	Chloride, Total	mg/L 0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8 80 to 120 (	0.241	20
AW26450	Fluoride, Total	mg/L 0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8 80 to 120 7	7.69	20
AW26450	Solids, Dissolved	mg/L 1.00	25			28.0	45.0	40 to 60	(	0.00	5

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Issued By: State of Florida, Department of Health



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-9

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26451

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Re	sults	Units
Radiological								
Total Radium, Test America	SGC 12/13/2016	EPA 9315/9320	1			Att	tached	
Metals, Cyanide, Total Phenols								
* Antimony, Total	TAS 11/9/2016	EPA 200.8	5	0.00060	0.0030	U No	t Detected	mg/L
* Arsenic, Total	TAS 11/9/2016	EPA 200.8	5	0.0010	0.005	U No	t Detected	mg/L
* Barium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	0.1	106	mg/L
* Beryllium, Total	TAS 11/9/2016	EPA 200.8	5	0.00060	0.0030	U No	t Detected	mg/L
* Boron, Total	HRG 11/16/2016	6 EPA 200.7	1	0.02	0.1	U No	t Detected	mg/L
* Calcium, Total	HRG 11/16/2016	6 EPA 200.7	1	0.1	0.5	1.1	12	mg/L
* Cadmium, Total	TAS 11/9/2016	EPA 200.8	5	0.0002	0.0010	U No	t Detected	mg/L
* Cobalt, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U No	t Detected	mg/L
* Chromium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U No	t Detected	mg/L
* Mercury, Total by CVAA	MCW 10/31/2016	6 EPA 245.1	1	0.00025	0.0005	U No	t Detected	mg/L
* Lithium, Total	HRG 11/16/2016	6 EPA 200.7	1	0.01	0.05	U No	t Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U No	t Detected	mg/L
* Lead, Total	TAS 11/9/2016	EPA 200.8	5	0.0010	0.005	U No	t Detected	mg/L
* Selenium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U No	t Detected	mg/L
* Thallium, Total	TAS 11/9/2016	EPA 200.8	5	0.00020	0.0010	U No	t Detected	mg/L
General Characteristics								
* Solids, Dissolved	DLJ 10/26/2016	SM 2540C	1		25	32	.0	mg/L
* Chloride, Total	SES 10/21/2016	S EPA 300.0	1	0.04	0.25	4.7	71	mg/L
* Fluoride, Total	SES 10/21/2016	S EPA 300.0	1	0.01	0.3	J 0.0	071	mg/L
* Sulfate, Total	SES 10/21/2016	6 EPA 300.0	1	0.3	1	9.2	29	mg/L

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### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-9

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26451

Laboratory ID Number. AVV20451											
		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W26453 Lithium, Total	mg/L -0.0000292	0.022	0.20	0.195	0.200	0.202	0.17 to 0.23	97.7	70 to 130	2.53	20
W26451 Mercury, Total by CVAA	mg/L 0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20
W26453 Barium, Total	mg/L 0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20
W26453 Boron, Total	mg/L -0.0157	0.044	1.00	0.901	0.931	0.930	0.85 to 1.15	90.1	70 to 130	3.28	20
W26453 Beryllium, Total	mg/L 0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20
W26453 Cobalt, Total	mg/L 0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20
W26453 Molybdenum, Total	mg/L 0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20
W26453 Antimony, Total	mg/L 0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20
W26453 Chromium, Total	mg/L 0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20
W26453 Cadmium, Total	mg/L 0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20
W26453 Lead, Total	mg/L 0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20
.W26453 Thallium, Total	mg/L 0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20
W26453 Arsenic, Total	mg/L 0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20
W26453 Calcium, Total	mg/L -0.108	0.22	5.00	4.65	4.72	4.70	4.25 to 5.75	93.0	70 to 130	1.49	20
W26453 Selenium, Total	mg/L 0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Delivery Date:** 20-Oct-16

**Customer ID:** 

Description: Barry Gypsum - MW-9

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26451

	10.7 12 110											
			MB		,	Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW26460	Fluoride, Total	mg/L 0.000	0.3	2.00	2.03	0.000	2.08	1.8 to 2.2	102	80 to 120	0	20
AW26460	Sulfate, Total	mg/L -0.051	1.0	20.00	20.1	0.000	20.3	18 to 22	100	80 to 120	0	20
AW26460	Chloride, Total	mg/L 0.000	0.25	10.00	9.92	0.000	9.86	9 to 11	99.2	80 to 120	0	20
AW26455	Solids, Dissolved	mg/L 1.00	25			240	45.0	40 to 60			0.418	5

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Expiration: June 30, 2018

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2.5 mg/L. The RL has now been corrected.

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

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### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-10

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26452

Name	Analyst 7	Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological									
Total Radium, Test America	SGC <sup>2</sup>	12/13/2016	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols									
Antimony, Total	TAS	11/9/2016	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
Arsenic, Total	TAS	11/9/2016	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	TAS	11/9/2016	EPA 200.8	5	0.0020	0.010		0.127	mg/L
Beryllium, Total	TAS	11/9/2016	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
* Boron, Total	HRG '	11/16/2016	EPA 200.7	1	0.02	0.1	U	Not Detected	mg/L
Calcium, Total	HRG <sup>2</sup>	11/16/2016	EPA 200.7	1	0.1	0.5		0.788	mg/L
Cadmium, Total	TAS	11/9/2016	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
Cobalt, Total	TAS ^	11/9/2016	EPA 200.8	5	0.0020	0.010	J	0.00272	mg/L
* Chromium, Total	TAS ^	11/9/2016	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Mercury, Total by CVAA	MCW <sup>2</sup>	10/31/2016	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG '	11/16/2016	EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
Molybdenum, Total	TAS ^	11/9/2016	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Lead, Total	TAS '	11/9/2016	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	TAS '	11/9/2016	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Thallium, Total	TAS '	11/9/2016	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ ´	10/26/2016	SM 2540C	1		25		31.3	mg/L
Chloride, Total	SES <sup>2</sup>	10/21/2016	EPA 300.0	1	0.04	0.25		2.96	mg/L
Fluoride, Total	SES <sup>2</sup>	10/21/2016	EPA 300.0	1	0.01	0.3	J	0.092	mg/L
Sulfate, Total	SES	10/21/2016	EPA 300.0	1	0.3	1		11.7	mg/L

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Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health



### **Corrected Copy**

Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-10

To: Dustin Brooks

Greg Dyer

John Pugh

Laboratory ID Number: AW26452

		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
W26453 Lithium, Total	mg/L -0.0000292	0.022	0.20	0.195	0.200	0.202	0.17 to 0.23	97.7	70 to 130	2.53	20
W26461 Mercury, Total by CVAA	mg/L 0.0000744	0.0005	0.004	0.00370	0.00375	0.00368	0.0034 to 0.0046	92.5	70 to 130	1.33	20
W26453 Barium, Total	mg/L 0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20
W26453 Boron, Total	mg/L -0.0157	0.044	1.00	0.901	0.931	0.930	0.85 to 1.15	90.1	70 to 130	3.28	20
W26453 Antimony, Total	mg/L 0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20
W26453 Chromium, Total	mg/L 0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20
.W26453 Beryllium, Total	mg/L 0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20
W26453 Cobalt, Total	mg/L 0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20
W26453 Molybdenum, Total	mg/L 0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20
.W26453 Cadmium, Total	mg/L 0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20
.W26453 Lead, Total	mg/L 0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20
.W26453 Thallium, Total	mg/L 0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20
W26453 Arsenic, Total	mg/L 0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20
W26453 Calcium, Total	mg/L -0.108	0.22	5.00	4.65	4.72	4.70	4.25 to 5.75	93.0	70 to 130	1.49	20
W26453 Selenium, Total	mg/L 0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20

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Customer Account: WMWBARG Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum - MW-10

To: Dustin Brooks

Greg Dyer

John Pugh

Labora	atory ID Number: AW26452											
			MB			Sample		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW26460	Sulfate, Total	mg/L -0.051	1.0	20.00	20.1	0.000	20.3	18 to 22	100	80 to 120	0	20
AW26455	Solids, Dissolved	mg/L 1.00	25			240	45.0	40 to 60			0.418	5
AW26460	Fluoride, Total	mg/L 0.000	0.3	2.00	2.03	0.000	2.08	1.8 to 2.2	102	80 to 120	0	20
AW26460	Chloride, Total	ma/L 0 000	0.25	10.00	9 92	0.000	9.86	9 to 11	99.2	80 to 120	0	20

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## **Corrected Copy**

Customer Account: WMWBARGFB Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

**Description:** Barry Gypsum Field Blank

Laboratory ID Number: AW26453

To: Dustin Brooks

Greg Dyer

John Pugh

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Radiological				,			
Total Radium, Test America	SGC 12/13/2016	EPA 9315/9320	1			Attached	
Metals, Cyanide, Total Phenols							
* Antimony, Total	TAS 11/9/2016	EPA 200.8	5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS 11/9/2016	EPA 200.8	5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	TAS 11/9/2016	EPA 200.8	5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG 11/16/2016	EPA 200.7	1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG 11/16/2016	EPA 200.7	1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	TAS 11/9/2016	EPA 200.8	5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	MCW 10/31/2016	EPA 245.1	1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG 11/16/2016	EPA 200.7	1	0.01	0.05	U Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS 11/9/2016	EPA 200.8	5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS 11/9/2016	EPA 200.8	5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS 11/9/2016	EPA 200.8	5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics							
* Solids, Dissolved	DLJ 10/26/2016	SM 2540C	1		25	U Not Detected	mg/L
* Chloride, Total	SES 10/21/2016	EPA 300.0	1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES 10/21/2016	EPA 300.0	1	0.01	0.3	J 0.017	mg/L
* Sulfate, Total	SES 10/21/2016	EPA 300.0	1	0.3	1	U Not Detected	mg/L

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### **Corrected Copy**

Customer Account: WMWBARGFB Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW26453

To: Dustin Brooks

Greg Dyer

John Pugh

	<del>-</del>						1.50				
		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limi
W26453 Lithium, Total	mg/L -0.0000292	0.022	0.20	0.195	0.200	0.202	0.17 to 0.23	97.7	70 to 130	2.53	20
AW26461 Mercury, Total by CVAA	mg/L 0.0000744	0.0005	0.004	0.00370	0.00375	0.00368	0.0034 to 0.0046	92.5	70 to 130	1.33	20
AW26453 Barium, Total	mg/L 0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20
AW26453 Boron, Total	mg/L -0.0157	0.044	1.00	0.901	0.931	0.930	0.85 to 1.15	90.1	70 to 130	3.28	20
AW26453 Cadmium, Total	mg/L 0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20
AW26453 Lead, Total	mg/L 0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20
AW26453 Thallium, Total	mg/L 0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20
AW26453 Arsenic, Total	mg/L 0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20
AW26453 Calcium, Total	mg/L -0.108	0.22	5.00	4.65	4.72	4.70	4.25 to 5.75	93.0	70 to 130	1.49	20
AW26453 Selenium, Total	mg/L 0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20
AW26453 Antimony, Total	mg/L 0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20
AW26453 Chromium, Total	mg/L 0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20
AW26453 Beryllium, Total	mg/L 0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20
AW26453 Cobalt, Total	mg/L 0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20
W26453 Molybdenum, Total	mg/L 0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20

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### **Corrected Copy**

Customer Account: WMWBARGFB Sample Date: 18-Oct-16

**Customer ID:** 

**Delivery Date:** 20-Oct-16

**Description**: Barry Gypsum Field Blank

Laboratory ID Number: AW26453

To: Dustin Brooks

Greg Dyer

John Pugh

Luboit	itory ib italiber. Avvz0400											
		,	MB			Sample	,	LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW26460	Sulfate, Total	mg/L -0.051	1.0	20.00	20.1	0.000	20.3	18 to 22	100	80 to 120	0	20
AW26460	Chloride, Total	mg/L 0.000	0.25	10.00	9.92	0.000	9.86	9 to 11	99.2	80 to 120	0	20
AW26460	Fluoride, Total	mg/L 0.000	0.3	2.00	2.03	0.000	2.08	1.8 to 2.2	102	80 to 120	0	20
AW26455	Solids, Dissolved	mg/L 1.00	25			240	45.0	40 to 60			0.418	5

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### Alabama Power General Test Laboratory **Definitions** 744 County Road 87, GSC#8 (205) 664-6032 or 6171

Calera, AL 35040

FAX (205) 257-1654





Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the
	concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
В	Analyte found in reagent blank. Indicates possible reagent or background contamination.
Е	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
Р	Precision is out of range.
С	Analyte was verified by re-analysis.
Н	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as
	possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless
	otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information

▲ Alabama Power	Chain of Custody
⊈ab≪ E: 1.1	Chain of Custody Groundwater  APC General Testing Laboratory
SERVICES	APC General Testing Laboratory
	General Service Complex Building 8

~	Field Complete
~	Lab Complete

Lab ETA 10/20/2016 12:00

General Service Complex Building 8											
Requested Complete Date Routine Results To Dustin Brooks, John Pugh, Greg Distriction Requested By Greg Dyer											
Site Represent						╗					
Coll	ector Jason F	Rouss									
	D 4 D							<u>-</u>			
	Bottle 1: Radium 22	.6 & 228 (1) IL	bottle, Bott	le 2: Metals	and Hg (1) 500 mL boti	tie, Bottle 3: TDS and	Anions (1) 500 mL bottle	4			
Comments											
Sample # Date Time Count Description Filter Lab Id											
Sample #	Date	Lab Id									
MW-5	10/18/2016	10:15	3	Ground	water		AW26441				
MW-8	10/18/2016	11:22	3	Ground			AW26442				
EB-1	10/18/2016	11:40	3	Equipmo	ent Blank		AW26443				
Relinau	ished By				Received By		Date/Time	$\dashv$			
9	<u></u>		Saral	n Cop	eland Digitally sign Date: 2016.1	ned by Sarah Copeland 0.20 15:47:28 -05'00'		$\rceil  $			

Jona	Sarah Copeland Digitally signed by Sarah Copeland Date: 2016.10.20 15:47:28 -05'00'	10/20/2016 15:47

SmarTroll ID 5141-26150-1-1 Turbidity ID 4677-23342-4-1

All metals and radiological bottles have pH < 2 🔽 Cooler Temp | 0.9 degrees C

Thermometer ID 5408-27568-2-2 pH Strip ID 5521-28274-20-18
Page 51 of 53



~	Field Complete
~	Lab Complete

Lab ETA 10/20/2016 12:00

Requested Complete	Date	Routine		Results To	Dustin Brooks, Joh	nn Pugh, Greg Dye	r
Site Represen	tative	Angie Jimmers	son	Requested By	Greg Dyer		
-		Anthony Goggins Location Barry Gyps		Barry Gypsum			
Analysis Requested Comments	Bottle 1:	Radium 226 & 228 (	1) 1L bottle, Bottle 2: Meta	als and Hg (1) 500 mL bot	tle, Bottle 3: TDS and	Anions (1) 500 mL bo	ottle
			Bottle		Lab		

			Bottle		Lab	- 1 - 1
Sample #	Date	Time	Count	Description	Filter	Lab Id
MW-4	10/18/2016	09:51	3	Groundwater		AW26444
MW-4DUP	10/18/2016	09:51	3	Sample Duplicate		AW26445
MW-3	10/18/2016	10:48	3	Groundwater		AW26446
MW-2	10/18/2016	11:48	3	Groundwater		AW26447
MW-1	10/18/2016	12:57	3	Groundwater		AW26448

Relinquished By	Received By	Date/Time
anthony Goggins	Jan Que	10/18/2016 15:15
Jonan	Sarah Copeland Digitally signed by Sarah Copeland Date: 2016.10.20 15:49:08-05'00'	10/20/2016 15:49

SmarTroll ID | 515<u>1-26193-1-1</u> Turbidity ID 5160-26211-1-1

All metals and radiological bottles have pH < 2 🔽 Cooler Temp | 0.9 degrees C

Thermometer ID 5408-27568-2-2

pH Strip ID 5521-28274-20-18



~	Field Complete				
~	Lab Complete				

Lab ETA 10/20/2016 12:00

Requested Complete	Date	Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer	
Site Representative		Angie Jimmerson	Requested By	Greg Dyer	
Collector		Ben Rothschadl	Location	Barry Gypsum	
111111/010 110 410000	Radium Duplicate collected at MW6  Bottle 1: Radium 226 & 228 (1) 1L bottle, Bottle 2: Metals and Hg (1) 500 mL bottle, Bottle 3: TDS and Anions (1)				
Comments					

			Bottle		Lab	
Sample #	Date	Time	Count	Description	Filter	Lab Id
MW6	10/18/2016	09:46	5	Groundwater		AW26449
MW7	10/18/2016	11:35	3	Groundwater		AW26450
MW9	10/18/2016	12:35	3	Groundwater		AW26451
MW10	10/18/2016	13:27	3	Groundwater		AW26452
FB1	10/18/2016	13:40	3	Field Blank		AW26453

Relinquished By	Received By	Date/Time
BenRothschall	J. Q.	10/18/2016 15:14
Jonan	Sarah Copeland Digitally signed by Sarah Copeland Date: 2016.10.20 15:50:31 -05'00'	10/20/2016 15:50

SmarTroll ID | 4696-23441-1-1 Turbidity ID | 3901-20010-2-2 All metals and radiological bottles have pH < 2 🔽 Cooler Temp | 0.9 degrees C

Thermometer ID 5408-27568-2-2 pH Strip ID 5521-28274-20-18



THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola 3355 McLemore Drive Pensacola, FL 32514 Tel: (850)474-1001

TestAmerica Job ID: 400-129138-1

TestAmerica Sample Delivery Group: Barry Gypsum (5)

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory 744 County Rd 87 GSC #8 Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by: 11/30/2016 5:51:16 PM

Cheyenne Whitmire, Project Manager II (850)471-6222

cheyenne.whitmire@testamericainc.com

.....LINKS .....

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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3

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10

12

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-129138-1 SDG: Barry Gypsum (5)

Job ID: 400-129138-1

Laboratory: TestAmerica Pensacola

**Narrative** 

Job Narrative 400-129138-1

### **RAD**

Method(s) PrecSep 0: Radium-228 Prep Batch 160-277045: The following samples were run at a reduced aliquot due to limited sample available: AW23441 MW-5 (400-129138-1), AW23442 MW-8 (400-129138-2), AW23443 EB-1 (400-129138-3), AW23444 MW-4 (400-129138-4), AW23445 MW-4 DUP (400-129138-5), AW23446 MW-3 (400-129138-6), AW23447 MW-2 (400-129138-7), AW23448 MW-1 (400-129138-8), AW26450 MW-7 (400-129138-10), AW26451 MW-9 (400-129138-11), AW26452 MW-10 (400-129138-12) and AW26453 FB-1 (400-129138-13).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-277036: The following samples were run at a reduced aliquot due to limited sample available: AW23441 MW-5 (400-129138-1), AW23442 MW-8 (400-129138-2), AW23443 EB-1 (400-129138-3), AW23444 MW-4 (400-129138-4), AW23445 MW-4 DUP (400-129138-5), AW23446 MW-3 (400-129138-6), AW23447 MW-2 (400-129138-7), AW23448 MW-1 (400-129138-8), AW26450 MW-7 (400-129138-10), AW26451 MW-9 (400-129138-11), AW26452 MW-10 (400-129138-12) and AW26453 FB-1 (400-129138-13).

# **Method Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-129138-1 SDG: Barry Gypsum (5)

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates. TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

### **Laboratory References:**

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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# **Sample Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-129138-1 SDG: Barry Gypsum (5)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-129138-1	AW23441 MW-5	Water	10/18/16 10:15	10/25/16 15:30
400-129138-2	AW23442 MW-8	Water	10/18/16 11:22	10/25/16 15:30
400-129138-3	AW23443 EB-1	Water	10/18/16 11:40	10/25/16 15:30
400-129138-4	AW23444 MW-4	Water	10/18/16 09:51	10/25/16 15:30
400-129138-5	AW23445 MW-4 DUP	Water	10/18/16 09:51	10/25/16 15:30
400-129138-6	AW23446 MW-3	Water	10/18/16 10:48	10/25/16 15:30
400-129138-7	AW23447 MW-2	Water	10/18/16 11:48	10/25/16 15:30
400-129138-8	AW23448 MW-1	Water	10/18/16 12:57	10/25/16 15:30
400-129138-9	AW26449 MW-6	Water	10/18/16 09:46	10/25/16 15:30
400-129138-10	AW26450 MW-7	Water	10/18/16 11:35	10/25/16 15:30
400-129138-11	AW26451 MW-9	Water	10/18/16 12:35	10/25/16 15:30
400-129138-12	AW26452 MW-10	Water	10/18/16 13:27	10/25/16 15:30
400-129138-13	AW26453 FB-1	Water	10/18/16 13:40	10/25/16 15:30

TestAmerica Job ID: 400-129138-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (5)

Client Sample ID: AW23441 MW-5

Lab Sample ID: 400-129138-1 Date Collected: 10/18/16 10:15 **Matrix: Water** 

Date Received: 10/25/16 15:30

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.500	U	0.391	0.394	1.00	0.574	pCi/L	11/01/16 14:40	11/28/16 19:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					11/01/16 14:40	11/28/16 19:06	1

· ·	,	Count	Total						
		Uncert.	Uncert.						
Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
0.467		0.302	0.305	1.00	0.463	pCi/L	11/01/16 15:15	11/28/16 14:39	1
%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
89.7		40 - 110					11/01/16 15:15	11/28/16 14:39	1
95.3		40 - 110					11/01/16 15:15	11/28/16 14:39	1
	0.467  %Yield 89.7		Result   Qualifier   (2σ+/-)   0.467   0.302	Nesult   Qualifier   Co+/-)   (2σ+/-)   (2σ	Nesult   Qualifier   (2σ+/-)   (2σ+/-)   RL     0.467   0.302   0.305   1.00     WYield   Qualifier   Limits     89.7   40 - 110	Nesult   Qualifier   (2σ+/-)   (2σ+/-)   RL   MDC	Nesult   Qualifier   (2σ+/-)   (2σ+/-)   RL   MDC   Unit	Nesult   Qualifier   (2σ+/-)   (2σ+/-)   RL   MDC   Unit   Prepared	Nesult   Qualifier   County   County

Method: Ra226_Ra	228 - Con	nbined Ra	dium-226 a	nd Radium	<b>-228</b>					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.966		0.494	0.498	5.00	0.574	pCi/L	_	11/30/16 11:17	1

Client Sample ID: AW23442 MW-8 Lab Sample ID: 400-129138-2 Date Collected: 10/18/16 11:22 **Matrix: Water** 

Date Received: 10/25/16 15:30

Method: 9315 -	Radium-220	(GI FC)	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.259	U	0.338	0.338	1.00	0.563	pCi/L	11/01/16 14:40	11/28/16 19:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		40 - 110					11/01/16 14:40	11/28/16 19:06	
Method: 9320 -		(GFPC)	40 - 110					11/01/16 14.40	11/20/10 19.00	,
-		(GFPC)	Count Uncert.	Total Uncert.				11/01/16 14.40	11/20/10 19.00	,
Method: 9320 -	Radium-228 (	(GFPC)  Qualifier	Count		RL	MDC	Unit	Prepared	Analyzed	Dil Fac
- -	Radium-228 (	Qualifier	Count Uncert.	Uncert.	RL 1.00	MDC 0.478				Dil Fac
Method: 9320 -	Radium-228 (  Result 0.361	Qualifier	Count Uncert. (2σ+/-)	Uncert. (2σ+/-)				Prepared	Analyzed	Dil Fac
Method: 9320 -  Analyte Radium-228	Radium-228 (  Result 0.361	Qualifier	Count Uncert. (2σ+/-)	Uncert. (2σ+/-)				Prepared 11/01/16 15:15	Analyzed 11/28/16 14:39	1

TestAmerica Job ID: 400-129138-1 SDG: Barry Gypsum (5)

Client Sample ID: AW23442 MW-8

Date Collected: 10/18/16 11:22 Date Received: 10/25/16 15:30 Lab Sample ID: 400-129138-2

Matrix: Water

Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

			<b></b>							
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium	0.620		0.453	0.454	5.00	0.563	pCi/L		11/30/16 11:17	1
226 + 228										

Client Sample ID: AW23443 EB-1

Date Collected: 10/18/16 11:40 Date Received: 10/25/16 15:30 Lab Sample ID: 400-129138-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analvzed	Dil Fac
Radium-226	0.0366		0.254	0.254	1.00		pCi/L		11/28/16 19:06	1
Carrier Ba Carrier	% <b>Yield</b> 87.7	Qualifier	Limits 40 - 110					<b>Prepared</b> 11/01/16 14:40	Analyzed 11/28/16 19:06	Dil Fac

Method: 9320 - Radium-228 (GFPC)

			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0228	U	0.273	0.274	1.00	0.489	pCi/L	11/01/16 15:15	11/28/16 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					11/01/16 15:15	11/28/16 14:39	1
Y Carrier	95.0		40 - 110					11/01/16 15:15	11/28/16 14:39	1

Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226	0.0594	$\overline{U}$	0.373	0.373	5.00	0.509	pCi/L		11/30/16 11:17	1
± 220										

Client Sample ID: AW23444 MW-4

Date Collected: 10/18/16 09:51 Date Received: 10/25/16 15:30 Lab Sample ID: 400-129138-4 Matrix: Water

Method: 9315 - Radium-226 (GFPC)

moniour out o ra	aram 220 (	<b>3</b> 11 <b>3</b> 7	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.444	U	0.368	0.370	1.00	0.546	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					11/01/16 14:40	11/28/16 19:07	

TestAmerica Job ID: 400-129138-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (5)

Client Sample ID: AW23444 MW-4

Lab Sample ID: 400-129138-4 Date Collected: 10/18/16 09:51 **Matrix: Water** 

Date Received: 10/25/16 15:30

Method: 9320 - R	adium-228 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.462	U	0.332	0.334	1.00	0.518	pCi/L	11/01/16 15:15	11/28/16 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					11/01/16 15:15	11/28/16 14:39	1
Y Carrier	93.5		40 - 110					11/01/16 15:15	11/28/16 14:39	1

Method: Ra226_Ra	228 - Con	ibined Rad	dium-226 a	nd Radium	1-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium	0.905		0.495	0.499	5.00	0.546	pCi/L	_	11/30/16 11:17	1

Lab Sample ID: 400-129138-5 Client Sample ID: AW23445 MW-4 DUP

Date Collected: 10/18/16 09:51 **Matrix: Water** 

Date Received: 10/25/16 15:30

Method: 9315 - F	Radium-226 (	GFPC)								
	·	•	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.195	U	0.324	0.324	1.00	0.564	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					11/01/16 14:40	11/28/16 19:07	1

Method: 9320 - F	Radium-228 (	GFPC)								
	·		Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.952		0.366	0.376	1.00	0.505	pCi/L	11/01/16 15:15	11/28/16 14:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					11/01/16 15:15	11/28/16 14:40	1
Y Carrier	93.8		40 - 110					11/01/16 15:15	11/28/16 14:40	1

Method: Ra226_Ra	228 - Con	bined Rad	dium-226 a	nd Radiun	n-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.15		0.488	0.496	5.00	0.564	pCi/L		11/30/16 11:17	1

Client Sample ID: AW23446 MW-3

Date Collected: 10/18/16 10:48 Date Received: 10/25/16 15:30

Lab Sample ID: 400-129138-6 **Matrix: Water** 

Method: 9315 - I	Radium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0942	U	0.292	0.292	1.00	0.549	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					11/01/16 14:40	11/28/16 19:07	1

Method: 9320 - F	Radium-228 (	(GFPC)								
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.697		0.314	0.321	1.00	0.450	pCi/L	11/01/16 15:15	11/28/16 14:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					11/01/16 15:15	11/28/16 14:40	1
Y Carrier	101		40 - 110					11/01/16 15:15	11/28/16 14:40	1

Method: Ra226_Ra	228 - Con	nbined Ra	dium-226 a	nd Radium	-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.791		0.429	0.434	5.00	0.549	pCi/L		11/30/16 11:17	1

Client Sample ID: AW23447 MW-2 Lab Sample ID: 400-129138-7 Date Collected: 10/18/16 11:48 **Matrix: Water** Date Received: 10/25/16 15:30

Method: 9315 -	Radium-226 (	(GFPC)								
		,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.340	U	0.332	0.333	1.00	0.515	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					11/01/16 14:40	11/28/16 19:07	

Method: 9320 - F	Radium-228 (	GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.661		0.407	0.411	1.00	0.631	pCi/L	11/01/16 15:15	11/28/16 14:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					11/01/16 15:15	11/28/16 14:40	1
Y Carrier	95.3		40 - 110					11/01/16 15:15	11/28/16 14:40	1

SDG: Barry Gypsum (5)

Client Sample ID: AW23447 MW-2

Date Collected: 10/18/16 11:48 Date Received: 10/25/16 15:30

Lab Sample ID: 400-129138-7

**Matrix: Water** 

Method: Ra226 Ra228 - Combined Radium-226 and Radium-228

Mictiloa. Mazzo_Ma		ibilica ita	alaili <b>LL</b> O a	ila itaalali						
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium	1.00		0.525	0.529	5.00	0.631	pCi/L	_	11/30/16 11:17	1
226 + 228										

Client Sample ID: AW23448 MW-1

Date Collected: 10/18/16 12:57 Date Received: 10/25/16 15:30

Lab Sample ID: 400-129138-8

11/01/16 15:15 11/28/16 14:40

**Matrix: Water** 

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.720		0.422	0.427	1.00	0.552	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier Ba Carrier	%Yield 87.2	Qualifier	Limits 40 - 110					<b>Prepared</b> 11/01/16 14:40	Analyzed 11/28/16 19:07	Dil Fac

Method: 9320 - Radium-228 (GFPC) Count Total Uncert. Uncert. Analyte Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ **MDC** Unit Prepared RL Analyzed Dil Fac Radium-228 0.366 0.373 1.00 0.540 pCi/L <u>11/01/16 15:15</u> <u>11/28/16 14:40</u> 0.754 Carrier **%Yield Qualifier** Limits Prepared Analyzed Dil Fac Ba Carrier 87.2 40 - 110 <u>11/01/16 15:15</u> <u>11/28/16 14:40</u>

Method: Ra226 Ra228 - Combined Radium-226 and Radium-228

40 - 110

94.2

_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium	1.47		0.558	0.566	5.00	0.552	pCi/L		11/30/16 11:17	1

Client Sample ID: AW26449 MW-6

Date Collected: 10/18/16 09:46 Date Received: 10/25/16 15:30

Y Carrier

Lab Sample ID: 400-129138-9 **Matrix: Water** 

Method: 9315 - R	adium-226 (	GFPC)								
		,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.591		0.351	0.355	1.00	0.474	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.1		40 - 110					11/01/16 14:40	11/28/16 19:07	1

TestAmerica Job ID: 400-129138-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (5)

Client Sample ID: AW26449 MW-6

Lab Sample ID: 400-129138-9 Date Collected: 10/18/16 09:46 **Matrix: Water** Date Received: 10/25/16 15:30

Method: 9320 - F	,	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.375	U	0.285	0.287	1.00	0.450	pCi/L	11/01/16 15:15	11/28/16 14:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.1		40 - 110					11/01/16 15:15	11/28/16 14:40	1
Y Carrier	90.8		40 - 110					11/01/16 15:15	11/28/16 14:40	1

Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228 Count Total Uncert. Uncert. Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ **MDC** Unit Prepared RL Analyzed **Combined Radium** 0.966 0.453 0.457 5.00 0.474 pCi/L 11/30/16 11:17 226 + 228

Client Sample ID: AW26450 MW-7 Lab Sample ID: 400-129138-10

Date Collected: 10/18/16 11:35 **Matrix: Water** 

Date Received: 10/25/16 15:30

Method: 9315 - I	Radium-226 (	(GFPC)								
		,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.565	U	0.415	0.418	1.00	0.604	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					11/01/16 14:40	11/28/16 19:07	1

Method: 9320 - I	Radium-228 (	GFPC)								
	·		Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.362	U	0.311	0.312	1.00	0.496	pCi/L	11/01/16 15:15	11/28/16 14:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					11/01/16 15:15	11/28/16 14:40	1
Y Carrier	93.1		40 - 110					11/01/16 15:15	11/28/16 14:40	1

Method: Ra226_Ra	1228 - Combir	ned Radium-226 a	ınd Radiui	m-228					
_		Count	Total						
		Uncert.	Uncert.						
Analyte	Result Qu	ıalifier (2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.927	0.518	0.522	5.00	0.604	pCi/L		11/30/16 11:17	1

TestAmerica Pensacola

TestAmerica Job ID: 400-129138-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (5)

Client Sample ID: AW26451 MW-9

Lab Sample ID: 400-129138-11 Date Collected: 10/18/16 12:35 **Matrix: Water** Date Received: 10/25/16 15:30

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.452	Ū	0.352	0.354	1.00	0.507	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					11/01/16 14:40	11/28/16 19:07	1

Analyte		Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC		Prepared	Analyzed	Dil Fac
Radium-228	0.611		0.346	0.350	1.00	0.524	pCi/L	11/01/16 15:15	11/28/16 14:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					11/01/16 15:15	11/28/16 14:41	1
Y Carrier	95.7		40 - 110					11/01/16 15:15	11/28/16 14:41	1

Method: Ra226 Ra	228 - Con	bined Rad	dium-226 a	nd Radium	1-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.06		0.493	0.498	5.00	0.524	pCi/L	<del>-</del>	11/30/16 11:17	1

Lab Sample ID: 400-129138-12 Client Sample ID: AW26452 MW-10 Date Collected: 10/18/16 13:27 **Matrix: Water** Date Received: 10/25/16 15:30

	lium-226 (	GFPC)								
	·		Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.820		0.437	0.443	1.00	0.549	pCi/L	11/01/16 14:40	11/28/16 19:07	1

Carrier	%Yield Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	87.2	40 - 110	11/01/16 14:40 T	11/28/16 19:07	1

Method: 9320 - F	Radium-228 (	GFPC)								
		,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.543		0.324	0.328	1.00	0.489	pCi/L	11/01/16 15:15	11/28/16 14:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					11/01/16 15:15	11/28/16 14:41	1
Y Carrier	92.7		40 - 110					11/01/16 15:15	11/28/16 14:41	1

# **Client Sample Results**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-129138-1 SDG: Barry Gypsum (5)

Client Sample ID: AW26452 MW-10 Lab Sample ID: 400-129138-12

Date Collected: 10/18/16 13:27

**Matrix: Water** 

Date Received: 10/25/16 15:30

Method: Ra226_Ra	228 - Com	ibined Rad	dium-226 a	nd Radium	1-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.36		0.544	0.551	5.00	0.549	pCi/L		11/30/16 11:17	1

Client Sample ID: AW26453 FB-1 Lab Sample ID: 400-129138-13

Date Collected: 10/18/16 13:40 **Matrix: Water** Date Received: 10/25/16 15:30

Method: 9315 - Radium-226 (GFPC) Count Total Uncert. Uncert. Analyte Result Qualifier RL **MDC** Unit Prepared Analyzed  $(2\sigma + / -)$  $(2\sigma + / -)$ Dil Fac Radium-226 -0.114 U 11/01/16 14:40 11/28/16 19:08 0.223 0.223 1.00 0.534 pCi/L Carrier **%Yield Qualifier** Limits Prepared Dil Fac Analyzed Ba Carrier 85.8 40 - 110 11/01/16 14:40 11/28/16 19:08

Method: 9320 - Radium-228 (GFPC) Count Total Uncert. Uncert. Analyte Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ **MDC** Unit Prepared RL Analyzed Dil Fac Radium-228 0.128 Ū 0.317 0.318 1.00 0.547 pCi/L 11/01/16 15:15 11/28/16 14:41 Carrier **%Yield Qualifier** Limits Prepared Analyzed Dil Fac Ba Carrier 85.8 40 - 110 11/01/16 15:15 11/28/16 14:41 Y Carrier 91.6 40 - 110 11/01/16 15:15 11/28/16 14:41

Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228 Total Count Uncert. Uncert. Analyte Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ RL **MDC** Unit Prepared Analyzed Dil Fac 0.0138 U 0.388 0.388 5.00 0.547 pCi/L 11/30/16 11:17 Combined Radium 226

+ 228

11/30/2016

# **Definitions/Glossary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-129138-1 SDG: Barry Gypsum (5)

### **Qualifiers**

### Rad

ND

PQL

QC

RER

**RPD** 

TEF

**TEQ** 

RL

Qualifier	Qualifier Description

U Result is less than the sample detection limit.

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

**Quality Control** 

Relative error ratio

Not detected at the reporting limit (or MDL or EDL if shown)

Relative Percent Difference, a measure of the relative difference between two points

Reporting Limit or Requested Limit (Radiochemistry)

# **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated

SDG: Barry Gypsum (5)

Client Sample ID: AW23441 MW-5

Client: Alabama Power General Test Laboratory

Date Collected: 10/18/16 10:15 Date Received: 10/25/16 15:30

Project/Site: CCR Plant Barry

Lab Sample ID: 400-129138-1

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:06	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:39	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Lab Sample ID: 400-129138-2 Client Sample ID: AW23442 MW-8

Date Collected: 10/18/16 11:22 Date Received: 10/25/16 15:30

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:06	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:39	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Client Sample ID: AW23443 EB-1 Lab Sample ID: 400-129138-3

Date Collected: 10/18/16 11:40 **Matrix: Water** 

Date Received: 10/25/16 15:30

Batch		Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:06	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:39	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Client Sample ID: AW23444 MW-4 Lab Sample ID: 400-129138-4

Date Collected: 10/18/16 09:51 Date Received: 10/25/16 15:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:07	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:39	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

TestAmerica Pensacola

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11/30/2016

**Matrix: Water** 

SDG: Barry Gypsum (5)

Client Sample ID: AW23445 MW-4 DUP

Client: Alabama Power General Test Laboratory

Date Collected: 10/18/16 09:51 Date Received: 10/25/16 15:30

Project/Site: CCR Plant Barry

Lab Sample ID: 400-129138-5

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:07	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:40	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Client Sample ID: AW23446 MW-3 Lab Sample ID: 400-129138-6

Date Collected: 10/18/16 10:48 Date Received: 10/25/16 15:30

**Matrix: Water** 

Batch Batch Dilution Batch Prepared Prep Type Method Number or Analyzed Type Run Factor Analyst Lab Total/NA Prep PrecSep-21 277036 11/01/16 14:40 AS TAL SL Total/NA Analysis 9315 1 280986 11/28/16 19:07 MLK TAL SL TAL SL Total/NA Prep PrecSep\_0 277045 11/01/16 15:15 AS Total/NA Analysis 9320 1 280986 11/28/16 14:40 MLK TAL SL TAL SL Total/NA Analysis Ra226\_Ra228 1 281646 11/30/16 11:17 RTM

Client Sample ID: AW23447 MW-2 Lab Sample ID: 400-129138-7

Date Collected: 10/18/16 11:48 Date Received: 10/25/16 15:30

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:07	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:40	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Lah Sample ID: 400-120138-8 Client Sample ID: AW23448 MW-1

Date Collected: 10/18/16 12:57 Date Received: 10/25/16 15:30

Lab Sample ID.	400-123130-0
	Matrix: Water

Batch		Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:07	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:40	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

TestAmerica Pensacola

Date Received: 10/25/16 15:30

TestAmerica Job ID: 400-129138-1 SDG: Barry Gypsum (5)

Lab Sample ID: 400-129138-9

Client Sample ID: AW26449 MW-6 Date Collected: 10/18/16 09:46 **Matrix: Water** 

Batch Batch Dilution Batch **Prepared Prep Type** Type Method Run **Factor** Number or Analyzed Analyst Lab Total/NA Prep PrecSep-21 277036 11/01/16 14:40 AS TAL SL Total/NA Analysis 9315 280986 11/28/16 19:07 MLK TAL SL 1 Total/NA Prep PrecSep\_0 277045 11/01/16 15:15 AS TAL SL Total/NA Analysis 9320 280986 11/28/16 14:40 MLK TAL SL 1 Total/NA Analysis Ra226 Ra228 281646 11/30/16 11:17 RTM TAL SL

Client Sample ID: AW26450 MW-7 Lab Sample ID: 400-129138-10

Date Collected: 10/18/16 11:35 **Matrix: Water** 

Date Received: 10/25/16 15:30

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:07	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:40	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Client Sample ID: AW26451 MW-9 Lab Sample ID: 400-129138-11

Date Collected: 10/18/16 12:35 **Matrix: Water** Date Received: 10/25/16 15:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:07	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:41	MLK	TAL SL
Total/NA	Analysis	Ra226 Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Client Sample ID: AW26452 MW-10 Lab Sample ID: 400-129138-12

Date Collected: 10/18/16 13:27 Date Received: 10/25/16 15:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:07	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:41	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

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**Matrix: Water** 

### **Lab Chronicle**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

Date Received: 10/25/16 15:30

TestAmerica Job ID: 400-129138-1 SDG: Barry Gypsum (5)

Lab Sample ID: 400-129138-13

Client Sample ID: AW26453 FB-1 Date Collected: 10/18/16 13:40 **Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:08	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:41	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

### **Laboratory References:**

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# **QC Association Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-129138-1 SDG: Barry Gypsum (5)

### Rad

## **Prep Batch: 277036**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129138-1	AW23441 MW-5	Total/NA	Water	PrecSep-21	
400-129138-2	AW23442 MW-8	Total/NA	Water	PrecSep-21	
400-129138-3	AW23443 EB-1	Total/NA	Water	PrecSep-21	
400-129138-4	AW23444 MW-4	Total/NA	Water	PrecSep-21	
400-129138-5	AW23445 MW-4 DUP	Total/NA	Water	PrecSep-21	
400-129138-6	AW23446 MW-3	Total/NA	Water	PrecSep-21	
400-129138-7	AW23447 MW-2	Total/NA	Water	PrecSep-21	
400-129138-8	AW23448 MW-1	Total/NA	Water	PrecSep-21	
400-129138-9	AW26449 MW-6	Total/NA	Water	PrecSep-21	
400-129138-10	AW26450 MW-7	Total/NA	Water	PrecSep-21	
400-129138-11	AW26451 MW-9	Total/NA	Water	PrecSep-21	
400-129138-12	AW26452 MW-10	Total/NA	Water	PrecSep-21	
400-129138-13	AW26453 FB-1	Total/NA	Water	PrecSep-21	
MB 160-277036/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-277036/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-129138-9 DU	AW26449 MW-6	Total/NA	Water	PrecSep-21	

### **Prep Batch: 277045**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129138-1	AW23441 MW-5	Total/NA	Water	PrecSep_0	-
400-129138-2	AW23442 MW-8	Total/NA	Water	PrecSep_0	
400-129138-3	AW23443 EB-1	Total/NA	Water	PrecSep_0	
400-129138-4	AW23444 MW-4	Total/NA	Water	PrecSep_0	
400-129138-5	AW23445 MW-4 DUP	Total/NA	Water	PrecSep_0	
400-129138-6	AW23446 MW-3	Total/NA	Water	PrecSep_0	
400-129138-7	AW23447 MW-2	Total/NA	Water	PrecSep_0	
400-129138-8	AW23448 MW-1	Total/NA	Water	PrecSep_0	
400-129138-9	AW26449 MW-6	Total/NA	Water	PrecSep_0	
400-129138-10	AW26450 MW-7	Total/NA	Water	PrecSep_0	
400-129138-11	AW26451 MW-9	Total/NA	Water	PrecSep_0	
400-129138-12	AW26452 MW-10	Total/NA	Water	PrecSep_0	
400-129138-13	AW26453 FB-1	Total/NA	Water	PrecSep_0	
MB 160-277045/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-277045/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-129138-9 DU	AW26449 MW-6	Total/NA	Water	PrecSep_0	

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Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-129138-1 SDG: Barry Gypsum (5)

# Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-277036/1-A

**Matrix: Water** 

**Matrix: Water** 

Analysis Batch: 280986

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 277036

			Count	iotai						
	MB	MB	Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.07182	U	0.176	0.176	1.00	0.408	pCi/L	11/01/16 14:40	11/28/16 19:06	1

Total

Count

MB MB

**%Yield Qualifier** Carrier I imits Ba Carrier 83.5 40 - 110

11/01/16 14:40 11/28/16 19:06

Prepared

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA Prep Batch: 277036

Dil Fac

10

Analyzed

Analysis Batch: 280986 Total Spike LCS LCS %Rec. Uncert. Analyte Added Result Qual  $(2\sigma + / -)$ RL**MDC** Unit %Rec Limits Radium-226 11.1 14.23 1.81 1.00 0.378 pCi/L 128 68 - 137

LCS LCS

Lab Sample ID: LCS 160-277036/2-A

Carrier %Yield Qualifier Limits Ba Carrier 85.2 40 - 110

Lab Sample ID: 400-129138-9 DU Client Sample ID: AW26449 MW-6

**Matrix: Water** 

**Analysis Batch: 280986** 

**Prep Type: Total/NA** 

Prep Batch: 277036

Total Sample Sample DU DU Uncert. **RER** Analyte Result Qual Result Qual  $(2\sigma + / -)$ RL **MDC** Unit RER Limit Radium-226 0.374 0.591 0.8216 1.00 0.430 pCi/L 0.32

DU DU

Carrier %Yield Qualifier Limits Ba Carrier 83.8 40 - 110

### Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-277045/1-A **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA Prep Batch: 277045

**Analysis Batch: 280986** 

Total Count MB MB Uncert. Uncert. Analyte Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ RL **MDC** Unit Prepared Analyzed Dil Fac Radium-228 0.02773 U 0.234 0.234 1.00 0.415 pCi/L 11/01/16 15:15 11/28/16 14:39

MB MB Carrier **%Yield Qualifier** Limits Prepared Dil Fac Analyzed 40 - 110 11/01/16 15:15 11/28/16 14:39 Ba Carrier 83.5 Y Carrier 89.3 40 - 110 11/01/16 15:15 11/28/16 14:39

# **QC Sample Results**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-129138-1

SDG: Barry Gypsum (5)

### Method: 9320 - Radium-228 (GFPC) (Continued)

Spike

Lab Sample ID: LCS 160-277045/2-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA Analysis Batch: 280986 **Prep Batch: 277045** 

Total Uncert. %Rec.

0.387 pCi/L

Added **Analyte** Result Qual  $(2\sigma + / -)$ RL MDC Unit %Rec Limits Radium-228 14.2 13.63 1.49 1.00 0.380 pCi/L 96 56 - 140 LCS LCS

LCS LCS

0.5613

Carrier %Yield Qualifier Limits 40 - 110 Ba Carrier 85.2 Y Carrier 93.1 40 - 110

Client Sample ID: AW26449 MW-6 Lab Sample ID: 400-129138-9 DU

**Matrix: Water Prep Type: Total/NA Prep Batch: 277045 Analysis Batch: 280986** 

0.273

1.00

Total Sample Sample DU DU Uncert. **RER** Analyte Result Qual Result Qual  $(2\sigma + / -)$ RL**MDC** Unit RER Limit

DU DU Carrier %Yield Qualifier Limits Ba Carrier 83.8 40 - 110 Y Carrier 92.3 40 - 110

0.375 U

Radium-228

10

0.33





# Chain of Custody Record

TestAmerica Pensacola

Saso WicLentine Drive Pensacola, FL 32514 Phone (850) 474-1001 Fax (850) 478-2671 Client Information		inain G	of Cusi	Chain of Custody Record	)cord		400-12	400-129138 COC			ER IN EMMERON	THE LEADER AN ENVIRONMENTAL TESTING
Fax (850) 478-2671							4004	2000		THE READ	er in emphon	Kental Testing
	Sampler: Jason Rouss/ Anthony Goggins	thony Gogg	gins	Lab PN Whitm	ı: iire, Cheyei	ne R			Carrier Tracking No(s):	COC No: 400-56525-24537.1	5-24537.1	
	Phone:			E-Mail: cheye	nne.whitmi	e@testam	E-Mail: cheyenne.whitmire@testamericainc.com	jamen teite		Page: Page 1 of 2	f2	
General Test Laboratory							Analysis F	Requested	,	#qop	351921-00th #00	R
	Due Date Requested	ğç.			-11					Fig. Preservat	Preservation Codes:	
	TAT Requested (days):	1ys): Routine	   e							A - HCL B - NaOH C - Zn Acetate		xane ne NaO2
State, Zip: AL, 35040				- Pall S	O44				•	D - Nitric Acid		204S 2SO3
21(Tel)	PO#.									F - MeOH G - Amchlor G - Ascorbic Acid		K - Na2S2O3 S - H2SO4 T - TSP Dodershydrate
	WO #;			in factories	- (oN							etone AA
Project Name: CCR	Project #: 40007143				10 89,					ofisione C-EDA		W - ph 4-5 Z - other (specify)
	SSOW#:				() ası					of co		
		Sample	Sample Type (C=comp,	Matrix (w=water, S=solid, O=wasteloil,	ald Filtered Irtorm MS/W 15_Razze, 93					រទ់ជី៣បស់ គ្រំរ		
Sample Identification	Sample Date	Time V	G=grab)	9=grab)   Branssue, A-Air) ŭ Preservation Code	•a 💢						Special Instructions/Note:	ons/Note:
	10/18/16	1015	Ø	Water	×					1 MW-5		
AW26442	10/18/16	1122	ŋ	Water	×					4 MW-8		
AW26443	10/18/16	1140	Ø	Water	×					EB-1 (Equ	EB-1 (Equipment Blank)	
AW26444	10/18/16	0951	9	Water	×					_f MW-4		
AW26445	10/18/16	0951	g	Water	×					MW-4 Dup	MW-4 Dup (Sample Duplicate)	cate)
AW26446	10/18/16	1048	9	Water	×		-			1 MW-3		
AW26447	10/18/16	1148	9	Water	×					MW-2		
AW26448	10/18/16	1257	9	Water	×					1-WW-1		
										, 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,		
							7					
										÷ir		
Possible Hazard Identification	n B Unknown		Radiological		Sample Re	le Disposal ( A t Retum To Client	A fee may b ∋nt	e assessed if san Disposal By Lab	l if samples aı Sy Lab	Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)  Return To Client Disposal By Lab	than 1 month) Months	ths
sted: I, II, III, IV, Other (specify)					Special	nstructions	Special Instructions/QC Requirements:					
		Date:			Time:	\		Me	Method of Shipment:			
Sarah Copeland	Date/Time: 10/25/16; 0950	: 0950	J 4	Company APC	Recei	Received by:	1		Date/Time:	5/16 K	2 Company	-11- H
Relinquished by:	Date/Time:		5	Company	Recei	Received by:			Date/Time	, 1	Company	huy
Relinquished by:	Date/Time:			Company	Recei	Received by:		į	Date/Time:	# F	Company	uny
Custody Seals Intact: Custody Seal No.:					Coolei	r Temperature	Cooler Temperature(s) °C and Other Remarks:	r Remarks:				

# Chain of Custody Record

Claim   Clai		
Phone:   Carporatory	Carrier Tracking No(s):	COC No: 400-56525-24537.1
TAT Requested (days)   Routine		Page: Page 2 of 2
TAT Requested (days):   Routine	Requested	300 # 400-129 138
TAT Requested (daypi)   Routine   For #:   For		١ŏ
PO #		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2
No #.   No #	Ddd	
Project #:   Sample   Sample   C=Comp   Sample	758_G	F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorptic Acid T - TSP Dodecabudrate
Company   Comp	(Vo) (226Ra (Va) (Va) (Va) (Va) (Va) (Va) (Va) (Va	
SSOW##:   Sample Date   Time   C=Comp.   System   C=C=Comp.   System   C=C=Comp.   System   C=C=Comp.   System   C=C=Comp.   System   C=C=C=C=C=C=C=C=C=C=C=C=C=C=C=C=C=C=C	7226, Re	K - EDTA W - ph 4-5 L - EDA Z - other (specify)
Sample Date   Type   Secretary   Sample   C=Comp   Secretary   S	(f) Q2()	Other:
Sample Date   Illine   G=grab)   Imresoration   Code   X	eriorm MS/N	
10/18/16   0946   G   Water   10/18/16   1335   G   Water   10/18/16   1327   G   Water   10/18/16   1327   G   Water   10/18/16   1340   G   Mater   10/18/16   1340   G   Mater   10/18/16   1340		Special Instructions/Note:
### 10/18/16 1135 G Water 10/18/16 1235 G Water 10/18/16 1237 G Water 10/18/16 1327 G Water 10/18/16 1340 G Water 11/18/16 1340 G Water 11/18/18/18 1340 G Water 11/18/18/18 1340 G WATER 11/18/18/18/18/18/18/18/18/18/18/18/18/1	×	MW-6
## 10/18/16 1235 G Water 10/18/16 1327 G Water 10/18/16 1327 G Water 10/18/16 1340 G Water 11/18/18/18/18/18/18/18/18/18/18/18/18/1		MW-7
### 10/18/16 1327 G Water 10/18/16 1340 G Mater 10/18/18/18 G Mater 10/18/18 G Mate	\$ \frac{1}{2}	WW-9
### 10/18/16   1340   G   Water		MW-10
ation nmable Skin Intiant Poison B Unknown Redialogical III. IV, Other (specify)    Date: Time: 10026/16; 0950 APC Dengany		FB-1 (Field Blank)
till, IV, Other (specify)    Date/Time: 10/25/16; 0950   D		
ation  mable Skin Imtant Poison B Unknown Radiological III. IV, Other (specify)  Date: Tin  Date-Time: 10/25/16; 0950 APC Department Company		
tili, IV. Other (specify)    Date/Time: 10/25/16; 0950   APC		
titon  mable Skin Imitant Poison B Unknown Radiological III, IV, Other (specify)  Date: Tine  Date-Time: 10/25/16: 0950 APC Date-Time: Oompany	S Section 1	
ation  mable Skin Initiant Poison B Unknown Radiological III, IV, Other (specify)  Date: Tine  Date/Time: 10/25/16; 0950  APC Date/Time: Octopany		
ttion  mable Skin Irritant Poison B Unknown Radiological III. IV, Other (specify)  Date:  Date/Time: 10/25/16; 0950  APC Date/Time: 10/25/16; 0950  APC Date/Time: 10/25/16; 0950  APC Date/Time: 10/25/16; 0950  APC Date/Time: 10/25/16; 0950		
	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	onger than 1 month)
Date:   Time: 10/25/16; 0950   Company   APC   Date/Time:   Date/Time:   Company   APC   Date/Time:   Company   APC   Date/Time:   Company   Com	Requirements:	STATE OF THE STATE
Sarah Copeland         Date/Time: 10/26/16; 0950         Company           APC         APC           Date/Time: Octopland         Company	Time: Method of Shipment:	
Date/Time: Company	- Mr	1530 Company - Ple
	Received by: Dafe/Time: #	Company
Relinquished by: Date/Time: Company Receive	Received by: Date/Time:	Company
Custody Seals Intact: Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:	

# Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-129138-1 SDG Number: Barry Gypsum (5)

List Source: TestAmerica Pensacola

Login Number: 129138

List Number: 1

Creator: Siddoway, Benjamin

Creator. Siddoway, Denjamin		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-129138-1 SDG: Barry Gypsum (5)

### Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
lowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

### Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
lowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16 *
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17

<sup>\*</sup> Certification renewal pending - certification considered valid.

TestAmerica Pensacola

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# **Certification Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-129138-1 SDG: Barry Gypsum (5)

# **Laboratory: TestAmerica St. Louis (Continued)**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

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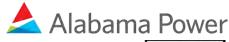
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<sup>\*</sup> Certification renewal pending - certification considered valid.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654

# Analytical Report





Sample Group: WMWBARG\_1074

Project/Site: Barry Gypsum

Bucks, AL 36512

For: Southern Company Services

42 Inverness Center Parkway Birmingham, AL 35242

Attention: Dustin Brooks & Greg Dyer

Released By: Sarah Copeland

sgcopela@southernco.com

(205) 664-6121

The following data has been reviewed and approved by:

Quality Control: Supervision:

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





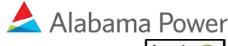
### Anions

### **Barry Gypsum**

### WMWBARG\_1074

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. There are no anion results reported for this project due to instrumentation issues and hold time exceedance. All samples were re-sampled and outsourced to Test America, Pensacola for analysis. All results will be reported in project WMWBARG\_1084.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





### Metals ICP

### **Barry Gypsum**

### WMWBARG\_1074

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX02642	20170303	WMWBARG_1074
AX02643	20170303	WMWBARG_1074
AX02644	20170303	WMWBARG_1074
AX02645	20170303	WMWBARG_1074
AX02646	20170303	WMWBARG_1074
AX02647	20170303	WMWBARG_1074
AX02648	20170303	WMWBARG_1074
AX02649	20170303	WMWBARG_1074
AX02650	20170303	WMWBARG_1074
AX02651	20170329C	WMWBARG_1074
AX02652	20170329C	WMWBARG_1074
AX02653	20170329C	WMWBARG_1074
AX02654	20170329C	WMWBARG_1074

- 4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

### **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met. ICV concentration for Li set to 0.2ppm in batch 20170329C.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes. CCV concentration for Li set to 0.2ppm in batch 20170329C.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.

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- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard read backs associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed straight with the following exceptions: Batch 20170303 was analyzed at a 2x dilution to compensate for potential matrix effects.
- 8. The raw data results include both results corrected for dilution and results not corrected for dilution.

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### Metals ICPMS

### Barry Gypsum

### WMWBARG\_1074

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

ple ID	Batch ID	Project ID
2642	587219	WMWBARG_1074
2643	587219	WMWBARG_1074
2644	587219	WMWBARG_1074
2645	587219	WMWBARG_1074
2646	587253	WMWBARG_1074
2647	587253	WMWBARG_1074
2648	587253	WMWBARG_1074
2649	587253	WMWBARG_1074
2650	587253	WMWBARG_1074
2651	587253	WMWBARG_1074
2652	587253	WMWBARG_1074
2653	587253	WMWBARG_1074
2654	587253	WMWBARG_1074
	2642 2643 2644 2645 2646 2647 2648 2649 2650 2651 2652 2653	2642       587219         2643       587219         2644       587219         2645       587219         2646       587253         2647       587253         2648       587253         2649       587253         2650       587253         2651       587253         2652       587253         2653       587253

- 4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

### **General Quality Control Procedures:**

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, and initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.

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- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

### Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
- 8. The raw data results are shown with dilution factors included.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





### Mercury

### Barry Gypsum

### WMWBARG\_1074

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX02642	586865	WMWBARG_1074
AX02643	586865	WMWBARG_1074
AX02644	586865	WMWBARG_1074
AX02645	586865	WMWBARG_1074
AX02646	586865	WMWBARG_1074
AX02647	586865	WMWBARG_1074
AX02648	586865	WMWBARG_1074
AX02649	586865	WMWBARG_1074
AX02650	586865	WMWBARG_1074
AX02651	586865	WMWBARG_1074
AX02652	586866	WMWBARG_1074
AX02653	586866	WMWBARG_1074
AX02654	586866	WMWBARG_1074

- 4. All of the above samples were analyzed and prepared by EPA 245.1.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

### **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

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Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed without a dilution.
- 8. The raw data results are shown with dilution factors included.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





**TDS** 

### Barry Gypsum

### WMWBARG\_1074

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX02642	586588	WMWBARG_1074
AX02643	586588	WMWBARG_1074
AX02644	586588	WMWBARG_1074
AX02645	586588	WMWBARG_1074
AX02646	586588	WMWBARG_1074
AX02647	586588	WMWBARG_1074
AX02648	586588	WMWBARG_1074
AX02649	586588	WMWBARG_1074
AX02650	586588	WMWBARG_1074
AX02651	586588	WMWBARG_1074
AX02652	586589	WMWBARG_1074
AX02653	586589	WMWBARG_1074
AX02654	586589	WMWBARG_1074

- 4. All of the above samples were analyzed by Standard Method 2540C.
- 5. All samples were analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

### **General Quality Control Procedures:**

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was not less than 5% for batch 586588. Both the sample and duplicate results were less than 3 times the value of the reporting limit.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of samples AX02647 and AX02648 which did not meet the 2.5 mg requirement.

### Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX02642

Name	Analyst	Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological									
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols									
Antimony, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	J	0.000866	mg/L
Arsenic, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010		0.0779	mg/L
Beryllium, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
Boron, Total	HRG	3/3/2017	EPA 200.7	2	0.02	0.10	J	0.0770	mg/L
Calcium, Total	HRG	3/3/2017	EPA 200.7	2	0.1	0.50		1.73	mg/L
Cadmium, Total	JHK	2/15/2017	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
Cobalt, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Chromium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG	3/3/2017	EPA 200.7	2	0.01	0.050	U	Not Detected	mg/L
Molybdenum, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Lead, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	J	0.00247	mg/L
Thallium, Total	JHK	2/15/2017	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics									
Solids, Dissolved	KRC	2/6/2017	SM 2540C	1		25		34.0	mg/L

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments:

Reported: 8/1/2017 Version: 2.0

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<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

### Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX02642

		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AX02645 Cobalt, Total	mg/L 0.0000139	0.0044	0.100	0.0990	0.0941	0.0979	0.085 to 0.115	99.0 70 to 130	5.08	20
AX02645 Barium, Total	mg/L 0.00000136	0.0044	0.100	0.195	0.185	0.0934	0.085 to 0.115	95.0 70 to 130	5.26	20
AX02645 Selenium, Total	mg/L 0.0000484	0.0044	0.100	0.0938	0.0885	0.0986	0.085 to 0.115	93.8 70 to 130	5.81	20
AX02645 Beryllium, Total	mg/L 0.0000323	0.00132	0.100	0.101	0.0979	0.108	0.085 to 0.115	101 70 to 130	3.12	20
AX02645 Molybdenum, Total	mg/L 0.0000159	0.0044	0.100	0.0906	0.0857	0.0906	0.085 to 0.115	90.6 70 to 130	5.56	20
AX02645 Antimony, Total	mg/L 0.000151	0.00132	0.100	0.0897	0.0842	0.0916	0.085 to 0.115	88.9 70 to 130	6.33	20
AX02645 Cadmium, Total	mg/L 0.0000176	0.00044	0.100	0.0935	0.0875	0.0982	0.085 to 0.115	93.5 70 to 130	6.63	20
AX02645 Chromium, Total	mg/L 0.000113	0.0044	0.100	0.0976	0.0924	0.0982	0.085 to 0.115	97.6 70 to 130	5.47	20
AX02645 Lead, Total	mg/L 0.0000163	0.0022	0.100	0.102	0.0972	0.104	0.085 to 0.115	102 70 to 130	4.82	20
AX02645 Arsenic, Total	mg/L 0.0000239	0.0022	0.100	0.0956	0.0903	0.0993	0.085 to 0.115	95.6 70 to 130	5.70	20
AX02645 Thallium, Total	mg/L 0.0000317	0.00044	0.100	0.102	0.101	0.101	0.085 to 0.115	102 70 to 130	0.985	20
AX02650 Boron, Total	mg/L 0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15	97.3 70 to 130	0.895	20
AX02650 Calcium, Total	mg/L -0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75	96.0 70 to 130	1.38	20
AX02650 Lithium, Total	mg/L -0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23	96.8 70 to 130	0.843	20
AX02651 Mercury, Total by CVAA	mg/L 0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1 70 to 130	0.329	20

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments:

Reported: 8/1/2017 Version: 2.0

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Customer Account: WMWBARG Greg Dyer Sample Date: 31-Jan-17 John Pugh

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX02642

			MB		Sample	e	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX02651	Solids, Dissolved	mg/L -4.0	25		26.7	52.0	40 to 60		5.88	5

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Issued By: State of Florida, Department of Health Expiration: June 30, 2018

Comments:

CC:





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX02643

Name	Analyst '	Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological									
Total Radium, Test America	SGC 3	3/17/2017	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols									
Antimony, Total	JHK 2	2/15/2017	EPA 200.8	5	0.00060	0.0030	J	0.000885	mg/L
Arsenic, Total	JHK 2	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK 2	2/15/2017	EPA 200.8	5	0.0020	0.010		0.0282	mg/L
Beryllium, Total	JHK 2	2/15/2017	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
Boron, Total	HRG :	3/3/2017	EPA 200.7	2	0.020	0.10	U	Not Detected	mg/L
Calcium, Total	HRG :	3/3/2017	EPA 200.7	2	0.1	0.50		0.554	mg/L
Cadmium, Total	JHK 2	2/15/2017	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
Cobalt, Total	JHK 2	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Chromium, Total	JHK 2	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB 2	2/9/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG :	3/3/2017	EPA 200.7	2	0.01	0.050	U	Not Detected	mg/L
Molybdenum, Total	JHK 2	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Lead, Total	JHK 2	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK 2	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Thallium, Total	JHK 2	2/15/2017	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics									
Solids, Dissolved	KRC 2	2/6/2017	SM 2540C	1		25		26.0	mg/L

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX02643

		MB					LFB	Rec	Р
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit F	Prec Li
XX02645 Barium, Total	mg/L 0.00000136	0.0044	0.100	0.195	0.185	0.0934	0.085 to 0.115	95.0 70 to 130 5	.26 20
AX02645 Cobalt, Total	mg/L 0.0000139	0.0044	0.100	0.0990	0.0941	0.0979	0.085 to 0.115	99.0 70 to 130 5	.08 20
XX02645 Selenium, Total	mg/L 0.0000484	0.0044	0.100	0.0938	0.0885	0.0986	0.085 to 0.115	93.8 70 to 130 5	.81 20
XX02645 Beryllium, Total	mg/L 0.0000323	0.00132	0.100	0.101	0.0979	0.108	0.085 to 0.115	101 70 to 130 3	.12 20
XX02645 Molybdenum, Total	mg/L 0.0000159	0.0044	0.100	0.0906	0.0857	0.0906	0.085 to 0.115	90.6 70 to 130 5	.56 20
AX02645 Antimony, Total	mg/L 0.000151	0.00132	0.100	0.0897	0.0842	0.0916	0.085 to 0.115	88.9 70 to 130 6	.33 20
AX02645 Cadmium, Total	mg/L 0.0000176	0.00044	0.100	0.0935	0.0875	0.0982	0.085 to 0.115	93.5 70 to 130 6	.63 20
AX02645 Chromium, Total	mg/L 0.000113	0.0044	0.100	0.0976	0.0924	0.0982	0.085 to 0.115	97.6 70 to 130 5	.47 20
AX02645 Lead, Total	mg/L 0.0000163	0.0022	0.100	0.102	0.0972	0.104	0.085 to 0.115	102 70 to 130 4	.82 20
AX02645 Arsenic, Total	mg/L 0.0000239	0.0022	0.100	0.0956	0.0903	0.0993	0.085 to 0.115	95.6 70 to 130 5	.70 20
AX02645 Thallium, Total	mg/L 0.0000317	0.00044	0.100	0.102	0.101	0.101	0.085 to 0.115	102 70 to 130 0	.985 20
AX02650 Boron, Total	mg/L 0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15	97.3 70 to 130 0	.895 20
AX02650 Calcium, Total	mg/L -0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75	96.0 70 to 130 1	.38 20
AX02650 Lithium, Total	mg/L -0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23	96.8 70 to 130 0	.843 20
AX02651 Mercury, Total by CVAA	mg/L 0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1 70 to 130 0	.329 20

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments:

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX02643

	-		MB		Sample	е	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX02651	Solids, Dissolved	mg/L -4.0	25		26.7	52.0	40 to 60		5.88	5

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Issued By: State of Florida, Department of Health Expiration: June 30, 2018

Comments:

CC:





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 30-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX02644

Name	Analyst	Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological		,			,				
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols									
Antimony, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	J	0.000859	mg/L
Arsenic, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010		0.111	mg/L
Beryllium, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
Boron, Total	HRG	3/3/2017	EPA 200.7	2	0.02	0.10	J	0.0269	mg/L
Calcium, Total	HRG	3/3/2017	EPA 200.7	2	0.1	0.50		1.23	mg/L
Cadmium, Total	JHK	2/15/2017	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
Cobalt, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Chromium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG	3/3/2017	EPA 200.7	2	0.01	0.050	U	Not Detected	mg/L
Molybdenum, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Lead, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Thallium, Total	JHK	2/15/2017	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics									
Solids, Dissolved	KRC	2/6/2017	SM 2540C	1		25		32.7	mg/L

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments:

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 30-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX02644

		MB			'	,	LFB	Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limi
X02645 Barium, Total	mg/L 0.00000136	0.0044	0.100	0.195	0.185	0.0934	0.085 to 0.115	95.0 70 to 130	5.26	20
X02645 Cobalt, Total	mg/L 0.0000139	0.0044	0.100	0.0990	0.0941	0.0979	0.085 to 0.115	99.0 70 to 130	5.08	20
X02645 Selenium, Total	mg/L 0.0000484	0.0044	0.100	0.0938	0.0885	0.0986	0.085 to 0.115	93.8 70 to 130	5.81	20
X02645 Beryllium, Total	mg/L 0.0000323	0.00132	0.100	0.101	0.0979	0.108	0.085 to 0.115	101 70 to 130	3.12	20
X02645 Molybdenum, Total	mg/L 0.0000159	0.0044	0.100	0.0906	0.0857	0.0906	0.085 to 0.115	90.6 70 to 130	5.56	20
X02645 Antimony, Total	mg/L 0.000151	0.00132	0.100	0.0897	0.0842	0.0916	0.085 to 0.115	88.9 70 to 130	6.33	20
X02645 Cadmium, Total	mg/L 0.0000176	0.00044	0.100	0.0935	0.0875	0.0982	0.085 to 0.115	93.5 70 to 130	6.63	20
X02645 Chromium, Total	mg/L 0.000113	0.0044	0.100	0.0976	0.0924	0.0982	0.085 to 0.115	97.6 70 to 130	5.47	20
X02645 Lead, Total	mg/L 0.0000163	0.0022	0.100	0.102	0.0972	0.104	0.085 to 0.115	102 70 to 130	4.82	20
X02645 Arsenic, Total	mg/L 0.0000239	0.0022	0.100	0.0956	0.0903	0.0993	0.085 to 0.115	95.6 70 to 130	5.70	20
X02645 Thallium, Total	mg/L 0.0000317	0.00044	0.100	0.102	0.101	0.101	0.085 to 0.115	102 70 to 130	0.985	20
X02650 Boron, Total	mg/L 0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15	97.3 70 to 130	0.895	20
X02650 Calcium, Total	mg/L -0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75	96.0 70 to 130	1.38	20
X02650 Lithium, Total	mg/L -0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23	96.8 70 to 130	0.843	20
X02651 Mercury, Total by CVAA	mg/L 0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1 70 to 130	0.329	20

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 30-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX02644

			MB		Sample	e	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX02651	Solids, Dissolved	mg/L -4.0	25		26.7	52.0	40 to 60		5.88	5

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Issued By: State of Florida, Department of Health Expiration: June 30, 2018

Comments:

CC:





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 30-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX02645

Name	Analyst	Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological		,			,				
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols									
Antimony, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	J	0.000838	mg/L
Arsenic, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010		0.100	mg/L
Beryllium, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
Boron, Total	HRG	3/3/2017	EPA 200.7	2	0.02	0.10	J	0.0243	mg/L
Calcium, Total	HRG	3/3/2017	EPA 200.7	2	0.1	0.50		0.755	mg/L
Cadmium, Total	JHK	2/15/2017	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
Cobalt, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Chromium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG	3/3/2017	EPA 200.7	2	0.01	0.050	U	Not Detected	mg/L
Molybdenum, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Lead, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Thallium, Total	JHK	2/15/2017	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics									
Solids, Dissolved	KRC	2/6/2017	SM 2540C	1		25	U	Not Detected	mg/L

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments:

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 30-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX02645

		MB					LFB	Rec	,	Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limi
AX02645 Barium, Total	mg/L 0.00000136	0.0044	0.100	0.195	0.185	0.0934	0.085 to 0.115	95.0 70 to 130	5.26	20
AX02645 Selenium, Total	mg/L 0.0000484	0.0044	0.100	0.0938	0.0885	0.0986	0.085 to 0.115	93.8 70 to 130	5.81	20
AX02645 Cobalt, Total	mg/L 0.0000139	0.0044	0.100	0.0990	0.0941	0.0979	0.085 to 0.115	99.0 70 to 130	5.08	20
AX02645 Beryllium, Total	mg/L 0.0000323	0.00132	0.100	0.101	0.0979	0.108	0.085 to 0.115	101 70 to 130	3.12	20
AX02645 Molybdenum, Total	mg/L 0.0000159	0.0044	0.100	0.0906	0.0857	0.0906	0.085 to 0.115	90.6 70 to 130	5.56	20
AX02645 Antimony, Total	mg/L 0.000151	0.00132	0.100	0.0897	0.0842	0.0916	0.085 to 0.115	88.9 70 to 130	6.33	20
AX02645 Cadmium, Total	mg/L 0.0000176	0.00044	0.100	0.0935	0.0875	0.0982	0.085 to 0.115	93.5 70 to 130	6.63	20
AX02645 Chromium, Total	mg/L 0.000113	0.0044	0.100	0.0976	0.0924	0.0982	0.085 to 0.115	97.6 70 to 130	5.47	20
AX02645 Lead, Total	mg/L 0.0000163	0.0022	0.100	0.102	0.0972	0.104	0.085 to 0.115	102 70 to 130	4.82	20
AX02645 Arsenic, Total	mg/L 0.0000239	0.0022	0.100	0.0956	0.0903	0.0993	0.085 to 0.115	95.6 70 to 130	5.70	20
AX02645 Thallium, Total	mg/L 0.0000317	0.00044	0.100	0.102	0.101	0.101	0.085 to 0.115	102 70 to 130	0.985	20
AX02650 Boron, Total	mg/L 0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15	97.3 70 to 130	0.895	20
AX02650 Calcium, Total	mg/L -0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75	96.0 70 to 130	1.38	20
AX02650 Lithium, Total	mg/L -0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23	96.8 70 to 130	0.843	20
AX02651 Mercury, Total by CVAA	mg/L 0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1 70 to 130	0.329	20

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments:

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 30-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX02645

			MB		Sample	e	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX02651	Solids, Dissolved	mg/L -4.0	25		26.7	52.0	40 to 60		5.88	5

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\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health Expiration: June 30, 2018

Comments:

CC:





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 30-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX02646

Name	Analyst	Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological					,				
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols									
Antimony, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	J	0.00119	mg/L
Arsenic, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010		0.0801	mg/L
Beryllium, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
Boron, Total	HRG	3/3/2017	EPA 200.7	2	0.02	0.10	U	Not Detected	mg/L
Calcium, Total	HRG	3/3/2017	EPA 200.7	2	0.1	0.50		1.95	mg/L
Cadmium, Total	JHK	2/15/2017	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
Cobalt, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Chromium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG	3/3/2017	EPA 200.7	2	0.01	0.050	U	Not Detected	mg/L
Molybdenum, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Lead, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Thallium, Total	JHK	2/15/2017	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics									
Solids, Dissolved	KRC	2/6/2017	SM 2540C	1		25		45.3	mg/L

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments:

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 30-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX02646

		MB		,			LFB	Rec	Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit Prec	Limit
AX02658 Thallium, Total	mg/L 0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115	106 70 to 130 2.87	20
AX02658 Chromium, Total	mg/L 0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115	99.0 70 to 130 2.76	20
AX02658 Beryllium, Total	mg/L 0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115	104 70 to 130 3.92	20
AX02658 Cadmium, Total	mg/L 0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115	92.9 70 to 130 2.84	20
AX02658 Antimony, Total	mg/L 0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115	88.3 70 to 130 2.27	20
AX02658 Arsenic, Total	mg/L 0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115	95.9 70 to 130 2.86	20
AX02658 Lead, Total	mg/L 0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115	104 70 to 130 1.94	20
AX02658 Molybdenum, Total	mg/L 0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115	90.5 70 to 130 1.78	20
AX02658 Barium, Total	mg/L 0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115	90.9 70 to 130 2.67	20
AX02658 Cobalt, Total	mg/L 0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115	98.3 70 to 130 1.82	20
AX02658 Selenium, Total	mg/L 0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115	94.1 70 to 130 3.57	20
AX02650 Boron, Total	mg/L 0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15	97.3 70 to 130 0.895	20
AX02650 Calcium, Total	mg/L -0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75	96.0 70 to 130 1.38	20
AX02650 Lithium, Total	mg/L -0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23	96.8 70 to 130 0.843	20
AX02651 Mercury, Total by CVAA	mg/L 0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1 70 to 130 0.329	20

