Edward F. Poolos
Director

Jeffery W. Kitchens
Deputy Director

Alabama Department of Environmental Management
adem.alabama.gov
1400 Coliseum Blvd. 36110-2400 ▪ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ▪ FAX (334) 271-7950

Kay Ivey
Governor

March 23, 2026

Mr. William Robert Bond
President
Bond Industries, Inc.
3700 14th Ave North
Birmingham, AL 35243

RE: Draft Permit
Bessie Mine and Locust Fork Red Rock
NPDES Permit Number AL0003263
Jefferson County (073)

Dear Mr. Bond:

Transmitted herein is a draft of the above referenced permit. Please review the enclosed draft permit carefully. If previously permitted, the draft may contain additions/revisions to the language in your current permit. Please submit any comments on the draft permit to the Department within 30 days from the date of receipt of this letter.

Since the Department has made a tentative decision to reissue the above referenced permit, ADEM Admin. Code r. 335-6-6-.21 requires a public notice of the draft permit followed by a period of at least 30 days for public comment before the permit can be issued. The United States Environmental Protection Agency will also receive the draft permit for review during the 30-day public comment period.

Any mining, processing, construction, land disturbance, or other regulated activity proposed to be authorized by this draft permit is prohibited prior to the effective date of the formal permit. Any mining or processing activity within the drainage basin associated with each permitted outfall which is conducted prior to Departmental receipt of certification from a professional engineer licensed to practice in the State of Alabama, that the Pollution Abatement/Prevention Plan was implemented according to the design plan, or notification from the Alabama Surface Mining Commission that the sediment control structures have been certified, is prohibited.

This permit requires Discharge Monitoring Reports (DMR) to be submitted utilizing the Department's web-based electronic reporting system. Please read Part I.D of the permit carefully and visit https://aepacs.adem.alabama.gov/nviro/ncore/external/home.

Should you have any questions concerning this matter, please contact Ange Boatwright at (334) 274-4208 or maboatwright@adem.alabama.gov.

Sincerely,

William D. McClimans, Chief
Mining and Natural Resource Section
Stormwater Management Branch
Water Division

WDM/mab File: DPER/6795

cc: Ange Boatwright, ADEM
Environmental Protection Agency Region IV
Alabama Department of Conservation and Natural Resources
U.S. Fish and Wildlife Service
Alabama Historical Commission
Advisory Council on Historic Preservation
U.S. Army Corps of Engineers Mobile District
U.S. Army Corps of Engineers Nashville District
Alabama Department of Labor

Birmingham Office
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Office
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Coastal Office
1615 South Broad Street
Mobile, AL 36605
(251) 450-3400
(251) 479-2593 (FAX)

ADEM
Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE:	PB Services, LLC 3700 14th Avenue North Birmingham, AL 35234
FACILITY LOCATION:	Bessie Mine and Locust Fork Red Rock 5260 Bessie Flat Top Cutoff Road Adamsville, AL 35073 Jefferson County T16S, R5W, S14, 22, 23
PERMIT NUMBER:	AL0003263

DSN & RECEIVING STREAM:	001 - I	Unnamed Tributary to Locust Fork
	004 - 1	Locust Fork

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

Draft

Alabama Department of Environmental Management
Water Division Chief

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

Red Rock Mine, Iron Ore Waste Reclamation from Foundry Waste, Dry Preparation, Transportation and Storage, aud Associated Areas

TABLE OF CONTENTS

PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS 4

B. REQUIREMENTS TO ACTIVATE A PROPOSED MINING OUTFALL 6

C. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS 7
1. Sampling Schedule and Frequency 7
2. Measurement Frequency 7
3. Monitoring Schedule 8
4. Sampling Location 8
5. Representative Sampling 8
6. Test Procedures 8
7. Recording of Results 9
8. Routine Inspection by Permittee 10
9. Records Retention and Production 10
10. Monitoring Equipment and Instrumentation 10

D. DISCHARGE REPORTING REQUIREMENTS 11
1. Requirements for Reporting of Monitoring 11
2. Noncompliance Notification 13
3. Reduction, Suspension, or Termination of Monitoring and/or Reporting 13

E. OTHER REPORTING AND NOTIFICATION REQUIREMENTS 15
1. Anticipated Noncompliance 15
2. Termination of Discharge 15
3. Updating Information 15
4. Duty to Provide Information 15

F. SCHEDULE OF COMPLIANCE 15

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS 16
1. Facilities Operation and Management 16
2. Pollution Abatement and/or Prevention Plan 16
3. Best Management Practices (BMPs) 17
4. Biocide Additives 18
5. Facility Identification 18
6. Removed Substances 18
7. Loss or Failure of Treatment Facilities 19
8. Duty to Mitigate 19

B. BYPASS AND UPSET 19
1. Bypass 19
2. Upset 20

C. PERMIT CONDITIONS AND RESTRICTIONS 21
1. Prohibition agaiust Discharge from Facilities Not Certified 21
2. Permit Modification, Suspension, Termination, and Revocation 21
3. Requirements for Metals, Cyanide, and Phenols Monitoring and Reporting 22
4. Automatic Expiration of Permits for New or Increased Discharges 22

5. Transfer of Permit 23
6. Groundwater 23
7. Property and Other Rights 23

D. RESPONSIBILITIES 24
1. Duty to Comply 24
2. Change in Discharge 24
3. Compliance with Toxic or Other Pollutant Effluent Standard or Prohibition 25
4. Compliance with Water Quality Standards and Other Provisions 25
5. Compliance with Statutes and Rules 25
6. Right of Entry and Inspection 26
7. Duty to Reapply or Notify of Intent to Cease Discharge 26

PART III ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. CIVIL AND CRIMINAL LIABILITY 27
1. Tampering 27
2. False Statements 27
3. Permit Enforcement 27
4. Relief From Liability 27

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY 27

C. AVAILABILITY OF REPORTS 27

D. DEFINITIONS 27

E. SEVERABILITY 32

F. PROHIBITIONS AND ACTIVIES NOT AUTHORIZED 32

G. DISCHARGES TO IMPAIRED WATERS 32

H. MANGANESE EXEMPTION DISCHARGE LIMITATIONS 33

I. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR ACUTE TOXICITY 33

J. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR CHRONIC TOXICITY 37
1. Test Requirements (Screening Test) 37
2. General Test Requirements 37
3. Reporting Requirements 38
4. Additional Testing Requirements 38
5. Test Methods 39
6. Effluent Toxicity Testing Reports 39

PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this Permit and lasting through the expiration date of this Permit, the Permittee is authorized to discharge from **Outfall 001-1** identified on Page 1 of this Permit and described more fully in the Permittee's application, if the outfall has been constructed and certified. Discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations			Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Sample Type	Measurement Frequency[1]
Specific Conductance 00095	-------	Report µS/cm	Report µS/cm	Grab	2/Month
Sulfate (As S) 00154	-------	Report mg/L	Report mg/L	Grab	2/Month
pH 00400	6.0 s.u.	-------	9.0 s.u.	Grab	2/Month
Solids, Total Suspended 00530	-------	20.0 mg/L	30.0 mg/L	Grab	2/Month
Oil & Grease 00556	-------	-------	15.0 mg/L	Grab	1/Month
Nitrogen, Total (As N) 00600	-------	-------	Report mg/L	Grab	1/Quarter
Total Organic Carbon (TOC) 00680	-------	-------	Report mg/L	Grab	1/Quarter
Selenium, Total Recoverable 00981	-------	5.0 µg/L	20.0 µg/L	Grab	1/Month
Cadmium, Dissolved (As Cd) 01025	-------	0.246 µg/L	2.014 µg/L	Grab	1/Month
Copper, Dissolved (As Cu) 01040	-------	8.95 µg/L	13.43 µg/L	Grab	1/Month
Iron, Dissolved (as Fe) 01046	-------	1.0 mg/L	2.0 mg/L	Grab	2/Month
Manganese, Total (as Mn)[2] 01055	-------	2.0 mg/L	4.0 mg/L	Grab	2/Month
Thallium, Dissolved (As Tl) 01057	-------	0.274 µg/L	Report	Grab	1/Month
Nickel, Dissolved (As Ni) 01065	-------	52.0 µg/L	468.2 µg/L	Grab	1/Month
Zinc, Dissolved (As Zn) 01090	-------	118.1 µg/L	118.1 µg/L	Grab	1/Month
Aluminum, Total (As Al) 01105	-------	Report mg/L	Report mg/L	Grab	1/Month
Flow, In Conduit or Thru Treatment Plant[3] 50050	-------	Report MGD	Report MGD	Instantaneous	2/Month

[1] See Part I.C.2. for further measurement frequency requirements.
[2] See Part IV.H. for Manganese Exemption Discharge Limitations.
[3] Flow must be determined at the time of sample collection by direct measurement, calculation, or other method acceptable to the Department.

Parameter	Discharge Limitations			Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Sample Type	Measurement Frequency[4]
Toxicity, Ceriodaphnia Acute[5] 61425	-------	-------	0 pass(0)/fail(1)	Grab	1/Quarter
Toxicity, Ceriodaphnia Chronic[6] 61426	-------	-------	0 pass(0)/fail(1)	Grab	1/Quarter
Toxicity, Pimephales Acute[5] 61427	-------	-------	0 pass(0)/fail(1)	Grab	1/Quarter
Toxicity, Pimephales Chronic[6] 61428	-------	-------	0 pass(0)/fail(1)	Grab	1/Quarter
Solids, Total Dissolved (TDS) 70296	-------	Report mg/L	Report mg/L	Grab	1/Quarter
Mercury, Total Recoverable 71901	-------	0.012 µg/L	2.4 µg/L	Grab	1/Month

2. During the period beginning on the effective date of this Permit and lasting through the expiration date of this Permit, the Permittee is authorized to discharge from **Outfall 004-1** identified on Page 1 of this Permit and described more fully in the Permittee's application, if the outfall has been constructed and certified. Discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations			Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Sample Type	Measurement Frequency[4]
Specific Conductance 00095	-------	Report µS/cm	Report µS/cm	Grab	2/Month
Sulfate (As S) 00154	-------	Report mg/L	Report mg/L	Grab	2/Month
pH 00400	6.0 s.u.	-------	9.0 s.u.	Grab	2/Month
Solids, Total Suspended 00530	-------	20.0 mg/L	30.0 mg/L	Grab	2/Month
Oil & Grease 00556	-------	-------	15.0 mg/L	Grab	1/Month
Nitrogen, Total (As N) 00600	-------	-------	Report mg/L	Grab	1/Quarter
Total Organic Carbon (TOC) 00680	-------	-------	Report mg/L	Grab	1/Quarter
Cyanide, Total (As Cn) 00720	-------	-------	Report mg/L	Grab	1/Month
Arsenic, Dissolved (As As) 01000	-------	-------	Report mg/L	Grab	1/Month
Cadmium, Dissolved (As Cd) 01025	-------	-------	Report µg/L	Grab	1/Month
Chromium, Dissolved (As Cr) 01030	-------	-------	Report µg/L	Grab	1/Month

[4] See Part I.C.2. for further measurement frequency requirements.
[5] See Part IV.I. for Effluent Toxicity Limitations and Biomonitoring Requirements for Acute Toxicity.
[6] See Part IV.J. for Effluent Toxicity Limitations and Biomonitoring Requirements for Chronic Toxicity.

Parameter	Discharge Limitations			Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Sample Type	Measurement Frequency[7]
Copper, Dissolved (As Cu) 01040	-------	-------	Report µg/L	Grab	1/Month
Iron, Dissolved (as Fe) 01046	-------	1.0 mg/L	2.0 mg/L	Grab	2/Month
Lead, Dissolved (As Pb) 01049	-------	-------	Report µg/L	Grab	1/Month
Manganese, Total (as Mn)[8] 01055	-------	2.0 mg/L	4.0 mg/L	Grab	2/Month
Thallium, Dissolved (As Tl) 01057	-------	0.274 µg/L	Report	Grab	1/Month
Nickel, Dissolved (As Ni) 01065	-------	-------	Report µg/L	Grab	1/Month
Silver, Dissolved (As Ag) 01075	-------	Report µg/L	3.21 µg/L	Grab	1/Month
Zinc, Dissolved (As Zn) 01090	-------	-------	Report µg/L	Grab	1/Month
Aluminum, Total (As Al) 01105	-------	-------	Report mg/L	Grab	1/Month
Flow, In Conduit or Thru Treatment Plant[9] 50050	-------	Report MGD	Report MGD	Instantaneous	2/Month
Toxicity, Ceriodaphnia Acute[10] 61425	-------	-------	0 pass(0)/fail(1)	Grab	1/Quarter
Toxicity, Ceriodaphnia Chronic[11] 61426	-------	-------	0 pass(0)/fail(1)	Grab	1/Quarter
Toxicity, Pimephales Acute[11] 61427	-------	-------	0 pass(0)/fail(1)	Grab	1/Quarter
Toxicity, Pimephales Chronic[11] 61428	-------	-------	0 pass(0)/fail(1)	Grab	1/Quarter
Solids, Total Dissolved (TDS) 70296	-------	Report mg/L	Report mg/L	Grab	1/Quarter
Mercury, Total Recoverable 71901	-------	-------	Report mg/L	Grab	1/Month

B. REQUIREMENTS TO ACTIVATE A PROPOSED MINING OUTFALL

1. Discharge from any point source identified on Page 1 of this Permit which is a proposed outfall is not authorized by this Permit until the outfall has been constructed and certification received by the Department from a professional engineer, registered in the State of Alabama, certifying that such facility has been constructed according to good engineering practices and in accordance with the Pollution Abatement and/or Prevention (PAP) Plan.

2. Certification required by Part I.B.1. shall be submitted on a completed ADEM Form 432. The certification shall include the latitude and longitude of the constructed and certified outfall.

---

[7] See Part I.C.2. for further measurement frequency requirements.
[8] See Part IV.H. for Manganese Exemption Discharge Limitations.
[9] Flow must be determined at the time of sample collection by direct measurement, calculation, or other method acceptable to the Department.
[10] See Part IV.I. for Effluent Toxicity Limitations and Biomonitoring Requirements for Acute Toxicity.
[11] See Part IV.J. for Effluent Toxicity Limitations and Biomonitoring Requirements for Chronic Toxicity.

3. Discharge monitoring and Discharge Monitoring Report (DMR) reporting requirements described in Part I.C. of this Permit do not apply to point sources that have not been constructed and certified.

4. Upon submittal of the certification required by Part I.B.1. to the Department, all monitoring and DMR submittal requirements shall apply to the constructed and certified outfall.

C. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Sampling Schedule and Frequency

a. The Permittee shall collect at least one grab sample of the discharge to surface waters from each constructed and certified point source identified on Page 1 of this Permit and described more fully in the Permittee's application twice per month at a rate of at least every other week if a discharge occurs at any time during the two week period, but need not collect more than two samples per calendar month. Each sample collected shall be analyzed for each parameter specified in Part I.A. of this Permit.

b. If the final effluent is pumped in order to discharge (e.g. from incised ponds, old highwall cuts, old pit areas or depressions, etc.), the Permittee shall collect at least one grab sample of the discharge from each point source identified on Page 1 of this Permit and described more fully in the Permittee's application each quarterly (three month) monitoring period if a discharge occurs at any time during the quarterly monitoring period which results from direct pumped drainage. Each sample collected shall be analyzed for each parameter specified in Part I.A. of this Permit.

c. The Permittee may increase the frequency of sampling listed in Parts I.C.1.a and I.C.1.b; however, all sampling results must be reported to the Department and included in any calculated results submitted to the Department in accordance with this Permit.

2. Measurement Frequency

Measurement frequency requirements found in Part I.A. shall mean:

a. A measurement frequency of one day per week shall mean sample collection on any day of discharge which occurs every calendar week.

b. A measurement frequency of two days per month shall mean sample collection on any day of discharge which occurs every other week, but need not exceed two sample days per month.

c. A measurement frequency of one day per month shall mean sample collection on any day of discharge which occurs during each calendar month.

d. A measurement frequency of one day per quarter shall mean sample collection on any day of discharge which occurs during each calendar quarter.

e. A measurement frequency of one day per six months shall mean sample collection on any day of discharge which occurs during the period of January through June and during the period of July through December.

f. A measurement frequency of one day per year shall mean sample collection on any day of discharge which occurs during each calendar year.

3. Monitoring Schedule

The Permittee shall conduct the monitoring required by Part I.A. in accordance with the following schedule:

a. MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY shall be conducted during the first full month following the effective date of coverage under this Permit and every month thereafter. More frequently than monthly and monthly monitoring may be done anytime during the month, unless restricted elsewhere in this Permit, but the results should be reported on the last Discharge Monitoring Report (DMR) due for the quarter (i.e., with the March, June, September, and December DMRs).

b. QUARTERLY MONITORING shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The Permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this Permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring may be done anytime during the quarter, unless restricted elsewhere in this Permit, but the results should be reported on the last DMR due for the quarter (i.e., with the March, June, September, and December DMRs).

c. SEMIANNUAL MONITORING shall be conducted at least once during the period of January through June and at least once during the period of July through December. The Permittee shall conduct the semiannual monitoring during the first complete semiannual calendar period following the effective date of this Permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this Permit, but it should be reported on the last DMR due for the month of the semiannual period (i.e., with the June and December DMRs).

d. ANNUAL MONITORING shall be conducted at least once during the period of January through December. The Permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this Permit and is then required to monitor once during each annual period thereafter. Annual monitoring may be done anytime during the year, unless restricted elsewhere in this Permit, but it should be reported on the December DMR.

4. Sampling Location

Unless restricted elsewhere in this Permit, samples collected to comply with the monitoring requirements specified in Part I.A. shall be collected at the nearest accessible location just prior to discharge and after final treatment, or at an alternate location approved in writing by the Department.

5. Representative Sampling

Sample collection and measurement actions taken as required herein shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this Permit.

6. Test Procedures

For the purpose of reporting and compliance, Permittees shall use one of the following procedures:

a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test

procedures for the analysis of pollutants shall conform to 40 CFR Part 136, guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h), and ADEM Standard Operating Procedures. If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance, however should EPA approve a method with a lower minimum level during the term of this Permit the Permittee shall use the newly approved method.

b. For pollutant parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the Permittee during permit issuance, reissuance, modification, or during compliance schedule.

In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit using the most sensitive EPA approved method. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

The Minimum Level utilized for procedures identified in Parts I.C.6.a. and b. shall be reported on the Permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

7. **Recording of Results**

For each measurement or sample taken pursuant to the requirements of this Permit, the Permittee shall record the following information:

a. The facility name and location, point source number, date, time, and exact place of sampling or measurements;

b. The name(s) of person(s) who obtained the samples or measurements;

c. The dates and times the analyses were performed;

d. The name(s) of the person(s) who performed the analyses;

e. The analytical techniques or methods used including source of method and method number; and

f. The results of all required analyses.

8. Routine Inspection by Permittee

a. The Permittee shall inspect all point sources identified on Page 1 of this Permit and described more fully in the Permittee's application and all treatment or control facilities or systems used by the Permittee to achieve compliance with the terms and conditions of this Permit at least as often as the applicable sampling frequency specified in Part I.C.1 of this Permit.

b. The Permittee shall maintain a written log for each point source identified on Page 1 of this Permit and described more fully in the Permittee's application in which the Permittee shall record the following information:

(1) The date and time the point source and any associated treatment or control facilities or systems were inspected by the Permittee;

(2) Whether there was a discharge from the point source at the time of inspection by the Permittee;

(3) Whether a sample of the discharge from the point source was collected at the time of inspection by the Permittee;

(4) Whether all associated treatment or control facilities or systems appeared to be in good working order and operating as efficiently as possible, and if not, a description of the problems or deficiencies; and

(5) The name and signature of the person performing the inspection of the point source and associated treatment or control facilities or systems.

9. Records Retention and Production

a. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, and records of all data used to complete the above reports or the application for this Permit, for a period of at least three (3) years from the date of the sample collection, measurement, report, or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA, AEMA, and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director, the Permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records should not be submitted unless requested.

b. All records required to be kept for a period of three (3) years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

10. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this Permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. The Permittee shall develop and maintain quality assurance procedures to ensure proper operation and maintenance of all equipment and instrumentation. The quality assurance procedures shall

include the proper use, maintenance, and installation, when appropriate, of monitoring equipment at the plant site.

D. DISCHARGE REPORTING REQUIREMENTS

1. Requirements for Reporting of Monitoring

a. Monitoring results obtained during the previous three (3) months shall be summarized for each month on a Discharge Monitoring Report (DMR) Form approved by the Department, and submitted to the Department so that it is received by the Director no later than the 28th day of the month following the quarterly reporting period (i.e., on the 28th day of January, April, July, and October of each year).

b. The Department utilizes a web-based electronic reporting system for submittal of DMRs. **Except as allowed by Part I.D.1.c. or d., the Permittee shall submit all DMRs required by Part I.D.1.a. by utilizing the Department's current electronic reporting system.** The Department's current reporting system, Alabama Environmental Permitting and Compliance System (AEPACS), can be found online at https://aepacs.adem.alabama.gov/nviro/ncore/external/home.

c. If the electronic reporting system is down (i.e. electronic submittal of DMR data is unable to be completed due to technical problems originating with the Department's system; this could include entry/submittal issues with an entire set of DMRs or individual parameters), permittees are not relieved of their obligation to submit DMR data to the Department by the required submittal date. However, if the electronic reporting system is down on the 28th day of the month or is down for an extended period of time as determined by the Department when a DMR is required to be submitted, the facility may submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within five calendar days of the electronic reporting system resuming operation, the Permittee shall enter the data into the reporting system unless an alternate timeframe is approved by the Department. An attachment should be included with the electronic DMR submittal verifying the original submittal date (date of the fax, copy of dated e-mail, or hand-delivery stamped date).

d. The permittee may submit a request to the Department for a temporary electronic reporting waiver for DMR submittals. The waiver request should include the permit number; permittee name; facility/site name; facility address; name, address, and contact information for the responsible official or duly authorized representative; a detailed statement regarding the basis for requesting such a waiver; and the duration for which the waiver is requested. Approved electronic reporting waivers are not transferrable. Permittees with an approved electronic reporting waiver for DMRs may submit hard copy DMRs for the period that the approved electronic reporting waiver request is effective. The Permittee shall submit the Department-approved DMR forms to the address listed in Part I.D.1.i.

e. If the Permittee, using approved analytical methods as specified in Part I.C.6., monitors any discharge from a point source identified on Page 1 of this Permit and describe more fully in the Permittee's application more frequently than required by this Permit; the results of such monitoring shall be included in the calculation and reporting of values on the DMR Form, and the increased frequency shall be indicated on the DMR Form.

f. In the event no discharge from a point source identified on Page 1 of this Permit and described more fully in the Permittee's application occurs during a monitoring period, the Permittee shall report "No Discharge" for such period on the appropriate DMR Form.

g. Each DMR Form submitted by the Permittee to the Department in accordance with Part I.D.1. must be legible and bear an original signature or electronic signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this Permit.

h. All reports and forms required to be submitted by this Permit, the AWPCA, and the Department's rules and regulations, shall be signed by a "responsible official" of the Permittee as defined in ADEM Admin. Code r. 335-6-6-.09 or a "duly authorized representative" of such official as defined in ADEM Admin. Code r. 335-6-6-.09 and shall bear the following certification:

> "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

i. All DMRs, reports, and forms required to be submitted by this Permit, the AWPCA and the Department's rules and regulations, shall be submitted through the Department's electronic reporting system, AEPACS, or, if in hardcopy, shall be addressed to:

> Alabama Department of Environmental Management
> Water Division, Mining and Natural Resource Section
> Post Office Box 301463
> Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

> Alabama Department of Environmental Management
> Water Division, Mining and Natural Resource Section
> 1400 Coliseum Boulevard
> Montgomery, Alabama 36110-2059

j. Unless authorized in writing by the Department, approved reporting forms required by this Permit or the Department are not to be altered, and if copied or reproduced, must be consistent in format and identical in content to the ADEM approved form. Unauthorized alteration, falsification, or use of incorrectly reproduced forms constitutes noncompliance with the requirements of this Permit and may significantly delay processing of any request, result in denial of the request, result in permit termination, revocation, suspension, modification, or denial of a permit renewal application, or result in other enforcement action.

k. If this Permit is a reissuance, then the Permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.D.1.

2. Noncompliance Notification

a. The Permittee must notify the Department if, for any reason, the Permittee's discharge:

(1) Potentially threatens human health or welfare;

(2) Potentially threatens fish or aquatic life;

(3) Causes an in-stream water quality criterion to be exceeded;

(4) Does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. §1317(a);

(5) Contains a quantity of a hazardous substance which has been determined may be harmful to the public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. §1321(b)(4); or

(6) Exceeds any discharge liinitation for an effluent parameter as a result of an unanticipated bypass or upset.

The Permittee shall orally or electronically report any of the above occurrences, describing the circumstances and potential effects of such discharge to the Director within 24-hours after the Permittee becomes aware of the occurrence of such discharge. In addition to the oral or electronic report, the Permittee shall submit to the Director a written report as provided in Part I.D.2.c., no later than five (5) days after becoming aware of the occurrence of such discharge.

b. If for any reason, the Permittee's discharge does not comply with any limitation of this Permit, the Permittee shall submit a written report to the Director as provided in Part I.D.2.c. This report must be submitted with the next Discharge Monitoring Report required to be submitted by Part I.D.1. of this Permit after becoming aware of the occurrence of such noncompliance.

c. An electronic Noncompliance Notification Form in a Department-approved format must be submitted to the Director in accordance with Parts I.D.2.a. and b. The completed form must document the following information:

(1) A description of the discharge and cause of noncompliance;

(2) The period of noncompliance, including exact dates and times, or if not corrected, the anticipated time the noncompliance is expected to continue; and

(3) A description of the steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence.

3. Reduction, Suspension, or Termination of Monitoring and/or Reporting

a. The Director may, with respect to any point source identified on Page 1 of this Permit and described more fully in the Permittee's application, authorize the Permittee to reduce, suspend, or terminate the monitoring and/or reporting required by this Permit upon the submission of a written request for such reduction, suspension, or termination by the Permittee provided:

(1) All mining, processing, or disturbance in the drainage basin(s) associated with the discharge has ceased and site access is adequately restricted or controlled to

preclude unpermitted and unauthorized mining, processing, transportation, or associated operations/activity;

(2) Permanent, perennial vegetation has been re-established on all areas mined or disturbed for at least one year since mining has ceased in the drainage basin(s) associated with the surface discharge, or all areas have been permanently graded such that all drainage is directed back into the mined pit to preclude all surface discharges;

(3) Unless waived in writing by the Department, the Permittee has been granted, in writing, a 100% Bond Release, if applicable, by the Alabama Department of Industrial Relations and, if applicable, by the Surface Mining Commission for all areas mined or disturbed in the drainage basin(s) associated with the discharge;

(4) Unless waived in writing by the Department, the Permittee has submitted inspection reports prepared and certified by a Professional Engineer (PE) registered in the State of Alabama or a qualified professional under the PE's direction which certify that the facility has been fully reclaimed or that water quality remediation has been achieved. The first inspection must be conducted approximately one year prior to and the second inspection must be conducted within thirty days of the Permittee's request for termination of monitoring and reporting requirements;

(5) All surface effects of the mining activity such as fuel or chemical tanks, preparation plants or equipment, old tools or equipment, junk or debris, etc., must be removed and disposed of according to applicable state and federal regulations;

(6) The Permittee's request for termination of monitoring and reporting requirements contained in this Permit has been supported by monitoring data covering a period of at least six consecutive months or such longer period as is necessary to assure that the data reflect discharges occurring during varying seasonal climatological conditions;

(7) The Permittee has stated in its request that the samples collected and reported in the monitoring data submitted in support of the Permittee's request for monitoring termination or suspension are representative of the discharge and were collected in accordance with all Permit terms and conditions respecting sampling times (e.g., rainfall events) and methods and were analyzed in accordance with all Permit terms and conditions respecting analytical methods and procedures;

(8) The Permittee has certified that during the entire period covered by the monitoring data submitted, no chemical treatment of the discharge was provided;

(9) The Permittee's request has included the certification required by Part I.D.1.e. of this Permit; and

(10) The Permittee has certified to the Director in writing as part of the request, its compliance with (1) through (9) above.

b. It remains the responsibility of the Permittee to comply with the monitoring and reporting requirements of this Permit until written authorization to reduce, suspend, or terminate such monitoring and/or reporting is received by the Permittee from the Director.

E. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

The Permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

The Permittee shall notify the Director, in writing, when all discharges from any point source(s) identified on Page 1 of this Permit and described more fully in the Permittee's application have permanently ceased.

3. Updating Information

a. The Permittee shall inform the Director of any change in the Permittee's mailing address or telephone number or in the Permittee's designation of a facility contact or officer(s) having the authority and responsibility to prevent and abate violations of the AWPCA, the AEMA, the Department's rules and regulations, and the terms and conditions of this Permit, in writing, no later than ten (10) days after such change. Upon request of the Director, the Permittee shall furnish the Director with an update of any information provided in the permit application.

b. If the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

a. The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, suspending, terminating, or revoking and reissuing this Permit, in whole or in part, or to determine compliance with this Permit. The Permittee shall also furnish to the Director upon request, copies of records required to be maintained by this Permit.

b. The Permittee shall furnish to the Director upon request, within a reasonable time, available information (name, phone number, address, and site location) which identifies offsite sources of material or natural resources (mineral, ore, or other material such as iron, coal, coke, dirt, chert, shale, clay, sand, gravel, bauxite, rock, stone, etc.) used in its operation or stored at the facility.

F. SCHEDULE OF COMPLIANCE

The Permittee shall achieve compliance with the discharge limitations specified in Part I.A. of this Permit in accordance with the following schedule:

Compliance must be achieved by the effective date of this Permit.

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Management

The Permittee shall at all times operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of this Permit.

2. Pollution Abatement and/or Prevention Plan

a. The Pollution Abatement and/or Prevention (PAP) Plan shall be prepared and certified by a registered Professional Engineer (PE), licensed to practice in the State of Alabama, and shall include at a minimum:

(1) The information indicated in ADEM Admin Code r. 335-6-9-.03 and ADEM Admin. Code ch. 335-6-9 and its Appendices A and B;

(2) A description of methods which will be implemented to prevent offsite vehicle tracking onto roadways and/or into ditches at the entrances and/or exits of the Permittee's operations;

(3) A description of setbacks from waters of the State in units of linear feet on the horizontal plane; a description of the methods taken to visibly delineate setbacks from waters of the State; and a description of any other actions taken to prevent encroachment upon setbacks;

(4) A description of the methods used to delineate the boundaries of coverage under this Permit such that the boundaries are readily visible during the life of the operation;

(5) A description of any other Best Management Practices (BMPs) which will be implemented to provide control of all nonpoint source pollution that is or may be associated with the Permittee's operations;

b. The PAP Plan shall become a part of this Permit and all requirements of the PAP Plan shall become requirements of this Permit pursuant to ADEM Admin Code r. 335-6-9-.05(2). The PAP Plan shall be amended if the Department determines that the existing sediment control measures, erosion control measures, or other site management practices are ineffective or do not meet the requirements of this Permit.

c. For existing sources, the PAP Plan shall be updated to include all requirements of this section within 180 days of the effective date of this permit. New sources shall submit the PAP plan with the NPDES Individual Permit application prior to coverage under this Permit.

3. **Best Management Practices (BMPs)**

a. Unless otherwise authorized in writing by the Director, the Permittee shall provide a means of subsurface withdrawal for any discharge from each point source identified on Page 1 of this Permit and described more fully in the Permittee's application. Notwithstanding the above provision, a means of subsurface withdrawal need not be provided for any discharge caused by a 24-hour precipitation event greater than a 10-year, 24-hour precipitation event.

b. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director has granted prior written authorization for dilution to meet water quality requirements.

c. The Permittee shall minimize the contact of water with overburden, including but not limited to stabilizing disturbed areas through grading, diverting runoff, achieving quick growing stands of temporary vegetation, sealing acid-forming and toxic-forming materials, and maximizing placement of waste materials in back-fill areas.

d. The Permittee shall prepare, submit to the Department for approval, and implement a Best Management Practices (BMPs) Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a potential for discharge, if so required by the Director. When submitted and approved, the BMP Plan shall become a part of this Permit and all requirements of the BMP Plan shall become requirements of this Permit.

e. Spill Prevention, Control, and Management

The Permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan acceptable to the Department that is prepared and certified by a Professional Engineer (PE), registered in the State of Alabama, for all onsite petroleum product or other pollutant storage tanks or containers as provided by ADEM Admin. Code r. 335-6-6-.08(j)5. The Plan shall describe and the Permittee shall implement appropriate structural and/or non-structural spill prevention, control, and/or management pursuant to ADEM Admin. Code r. 335-6-6-.12 (r) sufficient to prevent any spills of pollutants from entering a ground or surface water of the State or a publicly or privately owned treatment works. The Plan shall include at a minimum, the engineering requirements provided in 40 C.F.R. §§112.1. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and shall prevent the contamination of groundwater. Such containment systems shall be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided. The Plan shall list any materials which the Permittee may utilize to contain and to absorb fuel and chemical spills and leaks. The Permittee shall maintain sufficient amounts of such materials onsite or have sufficient amounts of such materials readily available to contain and/or absorb fuel and chemical spills and leaks. Soil contaminated by chemical spills, oil spills, etc., must be immediately cleaned up or be removed and disposed of in a manner consistent with all State and federal regulations.

f. All surface drainage and storm water runoff which originate within or enters the Permittee's premises and which contains any pollutants or other wastes shall be discharged, if at all, from a point source identified on Page 1 of this Permit and described more fully in the Permittee's application.

g. The Permittee shall take all reasonable precautions to prevent any surface drainage or storm water runoff which originates outside the Permittee's premises and which contains any pollutants or other wastes from entering the Permittee's premises. At no time shall the Permittee discharge any such surface drainage or storm water runoff which enters the Permittee's premises if, either alone or in combination with the Permittee's effluent, the

discharge would exceed any applicable discharge limitation specified in Part I.A. of this Permit.

4. Biocide Additives

a. The Permittee shall notify the Director in writing not later than sixty (60) days prior to instituting the use of any biocide corrosion inhibitor or chemical additive in any cooling or boiler system(s) regulated by this Permit. Notification is not required for additives that should not reasonably be expected to cause the cooling water or boiler water to exhibit toxicity as determined by analysis of manufacturer's data or testing by the Permittee. Such notification shall include:

(a) Name and general composition of biocide or chemical;

(b) 96-hour median tolerance limit data for organisms representative of the biota of the water(s) which the discharge(s) enter(s);

(c) Quantities to be used;

(d) Frequencies of use;

(e) Proposed discharge concentrations; and

(f) EPA registration number, if applicable.

b. The use of any biocide or chemical additive containing tributyl tin, tributyl tin oxide, zinc, chromium, or related compounds in any cooling or boiler system(s) regulated by the Permit is prohibited except as exempted below. The use of a biocide or additive containing zinc, chromium or related compounds may be used in special circumstances if (1) the permit contains limits for these substances, or (2) the applicant demonstrates during the application process that the use of zinc, chromium or related compounds as a biocide or additive will not pose a reasonable potential to violate the applicable State water quality standards for these substances. The use of any additive, not identified in this Permit or in the application for this Permit or not exempted from notification under this Permit is prohibited, prior to a determination by the Department that permit modification to control discharge of the additive is not required or prior to issuance of a permit modification controlling discharge of the additive.

5. Facility Identification

The Permittee shall clearly display prior to commencement of any regulated activity and until permit coverage is properly terminated, the name of the Permittee, entire NPDES permit number, facility or site name, and other descriptive information deemed appropriate by the Permittee at an easily accessible location(s) to adequately identify the site, unless approved otherwise in writing by the Department. The Permittee shall repair or replace the sign(s) as necessary upon becoming aware that the identification is missing or is unreadable due to age, vandalism, theft, weather, or other reason.

6. Removed Substances

Solids, sludges, filter backwash, or any other pollutants or other wastes removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department rules and regulations.

7. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facility, including but not limited to the loss or failure of the primary source of power of the treatment facility, the Permittee shall, where necessary to maintain compliance with the discharge limitations specified in Part I.A. of this Permit or any other terms or conditions of this Permit, cease, reduce, or otherwise control production and/or discharges until treatment is restored.

8. Duty to Mitigate

The Permittee shall promptly take all reasonable steps to minimize or prevent any violation of this Permit or to mitigate and mimimize any adverse impact to waters resulting from noncompliance with any discharge limitation specified in Part I.A. of this Permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as is necessary to determine the nature and impact of the noncomplying discharge.

B. BYPASS AND UPSET

1. Bypass

a. Any bypass is prohibited except as provided in Parts II.B.1.b. and c.

b. A bypass is not prohibited if:

(1) It does not cause any applicable discharge limitation specified in Part I.A. of this Permit to be exceeded;

(2) The discharge resulting from such bypass enters the same receiving water as the discharge from the permitted outfall;

(3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system; and

(4) The Permittee monitors the discharge resulting from such bypass at a frequency, at least daily, sufficient to prove compliance with the discharge limitations specified in Part I.A. of this Permit.

c. A bypass is not prohibited and need not meet the discharge limitations specified in Part I.A. of this Permit if:

(1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the Permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The Permittee submits a written request for authorization to bypass to the Director at least ten (10) days, if possible, prior to the anticipated bypass or within 24 hours of an unanticipated bypass, the Permittee is granted such authorization, and

Permittee complies with any conditions imposed by the Director to minimize any adverse impact to waters resulting from the bypass.

d. The Permittee has the burden of establishing that each of the conditions of Parts II.B.1.b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in Part II.B.1.a. and an exemption, where applicable, from the discharge limitations specified in Part I.A. of this Permit.

2. Upset

a. The Permittee may seek to demonstrate that noncompliance with technology-based effluent limits occurred as a result of an upset if the conditions of Part II.B.2.b are met and if the Permittee complies with the conditions provided in Part II.B.2.c.

b. If the Permittee wishes to establish the affirmative defense of an upset for technology-based effluent limit noncompliance, the Permittee must demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the Permittee can identify the specific cause(s) of the upset;

(2) The wastewater treatment facility was at the time being properly operated in accordance with Part II.B.d.

(3) The Permittee submitted notice of the noncompliance during the upset as required by Part II.B.2.c; and

(4) The Permittee complied with any remedial measures required under Part II.A.7. of this Permit.

c. If the Permittee wishes to establish the affirmative defense of an upset for technology-based effluent limit noncompliance, the Permittee shall:

(1) No later than 24-hours after becoming aware of the occurrence of the upset, orally report the occurrence and circumstances of the upset to the Director in accordance with Part I.G.2.; and

(2) No later than five (5) days after becoming aware of the occurrence of the upset, furnish the Director with evidence, including properly signed, contemporaneous operating logs, design drawings, construction certification, maintenance records, weir flow measurements, dated photographs, rain gauge measurements, or other relevant evidence, demonstrating that:

(i) An upset occurred;

(ii) The Permittee can identify the specific cause(s) of the upset;

(iii) The Permittee's treatment facility was being properly operated at the time of the upset; and

(iv) The Permittee promptly took all reasonable steps to minimize any adverse impact to waters resulting from the upset.

d. A discharge which is an overflow from a treatment facility or system, or an excess discharge from a point source associated with a treatment facility or system and which

results from a 24-hour precipitation event larger than a 10-year, 24-hour precipitation event is not eligible to be considered as a result of an upset unless:

(1) The treatment facility or system is designed, constructed, and maintained to contain the maximum volume of wastewater which would be generated by the facility during a 24-hour period without an increase in volume from precipitation and the maximum volume of wastewater resulting from a 10-year, 24-hour precipitation event or to treat the maximum flow associated with these volumes. In computing the maximum volume of wastewater which would result from a 10-year, 24-hour precipitation event, the volume which would result from all areas contributing runoff to the individual treatment facility must be included (i.e., all runoff that is not diverted from the mining area and runoff which is not diverted from the preparation plant area); and

(2) The Permittee takes all reasonable steps to maintain treatment of the wastewater and minimize the amount of overflow or excess discharge.

e. The Permittee has the burden of proof in defense of any enforcement action as a result of noncompliance of technology-based effluent limits the Permittee proposes to attribute to an upset.

C. PERMIT CONDITIONS AND RESTRICTIONS

1. Prohibition against Discharge from Facilities Not Certified

a. Notwithstanding any other provisions of this Permit, if the permitted facility has not obtained or is not required to obtain a permit from the Alabama Surface Mining Commission, any discharge(s) from any point or nonpoint source(s) from the permitted facility which was not certified to the Department on a form approved by the Department by a professional engineer, registered in the State of Alabama, as being designed, constructed, and in accordance with plans and specifications reviewed by the Department is prohibited; or

b. Notwithstanding any other provisions of this Permit, if the permitted facility has obtained or is required to obtain a permit from the Alabama Surface Mining Commission, any discharge(s) from any point or nonpoint source(s) from the permitted facility which is associated with a treatment facility which was not constructed and certified to the Alabama Surface Mining Commission pursuant to applicable provisions of said Commission's regulations, is prohibited until the Permittee submits to the Alabama Surface Mining Commission, certification by a professional engineer, registered in the State of Alabama, certifying that such facility has been constructed in accordance with plans and specifications approved by the Alabama Surface Mining Commission. This requirement shall not apply to pumped discharges from the underground works of underground coal mines where no surface structure is required by the Alabama Surface Mining Commission, provided the Department is notified in writing of the completion or installation of such facilities, and the pumped discharges will meet permit effluent limits without treatment.

2. Permit Modification, Suspension, Termination, and Revocation

a. This Permit may be modified, suspended, terminated, or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:

(1) The violation of any term or condition of this Permit;

(2) The obtaining of this Permit by misrepresentation or the failure to disclose fully all relevant facts;

(3) The submission of materially false or inaccurate statements or information in the permit application or reports required by the Permit;

(4) The need for a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

(5) The existence of any typographical or clerical errors or of any errors in the calculation of discharge limitations;

(6) The existence of material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;

(7) The threat of the Permittee's discharge on human health or welfare; or

(8) Any other cause allowed by ADEM Admin. Code ch. 335-6-6.

b. The filing of a request by the Permittee for modification, suspension, termination, or revocation and reissuance of this Permit, in whole or in part, does not stay any Permit term or condition of this Permit.

3. Requirements for Metals, Cyanide, and Phenols Monitoring and Reporting

a. For all outfalls, the Permittee shall collect a sample of the discharge to be analyzed for antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, zinc, cyanide, and phenols no later six months following the effective date of the Permit. The analyses shall be submitted on ADEM Form 567 and received by the Department no later than 28 days following six months after the effective date of the Permit.

b. For all outfalls, should a discharge not occur within the first six months following the effective date of this Permit, the Permittee shall collect a sample of the discharge to be analyzed for antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, zinc, cyanide, and phenols no later than six months following the date of the first discharge. The analyses shall be submitted on EPA Form 2C and received by the Department no later than 28 days following six months after the first discharge.

c. Parts II.C.3.a. and b. do not apply for any outfall that is represented by analyses conducted at a substantially similar outfall as indicated on EPA Form 2C or 2D.

d. The Permit shall be reopened, if required, to address any new information resulting from the completion and submittal of the data referenced in Parts II.C.3.a. and b.

4. Automatic Expiration of Permits for New or Increased Discharges

a. Except as provided by ADEM Admin. Code r. 335-6-6-.02(h) and 335-6-6-.05, if this Permit was issued for a new discharger or new source, it shall expire eighteen months after the issuance date if construction has not begun during that eighteen month period.

b. Except as provided by ADEM Admin. Code r. 335-6-6-.02(h) and 335-6-6-.05, if any portion of this Permit was issued or modified to authorize the discharge of increased quantities of pollutants to accommodate the modification of an existing facility, that portion of this Permit shall expire eighteen months after this Permit's issuance if construction of the modification has not begun within eighteen month period.

c. Construction has begun when the owner or operator has:

(1) Begun, or caused to begin as part of a continuous on-site construction program:

(i) Any placement, assembly, or installation of facilities or equipment; or

(ii) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

(2) Entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under the paragraph. The entering into a lease with the State of Alabama for exploration and production of hydrocarbons shall also be considered beginning construction.

d. The automatic expiration of this Permit for new or increased discharges if construction has not begun within the eighteen month period after the issuance of this Permit may be tolled by administrative or judicial stay.

5. Transfer of Permit

This Permit may not be transferred or the name of the Permittee changed without notice to the Director and subsequent modification or revocation and reissuance of this Permit to identify the new Permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership, or control of the Permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership, or control of the Permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership, or control, he may decide not to modify the existing Permit and require the submission of a new permit application.

6. Groundwater

Unless authorized on page 1 of this Permit, this Permit does not authorize any discharge to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem, and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination.

7. Property and Other Rights

This Permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of Federal, State, or local laws or regulations, nor does it authorize or

approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the State or of the United States.

D. RESPONSIBILITIES

1. Duty to Comply

a. The Permittee must comply with all terms and conditions of this Permit. Any permit noncompliance constitutes a violation of the AWPCA, AEMA, and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification, or denial of a permit renewal application.

b. The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the FWPCA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Permit has not yet been modified to incorporate the effluent standard, prohibition or requirement.

c. For any violation(s) of this Permit, the Permittee is subject to a civil penalty as authorized by the AWPCA, the AEMA, the FWPCA, and Code of Alabama 1975, §§22-22A-1 et. seq., as amended, and/or a criminal penalty as authorized by Code of Alabama 1975, §22-22-1 et. seq., as amended.

d. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of this Permit shall not be a defense for a Permittee in an enforcement action.

e. Nothing in this Permit shall be construed to preclude or negate the Permittee's responsibility or liability to apply for, obtain, or comply with other ADEM, federal, state, or local government permits, certifications, licenses, or other approvals.

f. The discharge of a pollutant from a source not specifically identified in the permit application for this Permit and not specifically included in the description of an outfall in this Permit is not authorized and shall constitute noncompliance with this Permit.

g. The Permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this Permit or to minimize or prevent any adverse impact of any permit violation.

2. Change in Discharge

a. The Permittee shall apply for a permit modification at least 180 days in advance of any facility expansion, production increase, process change, or other action that could result in the discharge of additional pollutants, increase the quantity of a discharged pollutant, or that could result in an additional discharge point. This requirement also applies to pollutants that are not subject to discharge limitations in this Permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.

b. The Permittee shall notify the Director as soon as it knows or has reason to believe that it has begun or expects to begin to discharge any pollutant listed as a toxic pollutant pursuant to Section 307(a) of the FWPCA, 33 U.S.C. §1317(a), any substance designated as a hazardous substance pursuant to Section 311(b)(2) of the FWPCA, 33 U.S.C. §1321(b)(2), any waste listed as a hazardous waste pursuant to Code of Alabama 1975, §22-30-10, or any other pollutants or other wastes which is not subject to any discharge limitations

specified in Part I.A. of this Permit and was not reported in the Permittee's application, was reported in the Permittee's application in concentrations or mass rates lower than that which the Permittee expects to begin to be discharged, or has reason to believe has begun to be discharged.

3. **Compliance with Toxic or Other Pollutant Effluent Standard or Prohibition**

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Sections 301(b)(2)(C),(D),(E) and (F) of the FWPCA, 33 U.S.C. §1311(b)(2)(C),(D),(E), and (F); 304(b)(2) of the FWPCA, 33 U.S.C. §1314(b)(2); or 307(a) of the FWPCA, 33 U.S.C. §1317(a), for a toxic or other pollutant discharged by the Permittee, and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Part I.A. of this Permit or controls a pollutant not limited in Part I.A. of this Permit, this Permit shall be modified to conform to the toxic or other pollutant effluent standard or prohibition and the Permittee shall be notified of such modification. If this Permit has not been modified to conform to the toxic or other pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the authorization to discharge in this Permit shall be void to the extent that any discharge limitation on such pollutant in Part I.A. of this Permit exceeds or is inconsistent with the established toxic or other pollutant effluent standard or prohibition.

4. **Compliance with Water Quality Standards and Other Provisions**

a. On the basis of the Permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this Permit will assure compliance with applicable water quality standards. However, this Permit does not relieve the Permittee from compliance with applicable State water quality standards established in ADEM Admin. Code ch. 335-6-10, and does not preclude the Department from taking action as appropriate to address the potential for contravention of applicable State water quality standards which could result from discharges of pollutants from the permitted facility.

b. Compliance with Permit terms and conditions notwithstanding, if the Permittee's discharge(s) from point source(s) identified on Page 1 of this Permit cause(s) or contribute(s) to a condition in contravention of State water quality standards, the Department may require abatement action to be taken by the Permittee, modify the Permit pursuant to the Department's rules and regulations, or both.

c. If the Department determines, on the basis of a notice provided pursuant to Part II.C.2. of this Permit or any investigation, inspection, or sampling, that a modification of this Permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification and, in cases of emergency, the Director may prohibit the noticed act until the Permit has been modified.

5. **Compliance with Statutes and Rules**

a. This Permit has been issued under ADEM Admin. Code div. 335-6. All provisions of this division, that are applicable to this Permit, are hereby made a part of this Permit. A copy of this division may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Blvd., Montgomery, AL 36110-2059.

b. This Permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing

such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

6. **Right of Entry and Inspection**

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the Permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

7. **Duty to Reapply or Notify of Intent to Cease Discharge**

a. If the Permittee intends to continue to discharge beyond the expiration date of this Permit, the Permittee shall file with the Department a complete permit application for reissuance of this Permit at least 180 days prior to its expiration. **Applications must be submitted electronically via the Department's current electronic permitting system. The Department's current online permitting system, Alabama Environmental Permitting and Compliance System (AEPACS), can be found online at https://aepacs.adem.alabama.gov/nviro/ncore/external/home.**

b. If the Permittee does not desire to continue the discharge(s) allowed by this Permit, the Permittee shall notify the Department at least 180 days prior to expiration of this Permit of the Permittee's intention not to request reissuance of this Permit. This notification must include the information required in Part I.D.4.a. and be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Admin. Code r. 335-6-6-.09.

c. Failure of the Permittee to submit to the Department a complete application for reissuance of this Permit at least 180 days prior to the expiration date of this Permit will void the automatic continuation of this Permit provided by ADEM Admin. Code r. 335-6-6-.06; and should this Permit not be reissued for any reason, any discharge after the expiration of this Permit will be an unpermitted discharge.

PART III ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under this Permit shall, upon conviction, be subject to penalties and/or imprisonment as provided by the AWPCA and/or the AEMA.

2. False Statements

Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished as provided by applicable State and Federal law.

3. Permit Enforcement

This NPDES Permit is a Permit for the purpose of the AWPCA, the AEMA, and the FWPCA, and as such all terms, conditions, or limitations of this Permit are enforceable under State and Federal law.

4. Relief From Liability

Except as provided in Part II.B.1. (Bypass) and Part II.B.2. (Upset), nothing in this Permit shall be construed to relieve the Permittee of civil or criminal liability under the AWPCA, AEMA, or FWPCA for noncompliance with any term or condition of this Permit.

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject to under Section 311 of the FWPCA, 33 U.S.C. §1321.

C. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Code of Alabama 1975, §22-22-9(c), all reports prepared in accordance with the terms of this Permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential. Knowingly making any false statement in any such report may result in the imposition of criminal penalties as provided for in Section 309 of the FWPCA, 33 U.S.C. §1319, and Code of Alabama 1975, §22-22-14.

D. DEFINITIONS

1. Alabama Environmental Management Act (AEMA) - means Code of Alabama 1975, §§22-22A-1 et. seq., as amended.

2. Alabama Water Pollution Control Act (AWPCA) - means Code of Alabama 1975, §§22-22-1 et. seq., as amended.

3. Average monthly discharge limitation - means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar

month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

4. Arithmetic Mean - means the summation of the individual values of any set of values divided by the number of individual values.

5. BOD - means the five-day measure of the pollutant parameter biochemical oxygen demand

6. Bypass - means the intentional diversion of waste streams from any portion of a treatment facility.

7. CBOD - means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.

8. Controlled Surface Mine Drainage – means any surface mine drainage that is pumped or siphoned from the active mining area.

9. Daily discharge - means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.

10. Daily maximum - means the highest value of any individual sample result obtained during a day.

11. Daily minimum - means the lowest value of any individual sample result obtained during a day.

12. Day - means any consecutive 24-hour period.

13. Department - means the Alabama Department of Environmental Management.

14. Director - means the Director of the Department or his authorized representative or designee.

15. Discharge - means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other waste into waters of the state." Code of Alabama 1975, §22-22-1(b)(8).

16. Discharge monitoring report (DMR) - means the form approved by the Director to accomplish monitoring report requirements of an NPDES Permit.

17. DO - means dissolved oxygen.

18. E. coli – means the pollutant parameter Escherichia coli.

19. 8HC - means 8-hour composite sample, including any of the following:

    a. The mixing of at least 5 equal volume samples collected at constant time intervals of not more than 2 hours over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.

    b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.

20. EPA - means the United States Environmental Protection Agency.

21. Federal Water Pollution Control Act (FWPCA) - means 33 U.S.C. §§1251 et. seq., as amended.

22. Flow – means the total volume of discharge in a 24-hour period.

23. Geometric Mean - means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).

24. Grab Sample - means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.

25. Indirect Discharger - means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.

26. Industrial User - means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.

27. mg/L - means milligrams per liter of discharge.

28. MGD - means million gallons per day.

29. Monthly Average - means, other than for E. coli bacteria, the arithmetic mean of all the composite or grab samples taken for the daily discharges collected in one month period. The monthly average for E. coli bacteria is the geometric mean of daily discharge samples collected in a one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period. (Zero discharges shall not be included in the calculation of monthly averages.)

30. New Discharger - means a person owning or operating any building, structure, facility or installation:

    a. From which there is or may be a discharge of pollutants;

    b. From which the discharge of pollutants did not commence prior to August 13, 1979, and which is not a new source; and

    c. Which has never received a final effective NPDES Permit for dischargers at that site.

31. New Source - means:

    a. A new source as defined for coal mines by 40 CFR Part 434.11 (1994); and

    b. Any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

        (1) After promulgation of standards of performance under Section 306 of FWPCA which are applicable to such source; or

        (2) After proposal of standards of performance in accordance with Section 306 of the FWPCA which are applicable to such source, but only if the standards are promulgated in accordance with Section 206 within 120 days of their proposal.