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 30-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX02646

		,	MB		Sample	•	LFB	Rec	1	Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ite LFB	Limit	Rec Limit	Prec	Limit
AX02651	Solids, Dissolved	mg/L -4.0	25		26.7	52.0	40 to 60		5.88	5

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Issued By: State of Florida, Department of Health
Expiration: June 30, 2018

Comments:

CC:





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARGFB Sample Date: 30-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

**Description:** Barry Gypsum Field Blank

Laboratory ID Number: AX02647

Name	Analyst Test	Date F	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological									
Total Radium, Test America	SGC 3/17/	2017 E	PA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols									
Antimony, Total	JHK 2/15/	2017 E	PA 200.8	5	0.00060	0.0030	J	0.00106	mg/L
Arsenic, Total	JHK 2/15/	2017 E	PA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK 2/15/	2017 E	PA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Beryllium, Total	JHK 2/15/	2017 E	PA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
Boron, Total	HRG 3/3/2	017 E	PA 200.7	2	0.02	0.10	U	Not Detected	mg/L
Calcium, Total	HRG 3/3/2	017 E	PA 200.7	2	0.1	0.50	U	Not Detected	mg/L
Cadmium, Total	JHK 2/15/	2017 E	PA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
Cobalt, Total	JHK 2/15/	2017 E	PA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Chromium, Total	JHK 2/15/	2017 E	PA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB 2/9/2	017 E	PA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG 3/3/2	017 E	PA 200.7	2	0.01	0.050	U	Not Detected	mg/L
Molybdenum, Total	JHK 2/15/	2017 E	PA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Lead, Total	JHK 2/15/	2017 E	PA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK 2/15/	2017 E	PA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Thallium, Total	JHK 2/15/	2017 E	PA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics									
Solids, Dissolved	KRC 2/6/2	017 S	SM 2540C	1		25	U	Not Detected	mg/L

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARGFB Sample Date: 30-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX02647

Edbordtory is italiason ///tozo-r										
	,	MB		,			LFB	Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limi
X02658 Thallium, Total	mg/L 0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115	106 70 to 1	30 2.87	20
X02658 Chromium, Total	mg/L 0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115	99.0 70 to 1	30 2.76	20
X02658 Beryllium, Total	mg/L 0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115	104 70 to 1	30 3.92	20
X02658 Cadmium, Total	mg/L 0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115	92.9 70 to 1	30 2.84	20
X02658 Antimony, Total	mg/L 0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115	88.3 70 to 1	30 2.27	20
X02658 Arsenic, Total	mg/L 0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115	95.9 70 to 1	30 2.86	20
X02658 Lead, Total	mg/L 0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115	104 70 to 1	30 1.94	20
X02658 Molybdenum, Total	mg/L 0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115	90.5 70 to 1	30 1.78	20
X02658 Barium, Total	mg/L 0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115	90.9 70 to 1	30 2.67	20
X02658 Cobalt, Total	mg/L 0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115	98.3 70 to 13	30 1.82	20
X02658 Selenium, Total	mg/L 0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115	94.1 70 to 13	30 3.57	20
X02650 Boron, Total	mg/L 0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15	97.3 70 to 1	30 0.895	20
X02650 Calcium, Total	mg/L -0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75	96.0 70 to 1	30 1.38	20
X02650 Lithium, Total	mg/L -0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23	96.8 70 to 13	30 0.843	20
X02651 Mercury, Total by CVAA	mg/L 0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1 70 to 1	30 0.329	20

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARGFB Sample Date: 30-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX02647

			MB		Sample	e	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX02651	Solids, Dissolved	mg/L -4.0	25		26.7	52.0	40 to 60		5.88	5

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\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health Expiration: June 30, 2018

Comments:

CC:





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARGEB Sample Date: 30-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX02648

Name	Analyst	Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological		'							
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols									
Antimony, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	J	0.00103	mg/L
Arsenic, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Beryllium, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
Boron, Total	HRG	3/3/2017	EPA 200.7	2	0.02	0.10	U	Not Detected	mg/L
Calcium, Total	HRG	3/3/2017	EPA 200.7	2	0.1	0.50	U	Not Detected	mg/L
Cadmium, Total	JHK	2/15/2017	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
Cobalt, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Chromium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG	3/3/2017	EPA 200.7	2	0.01	0.050	U	Not Detected	mg/L
Molybdenum, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Lead, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Thallium, Total	JHK	2/15/2017	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics									
Solids, Dissolved	KRC	2/6/2017	SM 2540C	1		25	U	Not Detected	mg/L

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments:

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARGEB Sample Date: 30-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

**Description**: Barry Gypsum Equipment Blank

Laboratory ID Number: AX02648

	,	MB				'	LFB	Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limi
AX02658 Thallium, Total	mg/L 0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115	106 70 to 130	2.87	20
AX02658 Chromium, Total	mg/L 0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115	99.0 70 to 130	2.76	20
XX02658 Beryllium, Total	mg/L 0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115	104 70 to 130	3.92	20
AX02658 Cadmium, Total	mg/L 0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115	92.9 70 to 130	2.84	20
AX02658 Antimony, Total	mg/L 0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115	88.3 70 to 130	2.27	20
AX02658 Arsenic, Total	mg/L 0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115	95.9 70 to 130	2.86	20
AX02658 Barium, Total	mg/L 0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115	90.9 70 to 130	2.67	20
AX02658 Cobalt, Total	mg/L 0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115	98.3 70 to 130	1.82	20
AX02658 Selenium, Total	mg/L 0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115	94.1 70 to 130	3.57	20
AX02658 Lead, Total	mg/L 0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115	104 70 to 130	1.94	20
XX02658 Molybdenum, Total	mg/L 0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115	90.5 70 to 130	1.78	20
AX02650 Boron, Total	mg/L 0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15	97.3 70 to 130	0.895	20
AX02650 Calcium, Total	mg/L -0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75	96.0 70 to 130	1.38	20
AX02650 Lithium, Total	mg/L -0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23	96.8 70 to 130	0.843	20
AX02651 Mercury, Total by CVAA	mg/L 0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1 70 to 130	0.329	20

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments:

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARGEB Sample Date: 30-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

**Description**: Barry Gypsum Equipment Blank

Laboratory ID Number: AX02648

	-		MB		Sample	е	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX02651	Solids, Dissolved	mg/L -4.0	25		26.7	52.0	40 to 60		5.88	5

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MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health Expiration: June 30, 2018

Comments:

CC:





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX02649

Name	Analyst	Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological		·							
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols									
Antimony, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	J	0.000926	mg/L
Arsenic, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010		0.123	mg/L
Beryllium, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
Boron, Total	HRG	3/3/2017	EPA 200.7	2	0.02	0.10		0.121	mg/L
Calcium, Total	HRG	3/3/2017	EPA 200.7	2	0.1	0.50		7.89	mg/L
Cadmium, Total	JHK	2/15/2017	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
Cobalt, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Chromium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG	3/3/2017	EPA 200.7	2	0.01	0.050	U	Not Detected	mg/L
Molybdenum, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Lead, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010		0.0104	mg/L
Thallium, Total	JHK	2/15/2017	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics									
Solids, Dissolved	KRC	2/6/2017	SM 2540C	1		25		60.7	mg/L

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments:

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX02649

		MB	•		•		LFB	Rec	Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit Pre	c Limi
X02658 Thallium, Total	mg/L 0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115	106 70 to 130 2.8	20
X02658 Chromium, Total	mg/L 0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115	99.0 70 to 130 2.70	20
X02658 Beryllium, Total	mg/L 0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115	104 70 to 130 3.92	20
X02658 Cadmium, Total	mg/L 0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115	92.9 70 to 130 2.8	20
X02658 Antimony, Total	mg/L 0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115	88.3 70 to 130 2.2	20
X02658 Arsenic, Total	mg/L 0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115	95.9 70 to 130 2.80	20
X02658 Lead, Total	mg/L 0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115	104 70 to 130 1.94	20
X02658 Molybdenum, Total	mg/L 0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115	90.5 70 to 130 1.78	20
X02658 Barium, Total	mg/L 0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115	90.9 70 to 130 2.6	20
X02658 Cobalt, Total	mg/L 0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115	98.3 70 to 130 1.82	20
X02658 Selenium, Total	mg/L 0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115	94.1 70 to 130 3.5	20
X02650 Boron, Total	mg/L 0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15	97.3 70 to 130 0.89	5 20
X02650 Calcium, Total	mg/L -0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75	96.0 70 to 130 1.38	20
X02650 Lithium, Total	mg/L -0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23	96.8 70 to 130 0.84	3 20
X02651 Mercury, Total by CVAA	mg/L 0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1 70 to 130 0.3	9 20

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments:

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX02649

			MB		Sample	)	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX02651	Solids, Dissolved	mg/L -4.0	25		26.7	52.0	40 to 60		5.88	5

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Issued By: State of Florida, Department of Health
Expiration: June 30, 2018

Comments:

CC:





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX02650

Name	Analyst	Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological									
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols									
Antimony, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	J	0.000928	mg/L
Arsenic, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010		0.0825	mg/L
Beryllium, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
Boron, Total	HRG	3/3/2017	EPA 200.7	2	0.02	0.10	U	Not Detected	mg/L
Calcium, Total	HRG	3/3/2017	EPA 200.7	2	0.1	0.50		1.36	mg/L
Cadmium, Total	JHK	2/15/2017	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
Cobalt, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Chromium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG	3/3/2017	EPA 200.7	2	0.01	0.050	U	Not Detected	mg/L
Molybdenum, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Lead, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Thallium, Total	JHK	2/15/2017	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics									
Solids, Dissolved	KRC	2/6/2017	SM 2540C	1		25		26.0	mg/L

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments:

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX02650

	,	MB				'	LFB	Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limi
AX02658 Thallium, Total	mg/L 0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115	106 70 to 130	2.87	20
AX02658 Chromium, Total	mg/L 0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115	99.0 70 to 130	2.76	20
AX02658 Beryllium, Total	mg/L 0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115	104 70 to 130	3.92	20
AX02658 Cadmium, Total	mg/L 0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115	92.9 70 to 130	2.84	20
AX02658 Antimony, Total	mg/L 0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115	88.3 70 to 130	2.27	20
AX02658 Arsenic, Total	mg/L 0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115	95.9 70 to 130	2.86	20
AX02658 Lead, Total	mg/L 0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115	104 70 to 130	1.94	20
AX02658 Molybdenum, Total	mg/L 0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115	90.5 70 to 130	1.78	20
AX02658 Barium, Total	mg/L 0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115	90.9 70 to 130	2.67	20
AX02658 Cobalt, Total	mg/L 0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115	98.3 70 to 130	1.82	20
AX02658 Selenium, Total	mg/L 0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115	94.1 70 to 130	3.57	20
AX02650 Boron, Total	mg/L 0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15	97.3 70 to 130	0.895	20
AX02650 Calcium, Total	mg/L -0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75	96.0 70 to 130	1.38	20
AX02650 Lithium, Total	mg/L -0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23	96.8 70 to 130	0.843	20
AX02651 Mercury, Total by CVAA	mg/L 0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1 70 to 130	0.329	20

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments:

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX02650

			MB			Sample	)	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFI	М	Duplica	te LFB	Limit	Rec Limit	Prec	Limit
AX02651	Solids, Dissolved	mg/L -4.0	25			26.7	52.0	40 to 60		5.88	5

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\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health Expiration: June 30, 2018

Comments:

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To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX02651

Name	Analyst	Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological					,				
Total Radium, Test America	SGC :	3/17/2017	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols									
Antimony, Total	JHK :	2/15/2017	EPA 200.8	5	0.00060	0.0030	J	0.000911	mg/L
Arsenic, Total	JHK :	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK :	2/15/2017	EPA 200.8	5	0.0020	0.010		0.0698	mg/L
Beryllium, Total	JHK :	2/15/2017	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
Boron, Total	HRG :	3/29/2017	EPA 200.7	1	0.02	0.1	U	Not Detected	mg/L
Calcium, Total	HRG :	3/29/2017	EPA 200.7	1	0.1	0.5		1.65	mg/L
Cadmium, Total	JHK :	2/15/2017	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
Cobalt, Total	JHK :	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Chromium, Total	JHK :	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB 2	2/9/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG :	3/29/2017	EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
Molybdenum, Total	JHK :	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Lead, Total	JHK :	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK :	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Thallium, Total	JHK :	2/15/2017	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics									
Solids, Dissolved	KRC :	2/6/2017	SM 2540C	1		25		30.0	mg/L

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Precision for TDS was out of spec. The sample and duplicate were both less than 3 times the value of the reporting limit.

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX02651

Edboratory is italiason /0/to2001										
		MB					LFB	Rec	"	Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limi
X02658 Thallium, Total	mg/L 0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115	106 70 to 13	0 2.87	20
X02658 Beryllium, Total	mg/L 0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115	104 70 to 13	0 3.92	20
X02651 Mercury, Total by CVAA	mg/L 0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1 70 to 13	0.329	20
X02658 Chromium, Total	mg/L 0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115	99.0 70 to 13	0 2.76	20
X02663 Boron, Total	mg/L -0.000684	0.044	1.00	0.980	0.981	0.963	0.85 to 1.15	98.0 70 to 13	0.117	20
X02658 Lead, Total	mg/L 0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115	104 70 to 13	0 1.94	20
X02658 Molybdenum, Total	mg/L 0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115	90.5 70 to 13	0 1.78	20
X02663 Lithium, Total	mg/L -0.00000824	0.022	0.20	0.216	0.216	0.202	0.17 to 0.23	108 70 to 13	0.247	20
X02658 Barium, Total	mg/L 0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115	90.9 70 to 13	0 2.67	20
X02658 Cobalt, Total	mg/L 0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115	98.3 70 to 13	0 1.82	20
X02658 Selenium, Total	mg/L 0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115	94.1 70 to 13	0 3.57	20
X02658 Antimony, Total	mg/L 0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115	88.3 70 to 13	0 2.27	20
X02658 Arsenic, Total	mg/L 0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115	95.9 70 to 13	0 2.86	20
X02658 Cadmium, Total	mg/L 0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115	92.9 70 to 13	0 2.84	20
X02663 Calcium, Total	mg/L -0.00712	0.22	5.00	7.90	7.89	4.95	4.25 to 5.75	99.2 70 to 13	0.138	20

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MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Precision for TDS was out of spec. The sample and duplicate were both less than 3 times the value of the reporting limit.

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX02651

			MB		Sample	e	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX02651	Solids, Dissolved	mg/L -4.0	25		26.7	52.0	40 to 60		5.88	5

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Issued By: State of Florida, Department of Health Expiration: June 30, 2018

Comments: Precision for TDS was out of spec. The sample and duplicate were both less than 3 times the value of the reporting limit.

CC:





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX02652

Name	Analyst	Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological		,			,				
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols									
Antimony, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	J	0.000898	mg/L
Arsenic, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010		0.109	mg/L
Beryllium, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
Boron, Total	HRG	3/29/2017	EPA 200.7	1	0.02	0.1	U	Not Detected	mg/L
Calcium, Total	HRG	3/29/2017	EPA 200.7	1	0.1	0.5		1.23	mg/L
Cadmium, Total	JHK	2/15/2017	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
Cobalt, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Chromium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG	3/29/2017	EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
Molybdenum, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Lead, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Thallium, Total	JHK	2/15/2017	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics									
Solids, Dissolved	KRC	2/6/2017	SM 2540C	1		25		32.7	mg/L

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments:

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX02652

Edboratory is italiason 70102002	•										
		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limi
X02658 Thallium, Total	mg/L 0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115	106 7	0 to 130	2.87	20
X02658 Beryllium, Total	mg/L 0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115	104 7	0 to 130	3.92	20
X02658 Chromium, Total	mg/L 0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115	99.0 7	0 to 130	2.76	20
X02663 Boron, Total	mg/L -0.000684	0.044	1.00	0.980	0.981	0.963	0.85 to 1.15	98.0 7	0 to 130	0.117	20
X02658 Antimony, Total	mg/L 0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115	88.3 7	0 to 130	2.27	20
X02658 Arsenic, Total	mg/L 0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115	95.9 7	0 to 130	2.86	20
X02664 Mercury, Total by CVAA	mg/L 0.000157	0.0005	0.004	0.00382	0.00372	0.00390	0.0034 to 0.0046	95.5 7	0 to 130	2.64	20
X02658 Lead, Total	mg/L 0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115	104 7	0 to 130	1.94	20
X02658 Molybdenum, Total	mg/L 0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115	90.5 7	0 to 130	1.78	20
X02663 Lithium, Total	mg/L -0.00000824	0.022	0.20	0.216	0.216	0.202	0.17 to 0.23	108 7	0 to 130	0.247	20
X02658 Barium, Total	mg/L 0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115	90.9 7	0 to 130	2.67	20
X02658 Cobalt, Total	mg/L 0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115	98.3 7	0 to 130	1.82	20
X02658 Selenium, Total	mg/L 0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115	94.1 7	0 to 130	3.57	20
X02658 Cadmium, Total	mg/L 0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115	92.9 7	0 to 130	2.84	20
X02663 Calcium, Total	mg/L -0.00712	0.22	5.00	7.90	7.89	4.95	4.25 to 5.75	99.2 7	0 to 130	0.138	20

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX02652

		MB		Sample	е	LFB	Rec	1	Prec
Sample Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX02664 Solids, Dissolved	mg/L -4.0	25		272	52.0	40 to 60		0.369	5

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Issued By: State of Florida, Department of Health Expiration: June 30, 2018

Comments:

CC:





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX02653

Name	Analyst	Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological					,				
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols									
Antimony, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	J	0.000925	mg/L
Arsenic, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010		0.0944	mg/L
Beryllium, Total	JHK	2/15/2017	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
Boron, Total	HRG	3/29/2017	EPA 200.7	1	0.02	0.1	U	Not Detected	mg/L
Calcium, Total	HRG	3/29/2017	EPA 200.7	1	0.1	0.5		1.19	mg/L
Cadmium, Total	JHK	2/15/2017	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
Cobalt, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	J	0.00308	mg/L
Chromium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG	3/29/2017	EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
Molybdenum, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Lead, Total	JHK	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Thallium, Total	JHK	2/15/2017	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics									
Solids, Dissolved	KRC	2/6/2017	SM 2540C	1		25		32.0	mg/L

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX02653

Edbordtory is italiison ///tozooo	·									
	,	MB					LFB	Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limi
X02658 Thallium, Total	mg/L 0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115	106 70 to 130	2.87	20
X02658 Beryllium, Total	mg/L 0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115	104 70 to 130	3.92	20
X02658 Chromium, Total	mg/L 0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115	99.0 70 to 130	2.76	20
X02663 Boron, Total	mg/L -0.000684	0.044	1.00	0.980	0.981	0.963	0.85 to 1.15	98.0 70 to 130	0.117	20
X02658 Lead, Total	mg/L 0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115	104 70 to 130	1.94	20
X02658 Molybdenum, Total	mg/L 0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115	90.5 70 to 130	1.78	20
X02663 Lithium, Total	mg/L -0.00000824	0.022	0.20	0.216	0.216	0.202	0.17 to 0.23	108 70 to 130	0.247	20
X02658 Cadmium, Total	mg/L 0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115	92.9 70 to 130	2.84	20
X02663 Calcium, Total	mg/L -0.00712	0.22	5.00	7.90	7.89	4.95	4.25 to 5.75	99.2 70 to 130	0.138	20
X02658 Antimony, Total	mg/L 0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115	88.3 70 to 130	2.27	20
X02658 Arsenic, Total	mg/L 0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115	95.9 70 to 130	2.86	20
X02664 Mercury, Total by CVAA	mg/L 0.000157	0.0005	0.004	0.00382	0.00372	0.00390	0.0034 to 0.0046	95.5 70 to 130	2.64	20
X02658 Barium, Total	mg/L 0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115	90.9 70 to 130	2.67	20
X02658 Cobalt, Total	mg/L 0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115	98.3 70 to 130	1.82	20
X02658 Selenium, Total	mg/L 0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115	94.1 70 to 130	3.57	20

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Expiration: June 30, 2018

Comments:

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Customer Account: WMWBARG Greg Dyer Sample Date: 31-Jan-17 John Pugh **Customer ID:** 

> **Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX02653

			MB		Sample	e	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX02664	Solids, Dissolved	mg/L -4.0	25	,	272	52.0	40 to 60		0.369	5

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Issued By: State of Florida, Department of Health Expiration: June 30, 2018

Comments:

CC:





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-1 Dup

Laboratory ID Number: AX02654

Name	Analyst 7	Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Radiological									
Total Radium, Test America	SGC 3	3/17/2017	EPA 9315/9320	1				Attached	
Metals, Cyanide, Total Phenols									
Antimony, Total	JHK 2	2/15/2017	EPA 200.8	5	0.00060	0.0030	J	0.000995	mg/L
Arsenic, Total	JHK 2	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK 2	2/15/2017	EPA 200.8	5	0.0020	0.010		0.0986	mg/L
Beryllium, Total	JHK 2	2/15/2017	EPA 200.8	5	0.00060	0.0030	U	Not Detected	mg/L
Boron, Total	HRG 3	3/29/2017	EPA 200.7	1	0.02	0.1	U	Not Detected	mg/L
Calcium, Total	HRG 3	3/29/2017	EPA 200.7	1	0.1	0.5		1.18	mg/L
Cadmium, Total	JHK 2	2/15/2017	EPA 200.8	5	0.0002	0.0010	U	Not Detected	mg/L
Cobalt, Total	JHK 2	2/15/2017	EPA 200.8	5	0.0020	0.010	J	0.00329	mg/L
Chromium, Total	JHK 2	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB 2	2/9/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG 3	3/29/2017	EPA 200.7	1	0.01	0.05	U	Not Detected	mg/L
Molybdenum, Total	JHK 2	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Lead, Total	JHK 2	2/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK 2	2/15/2017	EPA 200.8	5	0.0020	0.010	U	Not Detected	mg/L
Thallium, Total	JHK 2	2/15/2017	EPA 200.8	5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics									
Solids, Dissolved	KRC 2	2/6/2017	SM 2540C	1		25		32.7	mg/L

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-1 Dup

Laboratory ID Number: AX02654

	,	MB					LFB	Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AX02658 Thallium, Total	mg/L 0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115	106 70 to 130	2.87	20
AX02658 Beryllium, Total	mg/L 0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115	104 70 to 130	3.92	20
AX02658 Chromium, Total	mg/L 0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115	99.0 70 to 130	2.76	20
AX02663 Boron, Total	mg/L -0.000684	0.044	1.00	0.980	0.981	0.963	0.85 to 1.15	98.0 70 to 130	0.117	20
AX02658 Antimony, Total	mg/L 0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115	88.3 70 to 130	2.27	20
AX02658 Arsenic, Total	mg/L 0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115	95.9 70 to 130	2.86	20
AX02664 Mercury, Total by CVAA	mg/L 0.000157	0.0005	0.004	0.00382	0.00372	0.00390	0.0034 to 0.0046	95.5 70 to 130	2.64	20
AX02658 Cadmium, Total	mg/L 0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115	92.9 70 to 130	2.84	20
AX02663 Calcium, Total	mg/L -0.00712	0.22	5.00	7.90	7.89	4.95	4.25 to 5.75	99.2 70 to 130	0.138	20
AX02658 Barium, Total	mg/L 0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115	90.9 70 to 130	2.67	20
AX02658 Cobalt, Total	mg/L 0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115	98.3 70 to 130	1.82	20
AX02658 Selenium, Total	mg/L 0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115	94.1 70 to 130	3.57	20
AX02658 Lead, Total	mg/L 0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115	104 70 to 130	1.94	20
AX02658 Molybdenum, Total	mg/L 0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115	90.5 70 to 130	1.78	20
AX02663 Lithium, Total	mg/L -0.00000824	0.022	0.20	0.216	0.216	0.202	0.17 to 0.23	108 70 to 130	0.247	20

MDL's and RL's are adjusted for sample dilution, as applicable

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Issued By: State of Florida, Department of Health

#### Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





To: Dustin Brooks Greg Dyer John Pugh

Customer Account: WMWBARG Sample Date: 31-Jan-17

**Customer ID:** 

**Delivery Date:** 01-Feb-17

Description: Barry Gypsum - MW-1 Dup

Laboratory ID Number: AX02654

			MB		Sample	e	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX02664	Solids, Dissolved	mg/L -4.0	25	,	272	52.0	40 to 60		0.369	5

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Issued By: State of Florida, Department of Health
Expiration: June 30, 2018

Comments:

CC:

Reported: 8/1/2017 Version: 2.0

# Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 Definitions

Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the
	concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
В	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
Р	Precision is out of range.
С	Analyte was verified by re-analysis.
Н	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as
	possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless
	otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information

Alabama Power	Chain of Custody
Field	Chain of Custody Groundwater  APC General Testing Laboratory
SERVICES	APC General Testing Laboratory
	General Service Complex Building 8

~	Field Complete
~	Lab Complete

Lab ETA	

Requested Complete Date		Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer
Site Representative		Angie Jimmerson	Requested By	Greg Dyer
Collector		Jason Rouss	Location	Barry Gypsum
Analysis Requested Comments Radium duplicate collected at MW-5 No anion results for the samples listed below due to hold				

			Bottle		Lab	
Sample #	Date	Time	Count	Description	Filter	Lab Id
MW-5	01/31/2017	09:33	7	Groundwater		AX02642
MW-8	01/31/2017	11:00	5	Groundwater		AX02643
_						

Relinquished By	Received By	Date/Time
9man	And Bot	01/31/2017 17:17
Stor Bes	Sarah Copeland Digitally signed by Sarah Copeland Dixcre-Sarah Copeland Dixcre-Sarah Copeland, o.u.	02/01/2017 13:14

SmarTroll ID 4696-23443-3-2 Turbidity ID | 4677-23342-4-1

All metals and radiological bottles have pH < 2 🗹 Cooler Temp | 0.7 degrees C

Thermometer ID 5408-27568-2-2

pH Strip ID 5521-28270-20-14
Page 50 of 51



~	Field Complete
~	Lab Complete

Lab ETA 02/01/2017 11:30

Requested Complete Date	Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer
Site Representative	Angie Jimmerson	Requested By	Greg Dyer
Collector	Ben Rothschadl	Location	Barry Gypsum
	(41) De diele siert Brahle 2 (500ml) Metale Brahl		(700 I) TOC D. W. T. (700 I) A.

Analysis Requested | Bottle 1 (1L): Radiological, Bottle 2 (500mL): Metals, Bottle 3 (250mL): Hg, Bottle 4 (500mL): TDS, Bottle 5 (250mL): Anions

Comments | No anion results for the samples listed below due to hold time exceedance. All samples will be re-sampled. SGC

			Bottle		Lab	
Sample #	Date	Time	Count	Description	Filter	Lab Id
MW-9	01/30/2017	13:03	5	Groundwater		AX02644
MW-10	01/30/2017	14:05	5	Groundwater		AX02645
MW-7	01/30/2017	15:15	5	Groundwater		AX02646
FB-1	01/30/2017	15:35	5	Field Blank		AX02647
EB-1	01/30/2017	15:45	5	Equipment Blank		AX02648
MW-6	01/31/2017	09:00	5	Groundwater		AX02649
MW-4	01/31/2017	10:15	5	Groundwater		AX02650
MW-3	01/31/2017	11:15	5	Groundwater		AX02651
MW-2	01/31/2017	12:25	5	Groundwater		AX02652
MW-1	01/31/2017	13:25	5	Groundwater		AX02653
MW-1 DUP	01/31/2017	13:25	5	Sample Duplicate		AX02654

Relinquished By	Received By	Date/Time
BenRothschad	Act Pot	01/31/2017 17:04
Stor Boto	Sarah Copeland  Digitally signed by Sarah Copeland Div. cn=Sarah Copeland, o, ou, email=sopcelageouthernc.com, c=US Date: 2017.02.01 13:15:07-0600'	02/01/2017 13:15

SmarTroll ID | 4696-23441-1-1 Turbidity ID | 3901-20010-2-2

All metals and radiological bottles have pH < 2 ✓ Cooler Temp | 0.2 degrees C Thermometer ID 5408-27568-2-2 Page 51 of 51 5521-28270-20-14

2

3

5

7

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THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola 3355 McLemore Drive Pensacola, FL 32514 Tel: (850)474-1001

TestAmerica Job ID: 400-133557-1

TestAmerica Sample Delivery Group: Barry Gypsum (6)

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory 744 County Rd 87 GSC #8 Calera, Alabama 35040

Attn: Sarah Copeland

ChayenaRwhitmin

Authorized for release by: 3/17/2017 2:51:50 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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#### **Case Narrative**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-133557-1 SDG: Barry Gypsum (6)

Job ID: 400-133557-1

Laboratory: TestAmerica Pensacola

**Narrative** 

Job Narrative 400-133557-1

#### RAD

Method(s) PrecSep 0: Radium-228 Prep Batch 160-293136: Insufficient volume was available to run the following samples at the full 1L aliguot. They were prepared at 750mL due to limited volume. AX02642 MW-5 (400-133557-1), AX02642 MW-5 (400-133557-1[DU]), AX02643 MW-8 (400-133557-2), AX02644 MW-9 (400-133557-3), AX02645 MW-10 (400-133557-4), AX02646 MW-7 (400-133557-5), AX02647 FB-1 (400-133557-6), AX02648 EB-1 (400-133557-7), AX02649 MW-6 (400-133557-8), AX02650 MW-4 (400-133557-9), AX02651 MW-3 (400-133557-10), AX02652 MW-2 (400-133557-11), AX02653 MW-1 (400-133557-12) and AX02654 MW-1 DUP (400-133557-13)

Method(s) PrecSep-21: Radium-226 Prep Batch 160-293081: Insufficient volume was available to run the following samples at the full 1L aliguot. They were prepared at 750mL due to limited volume available. AX02642 MW-5 (400-133557-1), AX02642 MW-5 (400-133557-1IDUI), AX02643 MW-8 (400-133557-2), AX02644 MW-9 (400-133557-3), AX02645 MW-10 (400-133557-4), AX02646 MW-7 (400-133557-5), AX02647 FB-1 (400-133557-6), AX02648 EB-1 (400-133557-7), AX02649 MW-6 (400-133557-8), AX02650 MW-4 (400-133557-9), AX02651 MW-3 (400-133557-10), AX02652 MW-2 (400-133557-11), AX02653 MW-1 (400-133557-12) and AX02654 MW-1 DUP (400-133557-13)

## **Method Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-133557-1 SDG: Barry Gypsum (6)

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

#### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates. TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

#### **Laboratory References:**

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

## **Sample Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-133557-1 SDG: Barry Gypsum (6)

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133557-1	AX02642 MW-5	Water	01/31/17 09:33	02/06/17 14:00
400-133557-2	AX02643 MW-8	Water	01/31/17 11:00	02/06/17 14:00
400-133557-3	AX02644 MW-9	Water	01/30/17 13:03	02/06/17 14:00
400-133557-4	AX02645 MW-10	Water	01/30/17 14:05	02/06/17 14:00
400-133557-5	AX02646 MW-7	Water	01/30/17 15:15	02/06/17 14:00
400-133557-6	AX02647 FB-1	Water	01/30/17 15:35	02/06/17 14:00
400-133557-7	AX02648 EB-1	Water	01/30/17 15:45	02/06/17 14:00
400-133557-8	AX02649 MW-6	Water	01/31/17 09:00	02/06/17 14:00
400-133557-9	AX02650 MW-4	Water	01/31/17 10:15	02/06/17 14:00
400-133557-10	AX02651 MW-3	Water	01/31/17 11:15	02/06/17 14:00
400-133557-11	AX02652 MW-2	Water	01/31/17 12:25	02/06/17 14:00
400-133557-12	AX02653 MW-1	Water	01/31/17 13:25	02/06/17 14:00
400-133557-13	AX02654 MW-1 DUP	Water	01/31/17 13:25	02/06/17 14:00

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Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-133557-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (6)

Client Sample ID: AX02642 MW-5

Lab Sample ID: 400-133557-1 Date Collected: 01/31/17 09:33 **Matrix: Water** 

Date Received: 02/06/17 14:00

Method: 9315 - R	adium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.262		0.133	0.135	1.00	0.156	pCi/L	02/17/17 10:39	03/13/17 06:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					02/17/17 10:39	03/13/17 06:19	1

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.461	Ū	0.384	0.386	1.00	0.615	pCi/L	02/17/17 18:22	03/08/17 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					02/17/17 18:22	03/08/17 11:21	1
Y Carrier	80.7		40 - 110					02/17/17 18:22	03/08/17 11:21	1

Method: Ra226_Ra	228 - Combined Ra	dium-226 a	nd Radiun	n-228					
_		Count	Total						
		Uncert.	Uncert.						
Analyte	Result Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.724	0.406	0.409	5.00	0.615	pCi/L		03/14/17 12:39	1

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-133557-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (6)

Client Sample ID: AX02643 MW-8

Lab Sample ID: 400-133557-2 Date Collected: 01/31/17 11:00 **Matrix: Water** 

Date Received: 02/06/17 14:00

Method: 9315 - F	Radium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.338		0.160	0.163	1.00	0.186	pCi/L	02/17/17 10:39	03/13/17 06:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					02/17/17 10:39	03/13/17 06:27	1

Method: 9320 -	Radium-228 (	(GFPC)	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0719	U	0.306	0.306	1.00	0.555	pCi/L	02/17/17 18:22	03/08/17 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					02/17/17 18:22	03/08/17 11:21	1
Y Carrier	86.0		40 - 110					02/17/17 18:22	03/08/17 11:21	1

Method: Ra226_Ra	228 - Coml	bined Ra	dium-226 a	nd Radiur	n-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result (	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226	0.266	U	0.345	0.347	5.00	0.555	pCi/L		03/14/17 12:39	1

+ 228

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-133557-1 Project/Site: CCR Plant Barry

SDG: Barry Gypsum (6) Lab Sample ID: 400-133557-3

Client Sample ID: AX02644 MW-9

Date Collected: 01/30/17 13:03 **Matrix: Water** 

Date Received: 02/06/17 14:00

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.828		0.228	0.240	1.00	0.194	pCi/L	02/17/17 10:39	03/13/17 06:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					02/17/17 10:39	03/13/17 06:27	1

Method: 9320 - F	Radium-228 (	GFPC)								
		•	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.327	U	0.293	0.295	1.00	0.470	pCi/L	02/17/17 18:22	03/08/17 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					02/17/17 18:22	03/08/17 11:21	1
Y Carrier	86.7		40 - 110					02/17/17 18:22	03/08/17 11:21	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radiun	1-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.15		0.371	0.380	5.00	0.470	pCi/L	<del>-</del>	03/14/17 12:39	1

3/17/2017

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-133557-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (6)

Client Sample ID: AX02645 MW-10

Lab Sample ID: 400-133557-4 Date Collected: 01/30/17 14:05 **Matrix: Water** 

Date Received: 02/06/17 14:00

Method: 9315 - R	adium-226 (	(GFPC)	Count	Total						
Analyte	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.588	-	0.189	0.196	1.00	0.169	pCi/L	02/17/17 10:39	03/13/17 06:27	1
Carrier Ba Carrier	<b>%Yield</b> 97.1	Qualifier	40 - 110					<b>Prepared</b> 02/17/17 10:39	<b>Analyzed</b> 03/13/17 06:27	Dil Fac

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.258	U	0.294	0.295	1.00	0.483	pCi/L	02/17/17 18:22	03/08/17 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					02/17/17 18:22	03/08/17 11:21	1
Y Carrier	86.0		40 - 110					02/17/17 18:22	03/08/17 11:21	1

Method: Ra226_Ra	228 - Com	bined Rad	dium-226 a	nd Radiun	1-228					
_			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.847		0.349	0.354	5.00	0.483	pCi/L		03/14/17 12:39	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-133557-1 SDG: Barry Gypsum (6)

Client Sample ID: AX02646 MW-7

Date Collected: 01/30/17 15:15 Date Received: 02/06/17 14:00

Lab Sample ID: 400-133557-5 **Matrix: Water** 

Method: 9315 - R	adium-226 (	(GFPC)	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.356	·	0.163	0.166	1.00	0.189	pCi/L	02/17/17 10:39	03/13/17 06:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					02/17/17 10:39	03/13/17 06:27	1

Method: 9320 - F	Radium-228 (	GFPC)								
Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analvzed	Dil Fac
Radium-228	0.293		0.323	0.324	1.00		pCi/L	02/17/17 18:22	03/08/17 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					02/17/17 18:22	03/08/17 11:21	1
Y Carrier	84.1		40 - 110					02/17/17 18:22	03/08/17 11:21	1

Method: Ra226_Ra	228 - Com	bined Rad	dium-226 a	nd Radiun	1-228					
_			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.649		0.362	0.364	5.00	0.529	pCi/L		03/14/17 12:39	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-133557-1 SDG: Barry Gypsum (6)

Client Sample ID: AX02647 FB-1

Date Collected: 01/30/17 15:35 Date Received: 02/06/17 14:00 Lab Sample ID: 400-133557-6

Matrix: Water

dium- <mark>226</mark> (	(GFPC)								
		Count	Total						
Rosult	Oualifior			RΙ	MDC	Unit	Propared	Analyzed	Dil Fac
		<u>`</u>							Dirrac
0.0411	U	0.121	0.121	1.00	0.224	pCı/L	02/17/17 10:39	03/13/17 06:27	1
%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
91.2		40 - 110					02/17/17 10:39	03/13/17 06:27	1
	Result   0.0411   %Yield	Result Qualifier 0.0411 U  %Yield Qualifier 91.2	Count Uncert.	Count Uncert. Uncert.	Count   Total   Uncert.   Uncert.   Uncert.     Count   Uncert.   Uncert.     Count   Uncert.   Uncert.     Count   Uncert.     Count   Uncert.     Count   Uncert.     Count   Uncert.   Count   Uncert.     Count   Uncert.     Count   Uncert.     Count   Uncert.   Uncert.	Count   Total   Uncert.   Uncert.   Uncert.   Uncert.   Uncert.   O.0411   U   O.121   O.121   O.121   O.224	Count   Total   Uncert.   Uncert.   Uncert.     O.0411   U   O.121   O.121   O.121   O.121   O.224   PCi/L	Count   Total   Uncert.   Uncert.   Uncert.   Uncert.   Uncert.   Count   Uncert.   Uncert.   Count   Uncert.   Uncert.   Count   Uncert.   Count   Uncert.   Uncert.   Uncert.   Uncert.   Uncert.   Uncert.   Uncert.   Uncert.   Prepared   O.0411   U	Count   Uncert.   Uncert.   Uncert.   Uncert.

L	Ba Carrier -	91.2		40 - 110					02/17/17 10:39	03/13/17 06:27	1
	- Method: 9320 - Radi	um-228 (	GFPC)								
				Count	Total						
				Uncert.	Uncert.						
	Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Radium-228	0.0649	U	0.264	0.264	1.00	0.463	pCi/L	02/17/17 18:22	03/08/17 11:22	1
	Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
	Ba Carrier	91.2		40 - 110					02/17/17 18:22	03/08/17 11:22	1
	Y Carrier	87.9		40 - 110					02/17/17 18:22	03/08/17 11:22	1

Method: Ra226_Ra2	228 - Com	nbined Ra	dium-226 a	nd Radiun	n-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226	0.106	U	0.290	0.290	5.00	0.463	pCi/L		03/14/17 12:39	1

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Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

SDG: Barry Gypsum (6)

TestAmerica Job ID: 400-133557-1

Client Sample ID: AX02648 EB-1

Date Collected: 01/30/17 15:45 Date Received: 02/06/17 14:00 Lab Sample ID: 400-133557-7

Matrix: Water

Method: 9315 - Ra	ndium-226 (	(GFPC)	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0397	U	0.0719	0.0720	1.00	0.182	pCi/L	02/17/17 10:39	03/13/17 06:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					02/17/17 10:39	03/13/17 06:27	1

	00.0							0=		•
Method: 9320 - I	Radium-228 (	(GFPC)								
		,	Count Uncert.	Total Uncert.						
Analyte	Rosult	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
										Dil i ac
Radium-228	-0.242	U	0.260	0.261	1.00	0.505	pCi/L	02/17/17 18:22	03/08/17 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					02/17/17 18:22	03/08/17 11:22	1
Y Carrier	88.6		40 - 110					02/17/17 18:22	03/08/17 11:22	1
_										

Method: Ra226_Ra2	228 - Com	bined Ra	dium-226 a	nd Radiur	m-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226	-0.282	Ū	0.270	0.271	5.00	0.505	pCi/L		03/14/17 12:39	1

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Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-133557-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (6)

Client Sample ID: AX02649 MW-6 Lab Sample ID: 400-133557-8

Date Collected: 01/31/17 09:00 **Matrix: Water** Date Received: 02/06/17 14:00

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.546		0.191	0.197	1.00	0.185	pCi/L	02/17/17 10:39	03/13/17 06:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					02/17/17 10:39	03/13/17 06:27	1

Method: 9320 - I	Radium-228 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.460	U	0.322	0.325	1.00	0.504	pCi/L	02/17/17 18:22	03/08/17 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6	-	40 - 110					02/17/17 18:22	03/08/17 11:22	1
Y Carrier	83.7		40 - 110					02/17/17 18:22	03/08/17 11:22	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radium	1-228					
_			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.01		0.375	0.380	5.00	0.504	pCi/L		03/14/17 12:39	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-133557-1 SDG: Barry Gypsum (6)

Client Sample ID: AX02650 MW-4

Date Collected: 01/31/17 10:15 Date Received: 02/06/17 14:00 Lab Sample ID: 400-133557-9

Matrix: Water

Method: 9315 - R	adium-226 (	(GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.415		0.162	0.166	1.00	0.159	pCi/L	02/17/17 10:39	03/13/17 06:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					02/17/17 10:39	03/13/17 06:27	1

										-
- Method: 9320 - F	Radium-228 (	(GFPC)								
		`	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.669		0.300	0.306	1.00	0.430	pCi/L	02/17/17 18:22	03/08/17 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					02/17/17 18:22	03/08/17 11:22	1
Y Carrier	83.7		40 - 110					02/17/17 18:22	03/08/17 11:22	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radiun	1-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.08		0.341	0.348	5.00	0.430	pCi/L		03/14/17 12:39	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-133557-1 SDG: Barry Gypsum (6)

Client Sample ID: AX02651 MW-3

Lab Sample ID: 400-133557-10 Date Collected: 01/31/17 11:15 **Matrix: Water** 

Date Received: 02/06/17 14:00

Method: 9315 - R	adium-226 (	(GFPC)	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.110	U	0.127	0.127	1.00	0.207	pCi/L	02/17/17 10:39	03/13/17 06:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					02/17/17 10:39	03/13/17 06:28	1

Method: 9320 -		,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0490	U	0.264	0.265	1.00	0.484	pCi/L	02/17/17 18:22	03/08/17 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					02/17/17 18:22	03/08/17 11:22	1
Y Carrier	84.5		40 - 110					02/17/17 18:22	03/08/17 11:22	1

Method: Ra226_Ra2	228 - Combined Ra	dium-226 a	nd Radium	1-228					
_		Count	Total						
		Uncert.	Uncert.						
Analyte	Result Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226	0.0613 U	0.293	0.294	5.00	0.484	pCi/L		03/14/17 12:39	1

+ 228

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-133557-1 SDG: Barry Gypsum (6)

Client Sample ID: AX02652 MW-2

Date Collected: 01/31/17 12:25 Date Received: 02/06/17 14:00 Lab Sample ID: 400-133557-11

Matrix: Water

Method: 9315 - R	Radium-226 (	(GFPC)	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.366		0.160	0.164	1.00	0.182	pCi/L	02/17/17 10:39	03/13/17 06:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					02/17/17 10:39	03/13/17 06:28	1

							02/11/11 10.39		•
ium-228 (	GFPC)								
·	•	Count Uncert.	Total Uncert.						
Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
0.0324	U	0.251	0.251	1.00	0.447	pCi/L	02/17/17 18:22	03/08/17 11:22	1
%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
98.5		40 - 110					02/17/17 18:22	03/08/17 11:22	1
81.1		40 - 110					02/17/17 18:22	03/08/17 11:22	1
-	Result   0.0324   % Yield   98.5		Result 0.0324         Qualifier Qualifier Qualifier         (2σ+/-) 0.251           %Yield 98.5         Qualifier Qualifier Qualifier 40 - 110	Result 0.0324         Qualifier Uncert.         (2σ+/-) (2σ+/-) (2σ+/-)           %Yield 98.5         Qualifier Limits           40 - 110         40 - 110	Count Uncert. Uncert.   Uncert.	Count Uncert. Uncert.   Vincert.   Vincer	Count Uncert. Uncert.   Count Uncert.   Cou	Count Uncert. Uncert. Uncert.   Count Uncer	Result Qualifier         Qualifier (2σ+/-)         (2σ+/-)         RL (2σ+/-)         MDC (2σ+/-)         Unit (2σ+/-)         Prepared (2σ+/-)         Analyzed (2σ+/-)           98.5         40 - 110

Method: Ra226 Ra	228 - Comb	oined Ra	dium-226 a	nd Radiun	n-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result C	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226	0.398	J	0.297	0.299	5.00	0.447	pCi/L	<del></del>	03/14/17 12:39	1

+ 228

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-133557-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (6)

Client Sample ID: AX02653 MW-1

Lab Sample ID: 400-133557-12 Date Collected: 01/31/17 13:25 **Matrix: Water** 

Date Received: 02/06/17 14:00

Method: 9315 - Ra	adium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.530		0.180	0.187	1.00	0.165	pCi/L	02/17/17 10:39	03/13/17 06:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					02/17/17 10:39	03/13/17 06:28	1

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.422	U	0.301	0.303	1.00	0.470	pCi/L	02/17/17 18:22	03/08/17 11:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					02/17/17 18:22	03/08/17 11:25	1
Y Carrier	86.7		40 - 110					02/17/17 18:22	03/08/17 11:25	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radium	1-228					
_			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.952		0.351	0.356	5.00	0.470	pCi/L		03/14/17 12:39	1

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-133557-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (6)

Client Sample ID: AX02654 MW-1 DUP

Lab Sample ID: 400-133557-13 Date Collected: 01/31/17 13:25 **Matrix: Water** 

Date Received: 02/06/17 14:00

dium-226 (	(GFPC)	Count	Total						
Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
0.317		0.146	0.149	1.00	0.163	pCi/L	02/17/17 10:39	03/13/17 06:28	1
%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
99.4		40 - 110					02/17/17 10:39	03/13/17 06:28	1
	Result 0.317	%Yield Qualifier	Count Uncert.	Result 0.317         Qualifier Count Uncert.         Count Uncert.         Uncert. Uncert.           0.349         0.146         0.149	Count   Total   Uncert.   Uncert.   Uncert.   Uncert.   Uncert.   O.317   O.146   O.149   O	Count   Total   Uncert.   Uncert.   Uncert.   O.317   O.146   O.149   O.149   O.163	Count   Total   Uncert.   Uncert.   Uncert.   Count   Uncert.   Uncert.	Count   Total   Uncert.   Uncert.   Uncert.     Prepared	Count   Uncert.   Uncert.   Uncert.   Uncert.

Method: 9320 - F	Radium-228 (	(GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.595		0.314	0.319	1.00	0.466	pCi/L	02/17/17 18:22	03/08/17 11:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					02/17/17 18:22	03/08/17 11:25	1
Y Carrier	82.2		40 - 110					02/17/17 18:22	03/08/17 11:25	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radium	<b>-228</b>					
_			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.912		0.346	0.352	5.00	0.466	pCi/L	_	03/14/17 12:39	1

## **Definitions/Glossary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-133557-1 SDG: Barry Gypsum (6)

#### **Qualifiers**

#### Rad

Qualifier	Qualifier	Description
Qualifier	Qualifier	Descriptio

Ū Result is less than the sample detection limit.

### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration

MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NO	Not Coloulated

NC Not Calculated

Not detected at the reporting limit (or MDL or EDL if shown) ND

**PQL** Practical Quantitation Limit

QC **Quality Control RER** Relative error ratio

RLReporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

SDG: Barry Gypsum (6)

Client Sample ID: AX02642 MW-5

Client: Alabama Power General Test Laboratory

Date Collected: 01/31/17 09:33 Date Received: 02/06/17 14:00

Project/Site: CCR Plant Barry

Lab Sample ID: 400-133557-1

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297321	03/13/17 06:19	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Lab Sample ID: 400-133557-2 Client Sample ID: AX02643 MW-8 **Matrix: Water** 

Date Collected: 01/31/17 11:00 Date Received: 02/06/17 14:00

Dilution Batch Batch **Batch** Prepared Method Number or Analyzed **Prep Type** Type Run **Factor** Lab Analyst Total/NA Prep PrecSep-21 293081 02/17/17 10:39 PJM TAL SL Total/NA Analysis 9315 297322 03/13/17 06:27 RTM TAL SL TAL SL Total/NA Prep PrecSep 0 293136 02/17/17 18:22 PJM

Client Sample ID: AX02644 MW-9 Lab Sample ID: 400-133557-3

1

296604 03/08/17 11:21 RTM

297652 03/14/17 12:39 RTM

Date Collected: 01/30/17 13:03 Date Received: 02/06/17 14:00

Analysis

Analysis

9320

Ra226\_Ra228

Total/NA

Total/NA

**Matrix: Water** 

TAL SL

TAL SL

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Client Sample ID: AX02645 MW-10 Lab Sample ID: 400-133557-4

Date Collected: 01/30/17 14:05 Date Received: 02/06/17 14:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

**Matrix: Water** 

SDG: Barry Gypsum (6)

Client Sample ID: AX02646 MW-7

Client: Alabama Power General Test Laboratory

Date Collected: 01/30/17 15:15 Date Received: 02/06/17 14:00

Project/Site: CCR Plant Barry

Lab Sample ID: 400-133557-5 **Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Lab Sample ID: 400-133557-6 Client Sample ID: AX02647 FB-1

Date Collected: 01/30/17 15:35

**Matrix: Water** 

Date Received: 02/06/17 14:00

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Lab Sample ID: 400-133557-7 Client Sample ID: AX02648 EB-1

**Matrix: Water** 

Date Collected: 01/30/17 15:45 Date Received: 02/06/17 14:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Client Sample ID: AX02649 MW-6 Lab Sample ID: 400-133557-8 **Matrix: Water** 

Date Collected: 01/31/17 09:00 Date Received: 02/06/17 14:00

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

TestAmerica Pensacola

TestAmerica Job ID: 400-133557-1 SDG: Barry Gypsum (6)

Client: Alabama Power General Test Laboratory

Client Sample ID: AX02650 MW-4

Project/Site: CCR Plant Barry

Lab Sample ID: 400-133557-9

**Matrix: Water** 

Date Collected: 01/31/17 10:15 Date Received: 02/06/17 14:00

ıb	
AL SL	
AL SL	

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21		·	293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Lab Sample ID: 400-133557-10

Client Sample ID: AX02651 MW-3 Date Collected: 01/31/17 11:15 **Matrix: Water** 

Date Received: 02/06/17 14:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Client Sample ID: AX02652 MW-2

Lab Sample ID: 400-133557-11 Date Collected: 01/31/17 12:25

**Matrix: Water** 

Date Received: 02/06/17 14:00

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Client Sample ID: AX02653 MW-1

Lab Sample ID: 400-133557-12

**Matrix: Water** 

Date Collected: 01/31/17 13:25 Date Received: 02/06/17 14:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296549	03/08/17 11:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

#### **Lab Chronicle**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-133557-1 SDG: Barry Gypsum (6)

Lab Sample ID: 400-133557-13

Client Sample ID: AX02654 MW-1 DUP Date Collected: 01/31/17 13:25 **Matrix: Water** Date Received: 02/06/17 14:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296549	03/08/17 11:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

#### **Laboratory References:**

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

## **QC Association Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-133557-1 SDG: Barry Gypsum (6)

#### Rad

#### **Prep Batch: 293081**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133557-1	AX02642 MW-5	Total/NA	Water	PrecSep-21	
400-133557-2	AX02643 MW-8	Total/NA	Water	PrecSep-21	
400-133557-3	AX02644 MW-9	Total/NA	Water	PrecSep-21	
400-133557-4	AX02645 MW-10	Total/NA	Water	PrecSep-21	
400-133557-5	AX02646 MW-7	Total/NA	Water	PrecSep-21	
400-133557-6	AX02647 FB-1	Total/NA	Water	PrecSep-21	
400-133557-7	AX02648 EB-1	Total/NA	Water	PrecSep-21	
400-133557-8	AX02649 MW-6	Total/NA	Water	PrecSep-21	
400-133557-9	AX02650 MW-4	Total/NA	Water	PrecSep-21	
400-133557-10	AX02651 MW-3	Total/NA	Water	PrecSep-21	
400-133557-11	AX02652 MW-2	Total/NA	Water	PrecSep-21	
400-133557-12	AX02653 MW-1	Total/NA	Water	PrecSep-21	
400-133557-13	AX02654 MW-1 DUP	Total/NA	Water	PrecSep-21	
MB 160-293081/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-293081/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-133557-1 DU	AX02642 MW-5	Total/NA	Water	PrecSep-21	

#### **Prep Batch: 293136**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133557-1	AX02642 MW-5	Total/NA	Water	PrecSep_0	-
400-133557-2	AX02643 MW-8	Total/NA	Water	PrecSep_0	
400-133557-3	AX02644 MW-9	Total/NA	Water	PrecSep_0	
400-133557-4	AX02645 MW-10	Total/NA	Water	PrecSep_0	
400-133557-5	AX02646 MW-7	Total/NA	Water	PrecSep_0	
400-133557-6	AX02647 FB-1	Total/NA	Water	PrecSep_0	
400-133557-7	AX02648 EB-1	Total/NA	Water	PrecSep_0	
400-133557-8	AX02649 MW-6	Total/NA	Water	PrecSep_0	
400-133557-9	AX02650 MW-4	Total/NA	Water	PrecSep_0	
400-133557-10	AX02651 MW-3	Total/NA	Water	PrecSep_0	
400-133557-11	AX02652 MW-2	Total/NA	Water	PrecSep_0	
400-133557-12	AX02653 MW-1	Total/NA	Water	PrecSep_0	
400-133557-13	AX02654 MW-1 DUP	Total/NA	Water	PrecSep_0	
MB 160-293136/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-293136/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
180-63446-A-3-B DU	Duplicate	Total/NA	Water	PrecSep_0	
400-133557-1 DU	AX02642 MW-5	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

3/17/2017

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-133557-1 SDG: Barry Gypsum (6)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-293081/1-A

Lab Sample ID: LCS 160-293081/2-A

**Matrix: Water** 

**Analysis Batch: 297321** 

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 293081** 

Count Total MB MB Uncert. Uncert. **Analyte** Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ RL **MDC** Unit Prepared Analyzed Dil Fac Radium-226 0.009266 U 0.0684 0.0684 1.00 0.142 pCi/L 02/17/17 10:39 03/13/17 06:17

MB MB

Carrier %Yield Qualifier Limits Ba Carrier 93.8 40 - 110

02/17/17 10:39 03/13/17 06:17

Prepared

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA **Prep Batch: 293081** 

Analyzed

**Matrix: Water Analysis Batch: 297321** 

Total

Spike LCS LCS Uncert. %Rec. Analyte Added Result Qual  $(2\sigma + / -)$ RL**MDC** Unit %Rec Limits Radium-226 15.2 12.43 1.35 1.00 0.152 pCi/L 82 68 - 137

LCS LCS

Carrier %Yield Qualifier Limits Ba Carrier 95.0 40 - 110

Lab Sample ID: 400-133557-1 DU Client Sample ID: AX02642 MW-5

Total

**Matrix: Water** 

**Analysis Batch: 297321** 

**Prep Type: Total/NA** 

**Prep Batch: 293081** 

Sample Sample DU DU Uncert. **RER** Analyte Result Qual Result Qual  $(2\sigma + / -)$ RL **MDC** Unit RER Limit Radium-226 0.262 0.3273 0.148 1.00 0.157 pCi/L 0.23

DU DU

Carrier %Yield Qualifier Limits Ba Carrier 92.9 40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-293136/1-A

**Matrix: Water** 

**Analysis Batch: 296604** 

**Client Sample ID: Method Blank** 

Prep Batch: 293136

_		Count	Total					
	MB MB	Uncert.	Uncert.					
Analyte	Result Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3006 U	0.234	0.235	1.00	0.370 pCi/L	02/17/17 18:22	03/08/17 11:20	1

MB MB

Carrier	%Yield	Qualifier Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	93.8	40 - 11	02/17/17 18:22	03/08/17 11:20	1
Y Carrier	85.2	40 - 11	02/17/17 18:22	03/08/17 11:20	1

TestAmerica Pensacola

Dil Fac

10

Prep Type: Total/NA

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-133557-1 SDG: Barry Gypsum (6)

### Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-293136/2-A

**Matrix: Water** 

Analysis Batch: 296604

**Client Sample ID: Lab Control Sample** 

Prep Batch: 293136

Prep Type: Total/NA

Total Spike LCS LCS Uncert. %Rec. Added **Analyte** Result Qual  $(2\sigma + / -)$ RL MDC Unit %Rec Limits Radium-228 13.7 14.42 1.54 1.00 0.346 pCi/L 105 56 - 140

LCS LCS Carrier %Yield Qualifier I imits Ba Carrier 95.0 40 - 110 Y Carrier 87.9 40 - 110

Lab Sample ID: 180-63446-A-3-B DU

**Matrix: Water** 

**Analysis Batch: 296604** 

**Client Sample ID: Duplicate** Prep Type: Total/NA

Prep Batch: 293136

Total Sample Sample DU DU Uncert. **RER** Analyte Result Qual Result Qual  $(2\sigma + / -)$ RL **MDC** Unit RER Limit Radium-228 1.59 1.162 0.312 1.00 0.361 pCi/L 0.64

DU DU Carrier %Yield Qualifier Limits Ba Carrier 93.8 40 - 110 Y Carrier 88.2 40 - 110

Lab Sample ID: 400-133557-1 DU

**Matrix: Water** 

**Analysis Batch: 296604** 

Client Sample ID: AX02642 MW-5

Prep Type: Total/NA Prep Batch: 293136

Total DU DU Sample Sample **RER** Uncert. **MDC** Unit Analyte Result Qual Result Qual  $(2\sigma + / -)$ RL RER Limit 0.461 U 0.2438 U Radium-228 0.339 1.00 0.565 pCi/L 0.30

DU DU Carrier %Yield Qualifier Limits 92.9 Ba Carrier 40 - 110 80.4 40 - 110 Y Carrier

#### Method: Ra226 Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-133557-1 DU

**Matrix: Water** 

**Analysis Batch: 297652** 

Client Sample ID: AX02642 MW-5

Prep Type: Total/NA

Total Sample Sample DU DU Uncert. **RER** Analyte Result Qual Result Qual  $(2\sigma + / -)$ RL **MDC** Unit RER Limit 0.724 0.5712 0.370 5.00 0.565 pCi/L 0.20 Combined

Radium 226 +

228

TestAmerica Pensacola

<b>TestAmerica Pensacola</b> 3355 McLemore Drive Pensacola, FL 32514		Chain	of Cu	Chain of Custody Record	cord				TestA	<b>TestAmerica</b>
Phone (850) 474-1001 Fax (850) 478-2671	Consults			c					THE BEADER IN	the egader in entironmental testing
Client Information	sampler. Jason Rouss/ B	Ben Rothschadl	ad l	Whit	Lab PM: Whitmire, Cheyenne R	enne R	Carrier Tracking No(s):	l No(s):	COC No: 400-56525-24537.1	37.1
Client Contact Sarah Copeland	Phone:		ĺ	E-Mail	enne.whitr	E-Mail: cheyenne.whitmire@testamericainc.com	inc.com		Page: Page 1 of 1	
Company: Alabama Power General Test Laboratory						Ana	Analysis Requested		35551-00h#gor	73557
Address: 744 County Rd 87 GSC #8	Due Date Requested:	ë							Preservation Codes:	
City. Calera	TAT Requested (da	(days): Rot	Routine						A - HCL B - NaOH	
State, Zip:  AL, 35040					a l		×3000		D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3
Phone: 205-664-6121(Tel)	PO#:								S F - MeOH G - Amchlor H - Assorbic Acid	
Email: sgcopela@southernco.com					(oN		2			
Project Name: CCR	Project#: 40007143				10 \$9		400-133557 COC	,		W - ph 4-5 Z - other (specify)
Site: Barry Gypsum (6)	SSOW#:	<u> </u>			x) as				of con	
		Sample	Sample Type (C=comp,	Matrix (w=water, S=solid, O=wasteloll,	id Filtered form MS/M 5_Ra226, 93				រួមពួយកុស្តារួខ	
Sample Identification	Sample Date	Time	G=grab) Preser	=grab) BT=rissue,A=Air) Preservation Code:	ad X			, in		Special Instructions/Note:
AX02642	1/31/17	0933	ပ	Water	× >				3 MW-5	a de la companya de l
AX02643	1/31/17	1100	O	Water	×				MW-8	
AX02644	1/30/17	1303	თ	Water	×				9-MW-9	
AX02645	1/30/17	1405	ტ	Water	×				1 MW-10	
AX02646	1/30/17	1515	Э	Water	×				7-WW-7	
AX02647	1/30/17	1535	9	Water	×				FB-1 (Field Blank)	
AX02648	1/30/17	1545	9	Water	×				EB-1 (Equipment Blank)	Blank)
AX02649	1/31/17	0060	9	Water	×				-AMM-6	
AX02650	1/31/17	1015	g	Water	×				MW-4	
AX02651	1/31/17	1115	ഗ	Water	×				1 MW-3	
AX02652	1/31/17	1225	១	Water	×				1 MW-2	
AX02653	1/31/17	1325	ტ	Water	×				1 MVV-1	
AX02654	1/31/17	1325	ŋ	Water	×				MW-1 Dup (Sample Duplicate)	ye Duplicate)
Possible Hazard Identification	l l		Radiological		Sampl	e Disposal ( A fer	Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)	imples are reta	etained longer than 1	month)
j		ì			Specia	Special Instructions/QC Requirements	Requirements:			
Empty Kit Relinguished by:		Date:			Time:		Method of	Method of Shipment:		
Relinquished by: Sarah Copeland	Date/Firne: 2/7/2017; 1100	1100		Company APC	Rec	Received by B		Date/Time;	00H1 C	Company
Relinquished by:	Date/Time:			Company	Rec	Received by:		Date/Time:		Company
Relinquished by:	Date/Time:			Company	Rec	Received by:		Date/Time:		Сотрапу
Custody Seals Intact: Custody Seal No.:					oo .	Cooler Temperature(s) °C and Other Remarks:	and Other Remarks:			

## **Login Sample Receipt Checklist**

Client: Alabama Power General Test Laboratory

Job Number: 400-133557-1 SDG Number: Barry Gypsum (6)

Login Number: 133557 List Source: TestAmerica Pensacola

List Number: 1

Creator: Siddoway, Benjamin

Groutor: Groudway, Borijanini		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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6

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4.0

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Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-133557-1 SDG: Barry Gypsum (6)

#### Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
lowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

## **Laboratory: TestAmerica St. Louis**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *

<sup>\*</sup> Certification renewal pending - certification considered valid.

TestAmerica Pensacola

3/17/2017

Page 29 of 30

2

3

7

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12

## **Certification Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-133557-1 SDG: Barry Gypsum (6)

### **Laboratory: TestAmerica St. Louis (Continued)**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-18
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

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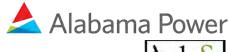
10

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<sup>\*</sup> Certification renewal pending - certification considered valid.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654

## Analytical Report





Sample Group: WMWBARG\_1084

Project/Site: Barry Gypsum

Bucks, AL 36512

For: Southern Company Services

42 Inverness Center Parkway Birmingham, AL 35242

Attention: Dustin Brooks & Greg Dyer

Released By: Sarah Copeland

sgcopela@southernco.com

(205) 664-6121

The following data has been reviewed and approved by:

Quality Control: Supervision:

#### Case Narrative

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Anions

#### Barry Gypsum

#### WMWBARG\_1084

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All anions were outsourced to Test America, Pensacola for analysis. Listed below is the job narrative provided by Test America for these samples.

#### Job Narrative 400-135676-1 General Chemistry

Method(s) SM 4500 CI- E: The method blank associated with analytical batch 348055 contained Chloride less than the reporting limit (RL). The sample results have been qualified and reported.

Method(s) SM 4500 CI- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 348438 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The method blank associated with analytical batch 348054 contained Sulfate less than the reporting limit (RL). The sample results have been qualified and reported.





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 20-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX06737

	•						
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
General Characteristics							
* Chloride, Total, by Test America	SGC 4/21/2017	SM 4500 CI_E	1	0.60	2.00	3.5	mg/L
* Fluoride, Total, by Test America	SGC 4/21/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC 4/21/2017	SM 4500 SO4_E	1	1.40	5.00	8.3	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 20-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX06737

'			MB					LFB		Rec	-	Prec
Sample	Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

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\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 20-Mar-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX06737

		MB		Sample	LFB	Rec	Prec
Sample Analysis	Units MB	Limit	Spike LFM	Duplicate LFB	Limit	Rec Limit Prec	Limit

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 20-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX06738

	-						
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
General Characteristics							
* Chloride, Total, by Test America	SGC 4/21/2017	SM 4500 CI_E	1	0.60	2.00	4.1	mg/L
* Fluoride, Total, by Test America	SGC 4/21/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC 4/21/2017	SM 4500 SO4_E	1	1.40	5.00	6.1	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 20-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX06738

		1100100									
			MB				LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike M	IS MSD	LFB	Limit	Rec	Limit	Prec	Limit

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 20-Mar-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX06738

	,	MB		Sample	LFB	Rec	Prec
Sample Analysis	Units MB	Limit	Spike LFM	Duplicate LFB	Limit	Rec Limit Prec	Limit

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 20-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX06739

141110011 7010070								
	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units	
ristics								
by Test America	SGC 4/21/2017	SM 4500 CI_E	1	0.60	2.00	3.7	mg/L	
by Test America	SGC 4/21/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L	
y Test America	SGC 4/21/2017	SM 4500 SO4_E	1	1.40	5.00	7.4	mg/L	
	ristics by Test America by Test America y Test America	by Test America SGC 4/21/2017 by Test America SGC 4/21/2017	Analyst Test Date Reference  ristics by Test America SGC 4/21/2017 SM 4500 CI_E by Test America SGC 4/21/2017 SM 4500 F_C	Analyst Test Date         Reference         Vio Spec DF           ristics         by Test America         SGC 4/21/2017         SM 4500 CI_E         1           by Test America         SGC 4/21/2017         SM 4500 F_C         1	Analyst Test Date         Reference         Vio Spec DF         MDL           ristics         by Test America         SGC 4/21/2017         SM 4500 CI_E         1         0.60           by Test America         SGC 4/21/2017         SM 4500 F_C         1         0.032	Analyst Test Date         Reference         Vio Spec DF         MDL         RL           ristics         by Test America         SGC 4/21/2017         SM 4500 CI_E         1         0.60         2.00           by Test America         SGC 4/21/2017         SM 4500 F_C         1         0.032         0.10	Analyst Test Date Reference Vio Spec DF MDL RL Q Results  ristics  by Test America SGC 4/21/2017 SM 4500 CI_E 1 0.60 2.00 3.7  by Test America SGC 4/21/2017 SM 4500 F_C 1 0.032 0.10 U <0.032	Analyst Test Date Reference Vio Spec DF MDL RL Q Results Units  ristics  by Test America SGC 4/21/2017 SM 4500 CI_E 1 0.60 2.00 3.7 mg/L  by Test America SGC 4/21/2017 SM 4500 F_C 1 0.032 0.10 U <0.032 mg/L

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MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 20-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX06739

'			MB			,		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 20-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX06739

	,								
			MB			Sample	LFB	Rec	Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate LFB	Limit	Rec Limit Prec	Limit

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MDL's and RL's are adjusted for sample dilution, as applicable

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 20-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-3 Dup

Laboratory ID Number: AX06740

777007 40							
Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units	
						·	
merica SGC 4/21/2017	SM 4500 CI_E	1	0.60	2.00	3.4	mg/L	
nerica SGC 4/21/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L	
erica SGC 4/21/2017	SM 4500 SO4_E	1	1.40	5.00	7.4	mg/L	
	Analyst Test Date  merica SGC 4/21/2017  merica SGC 4/21/2017	Analyst Test Date Reference  merica SGC 4/21/2017 SM 4500 CI_E  merica SGC 4/21/2017 SM 4500 F_C	Analyst Test Date Reference Vio Spec DF  merica SGC 4/21/2017 SM 4500 CI_E 1  merica SGC 4/21/2017 SM 4500 F_C 1	Analyst Test Date         Reference         Vio Spec DF         MDL           merica         SGC 4/21/2017         SM 4500 Cl_E         1         0.60           nerica         SGC 4/21/2017         SM 4500 F_C         1         0.032	Analyst Test Date Reference Vio Spec DF MDL RL  merica SGC 4/21/2017 SM 4500 CI_E 1 0.60 2.00  merica SGC 4/21/2017 SM 4500 F_C 1 0.032 0.10	Analyst Test Date Reference Vio Spec DF MDL RL Q Results  merica SGC 4/21/2017 SM 4500 Cl_E 1 0.60 2.00 3.4  merica SGC 4/21/2017 SM 4500 F_C 1 0.032 0.10 U <0.032	Analyst Test Date         Reference         Vio Spec DF         MDL         RL         Q Results         Units           nerica         SGC 4/21/2017         SM 4500 CI_E         1         0.60         2.00         3.4         mg/L           nerica         SGC 4/21/2017         SM 4500 F_C         1         0.032         0.10         U <0.032

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MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 20-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-3 Dup

Laboratory ID Number: AX06740

'			MB			'		LFB		Rec	-	Prec
Sample	Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 20-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-3 Dup

Laboratory ID Number: AX06740

		MB		Sample	LFB	Rec	Prec
Sample Analysis	Units MB	Limit	Spike LFM	Duplicate LFB	Limit	Rec Limit Prec	Limit

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 20-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX06741

Laboratory ID Number: AX00741									
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units		
General Characteristics									
* Chloride, Total, by Test America	SGC 4/21/2017	SM 4500 CI_E	1	0.60	2.00	4.6	mg/L		
* Fluoride, Total, by Test America	SGC 4/21/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L		
* Sulfate, Total, by Test America	SGC 4/21/2017	SM 4500 SO4_E	1	1.40	5.00	7.0	mg/L		

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Expiration: June 30, 2018

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 20-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX06741

·			MB			'		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 20-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX06741

			MB		Sample	LFB	Rec	Prec
S	Sample Analysis	Units MB	Limit	Spike LFM	Duplicate LFB	Limit	Rec Limit	Prec Limit

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX06742

Laboratory ID Number. AA0672	12						
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
General Characteristics							
* Chloride, Total, by Test America	SGC 4/21/2017	SM 4500 CI_E	1	0.60	2.00	5.6	mg/L
* Fluoride, Total, by Test America	SGC 4/21/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC 4/21/2017	SM 4500 SO4_E	1	1.40	5.00	J 3.3	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX06742

'			MB			'		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX06742

	, , , , , , , , , , , , , , , , , , , ,								
			MB			Sample	LFB	Rec	Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate LFB	Limit	Rec Limit Prec	Limit

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX06743

	<u> </u>							
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units	
General Characteristics								
* Chloride, Total, by Test America	SGC 4/21/2017	SM 4500 CI_E	1	0.60	2.00	3.5	mg/L	
* Fluoride, Total, by Test America	SGC 4/21/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L	
* Sulfate, Total, by Test America	SGC 4/21/2017	SM 4500 SO4_E	1	1.40	5.00	15	mg/L	

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX06743

'			MB			,		LFB		Rec	-	Prec
Sample	Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX06743

			MB		Sample	LFB	Rec	Prec
S	Sample Analysis	Units MB	Limit	Spike LFM	Duplicate LFB	Limit	Rec Limit Pred	Limit

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGFB Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

**Description:** Barry Gypsum Field Blank

Laboratory ID Number: AX06744

•						
Analyst Test Date Reference		Vio Spec DF	MDL	RL	Q Results	Units
		,				,
SGC 4/21/2017	SM 4500 CI_E	1	0.60	2.00	U <0.60	mg/L
SGC 4/21/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
SGC 4/21/2017	SM 4500 SO4_E	1	1.40	5.00	U <1.4	mg/L
	Analyst Test Date  SGC 4/21/2017  SGC 4/21/2017	Analyst Test Date Reference  SGC 4/21/2017 SM 4500 CI_E SGC 4/21/2017 SM 4500 F_C	Analyst Test Date         Reference         Vio Spec DF           SGC 4/21/2017         SM 4500 CI_E         1           SGC 4/21/2017         SM 4500 F_C         1	Analyst Test Date         Reference         Vio Spec DF         MDL           SGC 4/21/2017         SM 4500 CI_E         1         0.60           SGC 4/21/2017         SM 4500 F_C         1         0.032	Analyst Test Date         Reference         Vio Spec DF         MDL         RL           SGC 4/21/2017         SM 4500 CI_E         1         0.60         2.00           SGC 4/21/2017         SM 4500 F_C         1         0.032         0.10	Analyst Test Date         Reference         Vio Spec DF         MDL         RL         Q Results           SGC 4/21/2017         SM 4500 Cl_E         1         0.60         2.00         U <0.60

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGFB Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX06744

	,	8100111									
			MB				LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike N	IS MSD	LFB	Limit	Rec	Limit	Prec	Limit

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGFB Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX06744

	, , , , , , , , , , , , , , , , , , , ,								
			MB			Sample	LFB	Rec	Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate LFB	Limit	Rec Limit Prec	Limit

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX06745

Laboratory ID Number. AA0074	<u></u>							
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units	
General Characteristics								
* Chloride, Total, by Test America	SGC 4/21/2017	SM 4500 CI_E	1	0.60	2.00	5.3	mg/L	
* Fluoride, Total, by Test America	SGC 4/21/2017	SM 4500 F_C	1	0.032	0.10	J 0.050	mg/L	
* Sulfate, Total, by Test America	SGC 4/21/2017	SM 4500 SO4_E	1	1.40	5.00	7.1	mg/L	

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX06745

'			MB			,		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit

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Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX06745

	,								
		MB				Sample	LFB	Rec	Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate LFB	Limit	Rec Limit Prec	Limit

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX06746

•						
Analyst Test Date	Reference	Vio Spec DF	MDL RL		Q Results	Units
,						
SGC 4/21/2017	SM 4500 CI_E	1	0.60	2.00	4.4	mg/L
SGC 4/21/2017	SM 4500 F_C	1	0.032	0.10	J 0.060	mg/L
SGC 4/21/2017	SM 4500 SO4_E	1	1.40	5.00	9.0	mg/L
	Analyst Test Date  SGC 4/21/2017  SGC 4/21/2017	Analyst Test Date Reference  SGC 4/21/2017 SM 4500 CI_E SGC 4/21/2017 SM 4500 F_C	Analyst Test Date         Reference         Vio Spec DF           SGC 4/21/2017         SM 4500 CI_E         1           SGC 4/21/2017         SM 4500 F_C         1	Analyst Test Date         Reference         Vio Spec DF         MDL           SGC 4/21/2017         SM 4500 CI_E         1         0.60           SGC 4/21/2017         SM 4500 F_C         1         0.032	Analyst Test Date         Reference         Vio Spec DF         MDL         RL           SGC 4/21/2017         SM 4500 CI_E         1         0.60         2.00           SGC 4/21/2017         SM 4500 F_C         1         0.032         0.10	Analyst Test Date         Reference         Vio Spec DF         MDL         RL         Q Results           SGC 4/21/2017         SM 4500 Cl_E         1         0.60         2.00         4.4           SGC 4/21/2017         SM 4500 F_C         1         0.032         0.10         J 0.060

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MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX06746

'			MB			,		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit

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Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX06746

		MB		Sample	LFB	Rec	Prec
Sample Analysis	Units MB	Limit	Spike LFM	Duplicate LFB	Limit	Rec Limit Pred	Limit

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGEB Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX06747

	Laboratory in Number. AA06747							
	Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
-	General Characteristics							
* (	Chloride, Total, by Test America	SGC 4/21/2017	SM 4500 CI_E	1	0.60	2.00	U <0.60	mg/L
*	Fluoride, Total, by Test America	SGC 4/21/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
* (	Sulfate, Total, by Test America	SGC 4/21/2017	SM 4500 SO4_E	1	1.40	5.00	U <1.4	mg/L

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MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGEB Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

**Description**: Barry Gypsum Equipment Blank

Laboratory ID Number: AX06747

	atory is italinoon.	01001 +1										
			MB					LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit

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Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGEB Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

**Description**: Barry Gypsum Equipment Blank

Laboratory ID Number: AX06747

	, , , , , , , , , , , , , , , , , , , ,								
			MB			Sample	LFB	Rec	Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate LFB	Limit	Rec Limit Prec	Limit

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX06748

= unotato: j 12 11ummot: 701001 1							
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
General Characteristics							
Chloride, Total, by Test America	SGC 4/21/2017	SM 4500 CI_E	1	0.60	2.00	4.9	mg/L
Fluoride, Total, by Test America	SGC 4/21/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
Sulfate, Total, by Test America	SGC 4/21/2017	SM 4500 SO4_E	1	1.40	5.00	J 3.6	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX06748

'			MB			,		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX06748

						Sample	LFB	Rec	Prec
Sample	Analysis	Units MB	Limit	Spike	LFM	Duplicate LFB	Limit	Rec Limit Prec	Limit

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX06749

	•							
Name	Analyst Test Date	te Reference Vio Spec DF		MDL	RL	Q Results	Units	
General Characteristics	,							
* Chloride, Total, by Test America	SGC 4/21/2017	SM 4500 CI_E	1	0.60	2.00	2.8	mg/L	
* Fluoride, Total, by Test America	SGC 4/21/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L	
* Sulfate, Total, by Test America	SGC 4/21/2017	SM 4500 SO4_E	1	1.40	5.00	8.6	mg/L	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Reported: 7/31/2017 Version: 2.0

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX06749

'			MB			,		LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Reported: 7/31/2017 Version: 2.0





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 21-Mar-17

**Customer ID:** 

**Delivery Date:** 23-Mar-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX06749

		MB		Sample	LFB	Rec	Prec
Sample Analysis	Units MB	Limit	Spike LFM	Duplicate LFB	Limit	Rec Limit Prec	Limit

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Reported: 7/31/2017 Version: 2.0

# Definitions

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the
	concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
В	Analyte found in reagent blank. Indicates possible reagent or background contamination.
Е	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
Р	Precision is out of range.
С	Analyte was verified by re-analysis.
Н	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as
	possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless
	otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



Field Complete

✓ Lab Complete

APC General Testing Laboratory General Service Complex Building 8

Lab ETA 03/23/2017 13:00

Requested Complete	Date	Routine	Results To	Dustin Brooks, Greg Dyer			
Site Represent	tative	Angie Jimmerson	Requested By	Greg Dyer			
Coll	ector	Jason Rouss	Barry Gypsum				
Comments	No pH рі	(250 mL): Anions reservation required. SGC e anion set re-sampled due to hold time exceed	dance. All samples outso	ourced to Test America.			