32. NH3-N - means the pollutant parameter ammonia, measured as nitrogen.

33. 1-year, 24-hour precipitation event - means the maximum 24-hour precipitation event with a probable recurrence interval of once in one year as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.

34. Permit application - means forms and additional information that are required by ADEM Admin. Code r. 335-6-6-.08 and applicable permit fees.

35. Point Source - means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. §1362(14).

36. Pollutant - includes for purposes of this Permit, but is not limited to, those pollutants specified in Code of Alabama 1975, §22-22-1(b)(3) and those effluent characteristics, excluding flow, specified in Part I.A. of this Permit.

37. Pollutant of Concern - means those pollutants for which a water body is listed as impaired or which contribute to the listed impairment.

38. Pollution Abatement and/or Prevention Plan (PAP Plan) – mining operations plan developed to minimize impacts on water quality to avoid a contravention of the applicable water quality standards as defined in ADEM Admin. Code r. 335-6-9-.03

39. Preparation, Dry - means a dry preparation facility within which the mineral/material is cleaned, separated, or otherwise processed without use of water or chemical additives before it is shipped to the customer or otherwise utilized. A dry preparation plant includes all ancillary operations and structures necessary to clean, separate, or otherwise process the mineral/material, such as storage areas and loading facilities. Dry preparation also includes minor water spray(s) used solely for dust suppression on equipment and roads to minimize dust emissions.

40. Preparation, Wet - means a wet preparation facility within which the mineral/material is cleaned, separated, or otherwise processed using water or chemical additives before it is shipped to the customer or otherwise utilized. A wet preparation plant includes all ancillary operations and structures necessary to clean, separate, or otherwise process the mineral/material, such as storage areas and loading facilities. Wet preparation also includes mineral extraction/processing by dredging, slurry pumping, etc.

41. Privately Owned Treatment Works - means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".

42. Publicly Owned Treatment Works (POTW) - means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.

43. Receiving Stream - means the "waters" receiving a "discharge" from a "point source".

44. Severe property damage - means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

45. 10-year, 24-hour precipitation event - means that amount of precipitation which occurs during the maximum 24-hour precipitation event with a probable recurrence interval of once in ten years as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.

46. TKN - means the pollutant parameter Total Kjeldahl Nitrogen.

47. TON - means the pollutant parameter Total Organic Nitrogen.

48. TRC - means Total Residual Chlorine.

49. TSS – means the pollutant parameter Total Suspended Solids

50. Treatment facility and treatment system - means all structures which contain, convey, and as necessary, chemically or physically treat mine and/or associated preparation plant drainage, which remove pollutants limited by this Permit from such drainage or wastewater. This includes all pipes, channels, ponds, tanks, and all other equipment serving such structures.

51. 24HC - means 24-hour composite sample, including any of the following:

    a. The mixing of at least 12 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;

    b. A sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected; or

    c. A sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.

52. 24-hour precipitation event - means that amount of precipitation which occurs within any 24-hour period.

53. 2-year, 24-hour precipitation event - means the maximum 24-hour precipitation event with a probable recurrence interval of once in two years as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.

54. Upset - means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate facilities, lack of preventive maintenance, or careless or improper operation.

55. Waters - means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the State, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership, or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, §22-22-1(b)(2). "Waters" include all "navigable waters" as defined in §502(7) of the FWPCA, 33 U.S.C. §1362(7), which are within the State of Alabama.

56. Week - means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.

57. Weekly (7-day and calendar week) Average – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined

as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

E. SEVERABILITY

The provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

F. PROHIBITIONS AND ACTIVIES NOT AUTHORIZED

1. Discharges from disposal or landfill activities as described in ADEM Admin. Code div. 335-13 are not authorized by this Permit unless specifically approved by the Department.

2. Relocation, diversion, or other alteration of a water of the State is not authorized by this Permit unless specifically approved by the Department.

3. Lime or cement manufacturing or production and discharge of process waters from such manufacturing or production is not authorized by this Permit unless specifically approved by the Department.

4. Concrete or asphalt manufacturing or production and discharge of process waters from such manufacturing or production is not authorized by this Permit unless specifically approved by the Department.

5. The discharge of wastewater, generated by any process, facility, or by any other means not under the operational control of the Permittee or not identified in the application for this Permit or not identified specifically in the description of an outfall in this Permit is not authorized by this Permit.

G. DISCHARGES TO IMPAIRED WATERS

1. This Permit does not authorize new sources or new discharges of pollutants of concern to impaired waters unless consistent with an EPA-approved or EPA-established Total Maximum Daily Load (TMDL) and applicable State law, or unless compliance with the limitations and requirements of the Permit ensure that the discharge will not contribute to further degradation of the receiving stream. Impaired waters are those that do not meet applicable water quality standards and are identified on the State of Alabama's §303(d) list or on an EPA-approved or EPA-established TMDL. Pollutants of concern are those pollutants for which the receiving water is listed as impaired or contribute to the listed impairment.

2. Facilities that discharge into a receiving stream which is listed on the State of Alabama's §303(d) list of impaired waters, and with discharges that contain the pollutant(s) for which the waters are impaired, must within six (6) months of the Final §303(d) list approval, document in its BMP plan how the BMPs will control the discharge of the pollutant(s) of concern, and must ensure that there will be no increase of the pollutants of concern. A monitoring plan to assess the effectiveness of the BMPs in achieving the allocations must also be included in the BMP plan.

3. If the facility discharges to impaired waters as described above, it must determine whether a TMDL has been developed and approved or established by EPA for the listed waters. If a TMDL is approved or established during this Permit cycle by EPA for any waters into which the facility discharges, the facility must review the applicable TMDL to see if it includes requirements for control of any water discharged by the Permittee. Within six (6) months of the date of TMDL

approval or establishment, the facility must notify the Department on how it will modify its BMP plan to include best management practices specifically targeted to achieve the allocations prescribed by the TMDL, if necessary. Any revised BMP plans must be submitted to the Department for review. The facility must include in the BMP plan a monitoring component to assess the effectiveness of the BMPs in achieving the allocations.

H. MANGANESE EXEMPTION DISCHARGE LIMITATIONS

Limitations and monitoring requirements for total manganese do not apply if the drainage, before any treatment, has a pH equal to or more than 6.0 s.u. and a total iron concentration of less than 10.0 mg/l. Use of this exemption must be noted on the Discharge Monitoring Report (DMR) form when submitted for each eligible outfall. Documentation of alkaline mine drainage before treatment must also be submitted at the time of or prior to the associated DMR submitta

I. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR ACUTE TOXICITY

Except as provided below, the Permittee shall perform 48-hour acute toxicity screening tests on the discharges required to be tested for acute toxicity in Part I.A. of this Permit.

The Permittee may certify, in writing, that the activities at the site at the time of sample collection will result in representative discharges, and therefore perform the toxicity tests on only the samples collected from the representative outfalls. The certification must be signed by a responsible official of the Permittee as defined in ADEM Admin Code r. 335-6-6-.09 and include the following statement:

> "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

1. Test Requirements

a. The tests shall be performed using undiluted effluent.

b. Any test where survival in the effluent concentration is less than 90% and statistically lower than the control indicates acute toxicity and constitutes noncompliance with this Permit.

2. General Test Requirements

a. A grab sample shall be obtained for use in above biomonitoring tests. The holding time for each sample shall not exceed 36 hours. The control water shall be a water prepared in the laboratory in accordance with the EPA procedure described in EPA 821-R-02-012 or most current edition or another control water selected by the Permittee and approved by the Department.

b. Effluent toxicity tests in which the control survival is less than 90% or in which the other requirements of the EPA Test Procedure are not met shall be unacceptable and the Permittee shall rerun the tests as soon as practical within the monitoring period.

c. In the event of an invalid test, upon subsequent completion of a valid test, the results of all tests, valid and invalid, are reported with an explanation of the tests performed and results.

d. Should results from five consecutive testing periods indicate that the effluent does not exhibit acute toxicity the Permittee may request, in writing, that the Toxicity monitoring and reporting requirements be suspended. It remains the responsibility of the Permittee to comply with the Toxicity monitoring and reporting requirements until written authorization to suspend the monitoring and reporting is received by the Permittee from the Director.

3. Reporting Requirements

a. The Permittee shall notify the Department in writing within 48 hours after toxicity has been demonstrated by the scheduled test(s).

b. Biomonitoring test results obtained during each monitoring period shall be summarized and reported using the appropriate Discharge Monitoring Report (DMR) form approved by the Department. In accordance with Section 6. of this part, an effluent toxicity report containing the information in Section 6. shall be included with the DMR. Two copies of the test results must be submitted to the Department no later than 28 days after the month in which the tests were performed.

4. Additional Testing Requirements

a. If acute toxicity is indicated (noncompliance with permit limit), the Permittee shall perform two additional valid acute toxicity tests in accordance with these procedures. The toxicity tests shall be performed on new samples collected during the first discharge event after becoming aware of the acute toxicity. The additional samples shall be collected a minimum of 12 hours apart, or sooner if the discharge is not expected to continue for 12 hours. In the event that the discharge ceases prior to collection of the second additional sample, the sample shall be collected during the beginning of the next discharge event. The results of these tests shall be submitted no later than 28 days following the month in which the tests were performed. Additional testing sample collection and analysis timeframes may be extended, as necessary, to obtain the samples during discharges.

b. After evaluation of the results of the additional tests, the Department will determine if additional action is appropriate and may require additional testing and/or toxicity reduction measures. The Permittee may be required to perform a Toxicity Identification Evaluation (TIE) and/or a Toxicity Reduction Evaluation (TRE). The TIE/TRE shall be performed in accordance with the most recent protocols/guidance outlined by EPA (e.g., EPA/600/2-88/062, EPA/600/R-92/080, EPA/600/R-92/081, EPA/833/B-99/022 and/or EPA/600/6-91/005F, etc.).

5. Test Methods

The tests shall be performed in accordance with the latest edition of the "EPA Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms" and shall be performed using the fathead minnow (*Pimephales promelas*) and the cladoceran (*Ceriodaphnia dubia*).

6. Effluent Toxicity Testing Reports

The following information shall be submitted with each discharge monitoring report unless otherwise directed by the Department. The Department may at any time suspend or reinstate this requirement or may increase or decrease the frequency of submittals.

a. Introduction

(1) Facility Name, location and county

(2) Permit number

(3) Toxicity testing requirements of permit

(4) Name of receiving water body

(5) Contract laboratory information (if tests are performed under contract)

(i) Name of firm

(ii) Telephone number

(iii) Address

(6) Objective of test

b. Plant Operations

(1) Discharge operating schedule (if other than continuous)

(2) Volume of discharge during sample collection to include Mean daily discharge on sample collection date (MGD, CFS, GPM)

c. Source of Effluent Water and Dilution Water

(1) Effluent samples

(i) Sample point

(ii) Sample collection dates and times

(iii) Sample collection method

(iv) Physical and chemical data of undiluted effluent samples (water temperature, pH, alkalinity, hardness, specific conductance, total residual chlorine (if applicable), etc.)

(v) Sample temperature when received at the laboratory

(vi) Lapsed time from sample collection to delivery

(vii) Lapsed time from sample collection to test initiation

(2) Dilution Water samples

(i) Source

(ii) Collection date(s) and time(s) (where applicable)

(iii) Pretreatment (if applicable)

(iv) Physical and chemical characteristics (pH, hardness, water temperature, alkalinity, specific conductivity, etc.)

d. Test Conditions

(1) Toxicity test method utilized

(2) End point(s) of test

(3) Deviations from referenced method, if any, and reason(s)

(4) Date and time test started

(5) Date and time test terminated

(6) Type and volume of test chambers

(7) Volume of solution per chamber

(8) Number of organisms per test chamber

(9) Number of replicate test chambers per treatment

(10) Test temperature, pH and dissolved oxygen as recommended by the method (to include ranges)

(11) Feeding frequency, and amount and type of food

(12) Light intensity (mean)

e. Test Organisms

(1) Scientific name

(2) Life stage and age

(3) Source

(4) Disease treatment (if applicable)

f. Quality Assurance

(1) Reference toxicant utilized and source

(2) Date and time of most recent acute reference toxicant test(s), raw data, and current cusum chart(s)

(3) Results of reference toxicant test(s) (LC50, etc.), report concentration-response relationship and evaluate test sensitivity. The most recent reference toxicant test shall be conducted within 30 days of the routine.

(4) Physical and chemical methods utilized

g. Results

(1) Provide raw toxicity data in tabular form, including daily records of affected organisms in each concentration (including controls) and replicate

(2) Provide table of endpoints: LC50, NOAEC, Pass/Fail (as required in the applicable NPDES permit)

(3) Indicate statistical methods used to calculate endpoints

(4) Provide all physical and chemical data required by method

(5) Results of test(s) (LC50, NOAEC, Pass/Fail, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD)

h. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits

(2) Action to be taken

J. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR CHRONIC TOXICITY

Except as provided below, the Permittee shall perform short-term chronic toxicity tests on the discharges required to be tested for chronic toxicity by Part I.A. of this permit.

The Permittee may certify, in writing, that the activities at the site at the time of sample collection will result in representative discharges, and therefore perform the toxicity tests on only the samples collected from the representative outfalls. The certification must be signed by a responsible official of the Permittee as defined in ADEM Admin Code r. 335-6-6-.09 and include the following statement:

> "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

1. Test Requirements (Screening Test)

a. The samples shall be diluted using appropriate control water, to the Instream Waste Concentrations (IWC) as shown below:

Outfall	IWC (% Effluent)
001-1	100%

b. Any test result that shows a statistically significant reduction in survival, growth or reproduction between the control and the test at the 95% confidence level indicates chronic toxicity and constitute noncompliance with this permit.

2. General Test Requirements

a. A grab sample shall be obtained for use in the above biomonitoring tests and collected every other day so that the laboratory receives water samples on the first, third and fifth

day of the seven-day test period. The holding time for each sample shall not exceed 36 hours, unless sample collection was not possible due to discharge cessation. The control water shall be a water prepared in the laboratory in accordance with the EPA procedure described in EPA 821-R-02-013 or the most current edition or another control water selected by the Permittee and approved by the Department.

b. Should the discharge cease prior to the third grab sample on the fifth day of discharge, the chronic test shall be terminated early and the code "NODI=F" shall be reported on the DMR to indicate insufficient flow. A report of insufficient flow shall not indicate noncompliance with the chronic toxicity testing requirements.

c. Effluent toxicity tests in which the control survival is less than 80%, *P. promelas* dry weight per surviving control organism is less than 0.25 mg, Ceriodaphnia number of young per surviving control organism is less than 15, Ceriodaphnia reproduction where less than 60% of surviving control females produce three broods or in which the other requirements of the EPA Test Procedure are not met shall be unacceptable and the Permittee shall rerun the tests as soon as practical within the monitoring period.

d. In the event of an invalid test, upon subsequent completion of a valid test, the results of all tests, valid and invalid, are reported with an explanation of the tests performed and results.

e. Should results from five consecutive testing periods indicate that the effluent does not exhibit chronic toxicity, the Permittee may request, in writing, that the Toxicity monitoring and reporting requirements be suspended. It remains the responsibility of the Permittee to comply with the Toxicity monitoring and reporting requirements until written authorization to suspend the monitoring and reporting is received by the Permittee from the Director.

3. Reporting Requirements

a. The Permittee shall notify the Department in writing within 48 hours after toxicity has been demonstrated by the scheduled test(s).

b. Biomonitoring test results obtained during each monitoring period shall be summarized and reported using the appropriate Discharge Monitoring Report (DMR) form approved by the Department. In accordance with Section 6. of this part, an effluent toxicity report containing the information in Section 6. shall be included with the DMR. Two copies of the test results must be submitted to the Department no later than 28 days after the month in which the tests were performed.

4. Additional Testing Requirements

a. If chronic toxicity is indicated (noncompliance with permit limit), the Permittee shall perform two additional valid chronic toxicity tests in accordance with these procedures. The toxicity tests shall be performed on new samples collected during the first discharge event after becoming aware of the chronic toxicity. The additional samples shall be collected a minimum of 12 hours apart, or sooner if the discharge is not expected to continue for 12 hours. In the event that the discharge ceases prior to collection of the second additional sample, the sample shall be collected during the beginning of the next discharge event. The results of these tests shall be submitted no later than 28 days following the month in which the tests were performed. Additional testing sample collection and analysis timeframes may be extended, as necessary, to obtain the samples during discharges.

b. After evaluation of the results of the additional tests, the Department will determine if additional action is appropriate and may require additional testing and/or toxicity reduction measures. The Permittee may be required to perform a Toxicity Identification Evaluation

(TIE) and/or a Toxicity Reduction Evaluation (TRE). The TIE/TRE shall be performed in accordance with the most recent protocols/guidance outlined by EPA (e.g., EPA/600/2-88/062, EPA/600/R-92/080, EPA/600/R-92/081, EPA/833/B-99/022 and/or EPA/600/6-91/005F, etc.).

5. Test Methods

The tests shall be performed in accordance with the latest edition of the "EPA Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms." The Larval Survival and Growth Test, Methods 1000.0, shall be used for the fathead minnow (*Pimephales promelas*) test and the Survival and Reproduction Test, Method 1002.0, shall be used for the cladoceran (*Ceriodaphnia dubia*) test.

6. Effluent Toxicity Testing Reports

The following information shall be submitted with each discharge monitoring report unless otherwise directed by the Department. The Department may at any times suspend or reinstate this requirement or may decrease or increase the frequency of submittals.

a. Introduction

(1) Facility name, location and county

(2) Permit number

(3) Toxicity testing requirements of permit

(4) Name of receiving water body

(5) Contract laboratory information (if tests are performed under contract)

(i) Name of firm

(ii) Telephone number

(iii) Address

(6) Objective of test

b. Plant Operations

(1) Discharge Operating schedule (if other than continuous)

(2) Volume of discharge during sample collection to include Mean daily discharge on sample collection dates (MGD, CFS, GPM)

(3) Design flow of treatment facility at time of sampling

c. Source of Effluent and Dilution Water

(1) Effluent samples

(i) Sampling point

(ii) Sample collection dates and times

(iii) Sample collection method

(iv) Physical and chemical data of undiluted effluent samples (water temperature, pH, alkalinity, hardness, specific conductance, total residual chlorine (if applicable), etc.)

(v) Lapsed time from sample collection to delivery

(vi) Lapsed time from sample collection to test initiation

(vii) Sample temperature when received at the laboratory

(2) Dilution Water

(i) Source

(ii) Collection/preparation date(s) and time(s)

(iii) Pretreatment (if applicable)
(iv) Physical and chemical characteristics (water temperature, pH, alkalinity, hardness, specific conductance, etc.)

d. Test Conditions

(1) Toxicity test method utilized

(2) End point(s) of test

(3) Deviations from referenced method, if any, and reason(s)

(4) Date and time test started

(5) Date and time test terminated

(6) Type and volume of test chambers

(7) Volume of solution per chamber

(8) Number of organisms per test chamber

(9) Number of replicate test chambers per treatment

(10) Test temperature, pH and dissolved oxygen as recommended by the method (to include ranges)

(11) Specify if aeration was needed

(12) Feeding frequency, amount and type of food

(13) Specify if (and how) pH control measures were implemented

(14) Light intensity (mean)

e. Test Organisms

(1) Scientific name

(2) Life stage and age

(3) Source

(4) Disease(s) treatment (if applicable)

f. Quality Assurance

(1) Reference toxicant utilized and source

(2) Date and time of most recent chronic reference toxicant test(s), raw data and current control chart(s). The most recent chronic reference toxicant test shall be conducted within 30 days of the routine.

(3) Dilution water utilized in reference toxicant test

(4) Results of reference toxicant test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration-response relationship and evaluate test sensitivity

(5) Physical and chemical methods utilized

g. Results

(1) Provide raw toxicity data in tabular form, including daily records of affected organisms in each concentration (including controls) and replicate

(2) Provide table of endpoints: NOECs, IC25s, PASS/FAIL, etc. (as required in the applicable NPDES permit)

(3) Indicate statistical methods used to calculate endpoints

(4) Provide all physical and chemical data required by method

(5) Results of test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD) calculated for sublethal endpoints determined by hypothesis testing.

h. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits

(2) Actions to be taken

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
WATER DIVISION

ANTIDEGRADATION RATIONALE

Company Name: PB Services, LLC

Facility Name: Bessie Mine and Locust Fork Red Rock

County: Jefferson

Permit Number: AL0003263

Prepared by: Ange Boatwright

Date: February 20, 2026

Receiving Waters: Unnamed Tributary to Locust Fork

Stream Category: Tier II as defined by ADEM Admin. Code 335-6-10-.12

Discharge Description: Red Rock Mine, Iron Ore Waste Reclamation from Foundry Waste, Dry Preparation, Transportation and Storage, and Associated Areas which discharge to surface waters.

The following preliminary determination was prepared in accordance with ADEM Admin. Code 335-6-10-.12 (7) (c):

The Department has reviewed the information submitted by applicant in accordance with ADEM Admin. Code 335-6-10-.12(9). The applicant has demonstrated that there are no technically or economically viable treatment options in its alternatives analysis that would completely eliminate a direct discharge.

The permit applicant has indicated that the following economic and social benefits will result from this project:

1. The Permittee submits that they will be able to continue the employment of 8 full time employees if the permit is issued.
2. The Permittee expects to pay $140,000 in local taxes and $91,000 is state taxes on an annual basis with the issuance of the permit
3. The Permittee submits that they donate the mined material to the City of Adamsville, Red Mountain Park, the Freshwater Land Trust Trail, and local ball fields.

The Department has determined that the discharge proposed by the permit applicant is necessary for important economic and social development in the area of the outfall location in the receiving water.

Reviewed By: William McClimans

Date: February 20, 2026

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
WATER DIVISION

NPDES INDIVIDUAL PERMIT RATIONALE

Company Name:	PB Services, LLC
Facility Name:	Bessie Mine and Locust Fork Red Rock
County:	Jefferson
Permit Number:	AL0003263
Prepared by:	Ange Boatwright
Date:	February 18, 2026
Receiving Waters:	Unnamed Tributary to Locust Fork, Locust Fork
Permit Coverage:	Red Rock Mine, Iron Ore Waste Reclamation from Foundry Waste, Dry Preparation, Transportation and Storage, and Associated Areas
SIC Code:	1429, 1011

The Department has made a tentative determination that the available information is adequate to support reissuance and of this permit.

This proposed permit covers a dry preparation red rock mine and iron ore waste reclamation, transportation and storage, and associated areas which discharge to surface waters of the state. The mined material consists of 95% red rock, and 5% iron ore foundry waste.

The proposed permit authorizes treated discharges into an unnamed tributary to an unnamed tributary to Locust Fork, classified as Fish & Wildlife (F&W) and to Locust Fork, classified at Swimming and Other Whole Body Water-Contact Sports and Fish & Wildlife (S/F&W), per ADEM Admin. Code ch. 335-6-11. If the requirements of the proposed permit are fully implemented, the facility will not discharge pollutants at levels that will cause or contribute to a violation of the S/F&W and F&W classifications.

Full compliance with the proposed permit terms and conditions is expected to be protective of instream water quality and ensure consistency with applicable instream State water quality standards (WQS) for the receiving stream.

The proposed activity consists of the processing of tailings material left from a former coal mine and historical foundry landfill operations. The pollutants to be discharged from this type of facility are expected to be similar to that of an active coal mining operation for pH and Total Manganese and an iron ore mining operation for Total Suspended Solids and Dissolved Iron. Therefore, discharge limitations were developed based 40 CFR Part 434 for coal mining, 40 CFR Part 440 for ore mining, and ADEM Admin. Code r. 335-6-10-.09.

The applicable State water quality criteria for pH in streams classified as S/F&W and F&W is 6.0 – 8.5 s.u. per ADEM Admin. Code r. 335-6-10-.09. However, information in the Permittee's application shows that discharges from Outfalls 001-1 and 004-1 are expected only in response to rain events, therefore it is the opinion of the Department that discharges with an allowable pH daily maximum of 9.0 s.u. will not adversely affect the instream pH based on the low discharge/stream flow ration. The proposed discharge limitations for pH are the same as those for 40 CFR 434.

Additional effluent monitoring for Specific Conductance, Sulfate as S, Total Dissolved Solids (TDS), Total Nitrogen, Total Organic Carbon, and Acute Whole Effluent Toxicity (WET) testing at all outfalls is required so that future determinations can be made as to whether or not a reasonable potential to cause or contribute to an excursion of numeric or narrative WQS exists from this and similar discharges.

Chronic WET testing, at the instream waste concentration (IWC) is included at Outfalls 001-1 and 004-1 because discharges may occur on a continuous basis and/or do not have an instream dilution less than 100:1. The IWC was calculated using the formula provided below and was based on the estimated individual outfall flow rate (Q_n) and the receiving streams seven-day low flow ($7Q_{10}$).

$$IWC\% = \frac{Q_n}{7Q_{10} + Q_n}$$

Daily maximum limitations for Oil & Grease in the proposed permit have been shown to prevent the occurrence of an oily sheen in surface waters with proper implementation of Best Management Practices (BMPs) at the facility.

The applicant has, in accordance with 40 CFR Part 122.21 and their NPDES permit application, submitted representative discharge and background stream data for metals, cyanide, and total phenols as part of their application. The Department has acknowledged that the other Part A, B, and C pollutants listed in EPA Form 2C and 2D are not believed to be present in the waste stream due to the processes involved in the mining activity. Therefore, testing for the other Part A, B, and C pollutants listed in EPA Form 2C and 2D is not required.

The Department completed a reasonable potential analysis (RPA) of the discharges based on the laboratory data provided in the application and submitted Discharge Monitoring Reports (DMRs). The RPA indicates whether or not pollutants in treated effluent have the potential to contribute to excursions of Alabama's in-stream WQS. Based on the submitted DMRs and the analytical data submitted by the Permittee, the RPA indicates that there was a reasonable potential for instream WQS to be exceeded for Total Recoverable Selenium (Se), Dissolved Cadmium (Cd), Dissolved Copper (Cu), Dissolved Thallium (Tl), Dissolved Nickel (Ni), Dissolved Zinc (Zn), and Total Recoverable Mercury (Hg) for Outfall 001-1; Therefore, limitations for these metals have been added to the proposed Permit for Outfall 001-1. The proposed limitations for Total Recoverable Selenium, Dissolved Cadmium, Dissolved Copper, Dissolved Thallium, Dissolved Nickel, Dissolved Zinc, and Total Recoverable Mercury were calculated as follows:
:

$$c_{dmax} = \frac{(Q_d + Q_s) \times c_r - Q_s \times c_s}{Q_d}$$

where	cdmax	=	limitation (µg/L)
	Qd	=	expected average daily discharge flow rate (cfs)
	Qs	=	calculated or statistical stream flow (cfs)
	cr	=	water quality criterion (µg/L)
	cs	=	concentration of pollutant upstream of discharge (µg/L)

The previous version of this Permit included monthly average and daily maximum monitoring for Total Recoverable Aluminum, daily maximum monitoring for Arsenic, daily maximum limitations and monthly average monitoring for Dissolved Silver, monthly average limitations and daily maximum monitoring for Dissolved Thallium, daily maximum monitoring for Dissolved Nickel, daily maximum monitoring for Dissolved Zinc, daily maximum monitoring for total cyanide, daily maximum monitoring of dissolved cadmium, daily maximum monitoring of dissolved chromium, daily maximum monitoring of Dissolved Copper, daily maximum monitoring of Dissolved Lead, and daily maximum monitoring of Total Recoverable Mercury at Outfall 004-1. A review of the Discharge Monitoring Reports (DMRs) submitted to the Department indicated that there have been no discharges during the previous permit cycle for Outfall 004-1. As such, there is not enough data available to make a full determination as to whether monthly average and daily maximum monitoring for Total Recoverable Aluminum, daily maximum monitoring for Arsenic, daily maximum limitations and monthly average monitoring for Dissolved Silver, monthly average limitations and daily maximum monitoring for Dissolved Thallium, daily maximum monitoring for Dissolved Nickel, daily maximum monitoring for Dissolved Zinc, daily maximum monitoring for total cyanide, daily maximum monitoring of dissolved cadmium, daily maximum monitoring of dissolved chromium, daily maximum monitoring of Dissolved Copper, daily

maximum monitoring of Dissolved Lead, and daily maximum monitoring of Total Recoverable Mercury is necessary in the permit. Therefore, these requirements will remain in the permit at Outfall 004-1.

Daily maximum monitoring for Cyanide, daily maximum monitoring for Lead, and daily maximum monitoring for Silver at Outfall 001-1 was included in the previous Permit. The review of the submitted DMRs and the analytical data submitted by the Permittee showed that these pollutants were not being discharged in significant quantities and therefore were removed from the Permit.

The Pollution Abatement/Prevention (PAP) plan for this facility has been prepared by a professional engineer (PE) registered in the State of Alabama and is designed to ensure reduction of pollutants in the waste stream to a level that, if operated properly, the discharge will not contribute to or cause a violation of applicable State WQS. The proposed permit terms and conditions are predicated on the basis of ensuring a reduction of pollutants in the discharge to a level that reduces the potential of contributing to or causing a violation of applicable State WQS.

In accordance with ADEM Admin. Code r. 335-6-3-.07 the design PE, as evidenced by their seal and/or signature on the application, has accepted full responsibility for the effectiveness of the waste treatment facility to treat the Permittee's effluent to meet NPDES permit limitations and requirements, and to fully comply with Alabama's WQS, when such treatment facilities are properly operated.

If there is a reasonable potential that a pollutant present in the treated discharges from a facility could cause or contribute to a contravention of applicable State WQS above numeric or narrative criteria, 40 CFR Part 122 requires the Department to establish effluent limits using calculated water quality criterion, establish effluent limits on a case-by-case basis using criteria established by EPA, or establish effluent limits based on an indicator parameter. Based on available information, potential pollutants discharged from this facility, if discharged within the concentrations allowed by this permit, would not have a reasonable potential to cause or contribute to a contravention of applicable State WQS.

Pursuant to ADEM Admin. Code r. 335-6-6-.12(r) this permit requires the Permittee to design and implement a Spill Prevention Control and Countermeasures (SPCC) plan for all stored chemicals, fuels and/or stored pollutants that have the potential to discharge to a water of the State. This plan must meet the minimum engineering requirements as defined in 40 CFR Part 112 and must provide for secondary containment adequate to control a potential spill.

The applicant is not proposing discharges into a stream segment or other water of the State with an approved Total Maximum Daily Load (TMDL).

The applicant is proposing discharges into Locust Fork, a stream segment or other State water that is included on Alabama's current CWA §303(d) list for Pathogens (E. coli). E. coli is not a pollutant that is expected in significant concentrations from this type of operation. If the requirements of the proposed permit and pollution abatement plan are fully implemented, there is reasonable assurance that the facility will not discharge pollutants at levels that will cause or contribute to any further impairment of Locust Fork.

The applicant is proposing discharges of pollutants to an ADEM identified Tier 1 water. If the requirements of the proposed permit and pollution abatement plan are fully implemented, there is reasonable assurance that discharges from the facility will not contain pollutants of concern contributing to the Tier 1 condition, pollutants causing or contributing to the Tier 1 condition will not be present in the discharge at significant levels, and/or the facility will not discharge pollutants at levels that will cause or contribute to a violation of applicable State WQS in the Tier 1 water.

The proposed permit action authorizes new discharges of pollutants to receiving waters determined by the Department to be waters where the quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water (Tier II). Pursuant to ADEM Admin. Code r. 335-6-10 (Antidegradation Policy and Implementation of the Antidegradation Policy), the applicant has submitted, and the Department has reviewed and considered information regarding (1) demonstration of necessity/importance, (2) alternatives analysis, and (3) calculations of total annualized costs for technically feasible treatment alternatives regarding the proposed new discharges to Tier II waters. The Department has determined, based on the applicant's demonstration, that the proposed new discharges to the Tier II waters are necessary for important economic or social development in the area in which the waters are located.

Facility Name: PB Services, LLC - Bessie Mine and Locust Fork Red Rock

NPDES No.: AL0003263 Outfall 001[1,2,3]

		Freshwater F&W classification.		Freshwater Acute (µg/l) Q_s =1Q10						Freshwater Chronic (µg/l) Q_s = 7Q10						Human Health Consumption Fish only (µg/l) Carcinogen Q_s = Annual Average Non-Carcinogen Q_s = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background Instream (Cs) Daily Max	Max Daily Discharge as reported by Applicant[4] (C_{dmax})	Water Quality Criteria (C_t)	Draft Permit Limit (C_{dmax})	20% of Draft Permit Limit	RP?	Background Instream (Cs) Monthly Ave	Avg Daily Discharge as reported by Applicant (C_{davg})	Water Quality Criteria (C_t)	Draft Permit Limit (C_{davg})	20% of Draft Permit Limit	RP?	Water Quality Criteria (C_t)	Draft Permit Limit (C_{davg})	20% of Draft Permit Limit	RP?
1	Antimony			0	0	-	-	-	-	0	0	-	-	-	-	3.73E+02	3.73E+02	7.47E+01	No
2	Arsenic		YES	0	0.182	340.000	340.000	68.000	No	0	0.0747	293.542	293.542	58.708	No	3.03E-01	7.73E-01	1.55E-01	No
3	Beryllium			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
4	Cadmium	YES		0	0.371	2.014	2.014	0.403	No	0	0.1098	0.246	0.246	0.049	Yes	-	-	-	-
5	Chromium/ Chromium III			0	0	569.763	569.763	113.953	No	0	0	74.115	74.115	14.823	No	-	-	-	-
6	Chromium/ Chromium VI			0	0	16.000	16.000	3.200	No	0	0	11.000	11.000	2.200	No	-	-	-	-
7	Copper	YES		0	2.76	13.439	13.439	2.688	Yes	0	0.178	8.956	8.956	1.791	No	1.30E+03	1.30E+03	2.60E+02	No
8	Lead			0	0	64.581	64.581	12.916	No	0	0	2.517	2.517	0.503	No	-	-	-	-
9	Mercury	YES		0	0.02	2.400	2.400	0.480	No	0	0.00249	0.012	0.012	0.002	Yes	4.24E-02	4.24E-02	8.48E-03	No
10	Nickel	YES		0	41.2	468.236	468.236	93.647	No	0	16.392	52.007	52.007	10.401	Yes	9.93E+02	9.93E+02	1.99E+02	No
11	Selenium	YES		0	8.885	20.000	20.000	4.000	Yes	0	3.726	5.000	5.000	1.000	Yes	2.43E+03	2.43E+03	4.86E+02	No
12	Silver			0	0	3.217	3.217	0.643	No	0	0	-	-	-	-	-	-	-	-
13	Thallium	YES		0	0.34	-	-	-	-	0	0.34	-	-	-	-	2.74E-01	2.74E-01	5.47E-02	Yes
14	Zinc	YES		0	89.9	117.180	117.180	23.436	Yes	0	33.674	118.139	118.139	23.628	Yes	1.49E+04	1.49E+04	2.98E+03	No
15	Cyanide			0	0	22.000	22.000	4.400	No	0	0	5.200	5.200	1.040	No	9.33E+03	9.33E+03	1.87E+03	No
16	Total Phenolic Compounds			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
17	Hardness (As CaCO3)			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-

[1]Outfall 001 discharges to a UT to Locust Fork. The 7Q10 for the receiving stream is 0 cfs. This is the receiving stream flow value used in the calculations.

[2]Outfall 001 is reported to have an average discharge flow rate of 0.2585 MGD. This is the discharge flow rate used in the calculations.

[3]A hardness of 100 mg/L was used in the calculations based on expected stream hardness in this portion of the state.

[4]Discharge data for all parameters are the results of samples obtained from Outfall 001 and DMRs submitted to the Department between 2021 and 2025.

Facility Name: PB Services, LLC - Bessie Mine and Locust Fork Red Rock

NPDES No.: AL0003263 Outfall 004[123]

				Freshwater F&W classification.						Freshwater Chronic (µg/l) Q_e = 7Q10						Human Health Consumption Fish only (µg/l) Carcinogen Q_e = Annual Average Non-Carcinogen Q_e = 7Q10			
				Freshwater Acute (µg/l) Q_e =1Q10															
ID	Pollutant	RP?	Carcinogen yes	Background Instream (Cs) Daily Max	Max Daily Discharge as reported by Applicant[4] (C_{dmax})	Water Quality Criteria (C_t)	Draft Permit Limit (C_{dmax})	20% of Draft Permit Limit	RP?	Background Instream (Cs) Monthly Ave	Avg Daily Discharge as reported by Applicant (C_{davg})	Water Quality Criteria (C_t)	Draft Permit Limit (C_{davg})	20% of Draft Permit Limit	RP?	Water Quality Criteria (C_t)	Draft Permit Limit (C_{davg})	20% of Draft Permit Limit	RP?
1	Antimony			0	0	-	-	-	-	0	0	-	-	-	-	3.73E+02	1.01E+04	2.02E+03	No
2	Arsenic		YES	0.113	0.182	340.000	6984.893	1396.979	No	0.113	0.0747	293.542	7942.377	1588.475	No	3.03E-01	2.91E+02	5.81E+01	No
3	Beryllium			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
4	Cadmium			0	0.371	2.014	41.383	8.277	No	0	0.1098	0.246	6.658	1.332	No	-	-	-	-
5	Chromium/ Chromium III			0	0	569.763	11708.810	2341.762	No	0	0	74.115	2006.063	401.213	No	-	-	-	-
6	Chromium/ Chromium VI			0	0	16.000	328.805	65.761	No	0	0	11.000	297.738	59.548	No	-	-	-	-
7	Copper			1.35	2.76	13.439	249.785	49.957	No	1.35	0.178	8.956	207.215	41.443	No	1.30E+03	3.52E+04	7.03E+03	No
8	Lead			0	0	64.581	1327.167	265.433	No	0	0	2.517	68.118	13.624	No	-	-	-	-
9	Mercury			0.00205	0.02	2.400	49.281	9.856	No	0.00205	0.00249	0.012	0.271	0.054	No	4.24E-02	1.09E+00	2.19E-01	No
10	Nickel			1.84	41.2	468.236	9586.413	1917.283	No	1.84	16.392	52.007	1359.701	271.940	No	9.93E+02	2.68E+04	5.37E+03	No
11	Selenium			0	8.885	20.000	411.006	82.201	No	0	3.726	5.000	135.335	27.067	No	2.43E+03	6.58E+04	1.32E+04	No
12	Silver			0	0	3.217	66.105	13.221	No	0	0	-	-	-	-	-	-	-	-
13	Thallium			0	0.34	-	-	-	-	0	0.34	-	-	-	-	2.74E-01	7.40E+00	1.48E+00	No
14	Zinc			0	89.9	117.160	2408.093	481.619	No	0	33.674	118.139	3197.676	639.535	No	1.49E+04	4.03E+05	8.06E+04	No
15	Cyanide			0	0	22.000	452.107	90.421	No	0	0	5.200	140.749	28.150	No	9.33E+03	2.53E+05	5.05E+04	No
16	Total Phenolic Compounds			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
17	Hardness (As CaCO3)			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-

[1]Outfall 004 discharges to Locust Fork. The 7Q10 for the receiving stream is 29.18 cfs. This is the receiving stream flow value used in the calculations.

[2]Outfall 004 is reported to have an average discharge flow rate of 0.7235 MGD. This is the discharge flow rate used in the calculations.

[3]A hardness of 100 mg/L was used in the calculations based on expected stream hardness in this portion of the state.

[4]Discharge data for all parameters are the results of samples obtained from Outfall 001 and DMRs submitted to the Department between 2021 and 2025.

Digitally signed by:
AEPACS
Date: 2026.02.25 12:53:44 -06:00
Reason: Submission Data
Location: State of Alabama

NPDES Individual Permit - Modification/Reissuance - Mining (Form 315)

version 4.9

(Submission #: HPM-MTYB-GA4RB, version 5)

Details

Submission ID HPM-MTYB-GA4RB

Form Input

General Instructions

NPDES Individual Application - Mining and Coalbed Methane Operations - Mod/Reissuance (Form 315/549)

PLEASE CONTACT YOUR ASSIGNED PERMIT CONTACT TO DISCUSS THE TYPE OF MODIFICATION YOU SHOULD APPLY FOR BEFORE COMPLETING THIS FORM.

This form should be used to submit the following permit requests for individually permitted Mining and Coalbed Methane Operations:

Modifications/Reissuances that include Permit Transfers and/or Permittee/Facility Name Changes
Minor Modifications
Major Modifications
Reissuances
Reissuance of a permit on or after the current permit's expiration date
Revocation and Reissuance before the current permit's expiration date

Please complete all questions and attach all necessary documentation as prompted throughout the application process. Incomplete or incorrect information will delay processing.

Applicable Fees:
Minor Modifications
$3,400 (Mineral/Resource Extraction Mining, Storage Transloading, Dry Processing)
$3.940 (Wet Preparation, Processing, Beneficiation)
$3,940 (Coalbed Methane Operations)
Major Modifications
$5,820 (Mineral/Resource Extraction Mining, Storage Transloading, Dry Processing)
$6,860 (Wet Preparation, Processing, Beneficiation)
$6,860 (Coalbed Methane Operations)
Reissuances
$5,820 (Mineral/Resource Extraction Mining, Storage Transloading, Dry Processing)
$6,860 (Wet Preparation, Processing, Beneficiation)
$6,860 (Coalbed Methane Operations)
Potential Add-on Fees for Major Modifications and Reissuances
$1,015 (Biomonitoring & Toxicity Limits)
$2,705 (Review of Model Performed by Others)
$4,855 (Modeling – desktop)
For assistance, please click here to determine the permit staff responsible for the site or call (334) 394-4372.

Processing Information

Purpose of Application
Reissuance of Permit Due to Approaching Expiration

Please indicate if the Permittee is applying for a permit transfer and/or name change in addition to permit modification or reissuance:
None

Action Type
Reissuance

Briefly describe any planned changes at the facility that are included in this reissuance application:
none

Is this a coalbed methane operation?
No

Permit Information

Permit Number
AL0003263

Current Permittee Name
PB Services, LLC.

Permittee

Permittee Name
PB Services, LLC

Mailing Address

3700 14th Avenue North

Birmingham, AL 35234

CORRECTION REQUEST *(APPROVED)*
Permittee Name

The Permittee Name does not match the current Permittee name. If the permit is being transferred to a new Permittee, then you will need to change the application to a reissuance and transfer.
Created on 2/11/2026 1:04 PM by **Ange Boatwright**

Responsible Official

Prefix
Mr.

First Name	Last Name
William Robert	Bond

Title
President

Organization Name
Bond Industries, Inc.

Phone Type	Number	Extension
Business	205-612-2663	

Email
rb@bondindustries.com

Mailing Address

3700 14th Avenue North

Birmingham, AL 35243

Existing Permit Contacts

Affiliation Type	Contact Information	Remove?
Responsible Official,Notification Recipient	Christopher Bond, PB Services, LLC.	Remove
Permittee	PB Services, LLC.	Keep

CORRECTION REQUEST *(APPROVED)*
Permit Contacts

If PB Services is still the Permittee, then they do not need to be removed.

Created on 2/20/2026 1:22 PM by **Ange Boatwright**

Facility/Operations Information

Facility/Operations Name
Bessie Mine and Locust Fork Red Rock

CORRECTION REQUEST *(APPROVED)*
Facility Name

The currently permitted facility name is Bessie Mine and Locust Fork Red Rock. Please confirm the facility name change.
Created on 2/11/2026 1:08 PM by **Ange Boatwright**

Permittee Organization Type
Corporation

Parent Corporation and Subsidiary Corporations of Applicant, if any:
Bond Industries, Inc.

Landowner(s) Name, Address and Phone Number:
PB Service, LLC
3700 14th Avenue North
Birmingham, AL 35243

Sub-contractor(s)/Operator(s), if known:
NONE PROVIDED

Is the ⁄Company/Permittee⁄ properly registered and in good standing with the Alabama Secretary of State⁄s office?
Yes

Facility/Operations Address or Location Description

5260 Bessie Flat Top Cutoff Road

Adamsville, AL 35073

Facility/Operations County (Front Gate)
Jefferson

Do the operations span multiple counties?
No

Detailed Directions to the Facility/Operations
From ADEM's Montgomery office: Get on I-65 N from AL-152 W/Northern Blvd
8 min (5.2 mi)

Continue on I-65 N to Jefferson County. Take exit 85 from I-22
1 hr 29 min (103 mi)

Take Flat Top Rd to Bessie Flat Top Cutoff Rd
9 min (5.3 mi)

Please refer to the link below for Lat/Long map instruction help:
Map Instruction Help

Facility/Operations Front Gate Latitude and Longitude
33.653722348253005,-87.01606301574705

Township(s), Range(s), Section(s) (Note: If you are submitting multiple TRSs, please separate each TRS by a semicolon. Example: T19S,R1E,S15; T20S,R2E,S16)
T16S, R5W, Sections 14, 22 and 23

SIC Code(s) [Please select your primary SIC code first]:
1221-Bituminous Coal and Lignite Surface Mining
1499-Miscellaneous Nonmetallic Minerals Except Fuels

NAICS Code(s) [Please select your primary NAICS code first]:
212390-Other Nonmetallic Mineral Mining And Quarrying

Facility/Operations Contact

Prefix
Mr.

First Name **Last Name**
William Robert Bond

Title
President

Organization Name
Bond Industries, Inc.

Phone Type	Number	Extension
Business	205-612-2663	

Email
rb@bondindustries.com

Member Information

Identify the name, title/position, and unless waived in writing by the Department, the resident address of every officer (a PO Box is not acceptable), general partner, LLP partner, LLC member, investor, director, or person performing a function similar to a director, of the applicant, and each person who is the record or beneficial owner of 10 percent or more of any class of voting stock of the applicant, or any other responsible official(s) of the applicant with legal or decision making responsibility or authority for the facility/operations (if this does not apply, then enter N/A after selecting "Manually Enter in Table"):

List of Names/Titles/Addresses will be entered by:
Manually Entering in Table

Name	Title/Position	Physical Address of Residence
William Robert Bond	President	1 Winthrop Avenue, Mountain Brook, AL 35213
Christopher Bond	Vice President	2428 Park Lane South, Mountain Brook, AL 35213

Other than the "Company/Permittee", identify the name of each corporation, partnership, association, and single proprietorship for which any individual identified above is or was an officer, general partner, LLP partner, LLC member, investor, director, or individual performing a function similar to a director, or principal (10% or more) stockholder, that had an Alabama NPDES permit at any time during the five year (60 month) period immediately preceding the date on which this form is signed (if this does not apply, then enter N/A after selecting "Manually Enter in Table"):

List of Corporations/Partnerships/etc, Names and Titles will be entered by:
Manually Entering in Table

Name of Corporation, Partnership, Association, or Single Proprietorship	Name of Individual	Title/Position in Corporation, Partnership, Association, or Single Proprietorship
Pegasus National, Inc.	William Robert Bond	President
Pegasus National, Inc.	Christopher Bond	Vice President

Additional Contacts (1 of 1)

ADDITIONAL CONTACTS: Contact

Contact Type
Contact

Contact

First Name Christopher
Last Name Bond

Title
Vice President

Organization Name
PB Services, LLC.

Phone Type	Number	Extension
Business	2056122663	

Email
NONE PROVIDED

Address
3700 14th Avenue North
Birmingham, AL 35234

Compliance History

Has the applicant ever had any of the following:

Event	Apply?
An Alabama NPDES, SID, or UIC permit suspended or terminated	No
An Alabama or federal environmental permit suspended/terminated	No
An Alabama State Oil Gas Board permit or other approval suspended or terminated	No
An Alabama or federal performance/environmental bond, or similar security deposited in lieu of a bond, or portion thereof, forfeited	No

Has the applicant, parent corporation, subsidiary, general partner, LLP partner, or LLC Member had any Warning Letters, Notice of Violations (NOVs), Administrative Actions, or litigation filed by ADEM or EPA during the three year (36 month) period preceding the date on which this form is signed?
Yes

Identify every Warning Letter, Notice of Violation (NOV), Administrative Action, or litigation issued to the applicant, parent corporation, subsidiary, general partner, LLP partner, or LLC Member and filed by ADEM or EPA during the three year (36 month) period preceding the date on which this form is signed.

Date of Issuance	Type of Action	Briefly describe alleged violations:	Date of Final Resolution
06/17/2022	Notice of Violation	Permit exceedances of Thallium, Selenium, Manganese, Total Suspended Solids, Cadmium.	08/12/2022

For this facility, list any other NPDES or other environmental permits (including permit numbers), authorizations, or certifications that have been applied for or issued within the State by ADEM, EPA, Alabama Department of Labor (ADOL), US Army Corp of Engineers (USACE), or other agency, to the applicant, parent corporation, subsidiary, or LLC member whether presently effective, expired, suspended, revoked, or terminated:
ASMC P-3259, MSHA 01-00327, ADEM Landfill Permit 37-32

For other facilities, list any other NPDES or other ADEM permits (including permit numbers), authorizations, or certifications that have been applied for or issued within the State by ADEM, EPA, ASMC, ADOL, or USACE, to the applicant, parent corporation, subsidiary, or LLC member whether presently effective, expired, suspended, revoked, or terminated:
ALG180658

Anti-Degradation Evaluation

CORRECTION REQUEST *(APPROVED)*
Anti-Degradation Evaluation

A new anti-degradation evaluation will need to be completed since it is passed the expiration date of the permit. Please answer yes and fill out the required information.
Created on 8/27/2025 4:48 PM by **Ange Boatwright**

Pursuant to ADEM Admin. Code ch. 335-6-10-.12(9), responses to the following questions must be provided by the applicant requesting NPDES permit coverage for new or expanded discharges of pollutant(s) to Tier 2 waters (except discharges eligible for coverage under general permits). As part of the permit application review process, the Department is required to consider, based on the applicant's demonstration, whether the proposed new or increased discharge to Tier 2 waters is necessary for important economic or social development in the area in which the waters are located. Does this modification/reissuance include new or expanded discharges to Tier II water(s)?
Yes

NOTE

If the discharge is to a Tier II waterbody as defined in ADEM Admin. Code r. 335-6-10-.12(4), complete questions below, ADEM Form 311-Alternatives Analysis, and either ADEM Form 312 or ADEM Form 313- Calculation of Total Annualized Project Costs (Public-Sector or Private-Sector Projects, whichever is applicable). ADEM Form 312 or ADEM Form 313, whichever is applicable, must be provided for each treatment discharge alternative considered technically viable.
ADEM forms can be found on the Department's website here.

What environmental or public health problem will the discharger be correcting?
Operation of the red rock and landfill reclamation operations at the Bessie Mine is not intended to correct any environmental or public health problem

How much will the discharger be increasing employment (at its existing facility or as the result of locating a new facility)?
Continued operation of the red rock and landfill reclamation operations at the Bessie Mine will extend employment for 8 full time employees.

How much reduction in employment will the discharger be avoiding?
Denial of permission to discharge will reduce full time employment by 8 employees.

How much additional state or local taxes will the discharger be paying?
Operation results in the contribution of $140,000 to local taxes and $91,000 to state taxes on an annual basis.

What public service to the community will the discharger be providing?
PB Service, LLC occasionally donates road base to the City of Adamsville for road base. The city is also in dire need of employment opportunities for its citizens.

What economic or social benefit will the discharger be providing to the community?
PB Service, LLC has also donated red rock for Red Mountain Park, the Freshwater Land Trust Trail, and for the Little League softball fields for Trussville, Alabama Schools, and will continue to look for reasonable opportunities to help the local community through its operations.

Attach Form 311 (Alternative Analysis)
Bessie 2023 Form311.pdf - 11/17/2025 10:07 PM
Comment
NONE PROVIDED

Please attach Form 312 (Public Sector Projects) or Form 313 (Private Sector Projects).
Bessie 2023 Form313.pdf - 11/17/2025 10:07 PM
Comment
NONE PROVIDED

Activity Description & Information

Narrative description of activity(s):
Reclamation of red rock refuse from coal mining, reclamation of iron from foundry waste landfilling

Total Facility/Operations Area (acres)
512.00

Total Disturbed Area (acres)
89.00

Anticipated Commencement Date
01/01/1904

Anticipated Completion Date
01/01/2035

Please identify which of the following apply to this operation:

Activity/Condition	Appy?
An existing facility/operation which currently results in discharges to State waters?	Yes
A proposed facility/operation which will result in a discharge to State waters?	No
Be located within any 100-year flood plain?	No
Discharge to Municipal Separate Storm Sewer?	No
Discharge to waters of or be located in the Coastal Zone?	No
Need/have ADEM UIC permit coverage?	No
Be located on Indian/historically significant lands?	No
Need/have ADEM SID permit coverage?	No
Need/have ASMC permit coverage?	Yes
Need/have State Oil & Gas Board permit coverage?	No
Need/have ADOL permit coverage?	No
Generate, treat, store, or dispose of hazardous or toxic waste?	No
Be located in or discharge to a Public Water Supply (PWS) watershed or be located within ¼ mile of any PWS well?	No
Incised pit	No

Does your facility/operation use cooling water?
No

Material to be Removed, Processed, or Transloaded

Material To Be Removed, Processed, Or Transloaded (Note: Sum must equal 100.)