			Bottle		Lab	
Sample #	Date	Time	Count	Description	Filter	Lab Id
MW-1	03/20/2017	13:46	1	Groundwater		AX06737
MW-2	03/20/2017	14:45	1	Groundwater		AX06738
MW-3	03/20/2017	15:37	1	Groundwater		AX06739
MW-3 Dup	03/20/2017	15:37	1	Sample Duplicate		AX06740
MW-4	03/20/2017	16:34	1	Groundwater		AX06741
MW-7	03/21/2017	09:32	1	Groundwater		AX06742
MW-6	03/21/2017	10:20	1	Groundwater		AX06743
FB-1	03/21/2017	10:23	1	Field Blank		AX06744
MW-9	03/21/2017	11:15	1	Groundwater		AX06745
MW-10	03/21/2017	12:00	1	Groundwater		AX06746
EB-1	03/21/2017	12:08	1	Equipment Blank		AX06747
MW-8	03/21/2017	13:25	1	Groundwater		AX06748
MW-5	03/21/2017	14:35	1	Groundwater		AX06749
			1			

Relinquished By	Received By	Date/Time
Jona	Sarah Copeland Digitally signed by Sarah Copeland Diversion Copeland D	03/23/2017 13:51
CT11 ID 4000 00440 0 0	All and the cond on 1 to 1 to 1 to 11 to 1	
SmarTroll ID 4696-23443-3-2	All metals and radiological bottl	es have pH < 2
SmarTroll ID 4696-23443-3-2 Turbidity ID 4677-23342-4-1	All metals and radiological bottl  Cooler Temp 1.9 degrees C	es have pH < 2

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THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola 3355 McLemore Drive Pensacola, FL 32514 Tel: (850)474-1001

TestAmerica Job ID: 400-135676-1

TestAmerica Sample Delivery Group: Barry Gypsum (6)

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory 744 County Rd 87 GSC #8 Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by: 4/19/2017 6:10:56 PM

Cheyenne Whitmire, Project Manager II (850)471-6222

cheyenne.whitmire@testamericainc.com

.....LINKS .....

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-135676-1

SDG: Barry Gypsum (6)

Job ID: 400-135676-1

Laboratory: TestAmerica Pensacola

**Narrative** 

Job Narrative 400-135676-1

#### **General Chemistry**

Method(s) SM 4500 CI- E: The method blank associated with analytical batch 348055 contained Chloride less than the reporting limit (RL). The sample results have been qualified and reported.

Method(s) SM 4500 CI- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 348438 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The method blank associated with analytical batch 348054 contained Sulfate less than the reporting limit (RL). The sample results have been qualified and reported.

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-135676-1 SDG: Barry Gypsum (6)

Lab Sample ID: 400-135676-2

Lab Sample ID: 400-135676-3

Lab Sample ID: 400-135676-4

Lab Sample ID: 400-135676-5

Lab Sample ID: 400-135676-6

Lab Sample ID: 400-135676-7

Lab Sample ID: 400-135676-8

Lab Sample ID: 400-135676-9

Lab Sample ID: 400-135676-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		2.0	0.60	mg/L	1	_	SM 4500 CI- E	Total/NA
Sulfate	8.3		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

### Client Sample ID: AX06738 MW-2

Client Sample ID: AX06737 MW-1

Analyte	Result Qualifier	RL	MDL I	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.1	2.0	0.60 r	mg/L	1	_	SM 4500 CI- E	Total/NA
Sulfate	6.1	5.0	1.4 r	mg/L	1		SM 4500 SO4 E	Total/NA

### Client Sample ID: AX06739 MW-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.7		2.0	0.60	mg/L	1	_	SM 4500 CI- E	Total/NA
Sulfate	7.4		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

### Client Sample ID: AX06740 MW-3 DUP

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		2.0	0.60	mg/L		_	SM 4500 CI- E	Total/NA
Sulfate	7.4		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

### Client Sample ID: AX06741 MW-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fa	c D	Method	Prep Type
Chloride	4.6		2.0	0.60	mg/L		1 _	SM 4500 CI- E	Total/NA
Sulfate	7.0		5.0	1.4	mg/L		1	SM 4500 SO4 E	Total/NA

### Client Sample ID: AX06742 MW-7

Analyte	Result Qua	alifier RL	MDL	Unit	Dil Fac D Method Prep T	Гуре
Chloride	5.6	2.0	0.60	mg/L	1 SM 4500 CI- E Total/N	1A
Sulfate	3.3 J	5.0	1.4	mg/L	1 SM 4500 SO4 E Total/N	۱A

### Client Sample ID: AX06743 MW-6

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
Chloride	3.5 F1 F2	2.0	0.60 mg/L		SM 4500 CI- E	Total/NA
Sulfate	15 F1 F2	5.0	1.4 mg/L	1	SM 4500 SO4 E	Total/NA

### Client Sample ID: AX06744 FB-1

No Detections.

### Client Sample ID: AX06745 MW-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac D	Method	Prep Type
Chloride	5.3		2.0	0.60	mg/L		SM 4500 CI- E	Total/NA
Fluoride	0.050	J	0.10	0.032	mg/L	1	SM 4500 F C	Total/NA
Sulfate	7.1		5.0	1.4	mg/L	1	SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

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## **Detection Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-135676-1 SDG: Barry Gypsum (6)

Lab Sample ID: 400-135676-10

### Client Sample ID: AX06746 MW-10

Analyte	Result Qualifier	RL	MDL Uni	t Dil Fac D	Method	Prep Type
Chloride	4.4	2.0	0.60 mg/	<u>/L 1                                   </u>	SM 4500 CI- E	Total/NA
Fluoride	0.060 J	0.10	0.032 mg/	′L 1	SM 4500 F C	Total/NA
Sulfate	9.0	5.0	1.4 mg/	L 1	SM 4500 SO4 E	Total/NA

Client Sample ID: AX06747 EB-1 Lab Sample ID: 400-135676-11

No Detections.

Client Sample ID: AX06748 MW-8 Lab Sample ID: 400-135676-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.9		2.0	0.60	mg/L	1	_	SM 4500 CI- E	Total/NA
Sulfate	3.6	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX06749 MW-5 Lab Sample ID: 400-135676-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.8	F1	2.0	0.60	mg/L	 1	_	SM 4500 CI- E	Total/NA
Sulfate	8.6	F1	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

4/19/2017

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### **Method Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-135676-1 SDG: Barry Gypsum (6)

Method	Method Description	Protocol	Laboratory
SM 4500 CI- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN

#### **Protocol References:**

SM = "Standard Methods For The Examination Of Water And Wastewater",

#### Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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### **Sample Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-135676-1 SDG: Barry Gypsum (6)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135676-1	AX06737 MW-1	Water	03/20/17 13:46	03/27/17 08:34
400-135676-2	AX06738 MW-2	Water	03/20/17 14:45	03/27/17 08:34
400-135676-3	AX06739 MW-3	Water	03/20/17 15:37	03/27/17 08:34
400-135676-4	AX06740 MW-3 DUP	Water	03/20/17 15:37	03/27/17 08:34
400-135676-5	AX06741 MW-4	Water	03/20/17 16:34	03/27/17 08:34
400-135676-6	AX06742 MW-7	Water	03/21/17 09:32	03/27/17 08:34
400-135676-7	AX06743 MW-6	Water	03/21/17 10:20	03/27/17 08:34
400-135676-8	AX06744 FB-1	Water	03/21/17 10:23	03/27/17 08:34
400-135676-9	AX06745 MW-9	Water	03/21/17 11:15	03/27/17 08:34
400-135676-10	AX06746 MW-10	Water	03/21/17 12:00	03/27/17 08:34
400-135676-11	AX06747 EB-1	Water	03/21/17 12:08	03/27/17 08:34
400-135676-12	AX06748 MW-8	Water	03/21/17 13:25	03/27/17 08:34
400-135676-13	AX06749 MW-5	Water	03/21/17 14:35	03/27/17 08:34

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TestAmerica Job ID: 400-135676-1 SDG: Barry Gypsum (6)

**Matrix: Water** 

Lab Sample ID: 400-135676-1

Client Sample ID: AX06737 MW-1 Date Collected: 03/20/17 13:46 **Matrix: Water** 

Date Received: 03/27/17 08:34

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		2.0	0.60	mg/L			04/15/17 10:08	1
Fluoride	<0.032		0.10	0.032	mg/L			03/31/17 17:24	1
Sulfate	8.3		5.0	1.4	mg/L			04/15/17 10:01	1

Client Sample ID: AX06738 MW-2 Lab Sample ID: 400-135676-2

Date Collected: 03/20/17 14:45

Date Received: 03/27/17 08:34

General Chemistry Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		2.0	0.60	mg/L			04/15/17 10:08	1
Fluoride	< 0.032		0.10	0.032	mg/L			03/31/17 17:28	1
Sulfate	6.1		5.0	1.4	mg/L			04/15/17 10:01	1

Lab Sample ID: 400-135676-3 Client Sample ID: AX06739 MW-3 Date Collected: 03/20/17 15:37 **Matrix: Water** 

Date Received: 03/27/17 08:34

General Chemistry Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7	2.0	0.60 mg/L			04/15/17 10:08	1
Fluoride	<0.032	0.10	0.032 mg/L			03/31/17 17:30	1
Sulfate	7.4	5.0	1.4 mg/L			04/15/17 10:01	1

Client Sample ID: AX06740 MW-3 DUP Lab Sample ID: 400-135676-4 **Matrix: Water** 

Date Collected: 03/20/17 15:37 Date Received: 03/27/17 08:34

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		2.0	0.60	mg/L			04/15/17 10:08	1
Fluoride	<0.032		0.10	0.032	mg/L			03/31/17 17:33	1
Sulfate	7.4		5.0	1.4	mg/L			04/15/17 10:01	1

Client Sample ID: AX06741 MW-4 Lab Sample ID: 400-135676-5

Date Collected: 03/20/17 16:34 Date Received: 03/27/17 08:34

General Chemistry Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6	2.0	0.60	mg/L			04/15/17 10:08	1
Fluoride	<0.032	0.10	0.032	mg/L			03/31/17 17:37	1
Sulfate	7.0	5.0	1.4	mg/L			04/15/17 10:01	1

TestAmerica Pensacola

**Matrix: Water** 

SDG: Barry Gypsum (6)

Project/Site: CCR Plant Barry

Client Sample ID: AX06742 MW-7

Client: Alabama Power General Test Laboratory

Date Collected: 03/21/17 09:32 Date Received: 03/27/17 08:34

Lab Sample ID: 400-135676-6

Matrix: Water

**Matrix: Water** 

**Matrix: Water** 

Matrix: Water

**Matrix: Water** 

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.6		2.0	0.60	mg/L			04/15/17 10:08	1
Fluoride	<0.032		0.10	0.032	mg/L			04/01/17 10:43	1
Sulfate	3.3	J	5.0	1.4	mg/L			04/15/17 10:01	1

Client Sample ID: AX06743 MW-6 Lab Sample ID: 400-135676-7

Date Collected: 03/21/17 10:20 Date Received: 03/27/17 08:34

**General Chemistry** Analyte Result Qualifier RL **MDL** Unit D Prepared Analyzed Dil Fac Chloride 3.5 F1 F2 2.0 0.60 mg/L 04/15/17 10:08 Fluoride < 0.032 0.10 0.032 mg/L 03/31/17 17:18 **Sulfate** 5.0 1.4 mg/L 04/15/17 10:01 15 F1 F2

Lab Sample ID: 400-135676-8 Client Sample ID: AX06744 FB-1 Date Collected: 03/21/17 10:23 **Matrix: Water** 

Date Received: 03/27/17 08:34

**General Chemistry** Analyzed Analyte Result Qualifier RL **MDL** Unit D Dil Fac Prepared 2.0 Chloride < 0.60 0.60 mg/L 04/15/17 10:08 Fluoride < 0.032 0.10 0.032 mg/L 04/01/17 10:46 1 Sulfate <1.4 5.0 1.4 mg/L 04/15/17 10:01

Client Sample ID: AX06745 MW-9 Lab Sample ID: 400-135676-9

Date Collected: 03/21/17 11:15 Date Received: 03/27/17 08:34

**General Chemistry MDL** Unit Analyte Result Qualifier RL D Prepared Analyzed Dil Fac 2.0 04/15/17 10:08 Chloride 5.3 0.60 mg/L 0.032 mg/L 04/01/17 10:49 **Fluoride** 0.050 J 0.10 04/15/17 10:01 **Sulfate** 7.1 5.0 1.4 mg/L

Client Sample ID: AX06746 MW-10 Lab Sample ID: 400-135676-10

Date Collected: 03/21/17 12:00 Date Received: 03/27/17 08:34

**General Chemistry** Analyte Result Qualifier RL **MDL** Unit D Prepared Analyzed Dil Fac 2.0 Chloride 4.4 0.60 mg/L 04/15/17 10:08 **Fluoride** 0.10 0.032 mg/L 04/01/17 10:52 0.060 J 1 5.0 1.4 mg/L 04/15/17 10:01 **Sulfate** 9.0

Client Sample ID: AX06747 EB-1 Lab Sample ID: 400-135676-11

Date Collected: 03/21/17 12:08 Date Received: 03/27/17 08:34

**General Chemistry** Analyte Result Qualifier RL **MDL** Unit D Prepared Analyzed Dil Fac Chloride 2.0 04/15/17 10:10 < 0.60 0.60 mg/L

TestAmerica Pensacola

### **Client Sample Results**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-135676-1

SDG: Barry Gypsum (6)

Client Sample ID: AX06747 EB-1

Date Collected: 03/21/17 12:08 Date Received: 03/27/17 08:34

Lab Sample ID: 400-135676-11

**Matrix: Water** 

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			04/01/17 11:23	1
Sulfate	<1.4		5.0	1.4	mg/L			04/15/17 10:15	1

Client Sample ID: AX06748 MW-8 Lab Sample ID: 400-135676-12

Date Collected: 03/21/17 13:25

Date Received: 03/27/17 08:34

**Matrix: Water** 

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.9		2.0	0.60	mg/L			04/15/17 10:10	1
Fluoride	<0.032		0.10	0.032	mg/L			04/01/17 11:26	1
Sulfate	3.6	J	5.0	1.4	mg/L			04/15/17 10:15	1

Client Sample ID: AX06749 MW-5 Lab Sample ID: 400-135676-13

Date Collected: 03/21/17 14:35 **Matrix: Water** 

Date Received: 03/27/17 08:34

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.8	F1	2.0	0.60	mg/L			04/15/17 10:29	1
Fluoride	<0.032		0.10	0.032	mg/L			04/01/17 11:36	1
Sulfate	8.6	F1	5.0	1.4	mg/L			04/15/17 10:15	1

### **Definitions/Glossary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-135676-1 SDG: Barry Gypsum (6)

### **Qualifiers**

### **General Chemistry**

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

### Glossary

RPD

TEF

**TEQ** 

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

TestAmerica Pensacola

TestAmerica Job ID: 400-135676-1 SDG: Barry Gypsum (6)

**Matrix: Water** 

**Matrix: Water** 

**Matrix: Water** 

**Matrix: Water** 

Client Sample ID: AX06737 MW-1 Date Collected: 03/20/17 13:46

Date Received: 03/27/17 08:34

Lab Sample ID: 400-135676-1 Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E			349904	04/15/17 10:08	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348007	03/31/17 17:24	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

Client Sample ID: AX06738 MW-2 Lab Sample ID: 400-135676-2

Date Collected: 03/20/17 14:45 Date Received: 03/27/17 08:34

Batch **Batch** Dilution Batch **Prepared Prep Type** Type Method Run Factor Number or Analyzed Analyst Lab Total/NA SM 4500 CI- E 349904 04/15/17 10:08 BJB TAL PEN Analysis Total/NA Analysis SM 4500 F C 1 348007 03/31/17 17:28 CAC TAL PEN Total/NA Analysis 349906 04/15/17 10:01 BJB TAL PEN SM 4500 SO4 E 1

Lab Sample ID: 400-135676-3 Client Sample ID: AX06739 MW-3

Date Collected: 03/20/17 15:37 Date Received: 03/27/17 08:34

Batch Dilution Batch Batch **Prepared Prep Type** Type Method Run Factor Number or Analyzed Analyst Lab Total/NA SM 4500 CI- E 349904 BJB Analysis 04/15/17 10:08 TAL PEN Total/NA Analysis SM 4500 F C 1 348007 03/31/17 17:30 CAC TAL PEN

Total/NA Analysis SM 4500 SO4 E 349906 04/15/17 10:01 BJB TAL PEN 1 Lab Sample ID: 400-135676-4

Client Sample ID: AX06740 MW-3 DUP

Date Collected: 03/20/17 15:37 Date Received: 03/27/17 08:34

Batch Batch Dilution Batch **Prepared Prep Type** Method Type Run **Factor** Number or Analyzed Analyst Lab Total/NA SM 4500 CI- E BJB Analysis 349904 04/15/17 10:08 TAL PEN Total/NA Analysis SM 4500 F C 1 348007 03/31/17 17:33 CAC **TAL PEN** Total/NA Analysis SM 4500 SO4 E 1 349906 04/15/17 10:01 BJB TAL PEN

Client Sample ID: AX06741 MW-4 Lab Sample ID: 400-135676-5

Date Collected: 03/20/17 16:34 Date Received: 03/27/17 08:34

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	349904	04/15/17 10:08	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348007	03/31/17 17:37	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

TestAmerica Pensacola

Client Sample ID: AX06742 MW-7

Date Collected: 03/21/17 09:32 Date Received: 03/27/17 08:34

Lab Sample ID: 400-135676-6

**Matrix: Water** 

۱		Batch	Batch		Dilution	Batch	Prepared		
۱	Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
	Total/NA	Analysis	SM 4500 CI- E		1	349904	04/15/17 10:08	BJB	TAL PEN
	Total/NA	Analysis	SM 4500 F C		1	348061	04/01/17 10:43	CAC	TAL PEN
l	Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

Lab Sample ID: 400-135676-7

Date Collected: 03/21/17 10:20

Client Sample ID: AX06743 MW-6

**Matrix: Water** 

Date Received: 03/27/17 08:34

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	349904	04/15/17 10:08	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348007	03/31/17 17:18	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

Lab Sample ID: 400-135676-8 Client Sample ID: AX06744 FB-1

Date Collected: 03/21/17 10:23

**Matrix: Water** 

Date Received: 03/27/17 08:34

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	349904	04/15/17 10:08	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348061	04/01/17 10:46	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

Client Sample ID: AX06745 MW-9 Lab Sample ID: 400-135676-9

Date Collected: 03/21/17 11:15

**Matrix: Water** 

Date Received: 03/27/17 08:34

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	349904	04/15/17 10:08	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348061	04/01/17 10:49	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

Client Sample ID: AX06746 MW-10 Lab Sample ID: 400-135676-10

Date Collected: 03/21/17 12:00 Date Received: 03/27/17 08:34

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	349904	04/15/17 10:08	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348061	04/01/17 10:52	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

### **Lab Chronicle**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-135676-1 SDG: Barry Gypsum (6)

Client Sample ID: AX06747 EB-1 Lab Sample ID: 400-135676-11 Date Collected: 03/21/17 12:08

**Matrix: Water** 

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E			349904	04/15/17 10:10	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348061	04/01/17 11:23	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:15	BJB	TAL PEN

Lab Sample ID: 400-135676-12 Client Sample ID: AX06748 MW-8

Date Collected: 03/21/17 13:25 **Matrix: Water** 

Date Received: 03/27/17 08:34

Date Received: 03/27/17 08:34

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	349904	04/15/17 10:10	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348061	04/01/17 11:26	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:15	BJB	TAL PEN

Client Sample ID: AX06749 MW-5 Lab Sample ID: 400-135676-13

Date Collected: 03/21/17 14:35 **Matrix: Water** 

Date Received: 03/27/17 08:34

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	349904	04/15/17 10:29	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348061	04/01/17 11:36	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:15	BJB	TAL PEN

**Laboratory References:** 

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-135676-1 SDG: Barry Gypsum (6)

### **General Chemistry**

### **Analysis Batch: 348007**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135676-1	AX06737 MW-1	Total/NA	Water	SM 4500 F C	
400-135676-2	AX06738 MW-2	Total/NA	Water	SM 4500 F C	
400-135676-3	AX06739 MW-3	Total/NA	Water	SM 4500 F C	
400-135676-4	AX06740 MW-3 DUP	Total/NA	Water	SM 4500 F C	
400-135676-5	AX06741 MW-4	Total/NA	Water	SM 4500 F C	
400-135676-7	AX06743 MW-6	Total/NA	Water	SM 4500 F C	
MB 400-348007/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-348007/27	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 400-348007/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-135676-7 MS	AX06743 MW-6	Total/NA	Water	SM 4500 F C	
400-135676-7 MSD	AX06743 MW-6	Total/NA	Water	SM 4500 F C	

### **Analysis Batch: 348061**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135676-6	AX06742 MW-7	Total/NA	Water	SM 4500 F C	-
400-135676-8	AX06744 FB-1	Total/NA	Water	SM 4500 F C	
400-135676-9	AX06745 MW-9	Total/NA	Water	SM 4500 F C	
400-135676-10	AX06746 MW-10	Total/NA	Water	SM 4500 F C	
400-135676-11	AX06747 EB-1	Total/NA	Water	SM 4500 F C	
400-135676-12	AX06748 MW-8	Total/NA	Water	SM 4500 F C	
400-135676-13	AX06749 MW-5	Total/NA	Water	SM 4500 F C	
MB 400-348061/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-348061/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-135676-13 MS	AX06749 MW-5	Total/NA	Water	SM 4500 F C	
400-135676-13 MSD	AX06749 MW-5	Total/NA	Water	SM 4500 F C	

### Analysis Batch: 348269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-348269/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-348269/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-135678-A-14 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-135678-A-14 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-135676-3 DU	AX06739 MW-3	Total/NA	Water	SM 4500 F C	

### Analysis Batch: 349904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135676-1	AX06737 MW-1	Total/NA	Water	SM 4500 CI- E	
400-135676-2	AX06738 MW-2	Total/NA	Water	SM 4500 CI- E	
400-135676-3	AX06739 MW-3	Total/NA	Water	SM 4500 CI- E	
400-135676-4	AX06740 MW-3 DUP	Total/NA	Water	SM 4500 CI- E	
400-135676-5	AX06741 MW-4	Total/NA	Water	SM 4500 CI- E	
400-135676-6	AX06742 MW-7	Total/NA	Water	SM 4500 CI- E	
400-135676-7	AX06743 MW-6	Total/NA	Water	SM 4500 CI- E	
400-135676-8	AX06744 FB-1	Total/NA	Water	SM 4500 CI- E	
400-135676-9	AX06745 MW-9	Total/NA	Water	SM 4500 CI- E	
400-135676-10	AX06746 MW-10	Total/NA	Water	SM 4500 CI- E	
400-135676-11	AX06747 EB-1	Total/NA	Water	SM 4500 CI- E	
400-135676-12	AX06748 MW-8	Total/NA	Water	SM 4500 CI- E	
400-135676-13	AX06749 MW-5	Total/NA	Water	SM 4500 CI- E	
MB 400-349904/6	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 400-349904/7	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	

TestAmerica Pensacola

### **QC Association Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-135676-1 SDG: Barry Gypsum (6)

### **General Chemistry (Continued)**

### **Analysis Batch: 349904 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 400-349904/3	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
400-135676-7 MS	AX06743 MW-6	Total/NA	Water	SM 4500 CI- E	
400-135676-7 MSD	AX06743 MW-6	Total/NA	Water	SM 4500 CI- E	
400-135676-13 MS	AX06749 MW-5	Total/NA	Water	SM 4500 CI- E	
400-135676-13 MSD	AX06749 MW-5	Total/NA	Water	SM 4500 CI- E	

#### Analysis Batch: 349906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135676-1	AX06737 MW-1	Total/NA	Water	SM 4500 SO4 E	
400-135676-2	AX06738 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-135676-3	AX06739 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-135676-4	AX06740 MW-3 DUP	Total/NA	Water	SM 4500 SO4 E	
400-135676-5	AX06741 MW-4	Total/NA	Water	SM 4500 SO4 E	
400-135676-6	AX06742 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-135676-7	AX06743 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-135676-8	AX06744 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-135676-9	AX06745 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-135676-10	AX06746 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-135676-11	AX06747 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-135676-12	AX06748 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-135676-13	AX06749 MW-5	Total/NA	Water	SM 4500 SO4 E	
MB 400-349906/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-349906/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-349906/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-135676-7 MS	AX06743 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-135676-7 MSD	AX06743 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-135676-13 MS	AX06749 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-135676-13 MSD	AX06749 MW-5	Total/NA	Water	SM 4500 SO4 E	

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Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-135676-1 SDG: Barry Gypsum (6)

### Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-349904/6 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 349904

MB MB Analyte Result Qualifier RL **MDL** Unit Analyzed Dil Fac Prepared 2.0 04/15/17 09:29 Chloride <0.60 0.60 mg/L

Lab Sample ID: LCS 400-349904/7 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA Analysis Batch: 349904

Spike LCS LCS %Rec. Added Limits Analyte Result Qualifier Unit %Rec Chloride 30.0 31.8 mg/L 106 90 - 110

Lab Sample ID: MRL 400-349904/3 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 349904

Spike MRL MRL

%Rec. Added Result Qualifier Limits Analyte Unit D %Rec Chloride 2.00 2.03 mg/L 102 50 - 150

Lab Sample ID: 400-135676-7 MS Client Sample ID: AX06743 MW-6 **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 349904** 

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 3.5 F1 F2 10.0 14.6 111 73 - 120 mg/L

Lab Sample ID: 400-135676-7 MSD Client Sample ID: AX06743 MW-6 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 349904

Spike MSD MSD %Rec. RPD Sample Sample Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits RPD Limit Chloride 3.5 F1 F2 10.0 16.9 F1 F2 134 73 - 120 mg/L

Lab Sample ID: 400-135676-13 MS Client Sample ID: AX06749 MW-5 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 349904

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits Chloride 2.8 F1 10.0 15.4 F1 126 73 - 120 mg/L

Lab Sample ID: 400-135676-13 MSD Client Sample ID: AX06749 MW-5 Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 349904

Sample Sample Spike MSD MSD %Rec. **RPD Result Qualifier** Added Result Qualifier Limits RPD **Analyte** Unit %Rec Limit Chloride 2.8 F1 10.0 14.9 F1 mg/L 121 73 - 120

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

SDG: Barry Gypsum (6)

Method:	SM 4500	FC-F	luoride
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Lab Sample ID: MB 400-348007/3 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 348007** 

MB MB Analyte Result Qualifier RL **MDL** Unit Analyzed Dil Fac **Prepared** 0.10 Fluoride <0.032 0.032 mg/L 03/31/17 16:43

Lab Sample ID: LCS 400-348007/27 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 348007** 

Spike LCS LCS %Rec. Added Limits Analyte Result Qualifier Unit %Rec Fluoride 4.00 3.98 mg/L 100 90 - 110

Lab Sample ID: LCS 400-348007/4 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 348007** Spike LCS LCS

%Rec. Added Result Qualifier Limits Analyte Unit D %Rec Fluoride 4.00 4.05 mg/L 101 90 - 110

Client Sample ID: AX06743 MW-6 Lab Sample ID: 400-135676-7 MS Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 348007** 

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Fluoride <0.032 1.00 1.00 100 75 - 125 mg/L

Lab Sample ID: 400-135676-7 MSD Client Sample ID: AX06743 MW-6 **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 348007** 

Spike MSD MSD %Rec. RPD Sample Sample Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits RPD Limit Fluoride 1.00 75 - 125 <0.032 1.00 mg/L 100

Lab Sample ID: MB 400-348061/3 **Client Sample ID: Method Blank** Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 348061

MB MB Analyte Result Qualifier RL MDL Unit Prepared D Analyzed Dil Fac Fluoride 0.10 < 0.032 0.032 mg/L 04/01/17 10:25

Lab Sample ID: LCS 400-348061/4 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 348061

Spike LCS LCS %Rec. Added Result Qualifier Limits Analyte Unit %Rec Fluoride 4.00 4.22 mg/L 106 90 - 110

Lab Sample ID: 400-135676-13 MS Client Sample ID: AX06749 MW-5 **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 348061** 

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits Fluoride < 0.032 1.00 100 75 - 125 1.00 mg/L

TestAmerica Pensacola

**Prep Type: Total/NA** 

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

Client Sample ID: AX06749 MW-5

Lab Sample ID: 400-135676-13 MSD **Matrix: Water** 

Analysis Batch: 348061

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Fluoride	<0.032		1.00	1.02		mg/L	-	102	75 - 125	2	4

Lab Sample ID: MB 400-348269/3 **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 348269** 

MB MB

Result Qualifier RL**MDL** Unit Analyte ח Prepared Analyzed Dil Fac 0.032 mg/L Fluoride <0.032 0.10 04/03/17 15:28

Lab Sample ID: LCS 400-348269/4 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 348269

LCS LCS Spike %Rec. Added Result Qualifier Limits **Analyte** Unit D %Rec Fluoride 4.00 4.05 mg/L 101 90 - 110

Lab Sample ID: 400-135678-A-14 MS **Client Sample ID: Matrix Spike** Prep Type: Total/NA **Matrix: Water** 

**Analysis Batch: 348269** 

Spike MS MS %Rec. Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Fluoride 0.32 1.00 1.24 mg/L 92 75 - 125

Lab Sample ID: 400-135678-A-14 MSD **Client Sample ID: Matrix Spike Duplicate Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 348269** 

Sample Sample MSD MSD RPD Spike %Rec. Analyte Result Qualifier Added Result Qualifier Limits RPD Unit %Rec Limit Fluoride 0.32 1.00 1.26 mg/L 75 - 125

Lab Sample ID: 400-135676-3 DU Client Sample ID: AX06739 MW-3 Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 348269** 

DU DU **RPD** Sample Sample Analyte Result Qualifier Result Qualifier Unit D **RPD** Limit <0.032 Fluoride <0.032 mg/L NC

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-349906/6 **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA

Analysis Batch: 349906

MB MB Result Qualifier RL **MDL** Unit Dil Fac **Analyte** Prepared Analyzed Sulfate <1.4 5.0 1.4 mg/L 04/15/17 09:31

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-135676-1 SDG: Barry Gypsum (6)

### Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 400-349906/7	Client Sample ID: Lab Control Sample
Matrix: Water	Prep Type: Total/NA
Analysis Batch: 349906	

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Sulfate	 15.0	14.9		mg/L		99	90 - 110	

Lab Sample ID: MRL 400-349906/3 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 349906** 

	Spike	MRL	MRL				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Sulfate	5.00	4.52	J	mg/L	_	90	50 - 150	

Lab Sample ID: 400-135676-7 MS Client Sample ID: AX06743 MW-6 **Matrix: Water Prep Type: Total/NA** 

Analysis Batch: 349906

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Sulfate	15	F1 F2	10.0	32.4	F1	mg/L		177	77 - 128	

Lab Sample ID: 400-135676-7 MSD Client Sample ID: AX06743 MW-6 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 349906

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Sulfate	15	F1 F2	10.0	27.6	F1 F2	mg/L		129	77 - 128	16	5

Lab Sample ID: 400-135676-13 MS Client Sample ID: AX06749 MW-5 **Matrix: Water Prep Type: Total/NA** 

Analysis Batch: 349906

Alialysis Datell. 040000										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Sulfate	8.6	F1	10.0	22.2	F1	mg/L		135	77 - 128	

Lab Sample ID: 400-135676-13 MSD Client Sample ID: AX06749 MW-5 Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 349906** 

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Sulfate	8.6	F1	10.0	21.5	F1	mg/L		129	77 - 128	3	5	

**TestAmerica** THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

Pensacola, FL 32514 Phone (850) 474-1001 Fax (850) 478-2671

TestAmerica Pensacola

3355 McLemore Drive

N - None
O - AANDO2
P - NA2C45
Q - NA2C5C3
R - NA2C5C03
S - H2SC4
T - TSP Dodecahydrate
U - Acetone
W - Ph 4-5
Z - other (specify) Special Instructions/Note: 100-135676 MW-3 Dup (Sample Duplicate) ompany Company Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

Return To Cilent Disposal By Lab Orchive For Mon EB-1 (Equipment Blank) COC No: 400-56525-24537.1 FB-1 (Field Blank)
MW-9
MW-10 Page: Page 1 of 1 J - DI Water K - EDTA L - EDA MW-4 Z-MM-Z MW-6 WW-3 MW-5 Total Number of containers == lethod of Shipment: Analysis Requested 400-135676 COC cooler Temperature(s) °C and Other Remarks: Special Instructions/QC Requirements: E-Mail: cheyenne.whitmire@testamericainc.com Return To Client × × 3 4200 SO4 E Lab PM: Whitmire, Cheyenne R eceived by: × × × × × × × × × × × × 2M 4200 CI E × × × × × × × × × × × 8W 4200 EC > (opproved) (ISM/SMunicher: Matrix (w=water, S=solid, O=wastefoll, Water Company APC Company Radiological Type (C=comp, Sample G=grab) Ø ტ ტ ტ ტ ტ ტ O ტ ტ Ō O ტ Routine Sample 1115 1346 1445 1537 1020 1023 1200 1208 1325 1435 0932 1634 1537 Unknown Date: (days) Due Date Requested: Sample Date Sampler. Jason Rouss 3/20/17 3/20/17 3/20/17 3/20/17 3/21/17 3/21/17 3/21/17 3/21/17 3/21/17 3/21/17 3/21/17 3/21/17 3/20/17 Project #: 40007143 SSOW#: Date/Time: Phone: #OM Poison B Skin Irritant eliverable Requested: I, II, III, IV, Other (specify) Custody Seal No.: Mabama Power General Test Laboratory Flammable ossible Hazard Identification '44 County Rd 87 GSC #8 acopela@southernco.com mpty Kit Relinquished by: inquished by: Sarah Copeland Custody Seals Intact. A Yes A No Client Information ample Identification 205-664-6121(Tel) 3arry Gypsum (6) Non-Hazard Sarah Copeland elinquished by: elinquished by: tate, Zip: \L, 35040 AX06737 X06739 X06740 \X06741 4X06745 X06749 X06738 \X06742 \X06743 4X06744 AX06746 4X06747 4X06748 Salera

Client: Alabama Power General Test Laboratory

Job Number: 400-135676-1 SDG Number: Barry Gypsum (6)

Login Number: 135676 List Source: TestAmerica Pensacola

List Number: 1

Creator: Siddoway, Benjamin

oronton oranomay, Donjamin		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19.1°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

### **Accreditation/Certification Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-135676-1 SDG: Barry Gypsum (6)

### **Laboratory: TestAmerica Pensacola**

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	<b>Expiration Date</b>
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
lowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

1

6

8

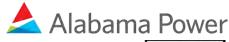
9

10

12

13

## Analytical Report





Sample Group: WMWBARG\_1093

Project/Site: Barry Gypsum

Bucks, AL 36512

For: Southern Company Services

42 Inverness Center Parkway Birmingham, AL 35242

Attention: Dustin Brooks & Greg Dyer

Released By: Sarah Copeland

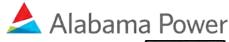
sgcopela@southernco.com

(205) 664-6121

The following data has been reviewed and approved by:

Quality Control: Supervision:

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Anions

#### Barry Gypsum

### WMWBARG\_1093

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All anions were outsourced to Test America, Pensacola for analysis. Listed below is the job narrative provided by Test America for these samples.

### Job Narrative 400-137615-1 General Chemistry

Method(s) SM 4500 CI- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 353387 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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#### Metals ICP

#### Barry Gypsum

### WMWBARG\_1093

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX10348	20170519B	WMWBARG_1093
AX10349	20170519B	WMWBARG_1093
AX10350	20170519B	WMWBARG_1093
AX10351	20170519B	WMWBARG_1093
AX10352	20170519B	WMWBARG_1093
AX10353	20170519B	WMWBARG_1093
AX10354	20170519B	WMWBARG_1093
AX10355	20170519B	WMWBARG_1093
AX10356	20170519B	WMWBARG_1093
AX10357	20170519B	WMWBARG_1093
AX10358	20170518CK	WMWBARG_1093
AX10359	20170518CK	WMWBARG_1093
AX10360	20170518CK	WMWBARG_1093

- 4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

#### **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed at a x2 dilution to compensate for any potential matrix effects.
- 8. The raw data results include results corrected for dilution.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





Metals ICPMS

Barry Gypsum

WMWBARG\_1093

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX10348	593760	WMWBARG_1093
AX10349	593760	WMWBARG_1093
AX10350	593760	WMWBARG_1093
AX10351	593760	WMWBARG_1093
AX10352	593760	WMWBARG_1093
AX10353	593760	WMWBARG_1093
AX10354	593760	WMWBARG_1093
AX10355	593760	WMWBARG_1093
AX10356	593760	WMWBARG_1093
AX10357	593760	WMWBARG_1093
AX10358	593761	WMWBARG_1093
AX10359	593761	WMWBARG_1093
AX10360	593761	WMWBARG_1093

- 4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

#### **General Quality Control Procedures:**

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

### Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
- 8. The raw data results are shown with dilution factors included.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Mercury

#### Barry Gypsum

### WMWBARG\_1093

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX10348	594063	WMWBARG_1093
AX10349	594063	WMWBARG_1093
AX10350	594063	WMWBARG_1093
AX10351	594063	WMWBARG_1093
AX10352	594063	WMWBARG_1093
AX10353	594063	WMWBARG_1093
AX10354	594063	WMWBARG_1093
AX10355	594063	WMWBARG_1093
AX10356	594063	WMWBARG_1093
AX10357	594063	WMWBARG_1093
AX10358	594064	WMWBARG_1093
AX10359	594064	WMWBARG_1093
AX10360	594064	WMWBARG 1093

- 4. All of the above samples were analyzed and prepared by EPA 245.1.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

#### **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

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Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed without a dilution.
- 8. The raw data results are shown with dilution factors included.

# Case Narrative

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





**TDS** 

### Barry Gypsum

### WMWBARG\_1093

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX10348	593475	WMWBARG_1093
AX10349	593475	WMWBARG_1093
AX10350	593475	WMWBARG_1093
AX10351	593475	WMWBARG_1093
AX10352	593475	WMWBARG_1093
AX10353	593475	WMWBARG_1093
AX10354	593475	WMWBARG_1093
AX10355	593475	WMWBARG_1093
AX10356	593475	WMWBARG_1093
AX10357	593476	WMWBARG_1093
AX10358	593476	WMWBARG_1093
AX10359	593476	WMWBARG_1093
AX10360	593476	WMWBARG 1093

- 4. All of the above samples were analyzed by Standard Method 2540C.
- 5. All samples were analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

### **General Quality Control Procedures:**

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%, with the exception of batch 593476. The sample and duplicate results were less than 3 times the value of the reporting limit.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AX10349 and AX10360 which did not
  meet the 2.5 mg residue requirement.





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX10348

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
* Arsenic, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U Not Dete	ected mg/L
* Barium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	0.0388	mg/L
* Beryllium, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U Not Dete	ected mg/L
* Boron, Total	HRG 5/19/2017	EPA 200.7	2	0.02	0.1	U Not Dete	ected mg/L
* Calcium, Total	HRG 5/19/2017	EPA 200.7	2	0.1	0.5	0.908	mg/L
* Cadmium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U Not Dete	ected mg/L
* Antimony, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U Not Dete	ected mg/L
* Cobalt, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Dete	cted mg/L
* Chromium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Dete	cted mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	ABB 5/17/2017	EPA 245.1	1	0.00025	0.0005	U Not Dete	ected mg/L
* Lithium, Total	HRG 5/19/2017	EPA 200.7	2	0.01	0.05	U Not Dete	cted mg/L
* Molybdenum, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Dete	cted mg/L
* Lead, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U Not Dete	cted mg/L
* Selenium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Dete	cted mg/L
* Thallium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U Not Dete	cted mg/L
General Characteristics							
* Solids, Dissolved	KRC 5/9/2017	SM 2540C	1		25	26.7	mg/L
* Chloride, Total, by Test America	SGC 5/24/2017	SM 4500 CI_E	1	0.60	2.00	4.8	mg/L
* Fluoride, Total, by Test America	SGC 5/24/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC 5/24/2017	SM 4500 SO4_E	1	1.40	5.00	J 2.5	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX10348

	'	MB			,		LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX10357 Calcium, Total	mg/L -0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0	70 to 130	8.95	20
AX10357 Mercury, Total by CVAA	mg/L 0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0	70 to 130	1.53	20
AX10357 Boron, Total	mg/L -0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8	70 to 130	2.26	20
XX10357 Beryllium, Total	mg/L 0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108	70 to 130	2.86	20
AX10357 Arsenic, Total	mg/L 0.000000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1	70 to 130	1.42	20
AX10357 Cadmium, Total	mg/L 0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3	70 to 130	1.43	20
AX10357 Antimony, Total	mg/L 0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0	70 to 130	1.61	20
AX10357 Barium, Total	mg/L -0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4	70 to 130	2.93	20
AX10357 Chromium, Total	mg/L -0.00000019	9 0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102	70 to 130	1.22	20
XX10357 Molybdenum, Total	mg/L 0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0	70 to 130	2.35	20
AX10357 Selenium, Total	mg/L 0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8	70 to 130	3.81	20
AX10357 Thallium, Total	mg/L 0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108	70 to 130	1.75	20
AX10357 Cobalt, Total	mg/L 0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3	70 to 130	1.61	20
AX10357 Lead, Total	mg/L -0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107	70 to 130	1.64	20
AX10357 Lithium, Total	mg/L 0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4	70 to 130	5.22	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX10348

			MB		Sample	•	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ite LFB	Limit	Rec Limit	Prec	Limit
AX10356	Solids, Dissolved	mg/L 7.00	25		33.3	56.0	40 to 60		3.09	5

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGFB 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

**Description:** Barry Gypsum Field Blank

Laboratory ID Number: AX10349

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
Arsenic, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U Not Detected	mg/L
Barium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
Beryllium, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U Not Detected	mg/L
Boron, Total	HRG 5/19/2017	EPA 200.7	2	0.02	0.1	U Not Detected	mg/L
Calcium, Total	HRG 5/19/2017	EPA 200.7	2	0.1	0.5	U Not Detected	mg/L
Cadmium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U Not Detected	mg/L
Antimony, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U Not Detected	mg/L
Cobalt, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
Chromium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
Mercury, Total by CVAA	ABB 5/17/2017	EPA 245.1	1	0.00025	0.0005	U Not Detected	mg/L
Lithium, Total	HRG 5/19/2017	EPA 200.7	2	0.01	0.05	U Not Detected	mg/L
Molybdenum, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
Lead, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
Thallium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U Not Detected	mg/L
General Characteristics							
Solids, Dissolved	KRC 5/9/2017	SM 2540C	1		25	U Not Detected	mg/L
Chloride, Total, by Test America	SGC 5/24/2017	SM 4500 CI_E	1	0.60	2.00	U <0.60	mg/L
Fluoride, Total, by Test America	SGC 5/24/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
Sulfate, Total, by Test America	SGC 5/24/2017	SM 4500 SO4_E	1	1.40	5.00	U <1.4	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGFB 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX10349

Edboratory is italiason. 70/10040	·										
		MB					LFB		Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limi
X10357 Calcium, Total	mg/L -0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0	70 to 130	8.95	20
X10357 Beryllium, Total	mg/L 0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108	70 to 130	2.86	20
X10357 Mercury, Total by CVAA	mg/L 0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0	70 to 130	1.53	20
X10357 Boron, Total	mg/L -0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8	70 to 130	2.26	20
X10357 Arsenic, Total	mg/L 0.000000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1	70 to 130	1.42	20
X10357 Cadmium, Total	mg/L 0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3	70 to 130	1.43	20
X10357 Antimony, Total	mg/L 0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0	70 to 130	1.61	20
X10357 Barium, Total	mg/L -0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4	70 to 130	2.93	20
X10357 Chromium, Total	mg/L -0.00000019	9 0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102	70 to 130	1.22	20
X10357 Molybdenum, Total	mg/L 0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0	70 to 130	2.35	20
X10357 Selenium, Total	mg/L 0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8	70 to 130	3.81	20
X10357 Thallium, Total	mg/L 0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108	70 to 130	1.75	20
X10357 Cobalt, Total	mg/L 0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3	70 to 130	1.61	20
X10357 Lead, Total	mg/L -0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107	70 to 130	1.64	20
X10357 Lithium, Total	mg/L 0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4	70 to 130	5.22	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGFB 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX10349

			MB		Sampl	е	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX10356	Solids, Dissolved	mg/L 7.00	25		33.3	56.0	40 to 60		3.09	5

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX10350

Laboratory ID Number. AA1055								
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
* Arsenic, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01		0.0980	mg/L
* Beryllium, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	J	0.000704	mg/L
* Boron, Total	HRG 5/19/2017	EPA 200.7	2	0.02	0.1	J	0.0695	mg/L
* Calcium, Total	HRG 5/19/2017	EPA 200.7	2	0.1	0.5		5.81	mg/L
* Cadmium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
* Antimony, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Cobalt, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ABB 5/17/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 5/19/2017	EPA 200.7	2	0.01	0.05	U	Not Detected	mg/L
* Molybdenum, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	J	0.00778	mg/L
* Thallium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	KRC 5/9/2017	SM 2540C	1		25		50.0	mg/L
* Chloride, Total, by Test America	SGC 5/24/2017	SM 4500 CI_E	1	0.60	2.00		4.8	mg/L
* Fluoride, Total, by Test America	SGC 5/24/2017	SM 4500 F_C	1	0.032	0.10	U	< 0.032	mg/L
* Sulfate, Total, by Test America	SGC 5/24/2017	SM 4500 SO4_E	1	1.40	5.00		11	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX10350

		MB					LFB	R	ec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Li	mit	Prec	Limit
AX10357 Calcium, Total	mg/L -0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0 70 t	to 130	8.95	20
AX10357 Beryllium, Total	mg/L 0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108 70 t	to 130	2.86	20
AX10357 Mercury, Total by CVAA	mg/L 0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0 70 t	to 130	1.53	20
AX10357 Boron, Total	mg/L -0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8 70 t	to 130	2.26	20
AX10357 Arsenic, Total	mg/L 0.00000096	9 0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1 70 t	to 130	1.42	20
AX10357 Cadmium, Total	mg/L 0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3 70 t	to 130	1.43	20
AX10357 Antimony, Total	mg/L 0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0 70 t	to 130	1.61	20
AX10357 Barium, Total	mg/L -0.0000036	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4 70 t	to 130	2.93	20
AX10357 Chromium, Total	mg/L -0.00000019	9 0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102 70 t	to 130	1.22	20
AX10357 Molybdenum, Total	mg/L 0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0 70 t	to 130	2.35	20
AX10357 Selenium, Total	mg/L 0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8 70 t	to 130	3.81	20
AX10357 Thallium, Total	mg/L 0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108 70 t	to 130	1.75	20
AX10357 Cobalt, Total	mg/L 0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3 70 t	to 130	1.61	20
AX10357 Lead, Total	mg/L -0.0000063	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107 70 t	to 130	1.64	20
AX10357 Lithium, Total	mg/L 0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4 70 t	to 130	5.22	20

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX10350

			MB		Sampl	е	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX10356	Solids, Dissolved	mg/L 7.00	25		33.3	56.0	40 to 60		3.09	5

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\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX10351

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols			-					
* Arsenic, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01		0.0799	mg/L
* Beryllium, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 5/19/2017	EPA 200.7	2	0.02	0.1	J	0.0602	mg/L
* Calcium, Total	HRG 5/19/2017	EPA 200.7	2	0.1	0.5		1.74	mg/L
* Cadmium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
* Antimony, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Cobalt, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	ABB 5/17/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 5/19/2017	EPA 200.7	2	0.01	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	J	0.00284	mg/L
* Thallium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	KRC 5/9/2017	SM 2540C	1		25		37.3	mg/L
* Chloride, Total, by Test America	SGC 5/24/2017	SM 4500 CI_E	1	0.60	2.00		3.9	mg/L
* Fluoride, Total, by Test America	SGC 5/24/2017	SM 4500 F_C	1	0.032	0.10	U	< 0.032	mg/L
* Sulfate, Total, by Test America	SGC 5/24/2017	SM 4500 SO4_E	1	1.40	5.00		8.0	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX10351

	-	MB			•	,	LFB	Rec	· · · · ·	Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
XX10357 Beryllium, Total	mg/L 0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108 70 to 13	2.86	20
X10357 Calcium, Total	mg/L -0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0 70 to 13	8.95	20
XX10357 Boron, Total	mg/L -0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8 70 to 13	2.26	20
AX10357 Mercury, Total by CVAA	mg/L 0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0 70 to 13	1.53	20
XX10357 Arsenic, Total	mg/L 0.000000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1 70 to 13	1.42	20
X10357 Cadmium, Total	mg/L 0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3 70 to 13	1.43	20
X10357 Antimony, Total	mg/L 0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0 70 to 13	1.61	20
X10357 Barium, Total	mg/L -0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4 70 to 13	2.93	20
X10357 Chromium, Total	mg/L -0.000000199	0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102 70 to 13	1.22	20
X10357 Molybdenum, Total	mg/L 0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0 70 to 13	2.35	20
X10357 Selenium, Total	mg/L 0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8 70 to 13	3.81	20
X10357 Thallium, Total	mg/L 0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108 70 to 13	1.75	20
X10357 Cobalt, Total	mg/L 0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3 70 to 13	1.61	20
X10357 Lead, Total	mg/L -0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107 70 to 13	1.64	20
X10357 Lithium, Total	mg/L 0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4 70 to 13	5.22	20

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX10351

			MB		Sample	е	LFB	Rec	1	Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX10356	Solids, Dissolved	mg/L 7.00	25		33.3	56.0	40 to 60		3.09	5

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\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX10352

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols					·			
Arsenic, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01		0.0777	mg/L
Beryllium, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
Boron, Total	HRG 5/19/2017	EPA 200.7	2	0.02	0.1	U	Not Detected	mg/L
Calcium, Total	HRG 5/19/2017	EPA 200.7	2	0.1	0.5		1.24	mg/L
Cadmium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
Antimony, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
Cobalt, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Chromium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB 5/17/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG 5/19/2017	EPA 200.7	2	0.01	0.05	U	Not Detected	mg/L
Molybdenum, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Lead, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Thallium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
Solids, Dissolved	KRC 5/9/2017	SM 2540C	1		25	U	Not Detected	mg/L
Chloride, Total, by Test America	SGC 5/24/2017	SM 4500 CI_E	1	0.60	2.00		3.9	mg/L
Fluoride, Total, by Test America	SGC 5/24/2017	SM 4500 F_C	1	0.032	0.10	U	<0.032	mg/L
Sulfate, Total, by Test America	SGC 5/24/2017	SM 4500 SO4_E	1	1.40	5.00		5.6	mg/L

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Expiration: June 30, 2018

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX10352

	'	MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AX10357 Calcium, Total	mg/L -0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0 70 to 1	30 8.95	20
AX10357 Beryllium, Total	mg/L 0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108 70 to 1	30 2.86	20
AX10357 Mercury, Total by CVAA	mg/L 0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0 70 to 1	30 1.53	20
AX10357 Boron, Total	mg/L -0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8 70 to 1	30 2.26	20
AX10357 Arsenic, Total	mg/L 0.000000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1 70 to 1	30 1.42	20
AX10357 Cadmium, Total	mg/L 0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3 70 to 1	30 1.43	20
AX10357 Antimony, Total	mg/L 0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0 70 to 1	30 1.61	20
AX10357 Barium, Total	mg/L -0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4 70 to 1	30 2.93	20
AX10357 Cobalt, Total	mg/L 0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3 70 to 1	30 1.61	20
AX10357 Lead, Total	mg/L -0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107 70 to 13	30 1.64	20
AX10357 Lithium, Total	mg/L 0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4 70 to 1	30 5.22	20
AX10357 Chromium, Total	mg/L -0.00000019	9 0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102 70 to 1	30 1.22	20
AX10357 Molybdenum, Total	mg/L 0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0 70 to 1	30 2.35	20
AX10357 Selenium, Total	mg/L 0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8 70 to 13	30 3.81	20
AX10357 Thallium, Total	mg/L 0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108 70 to 13	30 1.75	20

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX10352

			MB		Sampl	е	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX10356	Solids, Dissolved	mg/L 7.00	25		33.3	56.0	40 to 60		3.09	5

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-4 Dup

Laboratory ID Number: AX10353

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
* Arsenic, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01		0.0818	mg/L
* Beryllium, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 5/19/2017	EPA 200.7	2	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 5/19/2017	EPA 200.7	2	0.1	0.5		1.26	mg/L
* Cadmium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
* Antimony, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Cobalt, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ABB 5/17/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 5/19/2017	EPA 200.7	2	0.01	0.05	U	Not Detected	mg/L
Molybdenum, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	KRC 5/9/2017	SM 2540C	1		25	U	Not Detected	mg/L
* Chloride, Total, by Test America	SGC 5/24/2017	SM 4500 CI_E	1	0.60	2.00		4.1	mg/L
* Fluoride, Total, by Test America	SGC 5/24/2017	SM 4500 F_C	1	0.032	0.10	U	<0.032	mg/L
* Sulfate, Total, by Test America	SGC 5/24/2017	SM 4500 SO4_E	1	1.40	5.00	J	4.9	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-4 Dup

Laboratory ID Number: AX10353

		MB					LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX10357 Calcium, Total	mg/L -0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0	70 to 130	8.95	20
AX10357 Boron, Total	mg/L -0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8	70 to 130	2.26	20
AX10357 Mercury, Total by CVAA	mg/L 0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0	70 to 130	1.53	20
AX10357 Arsenic, Total	mg/L 0.000000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1	70 to 130	1.42	20
AX10357 Cadmium, Total	mg/L 0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3	70 to 130	1.43	20
AX10357 Beryllium, Total	mg/L 0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108	70 to 130	2.86	20
AX10357 Cobalt, Total	mg/L 0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3	70 to 130	1.61	20
AX10357 Lead, Total	mg/L -0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107	70 to 130	1.64	20
AX10357 Lithium, Total	mg/L 0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4	70 to 130	5.22	20
AX10357 Antimony, Total	mg/L 0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0	70 to 130	1.61	20
AX10357 Barium, Total	mg/L -0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4	70 to 130	2.93	20
AX10357 Chromium, Total	mg/L -0.00000019	9 0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102	70 to 130	1.22	20
AX10357 Molybdenum, Total	mg/L 0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0	70 to 130	2.35	20
AX10357 Selenium, Total	mg/L 0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8	70 to 130	3.81	20
AX10357 Thallium, Total	mg/L 0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108	70 to 130	1.75	20

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-4 Dup

Laboratory ID Number: AX10353

			MB		Sample	•	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ite LFB	Limit	Rec Limit	Prec	Limit
AX10356	Solids, Dissolved	mg/L 7.00	25		33.3	56.0	40 to 60		3.09	5

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX10354

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
Arsenic, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01		0.0723	mg/L
Beryllium, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
Boron, Total	HRG 5/19/2017	EPA 200.7	2	0.02	0.1	U	Not Detected	mg/L
Calcium, Total	HRG 5/19/2017	EPA 200.7	2	0.1	0.5		1.58	mg/L
Cadmium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
Antimony, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
Cobalt, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Chromium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB 5/17/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG 5/19/2017	EPA 200.7	2	0.01	0.05	U	Not Detected	mg/L
Molybdenum, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Lead, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Thallium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	KRC 5/9/2017	SM 2540C	1		25		30.7	mg/L
Chloride, Total, by Test America	SGC 5/24/2017	SM 4500 CI_E	1	0.60	2.00		4.6	mg/L
Fluoride, Total, by Test America	SGC 5/24/2017	SM 4500 F_C	1	0.032	0.10	U	<0.032	mg/L
Sulfate, Total, by Test America	SGC 5/24/2017	SM 4500 SO4_E	1	1.40	5.00		6.3	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX10354

	'	MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AX10357 Calcium, Total	mg/L -0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0 70 to 1	30 8.95	20
AX10357 Beryllium, Total	mg/L 0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108 70 to 1	30 2.86	20
AX10357 Mercury, Total by CVAA	mg/L 0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0 70 to 1	30 1.53	20
AX10357 Boron, Total	mg/L -0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8 70 to 1	30 2.26	20
AX10357 Arsenic, Total	mg/L 0.000000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1 70 to 1	30 1.42	20
AX10357 Cadmium, Total	mg/L 0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3 70 to 1	30 1.43	20
AX10357 Antimony, Total	mg/L 0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0 70 to 1	30 1.61	20
AX10357 Barium, Total	mg/L -0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4 70 to 1	30 2.93	20
AX10357 Cobalt, Total	mg/L 0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3 70 to 1	30 1.61	20
AX10357 Lead, Total	mg/L -0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107 70 to 13	30 1.64	20
AX10357 Lithium, Total	mg/L 0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4 70 to 1	30 5.22	20
AX10357 Chromium, Total	mg/L -0.00000019	9 0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102 70 to 1	30 1.22	20
AX10357 Molybdenum, Total	mg/L 0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0 70 to 1	30 2.35	20
AX10357 Selenium, Total	mg/L 0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8 70 to 13	30 3.81	20
AX10357 Thallium, Total	mg/L 0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108 70 to 13	30 1.75	20

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX10354

			MB		Sample	)	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	te LFB	Limit	Rec Limit	Prec	Limit
AX10356	Solids, Dissolved	mg/L 7.00	25		33.3	56.0	40 to 60		3.09	5

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX10355

Laboratory ID Number. AX 1033	<u> </u>							
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
* Arsenic, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01		0.125	mg/L
* Beryllium, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 5/19/2017	EPA 200.7	2	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 5/19/2017	EPA 200.7	2	0.1	0.5		1.28	mg/L
* Cadmium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
* Antimony, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Cobalt, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ABB 5/17/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 5/19/2017	EPA 200.7	2	0.01	0.05	U	Not Detected	mg/L
* Molybdenum, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	KRC 5/9/2017	SM 2540C	1		25		30.7	mg/L
* Chloride, Total, by Test America	SGC 5/24/2017	SM 4500 CI_E	1	0.60	2.00		5.0	mg/L
* Fluoride, Total, by Test America	SGC 5/24/2017	SM 4500 F_C	1	0.032	0.10	J	0.040	mg/L
* Sulfate, Total, by Test America	SGC 5/24/2017	SM 4500 SO4_E	1	1.40	5.00		5.0	mg/L

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MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX10355

-		MB					LFB	Rec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limi
AX10357 Calcium, Total	mg/L -0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0 70 to 1	30 8.95	20
AX10357 Beryllium, Total	mg/L 0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108 70 to 1	30 2.86	20
AX10357 Mercury, Total by CVAA	mg/L 0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0 70 to 1	30 1.53	20
AX10357 Arsenic, Total	mg/L 0.000000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1 70 to 1	30 1.42	20
AX10357 Cadmium, Total	mg/L 0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3 70 to 1	30 1.43	20
AX10357 Cobalt, Total	mg/L 0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3 70 to 1	30 1.61	20
AX10357 Lead, Total	mg/L -0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107 70 to 1	30 1.64	20
AX10357 Lithium, Total	mg/L 0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4 70 to 1	30 5.22	20
AX10357 Chromium, Total	mg/L -0.000000199	0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102 70 to 1	30 1.22	20
XX10357 Molybdenum, Total	mg/L 0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0 70 to 1	30 2.35	20
AX10357 Selenium, Total	mg/L 0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8 70 to 1	30 3.81	20
AX10357 Thallium, Total	mg/L 0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108 70 to 1	30 1.75	20
AX10357 Antimony, Total	mg/L 0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0 70 to 1	30 1.61	20
AX10357 Barium, Total	mg/L -0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4 70 to 1	30 2.93	20
AX10357 Boron, Total	mg/L -0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8 70 to 1	30 2.26	20

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\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
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Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX10355

			MB		Sampl	е	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX10356	Solids, Dissolved	mg/L 7.00	25		33.3	56.0	40 to 60		3.09	5

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CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX10356

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
* Arsenic, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01		0.0868	mg/L
* Beryllium, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	J	0.000690	mg/L
* Boron, Total	HRG 5/19/2017	EPA 200.7	2	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 5/19/2017	EPA 200.7	2	0.1	0.5		1.05	mg/L
* Cadmium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
* Antimony, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Cobalt, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	J	0.00314	mg/L
* Chromium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ABB 5/17/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 5/19/2017	EPA 200.7	2	0.01	0.05	U	Not Detected	mg/L
Molybdenum, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	KRC 5/9/2017	SM 2540C	1		25		31.3	mg/L
* Chloride, Total, by Test America	SGC 5/24/2017	SM 4500 CI_E	1	0.60	2.00		3.5	mg/L
* Fluoride, Total, by Test America	SGC 5/24/2017	SM 4500 F_C	1	0.032	0.10	J	0.040	mg/L
* Sulfate, Total, by Test America	SGC 5/24/2017	SM 4500 SO4_E	1	1.40	5.00		6.6	mg/L

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX10356

		'	MB			1		LFB		Rec		Prec
Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
Calcium, Total	mg/L	-0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0	70 to 130	8.95	20
Beryllium, Total	mg/L	0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108	70 to 130	2.86	20
Boron, Total	mg/L	-0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8	70 to 130	2.26	20
Mercury, Total by CVAA	mg/L	0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0	70 to 130	1.53	20
Arsenic, Total	mg/L	0.000000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1	70 to 130	1.42	20
Cadmium, Total	mg/L	0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3	70 to 130	1.43	20
Antimony, Total	mg/L	0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0	70 to 130	1.61	20
Barium, Total	mg/L	-0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4	70 to 130	2.93	20
Chromium, Total	mg/L	-0.00000199	0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102	70 to 130	1.22	20
Molybdenum, Total	mg/L	0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0	70 to 130	2.35	20
Selenium, Total	mg/L	0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8	70 to 130	3.81	20
Thallium, Total	mg/L	0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108	70 to 130	1.75	20
Cobalt, Total	mg/L	0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3	70 to 130	1.61	20
Lead, Total	mg/L	-0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107	70 to 130	1.64	20
Lithium, Total	mg/L	0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4	70 to 130	5.22	20
	Calcium, Total Beryllium, Total Boron, Total Boron, Total Mercury, Total by CVAA Arsenic, Total Cadmium, Total Antimony, Total Barium, Total Chromium, Total Molybdenum, Total Selenium, Total Thallium, Total Cobalt, Total	Calcium, Total mg/L Beryllium, Total mg/L Boron, Total mg/L Boron, Total mg/L Mercury, Total by CVAA mg/L Arsenic, Total mg/L Cadmium, Total mg/L Antimony, Total mg/L Barium, Total mg/L Chromium, Total mg/L Molybdenum, Total mg/L Selenium, Total mg/L Thallium, Total mg/L Cobalt, Total mg/L Cobalt, Total mg/L Lead, Total mg/L	Calcium, Total mg/L -0.00584 Beryllium, Total mg/L 0.0000329 Boron, Total mg/L -0.000631 Mercury, Total by CVAA mg/L 0.0000171 Arsenic, Total mg/L 0.00000169 Cadmium, Total mg/L 0.00000129 Antimony, Total mg/L 0.0000249 Barium, Total mg/L -0.00000361 Chromium, Total mg/L -0.00000199 Molybdenum, Total mg/L 0.0000581 Selenium, Total mg/L 0.0000515 Cobalt, Total mg/L 0.00000168 Lead, Total mg/L -0.00000631	Calcium, Total         mg/L         -0.00584         0.22           Beryllium, Total         mg/L         0.0000329         0.00132           Boron, Total         mg/L         -0.000631         0.044           Mercury, Total by CVAA         mg/L         0.0000171         0.0005           Arsenic, Total         mg/L         0.000000969         0.0022           Cadmium, Total         mg/L         0.00000129         0.00044           Antimony, Total         mg/L         -0.00000361         0.0044           Chromium, Total         mg/L         -0.00000199         0.0044           Molybdenum, Total         mg/L         0.00000581         0.0044           Selenium, Total         mg/L         0.00000568         0.0044           Thallium, Total         mg/L         0.00000168         0.0044           Cobalt, Total         mg/L         -0.00000631         0.0022	Analysis Units MB Limit Spike Calcium, Total mg/L -0.00584 0.22 5.00 Beryllium, Total mg/L 0.0000329 0.00132 0.10 Boron, Total mg/L -0.00631 0.044 1.00 Mercury, Total by CVAA mg/L 0.0000171 0.0005 0.004 Arsenic, Total mg/L 0.00000129 0.0022 0.10 Cadmium, Total mg/L 0.00000129 0.00044 0.10 Antimony, Total mg/L -0.0000361 0.0044 0.10 Barium, Total mg/L -0.00000361 0.0044 0.10 Chromium, Total mg/L -0.00000581 0.0044 0.10 Molybdenum, Total mg/L 0.0000568 0.0044 0.10 Thallium, Total mg/L 0.00000515 0.00044 0.10 Cobalt, Total mg/L -0.00000168 0.0044 0.10 Cobalt, Total mg/L -0.00000631 0.0022 0.10	Analysis Units MB Limit Spike MS Calcium, Total mg/L -0.00584 0.22 5.00 5.10 Beryllium, Total mg/L 0.0000329 0.00132 0.10 0.108 Boron, Total mg/L -0.000631 0.044 1.00 0.978 Mercury, Total by CVAA mg/L 0.0000171 0.0005 0.004 0.00396 Arsenic, Total mg/L 0.00000969 0.0022 0.10 0.0981 Cadmium, Total mg/L 0.00000129 0.00044 0.10 0.0973 Antimony, Total mg/L 0.0000249 0.00132 0.10 0.0940 Barium, Total mg/L -0.00000361 0.0044 0.10 0.122 Chromium, Total mg/L -0.00000199 0.0044 0.10 0.104 Molybdenum, Total mg/L 0.0000581 0.0044 0.10 0.0940 Selenium, Total mg/L 0.0000568 0.0044 0.10 0.0968 Thallium, Total mg/L 0.00000515 0.00044 0.10 0.0943 Lead, Total mg/L -0.00000631 0.0022 0.10 0.0943 Lead, Total mg/L -0.00000631 0.0022 0.10 0.107	Analysis Units MB Limit Spike MS MSD Calcium, Total mg/L -0.00584 0.22 5.00 5.10 5.58 Beryllium, Total mg/L 0.0000329 0.00132 0.10 0.108 0.111 Boron, Total mg/L -0.00631 0.044 1.00 0.978 1.00 Mercury, Total by CVAA mg/L 0.0000171 0.0005 0.004 0.00396 0.00390 Arsenic, Total mg/L 0.00000199 0.0022 0.10 0.0981 0.0995 Cadmium, Total mg/L 0.00000129 0.00044 0.10 0.0973 0.0987 Antimony, Total mg/L 0.0000249 0.00132 0.10 0.0940 0.0956 Barium, Total mg/L -0.00000361 0.0044 0.10 0.122 0.126 Chromium, Total mg/L -0.00000199 0.0044 0.10 0.104 0.105 Molybdenum, Total mg/L 0.0000581 0.0044 0.10 0.0940 0.0962 Selenium, Total mg/L 0.0000568 0.0044 0.10 0.0968 0.101 Thallium, Total mg/L 0.00000515 0.00044 0.10 0.0943 0.0958 Lead, Total mg/L -0.00000631 0.0022 0.10 0.107 0.108	Analysis Units MB Limit Spike MS MSD LFB Calcium, Total mg/L -0.00584 0.22 5.00 5.10 5.58 4.61 Beryllium, Total mg/L 0.0000329 0.00132 0.10 0.108 0.111 0.105 Boron, Total mg/L -0.000631 0.044 1.00 0.978 1.00 0.976 Mercury, Total by CVAA mg/L 0.0000171 0.0005 0.004 0.00396 0.00390 0.00389 Arsenic, Total mg/L 0.00000969 0.0022 0.10 0.0981 0.0995 0.105 Cadmium, Total mg/L 0.00000129 0.00044 0.10 0.0973 0.0987 0.0972 Antimony, Total mg/L 0.00000361 0.0044 0.10 0.0940 0.0956 0.0972 Barium, Total mg/L -0.00000361 0.0044 0.10 0.122 0.126 0.0928 Chromium, Total mg/L -0.00000581 0.0044 0.10 0.104 0.105 0.102 Molybdenum, Total mg/L 0.0000581 0.0044 0.10 0.0940 0.0962 0.0970 Selenium, Total mg/L 0.0000568 0.0044 0.10 0.0968 0.101 0.104 Thallium, Total mg/L 0.00000515 0.00044 0.10 0.0943 0.0958 0.0976 Cobalt, Total mg/L -0.00000631 0.0022 0.10 0.107 0.108 0.101	Analysis Units MB Limit Spike MS MSD LFB Limit Calcium, Total mg/L -0.00584 0.22 5.00 5.10 5.58 4.61 4.25 to 5.75 Beryllium, Total mg/L 0.0000329 0.00132 0.10 0.108 0.111 0.105 0.085 to 0.115 Boron, Total mg/L -0.00631 0.044 1.00 0.978 1.00 0.976 0.85 to 1.15 Mercury, Total by CVAA mg/L 0.0000171 0.0005 0.004 0.00396 0.00390 0.00389 0.0034 to 0.0046 Arsenic, Total mg/L 0.00000969 0.0022 0.10 0.0981 0.0995 0.105 0.085 to 0.115 Cadmium, Total mg/L 0.00000129 0.00044 0.10 0.0973 0.0987 0.0972 0.085 to 0.115 Barium, Total mg/L -0.00000361 0.0044 0.10 0.0940 0.0956 0.0972 0.085 to 0.115 Barium, Total mg/L -0.00000199 0.0044 0.10 0.102 0.126 0.0928 0.085 to 0.115 Chromium, Total mg/L -0.00000199 0.0044 0.10 0.104 0.105 0.102 0.085 to 0.115 Molybdenum, Total mg/L 0.0000581 0.0044 0.10 0.0940 0.0962 0.0970 0.085 to 0.115 Selenium, Total mg/L 0.0000515 0.0044 0.10 0.0968 0.101 0.104 0.085 to 0.115 Thallium, Total mg/L 0.00000515 0.00044 0.10 0.0943 0.0958 0.0976 0.085 to 0.115 Cobalt, Total mg/L -0.00000631 0.0022 0.10 0.00943 0.0958 0.0976 0.085 to 0.115 Lead, Total mg/L -0.00000631 0.0022 0.10 0.107 0.108 0.101 0.085 to 0.115	Analysis Units MB Limit Spike MS MSD LFB Limit Rec Calcium, Total mg/L -0.00584 0.22 5.00 5.10 5.58 4.61 4.25 to 5.75 91.0   Beryllium, Total mg/L 0.0000329 0.00132 0.10 0.108 0.111 0.105 0.085 to 0.115 108   Boron, Total mg/L -0.00631 0.044 1.00 0.978 1.00 0.976 0.85 to 1.15 97.8   Mercury, Total by CVAA mg/L 0.0000171 0.0005 0.004 0.00396 0.00390 0.00389 0.0034 to 0.0046 99.0   Arsenic, Total mg/L 0.00000199 0.0022 0.10 0.0981 0.0995 0.105 0.085 to 0.115 98.1   Cadmium, Total mg/L 0.00000129 0.00044 0.10 0.0973 0.0987 0.0972 0.085 to 0.115 97.3   Antimony, Total mg/L 0.00000249 0.00132 0.10 0.0940 0.0956 0.0972 0.085 to 0.115 94.0   Barium, Total mg/L -0.00000361 0.0044 0.10 0.122 0.126 0.0928 0.085 to 0.115 91.4   Chromium, Total mg/L -0.00000199 0.0044 0.10 0.104 0.105 0.102 0.085 to 0.115 102   Molybdenum, Total mg/L 0.0000581 0.0044 0.10 0.0940 0.0962 0.0970 0.085 to 0.115 94.0   Selenium, Total mg/L 0.0000588 0.0044 0.10 0.0968 0.101 0.104 0.085 to 0.115 94.0   Selenium, Total mg/L 0.0000581 0.0044 0.10 0.0968 0.101 0.104 0.085 to 0.115 96.8   Thallium, Total mg/L 0.00000515 0.00044 0.10 0.0943 0.0958 0.0976 0.085 to 0.115 108   Cobalt, Total mg/L 0.00000631 0.0022 0.10 0.107 0.108 0.101 0.085 to 0.115 94.3   Lead, Total mg/L -0.00000631 0.0022 0.10 0.107 0.108 0.101 0.085 to 0.115 94.3   Lead, Total mg/L -0.00000631 0.0022 0.10 0.107 0.108 0.101 0.085 to 0.115 107	Analysis Units MB Limit Spike MS MSD LFB Limit Rec Limit Rec Limit Calcium, Total mg/L -0.00584 0.22 5.00 5.10 5.58 4.61 4.25 to 5.75 91.0 70 to 130 mg/L 0.0000329 0.00132 0.10 0.108 0.111 0.105 0.085 to 0.115 108 70 to 130 mg/L -0.00631 0.044 1.00 0.978 1.00 0.976 0.85 to 1.15 97.8 70 to 130 Mercury, Total by CVAA mg/L 0.0000171 0.0005 0.004 0.00396 0.00390 0.00389 0.0034 to 0.0046 99.0 70 to 130 Mercury, Total mg/L 0.000000969 0.0022 0.10 0.0981 0.0995 0.105 0.085 to 0.115 98.1 70 to 130 Machine Cadmium, Total mg/L 0.00000129 0.00044 0.10 0.0973 0.0987 0.0972 0.085 to 0.115 97.3 70 to 130 Machine Cadmium, Total mg/L 0.00000361 0.0044 0.10 0.0940 0.0956 0.0972 0.085 to 0.115 91.4 70 to 130 Machine Cadmium, Total mg/L 0.00000361 0.0044 0.10 0.102 0.126 0.0928 0.085 to 0.115 91.4 70 to 130 Molybdenum, Total mg/L -0.00000361 0.0044 0.10 0.104 0.105 0.102 0.085 to 0.115 91.4 70 to 130 Molybdenum, Total mg/L 0.00000581 0.0044 0.10 0.0940 0.0962 0.0970 0.085 to 0.115 94.0 70 to 130 Molybdenum, Total mg/L 0.0000568 0.0044 0.10 0.0940 0.0962 0.0970 0.085 to 0.115 94.0 70 to 130 Molybdenum, Total mg/L 0.0000568 0.0044 0.10 0.0968 0.101 0.104 0.085 to 0.115 96.8 70 to 130 Molybdenum, Total mg/L 0.0000568 0.0044 0.10 0.0968 0.101 0.104 0.085 to 0.115 96.8 70 to 130 Molybdenum, Total mg/L 0.00000515 0.00044 0.10 0.0943 0.0958 0.0976 0.085 to 0.115 94.3 70 to 130 Molybdenum, Total mg/L 0.00000515 0.00044 0.10 0.0943 0.0958 0.0976 0.085 to 0.115 94.3 70 to 130 Molybdenum, Total mg/L 0.00000515 0.00044 0.10 0.0943 0.0958 0.0976 0.085 to 0.115 94.3 70 to 130 Molybdenum, Total mg/L 0.00000618 0.0044 0.10 0.0943 0.0958 0.0976 0.085 to 0.115 94.3 70 to 130 Molybdenum, Total mg/L 0.00000618 0.0044 0.10 0.0943 0.0958 0.0976 0.085 to 0.115 94.3 70 to 130 Molybdenum, Total mg/L 0.00000618 0.0044 0.10 0.0943 0.0958 0.0976 0.085 to 0.115 94.3 70 to 130 Molybdenum, Total mg/L 0.00000618 0.0044 0.10 0.0943 0.0958 0.0976 0.085 to 0.115 94.3 70 to 130 Molybdenum, Total mg/L 0.00000618 0.0044 0.10 0.0943 0.0958 0.0976 0.085 to 0.115 94.3 7	Analysis Units MB Limit Spike MS MSD LFB Limit Rec Limit Prec Calcium, Total mg/L -0.00584 0.22 5.00 5.10 5.58 4.61 4.25 to 5.75 91.0 70 to 130 8.95 mg/L 0.0000329 0.00132 0.10 0.108 0.111 0.105 0.085 to 0.115 108 70 to 130 2.86 Boron, Total mg/L -0.000631 0.044 1.00 0.978 1.00 0.976 0.85 to 1.15 97.8 70 to 130 2.26 Mercury, Total by CVAA mg/L 0.0000171 0.0005 0.004 0.00396 0.00390 0.00389 0.0034 to 0.0046 99.0 70 to 130 1.53 Arsenic, Total mg/L 0.00000199 0.0022 0.10 0.0981 0.0995 0.105 0.085 to 0.115 98.1 70 to 130 1.42 Cadmium, Total mg/L 0.00000129 0.00044 0.10 0.0973 0.0987 0.0972 0.085 to 0.115 98.1 70 to 130 1.43 Antimony, Total mg/L 0.00000361 0.0044 0.10 0.0940 0.0956 0.0972 0.085 to 0.115 91.4 70 to 130 1.22 Chromium, Total mg/L 0.00000361 0.0044 0.10 0.102 0.126 0.0928 0.085 to 0.115 91.4 70 to 130 2.93 Chromium, Total mg/L 0.00000581 0.0044 0.10 0.0940 0.0962 0.0970 0.085 to 0.115 91.4 70 to 130 2.35 Selenium, Total mg/L 0.00000581 0.0044 0.10 0.0940 0.0962 0.0970 0.085 to 0.115 94.0 70 to 130 3.81 Thallium, Total mg/L 0.00000515 0.0044 0.10 0.0968 0.101 0.0995 0.085 to 0.115 94.0 70 to 130 3.81 Thallium, Total mg/L 0.00000515 0.00044 0.10 0.0968 0.101 0.0995 0.085 to 0.115 96.8 70 to 130 1.75 Cobalt, Total mg/L 0.00000631 0.0022 0.10 0.0043 0.0958 0.0976 0.085 to 0.115 94.3 70 to 130 1.61 Lead, Total mg/L 0.00000631 0.0022 0.10 0.0043 0.0958 0.0976 0.085 to 0.115 94.3 70 to 130 1.61 Lead, Total mg/L 0.00000631 0.0022 0.10 0.0044 0.10 0.0943 0.0958 0.0976 0.085 to 0.115 94.3 70 to 130 1.75 Cobalt, Total mg/L 0.00000631 0.0022 0.10 0.000 0.0044 0.10 0.00958 0.00958 0.00958 0.0058 to 0.115 94.3 70 to 130 1.61 Lead, Total mg/L 0.00000631 0.0022 0.10 0.000 0.0044 0.10 0.00958 0.00958 0.00958 0.0058 to 0.115 94.3 70 to 130 1.61 Lead, Total mg/L 0.00000631 0.0022 0.10 0.0004 0.00958 0.

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX10356

			MB		Sample		LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	te LFB	Limit	Rec Limit	Prec	Limit
AX10356	Solids, Dissolved	mg/L 7.00	25		33.3	56.0	40 to 60		3.09	5

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX10357

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
Arsenic, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U Not Detec	ted mg/L
Barium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	0.0309	mg/L
Beryllium, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U Not Detec	ted mg/L
Boron, Total	HRG 5/19/2017	EPA 200.7	2	0.02	0.1	U Not Detec	ted mg/L
Calcium, Total	HRG 5/19/2017	EPA 200.7	2	0.1	0.5	0.548	mg/L
Cadmium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U Not Detec	ted mg/L
Antimony, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U Not Detec	ted mg/L
Cobalt, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detec	ted mg/L
Chromium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	J 0.00208	mg/L
Mercury, Total by CVAA	ABB 5/17/2017	EPA 245.1	1	0.00025	0.0005	U Not Detec	ted mg/L
Lithium, Total	HRG 5/19/2017	EPA 200.7	2	0.01	0.05	U Not Detec	ted mg/L
Molybdenum, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detec	ted mg/L
Lead, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U Not Detec	ted mg/L
* Selenium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detec	ted mg/L
Thallium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U Not Detec	ted mg/L
General Characteristics							
Solids, Dissolved	KRC 5/9/2017	SM 2540C	1		25	25.3	mg/L
Chloride, Total, by Test America	SGC 5/24/2017	SM 4500 CI_E	1	0.60	2.00	5.7	mg/L
Fluoride, Total, by Test America	SGC 5/24/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
Sulfate, Total, by Test America	SGC 5/24/2017	SM 4500 SO4_E	1	1.40	5.00	J 2.9	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX10357

	'	MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AX10357 Beryllium, Total	mg/L 0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108 70 to 130	2.86	20
AX10357 Calcium, Total	mg/L -0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0 70 to 130	8.95	20
AX10357 Mercury, Total by CVAA	mg/L 0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0 70 to 130	1.53	20
AX10357 Boron, Total	mg/L -0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8 70 to 130	2.26	20
AX10357 Arsenic, Total	mg/L 0.000000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1 70 to 130	1.42	20
AX10357 Cadmium, Total	mg/L 0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3 70 to 130	1.43	20
AX10357 Antimony, Total	mg/L 0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0 70 to 130	1.61	20
AX10357 Barium, Total	mg/L -0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4 70 to 130	2.93	20
AX10357 Cobalt, Total	mg/L 0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3 70 to 130	1.61	20
AX10357 Lead, Total	mg/L -0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107 70 to 130	1.64	20
AX10357 Lithium, Total	mg/L 0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4 70 to 130	5.22	20
AX10357 Chromium, Total	mg/L -0.00000019	9 0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102 70 to 130	1.22	20
AX10357 Molybdenum, Total	mg/L 0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0 70 to 130	2.35	20
AX10357 Selenium, Total	mg/L 0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8 70 to 130	3.81	20
AX10357 Thallium, Total	mg/L 0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108 70 to 130	1.75	20

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Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX10357

			MB		Sample	е	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX10360	Solids, Dissolved	mg/L 7.00	25		-2.7	56.0	40 to 60		0.00	5

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX10358

Laboratory ID Number: AX1035							
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	S Units
Metals, Cyanide, Total Phenols							
* Arsenic, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U Not De	tected mg/L
* Barium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	0.111	mg/L
* Beryllium, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U Not De	tected mg/L
* Boron, Total	HRG 5/18/2017	EPA 200.7	2	0.02	0.1	J 0.0270	mg/L
* Calcium, Total	HRG 5/18/2017	EPA 200.7	2	0.1	0.5	1.20	mg/L
* Cadmium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U Not De	tected mg/L
* Antimony, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U Not De	tected mg/L
* Cobalt, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not De	tected mg/L
* Chromium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not De	tected mg/L
* Mercury, Total by CVAA	ABB 5/17/2017	EPA 245.1	1	0.00025	0.0005	U Not De	tected mg/L
* Lithium, Total	HRG 5/18/2017	EPA 200.7	2	0.01	0.05	U Not De	tected mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not De	tected mg/L
* Lead, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U Not De	tected mg/L
* Selenium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not De	tected mg/L
* Thallium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U Not De	tected mg/L
General Characteristics							
* Solids, Dissolved	KRC 5/9/2017	SM 2540C	1		25	30.7	mg/L
* Chloride, Total, by Test America	SGC 5/24/2017	SM 4500 CI_E	1	0.60	2.00	6.6	mg/L
* Fluoride, Total, by Test America	SGC 5/24/2017	SM 4500 F_C	1	0.032	0.10	J 0.060	mg/L
* Sulfate, Total, by Test America	SGC 5/24/2017	SM 4500 SO4_E	1	1.40	5.00	5.7	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX10358

		MB					LFB	Rec		Prec
Sample Analysis	Units MB		Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
Sample Analysis	UTIILS IVID	Limit	Spike	IVIO	IVISD	LFB	LIIIII	Rec Lillin	FIEC	
X10360 Selenium, Total	mg/L 0.0000568	0.0044	0.10	0.0989	0.0972	0.104	0.085 to 0.115	98.9 70 to 130	1.70	20
X10360 Antimony, Total	mg/L 0.0000249	0.00132	0.10	0.0972	0.0961	0.0972	0.085 to 0.115	97.2 70 to 130	1.17	20
X10360 Cadmium, Total	mg/L 0.00000129	0.00044	0.10	0.0981	0.0982	0.0972	0.085 to 0.115	98.1 70 to 130	0.157	20
X10360 Lead, Total	mg/L -0.00000631	0.0022	0.10	0.107	0.106	0.101	0.085 to 0.115	107 70 to 130	0.958	20
X10360 Arsenic, Total	mg/L 0.000000969	0.0022	0.10	0.0994	0.0990	0.105	0.085 to 0.115	99.4 70 to 130	0.435	20
X10360 Molybdenum, Total	mg/L 0.00000581	0.0044	0.10	0.0986	0.0962	0.0970	0.085 to 0.115	98.6 70 to 130	2.39	20
X10360 Cobalt, Total	mg/L 0.00000168	0.0044	0.10	0.0974	0.0959	0.0976	0.085 to 0.115	97.4 70 to 130	1.63	20
X10360 Mercury, Total by CVAA	mg/L 0.0000192	0.0005	0.004	0.00373	0.00388	0.00380	0.0034 to 0.0046	93.2 70 to 130	3.94	20
X10360 Boron, Total	mg/L 0.000192	0.044	1.00	0.966	0.960	0.952	0.85 to 1.15	96.6 70 to 130	0.623	20
X10360 Lithium, Total	mg/L -0.000120	0.022	0.200	0.195	0.191	0.192	0.17 to 0.23	97.5 70 to 130	2.07	20
X10360 Barium, Total	mg/L -0.00000361	0.0044	0.10	0.0952	0.0943	0.0928	0.085 to 0.115	95.2 70 to 130	0.933	20
X10360 Beryllium, Total	mg/L 0.0000329	0.00132	0.10	0.104	0.114	0.105	0.085 to 0.115	104 70 to 130	8.91	20
X10360 Calcium, Total	mg/L -0.0179	0.22	5.00	4.81	4.80	4.74	4.25 to 5.75	96.2 70 to 130	0.208	20
X10360 Chromium, Total	mg/L -0.00000019	9 0.0044	0.10	0.103	0.103	0.102	0.085 to 0.115	103 70 to 130	0.493	20
X10360 Thallium, Total	mg/L 0.00000515	0.00044	0.10	0.109	0.107	0.0995	0.085 to 0.115	109 70 to 130	1.50	20

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX10358

			MB		Samp	ole	LFB	Rec	1	Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplio	cate LFB	Limit	Rec Limit	Prec	Limit
AX10360	Solids, Dissolved	mg/L 7.00	25		-2.7	56.0	40 to 60		0.00	5

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX10359

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
* Arsenic, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01		0.114	mg/L
* Beryllium, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 5/18/2017	EPA 200.7	2	0.02	0.1	J	0.0259	mg/L
* Calcium, Total	HRG 5/18/2017	EPA 200.7	2	0.1	0.5		0.763	mg/L
* Cadmium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
* Antimony, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Cobalt, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	J	0.00205	mg/L
* Chromium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ABB 5/17/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 5/18/2017	EPA 200.7	2	0.01	0.05	U	Not Detected	mg/L
Molybdenum, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	KRC 5/9/2017	SM 2540C	1		25		29.3	mg/L
* Chloride, Total, by Test America	SGC 5/24/2017	SM 4500 CI_E	1	0.60	2.00		3.7	mg/L
* Fluoride, Total, by Test America	SGC 5/24/2017	SM 4500 F_C	1	0.032	0.10	J	0.070	mg/L
* Sulfate, Total, by Test America	SGC 5/24/2017	SM 4500 SO4_E	1	1.40	5.00		7.9	mg/L

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MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX10359

Laboratory ID Number: AX10009		MB			1	1	LFB	R	ec		Pred
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Li	mit	Prec	Limi
X10360 Selenium, Total	mg/L 0.0000568	0.0044	0.10	0.0989	0.0972	0.104	0.085 to 0.115	98.9 70 t	o 130	1.70	20
X10360 Antimony, Total	mg/L 0.0000249	0.00132	0.10	0.0972	0.0961	0.0972	0.085 to 0.115	97.2 70 t	o 130	1.17	20
X10360 Cadmium, Total	mg/L 0.00000129	0.00044	0.10	0.0981	0.0982	0.0972	0.085 to 0.115	98.1 70 t	o 130 (	0.157	20
X10360 Lead, Total	mg/L -0.00000631	0.0022	0.10	0.107	0.106	0.101	0.085 to 0.115	107 70 t	o 130 (	0.958	20
X10360 Arsenic, Total	mg/L 0.000000969	0.0022	0.10	0.0994	0.0990	0.105	0.085 to 0.115	99.4 70 t	o 130 (	0.435	20
X10360 Molybdenum, Total	mg/L 0.00000581	0.0044	0.10	0.0986	0.0962	0.0970	0.085 to 0.115	98.6 70 t	o 130	2.39	20
X10360 Cobalt, Total	mg/L 0.00000168	0.0044	0.10	0.0974	0.0959	0.0976	0.085 to 0.115	97.4 70 t	o 130	1.63	20
X10360 Mercury, Total by CVAA	mg/L 0.0000192	0.0005	0.004	0.00373	0.00388	0.00380	0.0034 to 0.0046	93.2 70 t	o 130	3.94	20
X10360 Boron, Total	mg/L 0.000192	0.044	1.00	0.966	0.960	0.952	0.85 to 1.15	96.6 70 t	o 130	0.623	20
X10360 Lithium, Total	mg/L -0.000120	0.022	0.200	0.195	0.191	0.192	0.17 to 0.23	97.5 70 t	o 130	2.07	20
X10360 Barium, Total	mg/L -0.00000361	0.0044	0.10	0.0952	0.0943	0.0928	0.085 to 0.115	95.2 70 t	o 130	0.933	20
X10360 Beryllium, Total	mg/L 0.0000329	0.00132	0.10	0.104	0.114	0.105	0.085 to 0.115	104 70 t	o 130	8.91	20
X10360 Calcium, Total	mg/L -0.0179	0.22	5.00	4.81	4.80	4.74	4.25 to 5.75	96.2 70 t	o 130	0.208	20
X10360 Chromium, Total	mg/L -0.000000199	0.0044	0.10	0.103	0.103	0.102	0.085 to 0.115	103 70 t	o 130	0.493	20
X10360 Thallium, Total	mg/L 0.00000515	0.00044	0.10	0.109	0.107	0.0995	0.085 to 0.115	109 70 t	o 130	1.50	20

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX10359

			MB		Sample	e	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX10360	Solids, Dissolved	mg/L 7.00	25		-2.7	56.0	40 to 60		0.00	5

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\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGEB 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX10360

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
* Arsenic, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG 5/18/2017	EPA 200.7	2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG 5/18/2017	EPA 200.7	2	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK 5/15/2017	EPA 200.8	5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB 5/17/2017	EPA 245.1	1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG 5/18/2017	EPA 200.7	2	0.01	0.05	U Not Detected	mg/L
Molybdenum, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK 5/15/2017	EPA 200.8	5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK 5/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK 5/15/2017	EPA 200.8	5	0.00020	0.001	U Not Detected	mg/L
General Characteristics							
* Solids, Dissolved	KRC 5/9/2017	SM 2540C	1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC 5/24/2017	SM 4500 CI_E	1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC 5/24/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC 5/24/2017	SM 4500 SO4_E	1	1.40	5.00	U <1.4	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGEB 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX10360

Edboratory ID Italiibor 70010000	,										
		MB					LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limi
X10360 Selenium, Total	mg/L 0.0000568	0.0044	0.10	0.0989	0.0972	0.104	0.085 to 0.115	98.9	70 to 130	1.70	20
X10360 Antimony, Total	mg/L 0.0000249	0.00132	0.10	0.0972	0.0961	0.0972	0.085 to 0.115	97.2	70 to 130	1.17	20
X10360 Cadmium, Total	mg/L 0.00000129	0.00044	0.10	0.0981	0.0982	0.0972	0.085 to 0.115	98.1	70 to 130	0.157	20
X10360 Lead, Total	mg/L -0.0000063	0.0022	0.10	0.107	0.106	0.101	0.085 to 0.115	107	70 to 130	0.958	20
X10360 Cobalt, Total	mg/L 0.00000168	0.0044	0.10	0.0974	0.0959	0.0976	0.085 to 0.115	97.4	70 to 130	1.63	20
X10360 Mercury, Total by CVAA	mg/L 0.0000192	0.0005	0.004	0.00373	0.00388	0.00380	0.0034 to 0.0046	93.2	70 to 130	3.94	20
X10360 Arsenic, Total	mg/L 0.00000096	9 0.0022	0.10	0.0994	0.0990	0.105	0.085 to 0.115	99.4	70 to 130	0.435	20
X10360 Molybdenum, Total	mg/L 0.00000581	0.0044	0.10	0.0986	0.0962	0.0970	0.085 to 0.115	98.6	70 to 130	2.39	20
X10360 Barium, Total	mg/L -0.0000036	0.0044	0.10	0.0952	0.0943	0.0928	0.085 to 0.115	95.2	70 to 130	0.933	20
X10360 Beryllium, Total	mg/L 0.0000329	0.00132	0.10	0.104	0.114	0.105	0.085 to 0.115	104	70 to 130	8.91	20
X10360 Calcium, Total	mg/L -0.0179	0.22	5.00	4.81	4.80	4.74	4.25 to 5.75	96.2	70 to 130	0.208	20
X10360 Chromium, Total	mg/L -0.0000001	99 0.0044	0.10	0.103	0.103	0.102	0.085 to 0.115	103	70 to 130	0.493	20
X10360 Thallium, Total	mg/L 0.00000515	0.00044	0.10	0.109	0.107	0.0995	0.085 to 0.115	109	70 to 130	1.50	20
X10360 Boron, Total	mg/L 0.000192	0.044	1.00	0.966	0.960	0.952	0.85 to 1.15	96.6	70 to 130	0.623	20
X10360 Lithium, Total	mg/L -0.000120	0.022	0.200	0.195	0.191	0.192	0.17 to 0.23	97.5	70 to 130	2.07	20

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGEB 02-May-17 Sample Date:

**Customer ID:** 

**Delivery Date:** 04-May-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX10360

			MB		Samp	ole	LFB	Rec	1	Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplio	cate LFB	Limit	Rec Limit	Prec	Limit
AX10360	Solids, Dissolved	mg/L 7.00	25		-2.7	56.0	40 to 60		0.00	5

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\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

# Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 Definitions

Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the
	concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
В	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
Р	Precision is out of range.
С	Analyte was verified by re-analysis.
Н	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as
	possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless
	otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



Field Complete

Lab Complete

APC General Testing Laboratory General Service Complex Building 8

Lab ETA 05/04/2017 10:00

Requested Complete	e Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative		Angie Jimmerson	Requested By	Greg Dyer
Collector		Anthony Goggins	Location	Barry Gypsum
Analysis Daguastad	Rottle 1	(500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (5	500ml ): TDS_Bottle 4 (2	50ml ): Anions
, ,			100mL). 103, bottle 4 (2	Julie). Allions
Comments	All anion	s outsourced to Test America, Pensacola.		

			Bottle		Lab	
Sample #	Date	Time	Count	Description	Filter	Lab Id
MW-7	05/02/2017	06:35	4	Groundwater		AX10348
FB-1	05/02/2017	06:22	4	Field Blank		AX10349
MW-6	05/02/2017	07:24	4	Groundwater		AX10350
MW-5	05/02/2017	08:23	4	Groundwater		AX10351
MW-4	05/02/2017	09:44	4	Groundwater		AX10352
MW-4DUP	05/02/2017	09:44	4	Sample Duplicate		AX10353
MW-3	05/02/2017	11:00	4	Groundwater		AX10354
MW-2	05/02/2017	12:15	4	Groundwater		AX10355
MW-1	05/02/2017	13:17	4	Groundwater		AX10356
MW-8	05/02/2017	14:12	4	Groundwater		AX10357
MW-9	05/02/2017	15:11	4	Groundwater		AX10358
MW-10	05/02/2017	16:30	4	Groundwater		AX10359
EB-1	05/02/2017	16:45	4	Equipment Blank		AX10360

Relinquished By	Received By	Date/Time
anthony Goggino	Sarah Copeland Digitally signed by Sarah Copeland DNc cm-Sarah Copeland Option (DNc cm-Sarah Copeland, o, ou, email-segopole) (DNc cm-Sarah Copeland, ou, email-segopole) (DNc cm-Sarah Copeland, ou, email-segopole)	05/04/2017 08:09

SmarTroll ID | 5141-26150-1-1 Turbidity ID | 3901-20009-2-1

All metals and radiological bottles have pH < 2 🔽 Cooler Temp | 0.3 degrees C

Thermometer ID 5408-27568-2-2

Page 50 of 50 pH Strip ID 5521-28268-20-12

# **TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola 3355 McLemore Drive Pensacola, FL 32514 Tel: (850)474-1001

TestAmerica Job ID: 400-137615-1

TestAmerica Sample Delivery Group: Barry Gypsum (7)

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory 744 County Rd 87 **GSC #8** Calera, Alabama 35040

Attn: Sarah Copeland

Authorized for release by: 5/23/2017 5:20:05 PM

Cheyenne Whitmire, Project Manager II (850)471-6222

chevenne.whitmire@testamericainc.com

·····LINKS ······

**Review your project** results through **Total Access** 

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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#### **Case Narrative**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137615-1 SDG: Barry Gypsum (7)

Job ID: 400-137615-1

Laboratory: TestAmerica Pensacola

**Narrative** 

**Job Narrative** 400-137615-1

#### **General Chemistry**

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 353387 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

3

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137615-1

SDG: Barry Gypsum (7)

Client Sample ID: AX10348 MW-7	Lab Sample ID: 400-137615-1
--------------------------------	-----------------------------

Analyte	Result Qual	lifier RL	MDL	Unit	Dil Fac D	Method	Prep Type
Chloride	4.8	2.0	0.60	mg/L		SM 4500 CI- E	Total/NA
Sulfate	2.5 J	5.0	1.4	mg/L	1	SM 4500 SO4 E	Total/NA

#### Client Sample ID: AX10349 FB-1 Lab Sample ID: 400-137615-2

No Detections.

#### Client Sample ID: AX10350 MW-6 Lab Sample ID: 400-137615-3

	Analyte	Result	Qualifier	RL	MDL	Unit	Dil F	ıc D	Method	Prep Type
	Chloride	4.8		2.0	0.60	mg/L		1	SM 4500 CI- E	Total/NA
l	Sulfate	11		5.0	1.4	mg/L		1	SM 4500 SO4 E	Total/NA

#### Client Sample ID: AX10351 MW-5 Lab Sample ID: 400-137615-4

Analyte	Result Q	ualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.9		2.0	0.60	mg/L	 1	_	SM 4500 CI- E	Total/NA
Sulfate	8.0		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

#### Client Sample ID: AX10352 MW-4 Lab Sample ID: 400-137615-5

Analyte	Result Qualifier	RL	MDL	Unit	Dil F	ас	D Method	Prep Type
Chloride	3.9	2.0	0.60	mg/L		1	SM 4500 CI- E	Total/NA
Sulfate	5.6	5.0	1.4	mg/L		1	SM 4500 SO4	E Total/NA

#### Client Sample ID: AX10353 MW-4 DUP Lab Sample ID: 400-137615-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.1		2.0	0.60	mg/L	1	_	SM 4500 CI- E	Total/NA
Sulfate	4.9	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

#### Client Sample ID: AX10354 MW-3 Lab Sample ID: 400-137615-7

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
Chloride	4.6	2.0	0.60 mg/L	. 1	SM 4500 CI- E	Total/NA
Sulfate	6.3	5.0	1.4 mg/L	. 1	SM 4500 SO4 E	Total/NA

#### Client Sample ID: AX10355 MW-2 Lab Sample ID: 400-137615-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil I	ас	D	Method	Prep Type
Chloride	5.0		2.0	0.60	mg/L		1	_	SM 4500 CI- E	Total/NA
Fluoride	0.040	J	0.10	0.032	mg/L		1		SM 4500 F C	Total/NA
Sulfate	5.0		5.0	1.4	mg/L		1		SM 4500 SO4 E	Total/NA

#### Client Sample ID: AX10356 MW-1 Lab Sample ID: 400-137615-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		2.0	0.60	mg/L	1	_	SM 4500 CI- E	Total/NA
Fluoride	0.040	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	6.6		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

5/23/2017

# **Detection Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137615-1 SDG: Barry Gypsum (7)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac D	Method	Prep Type
Chloride	5.7		2.0	0.60	mg/L		SM 4500 CI- E	Total/NA
Sulfate	2.9	J	5.0	1.4	mg/L	1	SM 4500 SO4 E	Total/NA

#### Client Sample ID: AX10358 MW-9 Lab Sample ID: 400-137615-11

Analyte	Result	Qualifier RI	. MDL	Unit	Dil Fac D	Method	Prep Type
Chloride	6.6	2.0	0.60	mg/L		SM 4500 CI- E	Total/NA
Fluoride	0.060	J 0.10	0.032	mg/L	1	SM 4500 F C	Total/NA
Sulfate	5.7	5.0	1.4	mg/L	1	SM 4500 SO4 E	Total/NA

#### Client Sample ID: AX10359 MW-10 Lab Sample ID: 400-137615-12

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac D	Method	Prep Type
Chloride	3.7	2.0	0.60	mg/L		SM 4500 CI- E	Total/NA
Fluoride	0.070 J	0.10	0.032	mg/L	1	SM 4500 F C	Total/NA
Sulfate	7.9	5.0	1.4	mg/L	1	SM 4500 SO4 E	Total/NA

#### Client Sample ID: AX10360 EB-1 Lab Sample ID: 400-137615-13

No Detections.

This Detection Summary does not include radiochemical test results.

5/23/2017

# **Method Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137615-1 SDG: Barry Gypsum (7)

Method	Method Description	Protocol	Laboratory
SM 4500 CI- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN

#### **Protocol References:**

SM = "Standard Methods For The Examination Of Water And Wastewater",

#### Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

# **Sample Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137615-1 SDG: Barry Gypsum (7)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-137615-1	AX10348 MW-7	Water	05/02/17 06:35	05/08/17 09:12
400-137615-2	AX10349 FB-1	Water	05/02/17 06:22	05/08/17 09:12
400-137615-3	AX10350 MW-6	Water	05/02/17 07:24	05/08/17 09:12
400-137615-4	AX10351 MW-5	Water	05/02/17 08:23	05/08/17 09:12
400-137615-5	AX10352 MW-4	Water	05/02/17 09:44	05/08/17 09:12
400-137615-6	AX10353 MW-4 DUP	Water	05/02/17 09:44	05/08/17 09:12
400-137615-7	AX10354 MW-3	Water	05/02/17 11:00	05/08/17 09:12
400-137615-8	AX10355 MW-2	Water	05/02/17 12:15	05/08/17 09:12
400-137615-9	AX10356 MW-1	Water	05/02/17 13:17	05/08/17 09:12
400-137615-10	AX10357 MW-8	Water	05/02/17 14:12	05/08/17 09:12
400-137615-11	AX10358 MW-9	Water	05/02/17 15:11	05/08/17 09:12
400-137615-12	AX10359 MW-10	Water	05/02/17 16:30	05/08/17 09:12
400-137615-13	AX10360 EB-1	Water	05/02/17 16:45	05/08/17 09:12

6

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14

Client Sample ID: AX10348 MW-7 Date Collected: 05/02/17 06:35

Date Received: 05/08/17 09:12

Lab	Sam	pie	ID:	400	-13	/61	15-	1
				М	atriv	· W	lato	

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.8		2.0	0.60	mg/L			05/09/17 15:06	1
Fluoride	<0.032		0.10	0.032	mg/L			05/18/17 09:23	1
Sulfate	2.5	J	5.0	1.4	mg/L			05/10/17 15:35	1

Client Sample ID: AX10349 FB-1 Lab Sample ID: 400-137615-2

Date Collected: 05/02/17 06:22 Date Received: 05/08/17 09:12

**Matrix: Water** 

General Chemistry Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60	2.0		mg/L	— <u> </u>		05/11/17 11:49	1
Fluoride	<0.032	0.10	0.032	mg/L			05/18/17 09:25	1
Sulfate	<1.4	5.0	1.4	mg/L			05/10/17 08:14	1

Client Sample ID: AX10350 MW-6 Lab Sample ID: 400-137615-3 Date Collected: 05/02/17 07:24 **Matrix: Water** 

Date Received: 05/08/17 09:12

**General Chemistry** Analyte RL MDL Unit D **Result Qualifier** Prepared Analyzed Dil Fac 2.0 0.60 mg/L 05/11/17 11:50 Chloride 4.8 Fluoride 05/18/17 09:28 < 0.032 0.10 0.032 mg/L 05/10/17 08:14 **Sulfate** 11 5.0 1.4 mg/L

Client Sample ID: AX10351 MW-5 Lab Sample ID: 400-137615-4

Date Collected: 05/02/17 08:23 Date Received: 05/08/17 09:12

General Chemistry Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9	2.0	0.60	mg/L			05/09/17 15:07	1
Fluoride	<0.032	0.10	0.032	mg/L			05/18/17 09:31	1
Sulfate	8.0	5.0	1.4	mg/L			05/10/17 08:41	1

Lab Sample ID: 400-137615-5 Client Sample ID: AX10352 MW-4

Date Collected: 05/02/17 09:44 Date Received: 05/08/17 09:12

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9	<u> </u>	2.0	0.60	mg/L	<del></del>	<u> </u>	05/09/17 15:06	1
Fluoride	< 0.032		0.10	0.032	mg/L			05/18/17 09:17	1
Sulfate	5.6		5.0	1.4	mg/L			05/11/17 07:38	1

**Matrix: Water** 

**Matrix: Water** 

Client Sample ID: AX10353 MW-4 DUP

Date Collected: 05/02/17 09:44 Date Received: 05/08/17 09:12 Lab Sample ID: 400-137615-6

Matrix: Water

General Chemistry Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1	2.0	0.60	mg/L			05/09/17 15:07	1
Fluoride	<0.032	0.10	0.032	mg/L			05/18/17 09:33	1
Sulfate	4.9 J	5.0	1.4	mg/L			05/10/17 08:41	1

Client Sample ID: AX10354 MW-3 Lab Sample ID: 400-137615-7

Date Collected: 05/02/17 11:00 Date Received: 05/08/17 09:12 Matrix: Water

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6		2.0	0.60	mg/L			05/11/17 11:50	1
Fluoride	<0.032		0.10	0.032	mg/L			05/18/17 09:36	1
Sulfate	6.3		5.0	1.4	mg/L			05/10/17 08:41	1

Client Sample ID: AX10355 MW-2 Lab Sample ID: 400-137615-8

Date Collected: 05/02/17 12:15 Date Received: 05/08/17 09:12 Matrix: Water

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.0		2.0	0.60	mg/L			05/09/17 15:22	1
Fluoride	0.040	J	0.10	0.032	mg/L			05/18/17 09:40	1
Sulfate	5.0		5.0	1.4	mg/L			05/10/17 08:14	1

Client Sample ID: AX10356 MW-1 Lab Sample ID: 400-137615-9

Date Collected: 05/02/17 13:17 Date Received: 05/08/17 09:12 Matrix: Water

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		2.0	0.60	mg/L			05/09/17 15:07	1
Fluoride	0.040	J	0.10	0.032	mg/L			05/18/17 10:10	1
Sulfate	6.6		5.0	1.4	mg/L			05/10/17 08:41	1

Client Sample ID: AX10357 MW-8 Lab Sample ID: 400-137615-10

Date Collected: 05/02/17 14:12 Date Received: 05/08/17 09:12 Matrix: Water

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.7		2.0	0.60	mg/L			05/09/17 15:22	1
Fluoride	<0.032		0.10	0.032	mg/L			05/18/17 10:16	1
Sulfate	2.9	J	5.0	1.4	mg/L			05/10/17 15:35	1

Client Sample ID: AX10358 MW-9 Lab Sample ID: 400-137615-11

Date Collected: 05/02/17 15:11 Date Received: 05/08/17 09:12

Chloride

General Chemistry
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac

2.0

6.6

0.60 mg/L

TestAmerica Pensacola

05/09/17 15:22

**Matrix: Water** 

## **Client Sample Results**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137615-1 SDG: Barry Gypsum (7)

Client Sample ID: AX10358 MW-9

Date Collected: 05/02/17 15:11 Date Received: 05/08/17 09:12 Lab Sample ID: 400-137615-11

**Matrix: Water** 

General	Chemistry	(Continued)
A I		

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.060	J	0.10	0.032	mg/L			05/18/17 10:19	1
Sulfate	5.7		5.0	1.4	mg/L			05/10/17 08:16	1

Lab Sample ID: 400-137615-12

Client Sample ID: AX10359 MW-10 Date Collected: 05/02/17 16:30 **Matrix: Water** 

Date Received: 05/08/17 09:12

General Chemistry Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7	2.0	0.60	mg/L			05/09/17 15:07	1
Fluoride	0.070 J	0.10	0.032	mg/L			05/18/17 10:22	1
Sulfate	7.9	5.0	1.4	mg/L			05/10/17 08:41	1

Client Sample ID: AX10360 EB-1 Lab Sample ID: 400-137615-13

Date Collected: 05/02/17 16:45 **Matrix: Water** 

Date Received: 05/08/17 09:12

General Chemistry Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60 F1	2.0	0.60 mg/L			05/11/17 15:13	1
Fluoride	<0.032	0.10	0.032 mg/L			05/18/17 10:04	1
Sulfate	<1.4	5.0	1.4 mg/l			05/10/17 08:14	1

# **Definitions/Glossary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

TestAmerica Job ID: 400-137615-1 SDG: Barry Gypsum (7)

#### **Qualifiers**

#### **General Chemistry**

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

# Glossary

**RER** 

RL RPD

**TEF** 

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control

SDG: Barry Gypsum (7)

Client Sample ID: AX10348 MW-7

Client: Alabama Power General Test Laboratory

Date Collected: 05/02/17 06:35 Date Received: 05/08/17 09:12

Project/Site: CCR Plant Barry

Lab Sample ID: 400-137615-1

Matrix: Water

**Matrix: Water** 

**Matrix: Water** 

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E	_		352957	05/09/17 15:06	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 09:23	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353138	05/10/17 15:35	RRC	TAL PEN

Lab Sample ID: 400-137615-2 Client Sample ID: AX10349 FB-1 **Matrix: Water** 

Date Collected: 05/02/17 06:22 Date Received: 05/08/17 09:12

Batch **Batch** Dilution Batch **Prepared Prep Type** Type Method Run Factor Number or Analyzed Analyst Lab Total/NA SM 4500 CI- E 353292 05/11/17 11:49 RRC TAL PEN Analysis Total/NA Analysis SM 4500 F C 1 353995 05/18/17 09:25 SLT TAL PEN Total/NA Analysis 353008 05/10/17 08:14 RRC TAL PEN SM 4500 SO4 E 1

Lab Sample ID: 400-137615-3 Client Sample ID: AX10350 MW-6

Date Collected: 05/02/17 07:24 Date Received: 05/08/17 09:12

Batch Dilution Batch Batch **Prepared Prep Type** Method Run Factor Number or Analyzed Analyst Type Lab Total/NA SM 4500 CI- E 353292 05/11/17 11:50 RRC Analysis TAL PEN Total/NA Analysis SM 4500 F C 1 353995 05/18/17 09:28 SLT TAL PEN Total/NA Analysis 1 353008 05/10/17 08:14 RRC TAL PEN

SM 4500 SO4 E

Client Sample ID: AX10351 MW-5 Lab Sample ID: 400-137615-4

Date Collected: 05/02/17 08:23

Date Received: 05/08/17 09:12

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E			352957	05/09/17 15:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 09:31	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353008	05/10/17 08:41	RRC	TAL PEN

Lab Sample ID: 400-137615-5 Client Sample ID: AX10352 MW-4

Date Collected: 05/02/17 09:44 Date Received: 05/08/17 09:12

Batch Batch Dilution Batch Prepared **Prep Type** Type Method Run Factor Number or Analyzed Analyst Lab Total/NA Analysis SM 4500 CI- E 352957 05/09/17 15:06 RRC TAL PEN Total/NA Analysis SM 4500 F C 1 353995 05/18/17 09:17 SLT TAL PEN Total/NA Analysis SM 4500 SO4 E 353139 05/11/17 07:38 RRC TAL PEN

TestAmerica Job ID: 400-137615-1 SDG: Barry Gypsum (7)

Client Sample ID: AX10353 MW-4 DUP

Date Collected: 05/02/17 09:44 Date Received: 05/08/17 09:12

Lab Sample ID: 400-137615-6

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E	_		352957	05/09/17 15:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 09:33	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353008	05/10/17 08:41	RRC	TAL PEN

Client Sample ID: AX10354 MW-3 Lab Sample ID: 400-137615-7

Date Collected: 05/02/17 11:00 Date Received: 05/08/17 09:12 **Matrix: Water** 

		Batch	Batch		Dilution	Batch	Prepared		
P	гер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
T	otal/NA	Analysis	SM 4500 CI- E		1	353292	05/11/17 11:50	RRC	TAL PEN
T	otal/NA	Analysis	SM 4500 F C		1	353995	05/18/17 09:36	SLT	TAL PEN
T	otal/NA	Analysis	SM 4500 SO4 E		1	353008	05/10/17 08:41	RRC	TAL PEN

Client Sample ID: AX10355 MW-2 Lab Sample ID: 400-137615-8

Date Collected: 05/02/17 12:15

**Matrix: Water** 

**Matrix: Water** 

Date Received: 05/08/17 09:12

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	352957	05/09/17 15:22	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 09:40	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353008	05/10/17 08:14	RRC	TAL PEN

Client Sample ID: AX10356 MW-1 Lab Sample ID: 400-137615-9

Date Collected: 05/02/17 13:17

Date Received: 05/08/17 09:12

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	352957	05/09/17 15:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 10:10	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353008	05/10/17 08:41	RRC	TAL PEN

Client Sample ID: AX10357 MW-8 Lab Sample ID: 400-137615-10

Date Collected: 05/02/17 14:12

Date Collected: 05/02/17 14:12 Date Received: 05/08/17 09:12										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab		

ı		Batch	Batch		Dilution	Batch	Prepared		
	Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
	Total/NA	Analysis	SM 4500 CI- E		1	352957	05/09/17 15:22	RRC	TAL PEN
	Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 10:16	SLT	TAL PEN
	Total/NA	Analysis	SM 4500 SO4 E		1	353138	05/10/17 15:35	RRC	TAL PEN

#### **Lab Chronicle**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137615-1 SDG: Barry Gypsum (7)

Lab Sample ID: 400-137615-11

Client Sample ID: AX10358 MW-9 Date Collected: 05/02/17 15:11

**Matrix: Water** 

Batch Dilution Batch Batch **Prepared** Method **Prep Type** Type Run **Factor** Number or Analyzed Analyst Lab Total/NA Analysis SM 4500 CI- E 352957 05/09/17 15:22 RRC TAL PEN Total/NA Analysis SM 4500 F C 1 353995 05/18/17 10:19 SLT **TAL PEN** Total/NA 353008 05/10/17 08:16 RRC TAL PEN Analysis SM 4500 SO4 E 1

Client Sample ID: AX10359 MW-10 Lab Sample ID: 400-137615-12

Date Collected: 05/02/17 16:30 **Matrix: Water** 

Date Received: 05/08/17 09:12

Date Received: 05/08/17 09:12

Batch Batch Dilution Batch **Prepared** Number Method **Prep Type** Type Run **Factor** or Analyzed Analyst Lab Total/NA SM 4500 CI- E 352957 05/09/17 15:07 RRC TAL PEN Analysis Total/NA SM 4500 F C 1 353995 05/18/17 10:22 SLT TAL PEN Analysis Total/NA Analysis SM 4500 SO4 E 1 353008 05/10/17 08:41 RRC TAL PEN

Client Sample ID: AX10360 EB-1 Lab Sample ID: 400-137615-13

Date Collected: 05/02/17 16:45 **Matrix: Water** 

Date Received: 05/08/17 09:12

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	353387	05/11/17 15:13	VLS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 10:04	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353008	05/10/17 08:14	RRC	TAL PEN

**Laboratory References:** 

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TestAmerica Job ID: 400-137615-1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

# **General Chemistry**

#### Analysis Batch: 352957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137615-1	AX10348 MW-7	Total/NA	Water	SM 4500 CI- E	
400-137615-4	AX10351 MW-5	Total/NA	Water	SM 4500 CI- E	
400-137615-5	AX10352 MW-4	Total/NA	Water	SM 4500 CI- E	
400-137615-6	AX10353 MW-4 DUP	Total/NA	Water	SM 4500 CI- E	
400-137615-8	AX10355 MW-2	Total/NA	Water	SM 4500 CI- E	
400-137615-9	AX10356 MW-1	Total/NA	Water	SM 4500 CI- E	
400-137615-10	AX10357 MW-8	Total/NA	Water	SM 4500 CI- E	
400-137615-11	AX10358 MW-9	Total/NA	Water	SM 4500 CI- E	
400-137615-12	AX10359 MW-10	Total/NA	Water	SM 4500 CI- E	
MB 400-352957/6	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 400-352957/7	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
MRL 400-352957/3	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
400-137615-5 MS	AX10352 MW-4	Total/NA	Water	SM 4500 CI- E	
400-137615-5 MSD	AX10352 MW-4	Total/NA	Water	SM 4500 CI- E	

#### **Analysis Batch: 353008**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137615-2	AX10349 FB-1 Total/NA Water		Water	SM 4500 SO4 E	
400-137615-3	AX10350 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-137615-4	AX10351 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-137615-6	AX10353 MW-4 DUP	Total/NA	Water	SM 4500 SO4 E	
400-137615-7	AX10354 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-137615-8	AX10355 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-137615-9	AX10356 MW-1	Total/NA	Water	SM 4500 SO4 E	
400-137615-11	AX10358 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-137615-12	AX10359 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-137615-13	AX10360 EB-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-353008/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-353008/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-353008/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-137615-13 MS	AX10360 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-137615-13 MSD	AX10360 EB-1	Total/NA	Water	SM 4500 SO4 E	

#### **Analysis Batch: 353138**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137615-1	AX10348 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-137615-10	AX10357 MW-8	Total/NA	Water	SM 4500 SO4 E	
MB 400-353138/17	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-353138/18	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-353138/14	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-137613-A-10 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-137613-A-10 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

#### **Analysis Batch: 353139**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137615-5	AX10352 MW-4	Total/NA	Water	SM 4500 SO4 E	
MB 400-353139/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-353139/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-353139/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-137615-5 MS	AX10352 MW-4	Total/NA	Water	SM 4500 SO4 E	
400-137615-5 MSD	AX10352 MW-4	Total/NA	Water	SM 4500 SO4 E	

TestAmerica Pensacola

SDG: Barry Gypsum (7)

# **QC Association Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137615-1 SDG: Barry Gypsum (7)

# Analysis Batch: 353292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137615-2	AX10349 FB-1	Total/NA	Water	SM 4500 CI- E	
400-137615-3	AX10350 MW-6	Total/NA	Water	SM 4500 CI- E	
400-137615-7	AX10354 MW-3	Total/NA	Water	SM 4500 CI- E	
MB 400-353292/6	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 400-353292/7	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
MRL 400-353292/3	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
400-137613-A-10 MS	Matrix Spike	Total/NA	Water	SM 4500 CI- E	
400-137613-A-10 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 CI- E	

#### **Analysis Batch: 353387**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137615-13	AX10360 EB-1	Total/NA	Water	SM 4500 CI- E	-
MB 400-353387/6	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 400-353387/7	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
MRL 400-353387/3	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
400-137615-5 MS	AX10352 MW-4	Total/NA	Water	SM 4500 CI- E	
400-137615-5 MSD	AX10352 MW-4	Total/NA	Water	SM 4500 CI- E	
400-137615-13 MS	AX10360 EB-1	Total/NA	Water	SM 4500 CI- E	
400-137615-13 MSD	AX10360 EB-1	Total/NA	Water	SM 4500 CI- E	

#### Analysis Batch: 353995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137615-1	AX10348 MW-7	Total/NA	Water	SM 4500 F C	
400-137615-2	AX10349 FB-1	Total/NA	Water	SM 4500 F C	
400-137615-3	AX10350 MW-6	Total/NA	Water	SM 4500 F C	
400-137615-4	AX10351 MW-5	Total/NA	Water	SM 4500 F C	
400-137615-5	AX10352 MW-4	Total/NA	Water	SM 4500 F C	
400-137615-6	AX10353 MW-4 DUP	Total/NA	Water	SM 4500 F C	
400-137615-7	AX10354 MW-3	Total/NA	Water	SM 4500 F C	
400-137615-8	AX10355 MW-2	Total/NA	Water	SM 4500 F C	
400-137615-9	AX10356 MW-1	Total/NA	Water	SM 4500 F C	
400-137615-10	AX10357 MW-8	Total/NA	Water	SM 4500 F C	
400-137615-11	AX10358 MW-9	Total/NA	Water	SM 4500 F C	
400-137615-12	AX10359 MW-10	Total/NA	Water	SM 4500 F C	
400-137615-13	AX10360 EB-1	Total/NA	Water	SM 4500 F C	
MB 400-353995/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-353995/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-137615-5 MS	AX10352 MW-4	Total/NA	Water	SM 4500 F C	
400-137615-5 MSD	AX10352 MW-4	Total/NA	Water	SM 4500 F C	
400-137615-13 MS	AX10360 EB-1	Total/NA	Water	SM 4500 F C	
400-137615-13 MSD	AX10360 EB-1	Total/NA	Water	SM 4500 F C	
400-137615-9 DU	AX10356 MW-1	Total/NA	Water	SM 4500 F C	

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137615-1

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

**Client Sample ID: Lab Control Sample** 

Client Sample ID: AX10352 MW-4

Client Sample ID: AX10352 MW-4

**Client Sample ID: Method Blank** 

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample

SDG: Barry Gypsum (7)

Prep Type: Total/NA

Method: SM 4500 CI- E - Chloride, Total

Lab Sample ID: MB 400-352957/6

**Matrix: Water** 

**Analysis Batch: 352957** 

MB MB

Analyte Result Qualifier RL **MDL** Unit Analyzed Dil Fac Prepared 2.0 05/09/17 14:49 Chloride <0.60 0.60 mg/L

Lab Sample ID: LCS 400-352957/7

**Matrix: Water** 

**Analysis Batch: 352957** 

Spike LCS LCS %Rec. Added Limits Analyte Result Qualifier Unit %Rec Chloride 30.0 32.3 mg/L 108 90 - 110

Lab Sample ID: MRL 400-352957/3

**Matrix: Water** 

Analysis Batch: 352957

Spike MRL MRL %Rec. Result Qualifier Added Limits Analyte Unit D %Rec Chloride 2.00 2.47 mg/L 123 50 - 150

Lab Sample ID: 400-137615-5 MS

**Matrix: Water** 

**Analysis Batch: 352957** 

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 3.9 10.0 15.4 115 73 - 120 mg/L

Lab Sample ID: 400-137615-5 MSD

**Matrix: Water** 

**Analysis Batch: 352957** 

Spike MSD MSD %Rec. RPD Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 10.0 73 - 120 3.9 15.3 mg/L 115

Lab Sample ID: MB 400-353292/6

**Matrix: Water** 

Analysis Batch: 353292

MB MB

Analyte Result Qualifier RL MDL Unit Prepared D Analyzed Dil Fac Chloride 20 0.60 mg/L 05/11/17 11:01 < 0.60

Lab Sample ID: LCS 400-353292/7

**Matrix: Water** 

Analysis Batch: 353292

Spike LCS LCS %Rec. Added Result Qualifier Analyte Unit %Rec Limits Chloride 30.0 31.1 mg/L 104 90 - 110

Lab Sample ID: MRL 400-353292/3

**Matrix: Water** 

**Analysis Batch: 353292** 

Spike MRL MRL %Rec. Added Result Qualifier Analyte Unit D %Rec Limits Chloride 2.00 1.11 J mg/L 55 50 - 150

TestAmerica Pensacola

Prep Type: Total/NA

MS MS

11.5

Result Qualifier

Spike

Added

10.0

**Client Sample ID: Matrix Spike Prep Type: Total/NA** 

%Rec.

Limits

73 - 120

%Rec

115

**Client Sample ID: Matrix Spike Duplicate** 

Unit

mg/L

Prep Type: Total/NA

**Matrix: Water** 

Lab Sample ID: 400-137613-A-10 MSD

Client: Alabama Power General Test Laboratory

Sample Sample

<0.60 F1

Result Qualifier

Lab Sample ID: 400-137613-A-10 MS

**Analysis Batch: 353292** 

Project/Site: CCR Plant Barry

**Analysis Batch: 353292** 

**Matrix: Water** 

Analyte

Chloride

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	<0.60	F1	10.0	12.3	F1	mg/L	_	123	73 - 120	6	8

Lab Sample ID: MB 400-353387/6 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 353387** 

MB MB

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60	2.0	0.60 mg/L			05/11/17 14:37	1

Lab Sample ID: LCS 400-353387/7 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA **Analysis Batch: 353387** 

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits Chloride 30.0 31.7 mg/L 106 90 - 110

Lab Sample ID: MRL 400-353387/3 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 353387

MRL MRL Spike %Rec. Analyte Added Limits Result Qualifier Unit %Rec Chloride 2.00 2.06 mg/L 103 50 - 150

Lab Sample ID: 400-137615-5 MS Client Sample ID: AX10352 MW-4 **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 353387** 

Sample Sample Spike MS MS %Rec. Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits 10.0 Chloride 4.0 F1 16.0 mg/L 119 73 - 120

Lab Sample ID: 400-137615-5 MSD Client Sample ID: AX10352 MW-4 **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 353387** 

Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Added Result Qualifier Limits Analyte Unit %Rec RPD Limit 4.0 F1 10.0 16.3 F1 123 Chloride mg/L 73 - 120

Client Sample ID: AX10360 EB-1 Lab Sample ID: 400-137615-13 MS **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 353387** 

Sample Sample Spike EB EB %Rec. Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits Chloride <0.60 F1 10.0 12.2 F1 mg/L 122 73 - 120

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137615-1 SDG: Barry Gypsum (7)

#### Method: SM 4500 CI- E - Chloride, Total (Continued)

Lab Sample ID: 400-137615-13 MSD	Client Sample ID: AX10360 EB-1
Matrix: Water	Prep Type: Total/NA

Analysis Batch: 353387

Sample Sample Spike EB EB %Rec. RPD Analyte Result Qualifier Added Result Qualifier D %Rec Limits RPD Limit Unit 10.0 Chloride <0.60 F1 12.1 F1 121 73 - 120 mg/L

#### Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-353995/3 **Client Sample ID: Method Blank** Prep Type: Total/NA **Matrix: Water** 

**Analysis Batch: 353995** 

Analyte	Result Qua	alifier RL	MDL (	Unit D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032	0.10	0.032 r	mg/L		05/18/17 09:10	1

Lab Sample ID: LCS 400-353995/4 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA **Analysis Batch: 353995** Spike LCS LCS %Rec.

Analyte Added Result Qualifier Unit Limits Fluoride 4.00 101 90 - 110 4.02 mg/L

MR MR

Lab Sample ID: 400-137615-5 MS Client Sample ID: AX10352 MW-4 **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 353995** 

Sample Sample Spike MS MS %Rec. Analyte **Result Qualifier** Added Result Qualifier Limits Unit D %Rec Fluoride <0.032 1.00 0.930 93 75 - 125 mg/L

Lab Sample ID: 400-137615-5 MSD Client Sample ID: AX10352 MW-4 **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 353995** 

Sample Sample Spike MSD MSD %Rec. **RPD** Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Fluoride <0.032 1.00 0.900 90 75 - 125 3 mg/L

Lab Sample ID: 400-137615-13 MS Client Sample ID: AX10360 EB-1 **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 353995** 

Sample Sample Spike EB EB %Rec. Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits Fluoride < 0.032 1.00 0.900 mg/L 90 75 - 125

Lab Sample ID: 400-137615-13 MSD Client Sample ID: AX10360 EB-1 Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 353995											
	Sample	Sample	Spike	EB	EB				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Fluoride	<0.032		1.00	0.930		mg/L		93	75 - 125	3	4

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137615-1 SDG: Barry Gypsum (7)

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-137615-9 DU

**Matrix: Water** 

Analyte

Fluoride

**Analysis Batch: 353995** 

Client Sample ID: AX10356 MW-1 Prep Type: Total/NA

Sample Sample DU DU RPD Result Qualifier Result Qualifier Unit D RPD Limit NC 0.040 J <0.032 mg/L

Method: SM 4500 SO4 E - Sulfate, Total

**Client Sample ID: Method Blank** Lab Sample ID: MB 400-353008/6 Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 353008** 

MB MB RL **MDL** Unit Analyte Result Qualifier Dil Fac Prepared Analyzed Sulfate <1.4 5.0 1.4 mg/L 05/10/17 07:50

Lab Sample ID: LCS 400-353008/7 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 353008** 

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit Limits Sulfate 15.0 91 90 - 110 13.6 mg/L

Lab Sample ID: MRL 400-353008/3 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 353008** 

Spike MRL MRL %Rec. Analyte Added Result Qualifier Limits Unit %Rec Sulfate 5.00 4.20 J mg/L 84 50 - 150

Lab Sample ID: 400-137615-13 MS Client Sample ID: AX10360 EB-1 Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 353008** 

Sample Sample Spike FR FR %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Sulfate <1.4 10.0 8.98 90 77 - 128 mg/L

Lab Sample ID: 400-137615-13 MSD Client Sample ID: AX10360 EB-1 Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 353008** 

Sample Sample Spike EB EB %Rec. **RPD** Added Result Qualifier Limits RPD Analyte Result Qualifier Unit %Rec Limit Sulfate 10.0 <1.4 8.98 mg/L 90 77 - 128 0

Lab Sample ID: MB 400-353138/17 **Client Sample ID: Method Blank** Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 353138** 

MB MB

Analyte Result Qualifier RL **MDL** Unit D Prepared Analyzed Dil Fac Sulfate <14 5.0 1.4 mg/L 05/10/17 14:11

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137615-1 SDG: Barry Gypsum (7)

### Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 400-353138/18 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 353138** 

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits 15.0 Sulfate 14.0 mg/L 93 90 - 110

Lab Sample ID: MRL 400-353138/14 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 353138** 

Spike MRL MRL %Rec. Added Limits Analyte Result Qualifier Unit %Rec Sulfate 5.00 4.22 J mg/L 84 50 - 150

Lab Sample ID: 400-137613-A-10 MS **Client Sample ID: Matrix Spike Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 353138** 

Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier Limits Analyte Unit D %Rec Sulfate <1.4 10.0 8.29 83 77 - 128 mg/L

Lab Sample ID: 400-137613-A-10 MSD **Client Sample ID: Matrix Spike Duplicate Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 353138** 

Sample Sample Spike MSD MSD %Rec. RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit Sulfate <1.4 10.0 8.13 mg/L 81 77 - 128

Lab Sample ID: MB 400-353139/6 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 353139** 

MR MR

Analyte Result Qualifier RL **MDL** Unit Analyzed Dil Fac Prepared Sulfate 5.0 1.4 mg/L 05/11/17 07:14 <14

Lab Sample ID: LCS 400-353139/7 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 353139

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits 90 Sulfate 15.0 13.5 90 - 110 mg/L

Lab Sample ID: MRL 400-353139/3 Client Sample ID: Lab Control Sample Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 353139

Spike MRL MRL %Rec. Added Result Qualifier **Analyte** Unit %Rec Limits Sulfate 5.00 4.32 J mg/L 86 50 - 150

Lab Sample ID: 400-137615-5 MS Client Sample ID: AX10352 MW-4 Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 353139** 

Sample Sample Spike MS MS %Rec. Result Qualifier Added Analyte Result Qualifier Unit D %Rec Limits Sulfate 5.6 10.0 93 14.8 mg/L 77 - 128

# **QC Sample Results**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

**Matrix: Water** 

Lab Sample ID: 400-137615-5 MSD

TestAmerica Job ID: 400-137615-1 SDG: Barry Gypsum (7)

Client Sample ID: AX10352 MW-4

**Prep Type: Total/NA** 

Analysis Batch: 353139										•	
•	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Sulfate	5.6		10.0	14.7		mg/L		92	77 - 128	1	5

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Pensacola, FL 32514 Phone (850) 474-1001 Fax (850) 478-2671					,					THE LEADER IN ENVIRONMENTAL TESTING	THE LEADER IN ENVIRONMENTAL TESTIN
Client Information	Sampler: Anthony Goggins			Lab P Whit	Lab PM: Whitmire, Cheyenne R	eyenne	<u>~</u>	Carrier Tracking No(s)	:(s):	COC No: 400-56525-24537.1	
Client Contact: Sarah Copeland	Phone:			E-Mai	enne.wh	itmire@	E-Mail: cheyenne.whitmire@testamericainc.com	Ε		Page: Page 1 of 1	
Сотрапу: Alabama Power General Test Laboratory							Analysis	Analysis Requested		Job # 400- 137615	
Address: 744 County Rd 87 GSC #8	Due Date Requested:	÷								Code	
	TAT Requested (days):		Routine						_	A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - Asnao2	e 20
State, Ztp. AL, 35040						_		C.III.			33 0
Phone: 205-664-6121(Tel)	,# Od				(0	_				7	decahydrat
Email: sgcopela@southernco.com	.# OM				-	_	_			I - Ice J - DI Water	9
Project Name: CCR	Project #: 40007143				<b>HENDRESS</b>			400-137615 COC		K - EDTA L - EDA	specify)
Site: Barry Gypsum (7)	:8SOW#:				-				_	of cor	
Samole Identification	Sample Date	Sample	Sample Type (C=comp,	Matrix (W=water, S=solid, O=waste/off, PT-Tresus A=Ast-)	Field Filtered Perform MS/A	2W 4200 CIE	1 \$08 005¢ WS			Otal Aumber  Otal Aumber  Otal Instructions Mee	Note:
	X	X	Preser	Preservation Code:	X		6				S/HOIE.
AX10348	5/2/17	0635	O	Water		×	×			1 MW-7	
AX10349	5/2/17	0622	O	Water		×	×			1 FB-1 (Field Blank)	
AX10350	5/2/17	0724	9	Water		×	×			1 MW-6	
AX10351	5/2/17	0823	9	Water		×	×			1 MW-5	
AX10352	5/2/17	0944	9	Water	<b>\</b>	×	×			1 MW-4	
AX10353	5/2/17	0944	9	Water		×	×			1 MW-4 Dup (Sample Duplicate)	(e)
AX10354	5/2/17	1100	9	Water		×	×			1 MW-3	
AX10355	5/2/17	1215	9	Water		×	×			1 MW-2	
AX10356	5/2/17	1317	9	Water		×	×			1 MW-1	
AX10357	5/2/17	1412	9	Water		×	×			1 MW-8	
AX10358	5/2/17	1511	ტ	Water		×	×			1 MW-9	
AX10359	5/2/17	1630	ტ	Water		×	×			1 MW-10	
AX10360	5/2/17	1645	O	Water	>	×	×			1 EB-1 (Equipment Blank)	
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐	☐ Poison B ☐ Unkr	Unknown	Radiological	Je.	San	nple Die	le Disposal ( A fee ma Retum To Client	y be assessed if sam	nples are	Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)  Return To Client Disposal By Lab Months	hs
ested					Spe	cial Inst	Special Instructions/QC Requirements:	irements:			
Empty Kit Relinquished by:		Date:			Time:		1	Method of Shipment	ipment:	/	
Relinquished by: Sarah Copeland	05/08/	2017; 1330		Company APC		Received by	Jan.		Date/Firme:	100 CM2	K
Relinquished by:	Date/Time:			Company		Received by:	by:	L.	Date/Time:	Company	
Relinquished by:	Date/Time:			Company		Received by	by:		Date/Time:	Company	
									0		

## **Login Sample Receipt Checklist**

Client: Alabama Power General Test Laboratory

Job Number: 400-137615-1 SDG Number: Barry Gypsum (7)

Login Number: 137615 List Source: TestAmerica Pensacola

List Number: 1

Creator: Siddoway, Benjamin

oreator. Siddoway, Denjamin		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	21.6°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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## **Accreditation/Certification Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137615-1 SDG: Barry Gypsum (7)

#### **Laboratory: TestAmerica Pensacola**

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	<b>Expiration Date</b>
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
owa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
A-B	ISO/IEC 17025		L2471	02-22-20
₋ouisiana	NELAP	6	30976	06-30-17
₋ouisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Гехаѕ	NELAP	6	T104704286-16-10	09-30-17
JSDA	Federal		P330-16-00172	05-24-19
/irginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17 *
West Virginia DEP	State Program	3	136	06-30-17

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<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.



THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola 3355 McLemore Drive Pensacola, FL 32514 Tel: (850)474-1001

TestAmerica Job ID: 400-137872-1

TestAmerica Sample Delivery Group: Barry Gypsum (7)

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory 744 County Rd 87 **GSC #8** Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by: 6/14/2017 10:48:53 AM

Cheyenne Whitmire, Project Manager II (850)471-6222

chevenne.whitmire@testamericainc.com

·····LINKS ······

**Review your project** results through **Total Access** 

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7)

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#### **Case Narrative**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7)

Job ID: 400-137872-1

Laboratory: TestAmerica Pensacola

**Narrative** 

Job Narrative 400-137872-1

#### **RAD**

Method(s) PrecSep 0: Radium 228 prep Batch 160-309324. The following samples were reduced due to limited volume: AX10361 MW-7 (400-137872-1), AX10362 FB-1 (400-137872-2), AX10363 MW-6 (400-137872-3), AX10363 MW-6 (400-137872-3[DU]), AX10364 MW-5 (400-137872-4), AX10365 MW-4 (400-137872-5), AX10366 MW-4 DUP (400-137872-6), AX10367 MW-3 (400-137872-7), AX10368 MW-2 (400-137872-8), AX10369 MW-1 (400-137872-9), AX10370 MW-8 (400-137872-10), AX10371 MW-9 (400-137872-11), AX10372 MW-10 (400-137872-12) and AX10373 EB-1 (400-137872-13).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-309312. The following samples were reduced due to limited volume: AX10361 MW-7 (400-137872-1), AX10362 FB-1 (400-137872-2), AX10363 MW-6 (400-137872-3), AX10363 MW-6 (400-137872-3[DU]), AX10364 MW-5 (400-137872-4), AX10365 MW-4 (400-137872-5), AX10366 MW-4 DUP (400-137872-6), AX10367 MW-3 (400-137872-7), AX10368 MW-2 (400-137872-8), AX10369 MW-1 (400-137872-9), AX10370 MW-8 (400-137872-10), AX10371 MW-9 (400-137872-11), AX10372 MW-10 (400-137872-12) and AX10373 EB-1 (400-137872-13).

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# **Method Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7)

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

#### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates. TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

#### **Laboratory References:**

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# **Sample Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7)

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Lab Sample ID	Client Sample ID	Matrix	Collected Received
400-137872-1	AX10361 MW-7	Water	05/02/17 06:35 05/09/17 10:25
400-137872-2	AX10362 FB-1	Water	05/02/17 06:22 05/09/17 10:25
400-137872-3	AX10363 MW-6	Water	05/02/17 07:24 05/09/17 10:25
400-137872-4	AX10364 MW-5	Water	05/02/17 08:23 05/09/17 10:25
400-137872-5	AX10365 MW-4	Water	05/02/17 09:44 05/09/17 10:25
400-137872-6	AX10366 MW-4 DUP	Water	05/02/17 09:44 05/09/17 10:25
400-137872-7	AX10367 MW-3	Water	05/02/17 11:00 05/09/17 10:25
400-137872-8	AX10368 MW-2	Water	05/02/17 12:15 05/09/17 10:25
400-137872-9	AX10369 MW-1	Water	05/02/17 13:17 05/09/17 10:25
400-137872-10	AX10370 MW-8	Water	05/02/17 14:12 05/09/17 10:25
400-137872-11	AX10371 MW-9	Water	05/02/17 15:11 05/09/17 10:25
400-137872-12	AX10372 MW-10	Water	05/02/17 16:30 05/09/17 10:25
400-137872-13	AX10373 EB-1	Water	05/02/17 16:45 05/09/17 10:25

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1:

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7)

ob Comple ID: 400 427072

Client Sample ID: AX10361 MW-7

Date Collected: 05/02/17 06:35 Date Received: 05/09/17 10:25 Lab Sample ID: 400-137872-1 Matrix: Water

Method: 9315 - R	adium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.149		0.105	0.106	1.00	0.146	pCi/L	05/18/17 09:29	06/09/17 06:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					05/18/17 09:29	06/09/17 06:15	1

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.655		0.355	0.360	1.00	0.539	pCi/L	05/18/17 10:00	06/02/17 10:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					05/18/17 10:00	06/02/17 10:39	1
Y Carrier	86.4		40 - 110					05/18/17 10:00	06/02/17 10:39	1

Method: Ra226_I	Ra228 - Combined Ra	adium-226 a	nd Radiur	n-228					
_		Count	Total						
		Uncert.	Uncert.						
Analyte	Result Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.804	0.370	0.375	5.00	0.539	pCi/L		06/12/17 11:55	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7)

Client Sample ID: AX10362 FB-1

Lab Sample ID: 400-137872-2 Date Collected: 05/02/17 06:22 **Matrix: Water** Date Received: 05/09/17 10:25

Method: 9315 - F	Radium-226 (	(GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.192		0.106	0.108	1.00	0.124	pCi/L	05/18/17 09:29	06/09/17 06:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					05/18/17 09:29	06/09/17 06:15	1

Ba Carrier	98.2		40 - 110					05/18/17 09:29	06/09/17 06:15	1
Method: 9320 - R	adium-228 (	(GFPC)								
		,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.315	U	0.259	0.260	1.00	0.409	pCi/L	05/18/17 10:00	06/02/17 10:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					05/18/17 10:00	06/02/17 10:39	1
Y Carrier	84.9		40 - 110					05/18/17 10:00	06/02/17 10:39	1

Method: Ra226_Ra	228 - Comb	oined Rad	dium-226 a	nd Radiun	n-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result (	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.507		0.280	0.282	5.00	0.409	pCi/L		06/12/17 11:55	1

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7) Project/Site: CCR Plant Barry

Client Sample ID: AX10363 MW-6

Lab Sample ID: 400-137872-3 Date Collected: 05/02/17 07:24 **Matrix: Water** 

Date Received: 05/09/17 10:25

Method: 9315 - R	Radium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.453		0.153	0.158	1.00	0.135	pCi/L	05/18/17 09:29	06/09/17 06:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					05/18/17 09:29	06/09/17 06:15	1

Method: 9320 - F	·	,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.956		0.351	0.361	1.00	0.485	pCi/L	05/18/17 10:00	06/02/17 10:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					05/18/17 10:00	06/02/17 10:39	1
Y Carrier	84.9		40 - 110					05/18/17 10:00	06/02/17 10:39	1

Method: Ra226_Ra	228 - Combined R	adium-226 a	ınd Radiur	m-228					
_		Count	Total						
		Uncert.	Uncert.						
Analyte	Result Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.41	0.382	0.395	5.00	0.485	pCi/L		06/12/17 11:55	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137872-1

SDG: Barry Gypsum (7)

Client Sample ID: AX10364 MW-5

Date Collected: 05/02/17 08:23 Date Received: 05/09/17 10:25

Lab Sample ID: 400-137872-4

**Matrix: Water** 

Method: 9315 - R	adium-226 (	(GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.247		0.114	0.116	1.00	0.122	pCi/L	05/18/17 09:29	06/09/17 06:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					05/18/17 09:29	06/09/17 06:15	1

Ba Carrier	98.8		40 - 110					05/18/17 09:29	06/09/17 06:15	1
Method: 9320 - R	Radium-228 (	GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.340	Ū	0.266	0.268	1.00	0.421	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	90.1		40 - 110					05/18/17 10:00	06/02/17 10:40	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radium	1-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.587		0.290	0.292	5.00	0.421	pCi/L		06/12/17 11:55	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7)

Client Sample ID: AX10365 MW-4

Date Collected: 05/02/17 09:44 Date Received: 05/09/17 10:25 Lab Sample ID: 400-137872-5

**Matrix: Water** 

Method: 9315 - R	adium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.278		0.130	0.132	1.00	0.153	pCi/L	05/18/17 09:29	06/09/17 06:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					05/18/17 09:29	06/09/17 06:15	1

	00							00, 10, 11, 00,20	00.00.11	•
- Method: 9320 - F	Radium-228 (	(GFPC)								
		,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.899		0.339	0.349	1.00	0.468	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	84.9		40 - 110					05/18/17 10:00	06/02/17 10:40	1
_										

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radium	1-228					
_			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.18		0.363	0.373	5.00	0.468	pCi/L		06/12/17 11:55	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7)

Client Sample ID: AX10366 MW-4 DUP

Date Collected: 05/02/17 09:44 Date Received: 05/09/17 10:25

Lab Sample ID: 400-137872-6 **Matrix: Water** 

Method: 9315 - R	adium-226 (	GFPC)								
		,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.291		0.129	0.132	1.00	0.145	pCi/L	05/18/17 09:29	06/09/17 06:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					05/18/17 09:29	06/09/17 06:15	1

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Ba Carrier	97.6		40 - 110					05/18/17 09:29	06/09/17 06:15	1
Method: 9320 -	Radium-228 (	(GFPC)								
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.521	U	0.446	0.449	1.00	0.718	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	69.9		40 - 110					05/18/17 10:00	06/02/17 10:40	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radiun	n-228					
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.812		0.465	0.468	5.00	0.718	pCi/L		06/12/17 11:55	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7)

Client Sample ID: AX10367 MW-3

Lab Sample ID: 400-137872-7 Date Collected: 05/02/17 11:00 Date Received: 05/09/17 10:25

**Matrix: Water** 

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.187		0.0992	0.101	1.00	0.112	pCi/L	05/18/17 09:29	06/09/17 06:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					05/18/17 09:29	06/09/17 06:15	1

Method: 9320 - F	Radium-228 (	(GFPC)	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.787		0.368	0.375	1.00	0.538	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	74.0		40 - 110					05/18/17 10:00	06/02/17 10:40	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radiun	n- <b>228</b>					
_			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.974		0.381	0.388	5.00	0.538	pCi/L		06/12/17 11:55	1

6/14/2017

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7)

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Client Sample ID: AX10368 MW-2

Date Collected: 05/02/17 12:15 Date Received: 05/09/17 10:25 Lab Sample ID: 400-137872-8 Matrix: Water

Method: 9315 - Ra	adium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.491		0.152	0.158	1.00	0.117	pCi/L	05/18/17 09:29	06/09/17 06:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					05/18/17 09:29	06/09/17 06:16	1
	90.0		70-110					03/10/11 09.29	00,03,17 00.10	

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.169	U	0.300	0.301	1.00	0.508	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	86.0		40 - 110					05/18/17 10:00	06/02/17 10:40	1

 Method: Ra226_Ra	228 - Con	nbined Ra	dium-226 a	nd Radiur	n-228					
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.660		0.337	0.340	5.00	0.508	pCi/L		06/12/17 11:55	1

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Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

Lab Sample ID: 400-137872-9

TestAmerica Job ID: 400-137872-1

Client Sample ID: AX10369 MW-1

Date Collected: 05/02/17 13:17 Date Received: 05/09/17 10:25

**Matrix: Water** 

SDG: Barry Gypsum (7)

adium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
0.244		0.129	0.131	1.00	0.163	pCi/L	05/18/17 09:29	06/09/17 06:16	1
%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
94.1		40 - 110					05/18/17 09:29	06/09/17 06:16	1
	Result 0.244 %Yield	%Yield Qualifier	Count Uncert.  Result Qualifier (2σ+/-)  0.244 0.129  %Yield Qualifier Limits	Count Uncert. Uncert.	Count   Total   Uncert.   Uncert.   Uncert.   Uncert.	Count   Total   Uncert.   Uncert.   Uncert.   Uncert.   Uncert.   O.244   O.129   O.131   O.163   O	Count   Total   Uncert.   Uncert.     Result   Qualifier   (2σ+/-)   (2σ+/-)   RL   MDC   Unit	Count   Total   Uncert.   Uncert.   Uncert.     Result   Qualifier   (2σ+/-)   (2σ+/-)   RL   MDC   Unit   Prepared	Count Uncert. Uncert. Uncert.   Variety   V

34.1		40 - 110					00/10/11 00:20	00/09/17 00.10	,
Radium-228 (	GFPC)								
	•	Count Uncert.	Total Uncert.						
Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
0.524		0.319	0.323	1.00	0.487	pCi/L	05/18/17 10:00	06/02/17 10:40	1
%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
94.1		40 - 110					05/18/17 10:00	06/02/17 10:40	1
84.9		40 - 110					05/18/17 10:00	06/02/17 10:40	1
	Result 0.524	Result Qualifier  0.524  %Yield Qualifier  94.1	Count Uncert.   (2σ+/-)   0.524     0.319	Count Uncert. Uncert.   (2σ+/-)   (2σ+/-)   (2σ+/-)   (3π)   (	Count   Total   Uncert.   Uncert.	Count   Total   Uncert.   Uncert.	Count   Total   Uncert.   Uncert.	Count   Total   Uncert.   Uncert.   Uncert.   Result   Qualifier   (2σ+/-)   (2σ+/-)   RL   MDC   Unit   Prepared   0.524   0.319   0.323   1.00   0.487   pCi/L   05/18/17 10:00     Prepared   94.1   40 - 110   0.5/18/17 10:00     Prepared   0.5/18/17 10:00     0.5/18/17 10:00     Prepared   0.5/18/17 10:00     0.5/18/17 10:00     Prepared   0.5/18/17     Prepared   0.5/18/17     Prepared   0.5/18/17     Prepared     Prepared	Count   Total   Uncert.   Uncert.   Uncert.   Uncert.   Uncert.   O.524   O.319   O.323   O.323   O.487   D.66/02/17 10:40   O.578/17 10:00   O.6/02/17 10:40   O.578/17 10:00   O.578/17   O.578/17

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radiun	1-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.768		0.344	0.348	5.00	0.487	pCi/L		06/12/17 11:55	1

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7) Project/Site: CCR Plant Barry

Client Sample ID: AX10370 MW-8

Lab Sample ID: 400-137872-10 Date Collected: 05/02/17 14:12 **Matrix: Water** 

Date Received: 05/09/17 10:25

Method: 9315 - R	adium-226 (	(GFPC)	Count	Total						
Analyte	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.249	<u> </u>	0.124	0.126	1.00	0.150	pCi/L	05/18/17 09:29	06/09/17 06:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					05/18/17 09:29	06/09/17 06:16	1

Method: 9320 - F	kadium-228 (	(GFPC)	Count	Total						
Analyte	Pocult	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Analyte	Resuit	Qualifier			KL _					DII Fac
Radium-228	0.604		0.314	0.319	1.00	0.466	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	86.4		40 - 110					05/18/17 10:00	06/02/17 10:40	1

Method: Ra226_Ra	228 - Com	bined Rad	dium-226 a	nd Radiun	n- <b>228</b>					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.853		0.338	0.343	5.00	0.466	pCi/L		06/12/17 11:55	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7)

Client Sample ID: AX10371 MW-9

Lab Sample ID: 400-137872-11 Date Collected: 05/02/17 15:11 **Matrix: Water** Date Received: 05/09/17 10:25

Method: 9315 - Radium-226 (GFPC) Total Count Uncert. Uncert. Analyte Result Qualifier **MDC** Unit Dil Fac  $(2\sigma + / -)$  $(2\sigma + / -)$ RL Prepared Analyzed 0.185 0.195 1.00 05/18/17 09:29 Radium-226 0.679 0.146 pCi/L 06/09/17 06:16 Carrier **%Yield Qualifier** Limits Prepared Analyzed Dil Fac 90.9 40 - 110 05/18/17 09:29 06/09/17 06:16 Ba Carrier

Method: 9320 - Radium-228 (GFPC) Count Total Uncert. Uncert. Analyte Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ RL **MDC** Unit **Prepared** Analyzed Dil Fac 0.363 0.368 1.00 0.554 pCi/L 05/18/17 10:00 06/02/17 10:40 Radium-228 0.630 Carrier %Yield Qualifier Limits Prepared Analyzed Dil Fac Ba Carrier 90.9 40 - 110 05/18/17 10:00 06/02/17 10:40 Y Carrier 84.1 40 - 110 05/18/17 10:00 06/02/17 10:40

Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228 Count Total Uncert. Uncert. Analyte Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ RL **MDC** Unit Prepared Analyzed Dil Fac **Combined Radium** 1.31 0.408 0.416 5.00 0.554 pCi/L 06/12/17 11:55 226 + 228

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7) Project/Site: CCR Plant Barry

Client Sample ID: AX10372 MW-10

Lab Sample ID: 400-137872-12 Date Collected: 05/02/17 16:30 **Matrix: Water** 

Date Received: 05/09/17 10:25

Method: 9315 - R	adium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.561		0.162	0.170	1.00	0.125	pCi/L	05/18/17 09:29	06/09/17 06:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					05/18/17 09:29	06/09/17 06:16	1

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0876	Ū	0.260	0.260	1.00	0.452	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	86.7		40 - 110					05/18/17 10:00	06/02/17 10:40	1

Method: Ra226_Ra	228 - Con	bined Ra	dium-226 a	nd Radiun	n-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.649		0.306	0.311	5.00	0.452	pCi/L		06/12/17 11:55	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

Client Sample ID: AX10373 EB-1

Lab Sample ID: 400-137872-13

TestAmerica Job ID: 400-137872-1

Date Collected: 05/02/17 16:45 Date Received: 05/09/17 10:25

**Matrix: Water** 

SDG: Barry Gypsum (7)

Method: 9315 - Ra	adium-226 (	(GFPC)								
		,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00412	U	0.0650	0.0650	1.00	0.140	pCi/L	05/18/17 09:29	06/09/17 06:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					05/18/17 09:29	06/09/17 06:16	1

MDC Unit Prepared Analyzed Dil Fac
0.477 pCi/L 05/18/17 10:00 06/02/17 10:40 1
Prepared Analyzed Dil Fac
<u>05/18/17 10:00</u> <u>06/02/17 10:40</u> <u>1</u>
05/18/17 10:00 06/02/17 10:40 1

Method: Ra226 Ra2	28 - Con	bined Ra	dium-226 a	nd Radium	1-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.425	U	0.313	0.316	5.00	0.477	pCi/L	_	06/12/17 11:55	1

# **Definitions/Glossary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7)

## **Qualifiers**

## Rad

Qualifier  Qualifier Descriptio

U Result is less than the sample detection limit.