Mineral(s)/Mineral product(s)	%
Slag, Red Rock	95
Other: Inert foundry waste (iron) from historical landfill operations on-site	5
	Sum: 100

Proposed Activity To Be Conducted

Type(s) of activity presently conducted at applicant's existing facility or proposed to be conducted at facility (Select Yes or No)):

Activity	Apply?
Adjacent/associated asphalt/concrete plant(s)	No
Alternative fuels operation	No
Auger mining	No
Cement production	No
Chemical processing or leaching	No
Chemicals used in process or wastewater treatment (coagulant, biocide, etc.)	No
Construction related temporary borrow pits/areas	No
Creek/stream crossings	No
Excavation	Yes
Grading, clearing, grubbing, etc.	Yes
Hydraulic mining	No
Hydraulic mining, dredging, instream or between stream-bank mining	No
Lime production	No
Low volume sewage treatment package plant	No

Activity	Apply?
Mineral dry processing (crushing & screening)	Yes
Mineral loading	Yes
Mineral storing	Yes
Mineral transportation	Yes
Mineral wet preparation	No
Onsite construction debris or equipment storage/disposal	Yes
Onsite mining debris or equipment storage/disposal	Yes
Other beneficiation & manufacturing operations	No
Pre-construction ponded water removal	No
Pre-mining logging or land clearing	No
Preparation plant waste recovery	No
Quarrying	Yes
Reclamation of disturbed areas	Yes
Solution mining	No
Surface mining	Yes
Synthetic fuel production	No
Underground mining	No
Waterbody relocation or other alteration	No
Within-bank mining	No

If the operation will include activities other than those listed above, please describe them below:
Inert foundry waste (iron) from historical landfill operations on-site

If the type of activity presently conducted or proposed is Mineral Transportation, please indicate which of the following apply:

Barge	Apply?
Barge	Yes
Rail	Yes
Truck	Yes

Fuel - Chemical Handling, Storage, & Spill Prevention Control & Countermeasures (SPCC) Plan

Will fuels, chemicals, compounds, or liquid waste be used or stored onsite?
Yes

Please identify the fuel, chemicals, compounds, or liquid waste and indicate the volume of each:

Volume (gallons)	Contents
1,000.0	Diesel
220.0	Hydraulic Oil

SPCC Plan

2022 Bessie Mine Tier I Qualified Facility SPCC Plan.docx - 09/22/2022 12:35 PM
Comment
NONE PROVIDED

ASMC Regulated Entities

Is this a coal mining operation regulated by ASMC?
No

Topographic Map Submittal

Topographic Map

Attach to this application a 7.5 minute series U.S.G.S. topographic map(s) or equivalent map(s) no larger than, or folded to a size of 8.5 by 11 inches (several pages may be necessary), of the area extending to at least one mile beyond property boundaries. The topographic or equivalent map(s) must include a caption indicating the name of the topographic map, name of the applicant, facility name, county, and township, range, & section(s) where the facility are located. Unless approved in advance by the Department, the topographic or equivalent map(s), at a minimum, must show: a) An accurate outline of the area to be covered by the permit (b) An outline of the facility (c) All existing and proposed disturbed areas (d) Location of intake and discharge areas (e) Proposed and existing discharge points (f) Perennial, intermittent, and ephemeral streams (g) Lakes, springs, water wells, wetlands (h) All known facility dirt/improved access/haul roads (i) All surrounding unimproved/improved roads (j) High-tension power lines and railroad tracks (k) Contour lines, township-range-section lines (l) Drainage patterns, swales, washes (m) All drainage conveyance/treatment structures (ditches, berms, etc.) (n) Any other pertinent or significant feature.

Topographic Map

Bessie with topo lines and topo map.pdf - 09/22/2022 12:39 PM

Comment

NONE PROVIDED

Detailed Facility Map Submittal

Detailed Facility Map

Bessie with disturbed areas and topo lines.pdf - 09/22/2022 12:40 PM

Comment

NONE PROVIDED

Outfalls (1 of 2)

Outfall Identifier: 001

Feature Type
Outfall (External)

Outfall Identifier
001

Outfall Status
Existing

> Please be aware that you should only mark an outfall status as existing if (1) the Department has been previously notified that it was constructed as proposed or (2) it began discharge prior to this application. A proposed outfall is one that is being newly added to the permit OR one that has never discharged or has never been authorized by the Department to discharge. Should you have any questions about which status to select, please contact the Department's permit engineer for this site.

Permit Action
Reissue

Receiving Water
Locust Fork

Check below if the discharge enters the receiving water via an unnamed tributary.
Unnamed Tributary

Location of Outfall
33.63722200000000, -87.03472200000000

Are the location coordinates above still correct for this outfall?
Yes

Distance to Receiving Water (ft)
3,000.0

Disturbed Area (acres)
89.0

Drainage Area (acres)
110.0

303(d) Segment?
No

TMDL Segment?
No

Please do not add a new outfall unless you are requesting a modification that includes a new outfall. All of the currently permitted outfalls are already included in this form. If you add an outfall in error, please choose "Delete" under "Permit Action" for the outfall. If you have any questions, please contact your permit engineer BEFORE proceeding.

Outfalls (2 of 2)

Outfall Identifier: 004

Feature Type
Outfall (External)

Outfall Identifier
004

Outfall Status
Existing

> Please be aware that you should only mark an outfall status as existing if (1) the Department has been previously notified that it was constructed as proposed or (2) it began discharge prior to this application. A proposed outfall is one that is being newly added to the permit OR one that has never discharged or has never been authorized by the Department to discharge. Should you have any questions about which status to select, please contact the Department's permit engineer for this site.

Permit Action
Reissue

Receiving Water
Locust Fork

Check below if the discharge enters the receiving water via an unnamed tributary.
NONE PROVIDED

Location of Outfall
33.64583300000000, -87.03888900000000

Are the location coordinates above still correct for this outfall?
Yes

Distance to Receiving Water (ft)
100.0

Disturbed Area (acres)
0.0

Drainage Area (acres)
127.0

303(d) Segment?
No

TMDL Segment?
No

Please do not add a new outfall unless you are requesting a modification that includes a new outfall. All of the currently permitted outfalls are already included in this form. If you add an outfall in error, please choose ﷺDeleteﷺ under ﷺPermit Actionﷺ for the outfall. If you have any questions, please contact your permit engineer BEFORE proceeding.

Discharge Characterization

EPA Form 2C, EPA Form 2D, and/or ADEM Form 567 Submittal
No, the applicant does not request a waiver and a complete EPA Form 2C, EPA Form 2D, and/or ADEM Form 567 is attached.

Please attach EPA Form 2C, EPA Form 2D, and/or ADEM Form 567.
Bessie Mine Analytical Reports for Form 567.pdf - 11/17/2025 11:25 PM
Bessie 2022 renewal ADEM form 567.pdf - 11/17/2025 11:38 PM
Comment
NONE PROVIDED

CORRECTION REQUEST *(APPROVED)*
ADEM Form 567

Please submit the sample results from the lab that processed the sample.
Created on 3/10/2025 3:44 PM by **Ange Boatwright**

2 COMMENTS
Ange Boatwright (maboatwright@adem.alabama.gov) (8/29/2025 12:10 PM)
The background data list on Form 567 for Locust Fork does not appear to have a corresponding sheet from the testing lab.

Ange Boatwright (maboatwright@adem.alabama.gov) (8/29/2025 12:07 PM)
Form 567 does not include testing for Antimony and Total Phenols. Please include testing for these pollutants.

Please download the following Excel file to enter your information. Once complete, please attach to the below control.
Download spreadsheet here.

Required attachment:
2022 Form315TableB.xlsx - 11/19/2025 06:36 PM
Comment
NONE PROVIDED

Please download the following Excel file to enter your information. Once complete, please attach to the below control.
Download spreadsheet here.

Required attachment:
Bessie Mine Form315TableC.xlsx - 11/17/2025 11:43 PM
Comment
NONE PROVIDED

CORRECTION REQUEST *(APPROVED)*
Form 315 Table C

Please use the excel spreadsheet template provided.
Created on 8/27/2025 5:00 PM by **Ange Boatwright**

Discharge Structure Description & Pollutant Source

Please download the following Excel file to enter your information. Once complete, please attach to the below control.
Download spreadsheet here.

Required attachment:
2022 Form315DischargeStructure.xlsx - 05/20/2023 08:34 AM
Comment
NONE PROVIDED

Variance Request

Do you intend to request or renew one or more of the CWA technology variances authorized at 40 CFR 122.21(m)?
No

Pollution Abatement & Prevention (PAP) Plan Summary (1 of 1)

Outfall(s):
001E

Outfall Questions:	Please select one:
Runoff from all areas of disturbance is controlled	Yes
Drainage from pit area, stockpiles, and spoil areas directed to a sedimentation pond	Yes
Sedimentation basin at least 0.25 acre/feet for every acre of disturbed drainage	Yes
Sedimentation basin cleaned out when sediment accumulation is 60% of design capacity	Yes
Trees, boulders, and other obstructions removed from pond during initial construction	Yes
Width of top of dam greater than 12'	Yes
Side slopes of dam no steeper than 3:1	Yes
Cutoff trench at least 8' wide	Yes
Side slopes of cutoff trench no less than 1:1	Yes
Cutoff trench located along the centerline of the dam	Yes
Cutoff trench extends at least 2' into bedrock or impervious soil	Yes
Cutoff trench filled with impervious material	Yes
Embankments and cutoff trench 95% compaction standard proctor ASTM	Yes
Embankment free of roots, tree debris, stones >6" diameter, etc.	Yes
Embankment constructed in lifts no greater than 12"	Yes
Spillpipe sized to carry peak flow from a one year storm event	Yes
Spillpipe will not chemically react with effluent	Yes
Subsurface withdrawal	Yes
Anti-seep collars extend radially at least 2' from each joint in spillpipe	Yes
Splashpad at the end of the spillpipe	Yes
Emergency Spillway sized for peak flow from 25-yr 24-hr event if discharge not into PWS classified stream	Yes
Emergency spillway sized for peak flow from 50-yr 24-hr event if discharge is into PWS classified stream	No
Emergency overflow at least 20' long	Yes
Side slopes of emergency spillway no steeper than 2:1	Yes
Emergency spillway lined with riprap or concrete	Yes
Minimum of 1.5' of freeboard between normal overflow and emergency overflow	Yes
Minimum of 1.5' of freeboard between max. design flow of emergency spillway and top of dam	Yes
All emergency overflows are sized to handle entire drainage area for ponds in series	N/A
Dam stabilized with permanent vegetation	Yes

Outfall Questions:	Please select one:
Sustained grade of haul road <10%	Yes
Maximum grade of haul road <15% for no more than 300'	Yes
Outer slopes of haul road no steeper than 2:1	Yes
Outer slopes of haul road vegetated or otherwise stabilized	Yes
Detail drawings supplied for all stream crossings	N/A
Short-Term Stabilization/Grading And Temporary Vegetative Cover Plans	Yes
Long-Term Stabilization/Grading And Permanent Reclamation or Water Quality Remediation Plans	Yes

Identify and provide detailed explanation for any "N" or "N/A" response(s):
There are no stream crossings, there are no ponds in series, and the stream is not classified PWS.

Pollution Abatement & Prevention (PAP) Plan Review Checklist

General Information:	Please select one:
PE Seal with License #	Yes
Name and Address of Operator	Yes
Legal Description of Facility	Yes
Name of Company	Yes
Number of Employees	Yes
Products to be Mined	Yes
Hours of Operation	Yes
Water Supply and Disposition	Yes

Maps:	Please select one:
Topographic Map including Information from Part XIII (a) " (o) of this Application	Yes
1" " 500" or Equivalent Facility Map including Information from Part XIV of this Application	Yes

Detailed Design Diagrams:	Please select one:
Plan Views	Yes
Cross-section Views	No
Method of Diverting Runoff to Treatment Basins	No
Line Drawing of Water Flow through Facility with Water Balance or Pictorial Description of Water Flow	No

Identify and provide detailed explanation for any "N" or "N/A" response(s):
These drawings were not prepared at the time of construction of the sedimentation basin and are not available as ownership of the property has changed and additional records are not available.

Narrative of Operations:	Please select one:
Raw Materials Defined	Yes
Processes Defined	Yes
Products Defined	Yes

Schematic Diagram:	Please select one:
Points of Waste Origin	No
Collection System	No
Disposal System	No

Identify and provide detailed explanation for any "N" or "N/A" response(s):
These drawings were not prepared at the time of construction of the sedimentation basin and are not available as ownership of the property has changed and additional records are not available.

Post Treatment Quantity and Quality of Effluent:	Please select one:
Flow	Yes
Suspended Solids	Yes
Iron Concentration	Yes
pH	Yes

Description of Waste Treatment Facility:	Please select one:
Pre-Treatment Measures	N/A
Recovery System	N/A
Expected Life of Treatment Basin	N/A
Measures for Ensuring Access to All Treatment Structures and Related Appurtenances including Outfall Locations	N/A
Schedule of Cleaning and/or Abandonment	N/A

Identify and provide detailed explanation for any "N" or "N/A" response(s):
The sedimentation basin is not treating waste.

Other:	Please select one:
Precipitation/Volume Calculations/Diagram Attached	Yes
BMP Plan for Haul Roads	Yes
Measures for Minimizing Impacts to Adjacent Stream (e.g., Buffer Strips, Berms)	Yes
Measures for Ensuring Appropriate Setbacks are Maintained at All Times	Yes
Methods for Minimizing Nonpoint Source Discharges	Yes
If Chemical Treatment Used, Methods for Ensuring Appropriate Dosage	Yes
Facility Closure Plans	Yes
PE Rationale(s) For Alternate Standards, Designs or Plans	Yes

Pollution Abatement & Prevention (PAP) Plan

CORRECTION REQUEST *(APPROVED)*
PAP Plan

Please submit a Pollution Abatement and Prevention Plan.
Created on 3/10/2025 3:43 PM by **Ange Boatwright**

1 COMMENT
Ange Boatwright (maboatwright@adem.alabama.gov) (8/29/2025 2:08 PM)
The PAP plan does not include a schematic drawing or any design details for Outfall 004.

Is this a coal mining operation regulated by ASMC?
No

PAP Plan (non-coal mining facilities)
Pollution Abatement Plan - Bessie Mine updated Nov 2025.pdf - 11/17/2025 10:38 PM
Comment
NONE PROVIDED

Professional Engineer (PE)

Registration License Number
13934

Professional Engineer

Prefix
Mr.

First Name	Last Name
Brian	Atkins

Title
Professional Engineer

Organization Name
Atkins Engineering, LLC

Phone Type	Number	Extension
Business	205-388-0147	

Email
atkinseng@bellsouth.net

Address

176 Richardson Road

Jasper, AL 35504

CORRECTION REQUEST *(APPROVED)*
Professional Engineer

Please correct this to reflect the PE signing the application.
Created on 2/11/2026 1:09 PM by **Ange Boatwright**

Information for the Applicant

Please read the following information and acknowledge below:

Contact the Department prior to submittal with any questions or to request acceptable alternate content/format.

Be advised that you are not authorized to commence regulated activity until this application can be processed, publicly noticed, and approval to proceed is received in writing from the Department.

EPA Form(s) 1 and 2F need not be submitted unless specifically required by the Department. EPA Form(s) 2C and/or 2D are required to be submitted unless the
applicant is eligible for a waiver and the Department grants a waiver, or unless the relevant information required by EPA Form(s) 2C and/or 2D are submitted to the Department in an alternative format acceptable to the Department.

Planned/proposed mining sites that are greater than 5 acres, that mine/process coal or metallic mineral/ore, or that have wet or chemical processing, must apply for and obtain coverage under an Individual or General NPDES Permit prior to commencement of any land disturbance. Such Individual NPDES Permit coverage may be requested via this ADEM Form 315.

The applicant is advised to contact:
(1) The Alabama Surface Mining Commission (ASMC) if coal, coal fines, coal refuse, or other coal related materials are mined, transloaded, processed, etc.;
(2) The Alabama Department of Labor (ADOL) if conducting non-coal mining operations;
(3) The Alabama Historical Commission for requirements related to any potential historic or culturally significant sites;
(4) The Alabama Department of Conservation and Natural Resources (ADCNR) for requirements related to potential presence of threatened/endangered species;
(5) The US Army Corps of Engineers, Mobile or Nashville Districts, if this project could cause fill to be placed in federal waters or could interfere with navigation.

The Department must be in receipt of a completed version of this form, including any supporting documentation, and the appropriate processing fee [including Greenfield Fee and Biomonitoring & Toxicity Limits fee(s), if applicable], prior to development of a draft NPDES permit.

Acknowledgement
I acknowledge I have read and understand the information above.

Additional Attachments

Additional Attachments

NONE PROVIDED

Comment

NONE PROVIDED

Application Preparer

Application Preparer

Prefix
NONE PROVIDED

First Name **Last Name**
NONE PROVIDED *NONE PROVIDED*

Title
NONE PROVIDED

Organization Name
NONE PROVIDED

Phone Type **Number** **Extension**
NONE PROVIDED

Email
NONE PROVIDED

Address

[NO STREET ADDRESS SPECIFIED]

[NO CITY SPECIFIED], AL *[NO ZIP CODE SPECIFIED]*

Fees Assessed

The following itemized fees have been assessed in accordance with Fee Schedule D and 335-1-6-.04(a) of ADEM Admin. Code Division 1 regulations based on the information provided in this application.

If the correct fees are not displayed, please contact your permit engineer PRIOR to submitting the form. Do NOT answer questions erroneously in order to have the correct fee assessed.

Mineral/Resource Extraction Mining, Storage Transloading, Dry Processing:
5820

Fee

Fee
5820

Revisions

Revision	Revision Date	Revision By
Revision 1	9/12/2022 10:58 AM	jonathan lovell
Revision 2	5/19/2023 4:22 PM	jonathan lovell
Revision 3	4/28/2025 6:28 AM	jonathan lovell
Revision 4	9/8/2025 7:53 PM	jonathan lovell
Revision 5	2/23/2026 8:02 PM	jonathan lovell

Agreements and Signature(s)

SUBMISSION AGREEMENTS

- ☑ I am the owner of the account used to perform the electronic submission and signature.
- ☑ I have the authority to submit the data on behalf of the facility I am representing.
- ☑ I agree that providing the account credentials to sign the submission document constitutes an electronic signature equivalent to my written signature.
- ☑ I have reviewed the electronic form being submitted in its entirety, and agree to the validity and accuracy of the information contained within it to the best of my knowledge.

Professional Engineer (PE)

A detailed, comprehensive Pollution Abatement & Prevention (PAP) Plan must be prepared, signed, and certified by a professional engineer (PE), registered in the State of Alabama, and the PE must certify as follows: "I certify under penalty of law that the technical information and data contained in this application, and a comprehensive Pollution Abatement & Prevention (PAP) Plan, including any attached SPCC plan, maps, engineering designs, etc. acceptable to ADEM, for the prevention and minimization of all sources of pollution in stormwater and authorized related process wastewater runoff has been prepared under my supervision for this facility utilizing effective, good engineering and pollution control practices and in accordance with the provisions of this Permit, and ADEM Admin. Code Division 335-6, including Chapter 335-6-9 and Appendices A & B. If the PAP Plan is properly implemented and maintained by the Permittee, discharges of pollutants can reasonably be expected to be effectively minimized to the maximum extent practicable and according to permit discharge limitations and other permit requirements. The applicant has been advised that appropriate pollution abatement/prevention facilities and structural & nonstructural management practices or Department approved equivalent management practices as detailed in the PAP Plan must be fully implemented and regularly maintained as needed at the facility in accordance with good sediment, erosion, and other pollution control practices, permit requirements, and other ADEM requirements to ensure protection of groundwater and surface water quality."

Signed By Brian Atkins on 02/24/2026 at 8:34 AM

Responsible Official

This application must be signed and initialed by a Responsible Official of the applicant pursuant to ADEM Admin. Code Rule 335-6-6-.09 who has overall responsibility for the operation of the facility. I certify under penalty of law that this document, including technical information and data, the PAP Plan, including any SPCC plan, maps, engineering designs, and all other attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the PE and other person or persons under my supervision who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine or imprisonment for knowing violations. A comprehensive PAP Plan to prevent and minimize discharges of pollution to the maximum extent practicable has been prepared at my direction by a PE for this facility utilizing effective, good engineering and pollution control practices and in accordance with the provisions of ADEM Admin. Code Division 335-6, including Chapter 335-6-9 and Appendices A & B, and information contained in this application, including any attachments. I understand that regular inspections must be performed by, or under the direct supervision of, a PE and all appropriate pollution abatement/prevention facilities and structural & nonstructural management practices or Department approved equivalent management practices identified by the PE must be fully implemented prior to and concurrent with commencement of regulated activities and regularly maintained as needed at the facility in accordance with good sediment, erosion, and other pollution control practices and ADEM requirements. I understand that the PAP Plan must be fully implemented and regularly maintained so that discharges of pollutants can reasonably be expected to be effectively minimized to the maximum extent practicable and according to permit discharge limitations and other requirements to ensure protection of groundwater and surface water quality. I understand that failure to fully implement and regularly maintain required management practices for the protection of groundwater and surface water quality may subject the Permittee to appropriate enforcement action." "I certify that this form has not been altered, and if copied or reproduced, is consistent in format and identical in content to the ADEM approved form." "I further certify that the discharges described in this application have been tested or evaluated for the presence of non-stormwater discharges and any non-mining associated beneficiation/process pollutants and wastewaters have been fully identified." "I acknowledge my understanding that I may be required to obtain a permit from the ADOL." "I acknowledge my understanding that if the proposed activities will be conducted in or potentially impact waters of the state or waters of the US (including wetlands), that I may be required to obtain a permit from the USACE."

Signed By William Bond on 02/24/2026 at 4:25 PM

Attachment 1 to Supplementary Form
ADEM Form 311

Alternatives Analysis

Applicant/Project: Bessie Mine, NPDES AL0003263

All new or expanded discharges (except discharges eligible for coverage under general permits) covered by the NPDES permitting program are subject to the provisions of ADEM's antidegradation policy. Applicants for such discharges to Tier 2 waters are required to demonstrate " . . . that the proposed discharge is necessary for important economic or social development." As a part of this demonstration, the applicant must complete an evaluation of the discharge alternatives listed below, including a calculation of the total annualized project costs for each technically feasible alternative (using ADEM Form 312 for public-sector projects and ADEM Form 313 for private-sector projects). Alternatives with total annualized project costs that are less than 110% of the total annualized project costs for the Tier 2 discharge proposal are considered viable alternatives.

Alternative	Viable	Non-Viable	Comment
1 Land Application		x	see Form 313 attached in AEPACS application
2 Pretreatment/Discharge to POTW		x	see Form 313 attached in AEPACS application
3 Relocation of Discharge		x	see Form 313 attached in AEPACS application
4 Reuse/Recycle		x	see Form 313 attached in AEPACS application
5 Process/Treatment Alternatives		x	see Form 313 attached in AEPACS application
6 On-site/Sub-surface Disposal		x	see Form 313 attached in AEPACS application
(other project-specific alternatives considered by the applicant; attach additional sheets if necessary)			
7			
8			
9			*signed and certified electronically via AEPACS

Pursuant to ADEM Administrative Code Rule 335-6-3-.04, I certify on behalf of the applicant that I have completed an evaluation of the discharge alternatives identified above, and reached the conclusions indicated.

Signature: _____
(Professional Engineer)

Date: electronically certified via AEPACS

(Supporting documentation to be attached, referenced, or otherwise handled as appropriate.)

DISCHARGE ALTERNATIVES

I. Base Discharge

The cost associated with this option include the following:

1. Obtaining ADEM Permit (Consulting and ADEM Fees)
2. BMP Plan Preparation
3. Quarterly Sampling and Analysis

This option is technically feasible.

II. Discharge Alternatives

A. Land Application

Under this option 3,232,730 gallons would have to be applied during each one week period (461,819 gallon/day). The option would consist of the following:

1. Earthen Sedimentation/ Holding Pond
2. Pond Water Transfer Pump
3. Spray Irrigation System Consisting of Feed Tank, Controller, Piping, etc.

B. Discharge to Sanitary Sewer

The Five Mile Creek WWTP is over 10 miles away and is not capable of handling an additional 0.46 mgd. This option is not considered to be technically feasible.

C. Relocation of Discharge

There is no area to which the stormwater runoff can be discharged. This option is not considered to be technically feasible.

D. Process/Treatment Alternative

There are no additional process/treatment alternatives that are available. This option is not considered to be technically feasible.

E. Reuse/Recycle

Process water is not used at the facility. This option is not considered to be technically feasible.

F. On-Site Sub-Surface Discharge

This alternative is feasible if it assumed that a water-bearing deep stratum can be located below the surface. It is assumed that a 150 – foot deep well could be installed.

III. Discharge Alternative Costs

Cost estimate were developed for the base discharge and each of the two technically feasible alternatives. Costs are shown below. None of the costs were within 100 percent of the base discharge cost.

A. Base Discharge

1. Capital Cost

N/A

2. Annual Operation and Maintenance Cost

Description	Frequency	$/Event	Cost/Yr
a. Sampling and Analysis	12/yr	$750	$9,000
b. BMP Plan Preparation	1/5 yr	$1,800	$360
c. Obtain ADEM Permit (Consulting & ADEM Fees)	1/5 yr	$7,500	$1,500
Total			$10,860

B. Land Application

1. Capital Cost

Item	Description	UOM	Unit Cost	Units	Est. Cost
a. Earthern Basin Construction	Excavation, Filling, etc.	CF	$50	500	$25,000
b. Clearing/Preparation		AC	$5,000	1.0	$5,000
c. Trench Excavation/Backfill		CF	$7	300	$2,100
d. Pipe	4" HDPE	FT	$10	3000	$30,000
e. Transfer Pump	200 gpm @ 100'head	EA	$4,500	2	$9000
f. Supply Tank	10,000 gallon	EA	$15,000	2	$30,000
g. Spray System	Piping, Controls, etc.	1	$15,000	2	$60,000
Total					$161,100

2. Annual Operation and Maintenance Costs

Description	Frequency	$/Event	Cost/Yr
a. Cut Grass on Berms	2/yr	$300	$600
b. Replace Transfer Pump	1/15 years	$4,500	$300
c. Controller Repair	1/5 years	$2,000	$400
d. Labor	200 hours/yr	$30.00	$6,000
Total			$7,300

C. Deep Well Injection

1. Capital Cost

Item	Description	UOM	Unit Cost	Units	Est. Cost
A. Earthen Basin Construction	Excavation, Filing, etc.	CF	$50	500	$25,000
b. Clearing/Preparation		AC	$5,000	0.50	$2,500
c. Trench Excavation/Backfill		CYD	$7	50	$350
d. Pipe	2" HDPE	FT	$5	200	$1000
e. Filter	200 gpm	EA	$10,000	2	$20,000
f. Injection Pump	200 gpm	EA	$30,000	2	$60,000
Total					$106,850

2. Annual Operation and Maintenance Cost

Description	Frequency	$/Event	Cost/Yr
a. Cut Grass on Berms	8/yr	$300	$2400
b. Replace Filter	1/15 years (2 filters)	$20,000	$1334
c. Replace Injection Pump	1/5 years (2 pumps)	$10,000	$667
d. Labor	400 hours/yr	$30.00	$12,000
Total			$16,400

BASE DISCHARGE

Calculation of Total Annualized Project Costs for Private-Sector Projects

Capital Costs to be Financed (Supplied by applicant)	$ 0 (1)
Interest rate for Financing (Expressed as a decimal)	N/A (i)
Time Period of Financing (Assume 10 years*)	10 years (n)
Annualization Factor $= \frac{i}{(1+i)^{10}-1} + i$	N/A (2)
Annualized Capital Cost [Calculate: (1) x (2)]	$ 0 (3)
Annual Cost of Operation and Maintenance (including but not limited to monitoring, inspection, permitting fees, waste disposal charges, repair, administration and replacement)**	$ 10,860 (4)
Total Annual Cost of Pollution Control Project [(3) + (4)]	$ 10,860 (5)

* While actual payback schedules may differ across projects and companies, assume equal annual payments over a 10-year period for consistency in comparing projects.

** For recurring costs that occur less frequently than once a year, pro rate the cost over the relevant number of years (e.g., for pumps replaced once every three years, include one-third of the cost in each year).

LAND APPLICATION

Calculation of Total Annualized Project Costs for Private-Sector Projects

Capital Costs to be Financed (Supplied by applicant)	$ 161,100 (1)
Interest rate for Financing (Expressed as a decimal)	0.04 (i)
Time Period of Financing (Assume 10 years*)	10 years (n)
Annualization Factor $= \frac{i}{(1+i)^{10}-1} + i$	0.1233 (2)
Annualized Capital Cost [Calculate: (1) x (2)]	$ 19,862 (3)
Annual Cost of Operation and Maintenance (including but not limited to monitoring, inspection, permitting fees, waste disposal charges, repair, administration and replacement)**	$ 7,300 (4)
Total Annual Cost of Pollution Control Project [(3) + (4)]	$ 27,162 (5)

* While actual payback schedules may differ across projects and companies, assume equal annual payments over a 10-year period for consistency in comparing projects.

** For recurring costs that occur less frequently than once a year, pro rate the cost over the relevant number of years (e.g., for pumps replaced once every three years, include one-third of the cost in each year).

DEEP WELL INJECTION

Calculation of Total Annualized Project Costs for Private-Sector Projects

Capital Costs to be Financed (Supplied by applicant)	$ 106,858 (1)
Interest rate for Financing (Expressed as a decimal)	0.04 (i)
Time Period of Financing (Assume 10 years*)	10 years (n)
Annualization Factor $= \frac{i}{(1+i)^{10}-1} + i$	0.1233 (2)
Annualized Capital Cost [Calculate: (1) x (2)]	$ 13,176 (3)
Annual Cost of Operation and Maintenance (including but not limited to monitoring, inspection, permitting fees, waste disposal charges, repair, administration and replacement)**	$ 16,400 (4)
Total Annual Cost of Pollution Control Project [(3) + (4)]	$ 29,576 (5)

* While actual payback schedules may differ across projects and companies, assume equal annual payments over a 10-year period for consistency in comparing projects.

** For recurring costs that occur less frequently than once a year, pro rate the cost over the relevant number of years (e.g., for pumps replaced once every three years, include one-third of the cost in each year).

The applicant is required to supply outfall number(s) as it appears on the map(s) required by this application [if this application is for a modification to an existing permit do not change the numbering sequence of the permitted outfalls], describe each, (e.g., pipe, spillway, channel, tunnel, conduit, well, discrete fissure, or container), and identify the origin of pollutants. The response must be precise for each outfall. If the discharge of pollutants from any outfall is the result of commingling of waste streams from different origins, each origin must be completely described.

Description of Origin of Pollutants – typical examples: (1) Discharge of drainage from the underground workings of an underground coal mine, (2) Discharge of drainage from a coal surface mine, (3) Discharge of drainage from a coal preparation plant and associated areas, (4) Discharge of process wastewater from a gravel-washing plant, (5) Discharge of wastewater from an existing source coal preparation plant, (6) Discharge of drainage from a sand and gravel pit, (7) Pumped discharge from a limestone quarry, (8) Controlled surface mine drainage (pumped or siphoned), (9) Discharge of drainage from mine reclamation, (10) Other (please describe):

Outfall	Discharge structure Description	Description of Origin of pollutants	Surface Discharge	Groundwater Discharge	Wet Prep -Other Production Plant	Pumped or Controlled Discharge	Low Volume STP
001E	Pipe with Spillway	Red rock mining and	x				
		historical foundry landfill					
004E	Pipe	Reclaimed coal mining	x				
		operations					

The applicant is required to supply the following information separately for every proposed (P) or existing (E) outfall. List expected average daily discharge flow rate in cfs and gpd; frequency of discharge in hours per day and days per month; average summer and winter temperature of discharge(s) in degrees centigrade; average pH in standard units; and average daily discharges in pounds per day of BOD5, Total Suspended Solids, Total Iron, Total Manganese, and Total Aluminum (if bauxite or bauxitic clay or if otherwise believed present):

Outfall E/P	Information Source - # of Samples	Flow (cfs)	Flow (gpd)	Frequency (hours/day)	Frequency (days/month)	Sum/Win Temp, (°C)	pH (s.u.)	BOD5 (lbs/day)	TSS (lbs/day)	Tot Fe (lbs/day)	Tot Mn (lbs/day)	Tot Al (lbs/day)
001E	up to 10	0.4	258500	precipitation	precipitation	26/7	6.86	N/A	0.0453	0.216	2.145	0.214
004E	ND, remediated mine	0.72	465000	precipitation	precipitation	26/7	6.86	N/A	0.082	0.389	3.86	3.85

The applicant is required to supply the following information separately for every proposed or existing outfall. Identify and list expected average daily discharge of any other pollutant(s) listed in EPA Form 2C Tables A, B, C, D, and E that are not referenced in Part XVI.B. or otherwise submitted elsewhere, that you know is present or have reason to believe could be present in the discharge(s) at levels of concern:

Outfall E/P	Reason Believed Present	Information Source - # of Samples								
			lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L
Data submitted										
on Form 567										

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)
NPDES MINING AND PREPARATION PLANT OUTFALL DATA FOR METALS, CYANIDE, AND TOTAL PHENOLS

NPDES Permit No.:		Applicant:			Facility:
AL0003263		PB Service, LLC; 3700 14th Ave. North, Birmingham, AL 35234			Bessie Mine and Warrior Aggregates (Locust Fork Red Rock)
Outfall Sampled[1]:	Date of Sampling:	Was Sample Taken in-Pond?	Was Sample Taken from Discharge?	Substantially Identical Outfalls:	Description of Discharge:
001E		☐ Yes ☒ No	☒ Yes ☐ No	004E	Runoff from red rock mining activities and inert foundry landfill mining reclamation activities

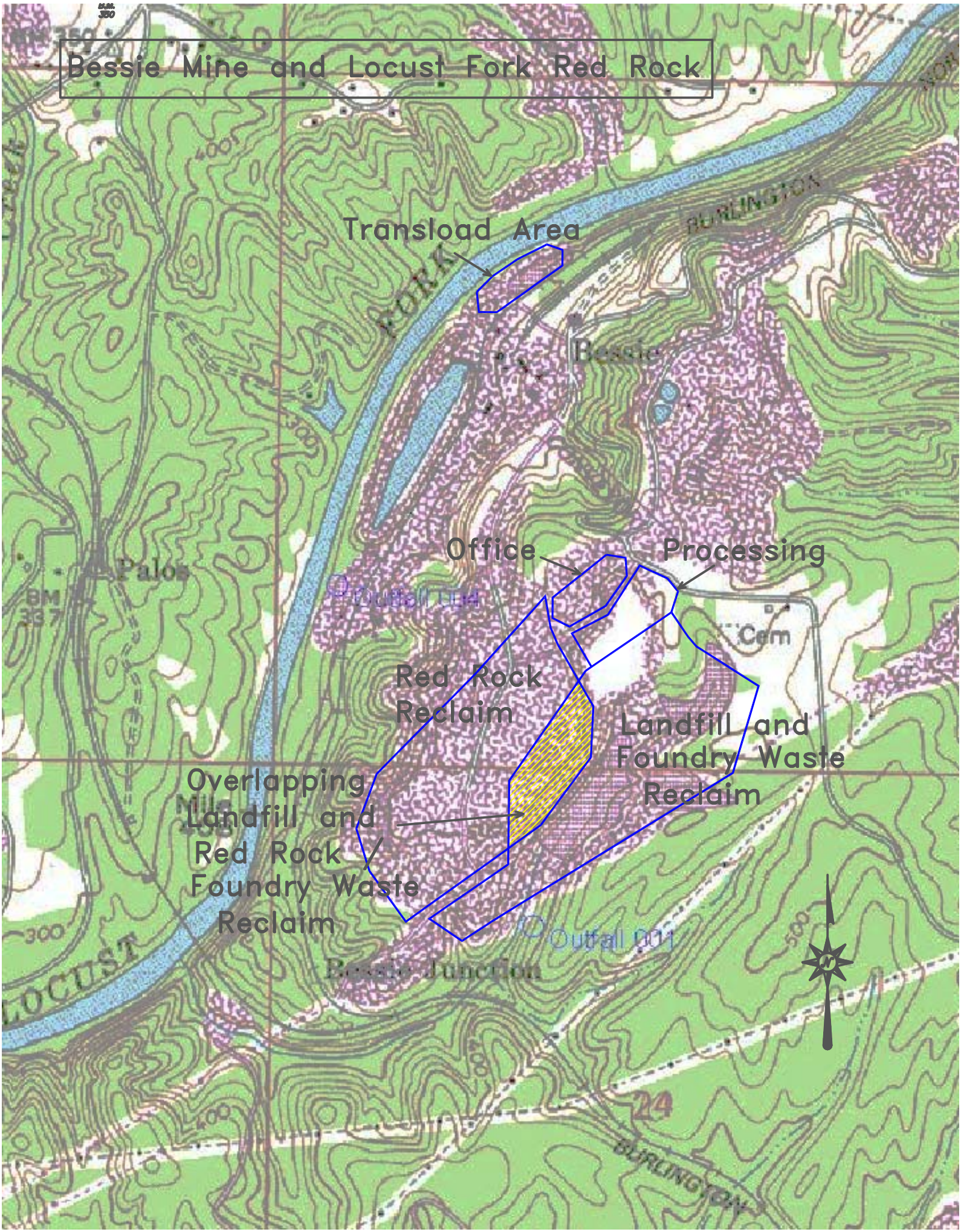
Instructions: Supply the following information separately for every proposed or existing outfall evaluated or tested. If necessary, attach extra sheets. If you are a coal facility, mark "X" in appropriate column for all listed metals, cyanide, and total phenols. If the outfall is existing, you must provide the results of at least one representative analysis for that pollutant for a substantially identical existing outfall at the facility. If the outfall is proposed, you must either submit at least one representative analysis for a substantially identical existing outfall at the facility or, if not available, at least one representative analysis for a substantially identical outfall at another similar facility.

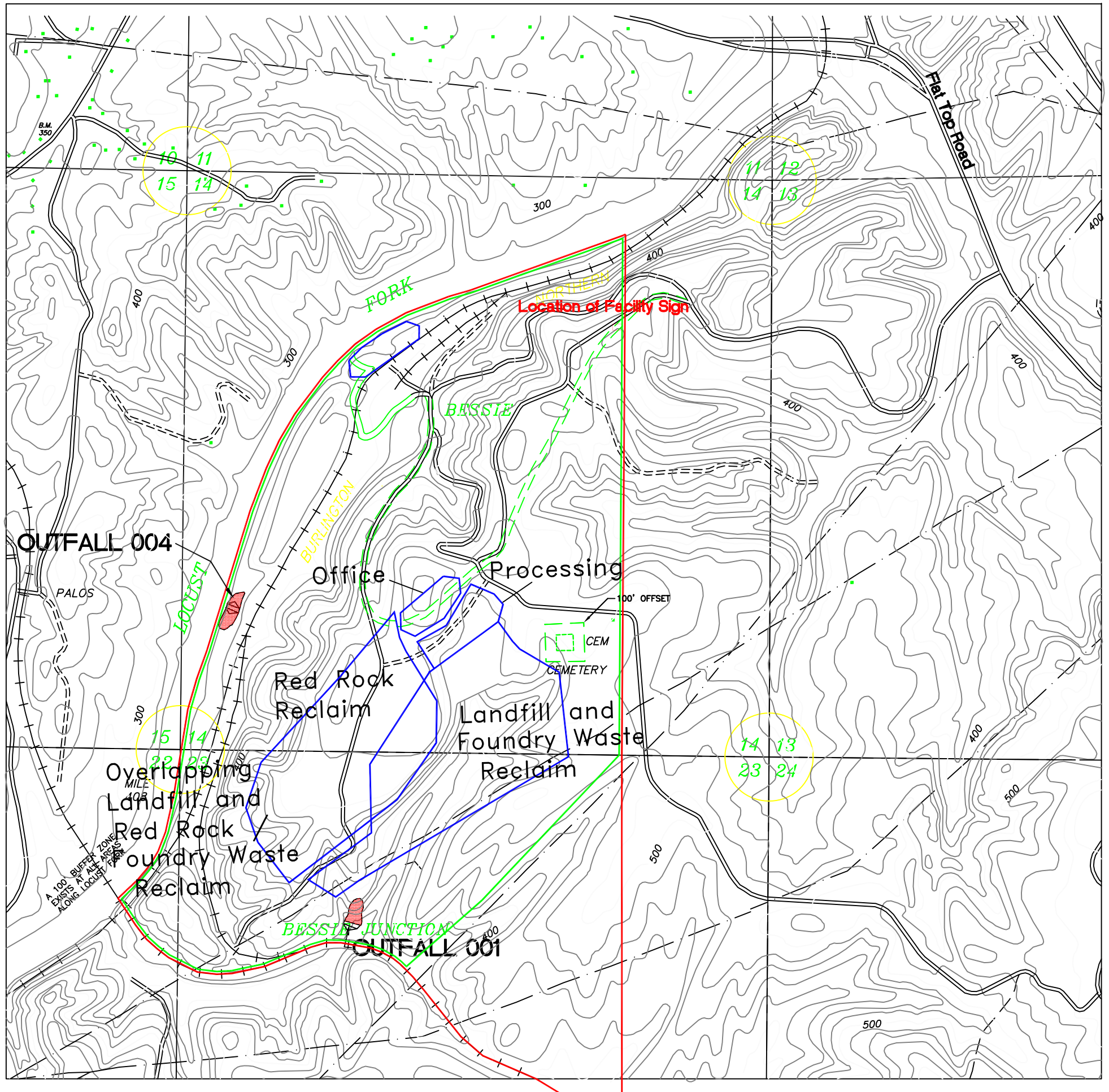
Pollutant	Mark "X"			Effluent												Instream		
	Existing Outfall (Testing Required)	Proposed Outfall – Parameter Believed Present	Proposed Outfall – Parameter Believed Absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		# of Analyses	Frequency of Discharge (Days/Month Hours/Day)	EPA Approved Method Analysis Used[2]	Method Detection Limit (µ/L)	Receiving Water 7Q10 Flow (cfs)	Discharge Flow (cfs)	Background Instream Concentration (µ/L)	Instream Hardness (optional) (mg/L $CaCO_3$)[3]	Instream Flow (optional) (cfs)
				Concentration (µ/L)	Mass (lbs)	Concentration (µ/L)	Mass (lbs)	Concentration (µ/L)	Mass (lbs)									
1M. Antimony, Dissolved	x			BDL						1	Precipitation based	EPA-200.8	1.69	5.6	0.4	BDL		
2M. Arsenic, Dissolved Trivalent	x			0.000107	2.3x10-7					1	Precipitation based	EPA-200.8	0.043	5.6	0.4	0.113		
3M. Beryllium, Dissolved	x			BDL						1	Precipitation based	EPA-200.8	4.96	5.6	0.4	BDL		
4M. Cadmium, Dissolved	x			0.2	0.0004					6	Precipitation based	EPA-200.8	0.168	5.6	0.4	BDL		
5M. Chromium, Dissolved			x	BDL						6	Precipitation based	EPA-200.8	0.8	5.6	0.4	BDL		
6M. Copper, Dissolved	x			BDL						6	Precipitation based	EPA-200.8	1	5.6	0.4	1.35		
7M. Lead, Dissolved			x	BDL						6	Precipitation based	EPA-200.8	0.916	5.6	0.4	BDL		
8M. Mercury, Total Recoverable	x			0.0021	2.1E-03					5	Precipitation based	E1631E	0.0005	5.6	0.4	0.00205		
9M. Nickel, Dissolved	x			39.2	0.0846					8	Precipitation based	EPA-200.8	0.364	5.6	0.4	1.84		
10M. Selenium, Total Recoverable	x			8.81	0.019					10	Precipitation based	EPA-200.8	1.18	5.6	0.4	BDL		
11M. Silver, Dissolved			x	BDL						6	Precipitation based	EPA-200.8	0.0446	5.6	0.4	BDL		
12M. Thallium, Dissolved	x			0.34	0.0007					9	Precipitation based	EPA-200.8	0.116	5.6	0.4	BDL		
13M. Zinc, Dissolved	x			80.3	0.1732					8	Precipitation based	EPA-200.8	10	5.6	0.4	BDL		
14M. Cyanide, Free			x	BDL						1	Precipitation based	4500 NCE-2011	5	5.6	0.4	BDL		
15M. Phenols, Total			x	86.0	0.1855					1	Precipitation based	EPA-420.1	15	5.6	0.4	BDL		

[1] Sampling results must be representative of the discharge.

[2] Test methods used must be in accordance with 40 CFR Part 136 and 40 CFR 122.21(g)(7)(i).

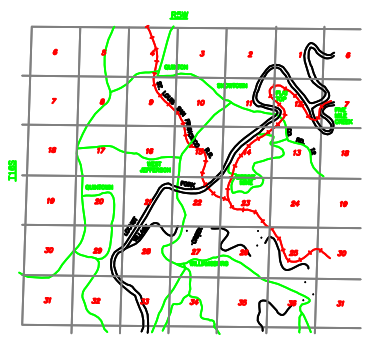
[3] The Department may assume Instream Hardness ($CaCO_3$) based on available information, the location of the discharge, and/or best professional judgment.


Bessie Mine and Locust Fork Red Rock
Transload Area
Bessie
Office
Processing
Red Rock Reclaim
Landfill and Foundry Waste Reclaim
Overlapping Landfill and Red Rock / Foundry Waste Reclaim
Outfall 004
Outfall 001
Palos
Cem
Bessie Junction
LOCUST
FORK
BURLINGTON
24



VICINITY MAP

Scale: 1"= 2 Miles



LEGEND

- Proposed and Existing Disturbed Areas
- Proposed Extents of Modified AL0003263 Coverage
- PB Services Property Boundary
- 400 Surface Contour
- Impoundment
- County Road (Paved unless otherwise designated)
- Occupied Dwelling

Detailed Facility Map
Supplementary Information
Bessie Mine and Locust Fork Red Rock
Sections 14, 22 and 23
Township 16 South, Range 5 West
Jefferson County, Alabama

SCALE: 1"=500'	DATE: 5-10-2016	DWG MOD BY: J. LOVELL

LRS, Inc.

Laboratory Resources & Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, AL 35234

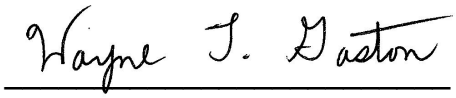
Attention: Mr. Robert Bond

Project ID: **Bessie Mine – Locust Fork Red Rock Monthly**
(January 25, 2022)
Permit # AL0003263, Outfall 001-1

Laboratory Report Number: **22-028-0061**

Report Date: February 15, 2022

Data Reviewed by:



Wayne Gaston
Project Manager
Laboratory Resources & Solutions, Inc.
wgaston@lab-resource.com

- Unless otherwise noted, all analysis on this report performed at Waypoint Analytical, Inc., 2790 Whitten Road, Memphis, TN 38133. NELAC #460181
- These results relate only to the items tested. This report may only be reproduced in full.
- Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc. at (205) 594-1445.

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

2/8/2022

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Lab Report Number: 22-028-0061
Client Project Description: Bessie Mine - Locust Fork Red Rock
Monthly - Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 1/28/2022 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2022
Arkansas	State Program	88-0650	02/07/2022
California	State Program	2904	06/30/2022
Florida	State Program - NELAP	E871157	06/30/2022
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2022
Illinois	State Program - NELAP	200078	10/10/2022
Kentucky	State Program	80215	06/30/2022
Kentucky	State Program	KY90047	12/31/2022
Louisiana	State Program - NELAP	LA037	12/31/2022
Louisiana	State Program - NELAP	04015	06/30/2022
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2022
Pennsylvania	State Program - NELAP	68-03195	05/31/2022
South Carolina	State Program	84002	06/30/2022
South Carolina	State Program	84002	06/30/2022
Tennessee	State Program	02027	02/11/2023
Texas	State Program - NELAP	T104704180	09/30/2022
Virginia	State Program	00106	06/30/2022
Virginia	State Program - NELAP	460181	09/14/2022

Laboratory ID: WP RMS: Waypoint Analytical Mississippi, Inc., Ridgeland, MS

State	Program	Lab ID	Expiration Date
Arkansas	State Program	88-1409	02/01/2022
Kentucky	State Program	KY98013	12/31/2021
Louisiana	State Program - NELAP	04023	06/30/2022
North Carolina	State Program	694	12/31/2021

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **22-028-0061**

Client Project Description: **Bessie Mine - Locust Fork Red Rock Monthly - Jefferson County, AL Project #AL0003263**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
86421	Outfall 001-1	Aqueous	01/25/2022 13:00	01/28/2022		
86421	Outfall 001-1	Aqueous	01/25/2022 13:00	01/28/2022	1631E	WP RMS

WP RMS - Ridgeland, MS: Waypoint Analytical - MS, Ridgeland, MS

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Client: Bond Industries, Inc. **CASE NARRATIVE**
Project: Bessie Mine - Locust Fork Red Rock
Lab Report Number: 22-028-0061
Date: 2/8/2022

Metals Analyses Method EPA-200.8
Sample 86421 (Outfall 001-1)
QC Batch No: L597570/L597117/L597116
Based on sample screening, a dilution was performed due to high levels of target and/or non-target analytes. Reporting limits have been adjusted accordingly.

Total Suspended Solids Method 2540D-2015
QC Batch No: L597199
Relative percent difference (RPD) for the duplicate analysis was outside of the allowable quality control limits. The sample and duplicate results are less than ten times the reporting limit. At this level, RPD is not applicable. The data is considered to be acceptable.

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine - Locust Fork Red Rock

Information : Monthly - Jefferson County, AL
Project #AL0003263

Original Report Date : 02/08/2022
Revised Report Date : 02/14/2022
Received : 01/28/2022

Report Number : **22-028-0061**

REPORT OF ANALYSIS

Lab No : **86421**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **1/25/2022 13:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Mercury	<0.500	ng/L		0.500	1	02/02/22 20:19	BTH	1631E
Conductivity	**2510**	µS/cm		0.010	1	02/02/22 15:53	CMF	2510B-2011
pH	**7.0**	s.u.			1	01/31/22 13:22	MMW	4500H+B-2011
Total Dissolved Solids	**2230**	mg/L		78.1	1	02/01/22 17:05	CJR	2540C-2011
Total Suspended Solids	**2**	mg/L		2	1	01/31/22 16:39	DRS	2540D-2015
Sulfate	**1300**	mg/L		100	100	02/03/22 01:25	JCA	EPA-300.0
Dissolved Cadmium	**0.170 J**	µg/L	0.168	0.250	2.5	02/14/22 02:17	BKN	EPA-200.8
Dissolved Copper	<5.00	µg/L	5.00	5.00	10	02/01/22 14:05	BKN	EPA-200.8
Dissolved Iron	<1000	µg/L	188	1000	10	02/01/22 14:05	BKN	EPA-200.8
Manganese	**360**	µg/L	10.0	10.0	10	02/01/22 15:50	BKN	EPA-200.8
Dissolved Nickel	**19.5**	µg/L	1.82	5.00	10	02/01/22 14:05	BKN	EPA-200.8
Selenium	**2.72 J**	µg/L	1.48	2.50	2.5	02/14/22 02:22	BKN	EPA-200.8
Dissolved Thallium	**0.335 J**	µg/L	0.145	0.500	2.5	02/14/22 02:17	BKN	EPA-200.8
Dissolved Zinc	**29.9 J**	µg/L	12.5	50.0	2.5	02/14/22 02:17	BKN	EPA-200.8

Qualifiers/ Definitions

DF Dilution Factor
MQL Method Quantitation Limit
J Estimated value

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **22-028-0061**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T137

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Hannah R. Brown Date & Time: 01/28/2022 12:05:17

Billing Information:

LRS, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445
wgaston@lab-resource.com

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine - Locust Fork Red Rock Monthly

City/State collected: Jefferson County, Alabama

Collected by:

Client Project #: **AL0003263**

P.O. #

Collected by (signature):

Packed on Ice? N___ Y___

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Chain of Custody
Page 1 of 1

Laboratory Resources & Solutions, Inc. (LRS)
A Laboratory Service Provider

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133
FedEx acct. # 1048-3300-4

Sample ID	Comp/Grab	Matrix	Depth	Date	Time	Number of Containers	pH SM4500HB (One 1-liter HDPE, non-preserved)	TSS SM2540D	TDS SM2540C	Sulfate E300.0	Specific Conductance SM2510	**Dissolved Cd, Cu, Fe, Ni, Tl, Zn E200.8 (One 250-mL HDPE, non-pres.)	Total Mn, Se E200.8 (One 250-mL HDPE, HNO3-pres.)	Low-level Hg EPA1631 (One 250-mL amber glass, non-pres				Sample Remarks
Outfall 001-1	Grab	SW	******	1/25/22	1:00pm	4			X			X	X	X				pH =
																		**Filter, Preserve and Run Dissolved Metals.

pH Meter Number _____ Date
3 pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads @

Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater SW-Surface Water DW-Drinking Water OT- Other (Describe)_____ pH_____ Temp_____

Project Remarks: 1-27-22 1146 Rainfall in Inches _____ Flow_____ Other_____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: FedEx__ UPS__ Other
	1/25/22	4:00pm	K. Bailey	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.5°C T137 AB
K. Bailey	1-27-22	1700		
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 01/28/2022
				Time: 1015

Bottles Received:

Condition (lab use only)
Custody Seals received on:
Cooler(s)/Container(s) No:

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

Bond Industries, Inc.
Bessie Mine - Locust Fork Red Rock
22-028-0061
19736
01-28-2022
12:04:50

LRS, Inc.

Laboratory Resources & Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, AL 35234

Attention: Mr. Robert Bond

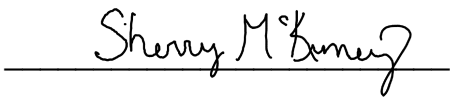
Project ID: **Bessie Mine- Locust Fork Red Rock Monthly** (February 22, 2022)

Laboratory Report Numbers:

L-020422-09 (LRS)
22-039-0232 (Waypoint)

Report Date: February 22, 2022

Data Reviewed by:



Sherry McKinney
Assistant Project Manager
Laboratory Resources & Solutions, Inc.
smckinney@lab-resource.com

- This report contains results of analysis conducted by two lab facilities:
  - Laboratory Resources & Solutions, Inc. (LRS)
  - Waypoint Analytical, Inc., 2790 Whitten Road, Memphis, TN 38133. NELAC #460181
- These results relate only to the items tested. This report may only be reproduced in full.
- Local support services for this project are also provided by LRS.
- All questions regarding this report should be directed to LRS, Inc. at (205) 594-1445.