# **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDI	Fetimated Detection Limit (Diovin)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MDA Minimum Detectable Activity (Radio

MDA Minimum Detectable Activity (Radiochemistry)
MDC Minimum Detectable Concentration (Radiochemistry)
MDI Method Detection Limit

MDL Method Detection Limit
ML Minimum Level (Dioxin)
NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

SDG: Barry Gypsum (7)

Client Sample ID: AX10361 MW-7

Client: Alabama Power General Test Laboratory

Date Collected: 05/02/17 06:35 Date Received: 05/09/17 10:25

Project/Site: CCR Plant Barry

Lab Sample ID: 400-137872-1

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:39	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Lab Sample ID: 400-137872-2

Client Sample ID: AX10362 FB-1 Date Collected: 05/02/17 06:22

**Matrix: Water** 

Date Received: 05/09/17 10:25

Dilution Batch Batch **Batch** Prepared Method Number or Analyzed **Prep Type** Type Run **Factor** Lab Analyst Total/NA Prep PrecSep-21 309312 05/18/17 09:29 LDE TAL SL Total/NA Analysis 9315 312649 06/09/17 06:15 RTM TAL SL TAL SL Total/NA Prep PrecSep 0 309324 05/18/17 10:00 LDE Total/NA 9320 311618 06/02/17 10:39 KLS TAL SL Analysis Analysis TAL SL Total/NA Ra226\_Ra228 1 313033 06/12/17 11:55 RTM

Client Sample ID: AX10363 MW-6 Lab Sample ID: 400-137872-3

Date Collected: 05/02/17 07:24 Date Received: 05/09/17 10:25

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:39	KLS	TAL SL
Total/NA	Analysis	Ra226 Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Client Sample ID: AX10364 MW-5 Lab Sample ID: 400-137872-4 Date Collected: 05/02/17 08:23 **Matrix: Water** 

Date Received: 05/09/17 10:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

SDG: Barry Gypsum (7)

Client Sample ID: AX10365 MW-4

Client: Alabama Power General Test Laboratory

Date Collected: 05/02/17 09:44 Date Received: 05/09/17 10:25

Project/Site: CCR Plant Barry

Lab Sample ID: 400-137872-5

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Lab Sample ID: 400-137872-6

Date Collected: 05/02/17 09:44

Date Received: 05/09/17 10:25

Client Sample ID: AX10366 MW-4 DUP

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Client Sample ID: AX10367 MW-3

Date Collected: 05/02/17 11:00

Date Received: 05/09/17 10:25

Lab Sample ID: 400-137872-7

Lab Sample ID: 400-137872-8

**Matrix: Water** 

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Client Sample ID: AX10368 MW-2

Date Collected: 05/02/17 12:15

Date Received: 05/09/17 10:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226 Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

TestAmerica Pensacola

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SDG: Barry Gypsum (7)

Client Sample ID: AX10369 MW-1

Client: Alabama Power General Test Laboratory

Date Collected: 05/02/17 13:17 Date Received: 05/09/17 10:25

Project/Site: CCR Plant Barry

Lab Sample ID: 400-137872-9

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Lab Sample ID: 400-137872-10 Client Sample ID: AX10370 MW-8

Date Collected: 05/02/17 14:12 Date Received: 05/09/17 10:25

**Matrix: Water** 

Batch Batch Dilution Batch Prepared Prep Type Method Number Type Run Factor or Analyzed Analyst Lab Total/NA PrecSep-21 309312 05/18/17 09:29 LDE TAL SL Prep Total/NA Analysis 9315 1 312649 06/09/17 06:16 RTM TAL SL TAL SL Total/NA Prep PrecSep\_0 309324 05/18/17 10:00 LDE Total/NA Analysis 9320 1 311618 06/02/17 10:40 KLS TAL SL TAL SL

Client Sample ID: AX10371 MW-9 Lab Sample ID: 400-137872-11

1

313033 06/12/17 11:55 RTM

Date Collected: 05/02/17 15:11 Date Received: 05/09/17 10:25

Analysis

Ra226\_Ra228

Total/NA

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Client Sample ID: AX10372 MW-10 Lah Sample ID: 400-137872-12

Chefft Sample ID. AX 10372 WW-10	Lab Sample 1D. 400-13/6/2-12
Date Collected: 05/02/17 16:30	Matrix: Water
Date Received: 05/09/17 10:25	

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

## **Lab Chronicle**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7)

Lab Sample ID: 400-137872-13

Client Sample ID: AX10373 EB-1 Date Collected: 05/02/17 16:45 **Matrix: Water** Date Received: 05/09/17 10:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

## **Laboratory References:**

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# **QC Association Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7)

## Rad

**Prep Batch: 309312** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137872-1	AX10361 MW-7	Total/NA	Water	PrecSep-21	
400-137872-2	AX10362 FB-1	Total/NA	Water	PrecSep-21	
400-137872-3	AX10363 MW-6	Total/NA	Water	PrecSep-21	
400-137872-4	AX10364 MW-5	Total/NA	Water	PrecSep-21	
400-137872-5	AX10365 MW-4	Total/NA	Water	PrecSep-21	
400-137872-6	AX10366 MW-4 DUP	Total/NA	Water	PrecSep-21	
400-137872-7	AX10367 MW-3	Total/NA	Water	PrecSep-21	
400-137872-8	AX10368 MW-2	Total/NA	Water	PrecSep-21	
400-137872-9	AX10369 MW-1	Total/NA	Water	PrecSep-21	
400-137872-10	AX10370 MW-8	Total/NA	Water	PrecSep-21	
400-137872-11	AX10371 MW-9	Total/NA	Water	PrecSep-21	
400-137872-12	AX10372 MW-10	Total/NA	Water	PrecSep-21	
400-137872-13	AX10373 EB-1	Total/NA	Water	PrecSep-21	
MB 160-309312/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-309312/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-137872-3 DU	AX10363 MW-6	Total/NA	Water	PrecSep-21	

## Prep Batch: 309324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137872-1	AX10361 MW-7	Total/NA	Water	PrecSep_0	-
400-137872-2	AX10362 FB-1	Total/NA	Water	PrecSep_0	
400-137872-3	AX10363 MW-6	Total/NA	Water	PrecSep_0	
400-137872-4	AX10364 MW-5	Total/NA	Water	PrecSep_0	
400-137872-5	AX10365 MW-4	Total/NA	Water	PrecSep_0	
400-137872-6	AX10366 MW-4 DUP	Total/NA	Water	PrecSep_0	
400-137872-7	AX10367 MW-3	Total/NA	Water	PrecSep_0	
400-137872-8	AX10368 MW-2	Total/NA	Water	PrecSep_0	
400-137872-9	AX10369 MW-1	Total/NA	Water	PrecSep_0	
400-137872-10	AX10370 MW-8	Total/NA	Water	PrecSep_0	
400-137872-11	AX10371 MW-9	Total/NA	Water	PrecSep_0	
400-137872-12	AX10372 MW-10	Total/NA	Water	PrecSep_0	
400-137872-13	AX10373 EB-1	Total/NA	Water	PrecSep_0	
MB 160-309324/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-309324/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-137872-3 DU	AX10363 MW-6	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

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**5** 

9

10

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

SDG: Barry Gypsum (7)

# Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-309312/1-A

Lab Sample ID: LCS 160-309312/2-A

**Matrix: Water** 

**Matrix: Water** 

Analysis Batch: 312649

Analysis Batch: 312649

<b>Client Sample ID: Method Blank</b>
Prep Type: Total/NA

Analyzed

Prep Batch: 309312

Dil Fac

10

	MB	MB	Uncert.	Uncert.					
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04104	U	0.0815	0.0816	1.00	0.147 pCi/L	05/18/17 09:29	06/09/17 06:14	1

Total

MB MB

**%Yield Qualifier** Carrier Limits Ba Carrier 95.6 40 - 110

05/18/17 09:29 06/09/17 06:14

Prepared

**Client Sample ID: Lab Control Sample** 

%Rec.

Limits

68 - 137

Prep Type: Total/NA Prep Batch: 309312

Total

Spike LCS LCS Uncert. Analyte Added Result Qual  $(2\sigma + / -)$ RL**MDC** Unit %Rec Radium-226 15.1 12.98 1.38 1.00 0.125 pCi/L 86

Count

LCS LCS

Carrier %Yield Qualifier Limits Ba Carrier 95.0 40 - 110

Lab Sample ID: 400-137872-3 DU

**Matrix: Water** 

Analysis Batch: 312649

Client Sample ID: AX10363 MW-6

**Prep Type: Total/NA** Prep Batch: 309312

Total

Sample Sample DU DU Uncert. **RER** Analyte Result Qual Result Qual  $(2\sigma + / -)$ RL **MDC** Unit RER Limit Radium-226 0.161 0.153 pCi/L 0.453 0.4311 1.00 0.07

DU DU

Carrier %Yield Qualifier Limits Ba Carrier 94.7 40 - 110

## Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-309324/1-A

**Matrix: Water** 

**Analysis Batch: 311618** 

**Client Sample ID: Method Blank** Prep Type: Total/NA

Prep Batch: 309324

			Count	Total				•	
	MB	MB	Uncert.	Uncert.					
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.01858	U	0.248	0.248	1.00	0.444 pCi/L	05/18/17 10:00	06/02/17 10:38	1

MB MB

Carrier	%Yield Qualifier	Limits	Prepared Analyzed	Dil Fac
Ba Carrier	95.6	40 - 110	05/18/17 10:00 06/02/17 10:3	8 1
Y Carrier	84.9	40 - 110	05/18/17 10:00 06/02/17 10:3	8 1

2

10

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-137872-1 SDG: Barry Gypsum (7)

# Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-309324/2-A Matrix: Water

**Analysis Batch: 311618** 

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 309324

Total Spike LCS LCS Uncert. %Rec. Added **Analyte** Result Qual  $(2\sigma + / -)$ RL **MDC** Unit %Rec Limits Radium-228 17.8 19.80 2.11 1.00 0.454 pCi/L 111 56 - 140

 LCS
 LCS

 Carrier
 %Yield
 Qualifier
 Limits

 Ba Carrier
 95.0
 40 - 110

 Y Carrier
 84.1
 40 - 110

Lab Sample ID: 400-137872-3 DU

Matrix: Water

**Analysis Batch: 311618** 

Client Sample ID: AX10363 MW-6
Prep Type: Total/NA

Prep Batch: 309324

Total Sample Sample DU DU Uncert. **RER** Analyte Result Qual Result Qual  $(2\sigma + / -)$ RL **MDC** Unit RER Limit Radium-228 0.956 0.7030 0.329 1.00 0.464 pCi/L 0.37

 DU DU

 Carrier
 %Yield 94.7
 Qualifier 40 - 110

 Y Carrier
 84.1
 40 - 110

# Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-137872-3 DU

**Matrix: Water** 

**Analysis Batch: 313033** 

Client Sample ID: AX10363 MW-6

Prep Type: Total/NA

Total Sample Sample DU DU Uncert. **RER** Result Qual Analyte Result Qual  $(2\sigma + / -)$ RL MDC Unit Limit RER Combined 1.41 1.134 0.366 5.00 0.464 pCi/L 0.36

Radium 226 + 228

# Chain of Custody Record

3355 McLemore Drive Pensacola, FL 32514 Phone (850) 474-1001 Fax (850) 478-2671

TestAmerica Pensacola

TestAmerica

Total   Laboratoloty   Data Date Requested:   Conference with time of Section   Conference with time of Se	Client Information	Sampler. Anthony Googins	U		Lab PM: Whitmi	Lab PM: Whitmire Chevenne R	B ent	Carrier Tracking No(s):	No(s):	COC No:	1 22 1
Page   10.2   Page   Page   10.2   Page	Client Contact:	Phone:	2		E-Mail:	יבי סובלה		T		Page.	
Color   Colo	Sarah Copeland				cheye	ne.whitmir	re@testamericainc.com			Page 1 of 2	
The second of the Page   The Second of the P	Сотралу: Alabama Power General Test Laboratory						Analysis Re	quested		51-00p # doc	21812
Comparison   Com	Address: 744 County Rd 87 GSC #8	Due Date Request	ed:							Preservation Co	20
Cocon   Coco	City: Calera	TAT Requested (d		Je Je			1.Ac.A	(4)		B - NaOH C - Zn Acetate	
Continue	State, Zip. AL, 35040					3EbC		¥.		D - Nitric Acid E - NaHSO4	
1- Day work	Phone: 205-664-6121(Tel)	#Od#			,5			13		G - Amchlor H - Ascorbic Acid	
Company   Sample Date   Sample Date   Sample Date   Sample Date   Sample Date   Time   Cappab)   Sample Date   Time   Cappab)   Cappab   Cappa   Cappab   Cappa   Cappab   Cappa   Cap	Email: sgcopela@southernco.com	WO#:				(oN	400-137	1872 500			
Sample Date   Sample Date   Martin   Sample Date   Martin   Sample Date   Time   Caccomp   Cac	Project Name: CCR	Project #: 40007143			7,5	10 89				_	W - ph 4-5 Z - other (specify)
Sample Date   Time   Cagrab   Sample   Sample	Site: Barry Gypsum (7)	SSOW#:				A) asi					
Fig. 17   68:35   G   Water   X   F   F   F   F   F   F   F   F   F	Sample Identification	Sample Date	Sample	Sample Type (C=comp, G=grab)		M\SM m107199					nstructions/Note:
Si2177   OS22   G Water   X		X	X	Preserva	tion Code:	° X				$\langle \rangle$	
5/21/7   0724   G Water   X   X	AX10361	5/2/17	0635	O	Water	×					
5/2/17   0/24   G   Water   X	AX10362	5/2/17	0622	O	Water	×				1 FB-1 (Field Blank	₩ Q
5/21/7   0944   G   Water   X	AX10363	5/2/17	0724	9	Water	-					
51217   0944   G   Water   X	AX10364	5/2/17	0823	9	Water	×				100000	
Si2177   1100   G   Water   X	AX10365	5/2/17	0944	g	Water	×					
5/2/17   1215   G   Water   X   Water	AX10366	5/2/17	0944	g	Water	×					ple Duplicate)
5/2/17   1215   G   Water   X	AX10367	5/2/17	1100	9	Water	×					
Si/217   1412   G   Water   X	AX10368	5/2/17	1215	O	Water	×					
Hazard Identification         Sample Disposal (A fee may be assessed if samples are retained longer than 1 mo Hazard Identification)         Archive For Identification         Archive For Iden	AX10369	5/2/17	1317	9	Water	×					
Sample Disposal ( Afee may be assessed if samples are retained longer than 1 mo   Shed   Disposal   Archive For	AX10370	5/2/17	1412	ŋ	Water	×					
Special Instructions/QC Requirements:   Archive For   Archive For   Archive For	Possible Hazard Identification					Sample	Disposal ( A fee may b	s ji bessesse e	amples are ref	ained longer than	1 month)
III, IV, Other (specify)   Special Instructions/QC Requirements:	ole Skin Irritant	Poison B	umous	Radiologic	le le		eturn To Client	Disposal By L	de de	Archive For	Months
Date:   Time:   Date:   Time:   Time:   Method of Shipment:   Date/Time:   Gooder Tempend of Shipment:   Date/Time:   Company   Received by.   Company   Received by.   Company   Received by.   Date/Time:   Date/	Deliverable Requested: I, II, III, IV, Other (specify)					Special	Instructions/QC Requirer	nents:			
Date/Time: 05/08/2017, 1350   Company   Recaived by:   S/A/(Lot 1 (1): LS	Empty Kit Relinquished by:				П			Method o	of Shipment:		
Date/Time:   Company   Received by:   Date/Time:   Date	Relinquished by: Sarah Copeland	Date/Time: 05/08/			Company	Rec	em Col	M	Date/Time: 5/9/10/17	0	Company
als Intact. Custody Seal No.:  Date/Time:  Company Received by:  Cooler Temperature(s) °C and Other Remarks:	Relinquished by:	Date/Time:			Company	Rece	ed by:		Date/Time:		Company
Custody Seal No.:	Relinquished by:	Date/Time:			Company	Rece	eived by:		Date/Time:		Company
						Cool	ler Temperature(s) °C and Othe	r Remarks:			

# TestAmerica

# Chain of Custody Record

3355 McLemore Drive Pensacola, FL 32514 Phone (850) 474-1001 Fax (850) 478-2671

	Sampler			Lab PM:			Carrier Tracking No(s):	Vo(s):	COC No:	
Client Information	Anthony Goggins			Whitm	Whitmire, Cheyenne R				400-56525-24537.1	537.1
Client Contact: Sarah Copeland	Phone:			E-Mail: cheye	nne.whitm	E-Mail: cheyenne.whitmire@testamericainc.com			Page: Page 2 of 2	
Company: Alabama Power General Test Laboratory						Analysis Requested	luested		218151-00p # doc	21812
Address: 744 County Rd 87 GSC #8	Due Date Requested:	d:							Preservation Codes:	8
City: Calera	TAT Requested (days):	ys): Routine	e						B - NaOH C - Zn Acetate	
State, Zip: AL, 35040	Г				PEPC				D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3
Phone: 205-664-6121(Tel)	PO#:								G - Amchlor H - Ascorbic Acid	
Email: sgcopela@southernco.com	WO#:				(oN					
Project Name: CCR	Project #: 40007143				10 59				K-EDTA L-EDA	W - ph 4-5 Z - other (specify)
Site: Barry Gypsum (7)	SSOW#:				A) asi				of co	
Sample Identification	Sample Date	Sample	Sample Type (C=comp, G=grab)	(W=water, S=solid, O=wasteroll, RT=TIssue A=atr)	Field Filtered Perform MS/M 9315_Ra226, 93				Total Number	Special Instructions/Note:
	\\	X	00	-	Ž					
AX10371	5/2/17	1511	9	Water	×				1 MW-9	
AX10372	5/2/17	1630	9	Water	×				1 MW-10	
AX10373	5/2/17	1645	9	Water	×				1 EB-1 (Equipment Blank)	nt Blank)
									7	
					+					
Possible Hazard Identification					Samp	Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)	assessed if sa	amples are ret	ained longer tha	n 1 month)
tant	Poison B Unk	Unknown	Radiological	11		Return To Client	Disposal By Lab		Archive For	Months
Deliverable Requested: I, II, III, IV, Other (specify)					Specia	Special Instructions/QC Requirements:	ents:			
Empty Kit Relinquished by:		Date:			Time:		Method of	Method of Shipment:		
Relinquished by: Sarah Copeland	Date/Time: 05/08/2017; 1330	017; 1330		Company APC	% <b>19</b>	Received by: Made		Date/Time: 5/9/1017	1 10.25	Company
Relinquished by:	Date/Time;			Company	Re.	Regilved by.		Date/Time:		Сомрапу
Relinquished by:	Date/Time:			Company	Re	Received by:		Date/Time:		Company
Custody Seals Intact: Custody Seal No.:					ပိ	Cooler Temperature(s) °C and Other Remarks.	Remarks:			
					1					

# **Login Sample Receipt Checklist**

Client: Alabama Power General Test Laboratory

Job Number: 400-137872-1 SDG Number: Barry Gypsum (7)

List Source: TestAmerica Pensacola

Login Number: 137872

List Number: 1

Creator: Siddoway, Benjamin

Creator: Siddoway, Benjamin		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-137872-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (7)

## Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-17

## Laboratory: TestAmerica St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

- Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-17 *
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-17 *
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17 *
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-18

<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

# **Accreditation/Certification Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry SDG: Barry Gypsum (7)

# **Laboratory: TestAmerica St. Louis (Continued)**

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	<b>Expiration Date</b>
North Dakota	State Program	8	R207	06-30-17 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17 *
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

TestAmerica Job ID: 400-137872-1

<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola



Field Complete

Lab Complete

APC General Testing Laboratory General Service Complex Building 8

Lab ETA 05/04/2017 10:00

Requested Complete	Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative		Angie Jimmerson	Requested By	Greg Dyer
Collector		Anthony Goggins	Location	Barry Gypsum
Comments	Prisis Requested Bottle 1 (1L): Radiological  Comments Radium Duplicate MW-6 There is no temperature preservation requirement for Radium.			

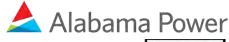
			Bottle		Lab	
Sample #	Date	Time	Count	Description	Filter	Lab Id
MW-7	05/02/2017	06:35	1	Groundwater		AX10361
FB-1	05/02/2017	06:22	1	Field Blank		AX10362
MW-6	05/02/2017	07:24	3	Groundwater		AX10363
MW-5	05/02/2017	08:23	1	Groundwater		AX10364
MW-4	05/02/2017	09:44	1	Groundwater		AX10365
MW-4DUP	05/02/2017	09:44	1	Sample Duplicate		AX10366
MW-3	05/02/2017	11:00	1	Groundwater		AX10367
MW-2	05/02/2017	12:15	1	Groundwater		AX10368
MW-1	05/02/2017	13:17	1	Groundwater		AX10369
MW-8	05/02/2017	14:12	1	Groundwater		AX10370
MW-9	05/02/2017	15:11	1	Groundwater		AX10371
MW-10	05/02/2017	16:30	1	Groundwater		AX10372
EB-1	05/02/2017	16:45	1	Equipment Blank		AX10373

Sarah Copeland Digitally signed by Stant Copeland Discussion Copel	Relinquished By	Received By	Date/Time
	anthony Googins	Sarah Copeland  Digitally signed by Sarah Copeland Dix: cn=Sarah Copeland, o, ou, enail-scopela@southerncc.com, c-US Date: 2017.05.04 08:1021-05'00'	05/04/2017 08:10

SmarTroll ID 5141-26150-1-1 Turbidity ID 3901-20009-2-1 All metals and radiological bottles have pH < 2 
Cooler Temp NA
Thermometer ID NA
pH Strip ID 5521-28268-20-12

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654

# Analytical Report





Sample Group: WMWBARG\_1103

Project/Site: Barry Gypsum

Bucks, AL 36512

For: Southern Company Services

42 Inverness Center Parkway Birmingham, AL 35242

Attention: Dustin Brooks & Greg Dyer

Released By: Sarah Copeland

sgcopela@southernco.com

(205) 664-6121

The following data has been reviewed and approved by:

Quality Control: Supervision:

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





## **Anions**

## **Barry Gypsum**

## WMWBARG\_1103

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All anions were outsourced to Test America, Pensacola for analysis. There was no job narrative provided due to lack of non-conformances.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Metals ICP

## Barry Gypsum

## WMWBARG\_1103

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX13182	20170613AG	WMWBARG_1103
AX13183	20170613AG	WMWBARG_1103
AX13184	20170613AG	WMWBARG_1103
AX13185	20170613AG	WMWBARG_1103
AX13186	20170613AG	WMWBARG_1103
AX13187	20170613AG	WMWBARG_1103
AX13188	20170613AG	WMWBARG_1103
AX13189	20170613AG	WMWBARG_1103
AX13190	20170613AG	WMWBARG_1103
AX13191	20170613AG	WMWBARG_1103
AX13192	20170613AH	WMWBARG_1103
AX13193	20170613AH	WMWBARG_1103
AX13194	20170613AH	WMWBARG_1103

- 4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

## **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes. An additional rinse was added between samples monitoring Li due to possible matrix issues.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed at a x2 dilution to compensate for any potential matrix effects.
- 8. The raw data results include results corrected for dilution.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Metals ICPMS

## **Barry Gypsum**

## WMWBARG\_1103

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX13182	596600	WMWBARG_1103
AX13183	596600	WMWBARG_1103
AX13184	596600	WMWBARG_1103
AX13185	596600	WMWBARG_1103
AX13186	596600	WMWBARG_1103
AX13187	596600	WMWBARG_1103
AX13188	596600	WMWBARG_1103
AX13189	596600	WMWBARG_1103
AX13190	596600	WMWBARG_1103
AX13191	596600	WMWBARG_1103
AX13192	596601	WMWBARG_1103
AX13193	596601	WMWBARG_1103
AX13194	596601	WMWBARG_1103

- 4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

## **General Quality Control Procedures:**

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

## Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
- 8. The raw data results are shown with dilution factors included.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





### Mercury

### Barry Gypsum

## WMWBARG\_1103

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sam	ple ID	Batch ID	Project ID
AX1	13182	596506	WMWBARG_1103
AX1	13183	596506	WMWBARG_1103
AX1	L3184	596506	WMWBARG_1103
AX1	13185	596506	WMWBARG_1103
AX1	13186	596506	WMWBARG_1103
AX1	13187	596506	WMWBARG_1103
AX1	13188	596506	WMWBARG_1103
AX1	13189	596506	WMWBARG_1103
AX1	13190	596506	WMWBARG_1103
AX1	l3191	596506	WMWBARG_1103
AX1	13192	596862	WMWBARG_1103
AX1	13193	596862	WMWBARG_1103
AX1	L3194	596862	WMWBARG_1103

- 4. All of the above samples were analyzed and prepared by EPA 245.1.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

## **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



- All calibration met criteria for the requested analyte.
- All response signals were satisfactory except for the ending CCV for samples AX13192-194. There was a drop in signal response during read time, so the entire batch (596862) was run a second time. All response signals were satisfactory for the 2<sup>nd</sup> run, and the results from the 2<sup>nd</sup> run were reported in LabWorks.

## Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed without a dilution.
- 8. The raw data results are shown with dilution factors included.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





**TDS** 

## Barry Gypsum

## WMWBARG\_1103

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX13182	596500	WMWBARG_1103
AX13183	596500	WMWBARG_1103
AX13184	596500	WMWBARG_1103
AX13185	596500	WMWBARG_1103
AX13186	596500	WMWBARG_1103
AX13187	596500	WMWBARG_1103
AX13188	597489	WMWBARG_1103
AX13189	597489	WMWBARG_1103
AX13190	597489	WMWBARG_1103
AX13191	597489	WMWBARG_1103
AX13192	596500	WMWBARG_1103
AX13193	597489	WMWBARG_1103
AX13194	596500	WMWBARG_1103

- 4. All of the above samples were analyzed by Standard Method 2540C.
- 5. All samples were analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

## **General Quality Control Procedures:**

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AX13192 and AX13193 which did not meet the 2.5mg residue.





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX13182

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
* Arsenic, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01		0.0799	mg/L
* Beryllium, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 6/13/2017	EPA 200.7	2	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 6/13/2017	EPA 200.7	2	0.10	0.5		0.978	mg/L
* Cadmium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
* Antimony, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Cobalt, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	J	0.00360	mg/L
* Chromium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ABB 6/14/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 6/13/2017	EPA 200.7	2	0.010	0.05	U	Not Detected	mg/L
Molybdenum, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	KRC 6/14/2017	SM 2540C	1		25		35.3	mg/L
* Chloride, Total, by Test America	SGC 7/10/2017	SM 4500 CI_E	1	0.60	2.00		3.1	mg/L
* Fluoride, Total, by Test America	SGC 7/10/2017	SM 4500 F_C	1	0.032	0.10	U	<0.032	mg/L
* Sulfate, Total, by Test America	SGC 7/10/2017	SM 4500 SO4_E	1	1.40	5.00		7.6	mg/L

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MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX13182

	,					-							—
				MB					LFB		Rec		Prec
Sample	Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX13191	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115	88.9	70 to 130	1.59	20
AX13191	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115	92.4	70 to 130	2.33	20
AX13191	Mercury, Total by CVAA	mg/L	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046	96.9	70 to 130	0.386	20
AX13191	Barium, Total	mg/L	0.00000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115	87.1	70 to 130	1.50	20
AX13191	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115	102	70 to 130	1.32	20
AX13191	Lithium, Total	mg/L	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23	94.2	70 to 130	4.91	20
AX13191	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115	92.2	70 to 130	2.01	20
AX13191	Calcium, Total	mg/L	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75	98.7	70 to 130	0.817	20
AX13191	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115	98.5	70 to 130	0.672	20
AX13191	Cadmium, Total	mg/L	0.00000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115	89.2	70 to 130	1.07	20
AX13191	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115	101	70 to 130	0.584	20
AX13191	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115	106	70 to 130	1.49	20
AX13191	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115	95.5	70 to 130	1.02	20
AX13191	Boron, Total	mg/L	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15	90.3	70 to 130	1.67	20
AX13191	Cobalt, Total	mg/L	0.00000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115	105	70 to 130	0.928	20

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX13182

				MB			Sample	e	LFB	Rec		Prec
Sample	Analysis	Units	MB	Limit	Spike	LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX13229	Solids, Dissolved	mg/L	16.0	25			333	55.0	40 to 60		0.301	5

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX13183

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
* Arsenic, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01		0.108	mg/L
* Beryllium, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 6/13/2017	EPA 200.7	2	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 6/13/2017	EPA 200.7	2	0.10	0.5		1.25	mg/L
* Cadmium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
* Antimony, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Cobalt, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
<ul> <li>Mercury, Total by CVAA</li> </ul>	ABB 6/14/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 6/13/2017	EPA 200.7	2	0.010	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	KRC 6/14/2017	SM 2540C	1		25		34.7	mg/L
* Chloride, Total, by Test America	SGC 7/10/2017	SM 4500 CI_E	1	0.60	2.00		3.9	mg/L
* Fluoride, Total, by Test America	SGC 7/10/2017	SM 4500 F_C	1	0.032	0.10	J	0.040	mg/L
* Sulfate, Total, by Test America	SGC 7/10/2017	SM 4500 SO4_E	1	1.40	5.00		5.3	mg/L

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Expiration: June 30, 2018

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<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX13183

			MB					LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
X13191	Selenium, Total	mg/L 0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115	92.4 70 to 13	2.33	20
X13191	Antimony, Total	mg/L 0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115	88.9 70 to 13	1.59	20
X13191	Mercury, Total by CVAA	mg/L 0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046	96.9 70 to 13	0.386	20
X13191	Arsenic, Total	mg/L 0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115	95.5 70 to 13	0 1.02	20
X13191	Boron, Total	mg/L -0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15	90.3 70 to 13	1.67	20
X13191	Cobalt, Total	mg/L 0.00000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115	105 70 to 13	0.928	20
X13191	Lithium, Total	mg/L -0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23	94.2 70 to 13	3 4.91	20
X13191	Molybdenum, Total	mg/L 0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115	92.2 70 to 13	2.01	20
X13191	Cadmium, Total	mg/L 0.00000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115	89.2 70 to 13	1.07	20
X13191	Chromium, Total	mg/L 0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115	101 70 to 13	0.584	20
X13191	Lead, Total	mg/L 0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115	106 70 to 13	1.49	20
X13191	Calcium, Total	mg/L -0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75	98.7 70 to 13	0.817	20
X13191	Thallium, Total	mg/L 0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115	98.5 70 to 13	0.672	20
X13191	Barium, Total	mg/L 0.00000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115	87.1 70 to 13	1.50	20
X13191	Beryllium, Total	mg/L 0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115	102 70 to 13	1.32	20

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX13183

				MB			Sample	e	LFB	Rec		Prec
Sample	Analysis	Units	MB	Limit	Spike	LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX13229	Solids, Dissolved	mg/L	16.0	25			333	55.0	40 to 60		0.301	5

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX13184

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
Arsenic, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01		0.0700	mg/L
Beryllium, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
Boron, Total	HRG 6/13/2017	EPA 200.7	2	0.02	0.1	U	Not Detected	mg/L
Calcium, Total	HRG 6/13/2017	EPA 200.7	2	0.10	0.5		1.55	mg/L
Cadmium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
Antimony, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
Cobalt, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Chromium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB 6/14/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG 6/13/2017	EPA 200.7	2	0.010	0.05	U	Not Detected	mg/L
Molybdenum, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Lead, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Thallium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	KRC 6/14/2017	SM 2540C	1		25		32.7	mg/L
Chloride, Total, by Test America	SGC 7/10/2017	SM 4500 CI_E	1	0.60	2.00		3.4	mg/L
Fluoride, Total, by Test America	SGC 7/10/2017	SM 4500 F_C	1	0.032	0.10	U	<0.032	mg/L
Sulfate, Total, by Test America	SGC 7/10/2017	SM 4500 SO4_E	1	1.40	5.00		7.1	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX13184

	,					-							—
				MB					LFB		Rec		Prec
Sample	Analysis	Units	МВ	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX13191	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115	92.4	70 to 130	2.33	20
AX13191	Mercury, Total by CVAA	mg/L	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046	96.9	70 to 130	0.386	20
AX13191	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115	88.9	70 to 130	1.59	20
AX13191	Lithium, Total	mg/L	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23	94.2	70 to 130	4.91	20
AX13191	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115	92.2	70 to 130	2.01	20
AX13191	Barium, Total	mg/L	0.00000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115	87.1	70 to 130	1.50	20
AX13191	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115	102	70 to 130	1.32	20
AX13191	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115	95.5	70 to 130	1.02	20
AX13191	Boron, Total	mg/L	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15	90.3	70 to 130	1.67	20
AX13191	Cobalt, Total	mg/L	0.00000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115	105	70 to 130	0.928	20
AX13191	Calcium, Total	mg/L	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75	98.7	70 to 130	0.817	20
AX13191	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115	98.5	70 to 130	0.672	20
AX13191	Cadmium, Total	mg/L	0.0000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115	89.2	70 to 130	1.07	20
AX13191	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115	101	70 to 130	0.584	20
AX13191	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115	106	70 to 130	1.49	20

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Expiration: June 30, 2018

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX13184

		,	MB		Sample	е	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX13229	Solids, Dissolved	mg/L 16.0	25	'	333	55.0	40 to 60		0.301	5

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MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114 Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX13185

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
Arsenic, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01		0.0780	mg/L
Beryllium, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
Boron, Total	HRG 6/13/2017	EPA 200.7	2	0.02	0.1	U	Not Detected	mg/L
Calcium, Total	HRG 6/13/2017	EPA 200.7	2	0.10	0.5		1.28	mg/L
Cadmium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
Antimony, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
Cobalt, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Chromium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB 6/14/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG 6/13/2017	EPA 200.7	2	0.010	0.05	U	Not Detected	mg/L
Molybdenum, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Lead, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Thallium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	KRC 6/14/2017	SM 2540C	1		25		42.7	mg/L
Chloride, Total, by Test America	SGC 7/10/2017	SM 4500 CI_E	1	0.60	2.00		3.4	mg/L
Fluoride, Total, by Test America	SGC 7/10/2017	SM 4500 F_C	1	0.032	0.10	U	<0.032	mg/L
Sulfate, Total, by Test America	SGC 7/10/2017	SM 4500 SO4_E	1	1.40	5.00		6.6	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX13185

	101 y 12 1101110011 70110100											
			MB					LFB		Rec		Pred
Sample	Analysis	Units MB	B Limi	t Spike	e MS	MSD	LFB	Limit	Rec	Limit	Prec	Limi
X13191	Antimony, Total	mg/L 0.00	000575 0.001	32 0.10	0.0889	0.0875	0.0950	0.085 to 0.115	88.9	70 to 130	1.59	20
X13191	Selenium, Total	mg/L 0.00	000258 0.004	0.10	0.0924	0.0903	0.0981	0.085 to 0.115	92.4	70 to 130	2.33	20
X13191	Mercury, Total by CVAA	mg/L 0.00	000545 0.000	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046	96.9	70 to 130	0.386	20
X13191	Barium, Total	mg/L 0.00	0000882 0.004	0.10	0.186	0.183	0.0925	0.085 to 0.115	87.1	70 to 130	1.50	20
X13191	Beryllium, Total	mg/L 0.00	000426 0.001	32 0.10	0.102	0.104	0.107	0.085 to 0.115	102	70 to 130	1.32	20
X13191	Arsenic, Total	mg/L 0.00	000205 0.002	0.10	0.0955	0.0946	0.100	0.085 to 0.115	95.5	70 to 130	1.02	20
X13191	Boron, Total	mg/L -0.0	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15	90.3	70 to 130	1.67	20
X13191	Cobalt, Total	mg/L 0.00	0000298 0.004	0.10	0.107	0.106	0.103	0.085 to 0.115	105	70 to 130	0.928	20
X13191	Calcium, Total	mg/L -0.0	0450 0.22	5.00	5.64	5.60	4.67	4.25 to 5.75	98.7	70 to 130	0.817	20
X13191	Thallium, Total	mg/L 0.00	000405 0.000	14 0.10	0.0985	0.0992	0.0989	0.085 to 0.115	98.5	70 to 130	0.672	20
X13191	Cadmium, Total	mg/L 0.00	0000569 0.000	14 0.10	0.0892	0.0882	0.0954	0.085 to 0.115	89.2	70 to 130	1.07	20
X13191	Chromium, Total	mg/L 0.00	000599 0.004	0.10	0.101	0.101	0.103	0.085 to 0.115	101	70 to 130	0.584	20
X13191	Lead, Total	mg/L 0.00	000340 0.002	0.10	0.106	0.105	0.101	0.085 to 0.115	106	70 to 130	1.49	20
X13191	Lithium, Total	mg/L -0.0	0000976 0.022	0.20	0.188	0.179	0.184	0.17 to 0.23	94.2	70 to 130	4.91	20
X13191	Molybdenum, Total	mg/L 0.00	000173 0.004	0.10	0.0922	0.0903	0.0943	0.085 to 0.115	92.2	70 to 130	2.01	20

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX13185

				MB			Sample	e	LFB	Rec		Prec
Sample	Analysis	Units	MB	Limit	Spike	LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX13229	Solids, Dissolved	mg/L	16.0	25			333	55.0	40 to 60		0.301	5

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX13186

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
* Arsenic, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01		0.0788	mg/L
* Beryllium, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 6/13/2017	EPA 200.7	2	0.02	0.1	J	0.0442	mg/L
* Calcium, Total	HRG 6/13/2017	EPA 200.7	2	0.10	0.5		1.66	mg/L
* Cadmium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
* Antimony, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Cobalt, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ABB 6/14/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 6/13/2017	EPA 200.7	2	0.010	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	J	0.00300	mg/L
* Thallium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	KRC 6/14/2017	SM 2540C	1		25		36.7	mg/L
* Chloride, Total, by Test America	SGC 7/10/2017	SM 4500 CI_E	1	0.60	2.00		3.4	mg/L
* Fluoride, Total, by Test America	SGC 7/10/2017	SM 4500 F_C	1	0.032	0.10	U	< 0.032	mg/L
* Sulfate, Total, by Test America	SGC 7/10/2017	SM 4500 SO4_E	1	1.40	5.00		8.6	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX13186

			MB				,	LFB	Rec		Pred
Sample	Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limi
X13191	Selenium, Total	mg/L 0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115	92.4 70 to 13	0 2.33	20
X13191	Antimony, Total	mg/L 0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115	88.9 70 to 13	0 1.59	20
X13191	Mercury, Total by CVAA	mg/L 0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046	96.9 70 to 13	0.386	20
X13191	Lithium, Total	mg/L -0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23	94.2 70 to 13	0 4.91	20
X13191	Molybdenum, Total	mg/L 0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115	92.2 70 to 13	0 2.01	20
X13191	Barium, Total	mg/L 0.00000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115	87.1 70 to 13	0 1.50	20
X13191	Beryllium, Total	mg/L 0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115	102 70 to 13	0 1.32	20
X13191	Calcium, Total	mg/L -0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75	98.7 70 to 13	0 0.817	20
X13191	Thallium, Total	mg/L 0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115	98.5 70 to 13	0 0.672	20
X13191	Arsenic, Total	mg/L 0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115	95.5 70 to 13	0 1.02	20
X13191	Boron, Total	mg/L -0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15	90.3 70 to 13	0 1.67	20
X13191	Cobalt, Total	mg/L 0.00000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115	105 70 to 13	0 0.928	20
X13191	Cadmium, Total	mg/L 0.00000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115	89.2 70 to 13	0 1.07	20
X13191	Chromium, Total	mg/L 0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115	101 70 to 13	0 0.584	20
X13191	Lead, Total	mg/L 0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115	106 70 to 13	0 1.49	20

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX13186

			MB			Sample	,	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LF	FM	Duplica	te LFB	Limit	Rec Limit	Prec	Limit
AX13229	Solids, Dissolved	mg/L 16.0	25			333	55.0	40 to 60		0.301	5

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX13187

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
* Arsenic, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01		0.0844	mg/L
* Beryllium, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 6/13/2017	EPA 200.7	2	0.02	0.1	J	0.0509	mg/L
* Calcium, Total	HRG 6/13/2017	EPA 200.7	2	0.10	0.5		4.72	mg/L
* Cadmium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
* Antimony, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Cobalt, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ABB 6/14/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 6/13/2017	EPA 200.7	2	0.010	0.05	U	Not Detected	mg/L
* Molybdenum, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	J	0.00576	mg/L
* Thallium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	KRC 6/14/2017	SM 2540C	1		25		47.3	mg/L
* Chloride, Total, by Test America	SGC 7/10/2017	SM 4500 CI_E	1	0.60	2.00		3.6	mg/L
* Fluoride, Total, by Test America	SGC 7/10/2017	SM 4500 F_C	1	0.032	0.10	U	<0.032	mg/L
* Sulfate, Total, by Test America	SGC 7/10/2017	SM 4500 SO4_E	1	1.40	5.00		10	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX13187

			MD					I FR	Poo		Prec
										_	
Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limi
Selenium, Total	mg/L (	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115	92.4 70 to 13	0 2.33	20
Antimony, Total	mg/L (	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115	88.9 70 to 13	0 1.59	20
Mercury, Total by CVAA	mg/L (	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046	96.9 70 to 13	0 0.386	20
Barium, Total	mg/L (	0.00000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115	87.1 70 to 13	0 1.50	20
Beryllium, Total	mg/L (	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115	102 70 to 13	0 1.32	20
Arsenic, Total	mg/L (	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115	95.5 70 to 13	0 1.02	20
Boron, Total	mg/L -	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15	90.3 70 to 13	0 1.67	20
Cobalt, Total	mg/L (	0.00000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115	105 70 to 13	0 0.928	20
Lithium, Total	mg/L -	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23	94.2 70 to 13	0 4.91	20
Molybdenum, Total	mg/L (	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115	92.2 70 to 13	0 2.01	20
Calcium, Total	mg/L -	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75	98.7 70 to 13	0 0.817	20
Thallium, Total	mg/L (	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115	98.5 70 to 13	0 0.672	20
Cadmium, Total	mg/L (	0.00000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115	89.2 70 to 13	0 1.07	20
Chromium, Total	mg/L (	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115	101 70 to 13	0 0.584	20
Lead, Total	mg/L (	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115	106 70 to 13	0 1.49	20
	Arsenic, Total Boron, Total Cobalt, Total	Selenium, Total mg/L Antimony, Total mg/L Mercury, Total by CVAA mg/L Barium, Total mg/L Beryllium, Total mg/L Arsenic, Total mg/L Boron, Total mg/L Cobalt, Total mg/L Lithium, Total mg/L Molybdenum, Total mg/L Calcium, Total mg/L Thallium, Total mg/L Cadmium, Total mg/L Cadmium, Total mg/L Cadmium, Total mg/L Cadmium, Total mg/L Chromium, Total mg/L	Selenium, Total         mg/L 0.0000258           Antimony, Total         mg/L 0.0000575           Mercury, Total by CVAA         mg/L 0.0000545           Barium, Total         mg/L 0.00000882           Beryllium, Total         mg/L 0.00000205           Arsenic, Total         mg/L 0.0000205           Boron, Total         mg/L 0.00000298           Lithium, Total         mg/L -0.0000976           Molybdenum, Total         mg/L 0.0000173           Calcium, Total         mg/L 0.0000405           Thallium, Total         mg/L 0.00000569           Chromium, Total         mg/L 0.0000599	Selenium, Total         mg/L         0.0000258         0.0044           Antimony, Total         mg/L         0.0000575         0.00132           Mercury, Total by CVAA         mg/L         0.0000545         0.0005           Barium, Total         mg/L         0.00000882         0.0044           Beryllium, Total         mg/L         0.0000426         0.00132           Arsenic, Total         mg/L         0.0000205         0.0022           Boron, Total         mg/L         0.00000298         0.0044           Cobalt, Total         mg/L         0.0000976         0.022           Molybdenum, Total         mg/L         0.0000173         0.0044           Calcium, Total         mg/L         0.000045         0.00044           Cadmium, Total         mg/L         0.0000569         0.00044           Chromium, Total         mg/L         0.0000569         0.00044	Analysis         Units MB         Limit         Spike           Selenium, Total         mg/L 0.0000258         0.0044         0.10           Antimony, Total         mg/L 0.0000575         0.00132         0.10           Mercury, Total by CVAA         mg/L 0.0000545         0.0005         0.004           Barium, Total         mg/L 0.00000882         0.0044         0.10           Beryllium, Total         mg/L 0.0000205         0.0022         0.10           Arsenic, Total         mg/L 0.0000205         0.0022         0.10           Boron, Total         mg/L 0.0000298         0.0044         1.00           Cobalt, Total         mg/L 0.00000298         0.0044         0.10           Lithium, Total         mg/L 0.0000173         0.0044         0.10           Molybdenum, Total         mg/L 0.0000173         0.0044         0.10           Calcium, Total         mg/L 0.0000405         0.00044         0.10           Cadmium, Total         mg/L 0.00000569         0.00044         0.10           Chromium, Total         mg/L 0.0000599         0.00044         0.10	Analysis         Units MB         Limit         Spike         MS           Selenium, Total         mg/L 0.0000258         0.0044         0.10         0.0924           Antimony, Total         mg/L 0.0000575         0.00132         0.10         0.0889           Mercury, Total by CVAA         mg/L 0.0000545         0.0005         0.004         0.00388           Barium, Total         mg/L 0.00000882         0.0044         0.10         0.186           Beryllium, Total         mg/L 0.0000426         0.00132         0.10         0.102           Arsenic, Total         mg/L 0.0000205         0.0022         0.10         0.0955           Boron, Total         mg/L -0.00396         0.044         1.00         0.903           Cobalt, Total         mg/L 0.0000298         0.0044         0.10         0.107           Lithium, Total         mg/L -0.0000976         0.022         0.20         0.188           Molybdenum, Total         mg/L 0.0000173         0.0044         0.10         0.0922           Calcium, Total         mg/L 0.0000405         0.00044         0.10         0.0985           Cadmium, Total         mg/L 0.00000569         0.00044         0.10         0.0892           Chromium, Total         mg/L	Analysis         Units MB         Limit         Spike         MS         MSD           Selenium, Total         mg/L 0.0000258         0.0044         0.10         0.0924         0.0903           Antimony, Total         mg/L 0.0000575         0.00132         0.10         0.0889         0.0875           Mercury, Total by CVAA         mg/L 0.0000545         0.0005         0.004         0.00388         0.00388           Barium, Total         mg/L 0.00000882         0.0044         0.10         0.186         0.183           Beryllium, Total         mg/L 0.0000426         0.00132         0.10         0.102         0.104           Arsenic, Total         mg/L 0.0000205         0.0022         0.10         0.0955         0.0946           Boron, Total         mg/L 0.0000298         0.0044         1.00         0.903         0.918           Cobalt, Total         mg/L 0.00000298         0.0044         0.10         0.107         0.106           Lithium, Total         mg/L 0.0000076         0.022         0.20         0.188         0.179           Molybdenum, Total         mg/L 0.0000173         0.0044         0.10         0.0922         0.0993           Calcium, Total         mg/L 0.0000405         0.00044 <td< td=""><td>Analysis         Units MB         Limit         Spike         MS         MSD         LFB           Selenium, Total         mg/L 0.0000258         0.0044         0.10         0.0924         0.0903         0.0981           Antimony, Total         mg/L 0.0000575         0.00132         0.10         0.0889         0.00389         0.00390           Mercury, Total by CVAA         mg/L 0.0000545         0.0005         0.004         0.00388         0.00389         0.00390           Barium, Total         mg/L 0.00000882         0.0044         0.10         0.186         0.183         0.0925           Beryllium, Total         mg/L 0.00000265         0.00132         0.10         0.102         0.104         0.107           Arsenic, Total         mg/L 0.0000205         0.0022         0.10         0.0955         0.0946         0.100           Boron, Total         mg/L 0.0000298         0.0044         1.00         0.903         0.918         0.904           Cobalt, Total         mg/L 0.00000298         0.0044         0.10         0.107         0.106         0.103           Lithium, Total         mg/L 0.0000173         0.0044         0.10         0.0922         0.0903         0.0943           Calcium, Total</td><td>Analysis         Units MB         Limit         Spike         MS         MSD         LFB         Limit           Selenium, Total         mg/L 0.0000258         0.0044         0.10         0.0924         0.0903         0.0981         0.085 to 0.115           Antimony, Total         mg/L 0.0000575         0.00132         0.10         0.0889         0.00875         0.0950         0.085 to 0.115           Mercury, Total by CVAA         mg/L 0.0000545         0.0005         0.004         0.00388         0.00389         0.00390         0.0034 to 0.0046           Barium, Total         mg/L 0.00000426         0.00132         0.10         0.183         0.0925         0.085 to 0.115           Beryllium, Total         mg/L 0.0000426         0.00132         0.10         0.102         0.104         0.107         0.085 to 0.115           Arsenic, Total         mg/L 0.0000295         0.0022         0.10         0.0955         0.0946         0.100         0.085 to 0.115           Boron, Total         mg/L 0.0000298         0.0044         1.00         0.903         0.918         0.904         0.85 to 1.15           Cobalt, Total         mg/L 0.0000073         0.0022         0.20         0.188         0.179         0.184         0.17 to 0.23     <td>Analysis Units MB Limit Spike MS MSD LFB Limit Rec Limit Selenium, Total mg/L 0.0000258 0.0044 0.10 0.0924 0.0903 0.0981 0.085 to 0.115 92.4 70 to 13 Antimony, Total mg/L 0.0000575 0.00132 0.10 0.0889 0.0875 0.0950 0.085 to 0.115 88.9 70 to 13 Mercury, Total by CVAA mg/L 0.0000545 0.0005 0.004 0.00388 0.00389 0.00390 0.0034 to 0.0046 96.9 70 to 13 Barium, Total mg/L 0.00000882 0.0044 0.10 0.186 0.183 0.0925 0.085 to 0.115 87.1 70 to 13 Beryllium, Total mg/L 0.0000426 0.00132 0.10 0.102 0.104 0.107 0.085 to 0.115 95.5 70 to 13 Boron, Total mg/L 0.0000205 0.0022 0.100 0.0955 0.0946 0.100 0.085 to 0.115 95.5 70 to 13 Boron, Total mg/L 0.0000208 0.0044 1.00 0.903 0.918 0.904 0.85 to 1.15 90.3 70 to 13 Cobalt, Total mg/L 0.00000298 0.0044 0.10 0.107 0.106 0.103 0.085 to 0.115 95.5 70 to 13 Lithium, Total mg/L 0.00000298 0.0044 0.10 0.0922 0.0903 0.0943 0.085 to 0.115 92.2 70 to 13 Molybdenum, Total mg/L 0.0000173 0.0044 0.10 0.0922 0.0903 0.0943 0.085 to 0.115 92.2 70 to 13 Calcium, Total mg/L 0.0000173 0.0044 0.10 0.0922 0.0903 0.0943 0.085 to 0.115 92.2 70 to 13 Calcium, Total mg/L 0.0000405 0.022 5.00 5.64 5.60 4.67 4.25 to 5.75 98.7 70 to 13 Calcium, Total mg/L 0.0000469 0.00044 0.10 0.0982 0.0982 0.0989 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000169 0.00044 0.10 0.0982 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.000170 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0</td><td>Analysis         Units MB         Limit         Spike         MS         MSD         LFB         Limit         Rec         Limit         Prec           Selenium, Total         mg/L 0.0000258         0.0044         0.10         0.0924         0.0903         0.0981         0.085 to 0.115         92.4         70 to 130         2.33           Antimony, Total         mg/L 0.0000575         0.00132         0.10         0.0889         0.0089         0.00950         0.0085 to 0.115         88.9         70 to 130         1.59           Mercury, Total by CVAA         mg/L 0.00000545         0.0005         0.004         0.0038         0.00389         0.00390         0.0034 to 0.0046         96.9         70 to 130         0.386           Barium, Total         mg/L 0.00000822         0.004         0.10         0.188         0.0925         0.085 to 0.115         87.1         70 to 130         1.30           Beryllium, Total         mg/L 0.0000205         0.0022         0.10         0.102         0.104         0.107         0.085 to 0.115         95.5         70 to 130         1.02           Arsenic, Total         mg/L 0.0000205         0.0042         0.10         0.0945         0.094         0.85 to 1.15         90.3         70 to 130         1.02<!--</td--></td></td></td<>	Analysis         Units MB         Limit         Spike         MS         MSD         LFB           Selenium, Total         mg/L 0.0000258         0.0044         0.10         0.0924         0.0903         0.0981           Antimony, Total         mg/L 0.0000575         0.00132         0.10         0.0889         0.00389         0.00390           Mercury, Total by CVAA         mg/L 0.0000545         0.0005         0.004         0.00388         0.00389         0.00390           Barium, Total         mg/L 0.00000882         0.0044         0.10         0.186         0.183         0.0925           Beryllium, Total         mg/L 0.00000265         0.00132         0.10         0.102         0.104         0.107           Arsenic, Total         mg/L 0.0000205         0.0022         0.10         0.0955         0.0946         0.100           Boron, Total         mg/L 0.0000298         0.0044         1.00         0.903         0.918         0.904           Cobalt, Total         mg/L 0.00000298         0.0044         0.10         0.107         0.106         0.103           Lithium, Total         mg/L 0.0000173         0.0044         0.10         0.0922         0.0903         0.0943           Calcium, Total	Analysis         Units MB         Limit         Spike         MS         MSD         LFB         Limit           Selenium, Total         mg/L 0.0000258         0.0044         0.10         0.0924         0.0903         0.0981         0.085 to 0.115           Antimony, Total         mg/L 0.0000575         0.00132         0.10         0.0889         0.00875         0.0950         0.085 to 0.115           Mercury, Total by CVAA         mg/L 0.0000545         0.0005         0.004         0.00388         0.00389         0.00390         0.0034 to 0.0046           Barium, Total         mg/L 0.00000426         0.00132         0.10         0.183         0.0925         0.085 to 0.115           Beryllium, Total         mg/L 0.0000426         0.00132         0.10         0.102         0.104         0.107         0.085 to 0.115           Arsenic, Total         mg/L 0.0000295         0.0022         0.10         0.0955         0.0946         0.100         0.085 to 0.115           Boron, Total         mg/L 0.0000298         0.0044         1.00         0.903         0.918         0.904         0.85 to 1.15           Cobalt, Total         mg/L 0.0000073         0.0022         0.20         0.188         0.179         0.184         0.17 to 0.23 <td>Analysis Units MB Limit Spike MS MSD LFB Limit Rec Limit Selenium, Total mg/L 0.0000258 0.0044 0.10 0.0924 0.0903 0.0981 0.085 to 0.115 92.4 70 to 13 Antimony, Total mg/L 0.0000575 0.00132 0.10 0.0889 0.0875 0.0950 0.085 to 0.115 88.9 70 to 13 Mercury, Total by CVAA mg/L 0.0000545 0.0005 0.004 0.00388 0.00389 0.00390 0.0034 to 0.0046 96.9 70 to 13 Barium, Total mg/L 0.00000882 0.0044 0.10 0.186 0.183 0.0925 0.085 to 0.115 87.1 70 to 13 Beryllium, Total mg/L 0.0000426 0.00132 0.10 0.102 0.104 0.107 0.085 to 0.115 95.5 70 to 13 Boron, Total mg/L 0.0000205 0.0022 0.100 0.0955 0.0946 0.100 0.085 to 0.115 95.5 70 to 13 Boron, Total mg/L 0.0000208 0.0044 1.00 0.903 0.918 0.904 0.85 to 1.15 90.3 70 to 13 Cobalt, Total mg/L 0.00000298 0.0044 0.10 0.107 0.106 0.103 0.085 to 0.115 95.5 70 to 13 Lithium, Total mg/L 0.00000298 0.0044 0.10 0.0922 0.0903 0.0943 0.085 to 0.115 92.2 70 to 13 Molybdenum, Total mg/L 0.0000173 0.0044 0.10 0.0922 0.0903 0.0943 0.085 to 0.115 92.2 70 to 13 Calcium, Total mg/L 0.0000173 0.0044 0.10 0.0922 0.0903 0.0943 0.085 to 0.115 92.2 70 to 13 Calcium, Total mg/L 0.0000405 0.022 5.00 5.64 5.60 4.67 4.25 to 5.75 98.7 70 to 13 Calcium, Total mg/L 0.0000469 0.00044 0.10 0.0982 0.0982 0.0989 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000169 0.00044 0.10 0.0982 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.000170 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0</td> <td>Analysis         Units MB         Limit         Spike         MS         MSD         LFB         Limit         Rec         Limit         Prec           Selenium, Total         mg/L 0.0000258         0.0044         0.10         0.0924         0.0903         0.0981         0.085 to 0.115         92.4         70 to 130         2.33           Antimony, Total         mg/L 0.0000575         0.00132         0.10         0.0889         0.0089         0.00950         0.0085 to 0.115         88.9         70 to 130         1.59           Mercury, Total by CVAA         mg/L 0.00000545         0.0005         0.004         0.0038         0.00389         0.00390         0.0034 to 0.0046         96.9         70 to 130         0.386           Barium, Total         mg/L 0.00000822         0.004         0.10         0.188         0.0925         0.085 to 0.115         87.1         70 to 130         1.30           Beryllium, Total         mg/L 0.0000205         0.0022         0.10         0.102         0.104         0.107         0.085 to 0.115         95.5         70 to 130         1.02           Arsenic, Total         mg/L 0.0000205         0.0042         0.10         0.0945         0.094         0.85 to 1.15         90.3         70 to 130         1.02<!--</td--></td>	Analysis Units MB Limit Spike MS MSD LFB Limit Rec Limit Selenium, Total mg/L 0.0000258 0.0044 0.10 0.0924 0.0903 0.0981 0.085 to 0.115 92.4 70 to 13 Antimony, Total mg/L 0.0000575 0.00132 0.10 0.0889 0.0875 0.0950 0.085 to 0.115 88.9 70 to 13 Mercury, Total by CVAA mg/L 0.0000545 0.0005 0.004 0.00388 0.00389 0.00390 0.0034 to 0.0046 96.9 70 to 13 Barium, Total mg/L 0.00000882 0.0044 0.10 0.186 0.183 0.0925 0.085 to 0.115 87.1 70 to 13 Beryllium, Total mg/L 0.0000426 0.00132 0.10 0.102 0.104 0.107 0.085 to 0.115 95.5 70 to 13 Boron, Total mg/L 0.0000205 0.0022 0.100 0.0955 0.0946 0.100 0.085 to 0.115 95.5 70 to 13 Boron, Total mg/L 0.0000208 0.0044 1.00 0.903 0.918 0.904 0.85 to 1.15 90.3 70 to 13 Cobalt, Total mg/L 0.00000298 0.0044 0.10 0.107 0.106 0.103 0.085 to 0.115 95.5 70 to 13 Lithium, Total mg/L 0.00000298 0.0044 0.10 0.0922 0.0903 0.0943 0.085 to 0.115 92.2 70 to 13 Molybdenum, Total mg/L 0.0000173 0.0044 0.10 0.0922 0.0903 0.0943 0.085 to 0.115 92.2 70 to 13 Calcium, Total mg/L 0.0000173 0.0044 0.10 0.0922 0.0903 0.0943 0.085 to 0.115 92.2 70 to 13 Calcium, Total mg/L 0.0000405 0.022 5.00 5.64 5.60 4.67 4.25 to 5.75 98.7 70 to 13 Calcium, Total mg/L 0.0000469 0.00044 0.10 0.0982 0.0982 0.0989 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000169 0.00044 0.10 0.0982 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 13 Calcium, Total mg/L 0.0000569 0.00044 0.10 0.000170 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0.101 0	Analysis         Units MB         Limit         Spike         MS         MSD         LFB         Limit         Rec         Limit         Prec           Selenium, Total         mg/L 0.0000258         0.0044         0.10         0.0924         0.0903         0.0981         0.085 to 0.115         92.4         70 to 130         2.33           Antimony, Total         mg/L 0.0000575         0.00132         0.10         0.0889         0.0089         0.00950         0.0085 to 0.115         88.9         70 to 130         1.59           Mercury, Total by CVAA         mg/L 0.00000545         0.0005         0.004         0.0038         0.00389         0.00390         0.0034 to 0.0046         96.9         70 to 130         0.386           Barium, Total         mg/L 0.00000822         0.004         0.10         0.188         0.0925         0.085 to 0.115         87.1         70 to 130         1.30           Beryllium, Total         mg/L 0.0000205         0.0022         0.10         0.102         0.104         0.107         0.085 to 0.115         95.5         70 to 130         1.02           Arsenic, Total         mg/L 0.0000205         0.0042         0.10         0.0945         0.094         0.85 to 1.15         90.3         70 to 130         1.02 </td

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX13187

			MB			Sample	•	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LF	FM	Duplica	te LFB	Limit	Rec Limit	Prec	Limit
AX13229	Solids, Dissolved	mg/L 16.0	25			333	55.0	40 to 60		0.301	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 07-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX13188

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
Arsenic, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U Not Detecte	d mg/L
Barium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	0.0437	mg/L
Beryllium, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U Not Detecte	d mg/L
Boron, Total	HRG 6/13/2017	EPA 200.7	2	0.02	0.1	U Not Detecte	d mg/L
Calcium, Total	HRG 6/13/2017	EPA 200.7	2	0.10	0.5	1.29	mg/L
Cadmium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U Not Detecte	d mg/L
Antimony, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U Not Detecte	d mg/L
Cobalt, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detecte	d mg/L
Chromium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detecte	d mg/L
Mercury, Total by CVAA	ABB 6/14/2017	EPA 245.1	1	0.00025	0.0005	U Not Detecte	d mg/L
Lithium, Total	HRG 6/13/2017	EPA 200.7	2	0.010	0.05	U Not Detecte	d mg/L
Molybdenum, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detecte	d mg/L
Lead, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U Not Detecte	d mg/L
Selenium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detecte	d mg/L
Thallium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U Not Detecte	d mg/L
General Characteristics							
Solids, Dissolved	KRC 6/21/2017	SM 2540C	1		25	28.0	mg/L
Chloride, Total, by Test America	SGC 7/10/2017	SM 4500 CI_E	1	0.60	2.00	6.3	mg/L
Fluoride, Total, by Test America	SGC 7/10/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
Sulfate, Total, by Test America	SGC 7/10/2017	SM 4500 SO4_E	1	1.40	5.00	J 3.1	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 07-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX13188

		'	MR					I FR		Pac		Prec
Δnalveis	l Inite	MR		Snike	MS	MSD	I FR		Rec		Prec	Limit
					-	-						
Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115	92.4 7	0 to 130	2.33	20
Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115	88.9 7	0 to 130	1.59	20
Mercury, Total by CVAA	mg/L	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046	96.9 7	0 to 130	0.386	20
Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115	95.5 7	0 to 130	1.02	20
Boron, Total	mg/L	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15	90.3 7	0 to 130	1.67	20
Cobalt, Total	mg/L	0.00000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115	105 7	0 to 130	0.928	20
Barium, Total	mg/L	0.00000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115	87.1 7	0 to 130	1.50	20
Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115	102 7	0 to 130	1.32	20
Lithium, Total	mg/L	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23	94.2 7	0 to 130	4.91	20
Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115	92.2 7	0 to 130	2.01	20
Calcium, Total	mg/L	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75	98.7 7	0 to 130	0.817	20
Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115	98.5 7	0 to 130	0.672	20
Cadmium, Total	mg/L	0.00000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115	89.2 7	0 to 130	1.07	20
Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115	101 7	0 to 130	0.584	20
Lead, Total	mg/L	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115	106 7	0 to 130	1.49	20
	Cobalt, Total Barium, Total Beryllium, Total	Selenium, Total mg/L Antimony, Total mg/L Mercury, Total by CVAA mg/L Arsenic, Total mg/L Boron, Total mg/L Cobalt, Total mg/L Barium, Total mg/L Beryllium, Total mg/L Lithium, Total mg/L Molybdenum, Total mg/L Calcium, Total mg/L Thallium, Total mg/L Cadmium, Total mg/L Cadmium, Total mg/L Chromium, Total mg/L	Selenium, Total         mg/L         0.0000258           Antimony, Total         mg/L         0.0000575           Mercury, Total by CVAA         mg/L         0.0000545           Arsenic, Total         mg/L         0.0000205           Boron, Total         mg/L         -0.00396           Cobalt, Total         mg/L         0.00000298           Barium, Total         mg/L         0.00000882           Beryllium, Total         mg/L         -0.0000976           Molybdenum, Total         mg/L         0.0000173           Calcium, Total         mg/L         0.0000405           Thallium, Total         mg/L         0.00000569           Chromium, Total         mg/L         0.0000599	Selenium, Total         mg/L         0.0000258         0.0044           Antimony, Total         mg/L         0.0000575         0.00132           Mercury, Total by CVAA         mg/L         0.0000545         0.0005           Arsenic, Total         mg/L         0.0000205         0.0022           Boron, Total         mg/L         -0.00396         0.044           Cobalt, Total         mg/L         0.00000298         0.0044           Barium, Total         mg/L         0.00000882         0.0044           Beryllium, Total         mg/L         0.00000426         0.00132           Lithium, Total         mg/L         0.0000976         0.022           Molybdenum, Total         mg/L         0.0000173         0.0044           Calcium, Total         mg/L         0.000045         0.00044           Cadmium, Total         mg/L         0.00000569         0.00044           Chromium, Total         mg/L         0.0000569         0.00044	Analysis         Units MB         Limit         Spike           Selenium, Total         mg/L 0.0000258         0.0044         0.10           Antimony, Total         mg/L 0.0000575         0.00132         0.10           Mercury, Total by CVAA         mg/L 0.0000545         0.0005         0.004           Arsenic, Total         mg/L 0.0000205         0.0022         0.10           Boron, Total         mg/L 0.0000298         0.0044         1.00           Cobalt, Total         mg/L 0.00000298         0.0044         0.10           Barium, Total         mg/L 0.00000882         0.0044         0.10           Beryllium, Total         mg/L 0.0000426         0.00132         0.10           Lithium, Total         mg/L 0.0000976         0.022         0.20           Molybdenum, Total         mg/L 0.0000173         0.0044         0.10           Calcium, Total         mg/L 0.0000405         0.00044         0.10           Cadmium, Total         mg/L 0.00000569         0.00044         0.10           Chromium, Total         mg/L 0.00000599         0.00044         0.10	Analysis         Units MB         Limit         Spike         MS           Selenium, Total         mg/L 0.0000258         0.0044         0.10         0.0924           Antimony, Total         mg/L 0.0000575         0.00132         0.10         0.0889           Mercury, Total by CVAA         mg/L 0.0000545         0.0005         0.004         0.00388           Arsenic, Total         mg/L 0.0000205         0.0022         0.10         0.0955           Boron, Total         mg/L -0.00396         0.044         1.00         0.903           Cobalt, Total         mg/L 0.00000298         0.0044         0.10         0.107           Barium, Total         mg/L 0.00000882         0.0044         0.10         0.186           Beryllium, Total         mg/L 0.0000426         0.00132         0.10         0.102           Lithium, Total         mg/L 0.0000976         0.022         0.20         0.188           Molybdenum, Total         mg/L 0.0000173         0.0044         0.10         0.0922           Calcium, Total         mg/L 0.0000405         0.00044         0.10         0.0985           Cadmium, Total         mg/L 0.00000569         0.00044         0.10         0.0892           Chromium, Total         mg/L	Analysis         Units MB         Limit         Spike         MS         MSD           Selenium, Total         mg/L 0.0000258         0.0044         0.10         0.0924         0.0903           Antimony, Total         mg/L 0.0000575         0.00132         0.10         0.0889         0.0875           Mercury, Total by CVAA         mg/L 0.0000545         0.0005         0.004         0.00388         0.00389           Arsenic, Total         mg/L 0.0000205         0.0022         0.10         0.0955         0.0946           Boron, Total         mg/L 0.00396         0.044         1.00         0.903         0.918           Cobalt, Total         mg/L 0.00000298         0.0044         0.10         0.107         0.106           Barium, Total         mg/L 0.00000882         0.0044         0.10         0.186         0.183           Beryllium, Total         mg/L 0.0000426         0.00132         0.10         0.102         0.104           Lithium, Total         mg/L 0.0000976         0.022         0.20         0.188         0.179           Molybdenum, Total         mg/L 0.0000173         0.0044         0.10         0.0922         0.0993           Calcium, Total         mg/L 0.0000405         0.00044         0.	Analysis         Units MB         Limit         Spike         MS         MSD         LFB           Selenium, Total         mg/L 0.0000258         0.0044         0.10         0.0924         0.0903         0.0981           Antimony, Total         mg/L 0.0000575         0.00132         0.10         0.0889         0.0035         0.0950           Mercury, Total by CVAA         mg/L 0.0000205         0.0005         0.004         0.00388         0.00389         0.00389           Arsenic, Total         mg/L 0.0000205         0.0022         0.10         0.0955         0.0946         0.100           Boron, Total         mg/L 0.0000298         0.0044         1.00         0.903         0.918         0.904           Cobalt, Total         mg/L 0.00000298         0.0044         0.10         0.107         0.106         0.103           Barium, Total         mg/L 0.00000882         0.0044         0.10         0.186         0.183         0.0925           Beryllium, Total         mg/L 0.00000426         0.00132         0.10         0.102         0.104         0.107           Lithium, Total         mg/L 0.00000173         0.0044         0.10         0.0922         0.0903         0.0943           Calcium, Total         <	Analysis         Units MB         Limit         Spike         MS         MSD         LFB         Limit           Selenium, Total         mg/L 0.0000258         0.0044         0.10         0.0924         0.0903         0.0981         0.085 to 0.115           Antimony, Total         mg/L 0.0000575         0.00132         0.10         0.0889         0.00875         0.0950         0.085 to 0.115           Mercury, Total by CVAA         mg/L 0.0000545         0.0005         0.004         0.00388         0.00389         0.00390         0.0034 to 0.0046           Arsenic, Total         mg/L 0.0000205         0.0022         0.10         0.0955         0.0946         0.100         0.085 to 0.115           Boron, Total         mg/L 0.0000298         0.0044         1.00         0.903         0.918         0.904         0.85 to 1.15           Cobalt, Total         mg/L 0.00000298         0.0044         0.10         0.107         0.106         0.103         0.085 to 0.115           Barium, Total         mg/L 0.00000882         0.0044         0.10         0.186         0.183         0.0925         0.085 to 0.115           Beryllium, Total         mg/L 0.0000976         0.022         0.20         0.188         0.179         0.184         0.17	Analysis         Units MB         Limit         Spike         MS         MSD         LFB         Limit         Rec           Selenium, Total         mg/L 0.0000258         0.0044         0.10         0.0924         0.0903         0.0981         0.085 to 0.115         92.4         7           Antimony, Total         mg/L 0.0000575         0.00132         0.10         0.0889         0.0875         0.0950         0.085 to 0.115         88.9         7           Mercury, Total by CVAA         mg/L 0.0000545         0.0005         0.004         0.00388         0.00389         0.00390         0.0034 to 0.0046         96.9         7           Arsenic, Total         mg/L 0.0000205         0.0022         0.10         0.0955         0.0946         0.100         0.085 to 0.115         95.5         7           Boron, Total         mg/L 0.0000298         0.0044         1.00         0.903         0.918         0.904         0.85 to 0.115         90.3         7           Cobalt, Total         mg/L 0.00000298         0.0044         0.10         0.107         0.106         0.103         0.085 to 0.115         87.1         7           Beryllium, Total         mg/L 0.00000426         0.00132         0.10         0.102         0.104	Analysis         Units MB         Limit         Spike         MS         MSD         LFB         Limit         Rec         Limit           Selenium, Total         mg/L         0.0000258         0.0044         0.10         0.0924         0.0903         0.0981         0.085 to 0.115         92.4         70 to 130           Antimony, Total         mg/L         0.0000575         0.00132         0.10         0.0889         0.0875         0.0950         0.085 to 0.115         88.9         70 to 130           Mercury, Total by CVAA         mg/L         0.0000545         0.0005         0.004         0.00388         0.00389         0.00340         0.0034 to 0.0046         96.9         70 to 130           Arsenic, Total         mg/L         0.0000205         0.0022         0.10         0.0955         0.0946         0.100         0.085 to 0.115         95.5         70 to 130           Boron, Total         mg/L         0.00396         0.044         1.00         0.903         0.918         0.904         0.85 to 1.15         90.3         70 to 130           Cobalt, Total         mg/L         0.00000288         0.0044         0.10         0.107         0.106         0.103         0.085 to 0.115         87.1         70 to 130	Analysis         Units MB         Limit         Spike         MS         MSD         LFB         Limit         Rec         Limit         Prec           Selenium, Total         mg/L 0.0000258         0.0044         0.10         0.0924         0.0903         0.0981         0.085 to 0.115         92.4 70 to 130         2.33           Antimony, Total         mg/L 0.0000575         0.00132         0.10         0.0889         0.0375         0.0950         0.0084 to 0.0165         88.9 70 to 130         1.59           Mercury, Total by CVAA         mg/L 0.0000255         0.0022         0.10         0.0985         0.0946         0.100         0.085 to 0.115         95.5 70 to 130         0.386           Arsenic, Total         mg/L 0.0000205         0.0022         0.10         0.0955         0.0946         0.100         0.085 to 0.115         95.5 70 to 130         1.02           Boron, Total         mg/L 0.0000298         0.044         1.00         0.903         0.918         0.904         0.85 to 0.115         90.3 70 to 130         0.928           Barium, Total         mg/L 0.0000082         0.0044         0.10         0.106         0.103         0.085 to 0.115         87.1 70 to 130         1.92           Beryllium, Total         mg/L 0.0000426

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 07-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX13188

			MB			Sample	)	LFB	Rec	1	Prec
Sample	Analysis	Units MB	Limit	Spike LFI	М	Duplica	te LFB	Limit	Rec Limit	Prec	Limit
AX13150	Solids, Dissolved	mg/L 0.00	25	,		255	51.0	40 to 60		0.00	5

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MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 07-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX13189

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
* Arsenic, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01		0.0287	mg/L
* Beryllium, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 6/13/2017	EPA 200.7	2	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 6/13/2017	EPA 200.7	2	0.10	0.5		0.545	mg/L
* Cadmium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
* Antimony, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Cobalt, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Chromium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	J	0.00220	mg/L
* Mercury, Total by CVAA	ABB 6/14/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 6/13/2017	EPA 200.7	2	0.010	0.05	U	Not Detected	mg/L
<ul> <li>Molybdenum, Total</li> </ul>	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	KRC 6/21/2017	SM 2540C	1		25	U	Not Detected	mg/L
* Chloride, Total, by Test America	SGC 7/10/2017	SM 4500 CI_E	1	0.60	2.00		4.1	mg/L
* Fluoride, Total, by Test America	SGC 7/10/2017	SM 4500 F_C	1	0.032	0.10	U	<0.032	mg/L
* Sulfate, Total, by Test America	SGC 7/10/2017	SM 4500 SO4_E	1	1.40	5.00	J	2.9	mg/L

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MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 07-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX13189

			MD					LED	Б		D
			MB					LFB	Rec		Pred
Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	<u>Limit</u>
Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115	92.4 70 to 13	2.33	20
Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115	88.9 70 to 13	1.59	20
Mercury, Total by CVAA	mg/L	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046	96.9 70 to 13	0.386	20
Barium, Total	mg/L	0.00000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115	87.1 70 to 13	1.50	20
Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115	102 70 to 13	0 1.32	20
Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115	95.5 70 to 13	0 1.02	20
Boron, Total	mg/L	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15	90.3 70 to 13	1.67	20
Cobalt, Total	mg/L	0.00000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115	105 70 to 13	0.928	20
Lithium, Total	mg/L	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23	94.2 70 to 13	0 4.91	20
Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115	92.2 70 to 13	2.01	20
Calcium, Total	mg/L	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75	98.7 70 to 13	0.817	20
Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115	98.5 70 to 13	0.672	20
Cadmium, Total	mg/L	0.00000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115	89.2 70 to 13	1.07	20
Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115	101 70 to 13	0.584	20
Lead, Total	mg/L	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115	106 70 to 13	1.49	20
S / I E I ( I I ( - ( (	Selenium, Total Antimony, Total Antimony, Total Mercury, Total by CVAA Barium, Total Beryllium, Total Arsenic, Total Boron, Total Cobalt, Total Lithium, Total Molybdenum, Total Calcium, Total Thallium, Total Cadmium, Total Cadmium, Total	Selenium, Total mg/L Antimony, Total mg/L Antimony, Total mg/L Mercury, Total by CVAA mg/L Barium, Total mg/L Beryllium, Total mg/L Arsenic, Total mg/L Boron, Total mg/L Cobalt, Total mg/L Lithium, Total mg/L Molybdenum, Total mg/L Calcium, Total mg/L Thallium, Total mg/L Cadmium, Total mg/L Cadmium, Total mg/L Chromium, Total mg/L	Selenium, Total         mg/L         0.0000258           Antimony, Total         mg/L         0.0000575           Mercury, Total by CVAA         mg/L         0.0000545           Barium, Total         mg/L         0.00000882           Beryllium, Total         mg/L         0.00000426           Arsenic, Total         mg/L         0.00000205           Boron, Total         mg/L         0.00000298           Cobalt, Total         mg/L         0.00000976           Molybdenum, Total         mg/L         0.0000173           Calcium, Total         mg/L         0.0000405           Thallium, Total         mg/L         0.00000569           Chromium, Total         mg/L         0.0000599	Analysis Units MB Limit  Selenium, Total mg/L 0.0000258 0.0044  Antimony, Total mg/L 0.0000575 0.00132  Mercury, Total by CVAA mg/L 0.0000545 0.0005  Barium, Total mg/L 0.00000882 0.0044  Beryllium, Total mg/L 0.0000426 0.00132  Arsenic, Total mg/L 0.0000205 0.0022  Boron, Total mg/L -0.00396 0.044  Cobalt, Total mg/L 0.00000298 0.0044  Lithium, Total mg/L -0.0000976 0.022  Molybdenum, Total mg/L -0.0000173 0.0044  Calcium, Total mg/L -0.0450 0.22  Thallium, Total mg/L 0.00000569 0.00044  Cadmium, Total mg/L 0.00000569 0.00044  Chromium, Total mg/L 0.0000569 0.00044	Analysis Units MB Limit Spike Selenium, Total mg/L 0.0000258 0.0044 0.10 Antimony, Total mg/L 0.0000575 0.00132 0.10 Mercury, Total by CVAA mg/L 0.0000545 0.0005 0.004 Barium, Total mg/L 0.00000882 0.0044 0.10 Beryllium, Total mg/L 0.0000426 0.00132 0.10 Arsenic, Total mg/L 0.0000205 0.0022 0.10 Boron, Total mg/L -0.00396 0.044 1.00 Cobalt, Total mg/L -0.0000298 0.0044 0.10 Lithium, Total mg/L -0.0000976 0.022 0.20 Molybdenum, Total mg/L -0.0000173 0.0044 0.10 Calcium, Total mg/L -0.0450 0.22 5.00 Thallium, Total mg/L 0.000045 0.00044 0.10 Cadmium, Total mg/L 0.00000569 0.00044 0.10 Cadmium, Total mg/L 0.00000599 0.00044 0.10 Chromium, Total mg/L 0.00000599 0.00044 0.10	Analysis Units MB Limit Spike MS Selenium, Total mg/L 0.0000258 0.0044 0.10 0.0924 Antimony, Total mg/L 0.0000575 0.00132 0.10 0.0889 Mercury, Total by CVAA mg/L 0.0000545 0.0005 0.004 0.00388 Barium, Total mg/L 0.0000882 0.0044 0.10 0.186 Beryllium, Total mg/L 0.0000426 0.00132 0.10 0.102 Arsenic, Total mg/L 0.0000205 0.0022 0.10 0.0955 Boron, Total mg/L -0.00396 0.044 1.00 0.903 Cobalt, Total mg/L 0.0000298 0.0044 0.10 0.107 Lithium, Total mg/L -0.000976 0.022 0.20 0.188 Molybdenum, Total mg/L -0.0045 0.022 5.00 5.64 Thallium, Total mg/L 0.0000405 0.00044 0.10 0.0985 Cadmium, Total mg/L 0.0000569 0.00044 0.10 0.0985 Cadmium, Total mg/L 0.0000569 0.00044 0.10 0.0985 Cadmium, Total mg/L 0.0000569 0.00044 0.10 0.0892 Chromium, Total mg/L 0.0000599 0.0044 0.10 0.101	Analysis Units MB Limit Spike MS MSD Selenium, Total mg/L 0.0000258 0.0044 0.10 0.0924 0.0903 Antimony, Total mg/L 0.0000575 0.00132 0.10 0.0889 0.0875 Mercury, Total by CVAA mg/L 0.0000545 0.0005 0.004 0.00388 0.00389 Barium, Total mg/L 0.00000882 0.0044 0.10 0.186 0.183 Beryllium, Total mg/L 0.0000426 0.00132 0.10 0.102 0.104 Arsenic, Total mg/L 0.0000205 0.0022 0.10 0.0955 0.0946 Boron, Total mg/L -0.00396 0.044 1.00 0.903 0.918 Cobalt, Total mg/L 0.0000298 0.0044 0.10 0.107 0.106 Lithium, Total mg/L -0.000976 0.022 0.20 0.188 0.179 Molybdenum, Total mg/L -0.0000173 0.0044 0.10 0.0922 0.0903 Calcium, Total mg/L -0.0450 0.22 5.00 5.64 5.60 Thallium, Total mg/L 0.00000569 0.00044 0.10 0.0892 0.0882 Chromium, Total mg/L 0.0000599 0.00044 0.10 0.0892 0.0882 Chromium, Total mg/L 0.0000599 0.00044 0.10 0.101 0.101	Analysis Units MB Limit Spike MS MSD LFB Selenium, Total mg/L 0.0000258 0.0044 0.10 0.0924 0.0903 0.0981 Antimony, Total mg/L 0.0000575 0.00132 0.10 0.0889 0.0875 0.0950 Mercury, Total by CVAA mg/L 0.0000545 0.0005 0.004 0.00388 0.00389 0.00390 Barium, Total mg/L 0.00000882 0.0044 0.10 0.186 0.183 0.0925 Beryllium, Total mg/L 0.0000426 0.00132 0.10 0.102 0.104 0.107 Arsenic, Total mg/L 0.0000205 0.0022 0.10 0.0955 0.0946 0.100 Boron, Total mg/L -0.00396 0.044 1.00 0.903 0.918 0.904 Cobalt, Total mg/L 0.0000298 0.0044 0.10 0.107 0.106 0.103 Lithium, Total mg/L -0.0000976 0.022 0.20 0.188 0.179 0.184 Molybdenum, Total mg/L -0.00450 0.22 5.00 5.64 5.60 4.67 Thallium, Total mg/L 0.000045 0.00044 0.10 0.0985 0.0992 0.0989 Cadmium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 Chromium, Total mg/L 0.0000599 0.0044 0.10 0.101 0.101 0.101 0.103	Analysis Units MB Limit Spike MS MSD LFB Limit  Selenium, Total mg/L 0.0000258 0.0044 0.10 0.0924 0.0903 0.0981 0.085 to 0.115  Antimony, Total mg/L 0.0000575 0.00132 0.10 0.0889 0.0875 0.0950 0.085 to 0.115  Mercury, Total by CVAA mg/L 0.0000545 0.0005 0.004 0.00388 0.00389 0.00390 0.0034 to 0.0046  Barium, Total mg/L 0.00000882 0.0044 0.10 0.186 0.183 0.0925 0.085 to 0.115  Beryllium, Total mg/L 0.0000426 0.00132 0.10 0.102 0.104 0.107 0.085 to 0.115  Arsenic, Total mg/L 0.0000205 0.0022 0.10 0.0955 0.0946 0.100 0.085 to 0.115  Boron, Total mg/L -0.00396 0.044 1.00 0.903 0.918 0.904 0.85 to 1.15  Cobalt, Total mg/L -0.0000298 0.0044 0.10 0.107 0.106 0.103 0.085 to 0.115  Lithium, Total mg/L -0.0000976 0.022 0.20 0.188 0.179 0.184 0.17 to 0.23  Molybdenum, Total mg/L -0.0450 0.22 0.20 0.188 0.179 0.184 0.17 to 0.23  Molybdenum, Total mg/L -0.0450 0.22 5.00 5.64 5.60 4.67 4.25 to 5.75  Thallium, Total mg/L 0.00000569 0.00044 0.10 0.0982 0.0982 0.0989 0.085 to 0.115  Cadmium, Total mg/L 0.00000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115  Chromium, Total mg/L 0.0000599 0.00044 0.10 0.101 0.101 0.103 0.085 to 0.115	Analysis Units MB Limit Spike MS MSD LFB Limit Rec Limit Selenium, Total mg/L 0.0000258 0.0044 0.10 0.0924 0.0903 0.0981 0.085 to 0.115 92.4 70 to 130 mg/L 0.0000575 0.00132 0.10 0.0889 0.0875 0.0950 0.085 to 0.115 88.9 70 to 130 mg/L 0.0000545 0.0005 0.004 0.00388 0.00389 0.00390 0.0034 to 0.0046 96.9 70 to 130 mg/L 0.00000882 0.0044 0.10 0.186 0.183 0.0925 0.085 to 0.115 87.1 70 to 130 mg/L 0.0000426 0.00132 0.10 0.102 0.104 0.107 0.085 to 0.115 102 70 to 130 mg/L 0.0000426 0.00132 0.10 0.0955 0.0946 0.100 0.085 to 0.115 95.5 70 to 130 mg/L 0.0000205 0.0044 1.00 0.903 0.918 0.904 0.85 to 0.115 95.5 70 to 130 mg/L 0.0000298 0.0044 0.10 0.107 0.106 0.103 0.085 to 0.115 95.5 70 to 130 mg/L 0.00000976 0.022 0.20 0.188 0.179 0.184 0.17 to 0.23 94.2 70 to 130 mg/L 0.0000173 0.0044 0.10 0.0922 0.0903 0.0943 0.085 to 0.115 92.2 70 to 130 mg/L 0.0000173 mg/L 0.0000173 0.0044 0.10 0.0922 0.0903 0.0943 0.085 to 0.115 92.2 70 to 130 mg/L 0.0000173 mg/L 0.0000405 0.00044 0.10 0.0985 0.0992 0.0989 0.085 to 0.115 98.5 70 to 130 mg/L 0.00000569 0.00044 0.10 0.0985 0.0992 0.0989 0.085 to 0.115 98.5 70 to 130 mg/L 0.00000569 0.00044 0.10 0.0982 0.0882 0.0954 0.085 to 0.115 98.5 70 to 130 mg/L 0.00000569 0.00044 0.10 0.0982 0.0882 0.0954 0.085 to 0.115 98.5 70 to 130 mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 130 mg/L 0.00000599 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 130 mg/L 0.0000599 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 130 mg/L 0.00000599 0.00044 0.10 0.00892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 130 mg/L 0.0000599 0.00044 0.10 0.00892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 130 mg/L 0.0000599 0.00044 0.10 0.00892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 130 mg/L 0.0000599 0.00044 0.10 0.00892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 130 mg/L 0.0000599 0.00044 0.10 0.00892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 130 mg/L 0.0000599 0.00044 0.10 0.101 0.101 0.101 0.103 0.085 to 0.115 101 70 to 130 mg/L 0.0000599 0.00044 0.10 0.101 0.101 0.101 0.103 0.0	Analysis Units MB Limit Spike MS MSD LFB Limit Rec Limit Prec Selenium, Total mg/L 0.0000258 0.0044 0.10 0.0924 0.0903 0.0981 0.085 to 0.115 92.4 70 to 130 2.33 Antimony, Total mg/L 0.0000575 0.00132 0.10 0.0889 0.0875 0.0950 0.085 to 0.115 88.9 70 to 130 1.59 Mercury, Total by CVAA mg/L 0.0000545 0.0005 0.004 0.00388 0.00389 0.00390 0.0034 to 0.0046 96.9 70 to 130 0.386 Barium, Total mg/L 0.00000882 0.0044 0.10 0.186 0.183 0.0925 0.085 to 0.115 87.1 70 to 130 1.50 Beryllium, Total mg/L 0.0000426 0.00132 0.10 0.102 0.104 0.107 0.085 to 0.115 102 70 to 130 1.32 Arsenic, Total mg/L 0.0000205 0.0022 0.10 0.0955 0.0946 0.100 0.085 to 0.115 95.5 70 to 130 1.02 Boron, Total mg/L 0.0000298 0.0044 1.00 0.903 0.918 0.904 0.85 to 0.115 90.3 70 to 130 1.67 Cobalt, Total mg/L 0.0000298 0.0044 0.10 0.107 0.106 0.103 0.085 to 0.115 105 70 to 130 0.928 Lithium, Total mg/L 0.0000173 0.0044 0.10 0.0922 0.0903 0.0943 0.085 to 0.115 92.2 70 to 130 0.918 Molybdenum, Total mg/L 0.0000173 0.0044 0.10 0.0922 0.0903 0.0943 0.085 to 0.115 92.2 70 to 130 0.817 Thallium, Total mg/L 0.0000456 0.00045 0.00044 0.10 0.0982 0.0989 0.085 to 0.115 98.5 70 to 130 0.672 Cadmium, Total mg/L 0.0000569 0.00044 0.10 0.0982 0.0882 0.0954 0.085 to 0.115 98.5 70 to 130 0.672 Cadmium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 130 0.672 Cadmium, Total mg/L 0.0000569 0.00044 0.10 0.0892 0.0882 0.0954 0.085 to 0.115 98.5 70 to 130 0.584

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MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 07-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX13189

			MB	MB		Sample LFI		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX13150	Solids, Dissolved	mg/L 0.00	25		255	51.0	40 to 60		0.00	5

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\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 07-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX13190

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols					·			
Arsenic, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Barium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01		0.107	mg/L
Beryllium, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
Boron, Total	HRG 6/13/2017	EPA 200.7	2	0.02	0.1	U	Not Detected	mg/L
Calcium, Total	HRG 6/13/2017	EPA 200.7	2	0.10	0.5		1.17	mg/L
Cadmium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
Antimony, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
Cobalt, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Chromium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Mercury, Total by CVAA	ABB 6/14/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
Lithium, Total	HRG 6/13/2017	EPA 200.7	2	0.010	0.05	U	Not Detected	mg/L
Molybdenum, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Lead, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
Selenium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
Thallium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
Solids, Dissolved	KRC 6/21/2017	SM 2540C	1		25	U	Not Detected	mg/L
Chloride, Total, by Test America	SGC 7/10/2017	SM 4500 CI_E	1	0.60	2.00		5.2	mg/L
Fluoride, Total, by Test America	SGC 7/10/2017	SM 4500 F_C	1	0.032	0.10	J	0.070	mg/L
Sulfate, Total, by Test America	SGC 7/10/2017	SM 4500 SO4_E	1	1.40	5.00		7.1	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 07-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX13190

	•			MB					LFB		Rec		Prec
Sample	Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX13191	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115	92.4	70 to 130	2.33	20
AX13191	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115	88.9	70 to 130	1.59	20
AX13191	Mercury, Total by CVAA	mg/L	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046	96.9	70 to 130	0.386	20
AX13191	Lithium, Total	mg/L	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23	94.2	70 to 130	4.91	20
AX13191	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115	92.2	70 to 130	2.01	20
AX13191	Barium, Total	mg/L	0.00000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115	87.1	70 to 130	1.50	20
AX13191	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115	102	70 to 130	1.32	20
AX13191	Calcium, Total	mg/L	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75	98.7	70 to 130	0.817	20
AX13191	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115	98.5	70 to 130	0.672	20
AX13191	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115	95.5	70 to 130	1.02	20
AX13191	Boron, Total	mg/L	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15	90.3	70 to 130	1.67	20
AX13191	Cobalt, Total	mg/L	0.00000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115	105	70 to 130	0.928	20
AX13191	Cadmium, Total	mg/L	0.00000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115	89.2	70 to 130	1.07	20
AX13191	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115	101	70 to 130	0.584	20
AX13191	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115	106	70 to 130	1.49	20

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 07-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX13190

			MB	MB		ole LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX13150	Solids, Dissolved	mg/L 0.00	25		255	51.0	40 to 60		0.00	5

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 07-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX13191

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols								
* Arsenic, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Barium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01		0.0991	mg/L
* Beryllium, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Boron, Total	HRG 6/13/2017	EPA 200.7	2	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG 6/13/2017	EPA 200.7	2	0.10	0.5		0.706	mg/L
* Cadmium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
* Antimony, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U	Not Detected	mg/L
* Cobalt, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	J	0.00201	mg/L
* Chromium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ABB 6/14/2017	EPA 245.1	1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG 6/13/2017	EPA 200.7	2	0.010	0.05	U	Not Detected	mg/L
Molybdenum, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Lead, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U	Not Detected	mg/L
* Thallium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U	Not Detected	mg/L
General Characteristics								
* Solids, Dissolved	KRC 6/21/2017	SM 2540C	1		25		36.0	mg/L
* Chloride, Total, by Test America	SGC 7/10/2017	SM 4500 CI_E	1	0.60	2.00		3.3	mg/L
* Fluoride, Total, by Test America	SGC 7/10/2017	SM 4500 F_C	1	0.032	0.10	J	0.070	mg/L
* Sulfate, Total, by Test America	SGC 7/10/2017	SM 4500 SO4_E	1	1.40	5.00		8.4	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 07-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX13191

	atory is italinson /otroion												
				MB					LFB		Rec		Prec
Sample	Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limi
X13191	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115	92.4	70 to 130	2.33	20
X13191	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115	88.9	70 to 130	1.59	20
X13191	Mercury, Total by CVAA	mg/L	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046	96.9	70 to 130	0.386	20
X13191	Lithium, Total	mg/L	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23	94.2	70 to 130	4.91	20
X13191	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115	92.2	70 to 130	2.01	20
X13191	Barium, Total	mg/L	0.00000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115	87.1	70 to 130	1.50	20
X13191	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115	102	70 to 130	1.32	20
X13191	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115	95.5	70 to 130	1.02	20
X13191	Boron, Total	mg/L	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15	90.3	70 to 130	1.67	20
X13191	Cobalt, Total	mg/L	0.00000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115	105	70 to 130	0.928	20
X13191	Calcium, Total	mg/L	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75	98.7	70 to 130	0.817	20
X13191	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115	98.5	70 to 130	0.672	20
X13191	Cadmium, Total	mg/L	0.00000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115	89.2	70 to 130	1.07	20
X13191	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115	101	70 to 130	0.584	20
X13191	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115	106	70 to 130	1.49	20

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 07-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX13191

			MB	MB		Sample LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX13150	Solids, Dissolved	mg/L 0.00	25	_	255	51.0	40 to 60		0.00	5

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:



To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGFB Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX13192

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
* Arsenic, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG 6/13/2017	EPA 200.7	2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG 6/13/2017	EPA 200.7	2	0.10	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB 6/16/2017	EPA 245.1	1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG 6/13/2017	EPA 200.7	2	0.010	0.05	U Not Detected	mg/L
Molybdenum, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U Not Detected	mg/L
General Characteristics							
* Solids, Dissolved	KRC 6/14/2017	SM 2540C	1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC 7/10/2017	SM 4500 CI_E	1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC 7/10/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC 7/10/2017	SM 4500 SO4_E	1	1.40	5.00	U <1.4	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGFB Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX13192

	,	MB			1	,	LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
X13194 Lead, Total	mg/L 0.0000340	0.0022	0.10	0.108	0.106	0.101	0.085 to 0.115	108	70 to 130	1.86	20
X13194 Beryllium, Total	mg/L 0.0000426	0.00132	0.10	0.102	0.102	0.107	0.085 to 0.115	102	70 to 130	0.223	20
X13194 Molybdenum, Total	mg/L 0.0000173	0.0044	0.10	0.0926	0.0881	0.0943	0.085 to 0.115	92.6	70 to 130	5.04	20
X13194 Antimony, Total	mg/L 0.0000575	0.00132	0.10	0.0919	0.0860	0.0950	0.085 to 0.115	91.9	70 to 130	6.70	20
X13194 Arsenic, Total	mg/L 0.0000205	0.0022	0.10	0.0967	0.0914	0.100	0.085 to 0.115	96.7	70 to 130	5.67	20
X13194 Cobalt, Total	mg/L 0.00000298	0.0044	0.10	0.107	0.102	0.103	0.085 to 0.115	107	70 to 130	4.99	20
X13194 Thallium, Total	mg/L 0.0000405	0.00044	0.10	0.0999	0.0999	0.0989	0.085 to 0.115	99.9	70 to 130	0.0327	20
X13194 Barium, Total	mg/L 0.00000882	0.0044	0.10	0.171	0.161	0.0925	0.085 to 0.115	92.6	70 to 130	6.05	20
X13194 Calcium, Total	mg/L -0.0443	0.22	5.00	6.12	6.11	4.90	4.25 to 5.75	96.8	70 to 130	0.0562	20
X13194 Lithium, Total	mg/L -0.0000905	0.022	0.20	0.182	0.181	0.192	0.17 to 0.23	90.8	70 to 130	0.445	20
X13194 Mercury, Total by CVAA	mg/L 0.0000144	0.0005	0.004	0.00380	0.00377	0.00372	0.0034 to 0.0046	95.0	70 to 130	0.933	20
X13194 Selenium, Total	mg/L 0.0000258	0.0044	0.10	0.0934	0.0888	0.0981	0.085 to 0.115	93.4	70 to 130	5.12	20
X13194 Boron, Total	mg/L -0.00431	0.044	1.00	0.927	0.932	0.922	0.85 to 1.15	92.7	70 to 130	0.575	20
X13194 Cadmium, Total	mg/L 0.00000569	0.00044	0.10	0.0916	0.0859	0.0954	0.085 to 0.115	91.6	70 to 130	6.49	20
X13194 Chromium, Total	mg/L 0.0000599	0.0044	0.10	0.103	0.0979	0.103	0.085 to 0.115	103	70 to 130	4.67	20

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGFB Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX13192

			MB	MB		ample LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX13229	Solids, Dissolved	mg/L 16.0	25		333	55.0	40 to 60		0.301	5

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGEB Sample Date: 07-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX13193

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
* Arsenic, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG 6/13/2017	EPA 200.7	2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG 6/13/2017	EPA 200.7	2	0.10	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB 6/16/2017	EPA 245.1	1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG 6/13/2017	EPA 200.7	2	0.010	0.05	U Not Detected	mg/L
Molybdenum, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U Not Detected	mg/L
General Characteristics							
* Solids, Dissolved	KRC 6/21/2017	SM 2540C	1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC 7/10/2017	SM 4500 CI_E	1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC 7/10/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC 7/10/2017	SM 4500 SO4_E	1	1.40	5.00	U <1.4	mg/L

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Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGEB Sample Date: 07-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX13193

		MB				,	LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limi
AX13194 Lead, Total	mg/L 0.0000340	0.0022	0.10	0.108	0.106	0.101	0.085 to 0.115	108	70 to 130	1.86	20
AX13194 Beryllium, Total	mg/L 0.0000426	0.00132	0.10	0.102	0.102	0.107	0.085 to 0.115	102	70 to 130	0.223	20
AX13194 Molybdenum, Total	mg/L 0.0000173	0.0044	0.10	0.0926	0.0881	0.0943	0.085 to 0.115	92.6	70 to 130	5.04	20
AX13194 Barium, Total	mg/L 0.00000882	0.0044	0.10	0.171	0.161	0.0925	0.085 to 0.115	92.6	70 to 130	6.05	20
AX13194 Calcium, Total	mg/L -0.0443	0.22	5.00	6.12	6.11	4.90	4.25 to 5.75	96.8	70 to 130	0.0562	20
AX13194 Cobalt, Total	mg/L 0.00000298	0.0044	0.10	0.107	0.102	0.103	0.085 to 0.115	107	70 to 130	4.99	20
AX13194 Thallium, Total	mg/L 0.0000405	0.00044	0.10	0.0999	0.0999	0.0989	0.085 to 0.115	99.9	70 to 130	0.0327	20
AX13194 Lithium, Total	mg/L -0.0000905	0.022	0.20	0.182	0.181	0.192	0.17 to 0.23	90.8	70 to 130	0.445	20
AX13194 Mercury, Total by CVAA	mg/L 0.0000144	0.0005	0.004	0.00380	0.00377	0.00372	0.0034 to 0.0046	95.0	70 to 130	0.933	20
AX13194 Selenium, Total	mg/L 0.0000258	0.0044	0.10	0.0934	0.0888	0.0981	0.085 to 0.115	93.4	70 to 130	5.12	20
AX13194 Boron, Total	mg/L -0.00431	0.044	1.00	0.927	0.932	0.922	0.85 to 1.15	92.7	70 to 130	0.575	20
AX13194 Cadmium, Total	mg/L 0.00000569	0.00044	0.10	0.0916	0.0859	0.0954	0.085 to 0.115	91.6	70 to 130	6.49	20
AX13194 Chromium, Total	mg/L 0.0000599	0.0044	0.10	0.103	0.0979	0.103	0.085 to 0.115	103	70 to 130	4.67	20
AX13194 Antimony, Total	mg/L 0.0000575	0.00132	0.10	0.0919	0.0860	0.0950	0.085 to 0.115	91.9	70 to 130	6.70	20
AX13194 Arsenic, Total	mg/L 0.0000205	0.0022	0.10	0.0967	0.0914	0.100	0.085 to 0.115	96.7	70 to 130	5.67	20

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGEB Sample Date: 07-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX13193

			MB	MB		ole LFB		Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX13150	Solids, Dissolved	mg/L 0.00	25		255	51.0	40 to 60		0.00	5

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

#### Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-4 DUP

Laboratory ID Number: AX13194

Laboratory ID Number: AX1319							
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
* Arsenic, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U Not Detecte	ed mg/L
* Barium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	0.0784	mg/L
* Beryllium, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U Not Detecto	ed mg/L
* Boron, Total	HRG 6/13/2017	EPA 200.7	2	0.02	0.1	U Not Detecte	ed mg/L
* Calcium, Total	HRG 6/13/2017	EPA 200.7	2	0.10	0.5	1.28	mg/L
* Cadmium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U Not Detecte	ed mg/L
* Antimony, Total	JHK 6/15/2017	EPA 200.8	5	0.00060	0.003	U Not Detecte	ed mg/L
* Cobalt, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detecte	ed mg/L
* Chromium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detecte	ed mg/L
* Mercury, Total by CVAA	ABB 6/16/2017	EPA 245.1	1	0.00025	0.0005	U Not Detecte	ed mg/L
* Lithium, Total	HRG 6/13/2017	EPA 200.7	2	0.010	0.05	U Not Detecte	ed mg/L
* Molybdenum, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detecte	ed mg/L
* Lead, Total	JHK 6/15/2017	EPA 200.8	5	0.0010	0.005	U Not Detecte	ed mg/L
* Selenium, Total	JHK 6/15/2017	EPA 200.8	5	0.0020	0.01	U Not Detecte	ed mg/L
* Thallium, Total	JHK 6/15/2017	EPA 200.8	5	0.00020	0.001	U Not Detecte	ed mg/L
General Characteristics							
* Solids, Dissolved	KRC 6/14/2017	SM 2540C	1		25	38.7	mg/L
* Chloride, Total, by Test America	SGC 7/10/2017	SM 4500 CI_E	1	0.60	2.00	3.2	mg/L
* Fluoride, Total, by Test America	SGC 7/10/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC 7/10/2017	SM 4500 SO4_E	1	1.40	5.00	6.7	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Reported: 8/1/2017 Version: 2.0

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Issued By: State of Florida, Department of Health

#### Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-4 DUP

Laboratory ID Number: AX13194

	'	MB					LFB		Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
X13194 Lead, Total	mg/L 0.0000340	0.0022	0.10	0.108	0.106	0.101	0.085 to 0.115	108 7	70 to 130	1.86	20
X13194 Beryllium, Total	mg/L 0.0000426	0.00132	0.10	0.102	0.102	0.107	0.085 to 0.115	102 7	70 to 130	0.223	20
X13194 Molybdenum, Total	mg/L 0.0000173	0.0044	0.10	0.0926	0.0881	0.0943	0.085 to 0.115	92.6 7	70 to 130	5.04	20
X13194 Lithium, Total	mg/L -0.0000905	0.022	0.20	0.182	0.181	0.192	0.17 to 0.23	90.8 7	70 to 130	0.445	20
X13194 Mercury, Total by CVAA	mg/L 0.0000144	0.0005	0.004	0.00380	0.00377	0.00372	0.0034 to 0.0046	95.0 7	70 to 130	0.933	20
X13194 Selenium, Total	mg/L 0.0000258	0.0044	0.10	0.0934	0.0888	0.0981	0.085 to 0.115	93.4 7	70 to 130	5.12	20
X13194 Antimony, Total	mg/L 0.0000575	0.00132	0.10	0.0919	0.0860	0.0950	0.085 to 0.115	91.9 7	70 to 130	6.70	20
X13194 Arsenic, Total	mg/L 0.0000205	0.0022	0.10	0.0967	0.0914	0.100	0.085 to 0.115	96.7 7	70 to 130	5.67	20
X13194 Cobalt, Total	mg/L 0.00000298	0.0044	0.10	0.107	0.102	0.103	0.085 to 0.115	107 7	70 to 130	4.99	20
X13194 Thallium, Total	mg/L 0.0000405	0.00044	0.10	0.0999	0.0999	0.0989	0.085 to 0.115	99.9 7	70 to 130	0.0327	20
X13194 Boron, Total	mg/L -0.00431	0.044	1.00	0.927	0.932	0.922	0.85 to 1.15	92.7 7	70 to 130	0.575	20
X13194 Cadmium, Total	mg/L 0.00000569	0.00044	0.10	0.0916	0.0859	0.0954	0.085 to 0.115	91.6 7	70 to 130	6.49	20
X13194 Chromium, Total	mg/L 0.0000599	0.0044	0.10	0.103	0.0979	0.103	0.085 to 0.115	103 7	70 to 130	4.67	20
X13194 Barium, Total	mg/L 0.00000882	0.0044	0.10	0.171	0.161	0.0925	0.085 to 0.115	92.6 7	70 to 130	6.05	20
X13194 Calcium, Total	mg/L -0.0443	0.22	5.00	6.12	6.11	4.90	4.25 to 5.75	96.8 7	70 to 130	0.0562	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Reported: 8/1/2017 Version: 2.0

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

#### Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 06-Jun-17

**Customer ID:** 

**Delivery Date:** 08-Jun-17

Description: Barry Gypsum - MW-4 DUP

Laboratory ID Number: AX13194

				MB			Sample	e	LFB	Rec		Prec
Sample	Analysis	Units	MB	Limit	Spike	LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX13229	Solids, Dissolved	mg/L	16.0	25			333	55.0	40 to 60		0.301	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Reported: 8/1/2017 Version: 2.0

# Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 Definitions

Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the
	concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
В	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
Р	Precision is out of range.
С	Analyte was verified by re-analysis.
Н	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as
	possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless
	otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information

•	Field Complete

Lab Complete

Lab ETA 06/08/2017 12:06

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Bo Cotton	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Barry Gypsum

Analysis Requested | Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (500mL): TDS, Bottle 4 (250mL): Anions

Comments All anions outsourced to Test America, Pensacola.

General Service Complex Building 8

			Bottle		Lab	
Sample #	Date	Time	Count	Description	Filter	Lab Id
MW-1	06/06/2017	08:45	4	Groundwater		AX13182
MW-2	06/06/2017	09:52	4	Groundwater		AX13183
MW-3	06/06/2017	11:02	4	Groundwater		AX13184
MW-4	06/06/2017	12:05	4	Groundwater		AX13185
MW-5	06/06/2017	13:09	4	Groundwater		AX13186
MW-6	06/06/2017	14:24	4	Groundwater		AX13187
MW-7	06/07/2017	08:34	4	Groundwater		AX13188
MW-8	06/07/2017	09:27	4	Groundwater		AX13189
MW-9	06/07/2017	10:35	4	Groundwater		AX13190
MW-10	06/07/2017	11:18	4	Groundwater		AX13191
FB-1	06/06/2017	12:52	4	Field Blank		AX13192
EB-1	06/07/2017	11:30	4	Equipment Blank		AX13193
MW-4DUP	06/06/2017	12:05	4	Sample Duplicate		AX13194

Relinquished By	Received By	Date/Time
arthony Googin	Brooke Williams Digitally signed by Brooke Williams Date: 2017.06.08 13:06:41 - 05'00'	06/08/2017 13:07
	0	

SmarTroll ID | 5141-26150-1-1 Turbidity ID | 3901-20009-2-1

All metals and radiological bottles have pH < 2 Cooler Temp | 0.5 degrees C

Thermometer ID | 2403-7026-4-2

pH Strip ID 4831-24389-20-16

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THE LEADER IN ENVIRONMENTAL TESTING

### ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola 3355 McLemore Drive Pensacola, FL 32514 Tel: (850)474-1001

TestAmerica Job ID: 400-139305-1

TestAmerica Sample Delivery Group: Barry Gypsum (8)

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory 744 County Rd 87 GSC #8 Calera, Alabama 35040

Attn: Sarah Copeland

Cheyroud Whitmin

Authorized for release by: 6/29/2017 3:02:10 PM

Cheyenne Whitmire, Project Manager II (850)471-6222

chevenne.whitmire@testamericainc.com

·····LINKS ······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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RL

2.0

5.0

RL

2.0

0.10

5.0

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

Analyte

Chloride

Sulfate

Analyte

Chloride

Fluoride

Sulfate

Client Sample ID: AX13182 MW-1

Client Sample ID: AX13183 MW-2

TestAmerica Job ID: 400-139305-1 SDG: Barry Gypsum (8)

Lab Sample ID: 400-139305-1 **MDL** Unit Dil Fac D Method Prep Type 0.60 mg/L SM 4500 CI- E Total/NA SM 4500 SO4 E Total/NA 1.4 mg/L Lab Sample ID: 400-139305-2 **MDL** Unit Dil Fac D Method Prep Type 0.60 mg/L SM 4500 CI- E Total/NA 0.032 mg/L SM 4500 F C Total/NA 1.4 mg/L SM 4500 SO4 E Total/NA

Client Sample ID: AX13184 MW-3 Lab Sample ID: 400-139305-3

Result Qualifier

Result Qualifier

3.1

7.6

3.9

5.3

0.040

Analyte Result Qualifier RL **MDL** Unit Dil Fac D Method **Prep Type** 2.0 SM 4500 CI- E Total/NA Chloride 3.4 0.60 mg/L Sulfate 7.1 SM 4500 SO4 E Total/NA 5.0 1.4 ma/L

Client Sample ID: AX13185 MW-4 Lab Sample ID: 400-139305-4

Analyte Result Qualifier RL **MDL** Unit Dil Fac D Method Prep Type Chloride 3.4 2.0 0.60 mg/L SM 4500 CI- E Total/NA 6.6 SM 4500 SO4 E Total/NA Sulfate 5.0 1.4 mg/L

Client Sample ID: AX13186 MW-5 Lab Sample ID: 400-139305-5

Analyte Result Qualifier RL **MDL** Unit Dil Fac D Method **Prep Type** Chloride 3.4 2.0 0.60 mg/L SM 4500 CI- E Total/NA Sulfate 8.6 5.0 SM 4500 SO4 E Total/NA 1.4 mg/L

Client Sample ID: AX13187 MW-6 Lab Sample ID: 400-139305-6

Analyte Result Qualifier RI **MDL** Unit Dil Fac D Method **Prep Type** Chloride 3.6 2.0 0.60 mg/L SM 4500 CI- E Total/NA Sulfate 10 5.0 1.4 mg/L SM 4500 SO4 E Total/NA

Client Sample ID: AX13188 MW-7 Lab Sample ID: 400-139305-7

Analyte Result Qualifier RL **MDL** Unit Dil Fac D Method **Prep Type** Chloride SM 4500 CI- E 6.3 2.0 0.60 mg/L Total/NA Sulfate 3.1 J 5.0 1.4 mg/L SM 4500 SO4 E Total/NA

Client Sample ID: AX13189 MW-8 Lab Sample ID: 400-139305-8

Result Qualifier **MDL** Unit Analyte RL Dil Fac D Method Prep Type 2.0 Chloride 4.1 0.60 mg/L SM 4500 CI- E Total/NA Sulfate 2.9 J 5.0 1.4 mg/L SM 4500 SO4 E Total/NA

Client Sample ID: AX13190 MW-9 Lab Sample ID: 400-139305-9

Analyte Result Qualifier RL **MDL** Unit Dil Fac D Method Prep Type Chloride 5.2 2.0 SM 4500 CI- E Total/NA 0.60 mg/L

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

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6/29/2017

#### **Detection Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139305-1

Lab Sample ID: 400-139305-9

SDG: Barry Gypsum (8)

<b>Client Sample</b>	ID: AX13190 MW-9	(Continued)

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
Fluoride	0.070 J	0.10	0.032 mg/L		SM 4500 F C	Total/NA
Sulfate	7.1	5.0	1.4 mg/L	1	SM 4500 SO4 E	Total/NA

Lab Sample ID: 400-139305-10

#### Client Sample ID: AX13191 MW-10

Analyte	Result (	Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
Chloride	3.3		2.0	0.60	mg/L		SM 4500 CI- E	Total/NA
Fluoride	0.070	J	0.10	0.032	mg/L	1	SM 4500 F C	Total/NA
Sulfate	8.4		5.0	1.4	mg/L	1	SM 4500 SO4 E	Total/NA

#### Client Sample ID: AX13192 FB-1

No Detections.

Lab Sample ID: 400-139305-11

#### Client Sample ID: AX13193 EB-1

No Detections.

Client Sample ID: AX13194 MW-4 DUP

Lab Sample ID: 400-139305-13

Lab Sample ID: 400-139305-12

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
Chloride	3.2	2.0	0.60 mg/L		SM 4500 CI- E	Total/NA
Sulfate	6.7	5.0	1.4 mg/L	1	SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

6/29/2017

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#### **Method Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139305-1 SDG: Barry Gypsum (8)

SDG: Barry Gypsum (8)

Method	Method Description	Protocol	Laboratory
SM 4500 CI- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN

#### **Protocol References:**

SM = "Standard Methods For The Examination Of Water And Wastewater",

#### Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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#### **Sample Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139305-1 SDG: Barry Gypsum (8)

2

Lab Sample ID	Client Sample ID	Matrix	Collected Received
400-139305-1	AX13182 MW-1	Water	06/06/17 08:45 06/13/17 08:53
400-139305-2	AX13183 MW-2	Water	06/06/17 09:52 06/13/17 08:53
400-139305-3	AX13184 MW-3	Water	06/06/17 11:02 06/13/17 08:53
400-139305-4	AX13185 MW-4	Water	06/06/17 12:05 06/13/17 08:53
400-139305-5	AX13186 MW-5	Water	06/06/17 13:09 06/13/17 08:53
400-139305-6	AX13187 MW-6	Water	06/06/17 14:24 06/13/17 08:53
400-139305-7	AX13188 MW-7	Water	06/07/17 08:34 06/13/17 08:53
400-139305-8	AX13189 MW-8	Water	06/07/17 09:27 06/13/17 08:53
400-139305-9	AX13190 MW-9	Water	06/07/17 10:35 06/13/17 08:53
400-139305-10	AX13191 MW-10	Water	06/07/17 11:18 06/13/17 08:53
400-139305-11	AX13192 FB-1	Water	06/06/17 12:52 06/13/17 08:53
400-139305-12	AX13193 EB-1	Water	06/07/17 11:30 06/13/17 08:53
400-139305-13	AX13194 MW-4 DUP	Water	06/06/17 12:05 06/13/17 08:53

4

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TestAmerica Job ID: 400-139305-1 SDG: Barry Gypsum (8)

Lab Sample ID: 400-139305-1

Client Sample ID: AX13182 MW-1

Date Collected: 06/06/17 08:45 Date Received: 06/13/17 08:53

**Matrix: Water** 

**General Chemistry** Analyte Result Qualifier RL MDL Unit D Dil Fac Prepared Analyzed Chloride 2.0 0.60 mg/L 06/21/17 13:27 3.1 Fluoride < 0.032 0.10 0.032 mg/L 06/24/17 12:03 06/21/17 15:03 **Sulfate** 7.6 5.0 1.4 mg/L

Client Sample ID: AX13183 MW-2 Lab Sample ID: 400-139305-2

Date Collected: 06/06/17 09:52 Date Received: 06/13/17 08:53

**Matrix: Water** 

**General Chemistry** Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac 2.0 0.60 mg/L 06/21/17 13:43 Chloride 3.9 **Fluoride** 0.040 J 0.10 0.032 mg/L 06/24/17 12:00 **Sulfate** 5.0 06/21/17 15:39 5.3 1.4 mg/L

Client Sample ID: AX13184 MW-3 Lab Sample ID: 400-139305-3 Date Collected: 06/06/17 11:02

Date Received: 06/13/17 08:53

**Matrix: Water** 

**General Chemistry** Analyte RL MDL Unit Result Qualifier D Analyzed Dil Fac Prepared 2.0 0.60 mg/L Chloride 06/21/17 13:43 3.4 Fluoride < 0.032 0.10 0.032 mg/L 06/24/17 11:56 1 **Sulfate** 7.1 5.0 1.4 mg/L 06/21/17 15:39

Client Sample ID: AX13185 MW-4 Lab Sample ID: 400-139305-4

Date Collected: 06/06/17 12:05 Date Received: 06/13/17 08:53

**General Chemistry** Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac Chloride 3.4 2.0 0.60 mg/L 06/21/17 13:43 Fluoride < 0.032 0.10 0.032 mg/L 06/27/17 17:07 5.0 1.4 mg/L 06/21/17 15:39 **Sulfate** 6.6

Client Sample ID: AX13186 MW-5 Lab Sample ID: 400-139305-5

Date Collected: 06/06/17 13:09 Date Received: 06/13/17 08:53

**General Chemistry** Analyte Result Qualifier RLMDL Unit Dil Fac D Prepared Analyzed 2.0 Chloride 3.4 0.60 mg/L 06/21/17 13:43 Fluoride <0.032 0.10 06/27/17 17:39 0.032 mg/L 1 **Sulfate** 8.6 5.0 1.4 mg/L 06/21/17 15:39

**Matrix: Water** 

**Matrix: Water** 

Dil Fac

**Matrix: Water** 

**Sulfate** 

TestAmerica Job ID: 400-139305-1 SDG: Barry Gypsum (8)

Client Sample ID: AX13187 MW-6

Date Collected: 06/06/17 14:24 Date Received: 06/13/17 08:53

Lab Sample ID: 400-139305-6

**Matrix: Water** 

06/21/17 15:39

General Chemistry								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed
Chloride	3.6		2.0	0.60	mg/L			06/21/17 13:43
Fluoride	< 0.032		0.10	0.032	mg/L			06/27/17 17:08

10

Client Sample ID: AX13188 MW-7 Lab Sample ID: 400-139305-7

5.0

1.4 mg/L

Date Collected: 06/07/17 08:34 **Matrix: Water** Date Received: 06/13/17 08:53

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.3		2.0	0.60	mg/L			06/21/17 13:43	1
Fluoride	<0.032		0.10	0.032	mg/L			06/27/17 17:11	1
Sulfate	3.1	J	5.0	1.4	mg/L			06/21/17 15:39	1

Client Sample ID: AX13189 MW-8 Lab Sample ID: 400-139305-8

Date Collected: 06/07/17 09:27 Date Received: 06/13/17 08:53

General Chemistry Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1	2.0	0.60	mg/L			06/22/17 12:31	1
Fluoride	<0.032	0.10	0.032	mg/L			06/24/17 10:26	1
Sulfate	2.9 J	5.0	1.4	mg/L			06/22/17 10:48	1

Lab Sample ID: 400-139305-9 Client Sample ID: AX13190 MW-9

Date Collected: 06/07/17 10:35 **Matrix: Water** Date Received: 06/13/17 08:53

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		2.0	0.60	mg/L			06/22/17 12:31	1
Fluoride	0.070	J	0.10	0.032	mg/L			06/27/17 17:52	1
Sulfate	7.1		5.0	1.4	mg/L			06/22/17 10:48	1

Lab Sample ID: 400-139305-10 Client Sample ID: AX13191 MW-10

Date Collected: 06/07/17 11:18 Matrix: Water Date Received: 06/13/17 08:53

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		2.0	0.60	mg/L			06/22/17 12:31	1
Fluoride	0.070	J	0.10	0.032	mg/L			06/27/17 18:01	1
Sulfate	8.4		5.0	1.4	mg/L			06/22/17 10:48	1

Lab Sample ID: 400-139305-11 Client Sample ID: AX13192 FB-1

Date Collected: 06/06/17 12:52 **Matrix: Water** Date Received: 06/13/17 08:53

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/22/17 12:31	1

TestAmerica Pensacola

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139305-1

SDG: Barry Gypsum (8)

Client Sample ID: AX13192 FB-1

Date Collected: 06/06/17 12:52 Date Received: 06/13/17 08:53 Lab Sample ID: 400-139305-11

**Matrix: Water** 

General	Chem	istry (C	Cont	inued)	
A I 4 .					

Analyte	Result Qu	ualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032	0.10	0.032	mg/L			06/24/17 10:29	1
Sulfate	<1.4	5.0	1.4	mg/L			06/22/17 10:48	1

Client Sample ID: AX13193 EB-1 Lab Sample ID: 400-139305-12

Date Collected: 06/07/17 11:30 Date Received: 06/13/17 08:53 Matrix: Water

**General Chemistry** Analyte RL Result Qualifier **MDL** Unit D Prepared Analyzed Dil Fac Chloride <0.60 2.0 0.60 mg/L 06/22/17 12:31 Fluoride < 0.032 0.10 0.032 mg/L 06/27/17 18:04 1 Sulfate 5.0 1.4 mg/L 06/22/17 10:48 <1.4

Client Sample ID: AX13194 MW-4 DUP

Lab Sample ID: 400-139305-13

Date Collected: 06/06/17 12:05

Date Received: 06/13/17 08:53

Matrix: Water

**General Chemistry** Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac 2.0 Chloride 0.60 mg/L 06/22/17 12:31 3.2 Fluoride 0.10 0.032 mg/L < 0.032 06/27/17 17:45 1 5.0 1.4 mg/L 06/22/17 10:48 **Sulfate** 6.7 1

6/29/2017

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8

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#### **Definitions/Glossary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

Method Detection Limit

Minimum Level (Dioxin)

**Practical Quantitation Limit** 

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

Not Detected at the reporting limit (or MDL or EDL if shown)

Relative Percent Difference, a measure of the relative difference between two points

Reporting Limit or Requested Limit (Radiochemistry)

Not Calculated

**Quality Control** 

TestAmerica Job ID: 400-139305-1 SDG: Barry Gypsum (8)

#### **Qualifiers**

#### **General Chemistry**

Qualifier D	escription
	Qualifier D

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **Glossary**

MDL

ML

NC

ND

**PQL** 

QC

**RER** 

RPD

**TEF** 

**TEQ** 

RL

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)

TestAmerica Job ID: 400-139305-1

SDG: Barry Gypsum (8)

Client Sample ID: AX13182 MW-1

Date Collected: 06/06/17 08:45 Date Received: 06/13/17 08:53

Lab Sample ID: 400-139305-1

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E			357866	06/21/17 13:27	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358231	06/24/17 12:03	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357892	06/21/17 15:03	JLB	TAL PEN

Lab Sample ID: 400-139305-2 Client Sample ID: AX13183 MW-2

Date Collected: 06/06/17 09:52

Date Received: 06/13/17 08:53

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E			357866	06/21/17 13:43	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358231	06/24/17 12:00	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357892	06/21/17 15:39	JLB	TAL PEN

Lab Sample ID: 400-139305-3 Client Sample ID: AX13184 MW-3

Date Collected: 06/06/17 11:02

Date Received: 06/13/17 08:53

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E			357866	06/21/17 13:43	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358231	06/24/17 11:56	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357892	06/21/17 15:39	JLB	TAL PEN

Client Sample ID: AX13185 MW-4 Lah Sample ID: 400-139305-4

Chefft Sample ID. AX 13 165 WW-4	Lab Sample 10. 400-139303-4
Date Collected: 06/06/17 12:05	Matrix: Water
Date Received: 06/13/17 08:53	

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E			357866	06/21/17 13:43	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 17:07	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357892	06/21/17 15:39	JLB	TAL PEN

Lah Sample ID: 400-139305-5 Client Sample ID: AX13186 MW-5

Date Collected: 06/06/17 13:09

Date Received: 06/13/17 08:53

Lab Sample ID	+00-133303-3
	Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E			357866	06/21/17 13:43	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 17:39	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357892	06/21/17 15:39	JLB	TAL PEN

TestAmerica Pensacola

SDG: Barry Gypsum (8)

Client Sample ID: AX13187 MW-6

Client: Alabama Power General Test Laboratory

Date Collected: 06/06/17 14:24 Date Received: 06/13/17 08:53

Project/Site: CCR Plant Barry

Lab Sample ID: 400-139305-6

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E	_	1	357866	06/21/17 13:43	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 17:08	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357892	06/21/17 15:39	JLB	TAL PEN

Lab Sample ID: 400-139305-7 Client Sample ID: AX13188 MW-7

Date Collected: 06/07/17 08:34 Date Received: 06/13/17 08:53

**Matrix: Water** 

Batch Batch Dilution Batch **Prepared** Method Number or Analyzed Analyst **Prep Type** Type Run **Factor** Lab TAL PEN Total/NA Analysis SM 4500 CI- E 357866 06/21/17 13:43 JLB Total/NA Analysis SM 4500 F C 1 358604 06/27/17 17:11 SLT TAL PEN TAL PEN Total/NA Analysis SM 4500 SO4 E 1 357892 06/21/17 15:39 JLB

Client Sample ID: AX13189 MW-8 Lab Sample ID: 400-139305-8

Date Collected: 06/07/17 09:27 Date Received: 06/13/17 08:53

**Matrix: Water** 

Batch Batch Dilution Batch Prepared Method Factor Number Prep Type Type Run or Analyzed Analyst Lab Total/NA TAL PEN Analysis SM 4500 CI- E 358006 06/22/17 12:31 RRC Total/NA Analysis SM 4500 F C 358226 06/24/17 10:26 CAC TAL PEN 1

Client Sample ID: AX13190 MW-9 Lab Sample ID: 400-139305-9

1

358005 06/22/17 10:48 RRC

Date Collected: 06/07/17 10:35 Date Received: 06/13/17 08:53

Analysis

SM 4500 SO4 E

Total/NA

**Matrix: Water** 

TAL PEN

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	358006	06/22/17 12:31	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 17:52	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	358005	06/22/17 10:48	RRC	TAL PEN

Client Sample ID: AX13191 MW-10 Lab Sample ID: 400-139305-10

Date Collected: 06/07/17 11:18 Date Received: 06/13/17 08:53

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	358006	06/22/17 12:31	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 18:01	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	358005	06/22/17 10:48	RRC	TAL PEN

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**Matrix: Water** 

#### **Lab Chronicle**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139305-1 SDG: Barry Gypsum (8)

Client Sample ID: AX13192 FB-1 Lab Sample ID: 400-139305-11

Date Collected: 06/06/17 12:52

Date Received: 06/13/17 08:53

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E	_	1	358006	06/22/17 12:31	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358226	06/24/17 10:29	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	358005	06/22/17 10:48	RRC	TAL PEN

Client Sample ID: AX13193 EB-1 Lab Sample ID: 400-139305-12

Date Collected: 06/07/17 11:30 Matrix: Water

Date Received: 06/13/17 08:53

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E			358006	06/22/17 12:31	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 18:04	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	358005	06/22/17 10:48	RRC	TAL PEN

Client Sample ID: AX13194 MW-4 DUP

Lab Sample ID: 400-139305-13

Date Collected: 06/06/17 12:05 East Gample 15: 400-103000-10

Date Received: 06/13/17 08:53

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	358006	06/22/17 12:31	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 17:45	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	358005	06/22/17 10:48	RRC	TAL PEN

**Laboratory References:** 

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TestAmerica Pensacola

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139305-1 SDG: Barry Gypsum (8)

#### **General Chemistry**

#### Analysis Batch: 357866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139305-1	AX13182 MW-1	Total/NA	Water	SM 4500 CI- E	
400-139305-2	AX13183 MW-2	Total/NA	Water	SM 4500 CI- E	
400-139305-3	AX13184 MW-3	Total/NA	Water	SM 4500 CI- E	
400-139305-4	AX13185 MW-4	Total/NA	Water	SM 4500 CI- E	
400-139305-5	AX13186 MW-5	Total/NA	Water	SM 4500 CI- E	
400-139305-6	AX13187 MW-6	Total/NA	Water	SM 4500 CI- E	
400-139305-7	AX13188 MW-7	Total/NA	Water	SM 4500 CI- E	
MB 400-357866/16	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 400-357866/17	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
MRL 400-357866/13	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
400-139305-5 MS	AX13186 MW-5	Total/NA	Water	SM 4500 CI- E	
400-139305-5 MSD	AX13186 MW-5	Total/NA	Water	SM 4500 CI- E	

#### Analysis Batch: 357892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139305-1	AX13182 MW-1	Total/NA	Water	SM 4500 SO4 E	-
400-139305-2	AX13183 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-139305-3	AX13184 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-139305-4	AX13185 MW-4	Total/NA	Water	SM 4500 SO4 E	
400-139305-5	AX13186 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-139305-6	AX13187 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-139305-7	AX13188 MW-7	Total/NA	Water	SM 4500 SO4 E	
MB 400-357892/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-357892/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-357892/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-139305-5 MS	AX13186 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-139305-5 MSD	AX13186 MW-5	Total/NA	Water	SM 4500 SO4 E	

#### **Analysis Batch: 358005**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139305-8	AX13189 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-139305-9	AX13190 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-139305-10	AX13191 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-139305-11	AX13192 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-139305-12	AX13193 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-139305-13	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 SO4 E	
MB 400-358005/15	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-358005/16	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-358005/12	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-139305-13 MS	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 SO4 E	
400-139305-13 MSD	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 SO4 E	

#### **Analysis Batch: 358006**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139305-8	AX13189 MW-8	Total/NA	Water	SM 4500 CI- E	
400-139305-9	AX13190 MW-9	Total/NA	Water	SM 4500 CI- E	
400-139305-10	AX13191 MW-10	Total/NA	Water	SM 4500 CI- E	
400-139305-11	AX13192 FB-1	Total/NA	Water	SM 4500 CI- E	
400-139305-12	AX13193 EB-1	Total/NA	Water	SM 4500 CI- E	
400-139305-13	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 CI- E	
MB 400-358006/6	Method Blank	Total/NA	Water	SM 4500 CI- E	

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Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139305-1 SDG: Barry Gypsum (8)

#### **General Chemistry (Continued)**

#### **Analysis Batch: 358006 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-358006/7	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
MRL 400-358006/3	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
400-139305-13 MS	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 CI- E	
400-139305-13 MSD	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 CI- E	

#### Analysis Batch: 358226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139305-8	AX13189 MW-8	Total/NA	Water	SM 4500 F C	
400-139305-11	AX13192 FB-1	Total/NA	Water	SM 4500 F C	
MB 400-358226/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-358226/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-139172-A-14 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-139172-A-14 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-139178-A-3 DU	Duplicate	Total/NA	Water	SM 4500 F C	

#### **Analysis Batch: 358231**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139305-1	AX13182 MW-1	Total/NA	Water	SM 4500 F C	
400-139305-2	AX13183 MW-2	Total/NA	Water	SM 4500 F C	
400-139305-3	AX13184 MW-3	Total/NA	Water	SM 4500 F C	
MB 400-358231/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-358231/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-139178-A-16 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-139178-A-16 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

#### **Analysis Batch: 358604**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139305-4	AX13185 MW-4	Total/NA	Water	SM 4500 F C	
400-139305-5	AX13186 MW-5	Total/NA	Water	SM 4500 F C	
400-139305-6	AX13187 MW-6	Total/NA	Water	SM 4500 F C	
400-139305-7	AX13188 MW-7	Total/NA	Water	SM 4500 F C	
400-139305-9	AX13190 MW-9	Total/NA	Water	SM 4500 F C	
400-139305-10	AX13191 MW-10	Total/NA	Water	SM 4500 F C	
400-139305-12	AX13193 EB-1	Total/NA	Water	SM 4500 F C	
400-139305-13	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 F C	
MB 400-358604/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-358604/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-139305-5 MS	AX13186 MW-5	Total/NA	Water	SM 4500 F C	
400-139305-5 MSD	AX13186 MW-5	Total/NA	Water	SM 4500 F C	
400-139305-13 MS	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 F C	
400-139305-13 MSD	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 F C	
400-139305-9 DU	AX13190 MW-9	Total/NA	Water	SM 4500 F C	

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139305-1 SDG: Barry Gypsum (8)

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

**Client Sample ID: Lab Control Sample** 

Client Sample ID: AX13186 MW-5

Client Sample ID: AX13186 MW-5

**Prep Type: Total/NA** 

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Method: SM 4500 CI- E - Chloride, Total

Lab Sample ID: MB 400-357866/16

**Matrix: Water** 

**Analysis Batch: 357866** 

MB MB

Analyte Result Qualifier RL **MDL** Unit Analyzed Dil Fac Prepared 2.0 Chloride 0.60 mg/L 06/21/17 11:27 <0.60

Lab Sample ID: LCS 400-357866/17

**Matrix: Water** 

**Analysis Batch: 357866** 

Spike LCS LCS %Rec. Added Limits Analyte Result Qualifier Unit %Rec Chloride 30.0 32.7 mg/L 109 90 - 110

Lab Sample ID: MRL 400-357866/13

**Matrix: Water** 

Analysis Batch: 357866

Spike MRL MRL %Rec. Added Result Qualifier Limits Analyte Unit D %Rec Chloride 2.00 1.09 J mg/L 54 50 - 150

Lab Sample ID: 400-139305-5 MS

**Matrix: Water** 

**Analysis Batch: 357866** 

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 3.4 10.0 15.4 120 73 - 120 mg/L

Lab Sample ID: 400-139305-5 MSD

**Matrix: Water** 

**Analysis Batch: 357866** 

Spike MSD MSD %Rec. RPD Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 10.0 73 - 120 3.4 15.3 mg/L 119

Lab Sample ID: MB 400-358006/6

**Matrix: Water** 

Analysis Batch: 358006

MB MB

Analyte Result Qualifier RL MDL Unit Prepared D Analyzed Dil Fac 20 Chloride 0.60 mg/L 06/22/17 12:10 < 0.60

Lab Sample ID: LCS 400-358006/7

**Matrix: Water** 

Analysis Batch: 358006

Spike LCS LCS %Rec. Added Analyte Result Qualifier Unit %Rec Limits Chloride 30.0 32.2 mg/L 107 90 - 110

Lab Sample ID: MRL 400-358006/3

**Matrix: Water** 

**Analysis Batch: 358006** 

Spike MRL MRL %Rec. Added Result Qualifier Analyte Unit D %Rec Limits Chloride 2.00 1.21 J mg/L 60 50 - 150

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**Client Sample ID: Method Blank** Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: AX13194 MW-4 DUP

Client Sample ID: AX13194 MW-4 DUP

**Client Sample ID: Method Blank** 

**Client Sample ID: Lab Control Sample** 

**Client Sample ID: Matrix Spike Duplicate** 

**Client Sample ID: Matrix Spike** 

Prep Type: Total/NA

Prep Type: Total/NA

**Prep Type: Total/NA** 

Prep Type: Total/NA

**Prep Type: Total/NA** 

Prep Type: Total/NA

**Prep Type: Total/NA** 

**Client Sample ID: Duplicate** 

Lab Sample ID: 400-139305-13 MS

Client: Alabama Power General Test Laboratory

**Matrix: Water** 

Analysis Batch: 358006

Project/Site: CCR Plant Barry

	Sample	Sample	Spike	EB	EB				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	3.2		10.0	15.0		mg/L		118	73 - 120	

Lab Sample ID: 400-139305-13 MSD

**Matrix: Water** 

Analysis Batch: 358006

Analysis Baton. 00000	Sample	Sample	Spike	ЕВ	EB				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	3.2		10.0	15.2		mg/L		120	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-358226/3

**Matrix: Water** 

Analysis Batch: 358226

	MB	MB
Analyte	Result	Qualifier

**MDL** Unit RL Prepared Analyzed Dil Fac Fluoride <0.032 0.10 0.032 mg/L 06/24/17 09:45

Lab Sample ID: LCS 400-358226/4

**Matrix: Water** 

Analysis Batch: 358226

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Fluoride	4.00	3.94		mg/L		99	90 - 110	

Lab Sample ID: 400-139172-A-14 MS

**Matrix: Water** 

Analysis Batch: 358226

7 maryolo Batom 000220	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Fluoride	0.11		1.00	1.10		ma/L		99	75 - 125	

Lab Sample ID: 400-139172-A-14 MSD

**Matrix: Water** 

**Analysis Batch: 358226** 

•	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Fluoride	0.11		1.00	1.08		ma/L		97	75 - 125	2	4

Lab Sample ID: 400-139178-A-3 DU

**Matrix: Water** 

Analysis Batch: 358226

7a. <b>,</b> 0.0 _ a.0 0000	Sample	Sample	DU	DU					RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit
Fluoride	0.049	J	 0.0480	J	mg/L	_		2	4

TestAmerica Pensacola

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TestAmerica Job ID: 400-139305-1 SDG: Barry Gypsum (8)

#### Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: MB 400-358231/3 Client Sample ID: Method Blank Prep Type: Total/NA **Matrix: Water** 

**Analysis Batch: 358231** 

MB MB Analyte Result Qualifier RL **MDL** Unit Analyzed Dil Fac D Prepared 0.10 Fluoride <0.032 0.032 mg/L 06/24/17 11:09

Lab Sample ID: LCS 400-358231/4 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 358231** 

Spike LCS LCS %Rec. Added Limits Analyte Result Qualifier Unit %Rec 99 Fluoride 4.00 3.94 mg/L 90 - 110

Lab Sample ID: 400-139178-A-16 MS **Client Sample ID: Matrix Spike Matrix: Water** Prep Type: Total/NA

Analysis Batch: 358231

Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier Limits Analyte Unit D %Rec Fluoride 0.060 J 1.00 1.02 96 75 - 125 mg/L

Client Sample ID: Matrix Spike Duplicate Lab Sample ID: 400-139178-A-16 MSD **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 358231** 

Sample Sample Spike MSD MSD %Rec. RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit Fluoride 0.060 J 1.00 1.00 mg/L 94 75 - 125

Lab Sample ID: MB 400-358604/3 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 358604** 

MR MR

Analyte Result Qualifier RL **MDL** Unit Analyzed Dil Fac Prepared Fluoride <0.032 0.10 06/27/17 16:45 0.032 mg/L

Lab Sample ID: LCS 400-358604/4 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 358604

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits Fluoride 4 00 4.02 101 90 - 110 mg/L

Lab Sample ID: 400-139305-5 MS Client Sample ID: AX13186 MW-5 Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 358604

Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier **Analyte** Unit %Rec Limits Fluoride <0.032 1.00 0.970 mg/L 97 75 - 125

Lab Sample ID: 400-139305-5 MSD Client Sample ID: AX13186 MW-5 Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 358604** 

Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Added Limits Analyte Result Qualifier Unit D %Rec RPD Limit Fluoride < 0.032 1.00 0.970 97 75 - 125 0 mg/L

TestAmerica Pensacola

Prep Type: Total/NA

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SDG: Barry	Gypsum	(8)

Client Sample ID: AX13194 MW-4 DUP Prep Type: Total/NA

Client Sample ID: AX13194 MW-4 DUP

Client Sample ID: AX13190 MW-9

Client Sample ID: Method Blank

**Client Sample ID: Lab Control Sample** 

**Client Sample ID: Lab Control Sample** 

Client Sample ID: AX13186 MW-5

Analysis Batch: 358604

**Matrix: Water** 

Project/Site: CCR Plant Barry

Sample Sample Spike EB EB %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Fluoride <0.032 1.00 0.950 95 75 - 125 mg/L

Lab Sample ID: 400-139305-13 MSD

Lab Sample ID: 400-139305-13 MS

Client: Alabama Power General Test Laboratory

**Matrix: Water** 

**Analysis Batch: 358604** 

Sample Sample Spike EB EB %Rec. **RPD** Result Qualifier Added Result Qualifier Limits RPD Analyte Unit D %Rec Limit Fluoride <0.032 1.00 0.950 mg/L 95 75 - 125 n

Lab Sample ID: 400-139305-9 DU **Matrix: Water** 

Analysis Batch: 358604

DU DU RPD Sample Sample Result Qualifier Result Qualifier RPD **Analyte** Unit Limit Fluoride 0.070 J 0.0700 J mg/L

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-357892/6

**Matrix: Water** 

**Analysis Batch: 357892** 

MR MR

Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac Sulfate <1.4 5.0 1.4 mg/L 06/21/17 14:40

Lab Sample ID: LCS 400-357892/7

**Matrix: Water** 

**Analysis Batch: 357892** 

Spike LCS LCS %Rec. Added Analyte Result Qualifier Unit %Rec Limits Sulfate 15.0 15.8 106 90 - 110 mg/L

Lab Sample ID: MRL 400-357892/3

**Matrix: Water** 

Analysis Batch: 357892

Spike MRL MRL %Rec. Analyte Added Result Qualifier Unit D %Rec Limits Sulfate 5 00 4.37 J mg/L 87 50 - 150

Lab Sample ID: 400-139305-5 MS

**Matrix: Water** 

Analysis Batch: 357892

MS MS Sample Sample Spike %Rec. Result Qualifier Added Result Qualifier Limits **Analyte** Unit %Rec Sulfate 8.6 10.0 19.4 mg/L 108 77 - 128

10

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139305-1 SDG: Barry Gypsum (8)

% Doo

DDD

#### Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Sample Sample

Lab Sample ID: 400-139305-5 MSD	Client Sample ID: AX13186 MW-5
Matrix: Water	Prep Type: Total/NA
Analysis Patch: 257902	

Analysis Batch: 35/892

	Sample	Sample	Spike	IVISD	INIOD				/onec.		KFD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Sulfate	8.6		10.0	19.6		mg/L	_	110	77 - 128	1	5	

MCD MCD

Snika

Lab Sample ID: MB 400-358005/15 Client Sample ID: Method Blank **Matrix: Water Prep Type: Total/NA** 

Analysis Batch: 358005

MB MB **MDL** Unit RL Analyte Result Qualifier Analyzed Dil Fac Prepared 5.0 06/22/17 10:27 Sulfate <1.4 1.4 mg/L

Lab Sample ID: LCS 400-358005/16 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 358005

Spike LCS LCS %Rec. Added Result Qualifier Limits Analyte Unit D %Rec Sulfate 15.0 15.6 mg/L 104 90 - 110

Lab Sample ID: MRL 400-358005/12 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 358005** 

MRL MRL Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Sulfate 5.00 4.35 J mg/L 87 50 - 150

Lab Sample ID: 400-139305-13 MS Client Sample ID: AX13194 MW-4 DUP **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 358005

Spike FR FR %Rec. Sample Sample Added Analyte Result Qualifier Result Qualifier Unit D %Rec Limits Sulfate 10.0 77 - 128 6.7 18.3 mg/L 116

Lab Sample ID: 400-139305-13 MSD Client Sample ID: AX13194 MW-4 DUP Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 358005** 

Sample Sample Spike EB EB %Rec. **RPD** Analyte **Result Qualifier** Added Result Qualifier Limits Limit Unit D %Rec RPD Sulfate 10.0 6.7 18.1 mg/L 114 77 - 128

<u>Test</u>America

# **Chain of Custody Record**

TestAmerica Pensacola

3355 McLemore Drive Pensacola, FL 32514		Chain	of Cu	Chain of Custody Record	cord					THE LEADS	THE LEADER IN ENVIRONMENTAL TESTING
Phone (650) 4/4-1001 Fax (850) 4/8-26/1	Sampler			d de l	·N			Carrier	Carrier Tracking No/s):	COC No.	
Client Information	y Goggir	SI		Whit	Whitmire, Cheyenne R	eyenne	2	Calle	Hacking No(s).	400-56525-24537.1	5-24537.1
	Phone:			E-Mail cheye	enne.whi	tmire@	E-Mail: cheyenne.whitmire@testamericainc.com	ainc.com		Page: Page 1 of 1	1
Сотралу: Alabama Power General Test Laboratory							An	Analysis Requested	pe	Job #:	
Address: 744 County Rd 87 GSC #8	Due Date Requested:	÷								Preservati	Preservation Codes:
City. Calera	TAT Requested (days):	ys): Routine	tine							B - NaOH C - Zn Acet	
State, Zip: AL, 35040									923	D - Nitric Acid E - NaHSO4	cid P - Na2O4S 4 Q - Na2SO3
Phone: 205-664-6121(Tel)	PO#:				(0			X.	94	G - Amchlor H - Ascorbia	
Email: sgcopela@southernco.com	WO #:				_			400-139305 COC	2000		
	Project #: 40007143				-				-	K-EDTA L-EDA	W - ph 4-5 Z - other (specify)
m (8)	SSOW#:				ACCRECATE VALUE OF THE PARTY OF					of cor	
Sample Identification	Sample Date	Sample	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oll, BT=TIssue, A=AI?	Field Filtered Perform MS/M	2W 4200 CI E	3 4500 SO4 MS			Total Number	Special Instructions/Note:
	$\backslash$	X	Preser	Preservation Code:	-	-					
AX13182	6/6/17	0845	O	Water	E	×	×			1 MW-1	
AX13183	6/6/17	0952	9	Water		×	×			1 MW-2	
AX13184	6/6/17	1102	9	Water		×	×			1 MW-3	
AX13185	6/6/17	1205	9	Water		×	×			1 MW-4	
AX13186	6/6/17	1309	g	Water	>	×	×			1 MW-5	
AX13187	6/6/17	1424	ტ	Water		×	×			1 MW-6	
AX13188	6/7/17	0834	O	Water		×	×			1 MW-7	
AX13189	6/7/17	0927	O	Water		×	×			1 MW-8	
AX13190	6/7/17	1035	9	Water		×	×			1 MW-9	
AX13191	6/7/17	1118	9	Water		×	×			1 MW-10	
AX13192	6/6/17	1252	9	Water		×	×			7 FB-1 (Field Blank)	ld Blank)
AX13193	6/7/17	1130	9	Water		×	×			1 EB-1 (Eq.	EB-1 (Equipment Blank)
AX13194	6/6/17	1205	9	Water	>	×	×			1 MW-4 Du	MW-4 Dup (Sample Duplicate)
Non-Haxard Flammable Skin Irritant Poi	Poison B Unk	Unknown	Radiological	)e	Sam	ple Di	le Disposal (Af Retum To Client	ee may be	assessed if samples a	Archive For	r than 1 month)
ested: I, II, III, IV, Other (specify)					Spe	cial Inst	ructions/Q	. Requirem			
Empty Kit Relinquished by:		Date:			Time:		'		Method of Shipment:		
Refinquished by: Sarah Copeland	Date/Time: 06/12/2	2017; 0945		Company APC		Received by:	ph:		Date/Time:	3/17 08	Company
Relinquished by:	Date/Time:			Company		Received by	by:		Date/Time		Company
Relinquished by:	Date/Time:			Company		Received by	by:		Date/Time	2	Company
Custody Seals Intact: Custody Seal No.:						Cooler T	emperature(s	Cooler Temperature(s) °C and Other Remarks:	177	010	7
A Tes A NO					1				( ) /	1	1

#### **Login Sample Receipt Checklist**

Client: Alabama Power General Test Laboratory

Job Number: 400-139305-1 SDG Number: Barry Gypsum (8)

List Source: TestAmerica Pensacola

Login Number: 139305

List Number: 1

Creator: Perez, Trina M		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.5°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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#### **Accreditation/Certification Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139305-1 SDG: Barry Gypsum (8)

#### **Laboratory: TestAmerica Pensacola**

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	<b>Identification Number</b>	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
lowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

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THE LEADER IN ENVIRONMENTAL TESTING

#### ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola 3355 McLemore Drive Pensacola, FL 32514 Tel: (850)474-1001

TestAmerica Job ID: 400-139174-1

TestAmerica Sample Delivery Group: Barry Gypsum (8)

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory 744 County Rd 87 GSC #8 Calera, Alabama 35040

Attn: Sarah Copeland

Cheyroud Whitmin

Authorized for release by: 7/14/2017 2:59:50 PM

Cheyenne Whitmire, Project Manager II (850)471-6222

cheyenne.whitmire@testamericainc.com

·····LINKS ·······

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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#### **Case Narrative**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139174-1 SDG: Barry Gypsum (8)

Job ID: 400-139174-1

Laboratory: TestAmerica Pensacola

**Narrative** 

Job Narrative 400-139174-1

#### RAD

Method(s) PrecSep 0: Radium 228 Prep Batch 160-314406. The following samples were reduced due to limited volume: AX13195 MW-1 (400-139174-1), AX13196 MW-2 (400-139174-2), AX13197 MW-3 (400-139174-3), AX13198 MW-4 (400-139174-4), AX13199 MW-5 (400-139174-5), AX13200 MW-6 (400-139174-6), AX13200 MW-6 (400-139174-6)DU]), AX13201 MW-7 (400-139174-7), AX13202 MW-8 (400-139174-8), AX13203 MW-9 (400-139174-9), AX13204 MW-10 (400-139174-10), AX13205 FB-1 (400-139174-11), AX13206 EB-1 (400-139174-12) and AX13207 MW-4 DUP (400-139174-13).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-314394. The following samples were reduced due to limited volume: AX13195 MW-1 (400-139174-1), AX13196 MW-2 (400-139174-2), AX13197 MW-3 (400-139174-3), AX13198 MW-4 (400-139174-4), AX13199 MW-5 (400-139174-5), AX13200 MW-6 (400-139174-6), AX13200 MW-6 (400-139174-6)DU]), AX13201 MW-7 (400-139174-7), AX13202 MW-8 (400-139174-8), AX13203 MW-9 (400-139174-9), AX13204 MW-10 (400-139174-10), AX13205 FB-1 (400-139174-11), AX13206 EB-1 (400-139174-12) and AX13207 MW-4 DUP (400-139174-13).