Laboratory Resources and Solutions, Inc.
A Full Service Analytical Laboratory Provider

www.lab-resource.com
PO Box 1260/205 6th Ave
Ashville, Alabama 35953
Telephone: 1-205-594-1445
Fax: 1-205 594-1132

CERTIFICATE OF ANALYSIS

Laboratory Report ID: L-020422-09

Client:	Bond Industries, Inc	**Project ID:**	**Bessie Mine- Locust Fork Red Rock Mthly**
Contact:	Mr. Robert Bond	**Permit ID:**	**AL0003263**
Address:	3700 14th Avenue North Birmingham, AL 35234		
LRS Sample ID:	020422-0910	**Date & Time Collected:**	01/31/22@1300
Client Sample ID:	**Outfall 001-1**	**Date & Time Received:**	02/04/22@1208
		Matrix:	Aqueous

Parameter	Result	Units	MQL	DF	Date/Time Analyzed	Analyst	Method
Total Suspended Solids (TSS)	11	mg/L	2	1	02/07/22@1130	JKL	SM2540D

Method Reference – Standard Methods for the Examination of Water and Wastewater, 23rd Edition

Laboratory Resources and Solutions, Inc.
A Full Service Analytical Laboratory Provider

www.lab-resource.com
PO Box 1260/205 6th Ave
Ashville, Alabama 35953
Telephone: 1-205-594-1445
Fax: 1-205 594-1132

CERTIFICATE OF ANALYSIS

Laboratory Report ID: L-020422-09

Client: Bond Industries, Inc

Contact: Mr. Robert Bond
Address: 3700 14th Avenue North
Birmingham, AL 35234

Project ID:
Bessie Mine- Locust Fork Red Rock Mthly
Permit ID: AL0003263

LRS Sample ID: 020422-0910
Client Sample ID: **Outfall 001-1**

Date & Time Collected: 01/31/22@1300
Date & Time Received: 02/04/22@1208
Matrix: Aqueous

Parameter	Result	Units	MQL	DF	Date/Time Analyzed	Analyst	Method
pH	7.39	S.U	----	----	02/07/22@1215	JKL	SM4500-H+B

Method Reference – Standard Methods for the Examination of Water and Wastewater, 23rd Edition

RPD= Relative Percent Difference, acceptable range: <25%

- LC Control for BOD is Dextrose/d-glutamic acid – Certified @198mg/L (168-228).

Laboratory Resources and Solutions, Inc.
A Full Service Analytical Laboratory Provider

www.lab-resource.com
PO Box 1260/205 6th Ave
Ashville, Alabama 35953
Telephone: 1-205-594-1445
Fax: 1-205 594-1132

QUALITY CONTROL DATA

PROJECT INFORMATION
Bond Industries Inc.-Bessie Mine- Locust Fork Red Rock Mthly
L-020422-09
Total Suspended Solids QC Analytical Batch: R-100082

Lab. Reagent Blank (LRB)

Parameter	LRB Results	Units	MQL	DF	Date/Time Analyzed	Method
Total Suspended Solids (TSS)	<2	mg/L	2	1	02/07/22@1130	SM2540D

Laboratory Control (LC)

Parameter	LC Result	Units	LC Range	LC % Recovered	Date/Time Analyzed	Method
Total Suspended Solids (TSS)	102	mg/L	80-120	102%	02/07/22@1130	SM2540D

Duplicate: 020422-0910R

Parameter	Sample Result	Duplicate Result	Units	RPD	Date/Time Analyzed	Method
Total Suspended Solids (TSS)	11	10	mg/L	9%	02/07/22@1130	SM2540D

Method Reference – Standard Methods for the Examination of Water and Wastewater, 23rd Edition

Laboratory Control – Celite 545 certified at 100mg/L (Acceptable Range = 80-120mg/L)

RPD= Relative Percent Difference, acceptable range: <25%

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

2/22/2022

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Lab Report Number: 22-039-0232
Client Project Description: Bessie Mine - Locust Fork Red Rock
Monthly - Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 2/8/2022 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2022
Arkansas	State Program	88-0650	02/07/2022
California	State Program	2904	06/30/2022
Florida	State Program - NELAP	E871157	06/30/2022
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2022
Illinois	State Program - NELAP	200078	10/10/2022
Kentucky	State Program	80215	06/30/2022
Kentucky	State Program	KY90047	12/31/2022
Louisiana	State Program - NELAP	LA037	12/31/2022
Louisiana	State Program - NELAP	04015	06/30/2022
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2022
Pennsylvania	State Program - NELAP	68-03195	05/31/2022
South Carolina	State Program	84002	06/30/2022
South Carolina	State Program	84002	06/30/2022
Tennessee	State Program	02027	02/11/2023
Texas	State Program - NELAP	T104704180	09/30/2022
Virginia	State Program	00106	06/30/2022
Virginia	State Program - NELAP	460181	09/14/2022

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **22-039-0232**

Client Project Description: **Bessie Mine - Locust Fork Red Rock Monthly - Jefferson County, AL Project #AL0003263**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
88871	Outfall 001-1	Aqueous	01/31/2022 13:00	02/08/2022

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine - Locust Fork Red Rock

Information : Monthly - Jefferson County, AL
Project #AL0003263

Report Date : 02/22/2022
Received : 02/08/2022

Report Number : **22-039-0232**

REPORT OF ANALYSIS

Lab No : **88871**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **1/31/2022 13:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Conductivity	**2330**	µS/cm		0.010	1	02/15/22 16:03	CMF	2510B-2011
Sulfate	**1330**	mg/L		100	100	02/10/22 23:22	JCA	EPA-300.0
Dissolved Iron	<100	µg/L	18.8	100	1	02/14/22 11:32	BKN	EPA-200.8
Manganese	**306**	µg/L	1.00	1.00	1	02/18/22 21:05	BKN	EPA-200.8

Qualifiers/ Definitions DF Dilution Factor MQL Method Quantitation Limit

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **22-039-0232**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T137

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Hannah R. Brown Date & Time: 02/08/2022 16:57:46

Billing Information:

LRS, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445
wgaston@lab-resource.com

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Chain of Custody
Page 1 of 1

Laboratory Resources & Solutions, Inc. (LRS)
A Laboratory Service Provider

Project Name: Bessie Mine - Locust Fork Red Rock Monthly
City/State collected: Jefferson County, Alabama

Collected by: Joshua Cleney
Client Project #: **AL0003263**
P.O. #

Collected by (signature):

Packed on ice? N___ Y___

Project Turnaround (Begins on Lab Login Date)
RUSH? Please Notify LRS
Date Results Needed:
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133
FedEx acct. # 1048-3300-4

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	~~pH SM4500HB~~ (One 500-mL HDPE, non-preserved)	~~TSS SM2540D~~	Sulfate E300.0	Specific Conductance SM2510	**Dissolved Fe E200.8 (One 250-mL HDPE, non-preserved)	Total Mn E200.8 (One 250-mL HDPE, HNO3-preserved)	Sample Remarks
Outfall 001-1	Grab	SW	******	1/31/22	1:00pm	3		X			X	X	pH =
													**Filter, Preserve and Run Dissolved Metals.

pH Meter Number _____ Date
3 pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads _____ @

22-039-0232
19736
02-08-2022
16:57:23
Bond Industries, Inc.
Bessie Mine - Locust Fork Red Rock

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater SW-Surface Water DW-Drinking Water OT- Other (Describe)_____

pH_____ Temp_____

Project Remarks: 1141

Rainfall in Inches _____ Flow_____ Stage_____

Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Samples returned via: FedEx__ UPS__ Other X	Condition (lab use only)
	1/31/22	1:00pm	K Burley	2/3/22	Custody Seals Received on: Cooler(s)/Container(s)
Relinquished by:(Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.3°C T137 dB	Bottles Received:
K Burley	2-7-22	1700			
Relinquished by:(Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 02/08/2022	Time: 1145
					pH Checked: NCF:

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

Billing Information:

LRS, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445
wgaston@lab-resource.com

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine - Locust Fork Red Rock Monthly

City/State collected:
Jefferson County, Alabama

Collected by: Joshua Cleary

Client Project # **AL0003263**

P.O #

Collected by (signature):

Packed on ice? N___ Y___

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Chain of Custody
Page 1 of 1

Laboratory Resources & Solutions, Inc. (LRS)
A Laboratory Service Provider

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133
FedEx acct. # 1048-3300-4

Sample ID	Comp/Grab	Matrix	Depth	Date	Time	Number of Containers	Analysis/Container/Preservative: pH SM4500HB (One 500-mL HDPE, non-preserved)	TSS SM2540D	~~Sulfate E300.0~~	~~Specific Conductance SM2510~~	~~**Dissolved Fe E200.8 (One 250-mL HDPE, non-preserved)~~	~~Total Mn E200.8 (One 250-mL HDPE, HNO3 preserved)~~	Sample Remarks
Outfall 001-1	**Grab**	**SW**	******	1/31/22	1:00pm	3	X				X	X	**pH =**
													****Filter, Preserve and Run Dissolved Metals.**

pH Meter Number _____ Date
3 pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads @

Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater SW-Surface Water DW-Drinking Water OT- Other (Describe)_____

pH_____ Temp_____

Rainfall in Inches _____ Flow_____ Other_____

Project Remarks: 1141

	Date:	Time:		
Relinquished by:(Signature)	1/31/22	1:00pm	Received by:(Signature)	2/3/22
Relinquished by:(Signature)	2-4-22	1208	Received by: (Signature)	
Relinquished by:(Signature)	Date:	Time:	Received for lab by: (Signature)	

Samples returned via: FedEx__ UPS__ Other__

Temp: | Bottles Received:

Date: | Time:

Condition (lab use only)

pH Checked: | NCF:

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

Laboratory Resources and Solutions, Inc.
A Full Service Analytical Laboratory Provider

PO Box 1260 / 205 6th Avenue
Ashville, Alabama 35953
Phone 205-594-1445 / Fax 205-594-1132
www.lab-resource.com

Shipment Receipt Form

Customer Name: Bond Industries Inc

Project Name: Bessie Mine- Locust Fork Red Rock Mthly

LRS Work Order #: L-020422-09 (0910)

Shipment Method

(✓) LRS	FedEx	US Postal
Client D.O.	UPS	Other:

Shipping Container/cooler compromised?	( ) Yes	(✓) No	( ) N/A
Number of Coolers / Boxes received?		Total Container Count? 1	
Custody Seals intact on shipping container/cooler?	( ) Yes	( ) No	(✓) N/A
Custody seals intact on sample bottles?	( ) Yes	( ) No	(✓) N/A
(✓) Cooler / ( ) Sample Temp upon receipt? 5.2°C		Thermometer ID: 70995	
Sample(s) received at 0-6°C (or 0-8°C for BACT)	(✓) Yes	( ) No	( ) N/A
Samples are considered acceptable as cooling process has begun?	(✓) Yes	( ) No	( ) N/A
Chain of Custody (CoC) present?	(✓) Yes	( ) No	
CoC agrees with sample label(s)?	(✓) Yes	( ) No	
Collection times noted?	(✓) Yes	( ) No	
Samples in proper container types?	(✓) Yes	( ) No	
Sample contains proper preservative?	( ) Yes	( ) No	(✓) N/A
Sample containers intact?	(✓) Yes	( ) No	
All samples received within holding time?	(✓) Yes	( ) No	
Requested turn-around time on CoC?	( ) Yes	(✓) No	

Comments:

Signature: Sherry McGinnis

Date/Time of Receipt: 2-4-22 @ 1208

LRS, Inc.

Laboratory Resources & Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, AL 35234

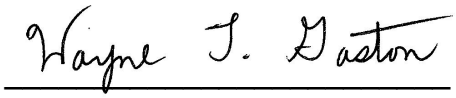
Attention: Mr. Robert Bond

Project ID: **Bessie Mine – Locust Fork Red Rock Monthly**
(February 15, 2022)
Permit # AL0003263, Outfall 001-1

Laboratory Report Number: **22-048-0060**

Report Date: March 3, 2022

Data Reviewed by:



Wayne Gaston
Project Manager
Laboratory Resources & Solutions, Inc.
wgaston@lab-resource.com

- Unless otherwise noted, all analysis on this report performed at Waypoint Analytical, Inc., 2790 Whitten Road, Memphis, TN 38133. NELAC #460181
- These results relate only to the items tested. This report may only be reproduced in full.
- Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc. at (205) 594-1445.

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

2/28/2022

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Lab Report Number: 22-048-0060
Client Project Description: Bessie Mine - Locust Fork Red Rock
Monthly - Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 2/17/2022 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2022
Arkansas	State Program	88-0650	02/07/2022
California	State Program	2904	06/30/2022
Florida	State Program - NELAP	E871157	06/30/2022
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2022
Illinois	State Program - NELAP	200078	10/10/2022
Kentucky	State Program	80215	06/30/2022
Kentucky	State Program	KY90047	12/31/2022
Louisiana	State Program - NELAP	LA037	12/31/2022
Louisiana	State Program - NELAP	04015	06/30/2022
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2022
Pennsylvania	State Program - NELAP	68-03195	05/31/2022
South Carolina	State Program	84002	06/30/2022
South Carolina	State Program	84002	06/30/2022
Tennessee	State Program	02027	02/11/2023
Texas	State Program - NELAP	T104704180	09/30/2022
Virginia	State Program	00106	06/30/2022
Virginia	State Program - NELAP	460181	09/14/2022

Laboratory ID: WP RMS: Waypoint Analytical Mississippi, Inc., Ridgeland, MS

State	Program	Lab ID	Expiration Date
Arkansas	State Program	88-1409	02/01/2022
Kentucky	State Program	KY98013	12/31/2021
Louisiana	State Program - NELAP	04023	06/30/2022
North Carolina	State Program	694	12/31/2021

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **22-048-0060**

Client Project Description: **Bessie Mine - Locust Fork Red Rock Monthly - Jefferson County, AL Project #AL0003263**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
95451	Outfall 001-1	Aqueous	02/15/2022 12:05	02/17/2022		
95451	Outfall 001-1	Aqueous	02/15/2022 12:05	02/17/2022	1631E	WP RMS

WP RMS - Ridgeland, MS: Waypoint Analytical - MS, Ridgeland, MS

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine - Locust Fork Red Rock

Information : Monthly - Jefferson County, AL
Project #AL0003263

Report Date : 02/28/2022
Received : 02/17/2022

Report Number : **22-048-0060**

REPORT OF ANALYSIS

Lab No : **95451**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **2/15/2022 12:05**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Mercury	<0.500	ng/L		0.500	1	02/22/22 18:38	BTH	1631E
Conductivity	**2480**	µS/cm		0.010	1	02/24/22 14:49	CMF	2510B-2011
pH	**7.3**	s.u.			1	02/21/22 14:30	EMP	4500H+B-2011
Total Suspended Solids	<2	mg/L		2	1	02/17/22 16:37	ADM	2540D-2015
Sulfate	**1090**	mg/L		100	100	02/17/22 23:36	JCA	EPA-300.0
Dissolved Cadmium	<0.135	µg/L	0.135	0.200	1	02/25/22 11:36	BKN	EPA-200.8
Dissolved Copper	<1.00	µg/L	1.00	1.00	1	02/25/22 11:36	BKN	EPA-200.8
Dissolved Iron	<37.6	µg/L	37.6	200	1	02/25/22 11:36	BKN	EPA-200.8
Manganese	**199**	µg/L	2.00	2.00	1	02/23/22 14:07	BKN	EPA-200.8
Dissolved Nickel	**10.5**	µg/L	0.364	1.00	1	02/25/22 11:36	BKN	EPA-200.8
Selenium	**4.28**	µg/L	1.18	2.00	1	02/23/22 14:07	BKN	EPA-200.8
Dissolved Thallium	**0.215 J**	µg/L	0.116	0.400	1	02/25/22 11:36	BKN	EPA-200.8
Dissolved Zinc	**57.2**	µg/L	10.0	40.0	1	02/25/22 11:36	BKN	EPA-200.8

Qualifiers/ Definitions

DF Dilution Factor
MQL Method Quantitation Limit
J Estimated value

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **22-048-0060**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T99

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Summer Harrison Date & Time: 02/17/2022 11:22:00

Billing Information:

LRS, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445
wgaston@lab-resource.com

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Chain of Custody
Page 1 of 1

Laboratory Resources & Solutions, Inc. (LRS)
A Laboratory Service Provider

Project Name: Bessie Mine - Locust Fork Red Rock Monthly

City/State collected: Jefferson County, Alabama

Collected by: Justin Clenney

Client Project #: **AL0003263**

P.O. #

Collected by (signature):

Packed on Ice? N____ Y____

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133
FedEx acct. # 1048-3300-4

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	pH SM4500HB (One 1-liter HDPE, non-preserved)	TSS SM2540D	Sulfate E300.0	Specific Conductance SM2510	**Dissolved Cd, Cu, Fe, Ni, Tl, Zn E200.8 (One 250-mL HDPE, non-pres.)	Total Mn, Se E200.8 (One 250-mL HDPE, HNO3-pres.)	Low-level Hg EPA1631 (One 250-mL amber glass, non-pres				Sample Remarks
Outfall 001-1	Grab	SW	******	2/15/22	12:05pm	4		X			X	X	X				pH =
																	**Filter, Preserve and Run Dissolved Metals.

Custody Seals received on:
Cooler(s)/Container(s)

22-048-0060
19736
02-17-2022
11:21:20
Bond Industries, Inc.
Bessie Mine - Locust Fork Red Rock

pH Meter Number _____ Date
3 pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads @

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater SW-Surface Water DW-Drinking Water OT- Other (Describe)_____ pH_____ Temp_____

Project Remarks: 2-16-22 Rainfall in Inches _____ Flow_____ Other_____

Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Samples returned via: FedEx__ UPS__Other 7	Condition	(lab use only)
	2/15/22	12:05pm	1323			
Relinquished by:(Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.0+99 SCH	Bottles Received:	
	2-16-22	1700	Summer Henson			
Relinquished by:(Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 2/17/22	Time: 10:45	pH Checked: NCF:

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

LRS, Inc.

Laboratory Resources & Solutions, Inc.
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, Alabama 35234

Attention: **Mr. Robert Bond**
Project #: AL0003263

Project ID: **Bessie Mine – Locust Fork Red Rock Monthly**
(February 25, 2022)

Laboratory Report Number: **22-060-9041**

Report Date: March 14, 2021

Data Review by:

J. Brett Wilson

Brett Wilson
Project Manager
Laboratory Resources & Solutions, Inc.
bwilson@lab-resource.com

* Unless otherwise noted, all analysis on this report performed at Waypoint Analytical, Inc. 2790 Whitten Road Memphis, TN 38133. NELAC #460181

* These results relate only to the items tested. This report may only be reproduced in full.

* Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc. at (205) 594-1445

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

3/14/2022

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Revised Lab Report Number: 22-060-9041 (Original Report 22-060-0041)
Client Project Description: Bessie Mine - Locust Fork Red Rock
Monthly - Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 3/1/2022 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2023
Arkansas	State Program	88-0650	02/07/2023
California	State Program	2904	06/30/2022
Florida	State Program - NELAP	E871157	06/30/2022
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2022
Illinois	State Program - NELAP	200078	10/10/2022
Kentucky	State Program	80215	06/30/2022
Kentucky	State Program	KY90047	12/31/2022
Louisiana	State Program - NELAP	LA037	12/31/2022
Louisiana	State Program - NELAP	04015	06/30/2022
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2022
Pennsylvania	State Program - NELAP	68-03195	05/31/2022
South Carolina	State Program	84002	06/30/2022
South Carolina	State Program	84002	06/30/2022
Tennessee	State Program	02027	02/11/2023
Texas	State Program - NELAP	T104704180	09/30/2022
Virginia	State Program	00106	06/30/2022
Virginia	State Program - NELAP	460181	09/14/2022

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **22-060-9041**

Client Project Description: **Bessie Mine - Locust Fork Red Rock Monthly - Jefferson County, AL Project #AL0003263**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
99197	Outfall 001-1	Aqueous	02/25/2022 11:45	03/01/2022

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine - Locust Fork Red Rock
Information : Monthly - Jefferson County, AL
Project #AL0003263

Original Report Date : 03/11/2022
Revised Report Date: 03/14/2022
Received : 03/01/2022

Report Number : **22-060-9041**

REPORT OF ANALYSIS

Lab No : **99197**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **2/25/2022 11:45**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Conductivity	**2100**	µS/cm		0.010	1	03/08/22 11:29	CMF	2510B-2011
pH	**6.9**	s.u.			1	03/11/22 10:44	HRB	4500H+B-2011
Total Suspended Solids	<2	mg/L		2	1	03/04/22 16:44	ADM	2540D-2015
Sulfate	**1400**	mg/L		100	100	03/04/22 20:13	JCA	EPA-300.0
Dissolved Iron	<37.6	µg/L	37.6	200	1	03/09/22 12:48	FDS	EPA-200.8
Manganese	**208**	µg/L	2.00	2.00	1	03/09/22 13:05	FDS	EPA-200.8

Qualifiers/ Definitions DF Dilution Factor MQL Method Quantitation Limit

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **22-060-0041**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T99

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Summer Harrison Date & Time: 03/01/2022 11:08:46

Billing Information:

LRS, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445
wgaston@lab-resource.com

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine - Locust Fork Red Rock Monthly

City/State collected: Jefferson County, Alabama

Collected by: RON STONE

Client Project #: **AL0003263**

P.O. #

Collected by (signature): RS

Packed on Ice? N____ Y____

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Chain of Custody
Page 1 of 1

Laboratory Resources & Solutions, Inc. (LRS)
A Laboratory Service Provider

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133
FedEx acct. # 1048-3300-4

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	pH SM4500HB (One 500-mL HDPE, non-preserved)	TSS SM2540D	Sulfate E300.0	Specific Conductance SM2510	**Dissolved Fe E200.8 (One 250-mL HDPE, non-preserved)	Total Mn E200.8 (One 250-mL HDPE, HNO3-preserved)	Sample Remarks
Outfall 001-1	Grab	SW	******	2-25	11:45	3			X		X	X	pH =
													**Filter, Preserve and Run Dissolved Metals.

Custody Seals received on:
Cooler(s)/Container(s)

22-060-0041
19736
03-01-2022
11:06:32
Bond Industries, Inc.
Bessie Mine - Locust Fork Red Rock

pH Meter Number _____ Date
3 pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads @

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater SW-Surface Water DW-Drinking Water OT- Other (Describe)_____ pH_____ Temp_____

Project Remarks: Rainfall in Inches _____ Flow_____ Other_____

Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Samples returned via: FedEx__ UPS__Other X	Condition	(lab use only)
R. Burley	2-28-22	1119	R. Burley			
Relinquished by:(Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.8 T99 8tl	Bottles Received:	
R. Burley	2/28/22	1700				
Relinquished by:(Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3/1/22	Time: 10:30	pH Checked: NCF:
			Summer Jamison			

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

LRS, Inc.

Laboratory Resources & Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, AL 35234

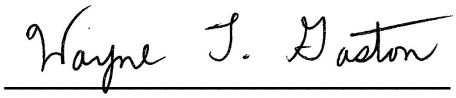
Attention: Mr. Robert Bond

Project ID: **Bessie Mine – Locust Fork Red Rock Monthly**
(March 16, 2022)
Permit # AL0003263, Outfall 001-1

Laboratory Report Number: **22-076-9180**

Report Date: March 31, 2022

Data Reviewed by:



Wayne Gaston
Project Manager
Laboratory Resources & Solutions, Inc.
wgaston@lab-resource.com

- Unless otherwise noted, all analysis on this report performed at Waypoint Analytical, Inc., 2790 Whitten Road, Memphis, TN 38133. NELAC #460181
- These results relate only to the items tested. This report may only be reproduced in full.
- Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc. at (205) 594-1445.

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

3/29/2022

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Revised Lab Report Number: 22-076-9180 (Original Report 22-076-0180)
Client Project Description: Bessie Mine - Locust Fork Red Rock
Monthly - Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 3/17/2022 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2023
Arkansas	State Program	88-0650	02/07/2023
California	State Program	2904	06/30/2022
Florida	State Program - NELAP	E871157	06/30/2022
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2022
Illinois	State Program - NELAP	200078	10/10/2022
Kentucky	State Program	80215	06/30/2022
Kentucky	State Program	KY90047	12/31/2022
Louisiana	State Program - NELAP	LA037	12/31/2022
Louisiana	State Program - NELAP	04015	06/30/2022
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2022
Pennsylvania	State Program - NELAP	68-03195	05/31/2022
South Carolina	State Program	84002	06/30/2022
South Carolina	State Program	84002	06/30/2022
Tennessee	State Program	02027	02/11/2023
Texas	State Program - NELAP	T104704180	09/30/2022
Virginia	State Program	00106	06/30/2022
Virginia	State Program - NELAP	460181	09/14/2022

Laboratory ID: WP RMS: Waypoint Analytical Mississippi, Inc., Ridgeland, MS

State	Program	Lab ID	Expiration Date
Arkansas	State Program	88-1409	02/01/2022
Kentucky	State Program	KY98013	12/31/2021
Louisiana	State Program - NELAP	04023	06/30/2022
North Carolina	State Program	694	12/31/2021

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **22-076-9180**

Client Project Description: **Bessie Mine - Locust Fork Red Rock Monthly - Jefferson County, AL Project #AL0003263**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
92310	Outfall 001-1	Aqueous	03/16/2022 09:00	03/17/2022		
92310	Outfall 001-1	Aqueous	03/16/2022 09:00	03/17/2022	1631E	WP RMS

WP RMS - Ridgeland, MS: Waypoint Analytical - MS, Ridgeland, MS

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Client: Bond Industries, Inc. **CASE NARRATIVE**
Project: Bessie Mine - Locust Fork Red Rock
Lab Report Number: 22-076-9180
Date: 3/29/2022

Metals Analyses Method EPA-200.8
Sample 92310 (Outfall 001-1)
QC Batch No: L607139/L605824/L605822
Based on sample screening, a dilution was performed due to high levels of target and/or non-target analytes. Reporting limits have been adjusted accordingly.

Sample 92310 (Outfall 001-1)
Analyte: Thallium
QC Batch No: L606904/L605824/L605822
Target analyte(s) was identified in the method blank associated with this project, below the Method Quantitation Limit. Per laboratory protocol any associated affected sample result is flagged "B" to indicate that it was detected in the method blank.

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine - Locust Fork Red Rock
Information : Monthly - Jefferson County, AL
Project #AL0003263

Original Report Date : 03/25/2022
Revised Report Date : 03/29/2022
Received : 03/17/2022

Report Number : **22-076-9180**

REPORT OF ANALYSIS

Lab No : **92310**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **3/16/2022 9:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Mercury	**0.932**	ng/L		0.500	1	03/22/22 20:52	BTH	1631E
Conductivity	**2460**	µS/cm		0.010	1	03/23/22 15:23	CMF	2510B-2011
pH	**6.6**	s.u.			1	03/17/22 16:35	SH2	4500H+B-2011
Total Suspended Solids	**3**	mg/L		2	1	03/18/22 16:43	ADM	2540D-2015
Sulfate	**1460**	mg/L		100	100	03/18/22 16:39	JCA	EPA-300.0
Dissolved Cadmium	**0.148 J**	µg/L	0.135	0.200	1	03/24/22 14:14	FDS	EPA-200.8
Dissolved Copper	<1.00	µg/L	1.00	1.00	1	03/24/22 14:14	FDS	EPA-200.8
Dissolved Iron	<37.6	µg/L	37.6	200	1	03/24/22 14:14	FDS	EPA-200.8
Manganese	**1570**	µg/L	20.0	20.0	10	03/24/22 19:41	FDS	EPA-200.8
Dissolved Nickel	**24.3**	µg/L	0.364	1.00	1	03/24/22 14:14	FDS	EPA-200.8
Selenium	**5.24**	µg/L	0.591	1	1	03/29/22 11:55	BKN	EPA-200.8
Dissolved Thallium	**0.206 JB**	µg/L	0.116	0.400	1	03/24/22 14:14	FDS	EPA-200.8
Dissolved Zinc	**54.6**	µg/L	10.0	40.0	1	03/24/22 14:14	FDS	EPA-200.8

Qualifiers/ Definitions

B	Analyte detected in blank	DF	Dilution Factor
J	Estimated value	MQL	Method Quantitation Limit

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **22-076-0180**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T137

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Hannah R. Brown Date & Time: 03/17/2022 15:30:48

Billing Information:

LRS, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445
wgaston@lab-resource.com

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine - Locust Fork Red Rock Monthly

City/State collected: Jefferson County, Alabama

Collected by: Steve Stone

Client Project #: **AL0003263**

P.O. #

Collected by (signature):

Packed on Ice? N___ Y___

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Chain of Custody
Page 1 of 1

Laboratory Resources & Solutions, Inc. (LRS)
A Laboratory Service Provider

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133
FedEx acct. # 1048-3300-4

Bond Industries, Inc.
Bessie Mine - Locust Fork Red Rock

22-076-0180
19736
03-17-2022
15:30:12

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	pH SM4500HB (One 1-liter HDPE, non-preserved)	TSS SM2540D	Sulfate E300.0	Specific Conductance SM2510	**Dissolved Cd, Cu, Fe, Ni, Tl, Zn E200.8 (One 250-mL HDPE, non-pres.)	Total Mn, Se E200.8 (One 250-mL HDPE, HNO3-pres.)	Low-level Hg EPA1631 (One 250-mL amber glass, non-pres				
Outfall 001-1	Grab	SW	******	3/16/22	9:00	4		X			X	X	X				

Analysis/Container/Preservative

Sample Remarks

pH =

****Filter, Preserve and Run Dissolved Metals.**

pH Meter Number _____ Date
3 pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads @

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater SW-Surface Water DW-Drinking Water OT- Other (Describe)_____

pH_____ Temp_____

Project Remarks:

Rainfall in Inches _____ Flow_____ Other_____

Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Samples returned via: FedEx__ UPS__Other X	Condition (lab use only)
	3-16-22	1253	K. Burley		Custody Seals received on:
Relinquished by:(Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.4°C T737 HB3	Bottles Received:
K. Burley	3-16-22	1700			
Relinquished by:(Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 03/17/2022	Time: 1040
					pH Checked: NCF: Cooler(s)/Container(s)

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

LRS, Inc.

Laboratory Resources & Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, AL 35234

Attention: Mr. Robert Bond

Project ID: **Bessie Mine – Locust Fork Red Rock** (March 16, 2022)
Permit # AL0003263
Quarterly Acute Toxicity Analysis – DSN001-1

Date: April 15, 2022

Data Reviewed by:

Wayne T. Gaston

Wayne Gaston
Project Manager
Laboratory Resources & Solutions, Inc. (LRS)
wgaston@lab-resource.com

* Unless otherwise noted, all analyses on this report performed at Environmental Resource Analysts, Inc., 2975 Brown Court, Auburn, AL 36830.

* These results relate only to the items tested. This report may only be reproduced in full.

* Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc.

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
TOXICITY TEST REPORT SUMMARY

1. GENERAL:

NPDES PERMIT NO.: AL0003263 DSN: 001-1 COUNTY: Jefferson

Permittee: Bond Industries

Facility Name: Bessie Mine and Locust Fork Red Rock

Agent Submitting Report: Mr. Robert Bond

Lab Conducting Toxicity Test(s): ERA, 2975 Brown Ct., Auburn, AL 36830
Months To Test:
This Report for Toxicity Test(s) Required for the Month of: March
Scheduled Test(s): Yes X No _____ Accelerated Test(s): Yes _____ No X
Accelerated Test Number ___ of ___ For Failed Scheduled Test Date:
Test Type Required: 48 -Hr Acute Screening: X ____-Hr Acute Definitive:
Short-term Chronic Screening: ____ Short-term Chronic Definitive:

	Test Organism: Ceriodaphnia dubia			Test Organism: Pimephales promelas		
Sam No.	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid
1	3/17/22 12:30	3/19/22 12:50	Yes	3/17/22 12:15	3/19/22 12:30	Yes

2.A. SUMMARY OF RESULTS FOR SCREENING TESTS:

		Test Number											
Test	Eff.	(1)			(2)			(3)			(4)		
Org.	Conc	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow
P.p.	100%	PASS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C.d.	100%	PASS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

3. LABORATORY ANALYSES OF UNDILUTED SAMPLES(S):

SAMPLE Id.	BOD5 mg/l	TSS mg/l	NH3 mg/l	pH su	Alk mg/l	Hard mg/l	TRC mg/l	Conductivity uS
1	N/A	N/A	<0.200	7.1	65	1250	N/A	2290

Chemical Analyses Performed By (Lab): ERA
Total 24-hour Flow: (1) _____ MGD

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF RESPONSIBLE OFFICIAL: _____ DATE:

FACILITY NAME: Bessie Mine NPDES #: AL0003263 DSN: 001 DATE: 3/17/22

4. SAMPLE COLLECTION:

Split Samples: N/A X Yes ___ (Explain) _____

Samples Collected as Specified in the NPDES Permit: Yes X No (Explain)

Receiving Water: Unnamed Tributary to Locust Fork

Design Flow: _____ (MGD)

Sample Id.	Sample(s) Collected MM/DD/YY HHMM - MM/DD/YY HHMM	Arrival Temp.°C.	Used in Test(s) MM/DD/YY - MM/DD/YY
1	03/16/22 0900	2.2	03/17/22 - 03/19/22

5. CONTROL/DILUTION WATER:

Type	Prepared MM/DD/YY	Begin Use MM/DD/YY	Initial Water Chemistries			
			Hard.	Alk.	pH	Cond. @ °C.
MHRW	3/16/22	3/17/22	96	61	8.0	316 @ 25

6. TOXICITY TEST INFORMATION:

Test Species	Organism Age	Organism Source	Test Solution Concentrations (%)					
P.p.	72- 74 hr	Aquatic Bioassay Supply	100%					
C.d.	0- 20 hr.	ERA	100%					

Test Species	Test Vessel Type	Vessel Vol.(mL)	Solution Vol.(mL)	Org./Test Vessel	Replicates Per Conc.
P.p.	plastic beaker	500	250	10	4
C.d.	plastic beaker	25	20	5	4

Test Species	Temp. Range (°C.)	D.O. Range (mg/L)	pH Range (su)	Light Intensity Average (ft.-c.)
P.p.	25.1 - 25.9	7.7 - 8.4	7.1 - 7.8	75
C.d.	24.1 - 25.4	8.2 - 8.9	6.6 - 7.6	75

7. FEEDING:

Not Fed: X Fed Daily: ___ Fed Irregular: ___ (Explain in Comments Below)

Brine Shrimp: Fed ____ mL Suspension of Newly Hatched Larvae ___ Times Daily.

YCT: Fed ____ mL Suspension Containing _____ g/L TS Daily.

Algae: Fed ____ mL Suspension Containing _____ Algal Cells/mL Daily.

COMMENTS:

FACILITY NAME: Bessie Mine NPDES #: AL0003263 DSN:001 DATE: 3/17/21

8. REFERENCE TOXICANT TESTS:

TOXICANT: C.d.: NaCl; P.p.: KCl SOURCE: Fisher Scientific

Solution Concentration Unit: mg/l ____ g/L X % ___ Other(specify)

Acute:

Test Org.	Test Date MM/DD - MM/DD	Control Water	Reference Test Solution Concentrations (Control to Highest Conc.)						
P.p.	3/02/22- 3/04/22	MHRW	0	0.25	0.50	0.75	1.0	2.0	
C.d.	3/02/22- 3/04/22	MHRW	0	1.25	1.50	1.75	2.00	2.25	

Test Org.	Results and 95% Confidence Interval	This Test Upper and Lower CUSUM Chart Control Limit	NUMBER (N)
P.p.	0.958 0.828- 1.108	0.849- 1.139	20
C.d.	2.26 2.07 - 2.46	1.77 - 2.59	20

Raw Data on File With ADEM Toxics Unit

9. TEST CONDITION VARIABILITY:

9.A. Deviations From Standard Test Conditions:

None

9.B. Test Solution Manipulations or Test Modifications:

None

10. REQUIRED REPORT ATTACHMENTS:

Attach Copies Of Chain-of-Custody Forms, Reference Toxicant Tests, And Raw Data (Bench Sheets) Pertaining To Physical, Chemical, And Biological Measurements For All Tests. Include Suspended, Interrupted, or Discontinued Toxicity Tests Data.

FACILITY NAME: Bessie Mine NPDES #: AL0003263 DSN: 001 DATE: 3/17/22

11.A ACUTE SCREENING TOXICITY TESTS RESULTS:

TEST ORGANISM: Ceriodaphnia dubia
SAMPLE #: 1
ACUTE TOXICITY INDICATED: YES ___ NO X

SOLUTION CONC.(%)	Control	100%	
SURVIVAL (%)	100	90	

NO MORTALITY STATISTICAL ANALYSIS NECESSARY:
Normally Distributed: Yes X No
Test Statistic: 0.849 Critical Value: 0.749 (Parametric)
Equal Variance: ___ Unequal Variance: **No Variance in Control**
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: 14 #Reps.: 4 Critical Rank Sum: 11 (Non-Parametric)

TEST ORGANISM: Pimephales promelas
SAMPLE #: 1
ACUTE TOXICITY INDICATED: YES ___ NO X

SOLUTION CONC.(%)	Control	100%	
SURVIVAL (%)	95	93	

NO MORTALITY STATISTICAL ANALYSIS NECESSARY:
Normally Distributed: Yes _____ No X
Test Statistic: 0.659 Critical Value: 0.749 (Parametric)
Equal Variance: X Unequal Variance:
F Statistic: 1.90 Critical F: 47.5
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: 17.5 #Reps.: 4 Critical Rank Sum: 11 (Non-Parametric)

Billing Information:

LRS, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445
wgaston@lab-resource.com

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234
702-0322

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine - Locust Fork Red Rock
City/State collected: Jefferson County, Alabama

Collected by: Steve Stone
Client Project #: **AL0003263**
P.O. #

Collected by (signature):
Packed on Ice? N____ Y____

Project Turnaround (Begins on Lab Login Date)
RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)
Date Results Needed:

Chain of Custody
Page 1 of 1

Laboratory Resources & Solutions, Inc. (LRS)
A Laboratory Service Provider

Laboratory:
Environmental Resource Analysts, Inc. (ERA)
2795 Brown Court
Auburn, AL 36830

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	Acute Toxicity, Ceriodaphnia E2002.0 (Two 1-gallon HDPE, non-pres	Acute Toxicity, Pimephales E2000.0	Analysis/Container/Preservative	Sample Remarks
Outfall 001-1	Grab	SW	******	3/16/22	9:00	2	X	X	PZHB5	pH = 302707

pH Meter Number _____ Date
3 pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads @

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater SW-Surface Water DW-Drinking Water OT- Other (Describe)_____ pH_____ Temp_____

Project Remarks: **Analyze for acute toxicity on an undiluted basis.** Rainfall in Inches _____ Flow_____ Other_____

Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Samples returned via: FedEx__ UPS__Other__	Condition (lab use only)
	3-16-22	1253	K. Bullock		
Relinquished by:(Signature)	Date:	Time:	Received by: (Signature)	Temp: / Bottles Received:	
K. Bullock	3/17/22	1117			
Relinquished by:(Signature)	Date:	Time:	Received for lab by: (Signature)	Date: / Time:	pH Checked: / NCF:
			D. Thomas	031722 / 1117	

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

2.2 & 11:25

ERA LAB

Client Bond Industries Sample # 302707

ERA Cooler Receipt Form

1. Condition of Cooler Upon Unpacking

A. Date & Time of Cooler Unpacking 3.17.22 1125 Receiving Analyst: BS/PL

B. Method of Delivery:

☐ Fed Ex ☐ UPS ☐ USPS ☐ ERA Driver ☑ Client Drop Off (LRS) ☐ Other _____

Tracking Number _____

C. Condition of Custody Seal upon arrival: ☑ Absent ☐ Present & Broken by ERA Driver ☐ Present & sealed ☐ Present & broken

2. Condition of Cooler Contents

A. Chain Of Custody Information: ☑ Completed ☐ Incomplete, _____

B. Cooling Process ☑ Solid Ice ☐ Ice pack ☐ Dry Ice ☐ None ☐ Other

C. Broken Bottles? ☑ No ☐ Yes If yes, which? _____

D. Temperature °C 2.2 Thermometer ID: Ambers

Reason for incorrect temp: (>6.0°C) ☐ Frozen ☐ Beginning of Cooling process ☐ Ice melted ☐ Other _____

3. Sample Information and Verification

A. Sample Numbers match Chain of Custody? ☑ Yes ☐ No, _____

Correct bottle types used for each sample? ☑ Yes ☐ No, _____

All samples arrived within holding time? ☑ Yes ☐ No, _____

Sufficient volume in each bottle for tests? ☑ Yes ☐ No, _____

B. All samples were verified & marked on the Chain of Custody? ☑ Yes ☐ No, _____

C. Samples with preservative have been checked and are in the correct pH range? ☐ Yes, no preservatives needed ☐ No, see preservative info ☑ Not applicable

pH Strip Lot #: _____

Additional Preservative information

1 Preservative Type: _____
2 Preservative Lot # _____
3 Preservative Type: _____
4 Preservative Lot # _____

D. Hexane Lot for O&G _____ ☑ N/A

E. Trip Blanks ☐ Absent ☐ Present ☑ N/A

4. Comments and Resolutions

If any non-compliance was noted (temp out of range, holding time exceedance), contact the client to inform them and document here. Note how client was contacted (email/phone) when/who contacted and result of communication:

A

How was client contacted: Email Phone Who contacted? Date/Time of contact:

Result of communication:

5. Analyst Conformation

The information regarding cooler, chain of custody, and sample receipt is correct and verified by the analyst. If conditions are not met the appropriate actions were taken by the receiving analyst and/or the lab manager.

Primary Reviewer: BS Secondary Reviewer: PL

SOP 609

48 HOUR CERIODAPHNIA TOXICITY TEST

EPA Method 2002.0

Client: Bond Industries- Bessie Mine

Test #:	245 -10	**Randomization Board :**	031422SKC	**Age of Test Organisms (Hrs):**	0-20
Sample #:	302707-01B	**pH Meter/Probe:**	AB15-3/29;YSI 6/30;YSI 9/38	**Date/Time Orgainisms were fed:**	3/17/2022 9:29
Test Start Date/Time:	3/17/22 12:30	**DO Meter/Probe:**	YSI 2/2;YSI 6/5;YSI 9/6	**Water Table ID:**	2
Test End Date/Time:	3/19/22 12:50	**Thermometer ID:**	Indiana/#2	**Section:**	3
Sample Collection Date:	3/16/2022	**Photoperiod:**	16 Hrs Light/ 8 Hrs Dark	**MHRW Lot #:**	5234
		Water Volume :	20 mLs		

CONTROL					% Dilution:		100	Sample:	EFF
		Start	24 Hr	48 Hr			Start	24 Hr	48 Hr
Replicate Number	1	5	5	5	Replicate Number	1	5	4	4
	2	5	5	5		2	5	5	5
	3	5	5	5		3	5	5	4
	4	5	5	5		4	5	5	5
Total		20	20	20	Total		20	19	18
pH		7.5	7.6	7.5	pH		6.6	7.6	7.5
DO (mg/L)		8.9	8.9	8.7	DO (mg/L)		8.2	8.5	8.8
Temp (°C)		25.4	24.1	24.8	Temp (°C)		24.3	24.2	24.8
Date/Time		3/17/22 12:30	3/18/22 12:10	3/19/22 12:50	Date/Time		3/17/22 12:30	3/18/22 12:10	3/19/22 12:50
Initials		VW	KW	AS	Initials		VW	KW	AS
Obs		N	N	N	Obs		N	N	N

Comments:

Observation Key

N = Normal	PM = Particulate Matter	DS=Daphnia stuck to side of cup	N/A = Not Applicable
ON = On Bottom	ERR= Erratic Swimming	CL = Clear/Colorless	End= End of Brood
OS = On Surface	UM = Undissolved Material	F = Film	M= Male
LETH= Lethargic	PRE = Precipitate	CLDY = Cloudy	F = Female
SM= Small	FC = Flared Carapace	CO = Caught ON	

Environmental Resource Analysts, Inc.
2975 Brown Ct.
Auburn, AL 36830
(334) 502-3444

Q/A Rev'd By

Ceriodaphnia Survival and Reproduction Test-48 Hr Survival

Start Date:	3/17/2022	Test ID:	245-10c	Sample ID:	EFF
End Date:		Lab ID:	ERA	Sample Type:	EFF1-POTW
Sample Date:		Protocol:	EPAF 94-EPA/600/4-91/002	Test Species:	CD-Ceriodaphnia dubia
Comments:					

Conc-%	1	2	3	4
Control	1.0000	1.0000	1.0000	1.0000
Eff	0.8000	1.0000	0.8000	1.0000

			Transform: Arcsin Square Root					Rank	1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical	
Control	1.0000	1.0000	1.3453	1.3453	1.3453	0.000	4			
Eff	0.9000	0.9000	1.2262	1.1071	1.3453	11.212	4	14.00	11.00	0.13358

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.84935	0.749	2.7E-15	-0.7
Equality of variance cannot be confirmed				
Hypothesis Test (1-tail, 0.05)				
Wilcoxon Two-Sample Test indicates no significant differences				
Treatments vs Control				

SOP 610

48 HOUR FATHEAD MINNOW TEST

EPA Method 2000.0

Client: Bond Industries- Bessie Mine

Test #:	245 -10	**Randomization Board :**	031422SKC	**Age of Test Organisms (Hrs):**	72-74
Sample #:	302707-01B	**pH Meter/Probe:**	AB15-3/29;YSI 6/30;YSI 9/38	**Date/Time Orgainisms were fed:**	3/17/2022 8:30
Test Start Date/Time:	3/17/22 12:15	**DO Meter/Probe:**	YSI 2/2;YSI 6/5;YSI 9/6	**Water Table ID:**	2
Test End Date/Time:	3/19/22 12:30	**Thermometer ID:**	Indiana/#2	**Section:**	4
Sample Collection Date:	3/16/2022	**Photoperiod:**	16 Hrs Light/ 8 Hrs Dark	**MHRW Lot #:**	5243
		Water Volume :	20 mLs		

CONTROL		Start	24 Hr	48 Hr
Replicate Number	1	10	10	10
	2	10	10	10
	3	10	10	10
	4	10	9	8
Total		40	39	38
pH		7.5	7.7	7.7
DO (mg/L)		7.9	7.9	8.3
Temp (°C)		25.3	25.9	25.6
Date/Time		3/17/22 12:15	3/18/22 11:55	3/19/22 12:30
Initials		AS	KW	AS
Obs		N	N	N

% Dilution: 100		Start	24 Hr	Sample: EFF 48 Hr
Replicate Number	1	10	10	10
	2	10	10	10
	3	10	9	7
	4	10	10	10
Total		40	39	37
pH		7.1	7.7	7.8
DO (mg/L)		8.1	7.7	8.4
Temp (°C)		25.1	25.5	25.3
Date/Time		3/17/22 12:15	3/18/22 11:55	3/19/22 12:30
Initials		AS	KW	AS
Obs		N	N	N

Comments:

Observation Key

1 = Living	OS = On Surface	PRE = Precipitate	CLDY = Cloudy	CL = Clear/Colorless
0 = Dead	LETH= Lethargic	FC = Flared Carapace	F = Film	ERR = Erratic Swimming
N = Normal	ON = On Bottom	N/A = Not Applicable	UM = Undissolved Material	CO = Caught On
			SM= Small	FE= Fish Escaped from cup

Environmental Resource Analysts, Inc.
2975 Brown Ct.
Auburn, AL 36830
(334) 502-3444

Q/A Rev'd By

Larval Fish Growth and Survival Test-48 Hr Survival

Start Date:	3/17/2022	Test ID:	245-10fh	Sample ID:	EFF
End Date:		Lab ID:	ERA	Sample Type:	EFF1-POTW
Sample Date:		Protocol:	EPAF 94-EPA/600/4-91/002	Test Species:	PP-Pimephales promelas
Comments:					

Conc-%	1	2	3	4
Control	0.8000	1.0000	1.0000	1.0000
Eff	1.0000	1.0000	0.7000	1.0000

			Transform: Arcsin Square Root					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
Control	0.9500	1.0000	1.3358	1.1071	1.4120	11.411	4		
Eff	0.9250	0.9737	1.3068	0.9912	1.4120	16.103	4	17.50	11.00

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.65916	0.749	-1.493	0.47605
F-Test indicates equal variances (p = 0.61)	1.90569	47.4672		
Hypothesis Test (1-tail, 0.05)				
Wilcoxon Two-Sample Test indicates no significant differences				
Treatments vs Control				

Toxicity Benchsheet

Client# - Client: 245- Bond Industries Bessie Mine

Sample	Sample #	Collection Date/Time	pH 100%/ Temperature(°C)	TRC mg/L	Analysis Date/Time/ Analyst	pH Meter/Probe	TRC Meter
#1	302707-01B	3/16/22 9:00	7.1/ 24.5	N/A	3/17/22 12:15 AS	YSI 6/30	N/A
#2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
#3	N/A	N/A	N/A	N/A	N/A	N/A	N/A

TRC Meter Calibration Date:	N/A	**Powder Pillow Lot:**	N/A	**Powder Pillow Manufacturer:**	HACH
Powder Pillow Reaction	3 minutes	**Timer ID:**	N/A		
TRC Meter Calibration Date:		**Powder Pillow Lot:**		**Powder Pillow Manufacturer:**	HACH
Powder Pillow Reaction	3 minutes	**Timer ID:**			
TRC Meter Calibration Date:		**Powder Pillow Lot:**		**Powder Pillow Manufacturer:**	HACH
Powder Pillow Reaction	3 minutes	**Timer ID:**			

Q/A Rev'd By 

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

ERA LAB

Results of Analysis For: Bond Industries
3700 14th Avenue North
Birmingham, AL 35234

Project: 702-0322
Date Received: 3/17/2022

Sample Number: 302707-01 Date Collected: 03/16/2022 9:00
Sample Type: Composite Location: Bessie Mine OF001-1

Test	Result	Units	MDL	PQL	Method	Date / Time	Analyst	Qualifier
Alkalinity to pH 4.5	65.0	mg/L CaCO3	20	20	SM 2320B-2011	03/21/22 16:12	DS	*
Ammonia	<0.200	mg N/L	0.2	0.2	EPA 350.1	03/17/22 15:01	TE	*
Conductivity	2,290	µmhos/cm at 25°C	10	147	EPA 120.1	03/21/22 18:40	DS	*
Hardness	1,250	mg CaCO3/L	5	5	SM 2340C-2011	03/21/22 14:26	DS	*

MDL: Method Detection Limit
PQL: Practical Quantitation Limit

This report was reviewed for completeness and approved.
Date Complete: 03/22/2022

Dyana Hughes

Dyana Hughes, Reporting Manager

All data on this report is in compliance with the reported method unless otherwise noted.

Erin Consuegra

Erin Consuegra, Technical Manager

LRS, Inc.

Laboratory Resources & Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, AL 35234

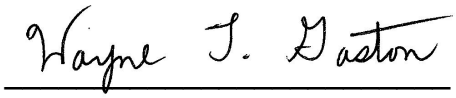
Attention: Mr. Robert Bond

Project ID: **Bessie Mine – Locust Fork Red Rock Monthly**
(March 31, 2022)
Permit # AL0003263, Outfall 001-1

Laboratory Report Number: **22-095-0045**

Report Date: April 13, 2022

Data Reviewed by:



Wayne Gaston
Project Manager
Laboratory Resources & Solutions, Inc.
wgaston@lab-resource.com

- Unless otherwise noted, all analysis on this report performed at Waypoint Analytical, Inc., 2790 Whitten Road, Memphis, TN 38133. NELAC #460181
- These results relate only to the items tested. This report may only be reproduced in full.
- Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc. at (205) 594-1445.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

4/13/2022

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Lab Report Number: 22-095-0045
Client Project Description: Bessie Mine - Locust Fork Red Rock
Monthly - Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 4/5/2022 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2023
Arkansas	State Program	88-0650	02/07/2023
California	State Program	2904	06/30/2022
Florida	State Program - NELAP	E871157	06/30/2022
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2022
Illinois	State Program - NELAP	200078	10/10/2022
Kentucky	State Program	80215	06/30/2022
Kentucky	State Program	KY90047	12/31/2022
Louisiana	State Program - NELAP	LA037	12/31/2022
Louisiana	State Program - NELAP	04015	06/30/2022
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2022
Pennsylvania	State Program - NELAP	68-03195	05/31/2022
South Carolina	State Program	84002	06/30/2022
South Carolina	State Program	84002	06/30/2022
Tennessee	State Program	02027	02/11/2023
Texas	State Program - NELAP	T104704180	09/30/2022
Virginia	State Program	00106	06/30/2022
Virginia	State Program - NELAP	460181	09/14/2022

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **22-095-0045**

Client Project Description: **Bessie Mine - Locust Fork Red Rock Monthly - Jefferson County, AL Project #AL0003263**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
91184	Outfall 001-1	Aqueous	03/31/2022 12:27	04/05/2022

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Client: Bond Industries, Inc. **CASE NARRATIVE**
Project: Bessie Mine - Locust Fork Red Rock
Lab Report Number: 22-095-0045
Date: 4/12/2022

Metals Analyses Method EPA-200.8
Sample 91184 (Outfall 001-1)
QC Batch No: L609925/L609484/L609480
Based on sample screening, a dilution was performed due to high levels of target and/or non-target analytes. Reporting limits have been adjusted accordingly.

Total Suspended Solids Method 2540D-2015
QC Batch No: L609200
Relative percent difference (RPD) for the duplicate analysis was outside of the allowable quality control limits. The sample and duplicate results are less than ten times the reporting limit. At this level, RPD is not applicable. The data is considered to be acceptable.

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine - Locust Fork Red Rock

Information : Monthly - Jefferson County, AL
Project #AL0003263

Report Date : 04/13/2022
Received : 04/05/2022

Report Number : **22-095-0045**

REPORT OF ANALYSIS

Lab No : **91184**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **3/31/2022 12:27**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Conductivity	**2530**	µS/cm		0.010	1	04/11/22 16:05	IEM	2510B-2011
pH	**6.2**	s.u.			1	04/05/22 14:39	HRB	4500H+B-2011
Total Suspended Solids	**5**	mg/L		2	1	04/06/22 15:30	RCP	2540D-2015
Sulfate	**1440**	mg/L		100	100	04/06/22 03:21	JCA	EPA-300.0
Dissolved Iron	<376	µg/L	376	2000	10	04/08/22 15:52	FDS	EPA-200.8
Manganese	**1910**	µg/L	2.00	2.00	1	04/07/22 16:32	BKN	EPA-200.8
Selenium	**8.81**	µg/L	1.18	2.00	1	04/07/22 16:32	BKN	EPA-200.8

Qualifiers/ Definitions DF Dilution Factor MQL Method Quantitation Limit

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **22-095-0045**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T137

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Hannah R. Brown Date & Time: 04/05/2022 12:05:03

Billing Information:

LRS, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445
wgaston@lab-resource.com

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine - Locust Fork Red Rock Monthly

City/State collected: Jefferson County, Alabama

Collected by: STEVE STONE

Client Project #: **AL0003263**

P.O. #

Collected by (signature): R.S.S

Packed on Ice? N____ Y____

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Chain of Custody
Page 1 of 1

Laboratory Resources & Solutions, Inc. (LRS)
A Laboratory Service Provider

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133
FedEx acct. # 1048-3300-4

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	Analysis/Container/Preservative: pH SM4500HB (One 500-mL HDPE, non-preserved)	TSS SM2540D	Sulfate E300.0	Specific Conductance SM2510	**Dissolved Fe E200.8 (One 250-mL HDPE, non-preserved)	Total Mn E200.8 (One 250-mL HDPE, HNO3-preserved)	Total Selenium 200.8	Sample Remarks
Outfall 001-1	Grab	SW	******	3/31	12:27	3		X			X	X	X	pH =
														**Filter, Preserve and Run Dissolved Metals.

22-095-0045
19736
04-05-2022
12:01:52
Bond Industries, Inc.
Bessie Mine - Locust Fork Red Rock

pH Meter Number _____ Date
3 pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads _____ @

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater SW-Surface Water DW-Drinking Water OT- Other (Describe)_____ pH_____ Temp_____

Project Remarks: Rainfall in Inches _____ Flow_____ Other_____

Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Samples returned via: FedEx__ UPS__ Other X	Condition (lab use only)
R. Bunn	4-4-22	1017	R. Bunn		Custody Seals received on: Cooler(s)/Container(s)
Relinquished by:(Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.7°C T137 dCB	Bottles Received:
R. Bunn	4-4-22	1700			
Relinquished by:(Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 04/05/2022	Time: 0950
					pH Checked: NCF:

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

LRS, Inc.

Laboratory Resources & Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, AL 35234

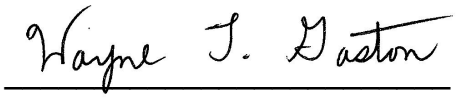
Attention: Mr. Robert Bond

Project ID: **Bessie Mine – Locust Fork Red Rock Semi-Annual**
(April 13, 2022)
Permit # AL0003263, Outfall 001-1

Laboratory Report Number: **22-105-0055**

Report Date: May 2, 2022

Data Reviewed by:



Wayne Gaston
Project Manager
Laboratory Resources & Solutions, Inc.
wgaston@lab-resource.com

- Unless otherwise noted, all analysis on this report performed at Waypoint Analytical, Inc., 2790 Whitten Road, Memphis, TN 38133. NELAC #460181
- These results relate only to the items tested. This report may only be reproduced in full.
- Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc. at (205) 594-1445.

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

4/29/2022

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Lab Report Number: 22-105-0055
Client Project Description: Bessie Mine/Locust Fork Red Rock SA
Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 4/15/2022 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2023
Arkansas	State Program	88-0650	02/07/2023
California	State Program	2904	06/30/2022
Florida	State Program - NELAP	E871157	06/30/2022
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2022
Illinois	State Program - NELAP	200078	10/10/2022
Kentucky	State Program	80215	06/30/2022
Kentucky	State Program	KY90047	12/31/2022
Louisiana	State Program - NELAP	LA037	12/31/2022
Louisiana	State Program - NELAP	04015	06/30/2022
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2022
Pennsylvania	State Program - NELAP	68-03195	05/31/2022
South Carolina	State Program	84002	06/30/2022
South Carolina	State Program	84002	06/30/2022
Tennessee	State Program	02027	02/11/2023
Texas	State Program - NELAP	T104704180	09/30/2022
Virginia	State Program	00106	06/30/2022
Virginia	State Program - NELAP	460181	09/14/2022

Laboratory ID: WP RMS: Waypoint Analytical Mississippi, Inc., Ridgeland, MS

State	Program	Lab ID	Expiration Date
Arkansas	State Program	88-1409	02/01/2023
Kentucky	State Program	KY98013	12/31/2021
Louisiana	State Program - NELAP	04023	06/30/2022
North Carolina	State Program	694	12/31/2021

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **22-105-0055**

Client Project Description: **Bessie Mine/Locust Fork Red Rock SA**
Jefferson County, AL
Project #AL0003263

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
93431	Outfall 001-1	Aqueous	04/13/2022 07:30	04/15/2022		
93431	Outfall 001-1	Aqueous	04/13/2022 07:30	04/15/2022	1631E	WP RMS

WP RMS - Ridgeland, MS: Waypoint Analytical - MS, Ridgeland, MS

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Client: Bond Industries, Inc.
Project: Bessie Mine/Locust Fork Red Rock SA
Lab Report Number: 22-105-0055
Date: 4/29/2022

CASE NARRATIVE

Oil and Grease Method 1664B
QC Batch No: L612310
Low recovery was found for the matrix spike. All other quality control is within acceptable limits. Sample interference is suspected.

Total Suspended Solids Method 2540D-2015
QC Batch No: L611379
Relative percent difference (RPD) for the duplicate analysis was outside of the allowable quality control limits. The sample and duplicate results are less than ten times the reporting limit. At this level, RPD is not applicable. The data is considered to be acceptable.

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine/Locust Fork Red Rock SA

Information : Jefferson County, AL
Project #AL0003263

Report Date : 04/29/2022
Received : 04/15/2022

Report Number : **22-105-0055**

REPORT OF ANALYSIS

Lab No : **93431**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **4/13/2022 7:30**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Mercury	**0.905**	ng/L		0.500	1	04/28/22 22:49	BTH	1631E
Cyanide, Total	<0.005	mg/L		0.005	1	04/22/22 10:58	FMM	4500CNE-2016
Conductivity	**2630**	µS/cm		0.010	1	04/21/22 15:20	IEM	2510B-2011
Nitrate+Nitrite-N	**10.9**	mg/L		0.100	1	04/21/22 14:15	ZBD	4500NO3F-2016
HEM: Oil and Grease	<1.4	mg/L		1.4	1	04/22/22 13:10	CxC	1664B
pH	**6.7**	s.u.			1	04/15/22 16:52	SH2	4500H+B-2011
Total Dissolved Solids	**2420**	mg/L		86.2	1	04/18/22 14:17	CJR	2540C-2015
Total Suspended Solids	**3**	mg/L		2	1	04/18/22 16:27	ADM	2540D-2015
Total Kjeldahl Nitrogen	<1.00	mg/L		1.00	1	04/21/22 15:14	CLP	4500NORGD-2011
Total Nitrogen	**10.9**	mg/L		0.100	1	04/21/22 14:15		CALCULATION
TOC	**1.51**	mg/L		1.00	1	04/21/22 19:16	CJD	5310C-2014
Sulfate	**1420**	mg/L		100	100	04/15/22 17:38	JCA	EPA-300.0
Aluminum	**99.2 J**	µg/L	54.8	200	1	04/19/22 19:13	FDS	EPA-200.8
Dissolved Cadmium	**0.201**	µg/L	0.135	0.200	1	04/19/22 18:19	FDS	EPA-200.8
Dissolved Chromium	<0.800	µg/L	0.800	2.00	1	04/19/22 18:19	FDS	EPA-200.8
Dissolved Copper	<1.00	µg/L	1.00	1.00	1	04/19/22 18:19	FDS	EPA-200.8
Dissolved Iron	<37.6	µg/L	37.6	200	1	04/19/22 18:19	FDS	EPA-200.8
Dissolved Lead	<0.916	µg/L	0.916	1.00	1	04/19/22 18:19	FDS	EPA-200.8
Manganese	**1560**	µg/L	2.00	2.00	1	04/19/22 19:13	FDS	EPA-200.8
Dissolved Nickel	**39.2**	µg/L	0.364	1.00	1	04/19/22 18:19	FDS	EPA-200.8
Selenium	**5.88**	µg/L	1.18	2.00	1	04/19/22 19:13	FDS	EPA-200.8
Dissolved Silver	<0.0446	µg/L	0.0446	0.200	1	04/19/22 18:19	FDS	EPA-200.8
Dissolved Thallium	**0.221 J**	µg/L	0.116	0.400	1	04/20/22 18:13	FDS	EPA-200.8

Qualifiers/ Definitions

DF Dilution Factor
MQL Method Quantitation Limit
J Estimated value

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine/Locust Fork Red Rock SA
Information : Jefferson County, AL
Project #AL0003263

Report Date : 04/29/2022
Received : 04/15/2022

Report Number : **22-105-0055**

REPORT OF ANALYSIS

Lab No : **93431**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **4/13/2022 7:30**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Dissolved Zinc	**80.3**	µg/L	10.0	40.0	1	04/19/22 18:19	FDS	EPA-200.8

Qualifiers/ Definitions

DF Dilution Factor
MQL Method Quantitation Limit
J Estimated value

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **22-105-0055**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T137

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Hannah R. Brown Date & Time: 04/15/2022 13:38:51

Billing Information:

LRS, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445
wgaston@lab-resource.com

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine/Locust Fork Red Rock Semi-Annual

City/State collected: Jefferson County, Alabama

Collected by: Austin Clemmer

Client Project #: **AL0003263**

P.O. #

Collected by (signature):

Packed on Ice? N___ Y___

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Chain of Custody
Page 1 of 1

Laboratory Resources & Solutions, Inc. (LRS)
A Laboratory Service Provider

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133
FedEx acct. # 1048-3300-4

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	pH SM4500HB (One 1-liter HDPE, non-preserved)	TSS SM2540D	TDS SM2540C	Sulfate E300.0	Specific Conductance SM2510	**Dissolved Cd, Cr, Cu, Fe, Pb, Ni, Ag, Tl, Zn E200.8 (250-mL HDPE, NP)	Total Al, Mn, Se E200.8 (One 250-mL HDPE, HNO3-pres.)	Low-level Hg EPA1631 (One 250-mL amber glass, non-pres	Oil & Grease E1664 (One 1-liter amber glass, H2SO4-pres.)	Total Nitrogen SM4500Norg/4500NO3 (One 250-mL HDPE, H2SO4-pres.)	TOC SM5310 (Two 40-mL glass vials, H3PO4-preserved)	Total Cyanide SM4500CN (One 250-mL HDPE, NaOH pres.)	***Dissolved Trivalent Arsenic BAL-4100 (One 250-mL HDPE, EDTA-pres.)	Sample Remarks
Outfall 001-1	Grab	SW	******	4/13/22	7:30am	10 9			X			X	X	X	X	X	X	X	X	pH =
																				**Filter, Preserve and Run Dissolved Metals.

22-105-0055
19736
04-15-2022
13:37:17
Bond Industries, Inc.
Bessie Mine/Locust Fork Red Rock SA

pH Meter Number _____ Date

pt. Calibration 7.00 _____ Time

4.01 _____

10.00 _____

al. Check (7.00) Reads @

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater SW-Surface Water DW-Drinking Water OT-Other (Describe)_____ pH_____ Temp_____

Project Remarks: ***Sample for Dissolved Trivalent Arsenic was field-filtered at time of collection.*** 1253

Rainfall in Inches _____ Flow_____ Other_____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: FedEx__ UPS__ Other X	Condition (lab use only)
	4/13/22	7:30am	K. Burney 4-14-22		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.6°C T137 dB3	Bottles Received:
K. Burney	4-14-22	1700			
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 04/15/2022	Time: 1105
					pH Checked: NCF:

Custody Seals received on: Cooler(s)/Container(s)

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

LRS, Inc.

Laboratory Resources & Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, AL 35234

Attention: Mr. Robert Bond

Project ID: **Bessie Mine/Locust Fork Red Rock Semi-Annual**
(April 13, 2022)
Outfall 001-1 (AL0003263) – Dissolved Trivalent Arsenic Analysis

Laboratory Report Number: **2204202**

Date: May 2, 2022

Data Reviewed by:

Wayne T. Gaston

Wayne Gaston
Project Manager
Laboratory Resources & Solutions, Inc. (LRS)
wgaston@lab-resource.com

* Unless otherwise noted, all analyses on this report performed at Brooks Applied Labs, 18804 North Creek Parkway, Suite 100, Bothell, WA 98011.

* These results relate only to the items tested. This report may only be reproduced in full.

* Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc. at (205) 594-1445.

BROOKS APPLIED LABS
18804 North Creek Parkway, Ste 100, Bothell, WA 98011 • USA • T: 206 632 6206 F: 206 632 6017 • info@brooksapplied.com

May 2, 2022

Bond Industries, Inc.
ATTN: Robert Bond
3700 14th Avenue North
Birmingham, AL 35234

RE: Project LRS-AS1301
Client Project Name: Bessie Mine/Locust Fork Red Rock Semi-Annual
Client Project #: AL0003263

Dear Mr. Robert Bond,

On April 19, 2022, Brooks Applied Labs (BAL) received one (1) aqueous sample in a cooler at a temperature of 3.6°C. The sample was logged in for dissolved arsenic [*As*] speciation, for arsenite [*As(III)*], analysis. The sample was field-filtered at the time of collection.

All samples were received, prepared, analyzed, and stored according to BAL SOPs and EPA methodology. Reagent water for dilutions and sample preservatives was monitored for contamination to account for any biases associated with the sample results.

Arsenic Speciation Quantitation by IC-ICP-CRC-MS
Arsenic speciation was performed by ion chromatography inductively coupled plasma collision reaction cell mass spectrometry (IC-ICP-CRC-MS). Arsenic species are first chromatographically separated on an ion exchange column and then quantified using inductively coupled plasma collision reaction cell mass spectrometry (ICP-CRC-MS). For more information on this determinative technique, please visit the Interference Reduction Technology section on our website.

The results were not method blank corrected as described in the calculations section of the relevant BAL SOP(s) and were evaluated using reporting limits adjusted to account for sample aliquot size. Please refer to the Sample Results page for sample-specific MDLs, MRLs, and other details. All data were reported without qualification, aside from concentration qualifiers, and all associated quality control sample results met the acceptance criteria.

BAL, an accredited laboratory, certifies that the reported results of all analyses for which BAL is NELAP accredited met all NELAP requirements. For more information please see the *Report Information* page. Please feel free to contact us if you have any questions regarding this report.

Sincerely,

Lydia Greaves

Lydia Greaves
Client Services Manager
Brooks Applied Labs
Lydia@brooksapplied.com

Project ID: LRS-AS1301
PM: Lydia Greaves

Client PM: Robert Bond
Client Project: AL0003263

Report Information

Laboratory Accreditation

BAL is accredited by the *National Environmental Laboratory Accreditation Program* (NELAP) through the State of Florida Department of Health, Bureau of Laboratories (E87982) and is certified to perform many environmental analyses. BAL is also certified by many other states to perform environmental analyses. For a current list of our accreditations/certifications, please visit our website at <http://www.brooksapplied.com/resources/certificates-permits/> or review Tables 1 and 2 in our Accreditation Information. Results reported relate only to the samples listed in the report.

Field Quality Control Samples

Please be notified that certain EPA methods require the collection of field quality control samples of an appropriate type and frequency; failure to do so is considered a deviation from some methods and for compliance purposes should only be done with the approval of regulatory authorities. Please see the specific EPA methods for details regarding required field quality control samples.

Common Abbreviations

AR	as received
BAL	Brooks Applied Labs
BLK	method blank
BS	blank spike
CAL	calibration standard
CCB	continuing calibration blank
CCV	continuing calibration verification
COC	chain of custody record
D	dissolved fraction
DUP	duplicate
IBL	instrument blank
ICV	initial calibration verification
MDL	method detection limit
MRL	method reporting limit
MS	matrix spike
MSD	matrix spike duplicate
ND	non-detect
NR	non-reportable
N/C	not calculated
PS	post preparation spike
REC	percent recovery
RPD	relative percent difference
SCV	secondary calibration verification
SOP	standard operating procedure
SRM	reference material
T	total fraction
TR	total recoverable fraction

Definition of Data Qualifiers

(Effective 3/23/2020)

E	An estimated value due to the presence of interferences. A full explanation is presented in the narrative.
H	Holding time and/or preservation requirements not met. Please see narrative for explanation.
J	Detected by the instrument, the result is > the MDL but ≤ the MRL. Result is reported and considered an estimate.
J-1	Estimated value. A full explanation is presented in the narrative.
M	Duplicate precision (RPD) was not within acceptance criteria. Please see narrative for explanation.
N	Spike recovery was not within acceptance criteria. Please see narrative for explanation.
R	Rejected, unusable value. A full explanation is presented in the narrative.
U	Result is ≤ the MDL or client requested reporting limit (CRRL). Result reported as the MDL or CRRL.
X	Result is not BLK-corrected and is within 10x the absolute value of the highest detectable BLK in the batch. Result is estimated.
Z	Holding time and/or preservation requirements not established for this method; however, BAL recommendations for holding time were not followed. Please see narrative for explanation.

These qualifiers are based on those previously utilized by Brooks Applied Labs, those found in the EPA SOW ILM03.0, Exhibit B, Section III, pg. B-18, and the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review; USEPA; January 2010. These supersede all previous qualifiers ever employed by BAL.

18804 North Creek Parkway, Suite 100, Bothell, WA 98011 · P(206) 632-6206 · F(206) 632-6017 · info@brooksapplied.com · www.brooksapplied.com

Accreditation Information

Table 1. Accredited method/matrix/analytes for TNI

Issued by: State of Florida Dept. of Health (The NELAC Institute 2016 Standard)
Issued on: July 1, 2021; Valid to: June 30, 2022
Certificate Number: E87982-37

Method	Matrix	TNI Accredited Analyte(s)
EPA 1638	Non-Potable Waters	Ag, Cd, Cu, Ni, Pb, Sb, Se, Tl, Zn
EPA 200.8	Non-Potable Waters	Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, U, V, Zn
EPA 6020	Non-Potable Waters	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Tl, U, V, Zn
	Solids/Chemicals & Biological	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn
BAL-5000	Non-Potable Waters	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Tl, U, V, Zn, Hardness
	Solids/Chemicals	Ag, As, B, Be, Cd, Co, Cr, Cu, Pb, Mo, Ni, Sb, Se, Sn, Sr, Tl, V, Zn
	Biological	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Tl, V, Zn
EPA 1640	Non-Potable Waters	Cd, Cu, Pb, Ni, Zn
EPA 1631E	Non-Potable Waters, Solids/Chemicals & Biological	Total Mercury
EPA 1630	Non-Potable Waters	Methyl Mercury
BAL-3200	Solids/Chemicals & Biological	Methyl Mercury
BAL-4100	Non-Potable Waters	As(III), As(V), DMAs, MMAs
BAL-4201	Non-Potable Waters	Se(IV), Se(VI)
BAL-4300	Non-Potable Waters Solid/Chemicals	Cr(VI)
SM2340B	Non-Potable Waters	Hardness

18804 North Creek Parkway, Suite 100, Bothell, WA 98011 · P(206) 632-6206 · F(206) 632-6017 · info@brooksapplied.com · www.brooksapplied.com

Accreditation Information

Table 2. Accredited method/matrix/analytes for ISO (1), Non-Governmental TNI (2)

Issued by: ANAB
Issued on: September 21, 2021; Valid to: March 30, 2024

Method	Matrix	ISO and Non-Gov. TNI Accredited Analyte(s)
EPA 1638 Mod EPA 200.8 Mod EPA 6020 Mod	Non-Potable Waters	Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Tl, U, V, Zn
BAL-5000	Solids/Chemicals & Biological	Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Tl, V, Zn Hg (Biological Only)
EPA 1640 Mod	Non-Potable Waters	Cd, Cu, Pb, Ni, Zn Ag, As, Cr, Co, Se, Tl, V (ISO Only)
EPA 1631E Mod BAL-3100	Non-Potable Waters, Solids/Chemicals & Biological/Food	Total Mercury
EPA 1630 Mod BAL-3200	Non-Potable Waters, Solids/Chemicals Biological	Methyl Mercury
EPA 1632A Mod BAL-3300	Non-Potable Waters	Inorganic Arsenic (ISO Only)
	Biological/Food Solids/Chemicals	Inorganic Arsenic (ISO Only)
AOAC 2015.01 Mod BAL-5000	Food	As, Cd, Hg, Pb
BAL-4100	Non-Potable Waters	As(III), As(V), DMAs, MMAs
	Biological by BAL-4117	Inorganic Arsenic, DMAs, MMAs (ISO Only)
BAL-4101	Food by BAL-4117	Inorganic Arsenic, DMAs, MMAs (ISO Only)
BAL-4201	Non-Potable Waters	Se(IV), Se(VI), SeCN, SeMet
BAL-4300	Non-Potable Waters, Solid/Chemicals	Cr(VI)
SM 3500-Fe BAL-4500	Non-Potable Waters	Fe, Fe(II) (ISO Only)
SM2340B	Non-Potable Waters	Hardness
SM 2540G BAL-0501	Solids/Chemicals & Biological	% Dry Weight

18804 North Creek Parkway, Suite 100, Bothell, WA 98011 · P(206) 632-6206 · F(206) 632-6017 · info@brooksapplied.com · www.brooksapplied.com

Project ID: LRS-AS1301
PM: Lydia Greaves

Client PM: Robert Bond
Client Project: AL0003263

Sample Information

Sample	Lab ID	Report Matrix	Type	Sampled	Received
Outfall 001-1	2204202-01	Surface Water	Sample	04/13/2022	04/19/2022

Batch Summary

Analyte	Lab Matrix	Method	Prepared	Analyzed	Batch	Sequence
As(III)	Water	SOP BAL-4100	04/19/2022	04/20/2022	B220881	S220455

Sample Results

Sample	Analyte	Report Matrix	Basis	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
Outfall 001-1										
2204202-01	As(III)	Surface Water	D	0.107	J	0.043	0.228	µg/L	B220881	S220455

18804 North Creek Parkway, Suite 100, Bothell, WA 98011 · P(206) 632-6206 · F(206) 632-6017 · info@brooksapplied.com · www.brooksapplied.com

Accuracy & Precision Summary

Batch: B220881
Lab Matrix: Water
Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B220881-BS1	**Blank Spike, (2137025)**						
	As(III)		5.000	4.987	µg/L	100% 75-125	
B220881-DUP1	**Duplicate, (2204107-01)**						
	As(III)	ND		ND	µg/L		N/C 25
B220881-MS1	**Matrix Spike, (2204107-01)**						
	As(III)	ND	104.5	98.45	µg/L	94% 75-125	
B220881-MSD1	**Matrix Spike Duplicate, (2204107-01)**						
	As(III)	ND	104.5	99.82	µg/L	96% 75-125	1% 25

Method Blanks & Reporting Limits

Batch: B220881
Matrix: Water
Method: SOP BAL-4100
Analyte: As(III)

Sample	Result	Units
B220881-BLK1	0.00	µg/L
B220881-BLK2	0.00	µg/L
B220881-BLK3	0.00	µg/L
B220881-BLK4	0.00	µg/L

Average: 0.000
Limit: 0.021

MDL: 0.004
MRL: 0.021

18804 North Creek Parkway, Suite 100, Bothell, WA 98011 · P(206) 632-6206 · F(206) 632-6017 · info@brooksapplied.com · www.brooksapplied.com

Project ID: LRS-AS1301
PM: Lydia Greaves

Client PM: Robert Bond
Client Project: AL0003263

Sample Containers

Lab ID: 2204202-01
Sample: Outfall 001-1
Report Matrix: Surface Water
Sample Type: Sample
Collected: 04/13/2022
Received: 04/19/2022

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle HDPE As-SP	125 mL	20-0218	10 mL EDTA (PP)	2121002	4	Cooler - 2204202

Shipping Containers

Cooler - 2204202

Received: April 19, 2022 11:02
Tracking No: 1Z 6F1 387 13 9443 0927 via UPS
Coolant Type: None
Temperature: 3.6 °C

Description: Cooler
Damaged in transit? No
Returned to client? No
Comments: IR#: 33

Custody seals present? Yes
Custody seals intact? Yes
COC present? Yes

18804 North Creek Parkway, Suite 100, Bothell, WA 98011 · P(206) 632-6206 · F(206) 632-6017 · info@brooksapplied.com · www.brooksapplied.com

Billing Information:

LRS, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445
wgaston@lab-resource.com

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine/Locust Fork Red Rock Semi-Annual

City/State collected: Jefferson County, Alabama

Collected by:

Client Project #: **AL0003263**

P.O. #

Collected by (signature):

Packed on Ice? N___ Y___

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Chain of Custody
Page 1 of 1

Laboratory Resources & Solutions, Inc. (LRS)
A Laboratory Service Provider

Laboratory:
Brooks Applied Labs
18804 Northcreek Parkway, Suite 100
Bothell, WA 98011

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	**Dissolved Trivalent Arsenic BAL-4100 (One 250-mL HDPE, EDTA-pres.)	Sample Remarks
Outfall 001-1	**Grab**	**SW**	******	4/13/22	7:30 AM	1	X	

pH Meter Number _____ Date
3 pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads @

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater SW-Surface Water DW-Drinking Water OT- Other (Describe)_____ pH_____ Temp_____

Project Remarks: ****Sample for Dissolved Trivalent Arsenic was field-filtered at time of collection.**** Rainfall in Inches _____ Flow_____ Other_____

Relinquished by:(Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: FedEx__ UPS__ Other__		Condition (lab use only)
L. Bunting	4-14-22	1253	L. Bunting			
Relinquished by:(Signature)	Date:	Time:	Received by: (Signature)	Temp:	Bottles Received:	
L. Bunting	4/18/22	1700				
Relinquished by:(Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:	pH Checked: NCF:
			(BAL)	4/19/22	11:02	

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

LRS, Inc.

Laboratory Resources & Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, AL 35234

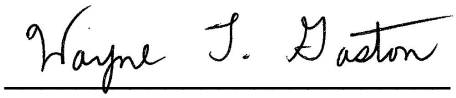
Attention: Mr. Robert Bond

Project ID: **Bessie Mine – Locust Fork Red Rock Monthly**
(April 26, 2022)
Permit # AL0003263, Outfall 001-1

Laboratory Report Number: **22-119-0141**

Report Date: May 11, 2022

Data Reviewed by:



Wayne Gaston
Project Manager
Laboratory Resources & Solutions, Inc.
wgaston@lab-resource.com

- Unless otherwise noted, all analysis on this report performed at Waypoint Analytical, Inc., 2790 Whitten Road, Memphis, TN 38133. NELAC #460181
- These results relate only to the items tested. This report may only be reproduced in full.
- Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc. at (205) 594-1445.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

5/11/2022

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Lab Report Number: 22-119-0141
Client Project Description: Bessie Mine - Locust Fork Red Rock
Monthly - Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 4/29/2022 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2023
Arkansas	State Program	88-0650	02/07/2023
California	State Program	2904	06/30/2022
Florida	State Program - NELAP	E871157	06/30/2022
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2022
Illinois	State Program - NELAP	200078	10/10/2022
Kentucky	State Program	80215	06/30/2022
Kentucky	State Program	KY90047	12/31/2022
Louisiana	State Program - NELAP	LA037	12/31/2022
Louisiana	State Program - NELAP	04015	06/30/2022
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2022
Pennsylvania	State Program - NELAP	68-03195	05/31/2022
South Carolina	State Program	84002	06/30/2022
South Carolina	State Program	84002	06/30/2022
Tennessee	State Program	02027	02/11/2023
Texas	State Program - NELAP	T104704180	09/30/2022
Virginia	State Program	00106	06/30/2022
Virginia	State Program - NELAP	460181	09/14/2022

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **22-119-0141**

Client Project Description: **Bessie Mine - Locust Fork Red Rock Monthly - Jefferson County, AL Project #AL0003263**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
92874	Outfall 001-1	Aqueous	04/26/2022 14:30	04/29/2022

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Client: Bond Industries, Inc.
Project: Bessie Mine - Locust Fork Red Rock
Lab Report Number: 22-119-0141
Date: 5/11/2022

CASE NARRATIVE

Metals Analyses Method EPA-200.8
Sample 92874 (Outfall 001-1)
QC Batch No: L614506/L614088/L614086
Based on sample screening, a dilution was performed due to high levels of target and/or non-target analytes. Reporting limits have been adjusted accordingly.

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine - Locust Fork Red Rock

Information : Monthly - Jefferson County, AL
Project #AL0003263

Report Date : 05/11/2022
Received : 04/29/2022

Report Number : **22-119-0141**

REPORT OF ANALYSIS

Lab No : **92874**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **4/26/2022 14:30**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Conductivity	**2410**	µS/cm		0.010	1	05/05/22 14:23	CMF	2510B-2011
pH	**7.3**	s.u.			1	05/06/22 15:29	SH2	4500H+B-2011
Total Suspended Solids	**5**	mg/L		2	1	05/02/22 11:20	AMN	2540D-2015
Sulfate	**1350**	mg/L		100	100	05/02/22 17:36	JCA	EPA-300.0
Dissolved Iron	<376	µg/L	376	2000	10	05/05/22 19:26	FDS	EPA-200.8
Manganese	**1040**	µg/L	2.00	2.00	1	05/04/22 20:10	BKN	EPA-200.8
Selenium	**4.39**	µg/L	1.18	2.00	1	05/05/22 19:49	FDS	EPA-200.8

Qualifiers/ Definitions DF Dilution Factor MQL Method Quantitation Limit

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **22-119-0141**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T137

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Hannah R. Brown Date & Time: 04/29/2022 16:29:21

Billing Information:

LRS, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445
wgaston@lab-resource.com

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine - Locust Fork Red Rock Monthly

City/State collected: Jefferson County, Alabama

Collected by: Steve Stone

Client Project #: **AL0003263**

P.O. #

Collected by (signature):

Packed on Ice? N____ Y____

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	pH SM4500HB (One 500-mL HDPE, non-preserved)	TSS SM2540D	Sulfate E300.0	Specific Conductance SM2510	**Dissolved Fe E200.8 (One 250-mL HDPE, non-preserved)	Total Mn E200.8 (One 250-mL HDPE, HNO3-preserved)						Sample Remarks
Outfall 001-1	**Grab**	**SW**	******	4-26-22	2:30	3		X			X	X						pH =
																		**Filter, Preserve and Run Dissolved Metals

pH Meter Number _____ Date
3 pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads @

Chain of Custody
Page 1 of 1

Laboratory Resources & Solutions, Inc. (LRS)
A Laboratory Service Provider

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133
FedEx acct. # 1048-3300-4

Bond Industries, Inc.
Bessie Mine - Locust Fork Red Rock
22-119-0141
19736
04-29-2022
16:28:41

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater SW-Surface Water DW-Drinking Water OT- Other (Describe)_____

pH_____ Temp_____

Project Remarks:

Rainfall in Inches _____ Flow_____ Other_____

Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Samples returned via: FedEx__ UPS__Other X	Condition: (Lab use only)
	4/28/22	1115			Custody Seals received on:
Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Temp: 0.3°C T137 B03	Bottles Received:
	4/28/22	1200			Cooler(s)/Container(s)
Relinquished by:(Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 04/29/2022	Time: 1040
					pH Checked: NCF:

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

LRS, Inc.

Laboratory Resources & Solutions, Inc.
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, Alabama 35234

Attention: **Mr. Robert Bond**

Project ID: **Bessie Mine – Locust Fork Red Rock Monthly**
(May 12, 2022)
Project #: AL0003263

Laboratory Report Number: **22-136-0087**

Report Date: May 27, 2022

Data Review by:



Brett Wilson
Project Manager
Laboratory Resources & Solutions, Inc.
bwilson@lab-resource.com

* Unless otherwise noted, all analysis on this report performed at Waypoint Analytical, Inc. 2790 Whitten Road Memphis, TN 38133. NELAC #460181

* These results relate only to the items tested. This report may only be reproduced in full.

* Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc. at (205) 594-1445.

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

5/26/2022

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Lab Report Number: 22-136-0087
Client Project Description: Bessie Mine - Locust Fork Red Rock
Monthly - Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 5/14/2022 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2023
Arkansas	State Program	88-0650	02/07/2023
California	State Program	2904	06/30/2022
Florida	State Program - NELAP	E871157	06/30/2022
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2022
Illinois	State Program - NELAP	200078	10/10/2022
Kentucky	State Program	80215	06/30/2022
Kentucky	State Program	KY90047	12/31/2022
Louisiana	State Program - NELAP	LA037	12/31/2022
Louisiana	State Program - NELAP	04015	06/30/2022
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2022
Pennsylvania	State Program - NELAP	68-03195	05/31/2022
South Carolina	State Program	84002	06/30/2022
South Carolina	State Program	84002	06/30/2022
Tennessee	State Program	02027	02/11/2023
Texas	State Program - NELAP	T104704180	09/30/2022
Virginia	State Program	00106	06/30/2022
Virginia	State Program - NELAP	460181	09/14/2022

Laboratory ID: WP RMS: Waypoint Analytical Mississippi, Inc., Ridgeland, MS

State	Program	Lab ID	Expiration Date
Arkansas	State Program	88-1409	02/01/2023
Kentucky	State Program	KY98013	12/31/2022
Louisiana	State Program - NELAP	04023	06/30/2022
North Carolina	State Program	694	12/31/2022

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **22-136-0087**

Client Project Description: **Bessie Mine - Locust Fork Red Rock Monthly - Jefferson County, AL Project #AL0003263**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
92899	Outfall 001-1	Aqueous	05/12/2022 13:00	05/14/2022		
92899	Outfall 001-1	Aqueous	05/12/2022 13:00	05/14/2022	1631E	WP RMS

WP RMS - Ridgeland, MS: Waypoint Analytical - MS, Ridgeland, MS

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine - Locust Fork Red Rock

Information : Monthly - Jefferson County, AL
Project #AL0003263

Report Date : 05/26/2022
Received : 05/14/2022

Report Number : **22-136-0087**

REPORT OF ANALYSIS

Lab No : **92899**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **5/12/2022 13:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Mercury	**0.604**	ng/L		0.500	1	05/26/22 16:08		1631E
Conductivity	**2490**	µS/cm		0.010	1	05/23/22 15:55	IEM	2510B-2011
pH	**6.6**	s.u.			1	05/17/22 17:21	SH2	4500H+B-2011
Total Suspended Solids	**5**	mg/L		2	1	05/18/22 11:15	AMN	2540D-2015
Sulfate	**1540**	mg/L		100	100	05/20/22 13:48	JCA	EPA-300.0
Dissolved Cadmium	**0.0998 J**	µg/L	0.0673	0.100	1	05/24/22 12:30	BKN	EPA-200.8
Dissolved Copper	<0.500	µg/L	0.500	0.500	1	05/24/22 12:30	BKN	EPA-200.8
Dissolved Iron	<18.8	µg/L	18.8	100	1	05/24/22 12:30	BKN	EPA-200.8
Manganese	**877**	µg/L	2.00	2.00	1	05/19/22 14:02	BKN	EPA-200.8
Dissolved Nickel	**10.9**	µg/L	0.182	0.500	1	05/24/22 12:30	BKN	EPA-200.8
Selenium	**4.69**	µg/L	1.18	2.00	1	05/19/22 14:02	BKN	EPA-200.8
Dissolved Thallium	**0.136 J**	µg/L	0.0580	0.200	1	05/24/22 12:30	BKN	EPA-200.8
Dissolved Zinc	**22.3**	µg/L	5.00	20.0	1	05/24/22 12:30	BKN	EPA-200.8

Qualifiers/ Definitions

DF Dilution Factor
MQL Method Quantitation Limit
J Estimated value

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **22-136-0087**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T137

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Makayla Weaver Date & Time: 05/16/2022 16:03:12

Billing Information:

Laboratory Resources and Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine - Locust Fork Red Rock Monthly

City/State collected: Jefferson County, Alabama

Collected by: Austin Clemmy

Client Project #: **AL0003263**

P.O. #

Collected by (signature):

Packed on Ice? N___ Y___

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Chain of Custody
Page 1 of 1

Laboratory Resources and Solutions, Inc.
A Laboratory Service Provider

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133
FedEx acct. # 1048-3300-4

Analysis/Container/Preservative

Sample Information	Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	pH SM4500HB (One 1-liter HDPE, non-preserved)	TSS SM2540D	Sulfate E300.0	Specific Conductance SM2510	**Dissolved Cd, Cu, Fe, Ni, Tl, Zn E200.8 (One 250-mL HDPE, non-pres.)	Total Mn, Se E200.8 (One 250-mL HDPE, HNO3-pres.)	Low-level Hg EPA1631 (One 250-mL amber glass, non-pres					Sample Remarks
	Outfall 001-1	Grab	SW	******	5/12/22	1:00pm	4			X		X	X	X					pH =
																			**Filter, Preserve and Run Dissolved Metals.

22-136-0087
19736
05-16-2022
16:02:44
Bond Industries, Inc.
Bessie Mine - Locust Fork Red Rock

pH Meter Number _____ Date
3 pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads @

Matrix*: SS - Soil/Solid GW - Groundwater WW - Wastewater SW - Surface Water DW - Drinking Water SLW - Solid Waste LQW - Liquid Waste
SOL - Solvent OI - Oil WI - Wipes PW - Process Water OT - Other (Describe) _____

pH_____ Temp 0.5°C TT37 JB

Project Remarks:

Rainfall in Inches _____ Flow_____ Other_____

Custody Info	Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
		5/12/22	1:00 PM		5/13/22	1114
	Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
		5/13/22	1700			
	Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
					05/14/2022	0940

Condition: Custody Seals received on: Cooler(s) Container(s)

Bottles Received: pH Checked: NCF:

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

LRS, Inc.

Laboratory Resources & Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, AL 35234

Attention: Mr. Robert Bond

Project ID: **Bessie Mine – Locust Fork Red Rock Monthly**
(May 30, 2022)
Permit # AL0003263, Outfall 001-1

Laboratory Report Number: **22-154-0113**

Report Date: June 21, 2022

Data Reviewed by:

Wayne T. Gaston

Wayne Gaston
Project Manager
Laboratory Resources & Solutions, Inc.
wgaston@lab-resource.com

- Unless otherwise noted, all analysis on this report performed at Waypoint Analytical, Inc., 2790 Whitten Road, Memphis, TN 38133. NELAC #460181
- These results relate only to the items tested. This report may only be reproduced in full.
- Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc. at (205) 594-1445.

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

6/15/2022

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Lab Report Number: 22-154-0113
Client Project Description: Bessie Mine - Locust Fork Red Rock
Monthly - Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 6/3/2022 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2023
Arkansas	State Program	88-0650	02/07/2023
California	State Program	2904	06/30/2022
Florida	State Program - NELAP	E871157	06/30/2022
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2022
Illinois	State Program - NELAP	200078	10/10/2022
Kentucky	State Program	80215	06/30/2022
Kentucky	State Program	KY90047	12/31/2022
Louisiana	State Program - NELAP	LA037	12/31/2022
Louisiana	State Program - NELAP	04015	06/30/2023
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2022
Pennsylvania	State Program - NELAP	68-03195	05/31/2023
South Carolina	State Program	84002	06/30/2022
South Carolina	State Program	84002	06/30/2022
Tennessee	State Program	02027	02/11/2023
Texas	State Program - NELAP	T104704180	09/30/2022
Virginia	State Program	00106	06/30/2022
Virginia	State Program - NELAP	460181	09/14/2022

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **22-154-0113**

Client Project Description: **Bessie Mine - Locust Fork Red Rock Monthly - Jefferson County, AL Project #AL0003263**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
90009	Outfall 001-1	Aqueous	05/30/2022 13:00	06/03/2022

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine - Locust Fork Red Rock

Information : Monthly - Jefferson County, AL
Project #AL0003263

Report Date : 06/15/2022
Received : 06/03/2022

Report Number : **22-154-0113**

REPORT OF ANALYSIS

Lab No : **90009**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **5/30/2022 13:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Conductivity	**2650**	µS/cm		0.010	1	06/09/22 15:38	CMF	2510B-2011
pH	**6.6**	s.u.			1	06/03/22 13:58	EMP	4500H+B-2011
Total Suspended Solids	**4**	mg/L		2	1	06/06/22 10:51	AMN	2540D-2015
Sulfate	**1640**	mg/L		100	100	06/03/22 16:24	JCA	EPA-300.0
Dissolved Iron	<37.6	µg/L	37.6	200	1	06/14/22 14:36	FDS	EPA-200.8
Manganese	**345**	µg/L	1.00	1.00	1	06/10/22 15:39	BKN	EPA-200.8

Qualifiers/ Definitions DF Dilution Factor MQL Method Quantitation Limit

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **22-154-0113**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T135

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Emily M. Peterson Date & Time: 06/03/2022 12:41:37

Billing Information:

Laboratory Resources and Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine - Locust Fork Red Rock Monthly

City/State collected: Jefferson County, Alabama

Collected by: [signature]

Client Project #: **AL0003263**

P.O. #

Collected by (signature): [signature]

Packed on Ice? N____ Y____

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Chain of Custody
Page 1 of 1

Laboratory Resources and Solutions, Inc.
A Laboratory Service Provider

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133
FedEx acct. # 1048-3300-4

Sample Information

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	pH SM4500HB (One 500-mL HDPE, non-preserved)	TSS SM2540D	Sulfate E300.0	Specific Conductance SM2510	**Dissolved Fe E200.8 (One 250-mL HDPE, non-preserved)	Total Mn E200.8 (One 250-mL HDPE, HNO3-preserved)	Sample Remarks
Outfall 001-1	Grab	SW	******	5/30/22	1:00pm	3		X			X	X	pH =
													**Filter, Preserve and Run Dissolved Metals.

Analysis/Container/Preservative

Custody Seals received on:
Cooler(s)/Container(s)

22-154-0113
19736
06-03-2022
12:40:37
Bond Industries, Inc.
Bessie Mine - Locust Fork Red Rock

pH Meter Number _____ Date
pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads @

Matrix*: SS - Soil/Solid GW - Groundwater WW - Wastewater SW - Surface Water DW - Drinking Water SLW - Solid Waste LQW - Liquid Waste
SOL - Solvent OI - Oil WI - Wipes PW - Process Water OT - Other (Describe) _____

pH_____ Temp 2.5°C

Project Remarks:

Rainfall in Inches _____ Flow_____ Other 1135

Custody Info

Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
[signature]	5/30/22	1:00pm	K. Burley	6/2/22	1238
K. Burley	6-2-22	700	Received by:(Signature)	Date:	Time:
Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
			Emily Peterson	6/3/22	1000

Condition (Lab use only)

Bottles Received: pH Checked: NCF:

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

EP

LRS, Inc.

Laboratory Resources & Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, AL 35234

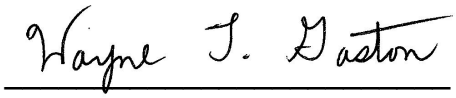
Attention: Mr. Robert Bond

Project ID: **Bessie Mine – Locust Fork Red Rock Monthly**
(June 7, 2022)
Permit # AL0003263, Outfall 001-1

Laboratory Report Number: **22-160-0125**

Report Date: June 24, 2022

Data Reviewed by:



Wayne Gaston
Project Manager
Laboratory Resources & Solutions, Inc.
wgaston@lab-resource.com

- Unless otherwise noted, all analysis on this report performed at Waypoint Analytical, Inc., 2790 Whitten Road, Memphis, TN 38133. NELAC #460181
- These results relate only to the items tested. This report may only be reproduced in full.
- Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc. at (205) 594-1445.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

6/20/2022

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Lab Report Number: 22-160-0125
Client Project Description: Bessie Mine - Locust Fork Red Rock
Monthly - Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 6/9/2022 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2023
Arkansas	State Program	88-0650	02/07/2023
California	State Program	2904	06/30/2022
Florida	State Program - NELAP	E871157	06/30/2022
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2022
Illinois	State Program - NELAP	200078	10/10/2022
Kentucky	State Program	80215	06/30/2022
Kentucky	State Program	KY90047	12/31/2022
Louisiana	State Program - NELAP	LA037	12/31/2022
Louisiana	State Program - NELAP	04015	06/30/2023
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2022
Pennsylvania	State Program - NELAP	68-03195	05/31/2023
South Carolina	State Program	84002	06/30/2022
South Carolina	State Program	84002	06/30/2022
Tennessee	State Program	02027	02/11/2023
Texas	State Program - NELAP	T104704180	09/30/2022
Virginia	State Program	00106	06/30/2022
Virginia	State Program - NELAP	460181	09/14/2022

Laboratory ID: WP RMS: Waypoint Analytical Mississippi, Inc., Ridgeland, MS

State	Program	Lab ID	Expiration Date
Arkansas	State Program	88-1409	02/01/2023
Kentucky	State Program	KY98013	12/31/2022
Louisiana	State Program - NELAP	04023	06/30/2022
North Carolina	State Program	694	12/31/2022

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **22-160-0125**

Client Project Description: **Bessie Mine - Locust Fork Red Rock Monthly - Jefferson County, AL Project #AL0003263**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
92338	Outfall 001-1	Aqueous	06/07/2022 15:45	06/09/2022		
92338	Outfall 001-1	Aqueous	06/07/2022 15:45	06/09/2022	1631E	WP RMS

WP RMS - Ridgeland, MS: Waypoint Analytical - MS, Ridgeland, MS

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Client: Bond Industries, Inc. **CASE NARRATIVE**
Project: Bessie Mine - Locust Fork Red Rock
Lab Report Number: 22-160-0125
Date: 6/20/2022

Metals Analyses Method EPA-200.8
Sample 93021 (Sample Point 3)
Analyte: Zinc
QC Batch No: L621603/L621026
The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A dilution test was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Total Suspended Solids Method 2540D-2015
QC Batch No: L621139
Relative percent difference (RPD) for the duplicate analysis was outside of the allowable quality control limits. The sample and duplicate results are less than ten times the reporting limit. At this level, RPD is not applicable. The data is considered to be acceptable.

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine - Locust Fork Red Rock

Information : Monthly - Jefferson County, AL
Project #AL0003263

Report Date : 06/20/2022
Received : 06/09/2022

Report Number : **22-160-0125**

REPORT OF ANALYSIS

Lab No : **92338**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **6/7/2022 15:45**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Mercury	<0.500	ng/L		0.500	1	06/17/22 19:54	BTH	1631E
Conductivity	**2610**	µS/cm		0.010	1	06/16/22 14:03	CMF	2510B-2011
pH	**6.5**	s.u.			1	06/09/22 15:30	EMP	4500H+B-2011
Total Suspended Solids	**3**	mg/L		2	1	06/13/22 11:15	AMN	2540D-2015
Sulfate	**1660**	mg/L		100	100	06/09/22 16:58	JCA	EPA-300.0
Dissolved Cadmium	**0.154 J**	µg/L	0.135	0.200	1	06/14/22 18:02	FDS	EPA-200.8
Dissolved Copper	<1.00	µg/L	1.00	1.00	1	06/17/22 16:18	FDS	EPA-200.8
Dissolved Iron	<37.6	µg/L	37.6	200	1	06/14/22 18:02	FDS	EPA-200.8
Manganese	**561**	µg/L	2.00	2.00	1	06/14/22 18:50	FDS	EPA-200.8
Dissolved Nickel	**16.3**	µg/L	0.364	1.00	1	06/14/22 18:02	FDS	EPA-200.8
Selenium	**4.80**	µg/L	1.18	2.00	1	06/14/22 18:50	FDS	EPA-200.8
Dissolved Thallium	**0.240 J**	µg/L	0.116	0.400	1	06/14/22 18:02	FDS	EPA-200.8
Dissolved Zinc	**38.2 J**	µg/L	10.0	40.0	1	06/14/22 18:02	FDS	EPA-200.8

Qualifiers/ Definitions

DF Dilution Factor
MQL Method Quantitation Limit
J Estimated value

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **22-160-0125**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T136

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Emily M. Peterson Date & Time: 06/09/2022 13:37:38

Billing Information:

Laboratory Resources and Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine - Locust Fork Red Rock Monthly

City/State collected: Jefferson County, Alabama

Collected by: Steve Stone

Client Project #: **AL0003263**

P.O. #

Collected by (signature):

Packed on Ice? N____ Y____

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Chain of Custody
Page 1 of 1

Laboratory Resources and Solutions, Inc.
A Laboratory Service Provider

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133

Analysis/Container/Preservative

Sample Information	Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	pH SM4500HB (One 1-liter HDPE, non-preserved)	TSS SM2540D	Sulfate E300.0	Specific Conductance SM2510	**Dissolved Cd, Cu, Fe, Ni, Tl, Zn E200.8 (One 250-mL HDPE, non-pres.)	Total Mn, Se E200.8 (One 250-mL HDPE, HNO3-pres.)	Low-level Hg EPA1631 (One 250-mL amber glass, non-pres					Sample Remarks
	Outfall 001-1	Grab	SW	******	6-7-22	3:45	4		X			X	X	X					pH = 7.15
																			**Filter, Preserve and Run Dissolved Metals.

Custody Seals received on:
Cooler(s)/Container(s)

22-160-0125
19736
06-09-2022
13:34:28
Bond Industries, Inc.
Bessie Mine - Locust Fork Red Rock

pH Meter Number _____ Date
3 pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads @

Matrix*: SS - Soil/Solid GW - Groundwater WW - Wastewater SW - Surface Water DW - Drinking Water SLW - Solid Waste LQW - Liquid Waste
SOL - Solvent OI - Oil WI - Wipes PW - Process Water OT - Other (Describe) _____

pH_____ Temp 1.6°C

Project Remarks:

Rainfall in Inches _____ Flow_____ Other 1134 TS

Custody Info	Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
		6.8.22	1329	K. Bluey	6.8.22	1329
	K. Bluey	6/8/22	1700		Date:	Time:
		Date:	Time:	Emily Peterson	6/9/22	1015

Condition (Lab use only)

Bottles Received: pH Checked: NCF:

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

LRS, Inc.

Laboratory Resources & Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, AL 35234

Attention: Mr. Robert Bond

Project ID: **Bessie Mine – Locust Fork Red Rock** (June 10, 2022)
Permit # AL0003263
Quarterly Acute Toxicity Analysis – DSN001-1

Date: July 7, 2022

Data Reviewed by:

Wayne T. Gaston

Wayne Gaston
Project Manager
Laboratory Resources & Solutions, Inc. (LRS)
wgaston@lab-resource.com

* Unless otherwise noted, all analyses on this report performed at Environmental Resource Analysts, Inc., 2975 Brown Court, Auburn, AL 36830.

* These results relate only to the items tested. This report may only be reproduced in full.

* Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc.

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
TOXICITY TEST REPORT SUMMARY

1. GENERAL:

NPDES PERMIT NO.: AL0003263 DSN: 001-1 COUNTY: Jefferson

Permittee: Bond Industries

Facility Name: Bessie Mine and Locust Fork Red Rock

Agent Submitting Report: Mr. Robert Bond

Lab Conducting Toxicity Test(s): ERA, 2975 Brown Ct., Auburn, AL 36830
Months To Test:
This Report for Toxicity Test(s) Required for the Month of: June
Scheduled Test(s): Yes X No Accelerated Test(s): Yes No X
Accelerated Test Number ___ of ___ For Failed Scheduled Test Date:
Test Type Required: 48 -Hr Acute Screening: X ____-Hr Acute Definitive:
Short-term Chronic Screening: ____ Short-term Chronic Definitive:

	Test Organism: Ceriodaphnia dubia			**Test Organism:** Pimephales promelas		
Sam No.	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid
1	6/10/22 15:00	6/12/22 15:30	Yes	6/10/22 15:15	6/12/22 15:40	Yes

2.A. SUMMARY OF RESULTS FOR SCREENING TESTS:

		Test Number											
Test	Eff.	(1)			(2)			(3)			(4)		
Org.	Conc	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow
P.p.	100%	PASS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C.d.	100%	PASS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

3. LABORATORY ANALYSES OF UNDILUTED SAMPLES(S):

SAMPLE Id.	BOD5 mg/l	TSS mg/l	NH3 mg/l	pH su	Alk mg/l	Hard mg/l	TRC mg/l	Conductivity uS
1	N/A	N/A	<0.200	6.7	75	< 5	N/A	2810

Chemical Analyses Performed By (Lab): ERA
Total 24-hour Flow: (1) _____ MGD

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF RESPONSIBLE OFFICIAL: _____ DATE:

FACILITY NAME: Bessie Mine NPDES #: AL0003263 DSN: 001 DATE: 6/10/22

4. SAMPLE COLLECTION:

Split Samples: N/A X Yes ___ (Explain) _____

Samples Collected as Specified in the NPDES Permit: Yes X No (Explain)

Receiving Water: Unnamed Tributary to Locust Fork

Design Flow: _____ (MGD)

Sample Id.	Sample(s) Collected MM/DD/YY HHMM - MM/DD/YY HHMM	Arrival Temp.°C.	Used in Test(s) MM/DD/YY - MM/DD/YY
1	06/10/22 0830	5.4	06/10/22 - 06/12/22

5. CONTROL/DILUTION WATER:

Type	Prepared MM/DD/YY	Begin Use MM/DD/YY	Initial Water Chemistries Hard.	Alk.	pH	Cond. @ °C.
MHRW	6/01/22	6/07/22	97	59	7.6	293 @ 25

6. TOXICITY TEST INFORMATION:

Test Species	Organism Age	Organism Source	Test Solution Concentrations (%)					
P.p.	99 - 101hr	Aquatic Bioassay Supply	100%					
C.d.	0 - 22 hr	ERA	100%					

Test Species	Test Vessel Type	Vessel Vol.(mL)	Solution Vol.(mL)	Org./Test Vessel	Replicates Per Conc.
P.p.	plastic beaker	500	250	10	4
C.d.	plastic beaker	25	20	5	4

Test Species	Temp. Range (°C.)	D.O. Range (mg/L)	pH Range (su)	Light Intensity Average (ft.-c.)
P.p.	25.1 - 25.3	7.7 - 8.3	6.7 - 7.6	75
C.d.	25.1 - 25.2	7.7 - 8.3	6.7 - 7.8	75

7. FEEDING:

Not Fed: X Fed Daily: ___ Fed Irregular: ___ (Explain in Comments Below)

Brine Shrimp: Fed ____ mL Suspension of Newly Hatched Larvae ___ Times Daily.

YCT: Fed ____ mL Suspension Containing _____ g/L TS Daily.

Algae: Fed ____ mL Suspension Containing _____ Algal Cells/mL Daily.

COMMENTS:

FACILITY NAME: Bessie Mine NPDES #: AL0003263 DSN: 001 DATE: 6/10/22

8. REFERENCE TOXICANT TESTS:

TOXICANT: C.d.: NaCl; P.p.: KCl SOURCE: Fisher Scientific

Solution Concentration Unit: mg/l ____ g/L X % ___ Other(specify)

Acute:

Test Org.	Test Date MM/DD - MM/DD	Control Water	Reference Test Solution Concentrations (Control to Highest Conc.)					
P.p.	6/14/22- 6/16/22	MHRW	0	0.25	0.50	0.75	1.0	2.0
C.d.	6/14/22- 6/16/22	MHRW	0	1.25	1.50	1.75	2.00	2.25

Test Org.	Results and 95% Confidence Interval	This Test Upper and Lower CUSUM Chart Control Limit	NUMBER (N)
P.p.	0.953 0.849- 1.068	0.843 - 1.141	20
C.d.	2.05 1.88 - 2.23	1.88 - 2.53	20

Raw Data on File With ADEM Toxics Unit

9. TEST CONDITION VARIABILITY:

9.A. Deviations From Standard Test Conditions:

None

9.B. Test Solution Manipulations or Test Modifications:

None

10. REQUIRED REPORT ATTACHMENTS:

Attach Copies Of Chain-of-Custody Forms, Reference Toxicant Tests, And Raw Data (Bench Sheets) Pertaining To Physical, Chemical, And Biological Measurements For All Tests. Include Suspended, Interrupted, or Discontinued Toxicity Tests Data.

FACILITY NAME: Bessie Mine NPDES #: AL0003263 DSN: 001 DATE: 6/10/22

11.A ACUTE SCREENING TOXICITY TESTS RESULTS:

TEST ORGANISM: Ceriodaphnia dubia
SAMPLE #: 1
ACUTE TOXICITY INDICATED: YES ___ NO X

SOLUTION CONC.(%)	Control	100%	
SURVIVAL (%)	100	100	

NO MORTALITY STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes _____ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)

TEST ORGANISM: Pimephales promelas
SAMPLE #: 1
ACUTE TOXICITY INDICATED: YES ___ NO X

SOLUTION CONC.(%)	Control	100%	
SURVIVAL (%)	100	100	

NO MORTALITY STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes _____ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)

Billing Information:

Laboratory Resources and Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine - Locust Fork Red Rock

City/State collected: Jefferson County, Alabama

Collected by:

Client Project #: **AL0003263**

P.O. #

Collected by (signature):

Packed on Ice? N___ Y___

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Chain of Custody
Page 1 of 1

Laboratory Resources and Solutions, Inc.
A Laboratory Service Provider

Laboratory:
Environmental Resource Analysts, Inc. (ERA)
2795 Brown Court
Auburn, AL 36830

Sample Information

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	Acute Toxicity, Ceriodaphnia E2002.0 (Two 1-gallon HDPE, non-pres	Acute Toxicity, Pimephales E2000.0	Sample Remarks
Outfall 001-1	Grab	SW	******	6/10/22	8:30am	2		X	pH =
									300.1-06,A,B,C

pH Meter Number _____ Date
3 pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads @

Matrix*: SS - Soil/Solid GW - Groundwater WW - Wastewater SW - Surface Water DW - Drinking Water SLW - Solid Waste LQW - Liquid Waste
SOL - Solvent OI - Oil WI - Wipes PW - Process Water OT - Other (Describe) _____

pH_____ Temp_____

Project Remarks: **Analyze for acute toxicity on an undiluted basis.**

Rainfall in Inches _____ Flow_____ Other_____

Custody Info

Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
	6/10/22	10 12		6-10-22	10 12
Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
	6-10-22	1233			
Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
				6/10/22	1233

Condition (Lab use only)
54 N

Bottles Received: pH Checked: NCF:

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

ERA LAB

Client Bessie Mine Sample # 306574

ERA Cooler Receipt Form

1. Condition of Cooler Upon Unpacking

A. Date & Time of Cooler Unpacking 06/20/19 1235 Receiving Analyst: DD

B. Method of Delivery:

☐ Fed Ex ☐ UPS ☐ USPS ☐ ERA Driver ☑ Client Drop Off ☐ Other

Tracking Number

C. Condition of Custody Seal upon arrival: ☑ Absent ☐ Present & Broken by ERA Driver ☐ Present & sealed ☐ Present & broken

2. Condition of Cooler Contents

A. Chain Of Custody Information: ☑ Completed ☐ Incomplete,

B. Cooling Process ☑ Solid Ice ☐ Ice pack ☐ Dry Ice ☐ None ☐ Other

C. Broken Bottles? ☑ No ☐ Yes If yes, which?

D. Temperature °C 5.4 Thermometer ID: Mobile

Reason for incorrect temp: (>6.0°C) ☐ Frozen ☐ Beginning of Cooling process ☐ Ice melted ☐ Other

3. Sample Information and Verification

A. Sample Numbers match Chain of Custody?	☐ Yes	☐ No,	TBM
Correct bottle types used for each sample?	☑ Yes	☐ No,	
All samples arrived within holding time?	☑ Yes	☐ No,	
Sufficient volume in each bottle for tests?	☑ Yes	☐ No,	
B. All samples were verified & marked on the Chain of Custody?	☑ Yes	☐ No,	

C. Samples with preservative have been checked and are in the correct pH range? ☐ Yes, no preservatives needed ☐ No, see preservative info ☑ Not applicable

pH Strip Lot #: 06 223819MV 014 216021V

Additional Preservative information

1 Preservative Type:
2 Preservative Lot #
3 Preservative Type:
4 Preservative Lot #

D. Hexane Lot for O&G 21085795 ☑ N/A

E. Trip Blanks ☐ Absent ☐ Present ☐ N/A

4. Comments and Resolutions

If any non-compliance was noted (temp out of range, holding time exceedance), contact the client to inform them and A document here. Note how client was contacted (email/phone) when/who contacted and result of communication:

How was client contacted: Email Phone Who contacted? Date/Time of contact:

Result of communication:

5. Analyst Conformation

The information regarding cooler, chain of custody, and sample receipt is correct and verified by the analyst. If conditions are not met the appropriate actions were taken by the receiving analyst and/or the lab manager.

Primary Reviewer: DD Secondary Reviewer: VM

ID: 48HRCC
Revision3
Revision Date: 08/13/2020
Effective: 08/13/2020

SOP 609

48 HOUR CERIODAPHNIA TOXICITY TEST

EPA Method 2002.0

Client: Bond Industries - Bessie Mine OF001-1

Test #:	245-11	**Randomization Board :**	as061022	**Age of Test Organisms (Hrs):**	0-22
Sample #:	306223-01b	**pH Meter/Probe:**	YSI 9/38	**Date/Time Orgainisms were fed:**	6/10/2022 10:45
Test Start Date/Time:	6/10/22 15:00	**DO Meter/Probe:**	YSI 9/6	**Water Table ID:**	1
Test End Date/Time:	6/12/22 15:30	**Thermometer ID:**	Indiana/#2	**Section:**	c
Sample Collection Date:	6/9/2022	**Photoperiod:**	16 Hrs Light/ 8 Hrs Dark	**MHRW Lot #:**	5261
		Water Volume :	20 mLs		

CONTROL		Start	24 Hr	48 Hr
Replicate Number	1	5	5	5
	2	5	5	5
	3	5	5	5
	4	5	5	5
Total		20	20	20
pH		7.6	7.7	7.8
DO (mg/L)		8.3	8.1	8.1
Temp (°C)		25.1	25.1	25.2
Date/Time		6/10/22 15:00	6/11/22 15:30	6/12/22 15:30
Initials		EJC/RW	AS	EJC/RW
Obs		N	N	N

% Dilution: 100 Sample: Effluent		Start	24 Hr	48 Hr
Replicate Number	1	5	5	5
	2	5	5	5
	3	5	5	5
	4	5	5	5
Total		20	20	20
pH		6.7	7.5	7.5
DO (mg/L)		7.7	8.2	8.2
Temp (°C)		25.1	25.1	25.2
Date/Time		6/10/22 15:00	6/11/22 15:30	6/12/22 15:30
Initials		EJC/RW	AS	EJC/RW
Obs		NM	N	N

Comments:

Observation Key

N = Normal	PM = Particulate Matter	DS=Daphnia stuck to side of cup	N/A = Not Applicable
ON = On Bottom	ERR= Erratic Swimming	CL = Clear/Colorless	End= End of Brood
OS = On Surface	UM = Undissolved Material	F = Film	M= Male
LETH= Lethargic	PRE = Precipitate	CLDY = Cloudy	F = Female
SM= Small	FC = Flared Carapace	CO = Caught ON	

Environmental Resource Analysts, Inc.
2975 Brown Ct.
Auburn, AL 36830
(334) 502-3444

Q/A Rev'd By _____

SOP 610 | # 48 HOUR FATHEAD MINNOW TEST | **EPA Method 2000.0**

99-101

Client: Bond Industries - Bessie Mine OF001-1

Test #:	245-11	**Randomization Board :**	af0610	**Age of Test Organisms (Hrs):**	~~4 days~~ 5
Sample #:	306514-01b	**pH Meter/Probe:**	AB15-3/29;YSI 6/30;YSI 9/38	**Date/Time Orgainisms were fed:**	6/10/2022 9:45
Test Start Date/Time:	6/10/22 15:15	**DO Meter/Probe:**	YSI 2/2;YSI 6/5;YSI 9/6	**Water Table ID:**	1
Test End Date/Time:	6/12/22 15:40	**Thermometer ID:**	Indiana/#2	**Section:**	d
Sample Collection Date:	6/9/2022	**Photoperiod:**	16 Hrs Light/ 8 Hrs Dark	**MHRW Lot #:**	5261
		Water Volume :	20 mLs	**Fish Lot Number:**	1024

CONTROL		Start	24 Hr	48 Hr
Replicate Number	1	10	10	10
	2	10	10	10
	3	10	10	10
	4	10	10	10
Total		40	40	40
pH		7.6	7.4	7.4
DO (mg/L)		8.3	7.8	7.7
Temp (°C)		25.1	25.1	25.2
Date/Time		6/10/22 15:15	6/11/22 15:40	6/12/22 15:40
Initials		EJC/RW	AS	EJC/RW
Obs		N	N	N

% Dilution: 100		Start	24 Hr	48 Hr
Replicate Number	1	10	10	10
	2	10	10	10
	3	10	10	10
	4	10	10	10
Total		40	40	40
pH		6.7	7.6	7.5
DO (mg/L)		7.7	7.8	7.7
Temp (°C)		25.3	25.1	25.2
Date/Time		6/10/22 15:15	6/11/22 15:40	6/12/22 15:40
Initials		EJC/RW	AS	EJC/RW
Obs		N	N	N

Sample: Effluent

Comments:

Observation Key

1 = Living	OS = On Surface	PRE = Precipitate	CLDY = Cloudy	CL = Clear/Colorless
0 = Dead	LETH= Lethargic	FC = Flared Carapace	F = Film	ERR = Erratic Swimming
N = Normal	ON = On Bottom	N/A = Not Applicable	UM = Undissolved Material	CO = Caught On
			SM= Small	FE= Fish Escaped from cup

Environmental Resource Analysts, Inc.
2975 Brown Ct.
Auburn, AL 36830
(334) 502-3444

Q/A Rev'd By

Toxicity Benchsheet

Client# - Client: 245- Bond Industry Bessie Mine OF001-1

Sample	Sample #	Collection Date/Time	pH 100%	TRC mg/L	Analysis Date/Time/ Analyst	pH Meter/Probe	TRC Meter
#1	306514-01b	6/10/22 8:30	6.7	N/A	6/10/22 15:00 EJC	AB15 3/29	N/A
#2							
#3							

TRC Meter Calibration Date: _____ **Powder Pillow Lot:** _____ **Powder Pillow Manufacturer:** HACH
Powder Pillow Reaction 3 minutes **Timer ID:**

TRC Meter Calibration Date: _____ **Powder Pillow Lot:** _____ **Powder Pillow Manufacturer:** HACH
Powder Pillow Reaction 3 minutes **Timer ID:**

TRC Meter Calibration Date: _____ **Powder Pillow Lot:** _____ **Powder Pillow Manufacturer:** HACH
Powder Pillow Reaction 3 minutes **Timer ID:**

Q/A Rev'd By _____

ERA LAB

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Results of Analysis For: Bond Industries
3700 14th Avenue North
Birmingham, AL 35234

Project: 702-0622
Date Received: 6/10/2022

Sample Number: 306514-01 Date Collected: 06/10/2022 8:30
Sample Type: Grab Location: Bessie Mine OF001-1

Test	Result	Units	MDL	PQL	Method	Date / Time	Analyst	Qualifier
Alkalinity to pH 4.5	75.1	mg/L CaCO3	20	20	SM 2320B-2011	06/13/22 12:36	DS	
Ammonia	<0.200	mg N/L	0.2	0.2	EPA 350.1	06/21/22 14:16	BG	
Conductivity	2,810	µmhos/cm at 25°C	10	147	EPA 120.1	06/18/22 14:30	LC	
Hardness	<5.00	mg CaCO3/L	5	5	SM 2340C-2011	06/13/22 11:11	DS	

MDL: Method Detection Limit
PQL: Practical Quantitation Limit

This report was reviewed for completeness and approved.
Date Complete: 06/23/2022

Dyana Hughes

Dyana Hughes, Reporting Manager

All data on this report is in compliance with the reported method unless otherwise noted.

Erin Consuegra

Erin Consuegra, Technical Manager

LRS, Inc.

Laboratory Resources & Solutions, Inc.
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, Alabama 35234

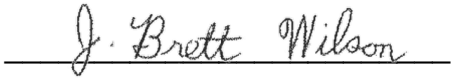
Attention: **Mr. Robert Bond**

Project ID: **Bessie Mine – Locust Fork Red Rock Monthly**
(June 29, 2022)
Project #: AL0003263

Laboratory Report Number: **22-182-0029**

Report Date: July 12, 2022

Data Review by:



Brett Wilson
Project Manager
Laboratory Resources & Solutions, Inc.
bwilson@lab-resource.com

* Unless otherwise noted, all analysis on this report performed at Waypoint Analytical, Inc. 2790 Whitten Road Memphis, TN 38133. NELAC #460181

* These results relate only to the items tested. This report may only be reproduced in full.

* Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc. at (205) 594-1445.

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

7/12/2022

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Lab Report Number: 22-182-0029
Client Project Description: Bessie Mine - Locust Fork Red Rock
Monthly - Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 7/1/2022 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2023
Arkansas	State Program	88-0650	02/07/2023
California	State Program	2904	06/30/2023
Florida	State Program - NELAP	E871157	06/30/2023
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2023
Illinois	State Program - NELAP	200078	10/10/2022
Kentucky	State Program	80215	06/30/2022
Kentucky	State Program	KY90047	12/31/2022
Louisiana	State Program - NELAP	LA037	12/31/2022
Louisiana	State Program - NELAP	04015	06/30/2023
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2022
Pennsylvania	State Program - NELAP	68-03195	05/31/2023
South Carolina	State Program	84002	06/30/2022
Tennessee	State Program	02027	02/11/2023
Texas	State Program - NELAP	T104704180	09/30/2022
Virginia	State Program	00106	06/30/2023
Virginia	State Program - NELAP	460181	09/14/2022

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **22-182-0029**

Client Project Description: **Bessie Mine - Locust Fork Red Rock Monthly - Jefferson County, AL Project #AL0003263**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
87108	Outfall 001-1	Aqueous	06/29/2022 14:30	07/01/2022

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine - Locust Fork Red Rock

Information : Monthly - Jefferson County, AL
Project #AL0003263

Report Date : 07/12/2022
Received : 07/01/2022

Report Number : **22-182-0029**

REPORT OF ANALYSIS

Lab No : **87108**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **6/29/2022 14:30**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Conductivity	**2610**	µS/cm		0.010	1	07/11/22 14:52	IEM	2510B-2011
pH	**6.8**	s.u.			1	07/05/22 12:27	EMP	4500H+B-2011
Total Suspended Solids	**2**	mg/L		2	1	07/05/22 09:40	AMN	2540D-2015
Sulfate	**1530**	mg/L		100	100	07/02/22 02:13	JCA	EPA-300.0
Dissolved Iron	<37.6	µg/L	37.6	200	1	07/11/22 18:54	FDS	EPA-200.8
Manganese	**836**	µg/L	2.00	2.00	1	07/06/22 19:52	JTR	EPA-200.8

Qualifiers/ Definitions DF Dilution Factor MQL Method Quantitation Limit

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **22-182-0029**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T135

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Emily M. Peterson Date & Time: 07/01/2022 11:41:59

Billing Information:

Laboratory Resources and Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine - Locust Fork Red Rock Monthly

City/State collected: Jefferson County, Alabama

Collected by: Austin Clemens

Client Project #: **AL0003263**

P.O. #

Collected by (signature):

Packed on Ice? N____ Y____

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Chain of Custody
Page 1 of 1

Laboratory Resources and Solutions, Inc.
A Laboratory Service Provider

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133

Sample Information

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	pH SM4500HB (One 500-mL HDPE, non-preserved)	TSS SM2540D	Sulfate E300.0	Specific Conductance SM2510	**Dissolved Fe E200.8 (One 250-mL HDPE, non-preserved)	Total Mn E200.8 (One 250-mL HDPE, HNO3-preserved)	Sample Remarks
Outfall 001-1	Grab	SW	******	6/29/22	2:30pm	3			X		X	X	pH = 7.22

****Filter, Preserve and Run Dissolved Metals.**

Custody Seals received on: Cooler(s)/Container(s)

22-182-0029
19736
07-01-2022
11:41:37
Bond Industries, Inc.
Bessie Mine - Locust Fork Red Rock

pH Meter Number _____ Date
3 pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads @

Matrix*: SS - Soil/Solid GW - Groundwater WW - Wastewater SW - Surface Water DW - Drinking Water SLW - Solid Waste LQW - Liquid Waste
SOL - Solvent OI - Oil WI - Wipes PW - Process Water OT - Other (Describe) _____

pH_____ Temp 1.0°C JTS 8/2

Project Remarks:

Rainfall in Inches _____ Flow_____ Other_____

Custody Info

Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
	6/29/22	2:30pm	K. Bluley	6.30.22	1241
K. Bluley	6/30/22	1700			
			Emily Peterson	7/1/22	1030

Condition (Lab use only)

Bottles Received: pH Checked: NCF:

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

LRS, Inc.

Laboratory Resources & Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, AL 35234

Attention: Mr. Robert Bond

Project ID: **Bessie Mine – Locust Fork Red Rock Monthly**
(August 16, 2022)
Permit # AL0003263, Outfall 001-1

Laboratory Report Number: **22-230-0065**

Report Date: August 26, 2022

Data Reviewed by:

Wayne T. Gaston

Wayne Gaston
Project Manager
Laboratory Resources & Solutions, Inc.
wgaston@lab-resource.com

- Unless otherwise noted, all analysis on this report performed at Waypoint Analytical, Inc., 2790 Whitten Road, Memphis, TN 38133. NELAC #460181
- These results relate only to the items tested. This report may only be reproduced in full.
- Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc. at (205) 594-1445.

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

8/26/2022

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Lab Report Number: 22-230-0065
Client Project Description: Bessie Mine - Locust Fork Red Rock
Monthly - Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 8/18/2022 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2023
Arkansas	State Program	88-0650	02/07/2023
California	State Program	2904	06/30/2023
Florida	State Program - NELAP	E871157	06/30/2023
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2023
Illinois	State Program - NELAP	200078	10/10/2022
Kentucky	State Program	80215	06/30/2023
Kentucky	State Program	KY90047	12/31/2022
Louisiana	State Program - NELAP	LA037	12/31/2022
Louisiana	State Program - NELAP	04015	06/30/2023
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2022
Pennsylvania	State Program - NELAP	68-03195	05/31/2023
South Carolina	State Program	84002	06/30/2022
Tennessee	State Program	02027	02/11/2023
Texas	State Program - NELAP	T104704180	09/30/2022
Virginia	State Program	00106	06/30/2023
Virginia	State Program - NELAP	460181	09/14/2022

Laboratory ID: WP RMS: Waypoint Analytical Mississippi, Inc., Ridgeland, MS

State	Program	Lab ID	Expiration Date
Arkansas	State Program	88-1409	02/01/2023
Kentucky	State Program	KY98013	12/31/2022
Louisiana	State Program - NELAP	04023	06/30/2023
North Carolina	State Program	694	12/31/2022

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **22-230-0065**

Client Project Description: **Bessie Mine - Locust Fork Red Rock Monthly - Jefferson County, AL Project #AL0003263**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
89737	Outfall 001-1	Aqueous	08/16/2022 13:32	08/18/2022		
89737	Outfall 001-1	Aqueous	08/16/2022 13:32	08/18/2022	1631E	WP RMS

WP RMS - Ridgeland, MS: Waypoint Analytical - MS, Ridgeland, MS

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Client: Bond Industries, Inc. **CASE NARRATIVE**
Project: Bessie Mine - Locust Fork Red Rock
Lab Report Number: 22-230-0065
Date: 8/26/2022

Low Level Mercury Method 1631E
Sample 89403 (Effluent 001-A)
Analyte: Mercury
QC Batch No: G172548/G172547
Although the Matrix Spike recovery was outside acceptable limits, it is not applicable due to the required dilution factor. All other QC was within acceptable limits; therefore the data is valid.

Metals Analyses Method EPA-200.8
Sample 89656 (Effluent (Composite))
QC Batch No: L633614/L633212
Based on sample screening, a dilution was performed due to high levels of target and/or non-target analytes. Reporting limits have been adjusted accordingly.

Sample 89656 (Effluent (Composite))
Analyte: Manganese
QC Batch No: L633614/L633212
The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A dilution test was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Total Suspended Solids Method 2540D-2015
QC Batch No: L633363
Relative percent difference (RPD) for the duplicate analysis was outside of the allowable quality control limits. The sample and duplicate results are less than ten times the reporting limit. At this level, RPD is not applicable. The data is considered to be acceptable.

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine - Locust Fork Red Rock

Information : Monthly - Jefferson County, AL
Project #AL0003263

Report Date : 08/26/2022
Received : 08/18/2022

Report Number : **22-230-0065**

REPORT OF ANALYSIS

Lab No : **89737**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **8/16/2022 13:32**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Mercury	**2.10**	ng/L		0.500	1	08/25/22 23:12	JMR	1631E
Conductivity	**2740**	µS/cm		0.010	1	08/23/22 15:08	CMF	2510B-2011
pH	**6.9**	s.u.			1	08/22/22 09:26	EMP	4500H+B-2011
Total Dissolved Solids	**2540**	mg/L		78.1	1	08/23/22 16:59	ADM	2540C-2015
Total Suspended Solids	**10**	mg/L		2	1	08/22/22 10:33	DRS	2540D-2015
Sulfate	**1530**	mg/L		100	100	08/18/22 22:40	SPJ	EPA-300.0
Dissolved Cadmium	<0.135	µg/L	0.135	0.200	1	08/22/22 20:43	BKN	EPA-200.8
Dissolved Copper	<1.00	µg/L	1.00	1.00	1	08/22/22 20:43	BKN	EPA-200.8
Dissolved Iron	<37.6	µg/L	37.6	200	1	08/22/22 20:43	BKN	EPA-200.8
Manganese	**2740**	µg/L	2.00	2.00	1	08/22/22 22:02	BKN	EPA-200.8
Dissolved Nickel	**29.0**	µg/L	0.364	1.00	1	08/22/22 20:43	BKN	EPA-200.8
Selenium	**3.30**	µg/L	1.18	2.00	1	08/22/22 22:02	BKN	EPA-200.8
Dissolved Thallium	**0.327 J**	µg/L	0.116	0.400	1	08/22/22 20:43	BKN	EPA-200.8
Dissolved Zinc	**38.6 J**	µg/L	10.0	40.0	1	08/22/22 20:43	BKN	EPA-200.8

Qualifiers/ Definitions

DF Dilution Factor
MQL Method Quantitation Limit
J Estimated value

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **22-230-0065**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T99

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Summer Harrison Date & Time: 08/18/2022 11:02:22

Billing Information:

Laboratory Resources and Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine - Locust Fork Red Rock Monthly

City/State collected: Jefferson County, Alabama

Collected by: Austin Clem

Client Project #: **AL0003263**

P.O. #

Collected by (signature):

Packed on Ice? N___ Y___

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Chain of Custody
Page 1 of 1

Laboratory Resources and Solutions, Inc.
A Laboratory Service Provider

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133

Analysis/Container/Preservative

Sample Information	Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	pH SM4500HB (One 1-liter HDPE, non-preserved)	TSS SM2540D	TDS SM2540C	Sulfate E300.0	Specific Conductance SM2510	**Dissolved Cd, Cu, Fe, Ni, Tl, Zn E200.8 (One 250-mL HDPE, non-pres.)	Total Mn, Se E200.8 (One 250-mL HDPE, HNO3-pres.)	Low-level Hg EPA1631 (One 250-mL amber glass, non-pres				Sample Remarks
	Outfall 001-1	Grab	SW	******	8.16.22	1:32pm	4			X			X	X	X				pH = 7.15
																			**Filter, Preserve and Run Dissolved Metals.

Custody Seals received on:
Cooler(s)/Container(s)


22-230-0065
19736
08-18-2022
11:01:08
Bond Industries, Inc.
Bessie Mine - Locust Fork Red Rock

pH Meter Number _____ Date
3 pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads @

Matrix*: SS - Soil/Solid GW - Groundwater WW - Wastewater SW - Surface Water DW - Drinking Water SLW - Solid Waste LQW - Liquid Waste
SOL - Solvent OI - Oil WI - Wipes PW - Process Water OT - Other (Describe) _____

pH_____ Temp 0.7 TPG SUH

Project Remarks:

Rainfall in Inches _____ Flow_____ Other_____

Custody Info

Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
	8.16.22	1:32pm		8/17/22	1020
Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
	8/17/22	1700			
Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
			Summer Hamison	8/18/22	09:15

Condition (Lab use only)

Bottles Received: pH Checked: NCF:

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

LRS, Inc.

Laboratory Resources & Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, AL 35234

Attention: Mr. Robert Bond

Project ID: **Bessie Mine- Locust Fork Red Rock Monthly**
(August 30, 2022)

Laboratory Report Numbers:

L-090222-07 (LRS)
22-246-0023 (Waypoint)

Report Date: September 13, 2022

Data Reviewed by:

Sherry McKinney

Sherry McKinney
Assistant Project Manager
Laboratory Resources & Solutions, Inc.
smckinney@lab-resource.com

- This report contains results of analysis conducted by two lab facilities:
  - Laboratory Resources & Solutions, Inc. (LRS)
  - Waypoint Analytical, Inc., 2790 Whitten Road, Memphis, TN 38133. NELAC #460181
- These results relate only to the items tested. This report may only be reproduced in full.
- Local support services for this project are also provided by LRS.
- All questions regarding this report should be directed to LRS, Inc. at (205) 594-1445.

Laboratory Resources and Solutions, Inc.
A Full Service Analytical Laboratory Provider

www.lab-resource.com
PO Box 1260/205 6th Ave
Ashville, Alabama 35953
Telephone: 1-205-594-1445
Fax: 1-205 594-1132

CERTIFICATE OF ANALYSIS

Laboratory Report ID: L-090222-07

Client: Bond Industries, Inc

Address: 3700 14th Avenue North
Birmingham, AL 35234

Contact: Mr. Robert Bond
Telephone: 205-612-2663 (cell)
Email: rb@bondindustries.com

Project ID: Bessie Mine- Locust Fork Red Rock Monthly
Permit ID: AL0003263

LRS Sample ID: 090222-07
Client Sample ID: **Outfall 001-1**

Date & Time Collected: 08/30/22@1100
Date & Time Received 09/02/22@1200
Matrix: Aqueous

Parameter	Result	Units	MQL	DF	Date/Time Analyzed	Analyst	Method
Total Suspended Solids (TSS)	<2	mg/L	2	1	09/06/22@0928	HNW	SM2540D
Specific Conductance	2,564	us/cm	---	---	09/06/22@1030	JKL	SM2510B

Method Reference – Standard Methods for the Examination of Water and Wastewater, 23rd Edition

Laboratory Resources and Solutions, Inc.
A Full Service Analytical Laboratory Provider

www.lab-resource.com
PO Box 1260/205 6th Ave
Ashville, Alabama 35953
Telephone: 1-205-594-1445
Fax: 1-205 594-1132

CERTIFICATE OF ANALYSIS

Laboratory Report ID: L-090222-07

Client: Bond Industries, Inc

Address: 3700 14th Avenue North
Birmingham, AL 35234

Contact: Mr. Robert Bond
Telephone: 205-612-2663 (cell)
Email: rb@bondindustries.com

Project ID: Bessie Mine- Locust Fork Red Rock Monthly
Permit ID: AL0003263

LRS Sample ID: 090222-07
Client Sample ID: **Outfall 001-1**

Date & Time Collected: 08/30/22@1100
Date & Time Received 09/02/22@1200
Matrix: Aqueous

Parameter	Result	Units	MQL	DF	Date/Time Analyzed	Analyst	Method
pH	7.04	S.U	----	----	09/02/22@0943	HNW	SM4500-H+B

Method Reference – Standard Methods for the Examination of Water and Wastewater, 23rd Edition

RPD= Relative Percent Difference, acceptable range: <25%

Laboratory Resources and Solutions, Inc.
A Full Service Analytical Laboratory Provider

www.lab-resource.com
PO Box 1260/205 6th Ave
Ashville, Alabama 35953
Telephone: 1-205-594-1445
Fax: 1-205 594-1132

QUALITY CONTROL DATA

PROJECT INFORMATION
Bessie Mine- Locust Fork Red Rock Monthly
L-090222-07
Total Suspended Solids QC Analytical Batch: R-100141

Lab. Reagent Blank (LRB)

Parameter	LRB Results	Units	MQL	DF	Date/Time Analyzed	Method
Total Suspended Solids (TSS)	3	mg/L	2	1	09/06/22@0928	SM2540D

Laboratory Control (LC)

Parameter	LC Result	Units	LC Range	LC % Recovered	Date/Time Analyzed	Method
Total Suspended Solids (TSS)	93	mg/L	80-120	93%	09/06/22@0928	SM2540D

Duplicate: 083122-0811R

Parameter	Sample Result	Duplicate Result	Units	RPD	Date/Time Analyzed	Method
Total Suspended Solids (TSS)	38	35	mg/L	8%	09/06/22@0928	SM2540D

Method Reference – Standard Methods for the Examination of Water and Wastewater, 23rd Edition

Laboratory Control – Celite 545 certified at 100mg/L (Acceptable Range = 80-120mg/L)

RPD= Relative Percent Difference, acceptable range: <25%

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

9/12/2022

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Lab Report Number: 22-246-0023
Client Project Description: Bessie Mine - Locust Fork Red Rock
Monthly - Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 9/3/2022 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2023
Arkansas	State Program	88-0650	02/07/2023
California	State Program	2904	06/30/2023
Florida	State Program - NELAP	E871157	06/30/2023
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2023
Illinois	State Program - NELAP	200078	10/10/2022
Kentucky	State Program	80215	06/30/2023
Kentucky	State Program	KY90047	12/31/2022
Louisiana	State Program - NELAP	LA037	12/31/2022
Louisiana	State Program - NELAP	04015	06/30/2023
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2022
Pennsylvania	State Program - NELAP	68-03195	05/31/2023
South Carolina	State Program	84002	06/30/2022
Tennessee	State Program	02027	02/11/2023
Texas	State Program - NELAP	T104704180	09/30/2022
Virginia	State Program	00106	06/30/2023
Virginia	State Program - NELAP	460181	09/14/2022

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **22-246-0023**

Client Project Description: **Bessie Mine - Locust Fork Red Rock Monthly - Jefferson County, AL Project #AL0003263**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
99537	Outfall 001-1	Aqueous	08/30/2022 11:00	09/03/2022

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine - Locust Fork Red Rock

Information : Monthly - Jefferson County, AL
Project #AL0003263

Report Date : 09/12/2022
Received : 09/03/2022

Report Number : **22-246-0023**

REPORT OF ANALYSIS

Lab No : **99537**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **8/30/2022 11:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Sulfate	**1570**	mg/L		100	100	09/06/22 17:23	SPJ	EPA-300.0
Dissolved Iron	<37.6	µg/L	37.6	200	1	09/08/22 20:19	JTR	EPA-200.8
Manganese	**1384**	µg/L	1.00	2.00	1	09/08/22 20:46	JTR	EPA-200.8
Dissolved Thallium	**0.296 J**	µg/L	0.116	0.400	1	09/08/22 20:19	JTR	EPA-200.8

Qualifiers/ Definitions

DF Dilution Factor
MQL Method Quantitation Limit
J Estimated value

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **22-246-0023**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T99

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Summer Harrison Date & Time: 09/03/2022 11:56:25

Billing Information:

Laboratory Resources and Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine - Locust Fork Red Rock Monthly

City/State collected: Jefferson County, Alabama

Collected by: Trisha Clem

Client Project #: **AL0003263**

P.O. #

Collected by (signature):

Packed on Ice? N____ Y____

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Chain of Custody
Page 1 of 1

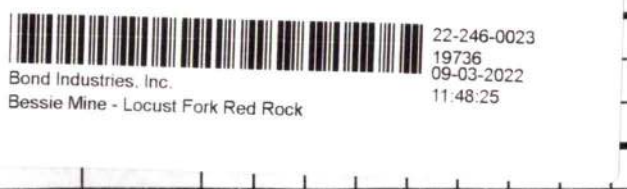
Laboratory Resources and Solutions, Inc.
A Laboratory Service Provider

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133

Sample Information							Analysis/Container/Preservative												
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	~~pH SM4500HB~~ (One 500-mL HDPE, non-preserved)	~~TSS SM2540D~~	Sulfate E300.0	~~Specific Conductance SM2510~~	**Dissolved Fe E200.8 (One 250-mL HDPE, non-preserved)	Total Mn E200.8 (One 250-mL HDPE, HNO3-preserved)	** Dissolved Thallium E200.8						
Outfall 001-1	Grab	SW	******	8/30	11:00am	3			X		X	X	X						

Sample Remarks
pH = 7.04
****Filter, Preserve and Run Dissolved Metals.**

Custody Seals received on:
Cooler(s)/Container(s)



pH Meter Number _____ Date 8/30
3 pt. Calibration 7.00 _____ Time 11:00am
4.01 _____
10.00 _____
Cal. Check (7.00) Reads @

Matrix*: SS - Soil/Solid GW - Groundwater WW - Wastewater SW - Surface Water DW - Drinking Water SLW - Solid Waste LQW - Liquid Waste
SOL - Solvent OI - Oil WI - Wipes PW - Process Water OT - Other (Describe) _____

pH_____ Temp 2.8 °C 8/31

Project Remarks:

Rainfall in Inches _____ Flow_____ Other_____

Custody Info								
Relinquished by:(Signature)	Date: 8/30/22	Time: 11:00 PM	Received by:(Signature) Trenton Alexander	Date: 9-2-22	Time: 10 16	Condition (Lab use only)		
Relinquished by:(Signature) Trenton Alexander	Date: 9/2/22	Time: 17 00	Received by:(Signature) Summer Henson	Date: 9/3/22	Time: 09:50	10596133		
Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date: 8/31	Time:	Bottles Received:	pH Checked:	NCF:

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

Page 6 of 6

Chain of Custody
Page 1 of 1

Billing Information:

Laboratory Resources and Solutions, Inc.
P O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Laboratory Resources and Solutions, Inc.
A Laboratory Service Provider

Project Name: Bessie Mine - Locust Fork Red Rock Monthly
City/State collected: Jefferson County, Alabama

Collected by: Austin Stem
Client Project #: AL0003263
P.O. #

Collected by (signature):

Packed on Ice? N____ Y____

Project Turnaround (Begins on Lab Login Date)
RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)
Date Results Needed:

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133

Analysis/Container/Preservative

Sample Information	Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	pH SM4500HB (One 500-mL HDPE, non-preserved)	TSS SM2540D	Sulfate E300.0	Specific Conductance SM2510	**Dissolved Fe E200.8 (One 250-mL HDPE, non-preserved)	Total Mn E200.8 (One 250-mL HDPE, HNO3-preserved)	*** Dissolved Thallium E200.8	Sample Remarks
	Outfall 001-1	Grab	SW	******	8/30	11:20am	3		X			X	X	X	pH = 7.04
															**Filter, Preserve and Run Dissolved Metals.

pH Meter Number _____ Date 8/30
3 pt. Calibration 7.00 _____ Time 11:20am
4.01 _____
10.00 _____
Cal. Check (7.00) Reads _____ @

Matrix*: SS - Soil/Solid GW - Groundwater WW - Wastewater SW - Surface Water DW - Drinking Water SLW - Solid Waste LQW - Liquid Waste
SOL - Solvent OI - Oil WI - Wipes PW - Process Water OT - Other (Describe) _____

pH_____ Temp_____
Rainfall in Inches _____ Flow_____ Other_____

Project Remarks:

Custody Info		Date:	Time:		Date:	Time:	Condition (Lab use only)
	Relinquished by:(Signature)	8/30/22	11:20am	Received by:(Signature) Trenton Alexander	9-2-22	10 16	
	Relinquished by:(Signature) Trenton Alexander	9-2-22	1200	Received by:(Signature) Sherry Montgomery	9-2-22	1200	
	Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:	Bottles Received: pH Checked: NCF:

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

Laboratory Resources and Solutions, Inc.
A Full Service Analytical Laboratory Provider

PO Box 1260 / 205 6th Avenue
Ashville, Alabama 35953
Phone 205-594-1445 / Fax 205-594-1132
www.lab-resource.com

Shipment Receipt Form

Customer Name: Bond Industries Inc

Project Name: Bessie Mine- Locust Fork Red Rock Mthly

LRS Work Order #: L-090222-07 (0708)

Shipment Method

(✓) LRS | FedEx | US Postal
Client D.O. | UPS | Other:

Shipping Container/cooler compromised?	○ Yes	✓ No	○ N/A
Number of Coolers / Boxes received? 1		Total Container Count? 1	
Custody Seals intact on shipping container/cooler?	○ Yes	○ No	○ N/A
Custody seals intact on sample bottles?	○ Yes	○ No	○ N/A
○ Cooler / ○ Sample Temp upon receipt? ★		Thermometer ID: NA	
Sample(s) received at 0-6°C (or 0-8°C for BACT)	✓ Yes	○ No	○ N/A
Samples are considered acceptable as cooling process has begun?	✓ Yes	○ No	○ N/A
Chain of Custody (CoC) present?	✓ Yes	○ No	
CoC agrees with sample label(s)?	✓ Yes	○ No	
Collection times noted?	✓ Yes	○ No	
Samples in proper container types?	✓ Yes	○ No	
Sample contains proper preservative?	○ Yes	○ No	✓ N/A
Sample containers intact?	✓ Yes	○ No	
All samples received within holding time?	✓ Yes	○ No	
Requested turn-around time on CoC?	○ Yes	✓ No	

Comments:

★ Sample received on ice

Signature: Sherry McKinney

Date/Time of Receipt: 9-2-22 @ 1200

LRS, Inc.

Laboratory Resources & Solutions, Inc.
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Data Report

Client: **Bond Industries, Inc.**
3700 14th Avenue North
Birmingham, Alabama 35234

Attention: **Mr. Robert Bond**

Project ID: **Bessie Mine – Locust Fork Red Rock Monthly**
(September 9, 2022)
Project #: AL0003263

Laboratory Report Number: **22-256-0043**

Report Date: September 23, 2022

Data Review by:



Brett Wilson
Project Manager
Laboratory Resources & Solutions, Inc.
bwilson@lab-resource.com

* Unless otherwise noted, all analysis on this report performed at Waypoint Analytical, Inc. 2790 Whitten Road Memphis, TN 38133. NELAC #460181

* These results relate only to the items tested. This report may only be reproduced in full.

* Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc. at (205) 594-1445.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

9/23/2022

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Lab Report Number: 22-256-0043
Client Project Description: Bessie Mine - Locust Fork Red Rock
Monthly - Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 9/13/2022 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2023
Arkansas	State Program	88-0650	02/07/2023
California	State Program	2904	06/30/2023
Florida	State Program - NELAP	E871157	06/30/2023
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2023
Illinois	State Program - NELAP	200078	10/10/2023
Kentucky	State Program	80215	06/30/2023
Kentucky	State Program	KY90047	12/31/2022
Louisiana	State Program - NELAP	LA037	12/31/2022
Louisiana	State Program - NELAP	04015	06/30/2023
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2022
Pennsylvania	State Program - NELAP	68-03195	05/31/2023
South Carolina	State Program	84002	06/30/2022
Tennessee	State Program	02027	02/11/2023
Texas	State Program - NELAP	T104704180	09/30/2022
Virginia	State Program	00106	06/30/2023
Virginia	State Program - NELAP	460181	09/14/2023

Laboratory ID: WP RMS: Waypoint Analytical Mississippi, Inc., Ridgeland, MS

State	Program	Lab ID	Expiration Date
Arkansas	State Program	88-1409	02/01/2023
Kentucky	State Program	KY98013	12/31/2022
Louisiana	State Program - NELAP	04023	06/30/2023
North Carolina	State Program	694	12/31/2022

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **22-256-0043**

Client Project Description: **Bessie Mine - Locust Fork Red Rock Monthly - Jefferson County, AL Project #AL0003263**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
98276	Outfall 001-1	Aqueous	09/09/2022 11:00	09/13/2022		
98276	Outfall 001-1	Aqueous	09/09/2022 11:00	09/13/2022	1631E	WP RMS

WP RMS - Ridgeland, MS: Waypoint Analytical - MS, Ridgeland, MS

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine - Locust Fork Red Rock

Information : Monthly - Jefferson County, AL
Project #AL0003263

Report Date : 09/23/2022
Received : 09/13/2022

Report Number : **22-256-0043**

REPORT OF ANALYSIS

Lab No : **98276**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **9/9/2022 11:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Mercury	**1.06**	ng/L		0.500	1	09/16/22 20:41	JMR	1631E
Conductivity	**2570**	µS/cm		0.010	1	09/14/22 15:36	CMF	2510B-2011
pH	**7.3**	s.u.			1	09/13/22 16:03	EMP	4500H+B-2011
Total Suspended Solids	**21**	mg/L		2	1	09/15/22 10:05	DRS	2540D-2015
Sulfate	**1550**	mg/L		100	100	09/22/22 01:23	SPJ	EPA-300.0
Dissolved Cadmium	**0.157 J**	µg/L	0.135	0.200	1	09/17/22 02:49	BKN	EPA-200.8
Dissolved Copper	<1.00	µg/L	1.00	1.00	1	09/17/22 02:49	BKN	EPA-200.8
Dissolved Iron	<37.6	µg/L	37.6	200	1	09/17/22 02:49	BKN	EPA-200.8
Manganese	**1020**	µg/L	2.00	2.00	1	09/17/22 00:43	BKN	EPA-200.8
Dissolved Nickel	**20.3**	µg/L	0.364	1.00	1	09/17/22 02:49	BKN	EPA-200.8
Selenium	**3.74**	µg/L	1.18	2.00	1	09/17/22 00:43	BKN	EPA-200.8
Dissolved Thallium	**0.235 J**	µg/L	0.116	0.400	1	09/19/22 18:38	BKN	EPA-200.8
Dissolved Zinc	**33.0 J**	µg/L	10.0	40.0	1	09/19/22 18:38	BKN	EPA-200.8

Qualifiers/ Definitions

B	Analyte detected in blank	DF	Dilution Factor
J	Estimated value	MQL	Method Quantitation Limit

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **22-256-0043**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T135

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Emily M. Peterson Date & Time: 09/13/2022 11:26:12

Billing Information:

Laboratory Resources and Solutions, Inc.
P.O. Box 1260
205 6th Avenue
Ashville, Alabama 35953
(205) 594-1445

LRS Client Information:

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

"Report to" Contact:
Mr. Robert Bond

Project Name: Bessie Mine - Locust Fork Red Rock Monthly

City/State collected: Jefferson County, Alabama

Collected by: Angela Clancy

Client Project #: AL0003263

P.O. #

Collected by (signature):

Packed on Ice? N___ Y___

Project Turnaround (Begins on Lab Login Date)

RUSH? Please Notify LRS
_____ Same Day (200%)
_____ Next Day (100%)
_____ Two Day (50%)
_____ Three Day (25%)

Date Results Needed:

Chain of Custody
Page 1 of 1

Laboratory Resources and Solutions, Inc.
A Laboratory Service Provider

Laboratory:
Waypoint Analytical
2790 Whitten Road
Memphis, TN 38133

Sample Information

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Number of Containers	pH SM4500HB (One 1-liter HDPE, non-preserved)	TSS SM2540D	Sulfate E300.0	Specific Conductance SM2510	**Dissolved Cd, Cu, Fe, Ni, Tl, Zn E200.8 (One 250-mL HDPE, non-pres.)	Total Mn, Se E200.8 (One 250-mL HDPE, HNO3-pres.)	Low-level Hg EPA1631 (One 250-mL amber glass, non-pres
Outfall 001-1	Grab	SW	******	9/9/22	11:00	4		X			X	X	X

Sample Remarks
pH = 7.13
**Filter, Preserve and Run Dissolved Metals.

Custody Seals received on:
Cooler(s) Container(s)

22-256-0043
19736
09-13-2022
11:23:33
Bond Industries, Inc.
Bessie Mine - Locust Fork Red Rock

pH Meter Number _____ Date
3 pt. Calibration 7.00 _____ Time
4.01 _____
10.00 _____
Cal. Check (7.00) Reads @

Matrix*: SS - Soil/Solid GW - Groundwater WW - Wastewater SW - Surface Water DW - Drinking Water SLW - Solid Waste LQW - Liquid Waste
SOL - Solvent OI - Oil WI - Wipes PW - Process Water OT - Other (Describe) _____

pH_____ Temp 1.3°C

Project Remarks:

Rainfall in Inches _____ Flow_____ Other T735

Custody Info

Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
	9/9/22	11:00	K. Bussey	9.12.22	1030
K. Bussey	9-12-22	1700	Emily Peterson	9/13/22	1040
Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:

Condition (Lab use only)

Bottles Received: pH Checked: NCF:

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

LRS, Inc.

Laboratory Resources and Solutions, Inc.

P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

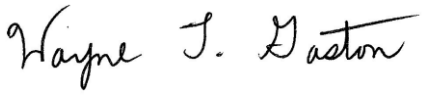
Analytical Data Report

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

Project ID:	Bessie Mine - Locust Fork Red Rock Monthly
Sample Date:	September 10, 2025
Laboratory Report Number:	111196
Report Date:	Wednesday, October 1, 2025

LRS received sample(s) from Bond Industries on Thursday, September 11, 2025 at 8:00 am. Unless otherwise noted, all samples were received in good condition and were tested in accordance with the laboratory's quality control procedures.

Data Reviewed By:



Wayne Gaston
Project Manager

Laboratory Resources and Solutions, Inc.

wgaston@lab-resource.com

LRS, Inc.

Laboratory Resources and Solutions, Inc.

P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

CERTIFICATE OF ANALYSIS

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234
Robert Bond

Project ID: Bessie Mine - Locust Fork Red
Project No AL0003263

LRS Sample ID: 111196-01
Client Sample ID: Outfall 001-1

Date & Time Collected: 09/10/2025@1030
Date & Time Received: 09/11/2025@800
Matrix: Surface Water

Parameter	Result	Units	MQL	DF	Date/Time Analyzed	Analyst	Method
Conductivity	2.5	umhos/cm	0.1	1	09/15/2025@1105	ADW	SM2540D (A)
Conductivity Temperature	73.2	°F		1	09/15/2025@1105	ADW	SM2550B (A)
pH	6.78	SU		1	09/11/2025@940	JMK	SM4500H+B (F)
pH Temperature	61.5	°F		1	09/11/2025@940	JMK	SM2550B(F)
TSS	<2	mg/L	2	1	09/12/2025@1306	JMK	SM2540D

Approved By

Michael LC Norris
Laboratory Manager

LRS, Inc.

Laboratory Resources and Solutions, Inc.

P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Methods

(A) Method Reference – Standard Methods for the Examination of Water and Wastewater, 23rd Edition.

(B) Method Reference – This method was developed under EPA contract 68-C-98-139. US EPA National Center for Environmental Publications and Information, EPA 821-R-98-002, February 1999.

(C) Sample was filtered through a 0.45um glass fiber filter prior to analysis.

(D) Method Reference - Test Methods for Evaluating Solid Waste: Physical/Chemical Methods Compendium (SW-846)

Field Methods

(E) Field Flow = Flow analyzed via JDC Electronics Flowatch ® flowmeter, referencing method SESD (Science and Ecosystem Support Division - USEPA) 109-R4

(F) Field pH and Field Temperature = Analyzed via an Oakton pH Tester® 30 Waterproof Pocket (Double Junction), for analysis of pH and Temperature.

(G) Residual Chlorine = Analyzed via a Hach Pocket Colorimeter ™ II, for analysis of Chlorine (Free and Total).

Analyst Name:	Field Service Tech Name:
Andrew Witchell (ADW)	Jo Ella Hood (JEH)
Jesse Lunsford (JKL)	Kathryn Bailey (KMB)
Jzyk King (JMK)	Michael Norris (MLN)
Michael Norris (MLN)	Mike Summy (DMS)
	Trent Alexander (TSA)

LRS, Inc.

Laboratory Resources and Solutions, Inc.

P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

QAQC Results

QC Batch

Test	Batch
Conductivity	R-620089
pH	R-610231
TSS	R-100473

QC Blank

Test	Type of Blank	Blank Value
Conductivity	Initial	19.7
TSS	Initial	<2

QC Duplicates

Test	Sample ID	Result	Duplicate	% RPD	Max % RPD
Conductivity	111196-01	2.48	2.48	0.0	25
pH	111196-01	6.78	6.78	0.0	25
TSS	111225-01	16	16	0.0	25

QC Standards

Test	Standard	Low Limit	Obtained	High Limit	% Recovery
Conductivity	Cert. @1413 us/cm	1406	1412	1420	99.9
pH	CV/QCS	6.9	6.97	7.1	99.6
TSS	Celite 545 Cert.@1	80	96	120	96.0

LRS Client Info	Bond Industries, Inc. 3700 14th Avenue North Birmingham, AL 35234	Project:	Bessie Mine - Locust Fork Red Rock Monthly		
		Project Desc:	AL0003263		
		Date Req:		Standard 5 to 8 business days (No Surcharge)	
		Project Turnaround (Begins on Lab Login Date)	Two Day (50%)	Next Day (100%)	
			Three Day (25%)	Same Day (200%)	

Laboratory Resources and Solutions, Inc.
A Laboratory Service Provider
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
Phone: (205) 594-1445

Chain of Custody

Report To: **Robert Bond**

Collected By: Bradley Sims

City/State Collected: Jefferson County, Alabama

Packed on Ice? No _____ Yes _____

P.O. Number:

Field Testing: pH Meter No:; Date and Time:; 3 pt. Calibration:; Cal. Check Stnd. 7.00 @ C; pH: 8.31; Temp (C):; Rainfall (in):; Flow:

LRS Sample No	Client Sample ID	Type	Matrix	Date	Time	(1) Conductivity SM2510 (A) HDPE 1L Non-Pres A	(1) Conductivity Temperature SM2550B (A) HDPE 1L Non-Pres A	(1) Dissolved Metals E200.8 HDPE 250mL Non-Pres B	(1) LL- Mercury (Hg) E1631 Glass 8oz Amber Packer Non-Pres D	(1) pH SM4500H+B HDPE 1L Non-Pres A	(1) pH Temperature SM2550B HDPE 1L Non-Pres A	(1) Sulfate E300.0 HDPE 250mL Non-Pres B	(1) Total Metals E200.8 HDPE 250mL HNO_3 Vial C	(1) TSS SM2540D (A) HDPE 1L Non-Pres A	Notes
111196-01	Outfall 001-1	G	SW	9/10/25	10:30										Dissolved Metals: Cd, Cu, Fe, Ni, Tl, Zn Total Metals: Mn, Se Aliquot for Dissolved Metals 200.8 must be filtered and preserved by the lab prior to analysis.
															Remarks

DW Drinking Water; GW Ground Water; LQW Liquid Waste; OI Oil; OT Other; PW Process Water; S Soil; SLD Sludge
SLW Solid Waste; SOL Solvent; SS Soil/Solid; SW Surface Water; W Water; WI Wipes; WW Wastewater

	Date	Time		Date	Time	
Relinquished by:(Signature)	9/10/25	11:00	Received by:(Signature)	9/10/25	1247	Condition (Lab Use Only)
Relinquished by:(Signature)	9/11/25	08:00	Received by:(Signature)	9/11/25	08:00	
Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:	Bottles Rcvd pH Checked NCF

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

LRS, Inc.

Laboratory Resources and Solutions, Inc.

P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Lab Number **111196**
Client Bond Industries
Project Bessie Mine - Locust Fork Red Rock Monthly

Received By Trinity Buse
Date Received 9/11/25 8:00

Shipment Method	LRS
Shipping Container/cooler compromised?	No
Number of Coolers / Boxes received?	1
Total Container Count	1
Custody Seals intact on shipping container/cooler?	N/A
Custody seals intact on sample bottles?	N/A
Cooler or Sample Temp upon receipt?	4.5C
Thermometer ID:	88717
Sample(s) received at 0-6oC (or 0-8oC for BACT)	Yes
Samples are considered acceptable as cooling process has begun?	Yes
Chain of Custody (CoC) present?	Yes
CoC agrees with sample label(s)?	Yes
Collection times noted?	Yes
Samples in proper container types?	Yes
Sample contains proper preservative?	Yes
Sample containers intact?	Yes
All samples received within holding time?	Yes
Requested turn-around time on CoC?	No

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

10/1/2025

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Lab Report Number: 25-254-0166
Client Project Description: Bessie Mine - Locust Fork Red Rock Month
Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 9/11/2025 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC. (Memphis), Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	11/04/2025
Arkansas	State Program	88-00650	02/06/2026
California	State Program	2904	06/30/2026
Florida	State Program - NELAP	E871157	06/30/2026
Georgia	State Program	C044	11/14/2025
Georgia	State Program	04015	06/30/2025
Illinois	State Program - NELAP	200078	10/31/2026
Kentucky	State Program	KY90047	12/31/2025
Kentucky	State Program	80215	06/30/2026
Kentucky	State Program	KY90047	12/31/2025
Louisiana	State Program - NELAP	LA037	12/31/2025
Louisiana	State Program - NELAP	04015	06/30/2026
Mississippi	State Program	MS	11/14/2025
North Carolina	State Program	47701	07/31/2026
North Carolina	State Program	415	12/31/2025
Oklahoma	State Program - NELAP	9311	12/31/2025
Pennsylvania	State Program - NELAP	68-03195	05/31/2026
South Carolina	State Program	84002	06/30/2025
Tennessee	State Program	02027	11/14/2025
Texas	State Program - NELAP	T104704180	09/30/2026
Virginia	State Program	00106	06/30/2026
Virginia	State Program - NELAP	460181	09/14/2026

Laboratory ID: WP RMS: Waypoint Analytical Mississippi, Inc., Ridgeland, MS

State	Program	Lab ID	Expiration Date
Arkansas	State Program	88-1409	02/01/2026
Kentucky	State Program	KY98013	12/31/2025
Louisiana	State Program - NELAP	04023	06/30/2026

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **25-254-0166**

Client Project Description: **Bessie Mine - Locust Fork Red Rock Month**
Jefferson County, AL
Project #AL0003263

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
99277	Outfall 001-1	Aqueous	09/10/2025 10:30	09/11/2025		
99277	Outfall 001-1	Aqueous	09/10/2025 10:30	09/11/2025	1631E	WP RMS

322 WP RMS - Ridgeland, MS: Waypoint Analytical - MS, Ridgeland, MS

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine - Locust Fork Red Rock Month

Information : Jefferson County, AL
Project #AL0003263

Report Date : 10/01/2025
Received : 09/11/2025

Report Number : **25-254-0166**

REPORT OF ANALYSIS

Lab No : **99277**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **9/10/2025 10:30**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Mercury	**1.42**	ng/L		0.500	1	09/16/25 14:14	KAE	1631E
Sulfate	**1610**	mg/L		100	100	09/17/25 16:26	HMQ	EPA-300.0
Dissolved Antimony	<1.69	µg/L	1.69	2.00	1	09/27/25 00:28	BKN	EPA-200.8
Dissolved Cadmium	**0.240**	µg/L	0.0880	0.200	1	09/24/25 05:58	JTR	EPA-200.8
Dissolved Copper	<0.868	µg/L	0.868	1.00	1	09/24/25 05:58	JTR	EPA-200.8
Dissolved Iron	**1640**	µg/L	76.6	200	1	09/27/25 00:28	BKN	EPA-200.8
Manganese	**720**	µg/L	1.86	2.00	1	09/24/25 03:49	JTR	EPA-200.8
Dissolved Nickel	**16.5**	µg/L	0.680	1.00	1	09/24/25 05:58	JTR	EPA-200.8
Selenium	**3.80 B**	µg/L	1.14	2.00	1	09/24/25 03:49	JTR	EPA-200.8
Dissolved Thallium	<0.216	µg/L	0.216	0.400	1	09/27/25 00:28	BKN	EPA-200.8
Dissolved Zinc	**82.9**	µg/L	22.4	30.0	1	09/24/25 05:58	JTR	EPA-200.8

Qualifiers/ Definitions

B Analyte detected in blank

DF Dilution Factor

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **25-254-0166**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T136

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	◯ Not Present
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - Sulfuric containers verified pH <2	◯ Yes	◯ No	◉ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)
☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Mallory Earle Date & Time: 09/11/2025 13:18:17

LRS Client Info	Bond Industries, Inc. 3700 14th Avenue North Birmingham, AL 35234	Project:	Bessie Mine - Locust Fork Red Rock Monthly
		Project Desc:	AL0003263
		Date Req:	Standard 5 to 8 business days (No Surcharge)
		Project Turnaround (Begins on Lab Login Date)	Two Day (50%) / Next Day (100%) / Three Day (25%) / Same Day (200%)

Laboratory Resources and Solutions, Inc.
A Laboratory Service Provider

Chain of Custody

P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
Phone: (205) 594-1445

Report To: **Robert Bond**

Collected By: Rodney Sikes

City/State Collected: Jefferson County, Alabama

Packed on Ice? No _____ Yes _____

P.O. Number:

Field Testing
- pH Meter No:
- Date and Time:
- 3 pt. Calibration:
- Cal. Check Stnd. 7.00 @ C
- pH: 8.31
- Temp (C):
- Rainfall (in):
- Flow:

LRS Sample No	Client Sample ID	Type	Matrix	Date	Time
111196-01	Outfall 001-1	G	SW	9/10/25	10:30

Analysis/Container/Preservative/Container ID

(1) Conductivity SM2510 (A) HDPE 1L Non-Pres A	(1) Conductivity Temperature SM2550B (A) HDPE 1L Non-Pres A	(1) Dissolved Metals E200.8 HDPE 250mL Non-Pres B	(1) LL - Mercury (Hg) E1631 Glass 8oz Amber Packer Non-Pres D	(1) pH SM4500H+B HDPE 1L Non-Pres A	(1) pH Temperature SM2550B HDPE 1L Non-Pres A	(1) Sulfate E300.0 HDPE 250mL Non-Pres B	(1) Total Metals E200.8 HDPE 250mL HNO_3 Vial C	(1) TSS SM2540D (A) HDPE 1L Non-Pres A

Notes
- Dissolved Metals: Cd, Cu, Fe, Ni, Tl, Zn, Sb
- Total Metals: Mn, Se
- Aliquot for Dissolved Metals 200.8 must be filtered and preserved by the lab prior to analysis.

Remarks

Custody Seals received on:
Cooler(s)/Container(s)

25-254-0166
19736
09-11-2025
13:16:42
Bond Industries, Inc.
Bessie Mine - Locust Fork Red Rock Monthly

DW Drinking Water; GW Ground Water; LQW Liquid Waste; OI Oil; OT Other; PW Process Water; S Soil; SLD Sludge
SLW Solid Waste; SOL Solvent; SS Soil/Solid; SW Surface Water; W Water; WI Wipes; WW Wastewater

Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
	9/10/25	11:00		9/10/25	1247
Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
	9/10/25	1720			
Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
				9-11-25	1110

Condition (Lab Use Only): 0.4 TB6 A

Bottles Rcvd: 10941352 pH Checked NCF

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

LRS, Inc.

Laboratory Resources and Solutions, Inc.

P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

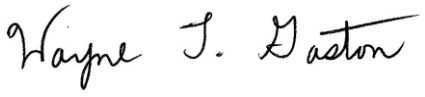
Analytical Data Report

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

Project ID:	Bessie Mine - Locust Fork Red Rock Twice per Month
Sample Date:	September 24, 2025
Laboratory Report Number:	111197
Report Date:	Tuesday, October 7, 2025

LRS received sample(s) from Bond Industries on Monday, September 29, 2025 at 8:00 am. Unless otherwise noted, all samples were received in good condition and were tested in accordance with the laboratory's quality control procedures.

Data Reviewed By:



Wayne Gaston
Project Manager

Laboratory Resources and Solutions, Inc.

wgaston@lab-resource.com

LRS, Inc.

Laboratory Resources and Solutions, Inc.

P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

CERTIFICATE OF ANALYSIS

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234
Robert Bond

Project ID: Bessie Mine - Locust Fork Red
Project No AL0003263

LRS Sample ID: 111197-01
Client Sample ID: Outfall 001-1

Date & Time Collected: 09/24/2025@800
Date & Time Received: 09/29/2025@800
Matrix: Surface Water

Parameter	Result	Units	MQL	DF	Date/Time Analyzed	Analyst	Method
Conductivity	2.9	umhos/cm	0.1	1	09/29/2025@1418	ADW	SM2540D (A)
Conductivity Temperature	73.6	°F		1	09/29/2025@1418	ADW	SM2550B (A)
pH	7.02	SU		1	09/29/2025@1425	ADW	SM4500H+B (A)
pH Temperature	69.3	°F		1	09/29/2025@1425	ADW	SM2550B (A)
TSS	3	mg/L	2	1	09/30/2025@925	JKL	SM2540D (A)

Approved By

Michael LC Norris
Laboratory Manager

LRS, Inc.

Laboratory Resources and Solutions, Inc.

P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Analytical Methods

(A) Method Reference – Standard Methods for the Examination of Water and Wastewater, 23rd Edition.

(B) Method Reference – This method was developed under EPA contract 68-C-98-139. US EPA National Center for Environmental Publications and Information, EPA 821-R-98-002, February 1999.

(C) Sample was filtered through a 0.45um glass fiber filter prior to analysis.

(D) Method Reference - Test Methods for Evaluating Solid Waste: Physical/Chemical Methods Compendium (SW-846)

Field Methods

(E) Field Flow = Flow analyzed via JDC Electronics Flowatch ® flowmeter, referencing method SESD (Science and Ecosystem Support Division - USEPA) 109-R4

(F) Field pH and Field Temperature = Analyzed via an Oakton pH Tester® 30 Waterproof Pocket (Double Junction), for analysis of pH and Temperature.

(G) Residual Chlorine = Analyzed via a Hach Pocket Colorimeter ™ II, for analysis of Chlorine (Free and Total).

Analyst Name:	Field Service Tech Name:
Andrew Witchell (ADW)	Jo Ella Hood (JEH)
Jesse Lunsford (JKL)	Kathryn Bailey (KMB)
Jzyk King (JMK)	Michael Norris (MLN)
Michael Norris (MLN)	Mike Summy (DMS)
	Trent Alexander (TSA)

LRS, Inc.

Laboratory Resources and Solutions, Inc.

P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

QAQC Results

QC Batch

Test	Batch
Conductivity	R-620090
pH	R-610235
TSS	R-100477

QC Blank

Test	Type of Blank	Blank Value
Conductivity	Initial	2.3
TSS	Initial	<2

QC Duplicates

Test	Sample ID	Result	Duplicate	% RPD	Max % RPD
Conductivity	111197-01	2.86	2.86	0.0	25
pH	111197-01	7.02	7.02	0.0	25
TSS	110719-01	39	36	8.0	25

QC Standards

Test	Standard	Low Limit	Obtained	High Limit	% Recovery
Conductivity	Cert. @1413 us/cm	1406	1414	1420	100.1
pH	CV/QCS	6.9	7.01	7.1	100.1
TSS	Celite 545 Cert.@1	80	104	120	104.0

LRS Client Info	Bond Industries, Inc. 3700 14th Avenue North Birmingham, AL 35234	Project:	Bessie Mine - Locust Fork Red Rock Twice per Month
		Project Desc:	AL0003263
		Date Req:	Standard 5 to 8 business days (No Surcharge)
		Project Turnaround (Begins on Lab Login Date)	Two Day (50%) / Three Day (25%) / Next Day (100%) / Same Day (200%)

Laboratory Resources and Solutions, Inc.
A Laboratory Service Provider

Chain of Custody

P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
Phone: (205) 594-1445

Report To: **Robert Bond**

Collected By: Austin Clenney

City/State Collected: Jefferson County, Alabama

Packed on Ice? No _____ Yes _____

P.O. Number:

Field Testing:
- pH Meter No:
- Date and Time:
- 3 pt. Calibration:
- Cal. Check Stnd. 7.00 @ C
- pH: 8.31
- Temp (C):
- Rainfall (in):
- Flow:

LRS Sample No	Client Sample ID	Type	Matrix	Date	Time	(1) Conductivity SM2510 (A) HDPE 1L Non-Pres	(1) Conductivity Temperature SM2550B (A) HDPE 1L Non-Pres	(1) Dissolved Metals E200.8 HDPE 250mL Non-Pres	(1) pH SM4500H+B HDPE 1L Non-Pres	(1) pH Temperature SM2550B HDPE 1L Non-Pres	(1) Sulfate E300.0 HDPE 250mL Non-Pres	(1) Total Metals E200.8 HDPE 250mL HNO_3 Vial	(1) TSS SM2540D (A) HDPE 1L Non-Pres	(1) Total Phenols E420.1 Glass 1L Amber H_2SO_4 pres.						Notes
						A	A	B	A	A	B	C	A	D						*Dissolved Metals: Fe *Total Metals: Mn Aliquot for Dissolved Fe 200.8 must be filtered and preserved by the lab prior to analysis.
111197-01	Outfall 001-1	G	SW	9/24/25	8:00AM															Remarks

DW Drinking Water; GW Ground Water; LQW Liquid Waste; OI Oil; OT Other; PW Process Water; S Soil; SLD Sludge
SLW Solid Waste; SOL Solvent; SS Soil/Solid; SW Surface Water; W Water; WI Wipes; WW Wastewater

	Date:	Time:		Date:	Time:	Condition (Lab Use Only)
Relinquished by:(Signature)	9/24/25	9:00	Received by:(Signature)	9/26/25	1433	
Relinquished by:(Signature)	9-29-25	08:00	Received by:(Signature)	9-27-25	08:00	
Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:	Bottles Rcvd / pH Checked / NCF

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

LRS, Inc.

Laboratory Resources and Solutions, Inc.

P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

Lab Number **111197**
Client Bond Industries
Project Bessie Mine - Locust Fork Red Rock Twice p

Received By Trinity Buse
Date Received 9/29/25 8:00

Shipment Method	LRS
Shipping Container/cooler compromised?	No
Number of Coolers / Boxes received?	1
Total Container Count	1
Custody Seals intact on shipping container/cooler?	N/A
Custody seals intact on sample bottles?	N/A
Cooler or Sample Temp upon receipt?	3.0C
Thermometer ID:	88717
Sample(s) received at 0-6oC (or 0-8oC for BACT)	Yes
Samples are considered acceptable as cooling process has begun?	Yes
Chain of Custody (CoC) present?	Yes
CoC agrees with sample label(s)?	Yes
Collection times noted?	Yes
Samples in proper container types?	Yes
Sample contains proper preservative?	N/A
Sample containers intact?	Yes
All samples received within holding time?	Yes
Requested turn-around time on CoC?	No

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

10/7/2025

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Lab Report Number: 25-270-0048
Client Project Description: Bessie Mine - Locust Fork Red Rock
Twice Per Month - Jefferson County, AL
Project #AL0003263

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 9/27/2025 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC. (Memphis), Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	11/04/2025
Arkansas	State Program	88-00650	02/06/2026
California	State Program	2904	06/30/2026
Florida	State Program - NELAP	E871157	06/30/2026
Georgia	State Program	C044	11/14/2025
Georgia	State Program	04015	06/30/2025
Illinois	State Program - NELAP	200078	10/31/2026
Kentucky	State Program	KY90047	12/31/2025
Kentucky	State Program	80215	06/30/2026
Kentucky	State Program	KY90047	12/31/2025
Louisiana	State Program - NELAP	LA037	12/31/2025
Louisiana	State Program - NELAP	04015	06/30/2026
Mississippi	State Program	MS	11/14/2025
North Carolina	State Program	47701	07/31/2026
North Carolina	State Program	415	12/31/2025
Oklahoma	State Program - NELAP	9311	12/31/2025
Pennsylvania	State Program - NELAP	68-03195	05/31/2026
South Carolina	State Program	84002	06/30/2025
Tennessee	State Program	02027	11/14/2025
Texas	State Program - NELAP	T104704180	09/30/2026
Virginia	State Program	00106	06/30/2026
Virginia	State Program - NELAP	460181	09/14/2026

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **25-270-0048**

Client Project Description: **Bessie Mine - Locust Fork Red Rock**
Twice Per Month - Jefferson County, AL
Project #AL0003263

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
91696	Outfall 001-1	Aqueous	09/24/2025 08:00	09/27/2025

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 º Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Bessie Mine - Locust Fork Red Rock

Information : Twice Per Month - Jefferson County, AL
Project #AL0003263

Report Date : 10/07/2025
Received : 09/27/2025

Report Number : **25-270-0048**

REPORT OF ANALYSIS

Lab No : **91696**
Sample ID : **Outfall 001-1**

Matrix: **Aqueous**
Sampled: **9/24/2025 08:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Phenols (Total)	**0.086**	mg/L	0.015	0.050	1	09/29/25 12:39	AAZ	EPA-420.1
Sulfate	**1600**	mg/L		100	100	10/02/25 11:48	HMQ	EPA-300.0
Dissolved Iron	**1760**	µg/L	76.6	200	1	10/03/25 20:25	BKN	EPA-200.8
Manganese	**826**	µg/L	1.86	2.00	1	10/03/25 21:31	BKN	EPA-200.8

Qualifiers/ Definitions DF Dilution Factor MQL Method Quantitation Limit

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **25-270-0048**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	T244

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	◯ Not Present
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - Sulfuric containers verified pH <2	◯ Yes	◯ No	◉ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Kayley Miller Date & Time: 09/27/2025 14:41:24

LRS Client Info	Bond Industries, Inc. 3700 14th Avenue North Birmingham, AL 35234	Project:	Bessie Mine - Locust Fork Red Rock Twice per Month
		Project Desc:	AL0003263
		Date Req:	Standard 5 to 8 business days (No Surcharge)
		Project Turnaround (Begins on Lab Login Date)	Two Day (50%) / Next Day (100%) / Three Day (25%) / Same Day (200%)

Laboratory Resources and Solutions, Inc.
A Laboratory Service Provider

Chain of Custody

P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
Phone: (205) 594-1445

Report To: **Robert Bond**

Collected By: Austin Clenney

City/State Collected: Jefferson County, Alabama

Packed on Ice? No _____ Yes _____

P.O. Number:

Field Testing: pH Meter No: | Date and Time: | 3 pt. Calibration: | Cal. Check Stnd. 7.00 @ C | pH: 8.31 | Temp (C): | Rainfall (in): | Flow:

LRS Sample No	Client Sample ID	Type	Matrix	Date	Time
111197-01	Outfall 001-1	G	SW	9/24/25	8:00AM

Analysis/Container/Preservative/Container ID

(1) Conductivity SM2510 (A) HDPE 1L Non-Pres A	(1) Conductivity Temperature SM2550B (A) HDPE 1L Non-Pres A	(1) Dissolved Metals E200.8 HDPE 250mL Non-Pres B	(1) pH SM4500H+B HDPE 1L Non-Pres A	(1) pH Temperature SM2550B HDPE 1L Non-Pres A	(1) Sulfate E300.0 HDPE 250mL Non-Pres B	(1) Total Metals E200.8 HDPE 250mL HNO_3 Vial C	(1) TSS SM2540D (A) HDPE 1L Non-Pres A	(1) Total Phenols E420.1 Glass 1L Amber, H_2SO_4 pres. D

Notes:
*Dissolved Metals: Fe
*Total Metals: Mn
Aliquot for Dissolved Fe 200.8 must be filtered and preserved by the lab prior to analysis.

Remarks:

Bond Industries, Inc.
Bessie Mine - Locust Fork Red Rock Twice Per Month
25-270-0048
19736
09-27-2025
14:40:50

Custody Seals received on: Cooler(s)/Container(s)

DW Drinking Water; GW Ground Water; LQW Liquid Waste; OI Oil; OT Other; PW Process Water; S Soil; SLD Sludge
SLW Solid Waste; SOL Solvent; SS Soil/Solid; SW Surface Water; W Water; WI Wipes; WW Wastewater

Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
	9/24/25	9:00		9/26/25	1433
Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
	9/26/24	1900			
Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:
				9/27/25	11:10

Condition (Lab Use Only): T244 0400 RM

Bottles Rcvd: 10941388 pH Checked: NCF:

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

LRS, Inc.

Laboratory Resources and Solutions, Inc.

P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
(205) 594-1445
www.lab-resource.com

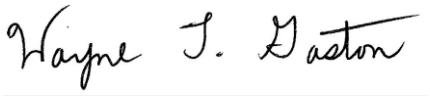
Analytical Data Report

Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

Project ID:	Locust Fork Background
Sample Date:	October 29, 2025
Laboratory Report Number:	112179
Report Date:	Thursday, November 13, 2025

Sample(s) from Bond Industries were received at the lab on Friday, October 31, 2025. Unless otherwise noted, all samples were received in good condition and were tested in accordance with the laboratory's quality control procedures.

Data Reviewed By:



Wayne Gaston
Project Manager

Laboratory Resources and Solutions, Inc.

wgaston@lab-resource.com

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

11/12/2025

Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham, AL, 35234

Ref: Analytical Testing
Lab Report Number: 25-304-0143
Client Project Description: Locust Fork Background
Jefferson County, AL

Dear Mr. Robert Bond:
Waypoint Analytical, LLC. received sample(s) on 10/31/2025 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2021) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Kim S Storey

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC. (Memphis), Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	11/04/2025
Arkansas	State Program	88-00650	02/06/2026
California	State Program	2904	06/30/2026
Florida	State Program - NELAP	E871157	06/30/2026
Georgia	State Program	C044	11/14/2025
Georgia	State Program	04015	06/30/2025
Illinois	State Program - NELAP	200078	10/31/2026
Kentucky	State Program	KY90047	12/31/2025
Kentucky	State Program	80215	06/30/2026
Kentucky	State Program	KY90047	12/31/2025
Louisiana	State Program - NELAP	LA037	12/31/2025
Louisiana	State Program - NELAP	04015	06/30/2026
Mississippi	State Program	MS	11/14/2025
North Carolina	State Program	47701	07/31/2026
North Carolina	State Program	415	12/31/2025
Oklahoma	State Program - NELAP	9311	12/31/2025
Pennsylvania	State Program - NELAP	68-03195	05/31/2026
South Carolina	State Program	84002	06/30/2026
Tennessee	State Program	02027	08/11/2028
Texas	State Program - NELAP	T104704180	09/30/2026
Virginia	State Program	00106	06/30/2026
Virginia	State Program - NELAP	460181	09/30/2026

Laboratory ID: WP RMS: Waypoint Analytical Mississippi, Inc., Ridgeland, MS

State	Program	Lab ID	Expiration Date
Arkansas	State Program	88-1409	02/01/2026
Kentucky	State Program	KY98013	12/31/2025
Louisiana	State Program - NELAP	04023	06/30/2026

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

Sample Summary Table

Report Number: **25-304-0143**

Client Project Description: **Locust Fork Background**
Jefferson County, AL

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
99584	Locust Fork	Aqueous	10/29/2025 10:45	10/31/2025		
99584	Locust Fork	Aqueous	10/29/2025 10:45	10/31/2025	1631E	WP RMS

322 WP RMS - Ridgeland, MS: Waypoint Analytical - MS, Ridgeland, MS

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ⁰ Fax 901.213.2440
www.waypointanalytical.com

19736
Bond Industries, Inc.
Mr. Robert Bond
3700 14th Ave North
Birmingham , AL 35234

Project Locust Fork Background

Information : Jefferson County, AL

Report Date : 11/12/2025
Received : 10/31/2025

Kim S Storey

Report Number : **25-304-0143**

REPORT OF ANALYSIS

Lab No : **99584**
Sample ID : **Locust Fork**

Matrix: **Aqueous**
Sampled: **10/29/2025 10:45**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Mercury	**2.05**	ng/L	0.500	1	11/07/25 19:29	KAE	1631E
Phenols (Total)	<0.050	mg/L	0.050	1	11/06/25 07:13	AAZ	EPA-420.1
Dissolved Antimony	<1.00	µg/L	1.00	1	11/12/25 00:21	JTR	EPA-200.8
Dissolved Beryllium	<0.500	µg/L	0.500	1	11/12/25 00:21	JTR	EPA-200.8
Dissolved Cadmium	<0.100	µg/L	0.100	1	11/12/25 00:21	JTR	EPA-200.8
Dissolved Chromium	<1.00	µg/L	1.00	1	11/12/25 00:21	JTR	EPA-200.8
Dissolved Copper	**1.35**	µg/L	0.500	1	11/12/25 00:21	JTR	EPA-200.8
Dissolved Lead	<0.500	µg/L	0.500	1	11/12/25 00:21	JTR	EPA-200.8
Dissolved Nickel	**1.84**	µg/L	0.500	1	11/12/25 00:21	JTR	EPA-200.8
Selenium	<1.00	µg/L	1.00	1	11/11/25 04:53	JTR	EPA-200.8
Dissolved Silver	<0.100	µg/L	0.100	1	11/12/25 00:21	JTR	EPA-200.8
Dissolved Thallium	<0.200	µg/L	0.200	1	11/12/25 00:21	JTR	EPA-200.8
Dissolved Zinc	<15.0	µg/L	15.0	1	11/12/25 00:21	JTR	EPA-200.8

Qualifiers/ Definitions DF Dilution Factor MQL Method Quantitation Limit

Waypoint ANALYTICAL

2790 Whitten Road, Memphis, TN 38133
Main 901.213.2400 ° Fax 901.213.2440
www.waypointanalytical.com

Shipment Receipt Form

Customer Number: **19736**
Customer Name: **Bond Industries, Inc.**
Report Number: **25-304-0143**

Shipping Method

◯ Fed Ex	◯ US Postal	◯ Lab	◯ Other :	
◯ UPS	◯ Client	◉ Courier	Thermometer ID:	TI211

Shipping container/cooler uncompromised?	◉ Yes	◯ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	◉ Yes	◯ No	◯ Not Present
Custody seals intact on sample bottles?	◯ Yes	◯ No	◉ Not Present
Chain of Custody (COC) present?	◉ Yes	◯ No	
COC agrees with sample label(s)?	◉ Yes	◯ No	
COC properly completed	◉ Yes	◯ No	
Samples in proper containers?	◉ Yes	◯ No	
Sample containers intact?	◉ Yes	◯ No	
Sufficient sample volume for indicated test(s)?	◉ Yes	◯ No	
All samples received within holding time?	◉ Yes	◯ No	
Cooler temperature in compliance?	◉ Yes	◯ No	◯ Not Present
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	◉ Yes	◯ No	
Water - Sample containers properly preserved	◉ Yes	◯ No	◯ N/A
Water - Sulfuric containers verified pH <2	◯ Yes	◯ No	◉ N/A
Water - VOA vials free of headspace	◯ Yes	◯ No	◉ N/A
Trip Blanks received with VOAs	◯ Yes	◯ No	◉ N/A
Soil VOA method 5035 – compliance criteria met	◯ Yes	◯ No	◉ N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)

☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included?	◯ Yes	◉ No

Comments:

Signature: Carleen Qualls Date & Time: 10/31/2025 14:03:56

LRS Client Info	Bond Industries, Inc. 3700 14th Avenue North Birmingham, AL 35234	Project:	Locust Fork Background
		Project Desc:	
		Date Req:	Standard 7 to 10 business days-No Surcharge
		Project Turnaround (Begins on Lab Login Date)	Two Day (50%) / Three Day (25%) / Next Day (100%) / Same Day (200%)

Laboratory Resources and Solutions, Inc.
A Laboratory Service Provider
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
Phone: (205) 594-1445

Chain of Custody

Report To	Field Testing	Analysis/Container/Preservative/Container ID	Notes
Robert Bond	pH Meter No:		Dissolved Metals Needed: Sb, Be, Cd, Cr, Cu, Pb, Ni, Ag, Tl, Zn Total Metals Needed: Selenium (Se) Aliquot for Dissolved Metals 200.8 must be filtered and preserved by the
Collected By: Brandon Owens	Date and Time:		
City/State Collected: Jefferson County, Alabama	3 pt. Calibration: / Cal. Check Stnd. 7.00 @ C		
Packed on Ice? No _____ Yes _____	pH: 8.88 Temp (C):		
P.O. Number:	Rainfall (in): Flow:		

LRS Sample No	Client Sample ID	Type	Matrix	Date	Time	Analysis/Container/Preservative/Container ID	Remarks
112179-01	Locust Fork	G	SW	10/29/25	10:45 AM	~~(1) Cyanide (CN), Free OIA-1677 HDPE 250mL Amber NaOH~~ A; (1) Dissolved Metals E200.8 HDPE 250ml, Non-Pres B; ~~(1) Dissolved Trivalent Arsenic BAL 4100 HDPE 125mL EDTA preser~~ C; (1) LL- Mercury (Hg) E1631 Glass 8oz Amber Packer Non-Pres D; (1) Total Metals E200.8 HDPE 250mL HNO_3 Vial C; (1) Total Phenols E420.1 Glass 32oz(1L) Amber H_2SO_4 E	4

25-304-0143
19736
10-31-2025
14:02:46
Bond Industries, Inc.
Locust Fork Background

Custody Seals
Received on:
Cooler(s)/Container(s)

DW Drinking Water; GW Ground Water; LQW Liquid Waste; OI Oil; OT Other; PW Process Water; S Soil; SLD Sludge
SLW Solid Waste; SOL Solvent; SS Soil/Solid; SW Surface Water; W Water; WI Wipes; WW Wastewater

Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:	Condition (Lab Use Only)
	10/29/25	11:00 AM		10/30/25	0840	T1211 2.8c Cell
Relinquished by:(Signature)	Date: 10/30/25	Time: 1700	Received by:(Signature)	Date:	Time:	
Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date: 10/31/25	Time: 1130	Bottles Rcvd / pH Checked / NCF

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

Analytical Laboratory Report

Report ID: S80689.01(01)
Generated on 11/10/2025

Report to

Attention: Robert Bond
Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

Phone: n/a FAX:
Email: n/a

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Addtional Contacts: Wayne Gaston, Sherry McKinney, Kerry Montgomery

Report Summary

Lab Sample ID(s): S80689.01
Project: Locust Fork Background
Collected Date(s): 10/29/2025
Submitted Date/Time: 10/31/2025 10:00
Sampled by: Brandon Owens
P.O. #:

Table of Contents

Cover Page (Page 1)
General Report Notes (Page 2)
Report Narrative (Page 2)
Laboratory Accreditations (Page 3)
Qualifier Descriptions (Page 3)
Glossary of Abbreviations (Page 3)
Method Summary (Page 4)
Sample Summary (Page 5)

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

Free or Available Cyanide sample run as received. No sulfide interference treatment performed in the field. This treatment should be performed in field per lab SOP, to remove any potential interferences for Free or Available Cyanide.

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
o	Associated EIS outside of control limits
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
q	Qualifier ion ratio outside of control limits
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Method Summary

Method	Version
OIA-1677	EPA Method OIA-1677-09

Analytical Laboratory Report

Sample Summary (1 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S80689.01	Locust Fork	Surface Water	10/29/25 10:45

Analytical Laboratory Report

Lab Sample ID: S80689.01
Sample Tag: Locust Fork
Collected Date/Time: 10/29/2025 10:45
Matrix: Surface Water
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	250mL Amber Plastic	NaOH	Yes	0.8	IR

Inorganics

Method: OIA-1677, Run Date: 11/05/25 20:05, Analyst: ASB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Cyanide, Free*	Not detected	2		ug/L	1	57-12-5	

Merit Laboratories Login Checklist

Lab Set ID: S80689
Client: LRS (Laboratory Resources and Solutions, Inc.)
Project: Locust Fork Background
Submitted: 10/31/2025 10:00 Login User: MMC

Attention: Robert Bond
Address: Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

Phone: n/a FAX:
Email: n/a

Selection				Description	Note
Sample Receiving					
01.	☐ Yes	☒ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 0.8
02.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
03.	☒ Yes	☐ No	☐ N/A	Samples shipped	UPS
04.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
05.	☒ Yes	☐ No	☐ N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
07.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
08.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
09.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
11.	☒ Yes	☐ No	☐ N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	☒ Yes	☐ No	☐ N/A	All bottles intact	
14.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
15.	☐ Yes	☒ No	☐ N/A	Merit bottles used	
16.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
17.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
18.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
19.	☐ Yes	☐ No	☒ N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories Bottle Preservation Check

Lab Set ID: S80689 Submitted: 10/31/2025 10:00

Client: LRS (Laboratory Resources and Solutions, Inc.)

Project: Locust Fork Background

Initial Preservation Check: 10/31/2025 10:42 MMC

Preservation Recheck (E200.8): N/A

Attention: Robert Bond
Address: Bond Industries, Inc.
3700 14th Avenue North
Birmingham, AL 35234

Phone: n/a FAX:
Email: n/a

Sample ID	Bottle / Preservation	pH (Orig)	Add ml	pH (New)	Notes
S80689.01	250mL Amber Plastic NaOH	>12			

LRS Client Info	Bond Industries, Inc. 3700 14th Avenue North Birmingham, AL 35234	Project: Locust Fork Background Project Desc: Date Req: Standard 7 to 10 business days-No Surcharge Project Turnaround (Begins on Lab Login Date): Two Day (50%) Next Day (100%) Three Day (25%) Same Day (200%)

Laboratory Resources and Solutions, Inc.
A Laboratory Service Provider
P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
Phone: (205) 594-1445

Chain of Custody

Report To: **Robert Bond**

Collected By: Brandon Akers

City/State Collected: Jefferson County, Alabama

Packed on Ice? No _____ Yes _____

P.O. Number:

Field Testing: pH Meter No: | Date and Time: | 3 pt. Calibration: | Cal. Check Stnd. 7.00 @ C | pH: 8.88 | Temp (C): | Rainfall (in): | Flow:

LRS Sample No	Client Sample ID	Type	Matrix	Date	Time	(1) Cyanide (CN), Free OIA-1677 HDPE 250mL Amber NaOH A	(1) ~~Dissolved Metals E200.8 HDPE 250mL Non-Pres~~ B	(1) ~~Dissolved Trivalent Arsenic BAL 4100 HDPE 125mL, EDTA-preser~~ F	(1) ~~LL-Mercury (Hg) E1631 Glass 8oz Amber Packer Non-Pres~~ D	(1) ~~Total Metals E200.8 HDPE 250mL~~ HNO3 Vial C	(1) Total Phenols E420.1 Glass 32oz(1L) Amber H2SO4 E	Notes
112179-01	Locust Fork	G	SW	10/29/25	10:45 AM							80689.01

~~Dissolved Metals Needed: Sb, Be, Cd, Cr, Cu, Pb, Ni, Ag, Tl, Zn~~

~~Total Metals Needed: Selenium (Se)~~

~~Aliquot for Dissolved Metals 200.8 must be filtered and preserved by the~~

Remarks

DW Drinking Water GW Ground Water LQW Liquid Waste OI Oil OT Other PW Process Water S Soil SLD Sludge
SLW Solid Waste SOL Solvent SS Soil/Solid SW Surface Water W Water WI Wipes WW Wastewater

	Date	Time		Date	Time
Relinquished by:(Signature)	10/29/25	11:00 AM	Received by:(Signature)	10/30/25	0840
Relinquished by:(Signature)	10/30/25	1700	Received by:(Signature)		
Relinquished by:(Signature) UPS	10/31/25	1000	Received by:(Signature) M Chilcoat	10/31/25	1000

Condition (Lab Use Only): 0.8

Bottles Rcvd pH Checked NCF

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

BROOKS APPLIED LABS
13751 Lake City Way NE, Ste 108, Seattle, WA 98125 • USA • T:206-632-6206 • info@brooksapplied.com

November 13, 2025

Bond Industries, Inc.
ATTN: Robert Bond
3700 14th Avenue North
Birmingham, AL 35234

RE: Project LRS-AS1301

Client Project Name: Bessie Mine - Locust Fork Background

Dear Robert Bond,

On October 31, 2025, Brooks Applied Labs (BAL) received one (1) water sample. The sample was logged-in for the analysis of dissolved arsenite [As(III)] according to the chain-of-custody form. The sample was field filtered at the time of collection. All samples were received and stored according to BAL SOPs and EPA methodology.

Arsenic Speciation Quantitation by IC-ICP-CRC-MS
Arsenic speciation was performed by ion chromatography inductively coupled plasma collision reaction cell mass spectrometry (IC-ICP-CRC-MS). Arsenic species are first chromatographically separated on an ion exchange column and then quantified using inductively coupled plasma collision reaction cell mass spectrometry (ICP-CRC-MS). For more information on this determinative technique, please visit the Interference Reduction Technology section on our website.

The results were not method blank corrected, as described in the calculations section of the relevant BAL SOP(s), and were evaluated using reporting limits adjusted to account for sample aliquot size. Please refer to the *Sample Results* page for sample-specific MDLs, MRLs, and other details.

All data was reported without further qualification and all other associated quality control sample results met the acceptance criteria.

BAL verifies that the reported results of all analyses for which the laboratory is accredited meet the requirements of the accrediting body, unless otherwise noted in the report narrative. For more information regarding accreditations please see the *Report Information* and *Batch Summary* pages. This report must be used in its entirety for interpretation of results.

BROOKS APPLIED LABS
13751 Lake City Way NE, Ste 108, Seattle, WA 98125 • USA • T:206-632-6206 • info@brooksapplied.com

Please feel free to contact us if you have any questions regarding this report.

Sincerely,



Esther McCaughan
Project Manager
Brooks Applied Labs
esther@brooksapplied.com

Project ID: LRS-AS1301
PM: Esther McCaughan

Client PM: Robert Bond

Report Information

General Disclaimers

Test results are based solely upon the sample submitted to Brooks Applied Labs in the condition it was received. This report shall not be reproduced or copied, except in full, without written approval of the laboratory. Brooks Applied Labs is not responsible for the consequences arising from the use of a partial report.

Laboratory Accreditation

BAL maintains accreditation with various state and national agencies for select test methods. For a current list of BAL accreditations, please visit our website at <http://www.brooksapplied.com/resources/certificates-permits/>. The reported analyte/matrix/method combination shall be considered outside BAL's scopes of accreditation unless otherwise identified as ISO, TNI, or ISO,TNI in the tables. It is the responsibility of the client to verify whether a specific accreditation is required for the intended data use.

ISO: ISO/IEC 17025:2017 accredited test method. Issued by ANSI National Accreditation Board (ANAB), #ADE-1447.02

TNI: NELAP accredited test method. Issued by the State of Florida Department of Health, #E87982.

ISO,TNI: Test method is accredited under both the ISO/IEC 17025:2017 and NELAP accreditations referenced above.

Field Quality Control Samples

Please be notified that certain EPA methods require the collection of field quality control samples of an appropriate type and frequency; failure to do so is considered a deviation from some methods and for compliance purposes should only be done with the approval of regulatory authorities. Please see the specific EPA methods for details regarding required field quality control samples.

Common Abbreviations

AR	as received	**MS**	matrix spike
BAL	Brooks Applied Labs	**MSD**	matrix spike duplicate
BLK	method blank	**ND**	non-detect
BS	blank spike	**NR**	non-reportable
CAL	calibration standard	**N/C**	not calculated
CCB	continuing calibration blank	**PS**	post preparation spike
CCV	continuing calibration verification	**REC**	percent recovery
COC	chain of custody record	**RPD**	relative percent difference
D	dissolved fraction	**SCV**	secondary calibration verification
DUP	duplicate	**SOP**	standard operating procedure
IBL	instrument blank	**SRM**	reference material
ICV	initial calibration verification	**T**	total fraction
MDL	method detection limit	**TR**	total recoverable fraction
MRL	method reporting limit		

Definition of Data Qualifiers

E An estimated value due to the presence of interferences. A full explanation is presented in the narrative.
H Holding time and/or preservation requirements not met. Please see narrative for explanation.
J Detected by the instrument, the result is > the MDL but ≤ the MRL. Result is reported and considered an estimate.
J-1 Estimated value. A full explanation is presented in the narrative.
M Duplicate precision (RPD) was not within acceptance criteria. Please see narrative for explanation.
N Spike recovery was not within acceptance criteria. Please see narrative for explanation.
R Rejected, unusable value. A full explanation is presented in the narrative.
U Result is ≤ the MDL or client requested reporting limit (CRRL). Result reported as the MDL or CRRL.
X Result is not BLK-corrected and is within 10x the absolute value of the highest detectable BLK in the batch. Result is estimated.
Z Holding time and/or preservation requirements not established for this method; however, BAL recommendations for holding time were not followed. Please see narrative for explanation.

13751 Lake City Way NE, Suite 108, Seattle, WA 98125 · P(206) 632-6206 · F(206) 632-6017 · info@brooksapplied.com · www.brooksapplied.com

Project ID: LRS-AS1301
PM: Esther McCaughan

Client PM: Robert Bond

Sample Information

Sample	Lab ID	Report Matrix	Type	Sampled	Received
Locust Fork	2510476-01	Surface Water	Sample	10/29/2025	10/31/2025

Batch Summary

Analyte	Lab Matrix	Method	Accred.	Prepared	Analyzed	Batch	Sequence
As(III)	Water	SOP BAL-4100	ISO,TNI	11/10/25	11/11/25	B252536	S251103

Sample Results

Sample	Analyte	Report Matrix	Basis	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
Locust Fork, 112179-01										
2510476-01	As(III)	Surface Water	D	0.113	J	0.022	0.114	µg/L	B252536	S251103

13751 Lake City Way NE, Suite 108, Seattle, WA 98125 · P(206) 632-6206 · F(206) 632-6017 · info@brooksapplied.com · www.brooksapplied.com

Project ID: LRS-AS1301
PM: Esther McCaughan

Client PM: Robert Bond

Accuracy & Precision Summary

Batch: B252536
Lab Matrix: Water
Method: SOP BAL-4100

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B252536-BS1	**Blank Spike, (2530004)**						
	As(III)		5.010	5.120	µg/L	102% 75-125	
B252536-DUP1	**Duplicate, (2510476-01)**						
	As(III)	0.113		0.106	µg/L		6% 25
B252536-MS1	**Matrix Spike, (2510476-01)**						
	As(III)	0.113	5.679	5.906	µg/L	102% 75-125	
B252536-MSD1	**Matrix Spike Duplicate, (2510476-01)**						
	As(III)	0.113	5.679	5.806	µg/L	100% 75-125	2% 25

Method Blanks & Reporting Limits

Batch: B252536
Matrix: Water
Method: SOP BAL-4100
Analyte: As(III)

Sample	Result	Units
B252536-BLK1	0.00	µg/L
B252536-BLK2	0.00	µg/L
B252536-BLK3	0.00	µg/L
B252536-BLK4	0.00	µg/L

Average: 0.000
Limit: 0.021

MDL: 0.004
MRL: 0.021

13751 Lake City Way NE, Suite 108, Seattle, WA 98125 · P(206) 632-6206 · F(206) 632-6017 · info@brooksapplied.com · www.brooksapplied.com

Project ID: LRS-AS1301
PM: Esther McCaughan

Client PM: Robert Bond

Sample Containers

Lab ID: 2510476-01
Sample: Locust Fork

Report Matrix: Surface Water
Sample Type: Sample

Collected: 10/29/2025
Received: 10/31/2025

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle HDPE As-Sp	125 mL	23-0099	10 mL EDTA (PP)	2343018		Styrofoam Cooler - 2510476

Shipping Containers

Styrofoam Cooler - 2510476

Received: October 31, 2025 10:10
Tracking No: 1Z 6F1 387 13 9800 5782 via UPS
Coolant Type: Ice
Temperature: 2.2 °C

Description: Styrofoam Cooler
Damaged in transit? No
Returned to client? No
Comments: R-IR-9

Custody seals present? Yes
Custody seals intact? Yes
COC present? Yes

13751 Lake City Way NE, Suite 108, Seattle, WA 98125 · P(206) 632-6206 · F(206) 632-6017 · info@brooksapplied.com · www.brooksapplied.com

LRS Client Info	Bond Industries, Inc. 3700 14th Avenue North Birmingham, AL 35234	Project:	Locust Fork Background		
		Project Desc:			
		Date Req:		Standard 7 to 10 business days-No Surcharge	
		Project Turnaround (Begins on Lab Login Date)		Two Day (50%)	Next Day (100%)
				Three Day (25%)	Same Day (200%)

Laboratory Resources and Solutions, Inc.
A Laboratory Service Provider

Chain of Custody

P.O. Box 1260
205 6th Avenue
Ashville, AL 35953
Phone: (205) 594-1445

Report To	Field Testing	Analysis/Container/Preservative/Container ID	Notes
Robert Bond	pH Meter No:		~~Dissolved Metals Needed: Sb, Be, Cd, Cr, Cu, Pb, Ni, Ag, Tl, Zn~~
Collected By: Brandon Ayers	Date and Time:		~~Total Metals Needed: Selenium (Se)~~
City/State Collected: Jefferson County, Alabama	3-pt. Calibration:		~~Aliquot for Dissolved Metals 200.8 must be filtered and preserved by the~~
Packed on Ice? No _____ Yes _____	Cal. Check Stnd. 7.00 @ C pH: 8.88 Temp (C):		
P.O. Number:	Rainfall (in): Flow:		

LRS Sample No	Client Sample ID	Type	Matrix	Date	Time	~~(1) Cyanide (CN), Free CIA-1677 HDPE 250mL Amber NaOH~~ A	~~(1) Dissolved Metals E200.8 HDPE 250mL Non-Pres~~ B	(1) Dissolved Trivalent Arsenic BAL 4100 HDPE 125mL, EDTA-preser F	~~(1) LL-Mercury (Hg) E1631 Glass 8oz Amber Packer Non-Pres~~ D	~~(1) Total Metals E200.8 HDPE 250mL HNO3 Vial~~ C	~~(1) Total Phenols E420.1 Glass 32oz(1L) Amber H2 SO4~~ E	Remarks
112179-01	Locust Fork	G	SW	10/29/25	10:45 AM							

DW Drinking Water GW Ground Water LQW Liquid Waste OI Oil OT Other PW Process Water S Soil SLD Sludge
SLW Solid Waste SOL Solvent SS Soil/Solid SW Surface Water W Water WI Wipes WW Wastewater

Relinquished by:(Signature)	Date: 10/29/25	Time: 11:00 AM	Received by:(Signature)	Date: 10/30/25	Time: 0840	Condition (Lab Use Only)
Relinquished by:(Signature)	Date: 10/30/25	Time: 700	Received by:(Signature)	Date: 10/31/25	Time: 1010	
Relinquished by:(Signature)	Date:	Time:	Received by:(Signature)	Date:	Time:	Bottles Rcvd pH Checked NCF

Client signature implies acceptance of LRS Terms and Conditions, which can be viewed online at www.lab-resource.com

Tier I Qualified Facility
SPCC Plan

WARRIOR AGGREGATES, INC.
5260 Bessie Flat Top Cutoff Road
Adamsville, Alabama 35073

September 2022

Prepared By:

LAYTON
ENVIRONMENTAL ENGINEERING, LLC

1900 Crestwood Blvd., Suite 114
Birmingham, Alabama 35210

Phone (205)951-3700 • Fax (205)951-5544

U.S. ENVIRONMENTAL PROTECTION AGENCY
TIER I QUALIFIED FACILITY SPCC PLAN TEMPLATE

Instructions to Complete this Template

This template is intended to help the owner or operator of a Tier I qualified facility develop a self-certified Spill Prevention, Control, and Countermeasure (SPCC) Plan. To use this template, your facility must meet all of the applicability criteria of a Tier I qualified facility listed under §112.3(g)(1) of the SPCC rule. This template provides every SPCC rule requirement necessary for a Tier I qualified facility, which you must address and implement.

You may use this template to comply with the SPCC regulation or use it as a model and modify it as necessary to meet your facility-specific needs. If you modify the template, your Plan must include a section cross-referencing the location of each applicable requirement of the SPCC rule and you must ensure that your Plan is an equivalent Plan that meets all applicable rule requirements of 40 CFR 112.6(a)(3).

You may complete this template either electronically or by hand on a printed copy. This document is a reformatted version of the template found in Appendix G of 40 CFR part 112.[a] No substantive changes have been made. Please note that a "Not Applicable" ("N/A") column has been added to both Table G-10 (General Rule Requirements for Onshore Facilities) and Table G-11 (General Rule Requirements for Onshore Oil Production Facilities). The "N/A" column should help you complete your self-certification when a required rule element does not apply to your facility. Use of the "N/A" column is optional and is not required by rule.

All Tier I qualified facility self-certifiers must complete Sections I, II, and III. Additionally, the owner or operator of an:

- Onshore facility (excluding production) must complete Section A.
- Onshore oil production facility (excluding drilling and workover facilities) must complete Section B.
- Onshore oil drilling and workover facility must complete Section C.

Complete and include with your Plan the appropriate attachments. You should consider printing copies of the attachments for use in implementing the SPCC Plan (e.g. Attachment 3.1 - Inspection Log & Schedule; Attachment 4 - Discharge Notification Form).

To complete the template, check the box next to the requirement to indicate that it has been adequately addressed. Either write “N/A” in the column or check the box under the “N/A” column to indicate those requirements that are not applicable to the facility. Where a section requires a description or listing, write in the spaces provided (or attach additional descriptions if more space is needed).

Below is a key for the colors used in the section headers:

Sections I, II, and III: Required for all Tier I qualified facilities
Section A: Onshore facilities (excluding production)
Section B: Onshore oil production facilities (excluding drilling and workover facilities)
Section C: Onshore oil drilling and workover facilities
Attachments: 1 - Five Year Review and Technical Amendment Logs 2 - Oil Spill Contingency Plan and Checklist 3 - Inspections, Dike Drainage and Personnel Training Logs 4 - Discharge Notification Form

After you have completed all appropriate sections, certify and date your Plan, and then implement it by the compliance date. If your facility was in operation before August 16, 2002, and you do not already have a Plan, then implement this template immediately. Conduct inspections and tests in accordance with the written procedures that you have developed for your facility. You must keep with the SPCC Plan a record of these inspections and tests, signed by the appropriate supervisor or inspector, for a period of three years.

[a] Please note that the use of this template is not mandatory for a Tier I qualified facility. You may also meet the SPCC Plan requirement by preparing a satisfactory Tier II qualified facility Plan, preparing a satisfactory Plan that is certified by a Professional Engineer, or by developing an equivalent Plan for a Tier I qualified facility. Further information on the requirements of these methods can be found in 40 CFR part 112.6(a)(1). If you use any of these alternative methods you must include a cross reference in your Plan that shows how the equivalent Plan meets all applicable 40 CFR part 112 requirements.

Do not forget to periodically review your Plan (at least once every five years) or to update it when you make changes to your facility. You must prepare amendments within six months of the facility change, and implement them as soon as possible, but not later than six months following preparation of any amendment.

In the event that your facility releases oil to navigable waters or adjoining shorelines, immediately call the National Response Center (NRC) at 1-800-424-8802. The NRC is the federal government's centralized reporting center, which is staffed 24 hours

Tier I Qualified Facility SPCC Plan

per day by U.S. Coast Guard personnel.

This template constitutes the SPCC Plan for the facility, when completed and signed by the owner or operator of a facility that meets the applicability criteria in §112.3(g)(1). This template addresses the requirements of 40 CFR part 112. Maintain a complete copy of the Plan at the facility if the facility is normally attended at least four hours per day, or for a facility attended fewer than four hours per day, at the nearest field office. When making operational changes at a facility that are necessary to comply with the rule requirements, the owner/operator should follow state and local requirements (such as for permitting, design and construction) and obtain professional assistance, as appropriate.

Facility Description

Facility Name: WARRIOR AGGREGATES, INC.

Facility Address: 5260 Bessie Flat Top Cutoff Road

City: ADAMSVILLE State: ALABAMA ZIP: 35073

County: JEFFERSON Tel. Number: 205-597-4429

Owner or Operator Name: WILLIAM ROBERT BOND

Owner or Operator Address: 5260 Bessie Flat Top Cutoff Road

City: ADAMSVILLE State: ALABAMA ZIP: 35073

County: JEFFERSON Tel. Number: 205-597-4429

I. Self-Certification Statement (§112.6(a)(1))

The owner or operator of a facility certifies that each of the following is true in order to utilize this template to comply with the SPCC requirements:

I WILLIAM ROBERT BOND certify that the following is accurate:

1. I am familiar with the applicable requirements of 40 CFR part 112;
2. I have visited and examined the facility;
3. This Plan was prepared in accordance with accepted and sound industry practices and standards;
4. Procedures for required inspections and testing have been established in accordance with industry inspection and testing standards or recommended practices;
5. I will fully implement the Plan;
6. This facility meets the following qualification criteria (under §112.3(g)(1)):
    a. The aggregate aboveground oil storage capacity of the facility is 10,000 U.S. gallons or less; and
    b. The facility has had no single discharge as described in §112.1(b) exceeding 1,000 U.S. gallons and no two discharges as described in §112.1(b) each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan self-certification date, or since becoming subject to 40 CFR part 112 if the facility has been in operation for less than three years (not including oil discharges as described in §112.1(b) that are the result of natural disasters, acts of war, or terrorism); and
    c. There is no individual oil storage container at the facility with an aboveground capacity greater than 5,000 U.S. gallons.
7. This Plan does not deviate from any requirement of 40 CFR part 112 as allowed by §112.7(a)(2) (environmental equivalence) and §112.7(d) (impracticability of secondary containment) or include any measures pursuant to §112.9(c)(6) for produced water containers and any associated piping;
8. This Plan and individual(s) responsible for implementing this Plan have the full approval of management and I have committed the necessary resources to fully implement this Plan.

I also understand my other obligations relating to the storage of oil at this facility, including, among others:

1. To report any oil discharge to navigable waters or adjoining shorelines to the appropriate authorities. Notification information is included in this Plan.
2. To review and amend this Plan whenever there is a material change at the facility that affects the potential for an oil discharge, and at least once every five years. Reviews and amendments are recorded in an attached log [See Five Year Review Log and Technical Amendment Log in Attachments 1.1 and 1.2.]
3. Optional use of a contingency plan. A contingency plan:
    a. May be used in lieu of secondary containment for qualified oil-filled operational equipment, in accordance with the requirements under §112.7(k), and;
    b. Must be prepared for flowlines and/or intra-facility gathering lines which do not have secondary containment at an oil production facility, and;
    c. Must include an established and documented inspection or monitoring program; must follow the provisions of 40 CFR part 109; and must include a written commitment of manpower, equipment and materials to expeditiously remove any quantity of oil discharged that may be harmful. If applicable, a copy of the contingency plan and any additional documentation will be attached to this Plan as Attachment 2.

I certify that I have satisfied the requirement to prepare and implement a Plan under §112.3 and all of the requirements under §112.6(a). I certify that the information contained in this Plan is true.

Signature _____ Title: OWNER

Name WILLIAM ROBERT BOND Date: / /

II. Record of Plan Review and Amendments

Five Year Review (§112.5(b)):

Complete a review and evaluation of this SPCC Plan at least once every five years. As a result of the review, amend this Plan within six months to include more effective prevention and control measures for the facility**,** if applicable. Implement any SPCC Plan amendment as soon as possible**,** but no later than six months following Plan amendment. Document completion of the review and evaluation, and complete the Five Year Review Log in Attachment 1.1. If the facility no longer meets Tier I qualified facility eligibility, the owner or operator must revise the Plan to meet Tier II qualified facility requirements, or complete a full PE certified Plan.

Table G-1 Technical Amendments (§§112.5(a), (c) and 112.6(a)(2))	
This SPCC Plan will be amended when there is a change in the facility design, construction, operation, or maintenance that materially affects the potential for a discharge to navigable waters or adjoining shorelines. Examples include adding or removing containers, reconstruction, replacement, or installation of piping systems, changes to secondary containment systems, changes in product stored at this facility, or revisions to standard operating procedures.	☒
Any technical amendments to this Plan will be re-certified in accordance with Section I of this Plan template. *[§112.6(a)(2)]* **[See Technical Amendment Log in Attachment 1.2]**	☒

III. Plan Requirements

1. Oil Storage Containers (§112.7(a)(3)(i)):

Table G-2 Oil Storage Containers and Capacities	
This table includes a complete list of all oil storage containers (aboveground containers[a] and completely buried tanks[b]) with capacity of 55 U.S. gallons or more, unless otherwise exempt from the rule. For mobile/portable containers, an estimated number of containers, types of oil, and anticipated capacities are provided.	☒

Oil Storage Container *(indicate whether aboveground (A) or completely buried (B))*	**Type of Oil**	**Shell Capacity (gallons)**
A – STEEL TANK	DIESL FUEL (OFF-ROAD)	2,000
A – STEEL TANK	DIESEL FUEL (OFF ROAD)	1,000
A – STEEL TANK	HYDRAULIC OIL	200

Total Aboveground Storage Capacity [c] 3200 gallons
Total Completely Buried Storage Capacity 0 gallons
Facility Total Oil Storage Capacity 3200 gallons

[a] Aboveground storage containers that must be included when calculating total facility oil storage capacity include: tanks and mobile or portable containers; oil-filled operational equipment (e.g. transformers); other oil-filled equipment**,** such as flow-through process equipment. Exempt containers that are not included in the capacity calculation include: any container with a storage capacity of less than 55 gallons of oil; containers used exclusively for wastewater treatment; permanently closed containers; motive power containers; hot-mix asphalt containers; heating oil containers used solely at a single-family residence; and pesticide application equipment or related mix containers.

[b] Although the criteria to determine eligibility for qualified facilities focuses on the aboveground oil storage containers at the facility, the completely buried tanks at a qualified facility are still subject to the rule requirements and must be addressed in the template; however, they are not counted toward the qualified facility applicability threshold.

[c] Counts toward qualified facility applicability threshold.

2. Secondary Containment and Oil Spill Control (§§112.6(a)(3)(i) and (ii), 112.7(c) and 112.9(c)(2)):

Table G-3 Secondary Containment and Oil Spill Control	
Appropriate secondary containment and/or diversionary structures or equipment[a] is provided for all oil handling containers, equipment, and transfer areas to prevent a discharge to navigable waters or adjoining shorelines. The entire secondary containment system, including walls and floor, is capable of containing oil and is constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the containment system before cleanup occurs.	☒

[a] Use one of the following methods of secondary containment or its equivalent: (1) Dikes, berms, or retaining walls sufficiently impervious to contain oil; (2) Curbing; (3) Culverting, gutters, or other drainage systems; (4) Weirs, booms, or other barriers; (5) Spill diversion ponds; (6) Retention ponds; or (7) Sorbent materials.

Table G-4 below identifies the tanks and containers at the facility with the potential for an oil discharge; the mode of failure; the flow direction and potential quantity of the discharge; and the secondary containment method and containment capacity that is provided.

Table G-4 Containers with Potential for an Oil Discharge

Area	Type of failure (discharge scenario)	Potential discharge volume (gallons)	Direction of flow for uncontained discharge	Secondary containment method[a]	Secondary containment capacity (gallons)
Bulk Storage Containers and Mobile/Portable Containers[b]					
2000 gallon diesel hydraulic oil tank	Tank overfill, fitting leak, seam failure	10 – 2,000	Southeast	Double walled tank	2200
1000 gallon off-road diesel	Tank overfill, fitting leak, seam failure	10-1,000	Southeast	Double walled tank	1100
200 gallon hydraulic oil tank	Tote overfill, fitting leak, seam failure	10-200	Southeast	Double walled tank	220
Oil-filled Operational Equipment (e.g., hydraulic equipment, transformers)[c]					
N/A – Less than 55 gallons					
Piping, Valves, etc.					
Aboveground piping between diesel and gasoline tanks and dispensers	Fitting or hose leak or failure	1	Southeast	Spill Kit	Absorbs up to 25
Hydraulic oil, dispensing hoses	Fitting leak or failure, hose failure	1	Radial	Spill Kit	Absorbs up to 25
Product Transfer Areas (location where oil is loaded to or from a container, pipe or other piece of equipment.)					
Diesel fuel transfer area	Receiving tank overfill, fitting leak or failure, fuel transfer hose failure	1 – 15	Radial	Spill kit	Absorbs up to 25
Refueling area at diesel dispensers	Receiving container overfill, fitting leak or failure, fuel transfer hose failure	1 – 15	Radial or southeast	Spill kit	Absorbs up to 25
Other Oil-Handling Areas or Oil-Filled Equipment (e.g. flow-through process vessels at an oil production facility)					

[a] Use one of the following methods of secondary containment or its equivalent: (1) Dikes, berms, or retaining walls sufficiently impervious to contain oil; (2) Curbing; (3) Culverting, gutters, or other drainage systems; (4) Weirs, booms, or other barriers; (5) Spill diversion ponds; (6) Retention ponds; or (7) Sorbent materials.

[b] For storage tanks and bulk storage containers, the secondary containment capacity must be at least the capacity of the largest container plus additional capacity to contain rainfall or other precipitation.

[c] For oil-filled operational equipment: Document in the table above if alternative measures to secondary containment (as described in §112.7(k)) are implemented at the facility.

3. Inspections, Testing, Recordkeeping and Personnel Training (§§112.7(e) and (f), 112.8(c)(6) and (d)(4), 112.9(c)(3), 112.12(c)(6) and (d)(4)):

Table G-5 Inspections, Testing, Recordkeeping and Personnel Training	
An inspection and/or testing program is implemented for all aboveground bulk storage containers and piping at this facility. *[§§112.8(c)(6) and (d)(4), 112.9(c)(3), 112.12(c)(6) and (d)(4)]*	☒
The following is a description of the inspection and/or testing program (e.g. reference to industry standard utilized, scope, frequency, method of inspection or test, and person conducting the inspection) for all aboveground bulk storage containers and piping at this facility: 1) An assigned knowledgeable employee does periodic visual inspections of the facility's aboveground oil storage containers, including all aboveground container piping using Attachment 3.1 to document inspections; records of inspections consist of the monthly inspection checklist. Visual inspections of oil storage containers follow the inspection schedule in Attachment 3.2 of the plan. 2) The liquid level gauges on the off-road diesel ASTs are also adjusted, tested, and inspected monthly following the gauge manufacturer's procedures by the assigned worker; Attachment 3.1 documents these inspections. 3) An assigned knowledgeable employee also visually inspect the diesel fuel/hydraulic oil transfer areas for indications of deterioration and discharges, including the transfer pipes, hoses and fittings, at least monthly. 4) Facility workers inspect the containment areas on a monthly basis for signs of deterioration, discharges (leaking tanks or piping), or accumulation of oil. These inspections are documented in Attachment 3.1. 5) If employee encounters a spill during an inspection of the storage or transfer equipment, the employee will immediately take the necessary actions outlined in Table G-7.	
Inspections, tests, and records are conducted in accordance with written procedures developed for the facility. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph. *[§112.7(e)]*	☒
A record of the inspections and tests are kept at the facility or with the SPCC Plan for a period of three years. *[§112.7(e)]* **[See Inspection Log and Schedule in Attachment 3.1]**	☒
Inspections and tests are signed by the appropriate supervisor or inspector. *[§112.7(e)]*	☒
Personnel, training, and discharge prevention procedures [§112.7(f)]	
Oil-handling personnel are trained in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan. *[§112.7(f)]*	☒
A person who reports to facility management is designated and accountable for discharge prevention. *[§112.7(f)]* Name/Title: Ken Weeks, Forester	☒
Discharge prevention briefings are conducted for oil-handling personnel annually to assure adequate understanding of the SPCC Plan for that facility. Such briefings highlight and describe past reportable discharges or failures, malfunctioning components, and any recently developed precautionary measures. *[§112.7(f)]* **[See Oil-handling Personnel Training and Briefing Log in Attachment 3.4]**	☒

4. Security (excluding oil production facilities) §112.7(g):

Table G-6 Implementation and Description of Security Measures	
Security measures are implemented at this facility to prevent unauthorized access to oil handling, processing, and storage area.	☒

The following is a description of how you secure and control access to the oil handling, processing and storage areas; secure master flow and drain valves; prevent unauthorized access to starter controls on oil pumps; secure out-of-service and loading/unloading connections of oil pipelines; address the appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil discharges:

1) The office is about 5 yards away from the fuel storage and transfer area. If there was a spill, facility personnel would be close by to smell the fuel.

2) Tank fill pipes are capped and locked when not in use; these tanks do not have drain valves.

3) Fuel dispensers and their pump control switches are locked when not in use.

5. Emergency Procedures and Notifications (§112.7(a)(3)(iv) and 112.7(a)(5)):

Table G-7 Description of Emergency Procedures and Notifications

The following is a description of the immediate actions to be taken by facility personnel in the event of a discharge to navigable waters or adjoining shorelines *[§112.7(a)(3)(iv) and 112.7(a)(5)]*:

1) Shutdown pumping in event of a spill during transfer operations.

2) Eliminate potential sources of ignition such as open flames or sparks.

3) If possible, safe, and trained to do so, identify and secure source of the discharge and contain the discharge with sorbents, sandbags, or other material from the spill kits.

   a. The main spill kit is located at the office.

4) Contact regulatory authorities and other response personnel and organizations (see subsection 6).

6. Contact List (§112.7(a)(3)(vi)):

Table G-8 Contact List	
Contact Organization / Person	**Telephone Number**
National Response Center (NRC)	1-800-424-8802
Cleanup Contractor(s) Action Resources	256-352-2350
Key Facility Personnel	
Designated Person Accountable for Discharge Prevention: Austin Clenney, Manager	Office: (205) 597-4429
	Emergency: (205)
William Robert Bond, President	Office: (205) 597-4429
	Emergency: (205)495-8468
	Office:
	Emergency:
	Office:
	Emergency:
State Oil Pollution Control Agencies Alabama Department of Environmental Management	(334)271-7700 or 1-800-843-0699
Other State, Federal, and Local Agencies Jefferson County Emergency Management Agency	(205)921-4555
Local Fire Department Adamsville Fire Department	911
Local Police Department Adamsville Police Department	911
Hospital Complete Health Adamsville 3915 Veter, Adamsville AL 35073	(205) 674-1222
Other Contact References (e.g., downstream water intakes or neighboring facilities) N/A	

7. NRC Notification Procedure (§112.7(a)(4) and (a)(5)):

Table G-9 NRC Notification Procedure	
In the event of a discharge of oil to navigable waters or adjoining shorelines, the following information identified in Attachment 4 will be provided to the National Response Center immediately following identification of a discharge to navigable waters or adjoining shorelines **[See Discharge Notification Form in Attachment 4]**: *[§112.7(a)(4)]*	☒

- The exact address or location and phone number of the facility;
- Date and time of the discharge;
- Type of material discharged;
- Estimate of the total quantity discharged;
- Estimate of the quantity discharged to navigable waters;
- Source of the discharge;
- Description of all affected media;
- Cause of the discharge;
- Any damages or injuries caused by the discharge;
- Actions being used to stop, remove, and mitigate the effects of the discharge;
- Whether an evacuation may be needed; and
- Names of individuals and/or organizations who have also been contacted.

8. SPCC Spill Reporting Requirements (Report within 60 days) (§112.4):

Submit information to the EPA Regional Administrator (RA) and the appropriate agency or agencies in charge of oil pollution control activities in the State in which the facility is located within 60 days from one of the following discharge events:

A single discharge of more than 1,000 U.S. gallons of oil to navigable waters or adjoining shorelines or
Two discharges to navigable waters or adjoining shorelines each more than 42 U.S. gallons of oil occurring within any twelve month period

You must submit the following information to the RA:

(1) Name of the facility;
(2) Your name;
(3) Location of the facility;
(4) Maximum storage or handling capacity of the facility and normal daily throughput;
(5) Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;
(6) An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
(7) The cause of the reportable discharge, including a failure analysis of the system or subsystem in which the failure occurred; and
(8) Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence
(9) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge

* * * * *

NOTE: Complete one of the following sections (A, B or C) as appropriate for the facility type.

A. Onshore Facilities (excluding production) (§§112.8(b) through (d), 112.12(b) through (d)):

The owner or operator must meet the general rule requirements as well as requirements under this section. Note that not all provisions may be applicable to all owners/operators. For example, a facility may not maintain completely buried metallic storage tanks installed after January 10, 1974, and thus would not have to abide by requirements in §§112.8(c)(4) and 112.12(c)(4), listed below. **In cases where a provision is not applicable, write "N/A".**

Table G-10 General Rule Requirements for Onshore Facilities		N/A
Drainage from diked storage areas is restrained by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. Diked areas may be emptied by pumps or ejectors that must be manually activated after inspecting the condition of the accumulation to ensure no oil will be discharged. *[§§112.8(b)(1) and 112.12(b)(1)]*	☐	☒
Valves of manual, open-and-closed design are used for the drainage of diked areas. *[§§112.8(b)(2) and 112.12(b)(2)]*	☐	☒
The containers at the facility are compatible with materials stored and conditions of storage such as pressure and temperature. *[§§112.8(c)(1) and 112.12(c)(1)]*	☒	☐
Secondary containment for the bulk storage containers (including mobile/portable oil storage containers) holds the capacity of the largest container plus additional capacity to contain precipitation. Mobile or portable oil storage containers are positioned to prevent a discharge as described in §112.1(b). *[§112.6(a)(3)(ii)]*	☒	☐
If uncontaminated rainwater from diked areas drains into a storm drain or open watercourse the following procedures will be implemented at the facility: *[§§112.8(c)(3) and 112.12(c)(3)]*		
• Bypass valve is normally sealed closed	☐	☒
• Retained rainwater is inspected to ensure that its presence will not cause a discharge to navigable waters or adjoining shorelines	☐	☒
• Bypass valve is opened and resealed under responsible supervision	☐	☒
• Adequate records of drainage are kept **[See Dike Drainage Log in Attachment 3.3]**	☐	☒
For completely buried metallic tanks installed on or after January 10, 1974 at this facility *[§§112.8(c)(4) and 112.12(c)(4)]*:		
• Tanks have corrosion protection with coatings or cathodic protection compatible with local soil conditions.	☐	☒
• Regular leak testing is conducted.	☐	☒
For partially buried or bunkered metallic tanks *[§112.8(c)(5) and §112.12(c)(5)]*:		
• Tanks have corrosion protection with coatings or cathodic protection compatible with local soil conditions.	☐	☒
Each aboveground bulk container is tested or inspected for integrity on a regular schedule and whenever material repairs are made. Scope and frequency of the inspections and inspector qualifications are in accordance with industry standards. Container supports and foundations are regularly inspected. **[See Inspection Log and Schedule and Bulk Storage Container Inspection Schedule in Attachments 3.1 and 3.2]** *[§112.8(c)(6) and §112.12(c)(6)(i)]*	☒	☐
Outsides of bulk storage containers are frequently inspected for signs of deterioration, discharges, or accumulation of oil inside diked areas. **[See Inspection Log and Schedule in Attachment 3.1]** *[§§112.8(c)(6) and 112.12(c)(6)]*	☒	☐
For bulk storage containers that are subject to 21 CFR part 110 which are shop-fabricated, constructed of austenitic stainless steel, elevated and have no external insulation, formal visual inspection is conducted on a regular schedule. Appropriate qualifications for personnel performing tests and inspections are documented. **[See Inspection Log and Schedule and Bulk Storage Container Inspection Schedule in Attachments 3.1 and 3.2]** *[§112.12(c)(6)(ii)]*	☐	☒

Table G-10 General Rule Requirements for Onshore Facilities		N/A
Each container is provided with a system or documented procedure to prevent overfills for the container. Describe: Tank truck fuel delivery procedures: 1) Gauge AST and check the level gauge to prevent tank overfill. 2) Set parking brake and use chock blocks to prevent movement, inspect fittings and fueling hose for damage. 3) Place drip pans under valve-hose fitting connections. 4) Monitor the liquid level in the receiving tank during transfer to prevent tank overfill. 5) If an oil spill occurs, the spill kit will be used to contain the spill. Main spill kit is located at the drum processing area. Dispenser and mobile refueler fueling procedures: 1) Before filling motorized equipment, shut off all engines and set parking brakes; do not leave filling operation unattended. 2) Do not top off tank after automatic shut-off. 3) If an oil spill occurs, the spill kit will be used to contain the spill. Transfers into waste oil drum: Transfer all waste oil into the drum fill port using a funnel. If an oil spill occurs, the spill kit will be used to contain the spill.	☒	☐
Liquid level sensing devices are regularly tested to ensure proper operation **[See Inspection Log and Schedule in Attachment 3.1]**. *[§112.6(a)(3)(iii)]*	☒	☐
Visible discharges which result in a loss of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, rivets, and bolts are promptly corrected and oil in diked areas is promptly removed. *[§§112.8(c)(10) and 112.12(c)(10)]*	☒	☐
Aboveground valves, piping, and appurtenances such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces are inspected regularly. **[See Inspection Log and Schedule in Attachment 3.1]** *[§§112.8(d)(4) and 112.12(d)(4)]*	☒	☐
Integrity and leak testing are conducted on buried piping at the time of installation, modification, construction, relocation, or replacement. **[See Inspection Log and Schedule in Attachment 3.1]** *[§§112.8(d)(4) and 112.12(d)(4)]*	☐	☒

B. Onshore Oil Production Facilities (excluding drilling and workover facilities) (§112.9(b), (c), and (d)):

The owner or operator must meet the general rule requirements as well as the requirements under this section. Note that not all provisions may be applicable to all owners/operators. **In cases where a provision is not applicable, write "N/A".**

Table G-11 General Rule Requirements for Onshore Oil Production Facilities		N/A
At tank batteries, separation and treating areas, drainage is closed and sealed except when draining uncontaminated rainwater. Accumulated oil on the rainwater is returned to storage or disposed of in accordance with legally approved methods. *[§112.9(b)(1)]*	☐	☐
Prior to drainage, diked areas are inspected and *[§112.9(b)(1)]*:		
• Retained rainwater is inspected to ensure that its presence will not cause a discharge to navigable waters	☐	☐
• Bypass valve is opened and resealed under responsible supervision	☐	☐
• Adequate records of drainage are kept **[See Dike Drainage Log in Attachment 3.3]**	☐	☐
Field drainage systems and oil traps, sumps, or skimmers are inspected at regularly scheduled intervals for oil, and accumulations of oil are promptly removed **[See Inspection Log and Schedule in Attachment 3.1]** *[§112.9(b)(2)]*	☐	☐
The containers used at this facility are compatible with materials stored and conditions of storage. *[§112.9(c)(1)]*	☐	☐
All tank battery, separation, and treating facility installations (except for flow-through process vessels) are constructed with a capacity to hold the largest single container plus additional capacity to contain rainfall. Drainage from undiked areas is safely confined in a catchment basin or holding pond. *[§112.9(c)(2)]*	☐	☐
Except for flow-through process vessels, containers that are on or above the surface of the ground, including foundations and supports, are visually inspected for deterioration and maintenance needs on a regular schedule. **[See Inspection Log and Schedule in Attachment 3.1]** *[§112.9(c)(3)]*	☐	☐
New and old tank batteries at this facility are engineered/updated in accordance with good engineering practices to prevent discharges including at least one of the following: i. adequate container capacity to prevent overfill if regular pumping/gauging is delayed; ii. overflow equalizing lines between containers so that a full container can overflow to an adjacent container; iii. vacuum protection to prevent container collapse; or iv. high level sensors to generate and transmit an alarm to the computer where the facility is subject to a computer production control system. *[§112.9(c)(4)]*	☐	☐
Flow-through process vessels and associated components are:		
• Are constructed with a capacity to hold the largest single container plus additional capacity to contain rainfall. Drainage from undiked areas is safely confined in a catchment basin or holding pond; *[§112.9(c)(2)]* and	☐	☐
• That are on or above the surface of the ground, including foundations and supports, are visually inspected for deterioration and maintenance needs on a regular schedule. **[See Inspection Log and Schedule in Attachment 3.1]** *[§112.9(c)(3)]*	☐	☐
Or		
• Visually inspected and/or tested periodically and on a regular schedule for leaks, corrosion, or other conditions that could lead to a discharge to navigable waters; and	☐	☐
• Corrective action or repairs are applied to flow-through process vessels and any associated components as indicated by regularly scheduled visual inspections, tests, or evidence of an oil discharge; and	☐	☐
• Any accumulations of oil discharges associated with flow-through process vessels are promptly removed; and	☐	☐
• Flow-through process vessels are provided with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation within six months of a discharge from flow-through process vessels of more than 1,000 U.S. gallons of oil in a single discharge as described in §112.1(b), or a discharge more than 42 U.S. gallons of oil in each of two discharges as described in §112.1(b) within any twelve month period. *[§112.9(c)(5)]* *(Leave blank until such time that this provision is applicable.)*	☐	☐

Table G-11 General Rule Requirements for Onshore Oil Production Facilities		N/A
All aboveground valves and piping associated with transfer operations are inspected periodically and upon a regular schedule. The general condition of flange joints, valve glands and bodies, drip pans, pipe supports, pumping well polish rod stuffing boxes, bleeder and gauge valves, and other such items are included in the inspection. **[See Inspection Log and Schedule in Attachment 3.1]** *[§112.9(d)(1)]*	☐	☐
An oil spill contingency plan and written commitment of resources are provided for flowlines and intra-facility gathering lines **[See Oil Spill Contingency Plan and Checklist in Attachment 2 and Inspection Log and Schedule in Attachment 3.1]** *[§112.9(d)(3)]* or Appropriate secondary containment and/or diversionary structures or equipment is provided for flowlines and intra-facility gathering lines to prevent a discharge to navigable waters or adjoining shorelines. The entire secondary containment system, including walls and floor, is capable of containing oil and is constructed so that any discharge from the pipe, will not escape the containment system before cleanup occurs.	☐ ☐	☐ ☐
A flowline/intra-facility gathering line maintenance program to prevent discharges from each flowline has been established at this facility. The maintenance program addresses each of the following: • Flowlines and intra-facility gathering lines and associated valves and equipment are compatible with the type of production fluids, their potential corrosivity, volume, and pressure, and other conditions expected in the operational environment; • Flowlines, intra-facility gathering lines and associated appurtenances are visually inspected and/or tested on a periodic and regular schedule for leaks, oil discharges, corrosion, or other conditions that could lead to a discharge as described in §112.1(b). The frequency and type of testing allows for the implementation of a contingency plan as described under part 109 of this chapter. • Corrective action and repairs to any flowlines and intra-facility gathering lines and associated appurtenances as indicated by regularly scheduled visual inspections, tests, or evidence of a discharge. • Accumulations of oil discharges associated with flowlines, intra-facility gathering lines, and associated appurtenances are promptly removed. *[§112.9(d)(4)]*	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
The following is a description of the flowline/intra-facility gathering line maintenance program implemented at this facility:		

C. Onshore Oil Drilling and Workover Facilities (§112.10(b), (c) and (d)):

The owner or operator must meet the general rule requirements as well as the requirements under this section.

Table G-12 General Rule Requirements for Onshore Oil Drilling and Workover Facilities	
Mobile drilling or worker equipment is positioned or located to prevent discharge as described in §112.1(b). *[§112.10(b)]*	☐
Catchment basins or diversion structures are provided to intercept and contain discharges of fuel, crude oil, or oily drilling fluids. *[§112.10(c)]*	☐
A blowout prevention (BOP) assembly and well control system was installed before drilling below any casing string or during workover operations. *[§112.10(d)]*	☐
The BOP assembly and well control system is capable of controlling any well-head pressure that may be encountered while the BOP assembly and well control system are on the well. *[§112.10(d)]*	☐

ATTACHMENT 1 – Five Year Review and Technical Amendment Logs

ATTACHMENT 1.1 – Five Year Review Log

I have completed a review and evaluation of the SPCC Plan for this facility, and will/will not amend this Plan as a result.

Table G-13 Review and Evaluation of SPCC Plan for Facility			
Review Date	Plan Amendment		Name and signature of person authorized to review this Plan
	Will Amend	Will Not Amend	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	

ATTACHMENT 1.2 – Technical Amendment Log

Any technical amendments to this Plan will be re-certified in accordance with Section I of this Plan template.

Table G-15 Description and Certification of Technical Amendments		
Review Date	Description of Technical Amendment	Name and signature of person certifying this technical amendment

ATTACHMENT 2 – Oil Spill Contingency Plan and Checklist

An oil spill contingency plan and written commitment of resources is required for:

- Flowlines and intra-facility gathering lines at oil production facilities and
- Qualified oil-filled operational equipment which has no secondary containment.

An oil spill contingency plan meeting the provisions of 40 CFR part 109, as described below, and a written commitment of manpower, equipment and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful is attached to this Plan.	☐

Complete the checklist below to verify that the necessary operations outlined in 40 CFR part 109 - Criteria for State, Local and Regional Oil Removal Contingency Plans - have been included.

Table G-15 Checklist of Development and Implementation Criteria for State, Local and Regional Oil Removal Contingency Plans (§109.5)[a]	
(a) Definition of the authorities, responsibilities and duties of all persons, organizations or agencies which are to be involved in planning or directing oil removal operations.	☐
(b) Establishment of notification procedures for the purpose of early detection and timely notification of an oil discharge including:	
(1) The identification of critical water use areas to facilitate the reporting of and response to oil discharges.	☐
(2) A current list of names, telephone numbers and addresses of the responsible persons (with alternates) and organizations to be notified when an oil discharge is discovered.	☐
(3) Provisions for access to a reliable communications system for timely notification of an oil discharge, and the capability of interconnection with the communications systems established under related oil removal contingency plans, particularly State and National plans (e.g., NCP).	☐
(4) An established, prearranged procedure for requesting assistance during a major disaster or when the situation exceeds the response capability of the State, local or regional authority.	☐
(c) Provisions to assure that full resource capability is known and can be committed during an oil discharge situation including:	
(1) The identification and inventory of applicable equipment, materials and supplies which are available locally and regionally.	☐
(2) An estimate of the equipment, materials and supplies which would be required to remove the maximum oil discharge to be anticipated.	☐
(3) Development of agreements and arrangements in advance of an oil discharge for the acquisition of equipment, materials and supplies to be used in responding to such a discharge.	☐
(d) Provisions for well defined and specific actions to be taken after discovery and notification of an oil discharge including:	
(1) Specification of an oil discharge response operating team consisting of trained, prepared and available operating personnel.	☐
(2) Predesignation of a properly qualified oil discharge response coordinator who is charged with the responsibility and delegated commensurate authority for directing and coordinating response operations and who knows how to request assistance from Federal authorities operating under existing national and regional contingency plans.	☐
(3) A preplanned location for an oil discharge response operations center and a reliable communications system for directing the coordinated overall response operations.	☐
(4) Provisions for varying degrees of response effort depending on the severity of the oil discharge.	☐
(5) Specification of the order of priority in which the various water uses are to be protected where more than one water use may be adversely affected as a result of an oil discharge and where response operations may not be adequate to protect all uses.	☐
(6) Specific and well defined procedures to facilitate recovery of damages and enforcement measures as provided for by State and local statutes and ordinances.	☐

[a] The contingency plan must be consistent with all applicable state and local plans, Area Contingency Plans, and the National Contingency Plan (NCP)

Facility Name: **WARRIOR AGGREGATES, INC.**.

ATTACHMENT 3 – Inspections, Dike Drainage and Personnel Training Logs

ATTACHMENT 3.1 – Inspection Log and Schedule

Table G-16 Inspection Log and Schedule
This log is intended to document compliance with §§112.6(a)(3)(iii), 112.8(c)(6), 112.8(d)(4), 112.9(b)(2), 112.9(c)(3), 112.9(d)(1), 112.9(d)(4), 112.12.(c)(6), and 112.12(d)(4), as applicable.

Date of Inspection	Container / Piping / Equipment	Describe Scope (or cite Industry Standard)	Observations	Name/ Signature of Inspector	Records maintained separately [a]
	Aboveground Pipes	Visual Inspections			☐
	ASTMs 2,000 gallon off-road diesel tank 1,000 gallon off-road diesel tank 200 gallon hydraulic oil tank	Visual inspections (STI SP001, Standard for the Inspection of Aboveground Storage Tanks)			☐

	Secondary containment pads and berms				☐
	Container liquid Level gauges	Tests and inspections following manufacturer's procedures			☐
	Dispensers	Inspections (manufacturer's and installer's instructions)			☐

[a] Indicate in the table above if records of facility inspections are maintained separately at this facility.

ATTACHMENT 3.2 – Bulk Storage Container Inspection Schedule – onshore facilities (excluding production):

To comply with integrity inspection requirement for bulk storage containers, inspect/test each shop-built aboveground bulk storage container on a regular schedule in accordance with a recognized container inspection standard based on the minimum requirements in the following table.

Table G-17 Bulk Storage Container Inspection Schedule

Container Size and Design Specification	Inspection requirement
Portable containers (including drums, totes, and intermodal bulk containers (IBC)) N/A	Visually inspect monthly for signs of deterioration, discharges or accumulation of oil on building floor.
55 to1,100 gallons with sized secondary containment 200-gallon hydraulic oil tank	Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas plus any annual inspection elements per industry inspection standards
1,101 to 5,000 gallons with sized secondary containment and a means of leak detection[a] N/A	
1,101 to 5,000 gallons with sized secondary containment and no method of leak detection[a] N/A	Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas, plus any annual inspection elements and other specific integrity tests that may be required per industry inspection standards

[a] Examples of leak detection include, but are not limited to, double-walled tanks and elevated containers where a leak can be visually identified.

ATTACHMENT 3.3 – Dike Drainage Log

Table G-18 Dike Drainage Log

Date	Bypass valve sealed closed	Rainwater inspected to be sure no oil (or sheen) is visible	Open bypass valve and reseal it following drainage	Drainage activity supervised	Observations	Signature of Inspector
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		

ATTACHMENT 3.4 – Oil-handling Personnel Training and Briefing Log

Table G-19 Oil-Handling Personnel Training and Briefing Log		
Date	**Description / Scope**	**Attendees**

ATTACHMENT 4 – Discharge Notification Form

In the event of a discharge of oil to navigable waters or adjoining shorelines, the following information will be provided to the National Response Center **[also see the notification information provided in Section 7 of the Plan]**:

Table G-20 Information provided to the National Response Center in the Event of a Discharge			
Discharge/Discovery Date		Time	
Facility Name			
Facility Location (Address/Lat-Long/Section Township Range)			
Name of reporting individual		Telephone #	
Type of material discharged		Estimated total quantity discharged	Gallons/Barrels
Source of the discharge		Media affected	☐ Soil ☐ Water (specify) ☐ Other (specify)
Actions taken			
Damage or injuries	☐ No ☐ Yes (specify)	Evacuation needed?	☐ No ☐ Yes (specify)
Organizations and individuals contacted	☐ National Response Center 800-424-8802 Time ☐ Cleanup contractor (Specify) Time ☐ Facility personnel (Specify) Time ☐ State Agency (Specify) Time ☐ Other (Specify) Time		

Pollution Abatement Plan / Prevention Plan

For

Bessie Mine and Warrior Aggregates, Inc.
5260 Bessie Flat Top Cutoff Road
Adamsville, Alabama 35073

Operated by:

PB Service, LLC

May, 2023

Atkins Engineering, LLC
176 Richardson Road
Jasper, Alabama 35504

TABLE OF CONTENTS

I. INTRODUCTION

II. OPERATOR INFORMATION

III. GENERAL INFORMATION

IV. TOPOGRAPHIC MAP & FACILITY MAPS

V. METHOD FOR DIVERTING SURFACE WATER RUNOFF

VI. RAW MATERIALS, PROCESSES AND PRODUCTS

VII. QUANTITY AND CHARACTERISTICS OF THE WASTE

VIII. WASTEWATER TREATMENT FACILITIES

IX. SEDIMENT CONTROL FROM HAUL ROADS

X. OVERBURDEN

XI. LOCATION OF STREAMS ADJACENT TO MINING AREAS

XII. NON-POINT SOURCE POLLUTION

APPENDICES:

A. SITE VICINITY / TOPOGRAPHIC MAP

B. 1: 500 SCALE FACILITY MAP

C. BASIN SPECIFICATIONS

I. INTRODUCTION

This Pollution Abatement/Prevention (PAP) plan is required by ADEM Admin. Code r. 335-6-9-.03 for all surface mining operations in Alabama, and has been prepared with the intention of covering discharges previously permitted under NPDES permit number AL0003263 for the Bessie Mine. The property associated with this permit was purchased by PB Service, LLC, who now operates the reclaimed Bessie Mine, Warrior Aggregates, Inc. (formerly referred to as Locust Fork Red Rock) mine, and the former U.S. Pipe & Foundry Company inert landfill.

The position of the former U.S. Pipe Company inert landfill exists above and within the former Jim Walter Resources No. 3 Mine area, on an area which had been used as a mine spoil rock dump area. The mine spoil rock is the “red rock” material which is currently being mined at the site by Warrior Aggregates, Inc. The inert materials disposed of at the former U.S. Pipe & Foundry Company are also currently mined at the site for iron recovery. The Bessie Mine and Locust Fork Red Rock operates in Jefferson County, Alabama and is located in Sections 14, 22, and 23, Township 16 South, and Range 5 West in the City of Adamsville. The operation has coordinates at 33.646363 degrees latitude, and 87.031338 longitude.

The information presented here is a review of existing operation as it has evolved since it first begun in 1904. Site visits and field reviews have been conducted preceding the preparation of this application modification. In order to confirm continued compliance with applicable ADEM rules and regulations, site reviews and recalculations have been made of the complete sedimentation system.

The pollution abatement and prevention plan is presented in a format as outlined by ADEM Admin. Code r. 335-6-9-.03, for all surface mining operations in Alabama.

II. OPERATOR INFORMATION

The operators of the Bessie Mine and Warrior Aggregates, Inc. are PB Service, LLC.

The PB Service, LLC office business address is as follows:

3700 14th Avenue North
Birmingham, AL 35234

The primary contact at the facility is Robert Bond, President. Mr. Bond can be contacted at (205)612-2663. A general layout of the facility is shown on the site vicinity map included as Appendix A.

III. GENERAL INFORMATION

The Bessie Mine and Locust Fork Red Rock operation is situated on approximately 512 contiguous acres. The plants operate, on average, five days per week, eight hours per day and 50 weeks per year. Usually, around eight employees are engaged at this operation.

IV. TOPOGRAPHIC MAP

A 7.5 minute series USGS topographic map is included as Appendix A, and details the effluent discharge locations, the area currently being mined for red rock, the landfill area, site office, processing area, and the area where transload operations may occur in the future. The transload area is positioned adjacent to the Locust Fork, a haul road on-site, and a rail spur. A 1":500' drawing is included as Appendix B.

V. METHOD FOR DIVERTING SURFACE WATER RUNOFF

The attached design plans reflect the contouring of the land as it presently exists. All disturbed areas and spoil piles are located so as to drain to Outfall 001. Outfall 004

only receives surface water runoff from the area which includes the reclaimed Bessie Mine.

VI. RAW MATERIALS, PROCESSES AND PRODUCTS

The position of the former U.S. Pipe Company inert landfill exists above and within the former Jim Walter Resources No. 3 Mine area, on an area which had been used as a mine spoil rock dump area. The mine spoil rock is the “red rock” material which is currently being mined at the site. The inert materials disposed of at the former U.S. Pipe & Foundry Company are also currently mined at the site for iron recovery. Operations performed by Warrior Aggregate, Inc. include; excavation and loading of red rock for transfer to an on-site crusher and sizing screener. The central portion of the property remains permitted to accept inert foundry waste under ADEM Solid Waste Disposal Facility permit 37-32, however; no waste has been accepted since PB Service purchased the property. Currently, Warrior Aggregates, Inc. excavates the previously landfilled inert foundry waste, loads, and transfers it to an on-site screener and magnet, which separates iron from sand and rock for recycling. Sand and rock overburden from this operation is stockpiled on the central portion of the property.

VII. QUANTITY AND CHARACTERISTICS OF THE WASTE

The only waste product is sand and rock overburden from the iron reclamation operation, and is stockpiled on the central portion of the property.

VIII. WASTEWATER TREATMENT FACILITIES

There is no wastewater produced by this operation, and all processing activities are dry. No wet preparation or processing occurs at the facility.

IX. SEDIMENT CONTROL FROM HAUL ROADS

The haul roads are constructed on a locally derived crushed red rock base. Drainage is controlled by graded ditches and berms along the side of the haul roads which flow directly to Outfall 001 or is retained on-site.

X. OVERBURDEN

The only waste product is sand and rock overburden from the iron reclamation operation, and is stockpiled on the central portion of the property.

XI. LOCATION OF STREAMS ADJACENT TO MINING AREAS

A facility drawing (1” = 500’ scale) showing the adjacent Locust Fork is included as Appendix B.

XII. NON-POINT SOURCE POLLUTION

As previously discussed, all disturbed areas are contoured and graded so that all drainage will carry yard dust to the settling/recycling system or be retained on-site. Reclamation areas are systematically vegetated and protected from soil loss by best management practices and location. Due to these measures, non-point sources of pollution are not expected to result from this operation.

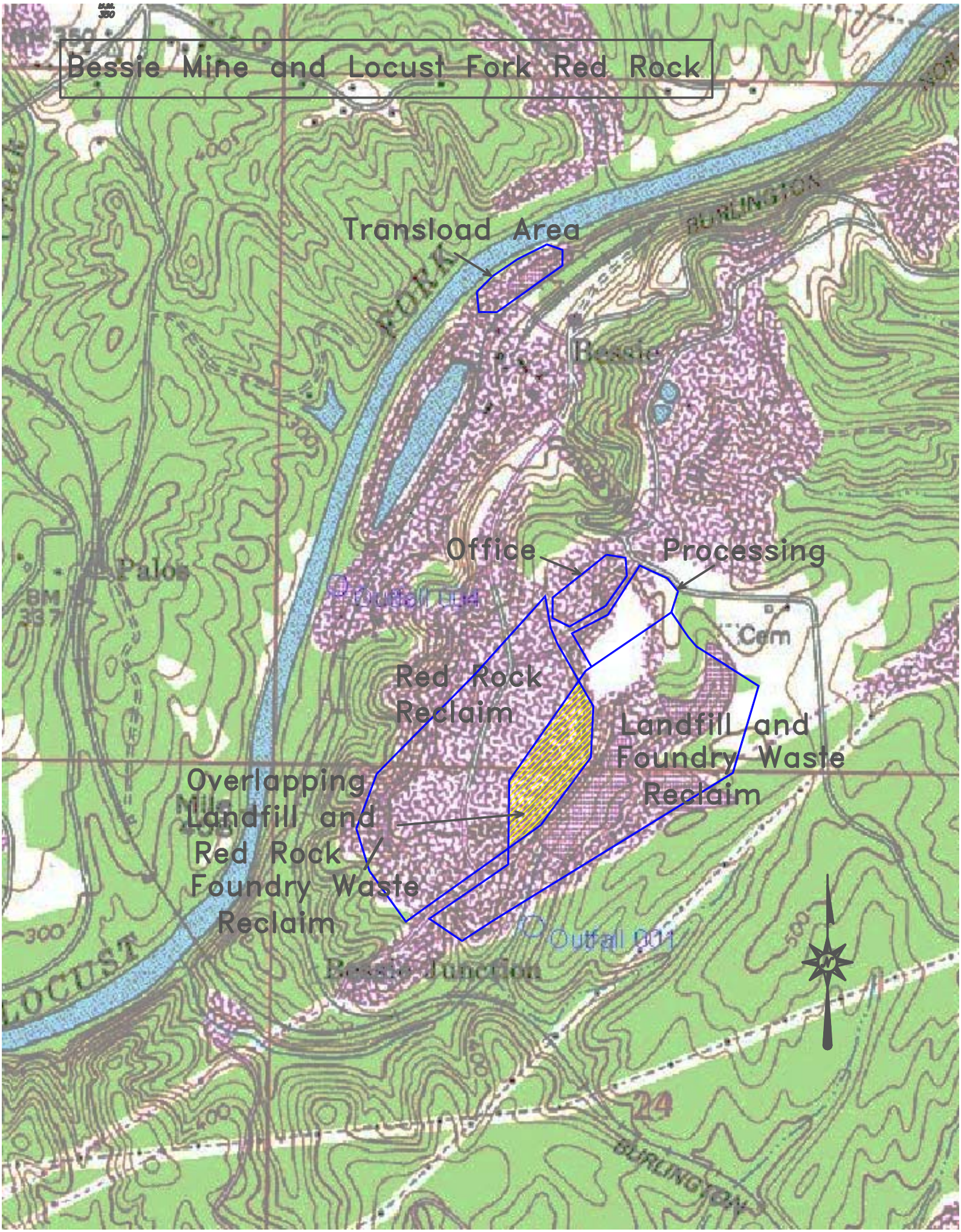
APPENDICES:

A. SITE VICINITY / TOPOGRAPHIC MAP

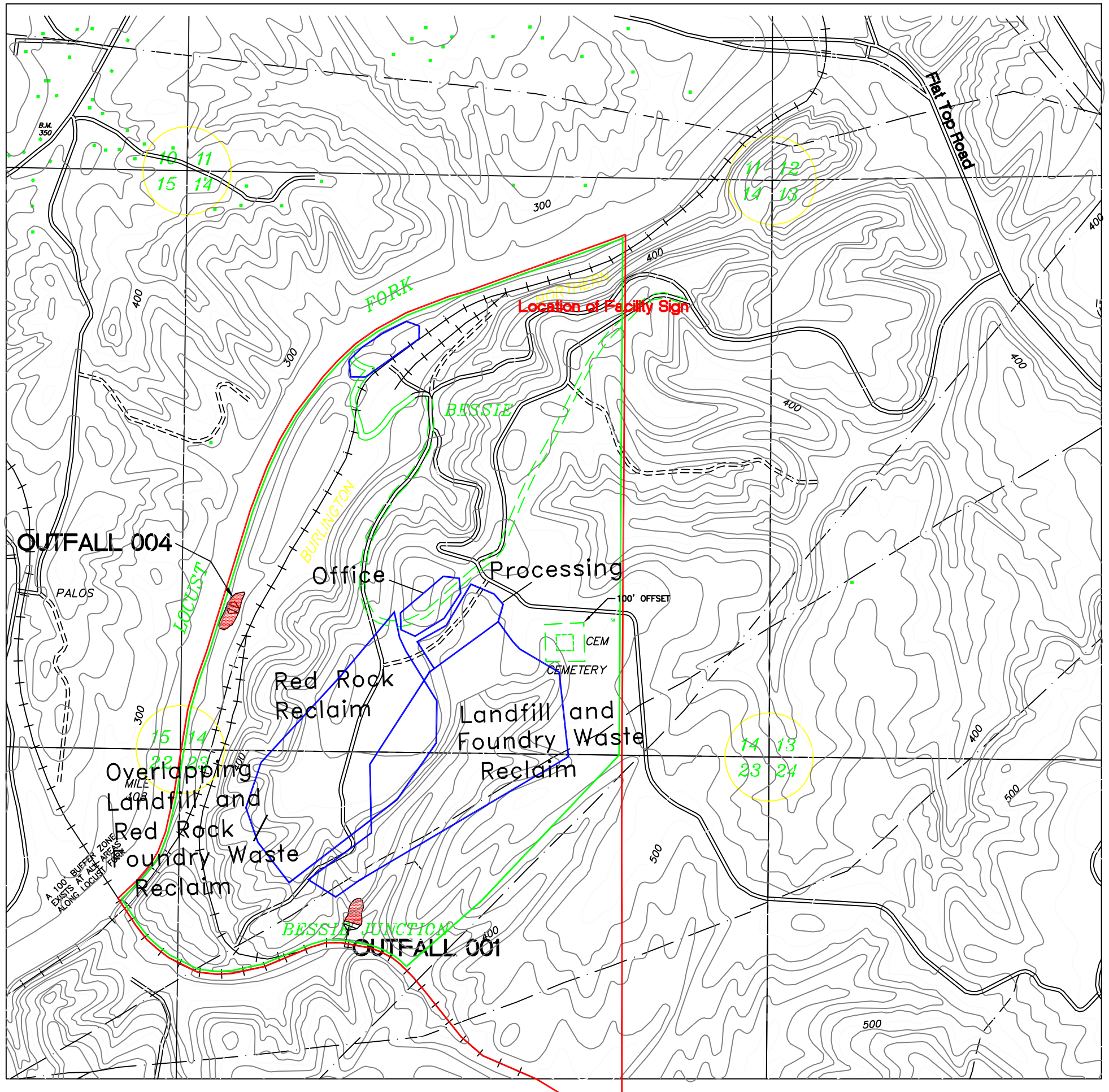
B. 1”: 500’ SCALE FACILITY MAP

C. BASIN SPECIFICATIONS

A. SITE VICINITY MAP

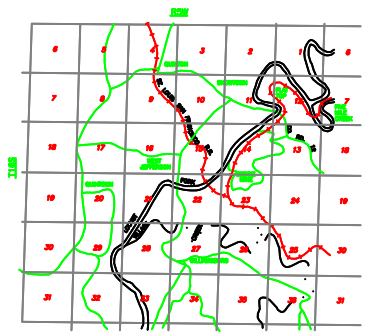

Bessie Mine and Locust Fork Red Rock
Transload Area
Bessie
Office
Processing
Red Rock Reclaim
Landfill and Foundry Waste Reclaim
Overlapping Landfill and Red Rock / Foundry Waste Reclaim
Outfall 004
Outfall 001
Palos
Cem
Bessie Junction
LOCUST
FORK
BURLINGTON
24

B. 1: 500 SCALE FACILITY MAP



VICINITY MAP

Scale: 1"= 2 Miles



LEGEND

- Proposed and Existing Disturbed Areas
- Proposed Extents of Modified AL0003263 Coverage
- PB Services Property Boundary
- 400 Surface Contour
- Impoundment
- County Road (Paved unless otherwise designated)
- Occupied Dwelling

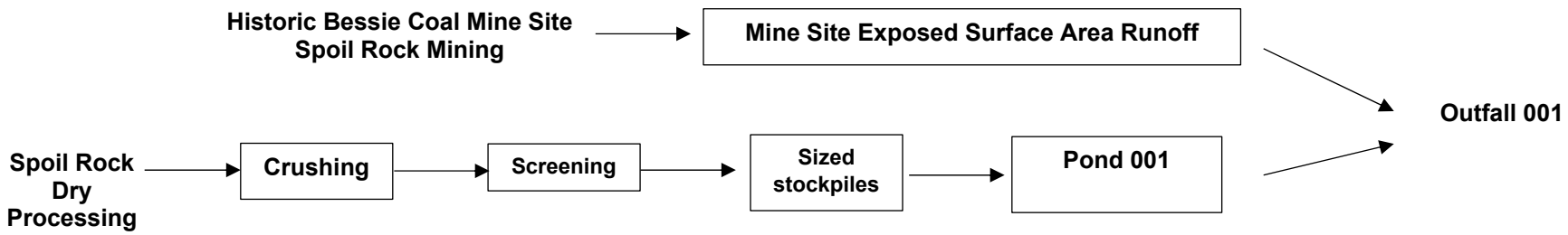
Detailed Facility Map
Supplementary Information
Bessie Mine and Locust Fork Red Rock
Sections 14, 22 and 23
Township 16 South, Range 5 West
Jefferson County, Alabama

SCALE: 1"=500'	DATE: 5-10-2016	DWG MOD BY: J. LOVELL

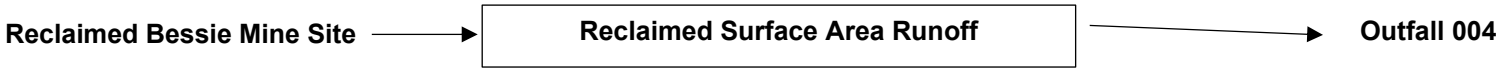
C. BASIN SPECIFICATIONS

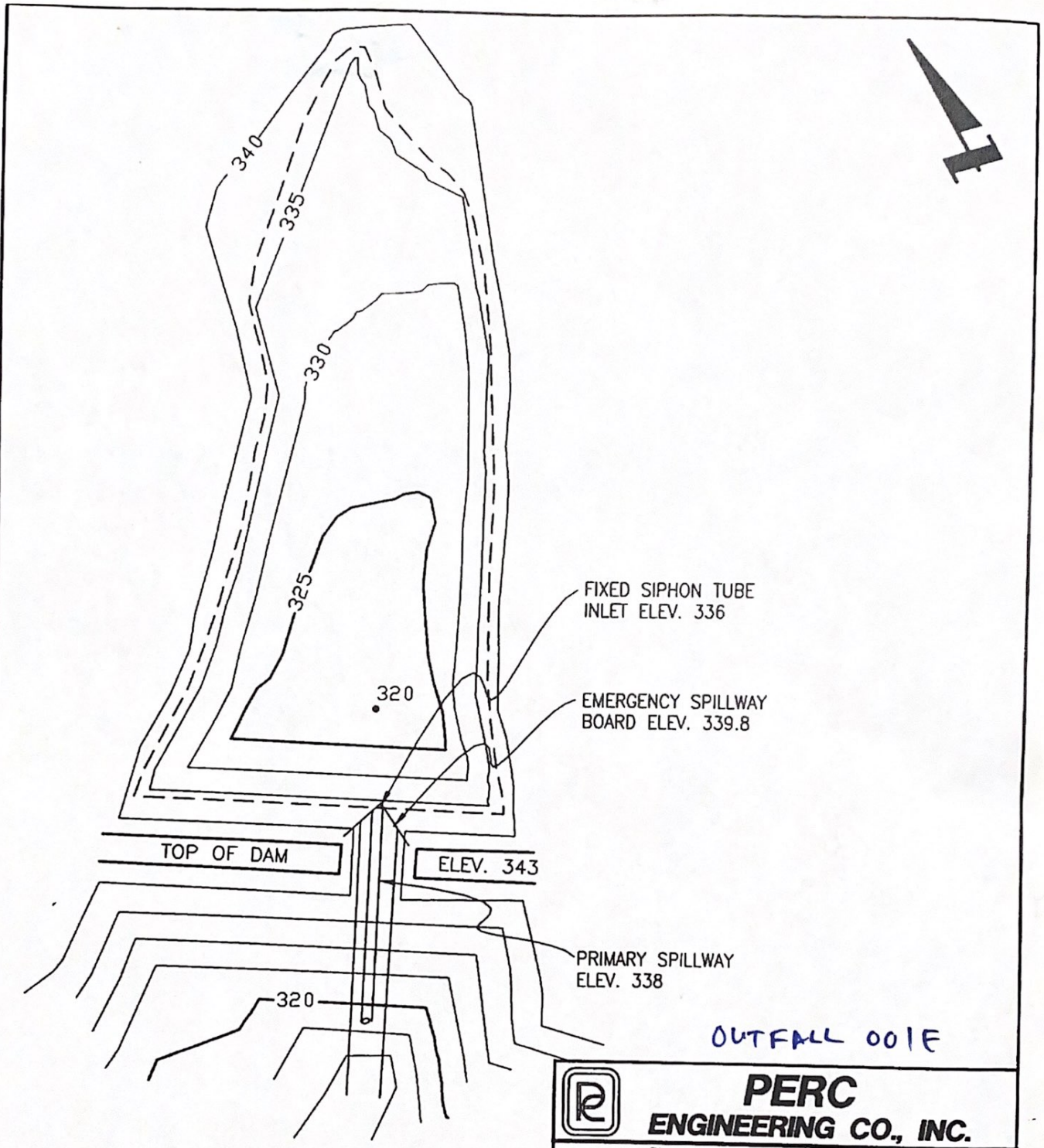
*Specifications for the basin leading to Outfall 001 are included in this section, as both the basin leading to Outfall 001 and 004 were designed and certified by others, and design/construction details are not available for the basin leading to Outfall 004. Brian Atkins of Atkins Engineering inspected the basins and outfall structures, but does not take responsibility for their design. It was noted at the time of inspection that the basin leading to Outfall 004 is present and equipped with two 24" diameter corrugated steel discharge pipes.

SCHEMATIC DIAGRAM OF FLOW TO OUTFALL 001



SCHEMATIC DIAGRAM OF FLOW TO OUTFALL 004





OUTFALL 001F

— — — NORMAL POOL LEVEL ELEV. 336

NOTE: MODIFICATIONS INCLUDE THE INCREASE IN THE TOP OF DAM BY 18 FEET AND THE ADDITION OF THE OPEN CHANNEL / FIXED SIPHON TUBE SPILLWAY TO THE ELEVATIONS SHOWN.

PERC
ENGINEERING CO., INC.

Jim Walter Resources, Inc.
Bessie Mine
P-3259
Attachment III-B-1(a)
Basin B-N-1 Planview

DRAWN BY: J.J.H. DWG NAME: JWRBN1P	DATE: 6-19-95
APPROVED BY: S.R.I.	SCALE: 1" = 60'

C:\DOCUMENTS\JWRBN1P 08/19/95 22:10

Jim Walter resources, inc.
BLUE CREEK COAL • BROOKWOOD, ALABAMA

ANNUAL RE-CERTIFICATION OF SEDIMENT BASIN

COMPANY NAME: Jim Walter Resources, Inc.
MINE NAME: Bessie Mine
ASMC PERMIT NO.: P-3259-01-03-U
BASIN NO.: B-N-1

Inspection Date: 5/16/02

BASIN INFORMATION

1. Elevation of Top of Dam: 338.6 Feet
   ( ) Assumed (XX) Mean Sea Level

2. Elevation of Impounded Water: 332.5 Feet
   ( ) Assumed (XX) Mean Sea Level

3. Impounded Water Depth: 11.2 Feet
   (Distance from Basin Bottom to Water Surface)

4. Storage Capacity: 3.3 Ac-Ft
   (As measured from the basin bottom to the crest of the primary spillway)

5. Are any existing monitoring procedures or instrumentation required? ( ) Yes (XX) No

6. Are there any appearances, through a visual inspection, of instability, structural weakness or any other conditions considered to be hazardous? (If yes, see detailed explanation) ( ) Yes (XX) No

I, Jeffery H. Stricklin, a qualified registered professional engineer, hereby certify that the above referenced impoundment was inspected in accordance with the requirements of Section 880-X-10C-20(1)(J); and that the impoundment has been maintained in accordance with the approved plan and all applicable portions of Chapter 880-X-10C of the Alabama Surface Mining Commission regulations to the best of my knowledge and belief.

Jeffery H. Stricklin, P.E.
Alabama Reg. No. 16480

ALABAMA LICENSED No. 16480 PROFESSIONAL ENGINEER JEFFERY H. STRICKLIN

6/3/02
Date

P.O. Box 133 • Brookwood, Alabama 35444 • (205) 554-6150 • FAX (205) 554-6161