#### **Method Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139174-1 SDG: Barry Gypsum (8)

Protocol	Laboratory
SW846	TAL SL

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

#### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates. TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

#### **Laboratory References:**

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

#### **Sample Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139174-1 SDG: Barry Gypsum (8)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139174-1	AX13195 MW-1	Water	06/06/17 08:45	06/12/17 14:27
400-139174-2	AX13196 MW-2	Water	06/06/17 09:52	06/12/17 14:27
400-139174-3	AX13197 MW-3	Water	06/06/17 11:02 (	06/12/17 14:27
400-139174-4	AX13198 MW-4	Water	06/06/17 12:05 (	06/12/17 14:27
400-139174-5	AX13199 MW-5	Water	06/06/17 13:09 (	06/12/17 14:27
400-139174-6	AX13200 MW-6	Water	06/06/17 14:24 (	06/12/17 14:27
400-139174-7	AX13201 MW-7	Water	06/07/17 08:34 (	06/12/17 14:27
400-139174-8	AX13202 MW-8	Water	06/07/17 09:27	06/12/17 14:27
400-139174-9	AX13203 MW-9	Water	06/07/17 10:35	06/12/17 14:27
400-139174-10	AX13204 MW-10	Water	06/07/17 11:18 (	06/12/17 14:27
400-139174-11	AX13205 FB-1	Water	06/06/17 12:52	06/12/17 14:27
400-139174-12	AX13206 EB-1	Water	06/07/17 11:30 (	06/12/17 14:27
400-139174-13	AX13207 MW-4 DUP	Water	06/06/17 12:05 (	06/12/17 14:27

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-139174-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (8)

Client Sample ID: AX13195 MW-1

Lab Sample ID: 400-139174-1 Date Collected: 06/06/17 08:45 **Matrix: Water** 

Date Received: 06/12/17 14:27

adium- <mark>226</mark> (	(GFPC)								
		Officert.	Officert.						
Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
0.697		0.172	0.183	1.00	0.129	pCi/L	06/21/17 08:58	07/13/17 06:47	1
%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
94.1		40 - 110					06/21/17 08:58	07/13/17 06:47	1
	Result 0.697	%Yield Qualifier	Count Uncert.  Result Qualifier (2σ+/-)  0.697 0.172  %Yield Qualifier Limits	Count Uncert. Uncert. Uncert.	Count   Total   Uncert.   Uncert.   Uncert.   Uncert.	Count   Total   Uncert.   Uncert.	Count   Total   Uncert.   Uncert.   Uncert.   Count   Uncert.   Uncert.   Uncert.   Count   Uncert.   U	Count Uncert. Uncert. Uncert.   Variety   V	Count Uncert. Uncert. Uncert.   Variety   V

Method: 9320 - I	· ·	,	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.342	U	0.299	0.301	1.00	0.479	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	89.0		40 - 110					06/21/17 09:52	06/29/17 14:51	1

Method: Ra226_Ra	228 - Con	nbined Ra	dium-226 a	nd Radiur	m-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.04		0.345	0.352	5.00	0.479	pCi/L		07/13/17 12:03	1

7/14/2017

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-139174-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (8)

Client Sample ID: AX13196 MW-2

Lab Sample ID: 400-139174-2 Date Collected: 06/06/17 09:52 **Matrix: Water** Date Received: 06/12/17 14:27

	Radium-226 (	(GFPC)								
	· ·	,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.492	- Qualifier	0.150	0.156	1.00	0.135			07/13/17 06:47	1
Radialli-220	0.402		0.100	0.100	1.00	0.100	PO#E	00/21/17 00:00	01710717 00.17	•
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2	-	40 - 110					06/21/17 08:58	07/13/17 06:47	

l					
) RL	RL MDC	Unit	Prepared	Analyzed	Dil Fac
3 1.00	0.451	pCi/L	06/21/17 09:52	06/29/17 14:51	1
			Prepared	Analyzed	Dil Fac
			06/21/17 09:52	06/29/17 14:51	1
			06/21/17 09:52	06/29/17 14:51	1
_				1.00 0.451 pCi/L 06/21/17 09:52  Prepared 06/21/17 09:52	1.00 0.451 pCi/L 06/21/17 09:52 06/29/17 14:51

Method: Ra226_Ra	228 - Com	bined Rad	dium-226 a	nd Radiun	1-228					
_			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.639		0.305	0.308	5.00	0.451	pCi/L		07/13/17 12:03	1

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-139174-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (8)

Client Sample ID: AX13197 MW-3

Lab Sample ID: 400-139174-3 Date Collected: 06/06/17 11:02 **Matrix: Water** 

Date Received: 06/12/17 14:27

Method: 9315 - R	Radium-226 (	(GFPC)	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.369		0.133	0.137	1.00	0.123	pCi/L	06/21/17 08:58	07/13/17 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/21/17 08:58	07/13/17 06:47	1

Method: 9320 - I		,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.378	U	0.254	0.257	1.00	0.388	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	90.8		40 - 110					06/21/17 09:52	06/29/17 14:51	1

Method: Ra226_Ra	228 - Com	bined Rad	dium-226 a	nd Radiun	n- <b>228</b>					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.748		0.287	0.291	5.00	0.388	pCi/L		07/13/17 12:03	1

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-139174-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (8)

Client Sample ID: AX13198 MW-4

Lab Sample ID: 400-139174-4 Date Collected: 06/06/17 12:05 **Matrix: Water** 

Date Received: 06/12/17 14:27

Method: 9315 - F	Radium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.411	·-	0.134	0.139	1.00	0.111	pCi/L	06/21/17 08:58	07/13/17 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/21/17 08:58	07/13/17 06:47	1

Method: 9320 - F		(	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.687		0.289	0.296	1.00	0.398	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	89.3		40 - 110					06/21/17 09:52	06/29/17 14:51	1

Method: Ra226_Ra	a228 - Con	nbined Ra	dium-226 a	ınd Radiui	m-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.10		0.319	0.327	5.00	0.398	pCi/L		07/13/17 12:03	1

7/14/2017

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-139174-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (8)

Client Sample ID: AX13199 MW-5

Lab Sample ID: 400-139174-5 Date Collected: 06/06/17 13:09 Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - R	adium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.225		0.112	0.114	1.00	0.131	pCi/L	06/21/17 08:58	07/13/17 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/21/17 08:58	07/13/17 06:47	1

Method: 9320 - I		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.366	U	0.275	0.277	1.00	0.430	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	92.0		40 - 110					06/21/17 09:52	06/29/17 14:51	1

Method: Ra2	26_Ra228 - Con	nbined Ra	dium-226 a	ınd Radiui	m-228					
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radi 226 + 228	ium 0.591		0.296	0.299	5.00	0.430	pCi/L		07/13/17 12:03	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139174-1 SDG: Barry Gypsum (8)

Client Sample ID: AX13200 MW-6

Date Collected: 06/06/17 14:24 Date Received: 06/12/17 14:27

Lab Sample ID: 400-139174-6

**Matrix: Water** 

Method: 9315 - R	Radium-226 (	(GFPC)	Count	Total						
Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analvzed	Dil Fac
Radium-226	0.408		0.134	0.139	1.00	0.120			07/13/17 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/21/17 08:58	07/13/17 06:47	1

Ba Carrier	101		40 - 110					06/21/17 08:58	07/13/17 06:47	1
Method: 9320 - Ra	adium-228 (	(GFPC)								
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0673	U	0.260	0.261	1.00	0.455	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	92.0		40 - 110					06/21/17 09:52	06/29/17 14:51	1

Method: Ra226_Ra	228 - Comb	oined Rad	dium-226 a	nd Radiun	n-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result (	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.476		0.293	0.295	5.00	0.455	pCi/L		07/13/17 12:03	1

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-139174-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (8)

Client Sample ID: AX13201 MW-7

Lab Sample ID: 400-139174-7 Date Collected: 06/07/17 08:34 **Matrix: Water** 

Date Received: 06/12/17 14:27

Method: 9315 - R	Radium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.284		0.116	0.119	1.00	0.118	pCi/L	06/21/17 08:58	07/13/17 06:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					06/21/17 08:58	07/13/17 06:48	1

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.149	U	0.208	0.208	1.00	0.410	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	92.0		40 - 110					06/21/17 09:52	06/29/17 14:51	1

Method: Ra226_Ra2	228 - Com	bined Ra	dium-226 a	nd Radiun	1-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226	0.136	U	0.238	0.240	5.00	0.410	pCi/L		07/13/17 12:03	1

+ 228

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-139174-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (8)

Client Sample ID: AX13202 MW-8

Lab Sample ID: 400-139174-8 Date Collected: 06/07/17 09:27 **Matrix: Water** 

Date Received: 06/12/17 14:27

Method: 9315 - Ra	adium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.289		0.112	0.115	1.00	0.106	pCi/L	06/21/17 08:58	07/13/17 06:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					06/21/17 08:58	07/13/17 06:48	1

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.188	Ū	0.233	0.233	1.00	0.385	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	91.2		40 - 110					06/21/17 09:52	06/29/17 14:51	1

Method: Ra226_Ra	228 - Com	bined Rad	dium-226 a	nd Radiun	n- <b>228</b>					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.477		0.258	0.260	5.00	0.385	pCi/L		07/13/17 12:03	1

7/14/2017

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-139174-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (8)

Client Sample ID: AX13203 MW-9

Lab Sample ID: 400-139174-9 Date Collected: 06/07/17 10:35 **Matrix: Water** 

Date Received: 06/12/17 14:27

Method: 9315 - F	Radium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.612	·-	0.158	0.167	1.00	0.115	pCi/L	06/21/17 08:58	07/13/17 06:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					06/21/17 08:58	07/13/17 06:48	1

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.507		0.285	0.289	1.00	0.426	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	90.5		40 - 110					06/21/17 09:52	06/29/17 14:51	1

Method: Ra226_Ra	228 - Con	nbined Rad	dium-226 a	nd Radiun	n- <b>228</b>					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.12		0.326	0.334	5.00	0.426	pCi/L		07/13/17 12:03	1

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-139174-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (8)

Client Sample ID: AX13204 MW-10

Lab Sample ID: 400-139174-10 Date Collected: 06/07/17 11:18 **Matrix: Water** 

Date Received: 06/12/17 14:27

Method: 9315 - R	adium-226 (	(GFPC)	Count Uncert.	Total Uncert.						
Analyte		Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC		Prepared	Analyzed	Dil Fac
Radium-226	0.610		0.165	0.174	1.00	0.152	pCi/L	06/21/17 08:58	07/13/17 06:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					06/21/17 08:58	07/13/17 06:48	1

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.793		0.342	0.350	1.00	0.489	pCi/L	06/21/17 09:52	06/29/17 14:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					06/21/17 09:52	06/29/17 14:52	1
Y Carrier	87.5		40 - 110					06/21/17 09:52	06/29/17 14:52	1

Method: Ra226_R	a228 - Con	nbined Ra	dium-226 a	ınd Radiui	m-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.40		0.380	0.391	5.00	0.489	pCi/L		07/13/17 12:03	1

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139174-1

SDG: Barry Gypsum (8)

Client Sample ID: AX13205 FB-1

Lab Sample ID: 400-139174-11 Date Collected: 06/06/17 12:52 **Matrix: Water** Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC) Total Count Uncert. Uncert. Result Qualifier Analyte **MDC** Unit Dil Fac  $(2\sigma + / -)$  $(2\sigma + / -)$ RL Prepared Analyzed 0.0858 U Radium-226 0.0801 0.0805 1.00 06/21/17 08:58 07/13/17 06:48 0.122 pCi/L Carrier **%Yield Qualifier** Limits Prepared Analyzed Dil Fac 40 - 110 06/21/17 08:58 07/13/17 06:48 Ba Carrier

Method: 9320 - Radium-228 (GFPC) Count Total Uncert. Uncert. Analyte Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ RL **MDC** Unit Prepared Analyzed Dil Fac Radium-228 0.00745 U 0.231 0.231 1.00 0.415 pCi/L 06/21/17 09:52 06/29/17 14:52 Carrier %Yield Qualifier Limits Prepared Analyzed Dil Fac Ba Carrier 99.7 40 - 110 06/21/17 09:52 06/29/17 14:52 Y Carrier 92.7 40 - 110 06/21/17 09:52 06/29/17 14:52

Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228 Count Total Uncert. Uncert. Analyte Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ RL **MDC** Unit Prepared Analyzed Dil Fac Combined Radium 226 0.0932 U 0.244 0.244 5.00 0.415 pCi/L 07/13/17 12:03

+ 228

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-139174-1 Project/Site: CCR Plant Barry

SDG: Barry Gypsum (8)

Lab Sample ID: 400-139174-12

Client Sample ID: AX13206 EB-1

Date Collected: 06/07/17 11:30 Date Received: 06/12/17 14:27

**Matrix: Water** 

Method: 9315 - I	Radium-226 (	(GFPC)								
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0595	U	0.0850	0.0852	1.00	0.144	pCi/L	06/21/17 08:58	07/13/17 06:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/21/17 08:58	07/13/17 06:49	

97.9		40 - 110					06/21/17 08:58	07/13/17 06:49	1
dium-228 (	(GFPC)								
		Count	Total						
		Uncert.	Uncert.						
Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
0.00548	U	0.225	0.225	1.00	0.410	pCi/L	06/21/17 09:52	06/29/17 14:52	1
%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
97.9		40 - 110					06/21/17 09:52	06/29/17 14:52	1
88.6		40 - 110					06/21/17 09:52	06/29/17 14:52	1
	Result 0.00548  **Yield 97.9	Result Qualifier 0.00548 U  %Yield Qualifier 97.9	Count Uncert.   (2σ+/-)   0.00548   U   0.225	Count   Total   Uncert.   Uncert.   (2σ+/-)   (2σ+/-)	Count   Total   Uncert.   Uncert.   Uncert.   (2σ+/-)   RL   (2σ+/-)   (2	Count   Total   Uncert.   Uncert.   Result   Qualifier   (2σ+/-)   (2σ+/-)   (2σ+/-)   RL   MDC   (0.00548   U   0.225   0.225   1.00   0.410	Count   Total   Uncert.   Uncert.   Uncert.     Eesult   Qualifier   (2σ+/-)   (2σ+/-)   (2σ+/-)   RL   MDC   Unit	Count   Total   Uncert.   Uncert.   Uncert.   Uncert.   Uncert.   O.00548   U   O.225   O.225   O.225   O.2410   O.410   O.	Count   Total   Uncert.   Uncert.   Uncert.   Uncert.   Uncert.   O.00548   U   O.225   O.225   O.225   O.225   O.225   O.2410   O.00548   O.00

Method: Ra226_Ra2	28 - Com	nbined Ra	dium-226 a	nd Radiun	n- <b>228</b>					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226	0.0650	Ū	0.240	0.240	5.00	0.410	pCi/L		07/13/17 12:03	1

+ 228

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-139174-1 Project/Site: CCR Plant Barry

Client Sample ID: AX13207 MW-4 DUP

Date Collected: 06/06/17 12:05 Date Received: 06/12/17 14:27

SDG: Barry Gypsum (8)

Lab Sample ID: 400-139174-13

**Matrix: Water** 

Method: 9315 - Rad	dium-226 (	GFPC)								
		•	Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.225		0.108	0.110	1.00	0.124	pCi/L	06/21/17 08:58	07/13/17 08:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					06/21/17 08:58	07/13/17 08:43	1

Method: 9320 - F	Radium-228 (	GFPC)								
			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.03		0.343	0.355	1.00	0.451	pCi/L	06/21/17 09:52	06/29/17 14:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					06/21/17 09:52	06/29/17 14:52	1
Y Carrier	87.5		40 - 110					06/21/17 09:52	06/29/17 14:52	1

Method: Ra226_Ra	228 - Con	nbined Ra	dium-226 a	nd Radium	1-228					
_			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.25		0.359	0.372	5.00	0.451	pCi/L		07/13/17 12:03	1

# **Definitions/Glossary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139174-1 SDG: Barry Gypsum (8)

#### **Qualifiers**

#### Rad

Qualifier	Qualifier	Description
Qualifici	Qualifici	Description

U Result is less than the sample detection limit.

# **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDI	Estimated Detection Limit (Dievin)

Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) Not Calculated NC

ND Not Detected at the reporting limit (or MDL or EDL if shown)

**PQL Practical Quantitation Limit** 

QC **Quality Control** 

**RER** Relative Error Ratio (Radiochemistry)

RLReporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

**TEF** Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) **TEQ** 

SDG: Barry Gypsum (8)

Client Sample ID: AX13195 MW-1

Client: Alabama Power General Test Laboratory

Date Collected: 06/06/17 08:45 Date Received: 06/12/17 14:27

Project/Site: CCR Plant Barry

Lab Sample ID: 400-139174-1

**Matrix: Water** 

**Matrix: Water** 

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Client Sample ID: AX13196 MW-2 Lab Sample ID: 400-139174-2

Date Collected: 06/06/17 09:52

Date Received: 06/12/17 14:27

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Client Sample ID: AX13197 MW-3 Lab Sample ID: 400-139174-3

Date Collected: 06/06/17 11:02

Date Received: 06/12/17 14:27

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Client Sample ID: AX13198 MW-4 Lab Sample ID: 400-139174-4

Date Collected: 06/06/17 12:05

Date Received: 06/12/17 14:27

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Client: Alabama Power General Test Laboratory Project/Site: CCR Plant Barry

Client Sample ID: AX13199 MW-5

Date Collected: 06/06/17 13:09 Date Received: 06/12/17 14:27

Lab Sample ID: 400-139174-5

**Matrix: Water** 

**Matrix: Water** 

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Lab Sample ID: 400-139174-6 Client Sample ID: AX13200 MW-6

Date Collected: 06/06/17 14:24 Date Received: 06/12/17 14:27

Batch Batch Dilution Batch Prepared Prep Type Method Number or Analyzed Type Run Factor Analyst Lab Total/NA PrecSep-21 314394 06/21/17 08:58 LDE TAL SL Prep Total/NA Analysis 9315 1 317263 07/13/17 06:47 RTM TAL SL TAL SL Total/NA Prep PrecSep\_0 314406 06/21/17 09:52 LDE Total/NA Analysis 9320 1 315792 06/29/17 14:51 ALD TAL SL TAL SL Total/NA Analysis Ra226\_Ra228 1 317282 07/13/17 12:03 RTM

Client Sample ID: AX13201 MW-7 Lab Sample ID: 400-139174-7

Date Collected: 06/07/17 08:34 Date Received: 06/12/17 14:27

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Client Sample ID: AX13202 MW-8 Lab Sample ID: 400-139174-8 **Matrix: Water** 

Date Collected: 06/07/17 09:27 Date Received: 06/12/17 14:27

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

TestAmerica Job ID: 400-139174-1 SDG: Barry Gypsum (8)

Client: Alabama Power General Test Laboratory Project/Site: CCR Plant Barry

Lab Sample ID: 400-139174-9

**Matrix: Water** 

Client Sample ID: AX13203 MW-9

Date Collected: 06/07/17 10:35 Date Received: 06/12/17 14:27

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21		<del></del>	314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Lab Sample ID: 400-139174-10 Client Sample ID: AX13204 MW-10

Date Collected: 06/07/17 11:18 **Matrix: Water** 

Date Received: 06/12/17 14:27

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:52	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Client Sample ID: AX13205 FB-1 Lab Sample ID: 400-139174-11

Date Collected: 06/06/17 12:52 **Matrix: Water** 

Date Received: 06/12/17 14:27

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:52	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Client Sample ID: AX13206 EB-1 Lab Sample ID: 400-139174-12

Date Collected: 06/07/17 11:30 Date Received: 06/12/17 14:27

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:52	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

TestAmerica Pensacola

**Matrix: Water** 

## **Lab Chronicle**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139174-1 SDG: Barry Gypsum (8)

Lab Sample ID: 400-139174-13

Client Sample ID: AX13207 MW-4 DUP Date Collected: 06/06/17 12:05 **Matrix: Water** 

Date Received: 06/12/17 14:27

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 08:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:52	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

#### **Laboratory References:**

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# **QC Association Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139174-1 SDG: Barry Gypsum (8)

## Rad

## **Prep Batch: 314394**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139174-1	AX13195 MW-1	Total/NA	Water	PrecSep-21	-
400-139174-2	AX13196 MW-2	Total/NA	Water	PrecSep-21	
400-139174-3	AX13197 MW-3	Total/NA	Water	PrecSep-21	
400-139174-4	AX13198 MW-4	Total/NA	Water	PrecSep-21	
400-139174-5	AX13199 MW-5	Total/NA	Water	PrecSep-21	
400-139174-6	AX13200 MW-6	Total/NA	Water	PrecSep-21	
400-139174-7	AX13201 MW-7	Total/NA	Water	PrecSep-21	
400-139174-8	AX13202 MW-8	Total/NA	Water	PrecSep-21	
400-139174-9	AX13203 MW-9	Total/NA	Water	PrecSep-21	
400-139174-10	AX13204 MW-10	Total/NA	Water	PrecSep-21	
400-139174-11	AX13205 FB-1	Total/NA	Water	PrecSep-21	
400-139174-12	AX13206 EB-1	Total/NA	Water	PrecSep-21	
400-139174-13	AX13207 MW-4 DUP	Total/NA	Water	PrecSep-21	
MB 160-314394/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-314394/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-139174-6 DU	AX13200 MW-6	Total/NA	Water	PrecSep-21	

#### **Prep Batch: 314406**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139174-1	AX13195 MW-1	Total/NA	Water	PrecSep_0	-
400-139174-2	AX13196 MW-2	Total/NA	Water	PrecSep_0	
400-139174-3	AX13197 MW-3	Total/NA	Water	PrecSep_0	
400-139174-4	AX13198 MW-4	Total/NA	Water	PrecSep_0	
400-139174-5	AX13199 MW-5	Total/NA	Water	PrecSep_0	
400-139174-6	AX13200 MW-6	Total/NA	Water	PrecSep_0	
400-139174-7	AX13201 MW-7	Total/NA	Water	PrecSep_0	
400-139174-8	AX13202 MW-8	Total/NA	Water	PrecSep_0	
400-139174-9	AX13203 MW-9	Total/NA	Water	PrecSep_0	
400-139174-10	AX13204 MW-10	Total/NA	Water	PrecSep_0	
400-139174-11	AX13205 FB-1	Total/NA	Water	PrecSep_0	
400-139174-12	AX13206 EB-1	Total/NA	Water	PrecSep_0	
400-139174-13	AX13207 MW-4 DUP	Total/NA	Water	PrecSep_0	
MB 160-314406/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-314406/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-139174-6 DU	AX13200 MW-6	Total/NA	Water	PrecSep_0	

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Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139174-1 SDG: Barry Gypsum (8)

# Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-314394/1-A

**Matrix: Water** 

**Matrix: Water** 

**Analysis Batch: 317263** 

**Analysis Batch: 317263** 

<b>Client Sample ID: Method Blank</b>
Prep Type: Total/NA

Prep Batch: 314394

	MB	MB	Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01017	U	0.0640	0.0640	1.00	0.128	pCi/L	06/21/17 08:58	07/13/17 06:46	1

Total

Count

MB MB

Carrier %Yield Qualifier Limits Ba Carrier 95.3 40 - 110

<u>06/21/17 08:58</u> <u>07/13/17 06:46</u>

Prepared

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA Prep Batch: 314394

Analyzed

Total

Spike LCS LCS %Rec. Uncert. Analyte Added Result Qual  $(2\sigma + / -)$ RL**MDC** Unit %Rec Limits Radium-226 15.1 15.46 1.58 1.00 0.131 pCi/L 102 68 - 137

LCS LCS

Lab Sample ID: LCS 160-314394/2-A

Carrier %Yield Qualifier Limits Ba Carrier 99.1 40 - 110

Lab Sample ID: 400-139174-6 DU

**Matrix: Water** 

**Analysis Batch: 317263** 

Client Sample ID: AX13200 MW-6

**Prep Type: Total/NA** Prep Batch: 314394

Total

	Sample	Sample	DU	DU	Uncert.						RER
Analyte	Result	Qual	Result	Qual	(2σ+/-)	RL	MDC	Unit		RER	Limit
Radium-226	0.408		 0.5201		0.157	1.00	0.131	pCi/L		0.38	1

DU DU

Carrier %Yield Qualifier Limits Ba Carrier 101 40 - 110

# Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-314406/1-A

**Matrix: Water** 

**Analysis Batch: 315792** 

Client	Sample	ID: Me	thod	Blank
	_	_	_	

**Prep Type: Total/NA** 

**Prep Batch: 314406** 

, ,			Count	Total						
	MB	MB	Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4699		0.289	0.292	1.00	0.438	pCi/L	06/21/17 09:52	06/29/17 14:50	1
	МВ	MB								

Carrier	%Yield Qualifier	Limits	Prepared A	Analyzed	Dil Fac
Ba Carrier	95.3	40 - 110	$\overline{06/21/17} \ 09:52 \overline{06/2}$	29/17 14:50	1
Y Carrier	91.6	40 - 110	06/21/17 09:52 06/2	29/17 14:50	1

TestAmerica Pensacola

Dil Fac

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Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139174-1 SDG: Barry Gypsum (8)

# Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-314406/2-A

**Analysis Batch: 315792** 

**Matrix: Water** 

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Prep Batch: 314406

Total Spike LCS LCS Uncert. %Rec. Added **Analyte** Result Qual  $(2\sigma + / -)$ RL **MDC** Unit %Rec Limits Radium-228 17.7 17.36 1.87 1.00 0.421 pCi/L 98 56 - 140

LCS LCS Carrier %Yield Qualifier I imits Ba Carrier 99.1 40 - 110 Y Carrier 90.8 40 - 110

Lab Sample ID: 400-139174-6 DU

**Matrix: Water** 

**Analysis Batch: 315792** 

Client Sample ID: AX13200 MW-6

Prep Type: Total/NA

**Prep Batch: 314406** 

Total Sample Sample DU DU Uncert. **RER** Analyte Result Qual Result Qual  $(2\sigma + / -)$ RL **MDC** Unit RER Limit Radium-228 0.0673 U 0.5247 0.279 1.00 0.404 pCi/L 0.85

DU DU Carrier %Yield Qualifier Limits Ba Carrier 101 40 - 110 Y Carrier 92.3 40 - 110

# Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-139174-6 DU

**Matrix: Water** 

**Analysis Batch: 317282** 

Client Sample ID: AX13200 MW-6

Prep Type: Total/NA

Total Sample Sample DU DU Uncert. **RER** Result Qual Analyte Result Qual  $(2\sigma + / -)$ RL MDC Unit Limit RER Combined 0.476 1.045 0.320 5.00 0.404 pCi/L 0.92 Radium 226 +

228

# TestAmerica

# Chain of Custody Record

3355 McLemore Drive Pensacola, FL 32514 Phone (850) 474-1001 Fax (850) 478-2671

Phone (850) 4/4-1001 Fax (850) 4/8-26/1	- Contract of			10.40				7-7-14	11000	
Client Information	Anthony Goggins	60		Whitm	Whitmire, Cheyenne R	nne R		Carrier Hacking No(s).	400-56525-24537.1	37.1
Client Contact: Sarah Copeland	Phone:			E-Mail: cheye	nne.whitmi	E-Mail: cheyenne.whitmire@testamericainc.com	ainc.com		Page: Page 1 of 2	
Company:							a de la companya de l		Je 1921 - 12917	Prio
Alabama Power General Test Laboratory	Due Date Decuested			1		A	Analysis Requested		3	1111
Address. 744 County Rd 87 GSC #8	Due Date Requeste								A - HCL M	des: M - Hexane
City: Calera	TAT Requested (da	l (days): Routine	Je.				2000	14	B - NaOH C - Zn Acetate	
State, Zip: AL, 35040					FPC		1		D - Nitric Acid E - NaHSO4	
Phone: 205-664-6121(Tel)	PO #;							A	G - Amchlor H - Ascorbic Acid	R - Na2S203 S - H2SO4 T - TSP Dodecahydrate
Email: sgcopela@southernco.com	WO#:				(oN		400-139174 COC	74 COC		
Project Name: CCR	Project #: 40007143				10 88					W - ph 4-5 Z - other (specify)
Site: Barry Gypsum (8)	SSOW#:				Y) asi				of cor	
Sample Identification	Sample Date	Sample	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastefoll, BT=TISSUE, A=AIr)	Field Filtered Perform MS/W 9315_Ra226, 93				Total Number	Special Instructions/Note:
		X	- 077	100	Ż					
AX13195	6/6/17	0845	O	Water	×				1 MW-1	
AX13196	6/6/17	0952	O	Water	×				1 MW-2	
AX13197	6/6/17	1102	ŋ	Water	×				1 MW-3	
AX13198	6/6/17	1205	ŋ	Water	×				1 MW-4	
AX13199	6/6/17	1309	O	Water	×				1 MW-5	
	1				Sample	Disposal ( A	fee may be assesse	d if samples are	Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)	1 month)
Non-Hazard Flammable Skin Imitant	Poison B Unknown		Radiological			Return To Client	t Disposal By Lab	By Lab	Archive For	Months
Deliverable Requested: I, II, III, IV, Other (specify)					Special	Instructions/Q	Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:			Time:	1	Δ	Method of Shipment:		
Relinquished by: Sarah Copeland	Date/Time: 06/12/2	2/2017; 0945		Company APC	Rec	Received by:		Date/Time:	CZX1 C/P.	Company On
Relinquished by:	Date/Time:			Company	Rec	Received by:		Date/Fime:		Company
Refinquished by:	Date/Time:			Company	Rec	Received by:		Date/Time:		Company
Custody Seals Intact: Custody Seal No.:					C00	ler Temperature(s	Cooler Temperature(s) °C and Other Remarks:			
A Yes A No					1					

TestAmerica

# Chain of Custody Record

	O	haino	Chain of Custody Record	odv Re	scord				<b>lestAmerica</b>	erica
Pensacola, FL 32514 Phone (850) 474-1001 Fax (850) 478-2671				,					THE LEADER IN ENVIRONMENTAL TESTING	NMENTAL TESTING
Client Information	Sampler: Anthony Goggins			Lab PN Whitn	Lab PM: Whitmire, Cheyenne R	enne R	Carrier Tracking No(s)	:(s)c	COC No: 400-56525-24537.1	
Client Contact: Sarah Copeland	Phone:			E-Mail: cheye	nne.whitm	E-Mail: cheyenne.whitmire@testamericainc.com			Page: Page 2 of 2	
Company: Alabama Power General Test Laboratory						Analysis Requested	equested		400-139174	77
Address: 744 County Rd 87 GSC #8	Due Date Requested:	d:			17/19				l e	ss: M - Hexane
City: Calera	TAT Requested (days)	ys): Routine	9						B - NaOH N - C - Zn Acetate O -	N - None O - AsNaO2
State, Zip: AL, 35040					EPC					P - Na204S Q - Na2SO3 B - Na2S2O3
Phone; 205-664-6121(Tel)	PO#:									S - H2SO4 T - TSP Dodecahydrate
Email: sgcopela@southernco.com	#OM				(oN				1 - Ice J - DI Water	Acetone
Project Name: CCR	Project #: 40007143				(es or				K - EDTA L - EDA	W - ph 4-5 Z - other (specify)
Site: Barry Gypsum (8)	:#WOSS				() ası				of co Other:	
Samula Idantification	Sample Date	Sample	Sample Type (C=comp,	Matrix (w=water, S=solid, O=wasteroll, RT=Tresse A=Aar)	Field Filtered Perform MS/A 9315_Ra226, 93				our Natural Instructions/Note:	ctions/Note:
	X	X	-m		X					V
AX13200	6/6/17	1424	O	Water	× >				3 MW-6	
AX13201	6/7/17	0834	O	Water	×				1 MW-7	
AX13202	6/7/17	0927	O	Water	×				1 MW-8	
AX13203	6/7/17	1035	9	Water	×				1 MW-9	
AX13204	6/7/17	1118	9	Water	×				1 MW-10	
AX13205	6/6/17	1252	9	Water	×	3			1 FB-1 (Field Blank)	
AX13206	6/7/17	1130	ŋ	Water	×				1 EB-1 (Equipment Blank)	k)
AX13207	6/6/17	1205	U	Water	×	×			1 MW-4 Dup (Sample Duplicate)	uplicate)
								+		
Possible Hazard Identification					Samp	Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)	e assessed if san	nples are ret	ained longer than 1 mo	nth)
Skin Imitant	Poison B Unknown		Radiological			Return To Client Disp	Disposal By Lab		Archive For	Months
Deliverable Requested: I, II, III, IV, Other (specify)					bade	al instructions/על הפקעוופ	. 1			
Empty Kit Relinquished by:		Date:			Time:	1	Method of Shipment:	Shipment:		
Relinquished by: Sarah Copeland	06/	12/2017; 0945		Company	8	Received by		Date/Time:	17 1427°	Company 12
Relinquished by:	Date/Time:			Company	R	Received by:		Date/Time: /	Ö	Company
Relinquished by:	Date/Time:			Company	ă.	Received by:		Date/Time:	0	Company
Custody Seals Intact: Custody Seal No.:					Ö	Cooler Temperature(s) °C and Other Remarks	er Remarks:			
DN 152 T 100					1					

# **Login Sample Receipt Checklist**

Client: Alabama Power General Test Laboratory

Job Number: 400-139174-1 SDG Number: Barry Gypsum (8)

List Source: TestAmerica Pensacola

Login Number: 139174

List Number: 1

Creator: Siddoway, Benjamin

Creator: Siddoway, Benjamin		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica Pensacola

7/14/2017

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-139174-1 SDG: Barry Gypsum (8)

## Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
lowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

## Laboratory: TestAmerica St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-18
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18
Illinois	NELAP	5	200023	11-30-17
lowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-18
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-18
New York	NELAP	2	11616	03-31-18

<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

7/14/2017

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# **Accreditation/Certification Summary**

Client: Alabama Power General Test Laboratory

TestAmerica Job ID: 400-139174-1 Project/Site: CCR Plant Barry SDG: Barry Gypsum (8)

# **Laboratory: TestAmerica St. Louis (Continued)**

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	<b>Identification Number</b>	<b>Expiration Date</b>
North Dakota	State Program	8	R207	06-30-17 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17 *
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17 *
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-17 *
West Virginia DEP	State Program	3	381	08-31-17 *

<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola



Field Complete

Lab Complete

APC General Testing Laboratory General Service Complex Building 8

Lab ETA 06/08/2017 12:07

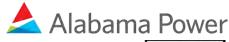
Requested Complete	e Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Represen	itative	Bo Cotton	Requested By	Greg Dyer
Col	lector	Anthony Goggins	Location	Barry Gypsum
	Radium	(1L): Radiological duplicate collected MW-6 erature requirement.		

			Bottle		Lab	
Sample #	Date	Time	Count	Description	Filter	Lab Id
MW-1	06/06/2017	08:45	1	Groundwater		AX13195
MW-2	06/06/2017	09:52	1	Groundwater		AX13196
MW-3	06/06/2017	11:02	1	Groundwater		AX13197
MW-4	06/06/2017	12:05	1	Groundwater		AX13198
MW-5	06/06/2017	13:09	1	Groundwater		AX13199
MW-6	06/06/2017	14:24	3	Groundwater		AX13200
MW-7	06/07/2017	08:34	1	Groundwater		AX13201
MW-8	06/07/2017	09:27	1	Groundwater		AX13202
MW-9	06/07/2017	10:35	1	Groundwater		AX13203
MW-10	06/07/2017	11:18	1	Groundwater		AX13204
FB-1	06/06/2017	12:52	1	Field Blank		AX13205
EB-1	06/07/2017	11:30	1	Equipment Blank		AX13206
MW-4DUP	06/06/2017	12:05	1	Sample Duplicate		AX13207
		_				

Relinquished By	Received By	Date/Time
arthony Goggins	Brooke Williams Digitally signed by Brooke Williams Date: 2017.06.08 13:15:34-05'00'	06/08/2017 13:15

SmarTroll ID 5141-26150-1-1 Turbidity ID 3901-20009-2-1 All metals and radiological bottles have pH < 2 
Cooler Temp N/A
Thermometer ID N/A
pH Strip ID 4831-24389-20-16

# Analytical Report





Sample Group: WMWBARG\_1115

Project/Site: Barry Gypsum

Bucks, AL 36512

For: Southern Company Services

42 Inverness Center Parkway Birmingham, AL 35242

Attention: Dustin Brooks & Greg Dyer

Released By: Anne Ryals

maryals@southernco.com

(205) 664-6032

The following data has been reviewed and approved by:

Quality Control: Supervision:

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Anions

#### Barry Gypsum

#### WMWBARG\_1115

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All anions were outsourced to Test America, Pensacola, for analysis. There was no job narrative provided due to lack of non-conformances.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





#### Metals ICP

#### Barry Gypsum

#### WMWBARG\_1115

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX21392	20170921bGK	WMWBARG_1115
AX21393	20170921bGK	WMWBARG_1115
AX21394	20170921bGK	WMWBARG_1115
AX21395	20170921bGK	WMWBARG_1115
AX21635	20170921bGK	WMWBARG_1115
AX21636	20170921bGK	WMWBARG_1115
AX21637	20170921bGK	WMWBARG_1115
AX21638	20170921bGK	WMWBARG_1115
AX21639	20170921bGK	WMWBARG_1115
AX21640	20170921bGK	WMWBARG_1115
AX21641	20170921bHK	WMWBARG_1115
AX21642	20170921bHK	WMWBARG_1115
AX21643	20170921bHK	WMWBARG_1115

- 4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
- 5. All samples were prepared and analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

#### **General Quality Control Procedures:**

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654



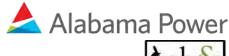
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

#### Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
- 7. All samples were analyzed at a x2 dilution to compensate for potential matrix effects.
- 8. The raw data results include results corrected for dilution.

Alabama Power General Test Laboratory 744 County Road 87, GSC#8 Calera, AL 35040 (205) 664-6032 or 6171 FAX (205) 257-1654





TDS

#### Barry Gypsum

#### WMWBARG\_1115

- 1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- 2. Refer to comments on Chain of Custody for information regarding sample receipt.
- 3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX21392	602953	WMWBARG_1115
AX21393	603292	WMWBARG_1115
AX21394	602953	WMWBARG_1115
AX21395	602953	WMWBARG_1115
AX21635	602956	WMWBARG_1115
AX21636	602956	WMWBARG_1115
AX21637	602956	WMWBARG_1115
AX21638	602956	WMWBARG_1115
AX21639	602956	WMWBARG_1115
AX21640	602956	WMWBARG_1115
AX21641	603008	WMWBARG_1115
AX21642	603008	WMWBARG_1115
AX21643	603008	WMWBARG 1115

- 4. All of the above samples were analyzed by Standard Method 2540C.
- 5. All samples were analyzed within the established hold times.
- 6. All in house quality control procedures were followed, as described below.

#### **General Quality Control Procedures:**

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AX21640 and AX21643 which did not meet the 2.5 mg residue requirement.





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 12-Sep-17

**Customer ID:** 

**Delivery Date:** 13-Sep-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX21392

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
* Boron, Total	HRG 9/21/2017	EPA 200.7	2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG 9/21/2017	EPA 200.7	2	0.10	0.5	1.44	mg/L
General Characteristics							
* Solids, Dissolved	CES 9/19/2017	SM 2540C	1		25	35.3	mg/L
* Chloride, Total, by Test America	RRC 9/24/2017	SM 4500 CI_E	1	0.60	2.00	8.5	mg/L
* Fluoride, Total, by Test America	BAB 9/29/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC 9/26/2017	SM 4500 SO4_E	1	1.40	5.00	J 3.0	mg/L

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MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 12-Sep-17

**Customer ID:** 

**Delivery Date:** 13-Sep-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX21392

		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AX21640 Boron, Total	mg/L 0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3 70 to 130	10.3	20
AX21640 Calcium, Total	mg/L -0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100 70 to 130	1.47	20

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 12-Sep-17

**Customer ID:** 

**Delivery Date:** 13-Sep-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX21392

			MB		Sample	e	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX21632	Solids, Dissolved	mg/L 4.00	25		281	55.0	40 to 60		0.898	5

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 12-Sep-17

**Customer ID:** 

**Delivery Date:** 13-Sep-17

Description: Barry Gypsum - MW-7DUP

Laboratory ID Number: AX21393

=unotatory is italinated for for							
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
* Boron, Total	HRG 9/21/2017	EPA 200.7	2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG 9/21/2017	EPA 200.7	2	0.10	0.5	1.43	mg/L
General Characteristics							
* Solids, Dissolved	CES 9/25/2017	SM 2540C	1		25	29.3	mg/L
* Chloride, Total, by Test America	RRC 9/24/2017	SM 4500 CI_E	1	0.60	2.00	8.9	mg/L
* Fluoride, Total, by Test America	BAB 9/29/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC 9/26/2017	SM 4500 SO4_E	1	1.40	5.00	J 3.2	mg/L

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Expiration: June 30, 2018

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 12-Sep-17

**Customer ID:** 

**Delivery Date:** 13-Sep-17

Description: Barry Gypsum - MW-7DUP

Laboratory ID Number: AX21393

		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AX21640 Boron, Total	mg/L 0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3 70 to 130	10.3	20
AX21640 Calcium, Total	mg/L -0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100 70 to 130	1.47	20

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Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 12-Sep-17

**Customer ID:** 

**Delivery Date:** 13-Sep-17

Description: Barry Gypsum - MW-7DUP

Laboratory ID Number: AX21393

			MB			Sample		LFB	Rec	1	Prec
Sample	Analysis	Units M	MB Limit	Spike	LFM	Duplicat	e LFB	Limit	Rec Limit	Prec	Limit
AX21645	Solids, Dissolved	mg/L -	1.00 25			18100	55.0	40 to 60		0.976	5

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Issued By: State of Florida, Department of Health Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 12-Sep-17

**Customer ID:** 

**Delivery Date:** 13-Sep-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX21394

	•						
Name	me Analyst Test Date		Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols				,			
* Boron, Total	HRG 9/21/2017	EPA 200.7	2	0.02	0.1	J 0.0709	mg/L
* Calcium, Total	HRG 9/21/2017	EPA 200.7	2	0.10	0.5	4.39	mg/L
General Characteristics							
* Solids, Dissolved	CES 9/19/2017	SM 2540C	1		25	42.7	mg/L
* Chloride, Total, by Test America	RRC 9/24/2017	SM 4500 CI_E	1	0.60	2.00	4.3	mg/L
* Fluoride, Total, by Test America	BAB 9/29/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC 9/26/2017	SM 4500 SO4_E	1	1.40	5.00	7.5	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 12-Sep-17

**Customer ID:** 

**Delivery Date:** 13-Sep-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX21394

		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AX21640 Boron, Total	mg/L 0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3 70 to 130	10.3	20
AX21640 Calcium, Total	mg/L -0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100 70 to 130	1.47	20

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 12-Sep-17

**Customer ID:** 

**Delivery Date:** 13-Sep-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX21394

			MB		Sample	е	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX21632	Solids, Dissolved	mg/L 4.00	25		281	55.0	40 to 60		0.898	5

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Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 12-Sep-17

**Customer ID:** 

**Delivery Date:** 13-Sep-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX21395

=unotatory is italinated for for							
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
* Boron, Total	HRG 9/21/2017	EPA 200.7	2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG 9/21/2017	EPA 200.7	2	0.10	0.5	1.47	mg/L
General Characteristics							
* Solids, Dissolved	CES 9/19/2017	SM 2540C	1		25	26.7	mg/L
* Chloride, Total, by Test America	RRC 9/24/2017	SM 4500 CI_E	1	0.60	2.00	4.3	mg/L
* Fluoride, Total, by Test America	BAB 9/29/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC 9/26/2017	SM 4500 SO4_E	1	1.40	5.00	7.2	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 12-Sep-17

**Customer ID:** 

**Delivery Date:** 13-Sep-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX21395

		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AX21640 Boron, Total	mg/L 0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3 70 to 130	10.3	20
AX21640 Calcium, Total	mg/L -0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100 70 to 130	1.47	20

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 12-Sep-17

**Customer ID:** 

**Delivery Date:** 13-Sep-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX21395

			MB		Sample	е	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX21632	Solids, Dissolved	mg/L 4.00	25		281	55.0	40 to 60		0.898	5

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Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX21635

Laboratory in Humber. AX2100							
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							,
* Boron, Total	HRG 9/21/2017	EPA 200.7	2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG 9/21/2017	EPA 200.7	2	0.10	0.5	1.71	mg/L
General Characteristics							
* Solids, Dissolved	CES 9/19/2017	SM 2540C	1		25	38.0	mg/L
* Chloride, Total, by Test America	RRC 9/24/2017	SM 4500 CI_E	1	0.60	2.00	3.9	mg/L
* Fluoride, Total, by Test America	BAB 9/29/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC 9/26/2017	SM 4500 SO4_E	1	1.40	5.00	7.3	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX21635

		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AX21640 Boron, Total	mg/L 0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3 70 to 130	10.3	20
AX21640 Calcium, Total	mg/L -0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100 70 to 130	1.47	20

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX21635

			MB		Sample	<del></del>	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX21634	Solids, Dissolved	mg/L 4.00	25		322	55.0	40 to 60		0.464	5

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX21636

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols				,			
* Boron, Total	HRG 9/21/2017	EPA 200.7	2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG 9/21/2017	EPA 200.7	2	0.10	0.5	1.60	mg/L
General Characteristics							
* Solids, Dissolved	CES 9/19/2017	SM 2540C	1		25	39.3	mg/L
* Chloride, Total, by Test America	RRC 9/24/2017	SM 4500 CI_E	1	0.60	2.00	4.3	mg/L
* Fluoride, Total, by Test America	BAB 9/29/2017	SM 4500 F_C	1	0.032	0.10	J 0.043	mg/L
* Sulfate, Total, by Test America	RRC 9/26/2017	SM 4500 SO4_E	1	1.40	5.00	J 4.9	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX21636

	,	MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AX21640 Boron, Total	mg/L 0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3 70 to 130	10.3	20
AX21640 Calcium, Total	mg/L -0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100 70 to 130	1.47	20

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX21636

			MB			Sample	9	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike Li	FM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX21634	Solids, Dissolved	mg/L 4.00	25			322	55.0	40 to 60		0.464	5

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX21637

	·						
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
* Boron, Total	HRG 9/21/2017	EPA 200.7	2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG 9/21/2017	EPA 200.7	2	0.10	0.5	1.14	mg/L
General Characteristics							
* Solids, Dissolved	CES 9/19/2017	SM 2540C	1		25	36.7	mg/L
* Chloride, Total, by Test America	RRC 9/24/2017	SM 4500 CI_E	1	0.60	2.00	4.0	mg/L
* Fluoride, Total, by Test America	BAB 9/29/2017	SM 4500 F_C	1	0.032	0.10	J 0.040	mg/L
* Sulfate, Total, by Test America	RRC 9/26/2017	SM 4500 SO4_E	1	1.40	5.00	8.4	mg/L

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Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX21637

		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AX21640 Boron, Total	mg/L 0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3 70 to 130	10.3	20
AX21640 Calcium, Total	mg/L -0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100 70 to 130	1.47	20

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX21637

			MB		Sample	<del></del>	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX21634	Solids, Dissolved	mg/L 4.00	25		322	55.0	40 to 60		0.464	5

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX21638

=unotatory is italinated for for	0						
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
* Boron, Total	HRG 9/21/2017	EPA 200.7	2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG 9/21/2017	EPA 200.7	2	0.10	0.5	0.723	mg/L
General Characteristics							
* Solids, Dissolved	CES 9/19/2017	SM 2540C	1		25	31.3	mg/L
* Chloride, Total, by Test America	RRC 9/24/2017	SM 4500 CI_E	1	0.60	2.00	4.9	mg/L
* Fluoride, Total, by Test America	BAB 9/29/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC 9/26/2017	SM 4500 SO4_E	1	1.40	5.00	J 3.2	mg/L

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX21638

		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AX21640 Boron, Total	mg/L 0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3 70 to 130	10.3	20
AX21640 Calcium, Total	mg/L -0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100 70 to 130	1.47	20

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX21638

			MB		Sample	<del></del>	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX21634	Solids, Dissolved	mg/L 4.00	25		322	55.0	40 to 60		0.464	5

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX21639

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
Boron, Total	HRG 9/21/2017	EPA 200.7	2	0.02	0.1	J 0.0411	mg/L
Calcium, Total	HRG 9/21/2017	EPA 200.7	2	0.10	0.5	1.61	mg/L
General Characteristics							
Solids, Dissolved	CES 9/19/2017	SM 2540C	1		25	37.3	mg/L
Chloride, Total, by Test America	RRC 9/24/2017	SM 4500 CI_E	1	0.60	2.00	3.9	mg/L
Fluoride, Total, by Test America	BAB 9/29/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
Sulfate, Total, by Test America	RRC 9/26/2017	SM 4500 SO4_E	1	1.40	5.00	7.6	mg/L

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Comments: Test America, Pensacola NELAP ID: E81010

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX21639

		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AX21640 Boron, Total	mg/L 0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3 70 to 130	10.3	20
AX21640 Calcium, Total	mg/L -0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100 70 to 130	1.47	20

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX21639

			MB		Sample	<del></del>	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX21634	Solids, Dissolved	mg/L 4.00	25		322	55.0	40 to 60		0.464	5

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Comments: Test America, Pensacola NELAP ID: E81010

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGFB Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

**Description:** Barry Gypsum Field Blank

Laboratory ID Number: AX21640

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
Boron, Total	HRG 9/21/2017	EPA 200.7	2	0.02	0.1	U Not Detected	mg/L
Calcium, Total	HRG 9/21/2017	EPA 200.7	2	0.10	0.5	U Not Detected	mg/L
General Characteristics							
Solids, Dissolved	CES 9/19/2017	SM 2540C	1		25	U Not Detected	mg/L
Chloride, Total, by Test America	RRC 9/24/2017	SM 4500 CI_E	1	0.60	2.00	J 0.73	mg/L
Fluoride, Total, by Test America	BAB 9/29/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
Sulfate, Total, by Test America	RRC 9/26/2017	SM 4500 SO4_E	1	1.40	5.00	U <1.4	mg/L

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGFB Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX21640

		MB					LFB	Rec		Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit	Prec	Limit
AX21640 Boron, Total	mg/L 0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3 70 to 130	10.3	20
AX21640 Calcium, Total	mg/L -0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100 70 to 130	1.47	20

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGFB Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX21640

			MB		Sample	<del></del>	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX21634	Solids, Dissolved	mg/L 4.00	25		322	55.0	40 to 60		0.464	5

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX21641

	•						
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
* Boron, Total	HRG 9/21/2017	EPA 200.7	2	0.02	0.1	J 0.0394	mg/L
* Calcium, Total	HRG 9/21/2017	EPA 200.7	2	0.10	0.5	0.873	mg/L
General Characteristics							
* Solids, Dissolved	CES 9/19/2017	SM 2540C	1		25	35.3	mg/L
* Chloride, Total, by Test America	RRC 9/24/2017	SM 4500 CI_E	1	0.60	2.00	5.1	mg/L
* Fluoride, Total, by Test America	BAB 9/29/2017	SM 4500 F_C	1	0.032	0.10	J 0.080	mg/L
* Sulfate, Total, by Test America	RRC 9/26/2017	SM 4500 SO4_E	1	1.40	5.00	8.7	mg/L

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX21641

	_								
		MB	_				LFB	Rec	Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit P	rec Limit
AX21643 Boron, Total	mg/L 0.000827	0.044	1.00	0.957	0.969	0.959	0.85 to 1.15	95.7 70 to 130 1.	27 20
AX21643 Calcium, Total	mg/L -0.00736	0.22	5.00	4.79	5.03	4.99	4.25 to 5.75	95.8 70 to 130 4.	97 20

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX21641

			MB		Sample	е	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX21686	Solids, Dissolved	mg/L 8.00	25		357	52.0	40 to 60		0.279	5

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CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX21642

Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols				·			
Boron, Total	HRG 9/21/2017	EPA 200.7	2	0.02	0.1	J 0.0320	mg/L
Calcium, Total	HRG 9/21/2017	EPA 200.7	2	0.10	0.5	1.25	mg/L
General Characteristics							
Solids, Dissolved	CES 9/19/2017	SM 2540C	1		25	37.3	mg/L
Chloride, Total, by Test America	RRC 9/24/2017	SM 4500 CI_E	1	0.60	2.00	6.5	mg/L
Fluoride, Total, by Test America	BAB 9/29/2017	SM 4500 F_C	1	0.032	0.10	J 0.080	mg/L
Sulfate, Total, by Test America	RRC 9/26/2017	SM 4500 SO4_E	1	1.40	5.00	7.3	mg/L

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX21642

		MB					LFB	Rec	Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit Pre	c Limit
AX21643 Calcium, Total	mg/L -0.00736	0.22	5.00	4.79	5.03	4.99	4.25 to 5.75	95.8 70 to 130 4.9°	7 20
AX21643 Boron, Total	mg/L 0.000827	0.044	1.00	0.957	0.969	0.959	0.85 to 1.15	95.7 70 to 130 1.2	7 20

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To: Dustin Brooks Greg Dyer

Customer Account: WMWBARG Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX21642

			MB		Sample	<del></del>	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX21686	Solids, Dissolved	mg/L 8.00	25	,	357	52.0	40 to 60		0.279	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGEB Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX21643

-unclusion y is ittuitible in 70 (E10)	<u> </u>						
Name	Analyst Test Date	Reference	Vio Spec DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols							
* Boron, Total	HRG 9/21/2017	EPA 200.7	2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG 9/21/2017	EPA 200.7	2	0.10	0.5	U Not Detected	mg/L
General Characteristics							
* Solids, Dissolved	CES 9/19/2017	SM 2540C	1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	RRC 9/24/2017	SM 4500 CI_E	1	0.60	2.00	J 0.91	mg/L
* Fluoride, Total, by Test America	BAB 9/29/2017	SM 4500 F_C	1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC 9/26/2017	SM 4500 SO4_E	1	1.40	5.00	U <1.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

<sup>\*</sup> Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGEB Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

**Description**: Barry Gypsum Equipment Blank

Laboratory ID Number: AX21643

		MB					LFB	Rec	Prec
Sample Analysis	Units MB	Limit	Spike	MS	MSD	LFB	Limit	Rec Limit Pre	c Limit
AX21643 Boron, Total	mg/L 0.000827	0.044	1.00	0.957	0.969	0.959	0.85 to 1.15	95.7 70 to 130 1.2	7 20
AX21643 Calcium, Total	mg/L -0.00736	0.22	5.00	4.79	5.03	4.99	4.25 to 5.75	95.8 70 to 130 4.9	7 20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report Laboratory certification ID: E571114
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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010





To: Dustin Brooks Greg Dyer

Customer Account: WMWBARGEB Sample Date: 13-Sep-17

**Customer ID:** 

**Delivery Date:** 14-Sep-17

**Description**: Barry Gypsum Equipment Blank

Laboratory ID Number: AX21643

			MB		Sample	е	LFB	Rec		Prec
Sample	Analysis	Units MB	Limit	Spike LFM	Duplica	ate LFB	Limit	Rec Limit	Prec	Limit
AX21686	Solids, Dissolved	mg/L 8.00	25	,	357	52.0	40 to 60		0.279	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

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Issued By: State of Florida, Department of Health

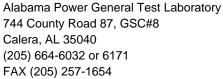
Expiration: June 30, 2018

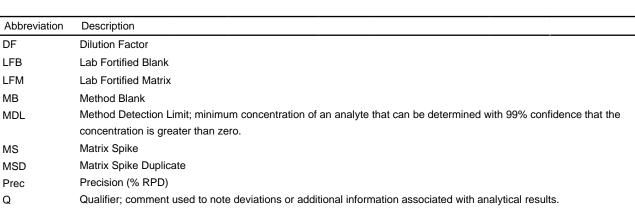
Comments: Test America, Pensacola NELAP ID: E81010

CC:

# **Definitions**







Q	Qualifier; comment used to note deviations or additional information associated with analytical results.

QC	Quality Control

Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.

RL Vio Spec Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
В	Analyte found in reagent blank. Indicates possible reagent or background contamination.
Е	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
Р	Precision is out of range.
С	Analyte was verified by re-analysis.
Н	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as
	possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless
	otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



Field Complete

Lab Complete

APC General Testing Laboratory

Compared Service Complex Building 8

Lab ETA 09/13/2017 12:00

	General Serv	vice Complex	building o	)			Lau E1	A 103/10/2017 12	
Req	Requested Complete Date Routine Results To Dustin Brooks, Greg Dyer								
	Site Representative Tamala Davis					Requested By	Greg Dyer		
Collector Anthony Goggins					Location	Barry Gypsum			
Ano	Analysis Requested Bottle 1 (500mL): Metals, Bottle 2 (250mL): Anions, Bottle 3 (500mL): TDS								
Alla	•					, (000m2). 120			$\dashv$
	Comments All anions outsourced to Test America, Pensacola								
				•					
				Bottle			Lab		
	Sample #	Date	Time	Count		Description	Filter	Lab Id	
	MW-7	09/12/2017	15:14	3	Ground			AX21392	
	MW-7DUP	09/12/2017	15:14	3	i -	Duplicate		AX21393	
	MW-6	09/12/2017	16:12	3	Ground			AX21394	
	MW-4	09/12/2017	17:07	3	Ground	water		AX21395	
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	Relinq	uished By				Received By		Date/Time	
			277			09/13/2017 08:	37		
	Athny Gogino			Keith Kornegay Digitally signed by Keth Kornegay  Net careful Konnegay, ca-Alabama Power Company, out-Environmental Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally signed by Keth Kornegay Only careful Affairs, email-flikkomengissouthernco.com, c=US Digitally careful Affairs, email-flikkomengissouthernco.com, c=US Dig			09/13/2017 16:2	4	
	~ /	. , , - ,				Date: 2017.09.13 16:23:5	8-05'00'	-	$\dashv$
								] [	<u></u>
SmarTroll ID 5141-26150-1-1 All metals and radiological bottles have pH < 2									
Turbidity ID 3901-20009-2-1			7	Cooler Temp 0.6 degrees C					
,				Thermometer ID 6035-30997-2-2					

pH Strip ID 6153-32036-10-3



Field Complete

Lab Complete

Lab ETA 09/14/2017 16:00

Requested Complete Dat		Routine	Results To	Dustin Brooks, Greg Dyer	
Site Representative		Tamala Davis	Requested By	Greg Dyer	
Collecto		Anthony Goggins	Location	Barry Gypsum	
- Timary or o requested		(500mL): Metals, bottle 2 (250mL): Anions, Es outsourced to Test America, Pensacola.	Sottle 3 (500mL): TDS		

	_		Bottle		Lab	- 1 - 1
Sample #	Date	Time	Count	Description	Filter	Lab Id
MW-3	09/13/2017	09:35	3	Groundwater		AX21635
MW-2	09/13/2017	10:31	3	Groundwater		AX21636
MW-1	09/13/2017	11:25	3	Groundwater		AX21637
MW-8	09/13/2017	12:19	3	Groundwater		AX21638
MW-5	09/13/2017	13:06	3	Groundwater		AX21639
FB-1	09/13/2017	12:50	3	Field Blank		AX21640
MW-10	09/13/2017	13:56	3	Groundwater		AX21641
MW-9	09/13/2017	14:37	3	Groundwater		AX21642
EB-1	09/13/2017	14:43	3	Equipment Blank		AX21643

Relinquished By	Received By	Date/Time
arthony Goggino	Keith Kornegay  Digitally signed by Keith Kornegay  Dix. cn=Keith Kornegay  Dix. signed by Keith Kornegay  Dix. signed by	09/15/2017 08:55

SmarTroll ID | 5141-26150-1 Turbidity ID | 3901-20009-2-1 All metals and radiological bottles have pH < 2 🔽 Cooler Temp | 0.5 degrees C

Thermometer ID 6035-30997-2-2

pH Strip ID 6153-32036-10-3



THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola 3355 McLemore Drive Pensacola, FL 32514 Tel: (850)474-1001

TestAmerica Job ID: 400-143535-1

TestAmerica SDG: Plant Barry Gypsum Storage Area

Client Project/Site: CCR Plant Barry

### For:

Alabama Power General Test Laboratory 744 County Rd 87 GSC #8 Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by: 9/29/2017 6:48:23 PM

Cheyenne Whitmire, Project Manager II (850)471-6222

cheyenne.whitmire@testamericainc.com

·····LINKS ······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

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1:

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

Client Sample ID: AX	21392 MW-7					Lab Sa	am	ple ID: 400-	-143535-
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.5		2.0	0.60	mg/L	1	_	SM 4500 CI- E	Total/NA
Sulfate	3.0	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Client Sample ID: AX	21393 MW-7 D	UP				Lab Sa	am	ple ID: 400	-143535-
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.9		2.0	0.60	mg/L	1	_	SM 4500 CI- E	Total/NA
Sulfate _	3.2	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Client Sample ID: AX	21394 MW-6					Lab Sa	am	ple ID: 400-	-143535-
 Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.3		2.0	0.60	mg/L	1	_	SM 4500 CI- E	Total/NA
Sulfate	7.5		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Client Sample ID: AX	21395 MW-4					Lab Sa	am	ple ID: 400-	-143535-
 Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.3		2.0	0.60	mg/L	1	_	SM 4500 CI- E	Total/NA
Sulfate	7.2		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Client Sample ID: AX	21635 MW-3					Lab Sa	am	ple ID: 400-	-143535-
Analyte		Qualifier	RL	MDL		Dil Fac	D	Method	Prep Type
Chloride	3.9		2.0		mg/L	1		SM 4500 CI- E	Total/NA
Sulfate -	7.3		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Client Sample ID: AX	21636 MW-2					Lab Sa	am	ple ID: 400-	-143535-
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.3		2.0	0.60	mg/L	1	_	SM 4500 CI- E	Total/NA
Fluoride	0.043	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate -	4.9	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Client Sample ID: AX	21637 MW-1					Lab Sa	am	ple ID: 400-	-143535-
 Analyte	Result	Qualifier	RL	MDL		Dil Fac	D	Method	Prep Type
Chloride	4.0		2.0		mg/L	1	_	SM 4500 CI- E	Total/NA
Fluoride	0.040	J	0.10	0.032	-	1		SM 4500 F C	Total/NA
Sulfate	8.4		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Client Sample ID: AX	21638 MW-8					Lab Sa	am	ple ID: 400-	-143535-
Analyte		Qualifier	RL	MDL		Dil Fac	D	Method	Prep Type
Chloride	4.9		2.0	0.60	mg/L	1	_	SM 4500 CI- E	Total/NA
Sulfate	3.2	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
-									

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

9/29/2017

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## **Detection Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

Client Sample ID: AX21639 MW-5 (Continued) Lab Sample ID: 400-143535-9 Analyte Result Qualifier RL **MDL** Unit Dil Fac D Method Prep Type Chloride 2.0 0.60 mg/L SM 4500 CI- E 3.9 Total/NA 7.6 SM 4500 SO4 E Total/NA Sulfate 5.0 1.4 mg/L Client Sample ID: AX21640 FB-1 Lab Sample ID: 400-143535-10 Analyte Result Qualifier RL **MDL** Unit Dil Fac D Method Prep Type Chloride 0.73 J 2.0 0.60 mg/L SM 4500 CI- E Total/NA Client Sample ID: AX21641 MW-10 Lab Sample ID: 400-143535-11 Analyte Result Qualifier RL **MDL** Unit Dil Fac D Method **Prep Type** Chloride 2.0 0.60 mg/L 5.1 SM 4500 CI- E Total/NA Fluoride 0.080 J 0.10 0.032 mg/L 1 SM 4500 F C Total/NA Sulfate SM 4500 SO4 E Total/NA 8.7 5.0 1.4 mg/L Client Sample ID: AX21642 MW-9 Lab Sample ID: 400-143535-12 **Analyte** Result Qualifier RLMDL Unit Dil Fac D Method **Prep Type** 

<b>Client Sample ID</b>	: AX21643 EB-1		Lab San	nple ID: 400-1	43535-13		
Sulfate	7.3	5.0	1.4 mg/L	1	SM 4500 SO4 E	Total/NA	
Fluoride	0.080 J	0.10	0.032 mg/L	1	SM 4500 F C	Total/NA	
Chloride	6.5	2.0	0.60 mg/L	1	SM 4500 Cl- E	Total/NA	

_									
Analyte	Result Q	ualifier	RL	MDL (	Unit	Dil Fa	D	Method	Prep Type
Chloride	0.91 J		2.0	0.60	mg/L			SM 4500 CI- E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

9/29/2017

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## **Method Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

Method	Method Description	Protocol	Laboratory
SM 4500 CI- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN

#### **Protocol References:**

SM = "Standard Methods For The Examination Of Water And Wastewater",

#### Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

## **Sample Summary**

Matrix

Water

Client: Alabama Power General Test Laboratory

**Client Sample ID** 

AX21393 MW-7 DUP

AX21392 MW-7

AX21394 MW-6

AX21395 MW-4

AX21635 MW-3

AX21636 MW-2

AX21637 MW-1

AX21638 MW-8

AX21639 MW-5

AX21640 FB-1

AX21641 MW-10

AX21642 MW-9

AX21643 EB-1

Project/Site: CCR Plant Barry

Lab Sample ID

400-143535-1

400-143535-2

400-143535-3

400-143535-4

400-143535-5

400-143535-6

400-143535-7

400-143535-8

400-143535-9

400-143535-10

400-143535-11

400-143535-12

400-143535-13

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

09/13/17 12:50 09/20/17 13:50

09/13/17 13:56 09/20/17 13:50

09/13/17 14:37 09/20/17 13:50

09/13/17 14:43 09/20/17 13:50

	Received	Collected
	09/20/17 13:50	09/12/17 15:14
	09/20/17 13:50	09/12/17 15:14
5	09/20/17 13:50	09/12/17 16:12
J	09/20/17 13:50	09/12/17 17:07
	09/20/17 13:50	09/13/17 09:35
O	09/20/17 13:50	09/13/17 10:31
	09/20/17 13:50	09/13/17 11:25
	09/20/17 13:50	09/13/17 12:19
	09/20/17 13:50	09/13/17 13:06

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TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

Client Sample ID: AX21392 MW-7

Date Collected: 09/12/17 15:14 Date Received: 09/20/17 13:50 Lab Sample ID: 400-143535-1

Matrix: Water

**General Chemistry** Analyte Result Qualifier RL MDL Unit D Dil Fac Prepared Analyzed Chloride 2.0 0.60 mg/L 09/24/17 08:27 8.5 Fluoride < 0.032 0.10 0.032 mg/L 09/29/17 15:11 09/26/17 09:09 **Sulfate** 3.0 J 5.0 1.4 mg/L

Client Sample ID: AX21393 MW-7 DUP

Lab Sample ID: 400-143535-2

Date Collected: 09/12/17 15:14 Date Received: 09/20/17 13:50 Lab Sample ID: 400-143535-2 Matrix: Water

**General Chemistry** Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac Chloride 2.0 0.60 mg/L 09/24/17 08:27 8.9 Fluoride < 0.032 0.10 0.032 mg/L 09/29/17 15:21 **Sulfate** 5.0 09/26/17 09:09 3.2 J 1.4 mg/L

Client Sample ID: AX21394 MW-6

Date Collected: 09/12/17 16:12

Lab Sample ID: 400-143535-3

Matrix: Water

Date Received: 09/20/17 13:50

**General Chemistry** Analyte RL MDL Unit Result Qualifier D Analyzed Dil Fac Prepared 2.0 0.60 mg/L Chloride 09/24/17 08:27 4.3 Fluoride < 0.032 0.10 0.032 mg/L 09/29/17 15:23 1 09/26/17 09:09 **Sulfate** 7.5 5.0 1.4 mg/L

Client Sample ID: AX21395 MW-4 Lab Sample ID: 400-143535-4

Date Collected: 09/12/17 17:07 Date Received: 09/20/17 13:50

**General Chemistry** Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac Chloride 4.3 2.0 0.60 mg/L 09/24/17 08:27 Fluoride < 0.032 0.10 0.032 mg/L 09/29/17 15:25 5.0 1.4 mg/L 09/26/17 09:09 **Sulfate** 7.2

Client Sample ID: AX21635 MW-3 Lab Sample ID: 400-143535-5

Date Collected: 09/13/17 09:35 Date Received: 09/20/17 13:50

**General Chemistry** Analyte Result Qualifier RLMDL Unit Dil Fac D Prepared Analyzed 2.0 Chloride 3.9 0.60 mg/L 09/24/17 08:28 Fluoride <0.032 0.10 09/29/17 15:54 0.032 mg/L 1 **Sulfate** 7.3 5.0 1.4 mg/L 09/26/17 09:11

TestAmerica Pensacola

**Matrix: Water** 

**Matrix: Water** 

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

Client Sample ID: AX21636 MW-2

Date Collected: 09/13/17 10:31 Date Received: 09/20/17 13:50 Lab Sample ID: 400-143535-6

**Matrix: Water** 

**Matrix: Water** 

**Matrix: Water** 

**Matrix: Water** 

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		2.0	0.60	mg/L			09/24/17 08:28	1
Fluoride	0.043	J	0.10	0.032	mg/L			09/29/17 15:58	1
Sulfate	4.9	J	5.0	1.4	mg/L			09/26/17 09:11	1

Client Sample ID: AX21637 MW-1 Lab Sample ID: 400-143535-7

Date Collected: 09/13/17 11:25 Date Received: 09/20/17 13:50

**General Chemistry** Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac Chloride 4.0 2.0 0.60 mg/L 09/24/17 08:44 **Fluoride** 0.10 0.032 mg/L 09/29/17 16:29 0.040 J 09/26/17 09:24 Sulfate 5.0 1.4 mg/L 8.4

Client Sample ID: AX21638 MW-8 Lab Sample ID: 400-143535-8

Date Collected: 09/13/17 12:19

Date Received: 09/20/17 13:50

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.9		2.0	0.60	mg/L			09/24/17 08:44	1
Fluoride	< 0.032		0.10	0.032	mg/L			09/29/17 16:32	1
Sulfate	3.2	J	5.0	1.4	mg/L			09/26/17 09:24	1

Lab Sample ID: 400-143535-9 Client Sample ID: AX21639 MW-5

Date Collected: 09/13/17 13:06 Date Received: 09/20/17 13:50

**General Chemistry MDL** Unit Analyte Result Qualifier RL D Prepared Analyzed Dil Fac 2.0 09/24/17 08:44 Chloride 3.9 0.60 mg/L Fluoride 0.032 mg/L < 0.032 0.10 09/29/17 16:22 1.4 mg/L 09/26/17 09:24

Client Sample ID: AX21640 FB-1 Lab Sample ID: 400-143535-10

5.0

7.6

**Sulfate** 

Date Collected: 09/13/17 12:50 Matrix: Water Date Received: 09/20/17 13:50

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.73	J	2.0	0.60	mg/L			09/24/17 08:44	1
Fluoride	< 0.032		0.10	0.032	mg/L			09/29/17 16:34	1
Sulfate	<1.4		5.0	1.4	mg/L			09/26/17 09:24	1

Client Sample ID: AX21641 MW-10 Lab Sample ID: 400-143535-11

Date Collected: 09/13/17 13:56 Date Received: 09/20/17 13:50

**General Chemistry** Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac 2.0 09/24/17 08:44 Chloride 0.60 mg/L 5.1

TestAmerica Pensacola

**Matrix: Water** 

Page 8 of 22 9/29/2017

#### **Client Sample Results**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

Client Sample ID: AX21641 MW-10

Date Collected: 09/13/17 13:56 Date Received: 09/20/17 13:50 Lab Sample ID: 400-143535-11

. Matrix: Water

General Chemistry (Continued)
Analyte

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.080	J	0.10	0.032	mg/L			09/29/17 16:37	1
Sulfate	8.7		5.0	1.4	mg/L			09/26/17 09:24	1

Client Sample ID: AX21642 MW-9 Lab Sample ID: 400-143535-12

Date Collected: 09/13/17 14:37 Date Received: 09/20/17 13:50 Matrix: Water

**General Chemistry** Analyte RL Result Qualifier **MDL** Unit D Prepared Analyzed Dil Fac Chloride 6.5 2.0 0.60 mg/L 09/24/17 08:44 **Fluoride** 0.080 J 0.10 0.032 mg/L 09/29/17 16:40 1 5.0 1.4 mg/L 09/26/17 09:24 **Sulfate** 7.3

Client Sample ID: AX21643 EB-1 Lab Sample ID: 400-143535-13

Date Collected: 09/13/17 14:43 Matrix: Water

Date Received: 09/20/17 13:50

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.91	J	2.0	0.60	mg/L			09/24/17 08:44	1
Fluoride	<0.032		0.10	0.032	mg/L			09/29/17 16:43	1
Sulfate	<1.4		5.0	1.4	mg/L			09/26/17 09:24	1

9/29/2017

#### **Definitions/Glossary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

#### **Qualifiers**

#### **General Chemistry**

Not Calculated

**Quality Control** 

**Practical Quantitation Limit** 

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

Not Detected at the reporting limit (or MDL or EDL if shown)

Relative Percent Difference, a measure of the relative difference between two points

Reporting Limit or Requested Limit (Radiochemistry)

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **Glossary**

NC

ND

PQL

QC

**RER** 

**RPD** 

**TEF** 

**TEQ** 

RL

Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

Lab Sample ID: 400-143535-1

**Matrix: Water** 

Client Sample ID: AX21392 MW-7 Date Collected: 09/12/17 15:14

Date Received: 09/20/17 13:50

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	369311	09/24/17 08:27	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370140	09/29/17 15:11	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:09	RRC	TAL PEN

Client Sample ID: AX21393 MW-7 DUP Lab Sample ID: 400-143535-2

Date Collected: 09/12/17 15:14				Matrix: Water
Date Received: 09/20/17 13:50				
_				
Batch Batch	Dilution	Batch	Prepared	

		Datch	Datch		Dilution	Daten	Prepared		
ı	Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
=	Total/NA	Analysis	SM 4500 CI- E		1	369311	09/24/17 08:27	RRC	TAL PEN
-	Total/NA	Analysis	SM 4500 F C		1	370140	09/29/17 15:21	BAB	TAL PEN
Ŀ	Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:09	RRC	TAL PEN

Lab Sample ID: 400-143535-3 Client Sample ID: AX21394 MW-6

Date Collected: 09/12/17 16:12

Date Received: 09/20/17 13:50

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E			369311	09/24/17 08:27	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370140	09/29/17 15:23	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:09	RRC	TAL PEN

Client Sample ID: AX21395 MW-4 Lab Sample ID: 400-143535-4

Date Collected: 09/12/17 17:07

Date Received: 09/20/17 13:50

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E			369311	09/24/17 08:27	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370140	09/29/17 15:25	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:09	RRC	TAL PEN

Client Sample ID: AX21635 MW-3 Lab Sample ID: 400-143535-5

Date Collected: 09/13/17 09:35 Date Received: 09/20/17 13:50

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E			369311	09/24/17 08:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370140	09/29/17 15:54	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:11	RRC	TAL PEN

**Matrix: Water** 

**Matrix: Water** 

**Matrix: Water** 

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

Client Sample ID: AX21636 MW-2

Date Collected: 09/13/17 10:31 Date Received: 09/20/17 13:50

Lab Sample ID: 400-143535-6

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	369311	09/24/17 08:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370140	09/29/17 15:58	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:11	RRC	TAL PEN

Client Sample ID: AX21637 MW-1 Lab Sample ID: 400-143535-7

Date Collected: 09/13/17 11:25 Date Received: 09/20/17 13:50 **Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	369311	09/24/17 08:44	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370157	09/29/17 16:29	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:24	RRC	TAL PEN

Client Sample ID: AX21638 MW-8 Lab Sample ID: 400-143535-8 **Matrix: Water** 

Date Collected: 09/13/17 12:19 Date Received: 09/20/17 13:50

Batch Batch Dilution Batch Prepared **Prep Type** Method Factor Number or Analyzed Analyst Type Run Lab Total/NA SM 4500 CI- E 369311 09/24/17 08:44 RRC Analysis TAL PEN Total/NA Analysis SM 4500 F C 370157 09/29/17 16:32 BAB TAL PEN 1 Total/NA Analysis SM 4500 SO4 E 1 369519 09/26/17 09:24 RRC TAL PEN

Client Sample ID: AX21639 MW-5 Lab Sample ID: 400-143535-9

Date Collected: 09/13/17 13:06

Date Received: 09/20/17 13:50

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	369311	09/24/17 08:44	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370157	09/29/17 16:22	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:24	RRC	TAL PEN

Client Sample ID: AX21640 FB-1 Lab Sample ID: 400-143535-10

Date Collected: 09/13/17 12:50 **Matrix: Water** Date Received: 09/20/17 13:50

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	369311	09/24/17 08:44	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370157	09/29/17 16:34	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:24	RRC	TAL PEN

**Matrix: Water** 

#### **Lab Chronicle**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

Lab Sample ID: 400-143535-11

Client Sample ID: AX21641 MW-10 Date Collected: 09/13/17 13:56 **Matrix: Water** 

Date Received: 09/20/17 13:50

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	369311	09/24/17 08:44	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370157	09/29/17 16:37	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:24	RRC	TAL PEN

Lab Sample ID: 400-143535-12 Client Sample ID: AX21642 MW-9

Date Collected: 09/13/17 14:37 **Matrix: Water** 

Date Received: 09/20/17 13:50

ſ		Batch	Batch		Dilution	Batch	Prepared		
	Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
	Total/NA	Analysis	SM 4500 CI- E		1	369311	09/24/17 08:44	RRC	TAL PEN
	Total/NA	Analysis	SM 4500 F C		1	370157	09/29/17 16:40	BAB	TAL PEN
	Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:24	RRC	TAL PEN

Client Sample ID: AX21643 EB-1 Lab Sample ID: 400-143535-13

Date Collected: 09/13/17 14:43 **Matrix: Water** 

Date Received: 09/20/17 13:50

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	369311	09/24/17 08:44	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370157	09/29/17 16:43	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:24	RRC	TAL PEN

#### **Laboratory References:**

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TestAmerica Pensacola

9/29/2017

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

## **General Chemistry**

#### Analysis Batch: 369311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143535-1	AX21392 MW-7	Total/NA	Water	SM 4500 CI- E	
400-143535-2	AX21393 MW-7 DUP	Total/NA	Water	SM 4500 CI- E	
400-143535-3	AX21394 MW-6	Total/NA	Water	SM 4500 CI- E	
400-143535-4	AX21395 MW-4	Total/NA	Water	SM 4500 CI- E	
400-143535-5	AX21635 MW-3	Total/NA	Water	SM 4500 CI- E	
400-143535-6	AX21636 MW-2	Total/NA	Water	SM 4500 CI- E	
400-143535-7	AX21637 MW-1	Total/NA	Water	SM 4500 CI- E	
400-143535-8	AX21638 MW-8	Total/NA	Water	SM 4500 CI- E	
400-143535-9	AX21639 MW-5	Total/NA	Water	SM 4500 CI- E	
400-143535-10	AX21640 FB-1	Total/NA	Water	SM 4500 CI- E	
400-143535-11	AX21641 MW-10	Total/NA	Water	SM 4500 CI- E	
400-143535-12	AX21642 MW-9	Total/NA	Water	SM 4500 CI- E	
400-143535-13	AX21643 EB-1	Total/NA	Water	SM 4500 CI- E	
MB 400-369311/15	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 400-369311/16	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
MRL 400-369311/12	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
400-143535-1 MS	AX21392 MW-7	Total/NA	Water	SM 4500 CI- E	
400-143535-1 MSD	AX21392 MW-7	Total/NA	Water	SM 4500 CI- E	
400-143535-9 MS	AX21639 MW-5	Total/NA	Water	SM 4500 CI- E	
400-143535-9 MSD	AX21639 MW-5	Total/NA	Water	SM 4500 CI- E	

#### **Analysis Batch: 369519**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Pre	ep Batc
400-143535-1	AX21392 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-143535-2	AX21393 MW-7 DUP	Total/NA	Water	SM 4500 SO4 E	
400-143535-3	AX21394 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-143535-4	AX21395 MW-4	Total/NA	Water	SM 4500 SO4 E	
400-143535-5	AX21635 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-143535-6	AX21636 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-143535-7	AX21637 MW-1	Total/NA	Water	SM 4500 SO4 E	
400-143535-8	AX21638 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-143535-9	AX21639 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-143535-10	AX21640 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-143535-11	AX21641 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-143535-12	AX21642 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-143535-13	AX21643 EB-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-369519/17	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-369519/18	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-369519/14	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-143535-1 MS	AX21392 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-143535-1 MSD	AX21392 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-143535-9 MS	AX21639 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-143535-9 MSD	AX21639 MW-5	Total/NA	Water	SM 4500 SO4 E	

#### **Analysis Batch: 370140**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143535-1	AX21392 MW-7	Total/NA	Water	SM 4500 F C	
400-143535-2	AX21393 MW-7 DUP	Total/NA	Water	SM 4500 F C	
400-143535-3	AX21394 MW-6	Total/NA	Water	SM 4500 F C	
400-143535-4	AX21395 MW-4	Total/NA	Water	SM 4500 F C	
400-143535-5	AX21635 MW-3	Total/NA	Water	SM 4500 F C	

## **QC Association Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

#### 3

## **General Chemistry (Continued)**

#### **Analysis Batch: 370140 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143535-6	AX21636 MW-2	Total/NA	Water	SM 4500 F C	
MB 400-370140/1	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-370140/2	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-143535-1 MS	AX21392 MW-7	Total/NA	Water	SM 4500 F C	
400-143535-1 MSD	AX21392 MW-7	Total/NA	Water	SM 4500 F C	
400-143536-A-3 DU	Duplicate	Total/NA	Water	SM 4500 F C	

#### **Analysis Batch: 370157**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143535-7	AX21637 MW-1	Total/NA	Water	SM 4500 F C	-
400-143535-8	AX21638 MW-8	Total/NA	Water	SM 4500 F C	
400-143535-9	AX21639 MW-5	Total/NA	Water	SM 4500 F C	
400-143535-10	AX21640 FB-1	Total/NA	Water	SM 4500 F C	
400-143535-11	AX21641 MW-10	Total/NA	Water	SM 4500 F C	
400-143535-12	AX21642 MW-9	Total/NA	Water	SM 4500 F C	
400-143535-13	AX21643 EB-1	Total/NA	Water	SM 4500 F C	
MB 400-370157/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-370157/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-143535-9 MS	AX21639 MW-5	Total/NA	Water	SM 4500 F C	
400-143535-9 MSD	AX21639 MW-5	Total/NA	Water	SM 4500 F C	

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TestAmerica Job ID: 400-143535-1

%Rec.

10

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

SDG: Plant Barry Gypsum Storage Area

Method: SM 4500 CI- E - Chloride, Total

Lab Sample ID: MB 400-369311/15 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 369311

MB MB Analyte Result Qualifier RL **MDL** Unit Analyzed Dil Fac Prepared 2.0 Chloride <0.60 0.60 mg/L 09/24/17 08:13

Lab Sample ID: LCS 400-369311/16 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

LCS LCS

Analysis Batch: 369311

Added Limits Analyte Result Qualifier Unit %Rec Chloride 30.0 29.2 mg/L 97 90 - 110

Spike

Lab Sample ID: MRL 400-369311/12 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 369311

Spike MRL MRL %Rec. Added Result Qualifier Limits Analyte Unit D %Rec

Chloride 2.00 2.41 mg/L 120 50 - 150

Lab Sample ID: 400-143535-1 MS Client Sample ID: AX21392 MW-7 Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 369311** 

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 8.5 10.0 18.9 104 73 - 120 mg/L

Lab Sample ID: 400-143535-1 MSD Client Sample ID: AX21392 MW-7 **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 369311** 

Spike MSD MSD %Rec. RPD Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 8.5 10.0 104 73 - 120 18.9 mg/L

Lab Sample ID: 400-143535-9 MS Client Sample ID: AX21639 MW-5 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 369311

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits Chloride 10.0 3.9 14.7 108 73 - 120 mg/L

Client Sample ID: AX21639 MW-5 Lab Sample ID: 400-143535-9 MSD Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 369311

Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Added Limits **Analyte** Result Qualifier Unit %Rec **RPD** Limit Chloride 3.9 10.0 14.7 mg/L 107 73 - 120

9/29/2017

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

Client Sample ID: Lab Control Sample

Client Sample ID: AX21392 MW-7

Client Sample ID: AX21392 MW-7

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-370140/1

**Matrix: Water** 

**Analysis Batch: 370140** 

MB MB

Analyte Result Qualifier RL **MDL** Unit Analyzed Dil Fac D Prepared 0.10 Fluoride <0.032 0.032 mg/L 09/29/17 15:03

Lab Sample ID: LCS 400-370140/2

**Matrix: Water** 

**Analysis Batch: 370140** 

Spike LCS LCS %Rec. Added Limits Analyte Result Qualifier Unit %Rec 92 Fluoride 4.00 3.67 mg/L 90 - 110

Lab Sample ID: 400-143535-1 MS

**Matrix: Water** 

Analysis Batch: 370140

Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier Limits Analyte Unit D %Rec Fluoride < 0.032 1.00 0.964 mg/L 96 75 - 125

Lab Sample ID: 400-143535-1 MSD

**Matrix: Water** 

**Analysis Batch: 370140** 

Sample Sample Spike MSD MSD %Rec. RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit Fluoride <0.032 1.00 1.00 100 75 - 125 mg/L

Lab Sample ID: 400-143536-A-3 DU

**Matrix: Water** 

**Analysis Batch: 370140** 

DU DU RPD Sample Sample Analyte Result Qualifier Result Qualifier Unit RPD Limit Fluoride 0.0370 J 0.037 J mg/L

Lab Sample ID: MB 400-370157/3

**Matrix: Water** 

**Analysis Batch: 370157** 

MB MB

Analyte Result Qualifier RL MDL Unit Prepared D Analyzed Dil Fac Fluoride 0.10 < 0.032 0.032 mg/L 09/29/17 16:14

Lab Sample ID: LCS 400-370157/4

**Matrix: Water** 

Analysis Batch: 370157

Spike LCS LCS %Rec. Added Result Qualifier Limits Analyte Unit %Rec Fluoride 4.00 3.67 mg/L 92 90 - 110

Lab Sample ID: 400-143535-9 MS

**Matrix: Water** 

**Analysis Batch: 370157** 

Sample Sample Spike MS MS %Rec. Result Qualifier Added Analyte Result Qualifier Unit D %Rec Limits Fluoride < 0.032 1.00 100 75 - 125 1.00 mg/L

TestAmerica Pensacola

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**Client Sample ID: Duplicate** 

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Method Blank

Prep Type: Total/NA

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Prep Type: Total/NA

9/29/2017

Spike

Added

1.00

10

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

**Analysis Batch: 370157** 

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

Client Sample ID: AX21639 MW-5

Client Sample ID: Method Blank

**Client Sample ID: Lab Control Sample** 

Client Sample ID: Lab Control Sample

Client Sample ID: AX21392 MW-7

Client Sample ID: AX21392 MW-7

Client Sample ID: AX21639 MW-5

**Prep Type: Total/NA** 

Prep Type: Total/NA

MSD MSD %Rec. **RPD** Result Qualifier Unit D %Rec Limits RPD Limit

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-369519/17

Lab Sample ID: 400-143535-9 MSD

**Matrix: Water** 

**Matrix: Water** 

Analyte

Fluoride

**Analysis Batch: 369519** 

MB MB

Sample Sample

<0.032

Result Qualifier

RL **MDL** Unit Analyte Result Qualifier Analyzed Dil Fac Prepared 5.0 09/26/17 08:56 Sulfate <1.4 1.4 mg/L

0.960

mg/L

Lab Sample ID: LCS 400-369519/18

**Matrix: Water** 

Analysis Batch: 369519

Spike LCS LCS %Rec. Added Result Qualifier Analyte Unit D %Rec Limits Sulfate 15.0 14.0 mg/L 93 90 - 110

Lab Sample ID: MRL 400-369519/14

**Matrix: Water** 

**Analysis Batch: 369519** 

Spike MRL MRL %Rec. Analyte Added Result Qualifier Unit %Rec Limits Sulfate 5.00 4.58 mg/L 92 50 - 150

Lab Sample ID: 400-143535-1 MS

**Matrix: Water** 

**Analysis Batch: 369519** 

Spike MS MS %Rec. Sample Sample Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits 10.0 Sulfate 3.0 J 14.1 77 - 128 mg/L 111

Lab Sample ID: 400-143535-1 MSD

**Matrix: Water** 

Analysis Batch: 369519

Sample Sample Spike MSD MSD %Rec. **RPD** Analyte Result Qualifier Added Result Qualifier Limits **RPD** Unit D %Rec Limit Sulfate 3.0 J 10.0 108 13.8 mg/L 77 - 128

Lab Sample ID: 400-143535-9 MS

**Matrix: Water** 

Analysis Batch: 369519

MS MS Sample Sample Spike %Rec. Result Qualifier Added Result Qualifier Limits **Analyte** Unit %Rec Sulfate 7.6 10.0 19.8 mg/L 122 77 - 128

TestAmerica Pensacola

## **QC Sample Results**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

Sulfate

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

77 - 128

4

#### Method: SM 4500 SO4 E - Sulfate, Total (Continued)

7.6

Lab Sample ID: 400-143535	5-9 MSD						Cliei	nt Sam	ple ID: AX	.21639 I	VIVV-5
Matrix: Water									<b>Prep Ty</b>	pe: Tota	al/NA
Analysis Batch: 369519											
-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit

19.0

mg/L

10.0

Chain of Custody Record

**TestAmerica** 

TestAmerica Pensacola 3355 McLemore Drive Pensacola, FL 32514 Phone (850) 474-1001 Fax (850) 478-2671

Client Information Client Contact:	Phone:	2		VVIIIIIII	vviiitille, cileyellie R	בווני	,			400-2027-74237	037.1
CIETI COLIACI.	0			- NASIL						0000	
Keith Kornegay				cheyer	ne.whitn	nire@te	cheyenne.whitmire@testamericainc.com	com		Page 1 of 1	
Company: Alabama Power General Test Laboratory							Analys	Analysis Requested		,4 doL	
Address: 744 County Rd 87 GSC #8	Due Date Requested:	d:		Situal						Preservation Codes	odes:
Ory: Calera	TAT Requested (days):	iys): Routine	9							A - HCL B - NaOH C - Zn Acetate	M - Hexane N - None O - AsNaO2
State, Zip. Al, 35040										D - Nitric Acid E - NaHSO4	P - Na2SO3
Phone: 205-664-6004	PO #.			10						G - Amchlor H - Ascorbic Acid	R - Na2S2O3 S - H2SO4 T - TSP Dodecabydrate
Email: fkkorneg@southernco.com	#OM			1430	PRINTEREDUCEDA					I - Ice J - Di Water	U - Acetone V - MCAA
Project Name: CCR	Project #:			-1/9							W - ph 4-5 Z - other (specify)
Site: Barry Gypsum	SSOW#:				-					of cor	
Sample Identification	Sample Date	Sample	Sample Type (C=comp,	Watrix (W=water, S=solid, O=wastefoil, BI=Tissue, A=Ar)	Field Filtered Perform MS/N SM 4500 F_C	2W 4200 CI E	1 +0S 00S+ WS			Total Number	5.0 FR7 R
	\ \	X			Ž						
AX21392	9/12/17	1514	9	Water	×	×	×			1 MW-7	
AX21393	9/12/17	1514	9	Water	×	×	×			1 MW-7DUP (Sa	MW-7DUP (Sample Duplicate)
AX21394	9/12/17	1612	O	Water	_	×	×			1 MW-6	
AX21395	9/12/17	1707	ŋ	Water	^	×	×			1 MW-4	+
AX21635	9/13/17	0935	9	Water	^	×	×			1 MW-3	
AX21636	9/13/17	1031	9	Water		×	×	400.143535 COC		1 MW-2	
AX21637	9/13/17	1125	9	Water		×	×	1 1 1 1		1 MW-1	
AX21638	9/13/17	1219	g	Water		×	×			1 MW-8	
AX21639	9/13/17	1306	9	Water	×	×	×			1 MW-5	
AX21640	9/13/17	1250	9	Water		×	×			1 FB-1 (Field Blank)	ank)
AX21641	9/13/17	1356	9	Water		×	×			1 MW-10	
AX21642	9/13/17	1437	9	Water		×	×			1 MW-9	
AX21643	9/13/17	1443	9	Water		×	×			1 EB-1 (Equipment Blank)	ent Blank)
Possible Hazard Identification	☐ Poison B ☐ Unk	known	Radiological	,	Sam	ple Dis ]Retun	<b>posal (Α fee</b> η Το Client	Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)  Return To Client Disposal By Lab	mples are r	etained longer the Archive For	an 1 month) Months
Deliverable Requested: I, II, III, IV, Other (specify)					Spec	ial Insti	Special Instructions/QC Requirements	Requirements:			
Empty Kit Relinquished by:		Date:			Time:			Method of Shipment	Shipment:		
Relinquished by: Keith Kornegay	Date/Time: 09/19/	2017 12:00		Company		Received by	by:		Date/Time:		Company
Relinquished by:	Date/Time:			Company	Œ.	Received by:	by:	(	Date/Time:		Company
Relinquished by:	Date/Time:			Company	ш V	Received by	2	De	9 20-1	17 135	Company
Custody Seals Intact:  Custody Seal No.:					0	Cooler Te	mperature(s) °C	Cooler Temperature(s) °C and Other Remarks:			

## **Login Sample Receipt Checklist**

Client: Alabama Power General Test Laboratory

Job Number: 400-143535-1

SDG Number: Plant Barry Gypsum Storage Area

List Source: TestAmerica Pensacola

9/29/2017

Login Number: 143535

List Number: 1

Creator: Hughes, Nicholas T

orcator: magnes, menolas r		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C - IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica Pensacola

## **Accreditation/Certification Summary**

Client: Alabama Power General Test Laboratory

Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-143535-1 SDG: Plant Barry Gypsum Storage Area

#### **Laboratory: TestAmerica Pensacola**

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
lowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

## Plant Barry Gypsum Storage Pond Field pH Data

Well	Date	Obs	Units
BY-GSA-MW-1	2/23/2016	4.62	SU
BY-GSA-MW-1	4/19/2016	4.74	SU
BY-GSA-MW-1	6/6/2016	4.65	SU
BY-GSA-MW-1	8/30/2016	4.64	SU
BY-GSA-MW-1	10/18/2016	4.74	SU
BY-GSA-MW-1	1/31/2017	4.54	SU
BY-GSA-MW-1	3/20/2017	4.67	SU
BY-GSA-MW-1	5/2/2017	4.79	SU
BY-GSA-MW-1	6/6/2017	4.76	SU
BY-GSA-MW-1	9/13/2017	4.81	SU
BY-GSA-MW-10	2/23/2016	4.67	SU
BY-GSA-MW-10	4/19/2016	4.79	SU
BY-GSA-MW-10	6/7/2016	4.73	SU
BY-GSA-MW-10 BY-GSA-MW-10	8/30/2016	4.68 4.75	SU SU
BY-GSA-MW-10	10/18/2016 1/30/2017	4.65	SU
BY-GSA-MW-10	3/21/2017	4.68	SU
BY-GSA-MW-10	5/2/2017	4.75	SU
BY-GSA-MW-10	6/7/2017	4.7	SU
BY-GSA-MW-10	9/13/2017	4.71	SU
BY-GSA-MW-2	2/23/2016	4.79	SU
BY-GSA-MW-2	4/19/2016	4.84	SU
BY-GSA-MW-2	6/7/2016	4.81	SU
BY-GSA-MW-2	8/30/2016	4.76	SU
BY-GSA-MW-2	10/18/2016	4.84	SU
BY-GSA-MW-2	1/31/2017	4.6	SU
BY-GSA-MW-2	3/20/2017	4.71	SU
BY-GSA-MW-2	5/2/2017	4.8	SU
BY-GSA-MW-2	6/6/2017	4.72	SU
BY-GSA-MW-2	9/13/2017	4.71	SU
BY-GSA-MW-3	2/23/2016	4.96	SU
BY-GSA-MW-3	4/19/2016	4.94	SU
BY-GSA-MW-3	6/7/2016	4.96	SU
BY-GSA-MW-3	8/30/2016	4.92	SU
BY-GSA-MW-3	10/18/2016	4.98	SU
BY-GSA-MW-3	1/31/2017	4.74	SU
BY-GSA-MW-3	3/20/2017	4.9	SU
BY-GSA-MW-3	5/2/2017	4.98	SU
BY-GSA-MW-3	6/6/2017	4.94	SU
BY-GSA-MW-3	9/13/2017	4.93	SU
BY-GSA-MW-4	2/23/2016	4.74	SU
BY-GSA-MW-4	4/19/2016 6/6/2016	4.86	SU
BY-GSA-MW-4 BY-GSA-MW-4	6/6/2016 8/30/2016	4.88 4.91	SU SU
BY-GSA-MW-4	10/18/2016	4.95	SU
BY-GSA-MW-4	1/31/2017	4.95 4.71	SU
DI COM IVIVV-4	1/31/201/	7./1	30

## Plant Barry Gypsum Storage Pond Field pH Data

Well	Date	Obs	Units
BY-GSA-MW-4	3/20/2017	4.83	SU
BY-GSA-MW-4	5/2/2017	4.93	SU
BY-GSA-MW-4	6/6/2017	4.9	SU
BY-GSA-MW-4	9/12/2017	4.82	SU
BY-GSA-MW-5	2/23/2016	4.76	SU
BY-GSA-MW-5	4/18/2016	4.75	SU
BY-GSA-MW-5	6/7/2016	4.77	SU
BY-GSA-MW-5	8/30/2016	4.82	SU
BY-GSA-MW-5	10/18/2016	4.82	SU
BY-GSA-MW-5	1/31/2017	4.8	SU
BY-GSA-MW-5	3/21/2017	4.86	SU
BY-GSA-MW-5	5/2/2017	4.89	SU
BY-GSA-MW-5	6/6/2017	4.86	SU
BY-GSA-MW-5	9/13/2017	4.89	SU
BY-GSA-MW-6	2/23/2016	6.59	SU
BY-GSA-MW-6	4/18/2016	6.21	SU
BY-GSA-MW-6	6/6/2016	5.97	SU
BY-GSA-MW-6	8/30/2016	5.99	SU
BY-GSA-MW-6	10/18/2016	5.94	SU
BY-GSA-MW-6	1/31/2017	5.92	SU
BY-GSA-MW-6	3/21/2017	5.74	SU
BY-GSA-MW-6	5/2/2017	5.82	SU
BY-GSA-MW-6	6/6/2017	5.77	SU
BY-GSA-MW-6	9/12/2017	5.64	SU
BY-GSA-MW-7 BY-GSA-MW-7	2/23/2016	5.12 5.11	SU SU
BY-GSA-MW-7	4/18/2016 6/6/2016	5.14	SU
BY-GSA-MW-7	8/30/2016	5.06	SU
BY-GSA-MW-7	10/18/2016	5.01	SU
BY-GSA-MW-7	1/30/2017	4.74	SU
BY-GSA-MW-7	3/21/2017	5.04	SU
BY-GSA-MW-7	5/2/2017	5.08	SU
BY-GSA-MW-7	6/7/2017	5.07	SU
BY-GSA-MW-7	9/12/2017	5.03	SU
BY-GSA-MW-8	2/23/2016	4.92	SU
BY-GSA-MW-8	4/18/2016	5.16	SU
BY-GSA-MW-8	6/7/2016	5.11	SU
BY-GSA-MW-8	8/30/2016	5.14	SU
BY-GSA-MW-8	10/18/2016	5.09	SU
BY-GSA-MW-8	1/31/2017	5.01	SU
BY-GSA-MW-8	3/21/2017	5.07	SU
BY-GSA-MW-8	5/2/2017	5.13	SU
BY-GSA-MW-8	6/7/2017	5.05	SU
BY-GSA-MW-8	9/13/2017	5.06	SU
BY-GSA-MW-9	2/23/2016	4.56	SU
BY-GSA-MW-9	4/19/2016	4.62	SU

## Plant Barry Gypsum Storage Pond Field pH Data

Well	Date	Obs	Units
BY-GSA-MW-9	6/7/2016	4.64	SU
BY-GSA-MW-9	8/30/2016	4.58	SU
BY-GSA-MW-9	10/18/2016	4.58	SU
BY-GSA-MW-9	1/30/2017	4.44	SU
BY-GSA-MW-9	3/21/2017	4.57	SU
BY-GSA-MW-9	5/2/2017	4.64	SU
BY-GSA-MW-9	6/7/2017	4.58	SU
BY-GSA-MW-9	9/13/2017	4.54	SU

# Appendix B Statistical Data Evaluation

# Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry GSA Printed 11/3/2017, 10:22 AM

Constituent	<u>Well</u>	Upper Lim	. Lower Lim	. Date	Observ.	Sig. Bg N	Bg Mean	Std. Dev.	%ND	sND Adj.	Transform	<u>Alpha</u>	Method
Calcium (mg/L)	BY-GSA-MW-6	1.766	n/a	9/12/2017	4.39	Yes 36	1.326	0.2257	0	None	No	0.001254	Param Inter 1 of 2
рН (рН)	BY-GSA-MW-6	5.032	4.584	9/12/2017	5.64	Yes 40	4.808	0.1159	0	None	No	0.0006268	Param Inter 1 of 2
рН (рН)	BY-GSA-MW-8	5.032	4.584	9/13/2017	5.06	Yes 40	4.808	0.1159	0	None	No	0.0006268	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-9	5.032	4.584	9/13/2017	4.54	Yes 40	4.808	0.1159	0	None	No	0.0006268	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-6	39.98	n/a	9/12/2017	42.7	Yes 36	29.58	5.339	19.44	Kaplan-Meier	No	0.001254	Param Inter 1 of 2

# Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry GSA Printed 12/18/2017, 2:16 PM

 Constituent
 Well
 Upper Lim. Lower Lim. Date
 Observ.
 Sig. Bg N
 Bg Mean Std. Dev.
 %N Det.
 Transform Alpha
 Method

 Chloride (mg/L)
 BY-GSA-MW-10
 4.811
 n/a
 9/13/2017
 5.1
 Yes 8
 3.39
 0.4912
 0
 None
 No
 0.001254
 Param Intra 1 of 2

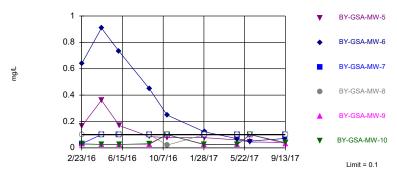
# Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry GSA Printed 11/3/2017, 10:22 AM

TDS (mg/L)         BY-GSA-MW-7         39.98         n/a         9/12/2017         35.3         No         36         29.58         5.339         19.44 Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-8         39.98         n/a         9/13/2017         31.3         No         36         29.58         5.339         19.44 Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-9         39.98         n/a         9/13/2017         37.3         No         36         29.58         5.339         19.44 Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-9         39.98         n/a         9/13/2017         37.3         No         36         29.58         5.339         19.44 Kaplan-Meier         No         0.001254         Param Inter 1 of 2	Constituent	<u>Well</u>	Upper Lim.	Lower Lim	<u>Date</u>	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%ND	s <u>ND Adj.</u>	Transform	<u>Alpha</u>	Method
Bron(ngl) BrGSA-MW-7	Boron (mg/L)	BY-GSA-MW-5	0.1	n/a	9/13/2017	0.0411	No	36	n/a	n/a	86.11	I n/a	n/a	0.001386	NP Inter (NDs) 1 of 2
Browning(1) BryGSAMW-8   0.1   14   15   15   15   15   15   15   1	Boron (mg/L)	BY-GSA-MW-6	0.1	n/a	9/12/2017	0.0709	No	36	n/a	n/a	86.11	I n/a	n/a	0.001386	NP Inter (NDs) 1 of 2
Brown(mg/l) Brown	Boron (mg/L)	BY-GSA-MW-7	0.1	n/a	9/12/2017	0.1ND	No	36	n/a	n/a	86.11	I n/a	n/a	0.001386	NP Inter (NDs) 1 of 2
Boron (mg/l) By-GSA-MW-15 By-GSA-MW-5 By-GSA-MW-5 By-GSA-MW-5 By-GSA-MW-5 By-GSA-MW-5 By-GSA-MW-5 By-GSA-MW-5 By-GSA-MW-5 By-GSA-MW-5 By-GSA-MW-6 By-	Boron (mg/L)	BY-GSA-MW-8	0.1	n/a	9/13/2017	0.1ND	No	36	n/a	n/a	86.11	I n/a	n/a	0.001386	NP Inter (NDs) 1 of 2
Calcium (mg/L)  BY-GSA-MW-8  1.766	Boron (mg/L)	BY-GSA-MW-9	0.1	n/a	9/13/2017	0.032	No	36	n/a	n/a	86.11	I n/a	n/a	0.001386	NP Inter (NDs) 1 of 2
Calcium (mgl)         By-GSA-MW-         1.76         Na         91/2017         4.39         Ves 36         1.326         0.257         0.0         None         0.00 0.00125         Param Inter 1 of 2           Calcium (mgl)         By-GSA-MW-8         1.766         n/a         91/2017         1.44         No         36         1.326         0.2257         0.0         None         No         0.001254         Param Inter 1 of 2           Calcium (mgl)         By-GSA-MW-9         1.766         n/a         91/32017         0.723         No         36         1.326         0.2257         0.0         None         No         0.001254         Param Inter 1 of 2           Calcium (mgl)         By-GSA-MW-9         1.766         n/a         91/32017         0.170         No         36         1.326         0.2257         0.0         None         No         0.001254         Param Inter 1 of 2           Calcium (mgl)         By-GSA-MW-9         1.766         n/a         91/32017         0.1ND         No         36         n/a         n/a         30.5         n         No         20         1.56         param Inter 1 of 2           Fluoride (mgl)         By-GSA-MW-9         0.1         n/a         91/22017         0.1N	Boron (mg/L)	BY-GSA-MW-10	0.1	n/a	9/13/2017	0.0394	No	36	n/a	n/a	86.11	I n/a	n/a	0.001386	NP Inter (NDs) 1 of 2
Calcium (mg/L)         BY-GSA-MW-7         1.766         ria         91/21/217         1.44         No 36         1.256         0 None         No 0.001244         Param Inter 1 of 2           Calcium (mg/L)         BY-GSA-MW-8         1.766         ria         91/31/217         0.23         No 36         1.326         0.257         0 None         No         0.001244         Param Inter 1 of 2           Calcium (mg/L)         BY-GSA-MW-9         1.766         ria         91/31/2017         1.25         No 36         1.326         0.257         0 None         No         0.001244         Param Inter 1 of 2           Calcium (mg/L)         BY-GSA-MW-9         1.766         ria         91/32/217         0.110         No         36         1.326         0.2257         0 None         No         0.001244         Param Inter 1 of 2           Fluoride (mg/L)         BY-GSA-MW-5         0.1         ria         91/32/2017         0.110         No         36         ria         ria         n/a         0.001386         NP Inter (normality) 1 of 2           Fluoride (mg/L)         BY-GSA-MW-6         0.1         ria         91/32/217         0.110         No         36         ria         n/a         0.001386         NP Inter (normality) 1 of 2 <td>Calcium (mg/L)</td> <td>BY-GSA-MW-5</td> <td>1.766</td> <td>n/a</td> <td>9/13/2017</td> <td>1.61</td> <td>No</td> <td>36</td> <td>1.326</td> <td>0.2257</td> <td>0</td> <td>None</td> <td>No</td> <td>0.001254</td> <td>Param Inter 1 of 2</td>	Calcium (mg/L)	BY-GSA-MW-5	1.766	n/a	9/13/2017	1.61	No	36	1.326	0.2257	0	None	No	0.001254	Param Inter 1 of 2
Calcium (mg/L)  BY-GSA-MW-8  1.766  n/a  9/13/2017  1.25  n/a  1.366  1.326  1	Calcium (mg/L)	BY-GSA-MW-6	1.766	n/a	9/12/2017	4.39	Yes	36	1.326	0.2257	0	None	No	0.001254	Param Inter 1 of 2
Calcium (mg/L) BY-GSA-MW-9 1.766 n/a 9/13/2017 1.25 No 3 1.326 0.257 0 None No 0.001254 Param Inter 1 of 2 Calcium (mg/L) BY-GSA-MW-10 1.766 n/a 9/13/2017 0.1ND No 36 1.266 n/a 0.365 n/a 0.365 n/a 0.365 n/a 0.001254 Param Inter 1 of 2 Fluoride (mg/L) BY-GSA-MW-6 0.1 n/a 9/13/2017 0.1ND No 36 n/a 0.365 n/a 0.365 n/a 0.365 n/a 0.365 n/a 0.00138 NP Inter (normality) 1 of 2 Fluoride (mg/L) BY-GSA-MW-6 0.1 n/a 9/13/2017 0.1ND No 36 n/a 0.365 n/a	Calcium (mg/L)	BY-GSA-MW-7	1.766	n/a	9/12/2017	1.44	No	36	1.326	0.2257	0	None	No	0.001254	Param Inter 1 of 2
Calcium (mg/L) BY-GSA-MW-10 1.766 n/a 9/13/2017 0.1ND No 36 1.326 0.2257 0 None No 0.001264 Param Inter 1 of 2 Fluoride (mg/L) BY-GSA-MW-6 0.1 n/a 9/13/2017 0.1ND No 36 n/a n/a 30.56 n/a n/a 30.56 n/a 0.001366 NP Inter (normality) 1 of 2 Fluoride (mg/L) BY-GSA-MW-7 0.1 n/a 9/12/2017 0.1ND No 36 n/a n/a 30.56 n/a n/a 30.56 n/a 0.001366 NP Inter (normality) 1 of 2 Fluoride (mg/L) BY-GSA-MW-8 0.1 n/a 9/13/2017 0.1ND No 36 n/a n/a 30.56 n/a n/a 30.56 n/a 0.001366 NP Inter (normality) 1 of 2 Fluoride (mg/L) BY-GSA-MW-8 0.1 n/a 9/13/2017 0.1ND No 36 n/a n/a 30.56 n/a n/a 30.56 n/a n/a 30.56 n/a 0.001366 NP Inter (normality) 1 of 2 Fluoride (mg/L) BY-GSA-MW-9 0.1 n/a 9/13/2017 0.0ND No 36 n/a n/a 30.56 n/a n/a 30.56 n/a n/a 30.56 n/a 0.001366 NP Inter (normality) 1 of 2 Fluoride (mg/L) BY-GSA-MW-9 0.1 n/a 9/13/2017 0.0ND No 36 n/a n/a 30.56 n/a n/a 3	Calcium (mg/L)	BY-GSA-MW-8	1.766	n/a	9/13/2017	0.723	No	36	1.326	0.2257	0	None	No	0.001254	Param Inter 1 of 2
Fluoride (mg/L)   BY-GSA-MW-6   O1    Na    9/13/2017   O1ND   Na    36    Na    Na    30.5    Na	Calcium (mg/L)	BY-GSA-MW-9	1.766	n/a	9/13/2017	1.25	No	36	1.326	0.2257	0	None	No	0.001254	Param Inter 1 of 2
Fluoride (mg/L) BY-GSA-MW-6 0.1 n/a 9/12/2017 0.1ND No 36 n/a n/a 0.01386 NP Inter (normality) 1 of 2 continuity) 1 of 2 continuity 1 of 2 continuity) 1 of 2 continuity 1 of 2 continuity 1 of 2 continuity 1 of 2 continuity) 1 of 2 continuity 1 of	Calcium (mg/L)	BY-GSA-MW-10	1.766	n/a	9/13/2017	0.873	No	36	1.326	0.2257	0	None	No	0.001254	Param Inter 1 of 2
Fluoride (mg/L) BY-GSA-MW-8	Fluoride (mg/L)	BY-GSA-MW-5	0.1	n/a	9/13/2017	0.1ND	No	36	n/a	n/a	30.56	o n/a	n/a	0.001386	NP Inter (normality) 1 of 2
Fluoride (mg/L) BY-GSA-MW-8	Fluoride (mg/L)	BY-GSA-MW-6	0.1	n/a	9/12/2017	0.1ND	No	36	n/a	n/a	30.56	o n/a	n/a	0.001386	NP Inter (normality) 1 of 2
Fluoride (mg/L)  BY-GSA-MW-9  0.1  n/a  9/13/2017  0.08  No 36  n/a  n/a  30.56  n/a  n/a  30.56  n/a  n/a  0.01386  NP Inter (normality) 1 of 2  Phoride (mg/L)  ph (ph)  BY-GSA-MW-5  5.032  4.584  9/13/2017  5.64  Yes 40  4.898  0.1159  0.0  None  No 0.0006268  Param Inter 1 of 2  Ph (ph)  BY-GSA-MW-8  5.032  4.584  9/13/2017  5.06  Yes 40  4.808  0.1159  0.0  None  No 0.0006268  Param Inter 1 of 2  Ph (ph)  ph (ph)  BY-GSA-MW-9  5.032  4.584  9/13/2017  5.06  Yes 40  4.808  0.1159  0.0  None  No 0.0006268  Param Inter 1 of 2  Ph (ph)  ph (ph)  BY-GSA-MW-9  5.032  4.584  9/13/2017  5.06  Yes 40  4.808  0.1159  0.0  None  No 0.0006268  Param Inter 1 of 2  Ph (ph)  ph (ph) BY-GSA-MW-9  5.032  4.584  9/13/2017  5.06  Yes 40  4.808  0.1159  0.0  None  No 0.0006268  Param Inter 1 of 2  Ph (ph) Ph (ph) BY-GSA-MW-9  5.032  4.584  9/13/2017  4.71  No 4.71  No 4.71  No 4.808  0.1159  0.0  None  No 0.0006268  No 0.0006268  Param Inter 1 of 2  Ph (ph) No 0.0006268  Param Inter 1 of 2  Ph (ph) Ph (ph) BY-GSA-MW-6  39.98  N/a  9/13/2017  37.3  No 36 29.58  5.339  19.44  Kaplan-Meier  No 0.001254  Param Inter 1 of 2  Ph (ph) BY-GSA-MW-8  39.98  N/a  9/12/2017  35.3  No 36 29.58  5.339  19.44  Kaplan-Meier  No 0.001254  Param Inter 1 of 2  Ph (ph) BY-GSA-MW-8  39.98  N/a  9/12/2017  35.3  No 36 29.58  5.339  19.44  Kaplan-Meier  No 0.001254  Param Inter 1 of 2  Param Inter 1 of	Fluoride (mg/L)	BY-GSA-MW-7	0.1	n/a	9/12/2017	0.1ND	No	36	n/a	n/a	30.56	5 n/a	n/a	0.001386	NP Inter (normality) 1 of 2
Fluoride (mg/L)  BY-GSA-MW-10  1.1  BY-GSA-MW-5  5.032  4.584  9/13/2017  5.64  Yes 40  4.808  0.1159  0. None  No. 0.0006268 Param Inter 1 of 2  PH (pH)  BY-GSA-MW-6  5.032  4.584  9/12/2017  5.03  4.584  9/13/2017  5.03  4.584  9/13/2017  5.03  4.584  9/13/2017  5.03  No. 40  4.808  0.1159  0. None  No. None  No. 0.0006268 Param Inter 1 of 2  PH (pH)  BY-GSA-MW-6  5.032  4.584  9/13/2017  5.06  Yes 40  4.808  0.1159  0. None  No. None  No. 0.0006268 Param Inter 1 of 2  PH (pH)  BY-GSA-MW-7  5.032  4.584  9/13/2017  5.06  Yes 40  4.808  0.1159  0. None  No. 0.0006268 Param Inter 1 of 2  PH (pH)  BY-GSA-MW-7  5.032  4.584  9/13/2017  5.06  Yes 40  4.808  0.1159  0. None  No. 0.0006268 Param Inter 1 of 2  PH (pH)  PH (pH)  BY-GSA-MW-7  5.032  4.584  9/13/2017  4.51  No. 40  4.808  0.1159  0. None  No. 0.0006268 Param Inter 1 of 2  PH (pH)  PH (pH)  BY-GSA-MW-7  5.032  4.584  9/13/2017  4.71  No. 40  4.808  0.1159  0. None  No. 0.0006268 Param Inter 1 of 2  PH (pH)  BY-GSA-MW-7  No. 0.0006268 Param Inter 1 of 2  PH (pH)  BY-GSA-MW-7  5.032  4.584  9/13/2017  4.71  No. 40  4.808  0.1159  0. None  No. 0.0006268 Param Inter 1 of 2  PH (pH)  No. 0.0006268 Param Inter 1 of 2  PH (pH)  PH (pH)  BY-GSA-MW-7  5.032  4.584  9/13/2017  4.71  No. 4.07  4.80  4.808  0.1159  0. None  No. 0.0006268 Param Inter 1 of 2  PH (pH)  No. 0.0006268 Param Inter 1 of 2  PH (pH)  PH (pH)  BY-GSA-MW-7  5.032  4.584  9/13/2017  4.71  No. 4.71  No. 4.80  4.808  0.1159  0. None  No. 0.0006268 Param Inter 1 of 2  PH (pH)  No. 0.0006268 Param Inter 1 of 2  PH (pH)  PH (pH)  PH (pH)  PH (pH)  BY-GSA-MW-7  5.032  4.584  9/13/2017  4.71  No. 4.71  No. 4.80  4.808  0.1159  0. None  No. 0.0006268 Param Inter 1 of 2  PH (pH)  PH (p	Fluoride (mg/L)	BY-GSA-MW-8	0.1	n/a	9/13/2017	0.1ND	No	36	n/a	n/a	30.56	5 n/a	n/a	0.001386	NP Inter (normality) 1 of 2
pH (pH)         BY-GSA-MW-5         5.032         4.584         9/13/2017         4.89         No 40         4.808         0.1159         0         None         No         0.0006268         Param Inter 1 of 2           pH (pH)         BY-GSA-MW-6         5.032         4.584         9/12/2017         5.64         Yes 40         4.808         0.1159         0         None         No         0.0006268         Param Inter 1 of 2           pH (pH)         BY-GSA-MW-7         5.032         4.584         9/13/2017         5.06         Yes 40         4.808         0.1159         0         None         No         0.0006268         Param Inter 1 of 2           pH (pH)         BY-GSA-MW-8         5.032         4.584         9/13/2017         5.06         Yes 40         4.808         0.1159         0         None         No         0.0006268         Param Inter 1 of 2           pH (pH)         BY-GSA-MW-9         5.032         4.584         9/13/2017         4.71         No         4.08         0.1159         0         None         No         0.0006268         Param Inter 1 of 2           pH (pH)         BY-GSA-MW-9         3.998         n/a         9/13/2017         3.73         No         4.08         0.1159	Fluoride (mg/L)	BY-GSA-MW-9	0.1	n/a	9/13/2017	0.08	No	36	n/a	n/a	30.56	5 n/a	n/a	0.001386	NP Inter (normality) 1 of 2
pH (pH)         BY-GSA-MW-6         5.032         4.584         9/12/2017         5.64         Yes 40         4.808         0.1159         0         None         No         0.0006268         Param Inter 1 of 2           pH (pH)         BY-GSA-MW-7         5.032         4.584         9/12/2017         5.03         No         40         4.808         0.1159         0         None         No         0.0006268         Param Inter 1 of 2           pH (pH)         BY-GSA-MW-8         5.032         4.584         9/13/2017         5.06         Yes 40         4.808         0.1159         0         None         No         0.0006268         Param Inter 1 of 2           pH (pH)         BY-GSA-MW-9         5.032         4.584         9/13/2017         4.54         Yes 40         4.808         0.1159         0         None         No         0.0006268         Param Inter 1 of 2           pH (pH)         BY-GSA-MW-9         5.032         4.584         9/13/2017         4.71         No         4.808         0.1159         0         None         No         0.0006268         Param Inter 1 of 2           pH (pH)         BY-GSA-MW-6         39.98         n/a         9/13/2017         37.3         No         36.         29.58 </td <td>Fluoride (mg/L)</td> <td>BY-GSA-MW-10</td> <td>0.1</td> <td>n/a</td> <td>9/13/2017</td> <td>0.08</td> <td>No</td> <td>36</td> <td>n/a</td> <td>n/a</td> <td>30.56</td> <td>5 n/a</td> <td>n/a</td> <td>0.001386</td> <td>NP Inter (normality) 1 of 2</td>	Fluoride (mg/L)	BY-GSA-MW-10	0.1	n/a	9/13/2017	0.08	No	36	n/a	n/a	30.56	5 n/a	n/a	0.001386	NP Inter (normality) 1 of 2
pH (pH)         BY-GSA-MW-7         5.032         4.584         9/12/2017         5.03         No  40         4.808         0.1159         0         None         No  0.0006268         Param Inter 1 of 2           pH (pH)         BY-GSA-MW-8         5.032         4.584         9/13/2017         5.06         Yes  40         4.808         0.1159         0         None         No  0.0006268         Param Inter 1 of 2           pH (pH)         BY-GSA-MW-9         5.032         4.584         9/13/2017         4.54         Yes  40         4.808         0.1159         0         None         No  0.0006268         Param Inter 1 of 2           pH (pH)         BY-GSA-MW-9         5.032         4.584         9/13/2017         4.71         No  40         4.808         0.1159         0         None         No  0.0006268         Param Inter 1 of 2           pH (pH)         BY-GSA-MW-10         5.032         4.584         9/13/2017         4.71         No  40         4.808         0.1159         0         None         No  0.0006268         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-5         39.98         n/a         9/13/2017         37.3         No  36         29.58         5.339         19.44         Kaplan-Meier         No  0.00125	pH (pH)	BY-GSA-MW-5	5.032	4.584	9/13/2017	4.89	No	40	4.808	0.1159	0	None	No	0.0006268	Param Inter 1 of 2
H (pH) BY-GSA-MW-8 5.032 4.584 9/13/2017 5.06 Yes 40 4.808 0.1159 0 None No 0.0006268 Param Inter 1 of 2 pH (pH) BY-GSA-MW-9 5.032 4.584 9/13/2017 4.54 Yes 40 4.808 0.1159 0 None No 0.0006268 Param Inter 1 of 2 pH (pH) BY-GSA-MW-10 5.032 4.584 9/13/2017 4.71 No 40 4.808 0.1159 0 None No 0.0006268 Param Inter 1 of 2 pH (pH) BY-GSA-MW-5 39.98 n/a 9/13/2017 37.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2 TDS (mg/L) BY-GSA-MW-6 39.98 n/a 9/12/2017 35.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2 TDS (mg/L) BY-GSA-MW-7 39.98 n/a 9/13/2017 31.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2 TDS (mg/L) BY-GSA-MW-8 39.98 n/a 9/13/2017 31.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2 TDS (mg/L) BY-GSA-MW-8 39.98 n/a 9/13/2017 31.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2 TDS (mg/L) BY-GSA-MW-8 39.98 n/a 9/13/2017 37.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2 TDS (mg/L) BY-GSA-MW-9 39.98 n/a 9/13/2017 37.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2 TDS (mg/L) BY-GSA-MW-9 39.98 n/a 9/13/2017 37.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2 TDS (mg/L) BY-GSA-MW-9 39.98 n/a 9/13/2017 37.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2 TDS (mg/L) BY-GSA-MW-9 39.98 n/a 9/13/2017 37.3 No 37.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2 TDS (mg/L) BY-GSA-MW-9 39.98 n/a 9/13/2017 37.3 No 37.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2 TDS (mg/L) BY-GSA-MW-9 39.98 n/a 9/13/2017 37.3 No 37.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2 TDS (mg/L) BY-GSA-MW-9 39.98 n/a 9/13/2017 37.3 No 37.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2 TDS (mg/L) BY-GSA-MW-9 39.98 n/a 9/13/2017 37.3 No 37.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2 TDS (mg/L) BY-GSA-MW-9 39.98 n/a 9/13/2017 37.3 No 37.3 No 36 29.58	pH (pH)	BY-GSA-MW-6	5.032	4.584	9/12/2017	5.64	Yes	40	4.808	0.1159	0	None	No	0.0006268	Param Inter 1 of 2
pH (pH)         BY-GSA-MW-9         5.032         4.584         9/13/2017         4.54         Yes 40         4.808         0.1159         0         None         No         0.0006268         Param Inter 1 of 2           pH (pH)         BY-GSA-MW-10         5.032         4.584         9/13/2017         4.71         No         4.088         0.1159         0         None         No         0.0006268         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-5         39.98         n/a         9/13/2017         37.3         No         36         29.58         5.339         19.44         Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-6         39.98         n/a         9/12/2017         35.3         No         36         29.58         5.339         19.44         Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-7         39.98         n/a         9/13/2017         31.3         No         36         29.58         5.339         19.44         Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-8         39.98         n/a         9/13/2017         3	pH (pH)	BY-GSA-MW-7	5.032	4.584	9/12/2017	5.03	No	40	4.808	0.1159	0	None	No	0.0006268	Param Inter 1 of 2
PH (pH)         BY-GSA-MW-10         5.032         4.584         9/13/2017         4.71         No         40         4.808         0.1159         0         None         No         0.0006268         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-5         39.98         n/a         9/13/2017         37.3         No         36         29.58         5.339         19.44         Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-6         39.98         n/a         9/12/2017         35.3         No         36         29.58         5.339         19.44         Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-7         39.98         n/a         9/13/2017         35.3         No         36         29.58         5.339         19.44         Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-8         39.98         n/a         9/13/2017         31.3         No         36         29.58         5.339         19.44         Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-8         39.98         n/a	pH (pH)	BY-GSA-MW-8	5.032	4.584	9/13/2017	5.06	Yes	40	4.808	0.1159	0	None	No	0.0006268	Param Inter 1 of 2
TDS (mg/L) BY-GSA-MW-5 39.98 n/a 9/13/2017 37.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2  TDS (mg/L) BY-GSA-MW-6 39.98 n/a 9/12/2017 42.7 Yes 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2  TDS (mg/L) BY-GSA-MW-7 39.98 n/a 9/13/2017 35.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2  TDS (mg/L) BY-GSA-MW-8 39.98 n/a 9/13/2017 31.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2  TDS (mg/L) BY-GSA-MW-9 39.98 n/a 9/13/2017 37.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2  TDS (mg/L) BY-GSA-MW-9 39.98 n/a 9/13/2017 37.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2	pH (pH)	BY-GSA-MW-9	5.032	4.584	9/13/2017	4.54	Yes	40	4.808	0.1159	0	None	No	0.0006268	Param Inter 1 of 2
TDS (mg/L)         BY-GSA-MW-6         39.98         n/a         9/12/2017         42.7         Yes 36         29.58         5.339         19.44 Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-7         39.98         n/a         9/13/2017         35.3         No         36         29.58         5.339         19.44 Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-8         39.98         n/a         9/13/2017         31.3         No         36         29.58         5.339         19.44 Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-9         39.98         n/a         9/13/2017         37.3         No         36         29.58         5.339         19.44 Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-9         39.98         n/a         9/13/2017         37.3         No         36         29.58         5.339         19.44 Kaplan-Meier         No         0.001254         Param Inter 1 of 2	pH (pH)	BY-GSA-MW-10	5.032	4.584	9/13/2017	4.71	No	40	4.808	0.1159	0	None	No	0.0006268	Param Inter 1 of 2
TDS (mg/L)         BY-GSA-MW-7         39.98         n/a         9/12/2017         35.3         No         36         29.58         5.339         19.44 Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-8         39.98         n/a         9/13/2017         31.3         No         36         29.58         5.339         19.44 Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-9         39.98         n/a         9/13/2017         37.3         No         36         29.58         5.339         19.44 Kaplan-Meier         No         0.001254         Param Inter 1 of 2           TDS (mg/L)         BY-GSA-MW-9         39.98         n/a         9/13/2017         37.3         No         36         29.58         5.339         19.44 Kaplan-Meier         No         0.001254         Param Inter 1 of 2	TDS (mg/L)	BY-GSA-MW-5	39.98	n/a	9/13/2017	37.3	No	36	29.58	5.339	19.44	1 Kaplan-Meier	No	0.001254	Param Inter 1 of 2
TDS (mg/L) BY-GSA-MW-8 39.98 n/a 9/13/2017 31.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2 TDS (mg/L) BY-GSA-MW-9 39.98 n/a 9/13/2017 37.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2	TDS (mg/L)	BY-GSA-MW-6	39.98	n/a	9/12/2017	42.7	Yes	36	29.58	5.339	19.44	1 Kaplan-Meier	No	0.001254	Param Inter 1 of 2
TDS (mg/L) BY-GSA-MW-9 39.98 n/a 9/13/2017 37.3 No 36 29.58 5.339 19.44 Kaplan-Meier No 0.001254 Param Inter 1 of 2	TDS (mg/L)	BY-GSA-MW-7	39.98	n/a	9/12/2017	35.3	No	36	29.58	5.339	19.44	1 Kaplan-Meier	No	0.001254	Param Inter 1 of 2
	TDS (mg/L)	BY-GSA-MW-8	39.98	n/a	9/13/2017	31.3	No	36	29.58	5.339	19.44	1 Kaplan-Meier	No	0.001254	Param Inter 1 of 2
TDS (mg/l) RY-GSA-MW-10 39.98 n/a 9/13/2017 35.3 No. 36, 29.58, 5.339 19.44 Kaplan-Mejer No. 0.001254 Param Inter 1 of 2	TDS (mg/L)	BY-GSA-MW-9	39.98	n/a	9/13/2017	37.3	No	36	29.58	5.339	19.44	1 Kaplan-Meier	No	0.001254	Param Inter 1 of 2
100 (mg.c.) 21 001 mm 10 07.70 mm // 10/2017 00.0 m0 00 27.00 0.007 17.74 Repair moter 100 0.001234 Falaili iliter 1012	TDS (mg/L)	BY-GSA-MW-10	39.98	n/a	9/13/2017	35.3	No	36	29.58	5.339	19.44	1 Kaplan-Meier	No	0.001254	Param Inter 1 of 2

Hollow symbols indicate censored values.

#### **Prediction Limit** Within Limit Interwell Non-parametric

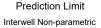


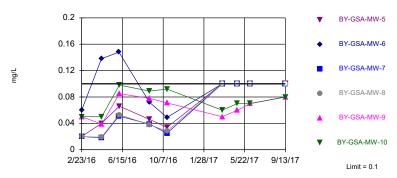
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 86.11% NDs. Annual per-constituent alpha = 0.0165. Individual comparison alpha = 0.001386 (1 of 2). Comparing 6 points to limit.

> Constituent: Boron Analysis Run 11/3/2017 10:18 AM View: PLs - Interwell Plant Barry Client: Southern Company Data: Barry GSA

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Within Limit

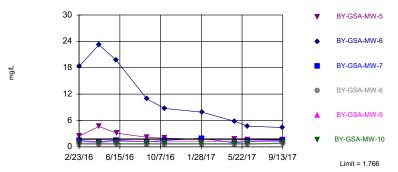




Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. 30.56% NDs. Annual perconstituent alpha = 0.0165. Individual comparison alpha = 0.001386 (1 of 2). Comparing 6 points to limit.

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**Prediction Limit** Exceeds Limit: BY-GSA-MW-6 Interwell Parametric



Background Data Summary: Mean=1.326, Std. Dev.=0.2257, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9285, critical = 0.912. Kappa = 1.948 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

> Constituent: Calcium Analysis Run 11/3/2017 10:18 AM View: PLs - Interwell Plant Barry Client: Southern Company Data: Barry GSA

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Exceeds Limits: BY-GSA-MW-6, BY-GSA-**Prediction Limit** MW-8, BY-GSA-MW-9 Interwell Parametric BY-GSA-MW-5 BY-GSA-MW-6 5.6 BY-GSA-MW-7 4.2 표 BY-GSA-MW-8 2.8 BY-GSA-MW-9 1.4 BY-GSA-MW-10 Limit = 5.032

Background Data Summary: Mean=4.808, Std. Dev.=0.1159, n=40. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9539, critical = 0.919. Kappa = 1.932 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0006268. Comparing 6 points to limit.

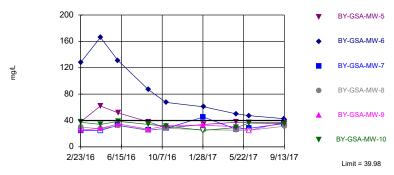
2/23/16 6/15/16 10/7/16 1/28/17 5/22/17 9/13/17

Limit = 4.584

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Exceeds Limit: BY-GSA-MW-6

# Prediction Limit Interwell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=29.58, Std. Dev.=5.339, n=36, 19.44% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9133, critical = 0.912. Kappa = 1.948 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: TDS Analysis Run 11/3/2017 10:18 AM View: PLs - Interwell
Plant Barry Client: Southern Company Data: Barry GSA

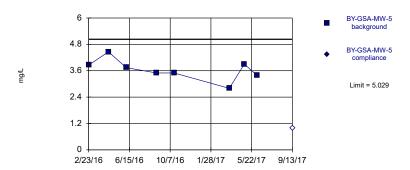
# Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry GSA Printed 12/13/2017, 1:35 PM

Constituent	<u>Well</u>	Upper Lim	n. Lower Lin	n. Date	Observ.	Sig. Bg N	Bg Mear	n Std. Dev.	<u>%NI</u>	OsND Adj.	Transfor	m <u>Alpha</u>	Method
Chloride (mg/L)	BY-GSA-MW-2	5.214	n/a	9/13/2017	1ND	No 8	4.234	0.3387	0	None	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-3	4.6	n/a	9/13/2017	1ND	No 8	n/a	n/a	0	n/a	n/a	0.02144	NP Intra (normality) 1 of 2
Chloride (mg/L)	BY-GSA-MW-4	4.832	n/a	9/12/2017	4.3	No 8	3.731	0.3804	0	None	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-1	4.523	n/a	9/13/2017	1ND	No 8	3.439	0.3747	0	None	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-5	5.029	n/a	9/13/2017	1ND	No 8	3.645	0.4782	0	None	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-6	7.877	n/a	9/12/2017	4.3	No 8	4.939	1.015	0	None	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-7	9.509	n/a	9/12/2017	8.5	No 8	5.241	1.475	0	None	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-8	6.064	n/a	9/13/2017	4.9	No 8	4.734	0.4596	0	None	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-9	7.801	n/a	9/13/2017	6.5	No 8	4.693	1.074	0	None	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-10	4.811	n/a	9/13/2017	5.1	Yes 8	3.39	0.4912	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-2	10.46	n/a	9/13/2017	4.9	No 8	6.863	1.244	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-3	9.743	n/a	9/13/2017	7.3	No 8	7.62	0.7334	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-4	8.42	n/a	9/12/2017	7.2	No 8	6.776	0.5682	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-1	11.77	n/a	9/13/2017	8.4	No 8	8.495	1.132	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-5	33.89	n/a	9/13/2017	7.6	No 8	13.88	6.918	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-6	97.27	n/a	9/12/2017	7.5	No 8	25.44	24.82	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-7	4.741	n/a	9/12/2017	3	No 8	3.27	0.5082	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-8	5.47	n/a	9/13/2017	3.2	No 8	3.689	0.6156	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-9	10.58	n/a	9/13/2017	7.3	No 8	7.591	1.032	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-10	13.4	n/a	9/13/2017	8.7	No 8	9.664	1.292	0	None	No	0.001254	Param Intra 1 of 2

Hollow symbols indicate censored values.

**Prediction Limit** Within Limit Intrawell Parametric



Background Data Summary: Mean=3.645, Std. Dev.=0.4782, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9592, critical = 0.749. Kappa overridden to 2.894.

> Constituent: Chloride Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell Plant Barry Client: Southern Company Data: Barry GSA

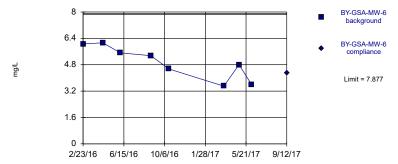
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**Prediction Limit** Within Limit Intrawell Parametric 10 BY-GSA-MW-7 background 8 BY-GSA-MW-7 compliance 6 Limit = 9.509 2 2/23/16 6/15/16 10/6/16 1/28/17 5/21/17 9/12/17

Background Data Summary: Mean=5.241, Std. Dev.=1.475, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8191, critical = 0.749. Kappa overridden to 2.894.

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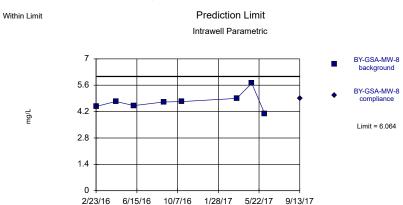




Background Data Summary: Mean=4.939, Std. Dev.=1.015, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9153, critical = 0.749. Kappa overridden to 2.894.

> Constituent: Chloride Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell Plant Barry Client: Southern Company Data: Barry GSA

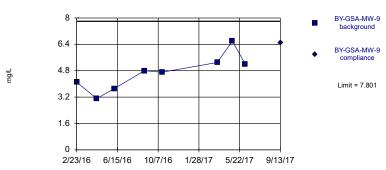
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Background Data Summary: Mean=4.734, Std. Dev.=0.4596, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8848, critical = 0.749. Kappa overridden to 2.894.

Within Limit P





Background Data Summary: Mean=4.693, Std. Dev.=1.074, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9767, critical = 0.749. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

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Within Limit Intrawell Parametric

BY-GSA-MW-2 background

BY-GSA-MW-2 compliance

Limit = 10.46

Background Data Summary: Mean=6.863, Std. Dev.=1.244, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8803, critical = 0.749. Kappa overridden to 2.894.

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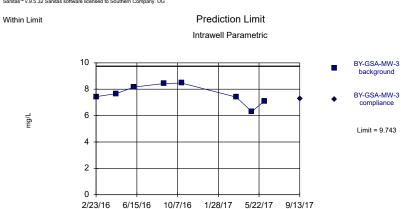




Background Data Summary: Mean=3.39, Std. Dev.=0.4912, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8688, critical = 0.749. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

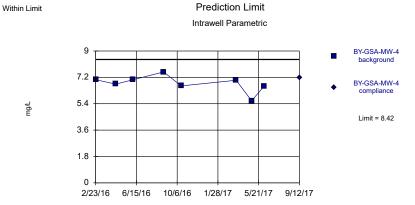
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Background Data Summary: Mean=7.62, Std. Dev.=0.7334, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9376, critical = 0.749. Kappa overridden to 2.894.

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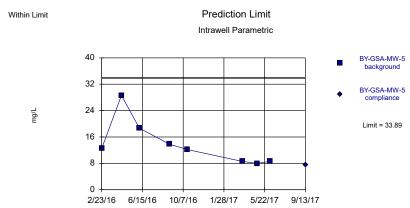
Within Limit



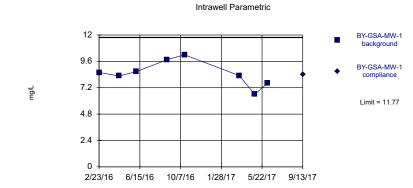
Background Data Summary: Mean=6.776, Std. Dev.=0.5682, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8914, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

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Background Data Summary: Mean=13.88, Std. Dev.=6.918, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8212, critical = 0.749. Kappa overridden to 2.894.

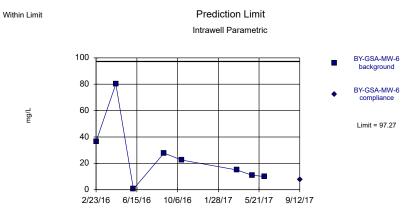


**Prediction Limit** 

Background Data Summary: Mean=8.495, Std. Dev.=1.132, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9632, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

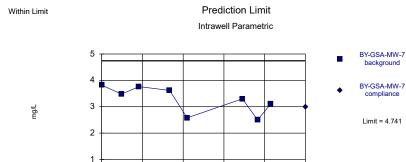
Sanitas™ v.9.5.32 Sanitas software licensed to Southern Company. UG



Background Data Summary: Mean=25.44, Std. Dev.=24.82, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8338, critical = 0.749. Kappa overridden to 2.894.

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Within Limit



Background Data Summary: Mean=3.27, Std. Dev.=0.5082, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8962, critical = 0.749. Kappa overridden to 2.894.

2/23/16 6/15/16 10/6/16 1/28/17 5/21/17 9/12/17

Constituent: Sulfate Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Sanitas™ v.9.5.32 Sanitas software licensed to Southern Company. UG

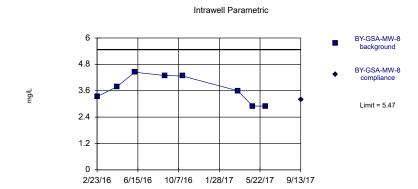
Within Limit Prediction Limit Intrawell Parametric

BY-GSA-MW-9 background

BY-GSA-MW-9 compliance

Limit = 10.58

Background Data Summary: Mean=7.591, Std. Dev.=1.032, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9501, critical = 0.749. Kappa overridden to 2.894.

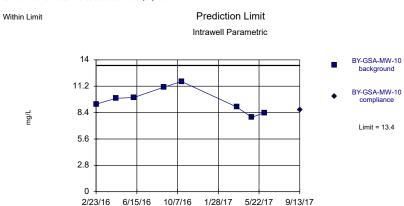


**Prediction Limit** 

Background Data Summary: Mean=3.689, Std. Dev.=0.6156, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9007, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

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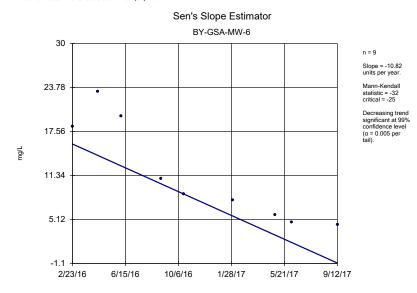


Background Data Summary: Mean=9.664, Std. Dev.=1.292, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.969, critical = 0.749. Kappa overridden to 2.894.

# Trend Test Summary - All Results

Plant Barry Client: Southern Company Data: Barry GSA Printed 11/3/2017, 1:13 PM

Constituent	Well	Slope	Calc.	<u>Critical</u>	Sig.	<u>N</u>	%NDs	Normality	<u>Xform</u>	<u>Alpha</u>	Method
Calcium (mg/L)	BY-GSA-MW-6	-10.82	-32	-25	Yes	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-10	0.5078	12	25	No	9	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-6	-0.4011	-39	-30	Yes	10	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-8	-0.03942	-9	-30	No	10	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-9	-0.01798	-7	-30	No	10	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-6	-64.2	-32	-25	Yes	9	0	n/a	n/a	0.01	NP

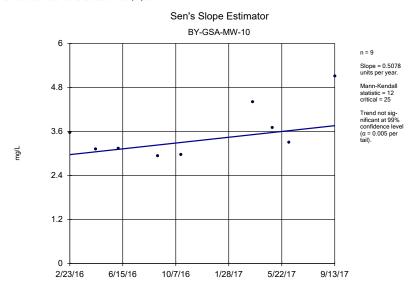


Constituent: Calcium Analysis Run 11/3/2017 11:56 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

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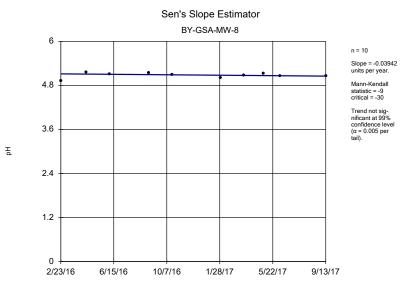


Constituent: pH Analysis Run 11/3/2017 11:56 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA



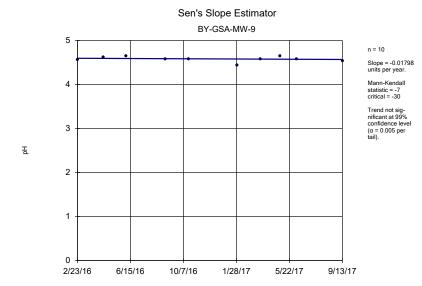
Constituent: Chloride Analysis Run 11/3/2017 11:56 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

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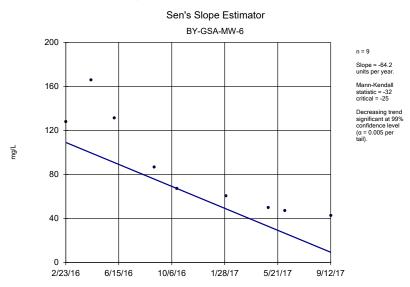
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Plant Barry Client: Southern Company Data: Barry GSA

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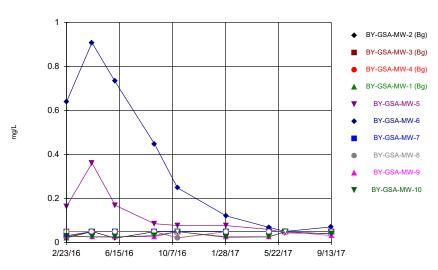
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Plant Barry Client: Southern Company Data: Barry GSA

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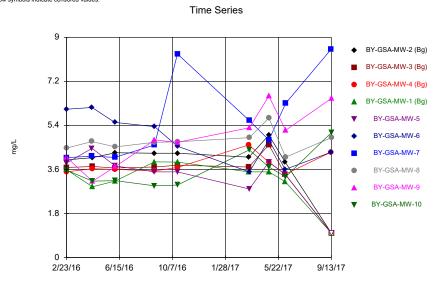
Constituent: TDS Analysis Run 11/3/2017 11:56 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

#### Time Series



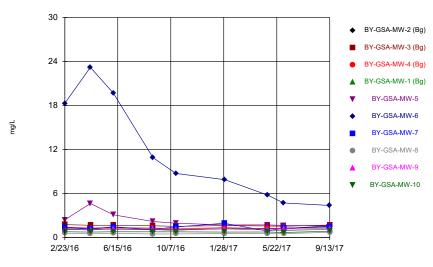
Constituent: Boron Analysis Run 12/13/2017 1:37 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

#### Sanitas $^{\text{tw}}$ v.9.5.32 Sanitas software licensed to Southern Company. UG Hollow symbols indicate censored values.



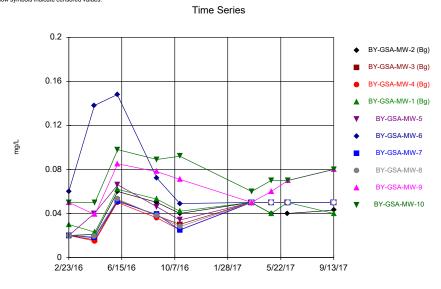
Constituent: Chloride Analysis Run 12/13/2017 1:37 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

#### Time Series



Constituent: Calcium Analysis Run 12/13/2017 1:37 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

#### Sanitas™ v.9.5.32 Sanitas software licensed to Southern Company. UG Hollow symbols indicate censored values.

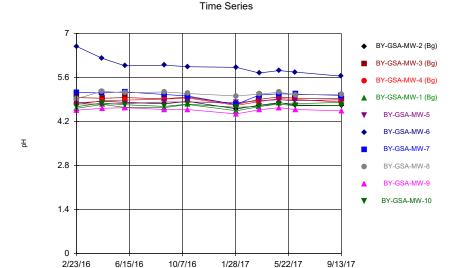


Constituent: Fluoride Analysis Run 12/13/2017 1:37 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Sanitas™ v.9.5.32 Sanitas software licensed to Southern Company. UG



mg/L



Constituent: pH Analysis Run 12/13/2017 1:37 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series

#### Sanitas $^{\rm tot}$ v.9.5.32 Sanitas software licensed to Southern Company. UG Hollow symbols indicate censored values.

2/23/16

6/15/16

#### 200 ♦ BY-GSA-MW-2 (Bg) ■ BY-GSA-MW-3 (Bg) 160 BY-GSA-MW-4 (Bg) ▲ BY-GSA-MW-1 (Bg) BY-GSA-MW-5 120 BY-GSA-MW-6 mg/L BY-GSA-MW-7 80 BY-GSA-MW-8 BY-GSA-MW-9 BY-GSA-MW-10 40

Constituent: TDS Analysis Run 12/13/2017 1:37 PM View: Time Series - All Wells Plant Barry Client: Southern Company Data: Barry GSA

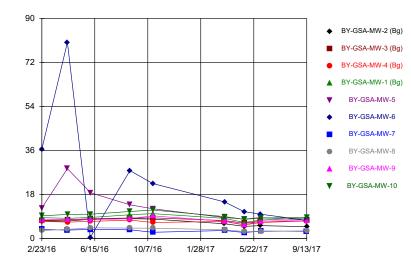
1/28/17

5/22/17

9/13/17

10/7/16





Constituent: Sulfate Analysis Run 12/13/2017 1:37 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA