From:	Air.Pollution Control
To:	APC Permitting
Subject:	FW: Blue Water Industries (BWI) Applications for Construction Permits for a Mobile Non-Metallic Mineral Processing Plant System
Date:	Thursday, January 4, 2024 3:00:34 PM
Attachments:	BWIETN Portables Applic Submit 1-4-24.pdf

From: Alisa Hatmaker <ahatmaker@bluewaterindustries.com>
Sent: Thursday, January 4, 2024 2:33 PM
To: Air.Pollution Control <Air.Pollution.Control@tn.gov>
Cc: Walt Hillis <WHillis@bluewaterindustries.com>; Tracy Kefauver <Tracy.Kefauver@tn.gov>; Younes Aleali <Younes.Aleali@tn.gov>; Will Collins <Will.Collins@tn.gov>
Subject: [EXTERNAL] Blue Water Industries (BWI) Applications for Construction Permits for a Mobile Non-Metallic Mineral Processing Plant System

Good Afternoon,

Attached, please find two (2) combined construction/operating permit applications and one permit amendment request for seven (7) locations along with supporting documentation. All information has been combined into one document.

Please note, the construction permit application fees are being submitted via email to tdec.fees@tn.gov in a separate email.

If you have any questions, please contact me.

Thanks,

Alisa Hatmaker
Blue Water Industries
9509 Diggs Gap Road
Heiskell, TN 37754
865-279-0702 (cell)
865-512-7622 (office)
ahatmaker@bluewaterindustries.com

BLUE WATER INDUSTRIES

Via Electronic Mail to Air.Pollution.Control@tn.gov

January 4, 2024

Michelle W. Owenby, Director
Division of Air Pollution Control
Tennessee Department of Environment & Conservation
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Re: BWI ETN LLC dba Blue Water Industries
Combined Construction/Operating Permit Applications
Mobile Crushing, Screening, & Conveying Non-Metallic Mineral Processing Plant System

Dear Director:

Please find attached for your review, two (2) combined construction/operating permit applications for mobile processing equipment. The equipment contained within these permit applications is currently permitted at seven (7) other BWI locations. These applications are being submitted to permit the same equipment at two additional sites listed below so the equipment may be moved within the BWI East Tennessee region to supplement market demands as needed.

Location	ESR No.
BWI Greenback Quarry	53-0074
BWI Grasselli Quarry	45-0059

This system instead of being fixed and set in place on concrete pads would consist of multiple track-mounted self-propelled units and one unit that is mounted on a portable trailer. The units can be operated as a complete system, with only certain units being utilized, or even just one unit being utilized at any one time dictated by demands for diverse sizes of finished aggregate product. The units have onboard dual-purpose engines to propel the units and supply power to the processing equipment.

An amendment request is being submitted concurrently with these construction permit applications to add the two additional locations to the existing seven (7) permits. More specifically, the amendment request will be to add the locations to the table found in Appendix 4 – Startup Certification for startup notification and compliance testing.

Also, some of the equipment contained in the BWI Greenback Quarry application that is attached is permitted currently under Permit No. 080023. With this application, BWI requests that this permit be made inactive once the new permit being applied for is issued.

An equipment process flow diagram and combination equipment list/emissions calculation sheet are attached for reference. Also attached is the permit limitation agreement letter for each application.

The equipment systems proposed for permitting are affected facilities as listed in 40 CFR Part 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants per 60.670 (a) (1) Applicability and designation of affected facility and 60.2 Definitions. As a result, emissions testing on the equipment will be conducted per the requirement for affected facilities. The emissions testing will be coordinated with the Division's Compliance Validation Program and a start-up letter will be submitted to the Division.

BWI has already completed emission testing on some of the units listed in the application under other permits/approvals by the Division so these will not be retested when they operate in the same method as they were previously tested. These tests and approvals are included with each application.

BWI is submitting the application fee payment via credit card to tdec.fees@tn.gov with this application submittal.

If you have any questions concerning this correspondence, please contact me at (865)-512-7628 or whillis@bluewaterindustries.com.

Sincerely,

Walt Hillis

Walt Hillis
Environmental Manager

Attachments

BLUE WATER
INDUSTRIES

ESR 53-0074 CONSTRUCTION PERMIT APPLICATION

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF AIR POLLUTION CONTROL
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor, Nashville, TN 37243
Telephone: (615) 532-0554, Email: Air.Pollution.Control@TN.gov

NON-TITLE V PERMIT APPLICATION
FACILITY IDENTIFICATION

Type or print and submit. Attach appropriate source description forms.

SITE INFORMATION

1. Organization's legal name and SOS control number [as registered with the TN Secretary of State (SOS)]
BWI ETN LLC, d/b/a Blue Water Industries, 000931614

2. Site name (if different from legal name)
BWI Greenback Quarry

3. Is a construction permit application fee being submitted? Yes [✔] No [ ]
(see instructions for appropriate fee to submit)

4. Site address (St./Rd./Hwy.)		County name
2107 Big Hill Road		Loudon
City	Zip code	**5.** NAICS or SIC code
Lenoir City	37772	212312

6. Site location (in lat. /long.)	Latitude	Longitude
	35-42-40	84-11-56

CONTACT INFORMATION (RESPONSIBLE PERSON)

7. Responsible person/Authorized contact			Phone number with area code
Walt Hillis			865-512-7628
Mailing address (St./Rd./Hwy.)			Fax number with area code
9509 Diggs Gap Road			865-512-7661
City	State	Zip code	Email address
Heiskell	TN	37754	whillis@bluewaterindustries.com

CONTACT INFORMATION (TECHNICAL)

8. Principal technical contact			Phone number with area code
Walt Hillis			865-512-7628
Mailing address (St./Rd./Hwy.)			Fax number with area code
9509 Diggs Gap Road			865-512-7661
City	State	Zip code	Email address
Heiskell	TN	37754	whillis@bluewaterindustries.com

CONTACT INFORMATION (BILLING)

9. Billing contact			Phone number with area code
Accounts Payable			904-512-7714
Mailing address (St./Rd./Hwy.)			Fax number with area code
200 W Forysth Street, Suite 1200			NA
City	State	Zip code	Email address
Jacksonville	FL	32202	apdept@bluewaterindustries.com

AIR CONTAMINANT SOURCE(S) INFORMATION

10. Description of air contaminant source(s) and Unique Source ID(s). List, identify, and briefly describe process emission sources, fuel burning installations, and incinerators that are contained in this application and include a Unique Source ID for each source. The Unique Source ID is a name/number/letter, which uniquely identifies the air contaminant source(s), like Boiler #1, Paint Line #1, Engine #1, etc. (see instructions for more details)

Proposed addition of a track-mounted mobile/portable chassis mounted crushing and screening plant that will consist of two jaw crusher units, one impact crusher unit, two cone crusher units, three scalping screen units, four sizing screen units. All units are track-mounted self-contained mobile units or portable trailer chassis unit. They area all powered by Tier III or Tier IV diesel engines that serve a dual purpose. The engines power the mobile units for propulsion and once in place for operations they power the onboard processing equipment. For the portable trailer chassis unit the engine powers the onboard processing equipment.

A flow diagram, equipment list and emission calcuations are included with this application.

11. Is the air contaminant source(s) in a nonattainment area? If "Yes", then minor source BACT must be addressed. Yes ☐ No ☑

12. Normal operation:	Hours/Day 8-10	Days/Week 5-6	Weeks/Year 50	Days/Year 250
13. Percent annual throughput	Dec. – Feb. 15	March – May 30	June – August 30	Sept. – Nov. 25

TYPE OF PERMIT REQUESTED (check appropriate box)

14. Operating permit ☐

Date construction started	Date completed	Date of ownership change (if applicable)

Last permit number(s)	Emission Source Reference Number(s)

Construction permit ☑

Last permit number(s)	Emission Source Reference Number(s)
067001, 067002, 080023	53-0074-01, 02, and 03

If you chose Construction permit above, then choose either New Construction, Modification, or Location Transfer

New Construction ☑	Starting date 2/1/2024	Completion date 2/28/2024
Modification ☐	Date modification started or will start	Date completed or will complete
Location Transfer ☐	Transfer date	Address of last location

15. Describe changes that have been made to this equipment or operation(s) since the last construction or operating permit application:

16. Comments

This application will not include any changes to the existing permitted facility initial primary input tons per hour rate or maximum annual total input rate in tons.

SIGNATURE

Based upon information and belief formed after a reasonable inquiry, I, as the responsible person of the above mentioned facility, certify that the information contained in this application is accurate and true to the best of my knowledge. As specified in TCA Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

17. Signature (application must be signed before it will be processed)		**Date**
Walt Hillis		01/04/2024
Signer's name (type or print)	**Title**	**Phone number with area code**
Walt Hillis	Environmental Manager	865-512-7628

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF AIR POLLUTION CONTROL
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor, Nashville, TN 37243
Telephone: (615) 532-0554, Email: Air.Pollution.Control@TN.gov

NON-TITLE V PERMIT APPLICATION
ROCK CRUSHING SOURCE DESCRIPTION

Type or print. Submit for each rock crushing operation. Submit with the APC 100.

GENERAL IDENTIFICATION AND DESCRIPTION

1. Organization's legal name and SOS control number [as registered with the TN Secretary of State (SOS)]
BWI ETN LLC, d/b/a Blue Water Industries, 000931614 (Greenback Quarry)

2. Emission Source Reference Number
53-0074

3. Is this air contaminant source subject to an NSPS or NESHAP rule? Yes ☑ No ☐
If Yes, list rule citation, including Part, Subpart, and applicable Sections:
Subpart OOO

EQUIPMENT INFORMATION

The applicant must submit an equipment list and flow diagram. The applicant may use the table below to list the equipment or attach a separate sheet of paper for the equipment list. The equipment list must include each crusher, screen, conveyor, bin, pugmill, feeder, agricultural lime, etc. The flow diagram must show each piece of equipment labeled with a reference number.

4. Equipment type (Note 1)	Flow diagram reference number (Note 2)	Size (Note 3)	Operating rate (Tons/Hr.) Design	Operating rate (Tons/Hr.) Actual	Date of manufacture
See Attached Equipment List ,					
Calculations, and Flow Diagram for					
Proposed New Equipment					

EMISSION INFORMATION

5. Air contaminants. Emission estimates for each air contaminant emitted from this point should be based on stack sampling results or engineering calculations. Calculations should be attached on a separate sheet. (see instructions for more details)

Particulate Matter emission data:	Flow diagram ref. no. (Note 5)	Average Emissions (Lbs./Hr.)	Maximum Emissions (Lbs./Hr.)	Average Emissions (Tons/Yr)	Potential Emissions (Tons/Yr)	Emissions Estimation method (Note 6)	Control devices (Note 6)	Control efficiency (%)
Primary crushing	See	Attached	Emission	Calculation	Sheet	AP-42	061	90%
Secondary crushing	See	Attached	Emission	Calculation	Sheet	AP-42	061	90%
Tertiary crushing								
Agricultural lime								
Open storage								
Enclosed storage								
Conveying & Transferring	See	Attached	Emission	Calculation	Sheet	AP-42	061	90%
Loading out								
Traffic dust								
Other (specify) Screens	See	Attached	Emission	Calc.	Sheet	AP-42	061	90%
Other (specify) Feeders	See	Attached	Emission	Calc.	Sheet	AP-42	061	90%
Totals	See	Attached	Emission	Calc.	Sheet	AP-42	061	90%

Note 1: Equipment type: The applicant must list each crusher, screen, conveyor, bin, pugmill, feeder, agricultural lime, etc.

Note 2: Flow diagram reference number: The applicant must attach a flow diagram. The flow diagram must show each piece of equipment, including each crusher, screen, conveyor, bin, pugmill, feeder, agricultural lime, etc. Each piece of equipment must be labeled with a reference number.

Note 3: Size: For crushers, size is the design operating rate (in ton/hr.). For screens, size is the dimensions of the top deck of the screen. For conveyors, size is the width of the conveyor. For bins, size is the design capacity in tons.

Note 4: Explain in comments, if necessary.

Note 5: As identified on the flow diagram required in item #3

Note 6: Refer to the instructions for the estimation method and control device codes.

6. Control device. Description of proposed monitoring, recordkeeping, and reporting to assure compliance with emission limits. Include operating parameters of control device (flow rate, temperature, pressure drop, etc.).

Wet Suppression, log of wet suppression inspection and maintenance, prodcution logs

ROAD INFORMATION

7. Roads:	Paved (Miles of road)	Unpaved (Miles of road)	Watered (Miles & frequency)	Other control (specify)
Plant yard				
Access roads				

STOCKPILE INFORMATION

8. Stockpiles:	Estimated annual tons	Turnover rate (Tons/Month)	Wetted as piled	No. of sides enclosed	Other dust control	Loading method (e.g. loader, conveyor) Load in	Load out
Coarse: Over 1”	50,000	Varies	As Needed	NA	Wet	Loader	Loader
Fine: 1” to 1/4”	25,000	Varies	As Needed	NA	Wet	Loader	Loader
1/4” and less	25,000	Varies	As Needed	NA	Wet	Loader	Loader
MFG. Sand							
Other (specify)							

9. Comments

Equipment in application is mobile equipment either track-mounted or portable on a trailer.

SIGNATURE

If this form is being submitted at the same time as an APC 100 form, then a signature is not required on this form. Date this form regardless of whether a signature is provided. If this form is NOT being submitted at the same time as an APC 100 form, then a signature is required.

Based upon information and belief formed after a reasonable inquiry, I, as the responsible person of the above mentioned facility, certify that the information contained in this application is accurate and true to the best of my knowledge. As specified in TCA Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

10. Signature		**Date**
Walt Hillis		01/04/2024
Signer’s name (type or print)	**Title**	**Phone number with area code**
Walt Hillis	Environmental Manager	865-512-7628

BLUE WATER INDUSTRIES

Via Electronic Mail to Air.Pollution.Control@tn.gov

January 4, 2024

Michelle W. Owenby, Director
Division of Air Pollution Control
Tennessee Department of Environment & Conservation
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Re: BWI ETN LLC dba Blue Water Industries
BWI Greenback – ESR No. 53-0074
Construction Permit Application
Mobile Crushing, Screening, & Conveying Non-Metallic Processing Plant System
Permit Limitation Agreement Letter

Dear Director:

On behalf of BWI Greenback Quarry, the following permit limitations are agreed upon for the aggregate processing equipment for which a Construction Permit Application is being submitted for installation at the existing permitted facility.

The maximum production capacity shall not exceed a combined total production limit of 450,000 tons per calendar year for all sources listed in the permit.

BWI Greenback Quarry shall demonstrate compliance with the above-identified limitation by recordkeeping.

On behalf of BWI Greenback Quarry, I agree to the above limitations. I am authorized to represent and bind the facility in environmental affairs.

If you have any questions concerning this correspondence, please contact me at (865)-512-7628 or whillis@bluewaterindustries.com.

Sincerely,

Signature Walt Hillis

Name (Printed) Walt Hillis

Title Environmental Manager

Date 01/04/2024

BLUE WATER
INDUSTRIES

EQUIPMENT CALCULATIONS & FLOW DIAGRAM

BWI ETN LLC dba Blue Water Industries - Portable Non-Metallic Processing Plant System
PERMIT AMENDMENT APPLICATION 1/4/2024
MOBILE CRUSHING, SCREENING, & CONVEYING PLANT SYSTEM
Equipment List & Emission Calculations

Wet Suppression Controlled Emissions: {Total Particulate Matter (TSP), PM-10, & PM-2.5}
Emission Factors for Crushed Stone Processing Operations (lb/Ton), Table 11.19.2-2 (English Units), AP-42 Revised 8/04
Tables 4&5 of APC 109 (Rev. 12-17)-Non-Title V Permit Application Rock Crushing Source Description Addendum

Equipment Type/Process	Description	Flow ID #	Date Mfg.	NSPS	NSPS Code	Design Operating Rate (ton/hr)	Actual Operating Rate (ton/hr)	Annual Production (tons/yr)	TSP (CONTROLLED)			PM-10 (CONTROLLED)			PM-2.5 (CONTROLLED)		
									Emission factor (lb/ton)	Emissions (lb/hr)	Emissions (ton/yr)	Emission factor (lb/ton)	Emissions (lb/hr)	Emissions (ton/yr)	Emission factor (lb/ton)	Emissions (lb/hr)	Emissions (ton/yr)
McCloskey J40V2 Jaw Crusher, CAT Tier IV Engine (track-mounted /self-propelled)																	
Feeder Box	14' X 7'	JF1	2018	No	4	450	350	450,000	0.000016	0.007	0.004	0.000016	0.007	0.004	0.000016	0.007	0.004
Jaw Crusher	J40V2	JCR1	2018	Yes	7	450	350	450,000	0.0012	0.540	0.270	0.00054	0.243	0.122	0.000100	0.045	0.023
Main Conveyor	36"	JC1	2018	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
KPI-JCI Impact Crusher 5260, CAT Tier III Engine (track-mounted /self-propelled)																	
Feeder Box	50"x15'	IF1	2013	Yes	7	450	350	450,000	0.000016	0.007	0.004	0.000016	0.007	0.004	0.000016	0.007	0.004
Impact Crusher	5260 HIS	ICR1	2013	Yes	7	450	350	450,000	0.0012	0.540	0.270	0.00054	0.243	0.122	0.000100	0.045	0.023
Main Conveyor	40"	IC1	2013	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Side Conveyor	24	IC2	2013	Yes	7	50	35	100,000	0.00014	0.007	0.007	0.000046	0.002	0.002	0.000013	0.001	0.001
Metso Lokotrack Jaw LT105, CAT Tier III Engine (track-mounted /self-propelled)																	
Vibratory Grizzly Feeder	48"x14'	LTJ-F1	2000	Yes	6	450	350	450,000	0.000016	0.007	0.004	0.000016	0.007	0.004	0.000016	0.007	0.004
Jaw Crusher	C105	LTJ-CR1	2000	Yes	6	450	350	450,000	0.0012	0.540	0.270	0.00054	0.243	0.122	0.000100	0.045	0.023
Main Conveyor	42"	LTJ-C1	2000	Yes	6	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Side Conveyor	18"	LTJ-C2	2000	Yes	6	50	35	100,000	0.00014	0.007	0.007	0.000046	0.002	0.002	0.000013	0.001	0.001
KPI-JCI GT200 Cone Crusher, Cummins Tier IV Engine (track-mounted /self-propelled)																	
Belt Feeder	42"	GT BF1	2019	Yes	7	385	360	450,000	0.00014	0.054	0.032	0.000046	0.018	0.010	0.000013	0.005	0.003
Cone Crusher	1200LS	GT CR1	2019	Yes	7	385	360	450,000	0.0012	0.462	0.270	0.00054	0.208	0.122	0.000100	0.039	0.023
Under Crusher Conveyor	36"	GT C1	2019	Yes	7	385	360	450,000	0.00014	0.054	0.032	0.000046	0.018	0.010	0.000013	0.005	0.003
McCloskey Cone Crusher C38V2, CAT Tier III Engine (track-mounted /self-propelled)																	
Belt Feeder	42"	MC BF1	2014	Yes	7	350	325	450,000	0.00014	0.049	0.032	0.000046	0.016	0.010	0.000013	0.005	0.003
Cone Crusher	C38 V2	MC CR1	2014	Yes	7	350	325	450,000	0.0012	0.420	0.270	0.00054	0.189	0.122	0.000100	0.035	0.023
Under Crusher Conveyor	42"	MC C1	2014	Yes	7	350	325	450,000	0.00014	0.049	0.032	0.000046	0.016	0.010	0.000013	0.005	0.003
McCloskey R155 Scalping Screen, CAT Tier IV Engine (track-mounted /self-propelled)																	
Feed Hopper	16' X 6'	RF1	2018	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Double Deck Screen	16' X 5' DD	RS1	2018	Yes	7	450	350	450,000	0.0022	0.990	0.495	0.00074	0.333	0.167	0.000050	0.023	0.011
Feed Conveyor	55"	RC1	2018	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Collection Conveyor	48"	RC2	2018	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Tail Conveyor	55"	RC3	2018	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Side Conveyor	36"	RC4	2018	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
Mid Conveyor	36"	RC5	2018	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001

BWI ETN LLC dba Blue Water Industries - Portable Non-Metallic Processing Plant System
PERMIT AMENDMENT APPLICATION 1/4/2024
MOBILE CRUSHING, SCREENING, & CONVEYING PLANT SYSTEM
Equipment List & Emission Calculations

Wet Suppression Controlled Emissions: {Total Particulate Matter (TSP), PM-10, & PM-2.5}
Emission Factors for Crushed Stone Processing Operations (lb/Ton), Table 11.19.2-2 (English Units), AP-42 Revised 8/04
Tables 4&5 of APC 109 (Rev. 12-17)-Non-Title V Permit Application Rock Crushing Source Description Addendum

Equipment Type/Process	Description	Flow ID #	Date Mfg.	NSPS	NSPS Code	Design Operating Rate (ton/hr)	Actual Operating Rate (ton/hr)	Annual Production (tons/yr)	TSP (CONTROLLED)			PM-10 (CONTROLLED)			PM-2.5 (CONTROLLED)		
									Emission factor (lb/ton)	Emissions (lb/hr)	Emissions (ton/yr)	Emission factor (lb/ton)	Emissions (lb/hr)	Emissions (ton/yr)	Emission factor (lb/ton)	Emissions (lb/hr)	Emissions (ton/yr)
McCloskey S130 Screen, CAT Tier III Engine (track-mounted /self-propelled)																	
Feed Hopper	14' X 6'	SF1	2013	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Double Deck Screen	14' X 5' DD	SS1	2013	Yes	7	450	350	450,000	0.0022	0.990	0.495	0.00074	0.333	0.167	0.000050	0.023	0.011
Under Feeder Conveyor	48"	SC1	2013	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Main Feed Conveyor	42"	SC2	2013	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Tail Conveyor	48"	SC3	2013	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Side Conveyor	26"	SC4	2013	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
Side Conveyor	26"	SC5	2013	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
McCloskey S190 3D Screen, CAT Tier III Engine (track-mounted /self-propelled)																	
VGF/Feeder Box	5 'x 15'	MS BF1	2015	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Sizing Screen	5 x 20 TD	MS S1	2015	Yes	7	450	350	450,000	0.00220	0.990	0.495	0.000740	0.333	0.167	0.000050	0.023	0.011
Feed Conveyor	48"	MS C1	2015	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Main Conveyor	42"	MS C2	2015	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Tail Conveyor	48"	MS C3	2015	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Side Conveyor	32"	MS C4	2015	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
Side Conveyor	32"	MS C5	2015	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
3D Transfer Conveyor	26"	MS C6	2015	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
3D Auxillary Conveyor	26"	MS C7	2015	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
AMS FT3620 Screen Unit, CAT Tier IV Engine (track-mounted /self-propelled)																	
Feeder Box	14.5' x 8.5'	AMS F1	2013	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Sizing Screen	6x20 TD	AMS S1	2013	Yes	7	450	350	450,000	0.0022	0.990	0.495	0.00074	0.333	0.167	0.000050	0.023	0.011
Conveyor (Under AMS F1)	48"	AMS C1	2013	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Conveyor (AMS S1 Feed)	48"	AMS C2	2013	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Conveyor (Crossover)	24"	AMS C3	2013	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Conveyor, overs (back discharge)	24"	AMS C4	2013	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
Conveyor (front side discharge)	30"	AMS C5	2013	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
Conveyor (back side discharge)	30"	AMS C6	2013	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
Conveyor, fines (front discharge)	48"	AMS C7	2013	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001

BWI ETN LLC dba Blue Water Industries - Portable Non-Metallic Processing Plant System
PERMIT AMENDMENT APPLICATION 1/4/2024
MOBILE CRUSHING, SCREENING, & CONVEYING PLANT SYSTEM
Equipment List & Emission Calculations

Wet Suppression Controlled Emissions: {Total Particulate Matter (TSP), PM-10, & PM-2.5}
Emission Factors for Crushed Stone Processing Operations (lb/Ton), Table 11.19.2-2 (English Units), AP-42 Revised 8/04
Tables 4&5 of APC 109 (Rev. 12-17)-Non-Title V Permit Application Rock Crushing Source Description Addendum

Equipment Type/Process	Description	Flow ID #	Date Mfg.	NSPS	NSPS Code	Design Operating Rate (ton/hr)	Actual Operating Rate (ton/hr)	Annual Production (tons/yr)	TSP (CONTROLLED)			PM-10 (CONTROLLED)			PM-2.5 (CONTROLLED)		
									Emission factor (lb/ton)	Emissions (lb/hr)	Emissions (ton/yr)	Emission factor (lb/ton)	Emissions (lb/hr)	Emissions (ton/yr)	Emission factor (lb/ton)	Emissions (lb/hr)	Emissions (ton/yr)
Astec PSP 2618VM Screen, Tier II John Deere Engine (portable / trailer mounted)																	
VGF/Feeder Box	8' X 14'	PSP F1	2012	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Sizing Screen	6 X 18 DD	PSP S1	2012	Yes	7	450	350	450,000	0.00220	0.990	0.495	0.000740	0.333	0.167	0.000050	0.023	0.011
Under Feeder Conveyor	32"	PSP C1	2012	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Delivery Conveyor	36"	PSP C2	2012	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Side Conveyor	24"	PSP C3	2012	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
Side Conveyor	24"	PSP C4	2012	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
Fines Conveyor	36"	PSP C5	2012	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
Metso Lokotrack ST2.8 Screener, CAT Tier III Engine (track-mounted /self-propelled)																	
Pan Apron Feeder	4x13	LT-PF1	2017	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Screen	5x16 DD	LT-C1	2017	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Conveyor, transfer	48"	LT-S1	2017	Yes	7	450	350	450,000	0.00220	0.990	0.495	0.000740	0.333	0.167	0.000050	0.023	0.011
Conveyor, stockpile	48"	LT-C2	2017	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
Conveyor, stockpile	32"	LT-C3	2017	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
Conveyor, transfer	48"	LT-C4	2017	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
Conveyor, stockpile	32"	LT-C5	2017	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
TEREX TRS 550 Screener, CAT Tier4F Engine (track-mounted /self-propelled)																	
Pan Apron Feeder	4x13	TRX-PF1	2014	Yes	7	450	350	450,000	0.00014	0.063	0.032	0.000046	0.021	0.010	0.000013	0.006	0.003
Screen	5x16 DD	TRX-S1	2014	Yes	7	450	350	450,000	0.00220	0.990	0.495	0.000740	0.333	0.167	0.000050	0.023	0.011
Conveyor, stockpile	48"	TRX-C1	2014	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
Conveyor, stockpile	32"	TRX-C2	2014	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
Conveyor, transfer	48"	TRX-C3	2014	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
Conveyor, stockpile	32"	TRX-C4	2014	Yes	7	225	200	200,000	0.00014	0.032	0.014	0.000046	0.010	0.005	0.000013	0.003	0.001
							TOTAL EMISSIONS			**11.97**	**6.08**		**4.31**	**2.19**		**0.62**	**0.32**

Emission factors are from AP-42, Table 11.19.2-2 (Revised 8/2004)

Equations used in calculation:

[TPM Emissions (lb/hr)] = [Operating rate (ton/hr)] x [TPM Emission factor (lb/ton)]

[TPM Emissions (ton/yr)] = [TPM Emissions (lb/ton)] x [Annual Production (tons/yr)] / [2000 lb/ton]

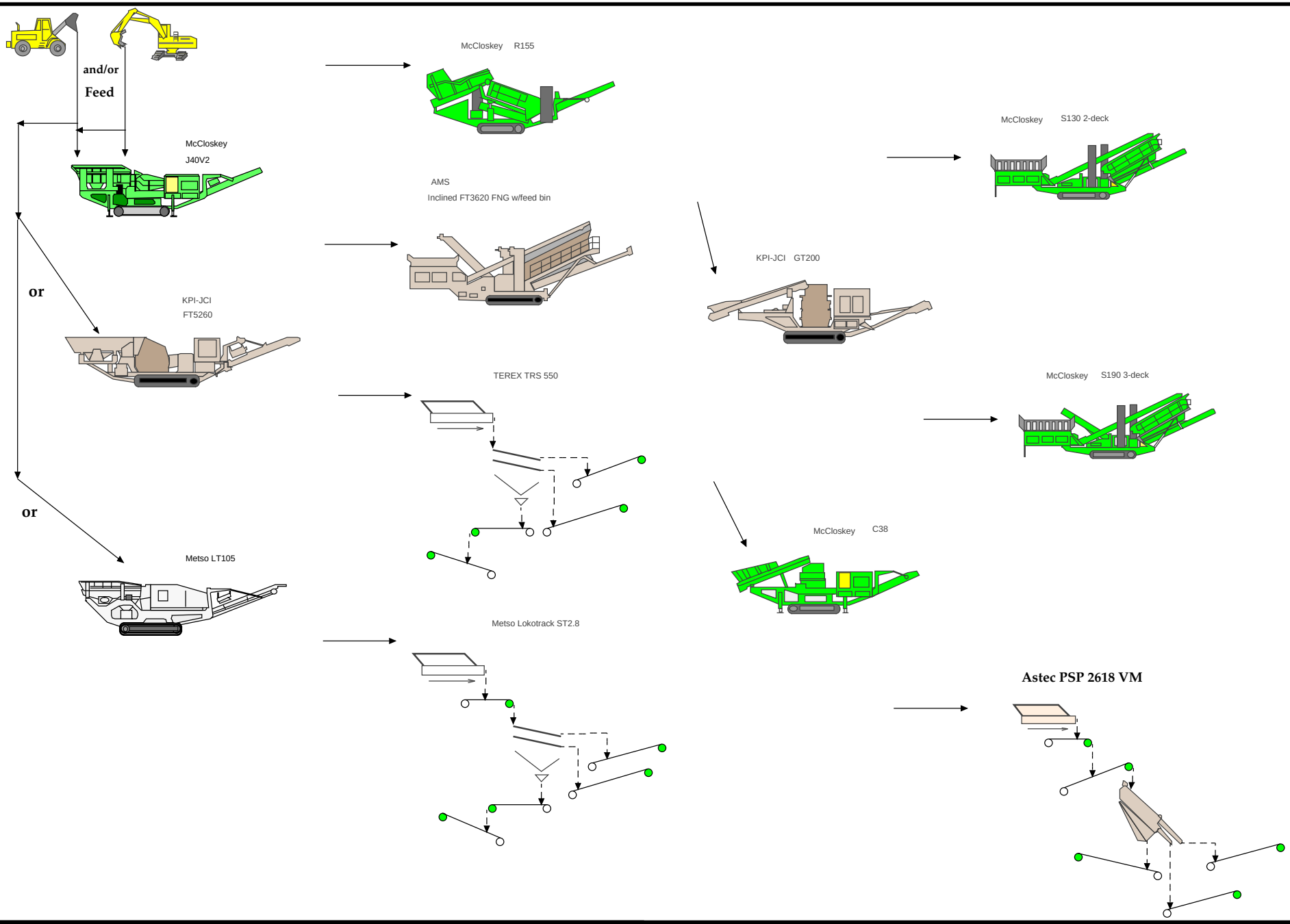
40 CFR Part 60, Subpart OOO, NSPS Code

(1) 60.670 (a)(1) Affected facilities
(2) 60.670 (a)(2) wet material processing
(3) 60.670 (d)(1) Like for Like (equal or smaller size)
(4) 60.670 (e) on or pre 8/31/1983 (Opacity 20%)
(5) 60.672 (d) Truck dumping in to screen, feed hopper, crusher
(6) 60.675(c)(3) Table 3, after 8/31/1983 but before 4/22/2008 (Opacity 15% crushers and 10% other affected facilities)
(7) 60.675(c)(3) Table 3, on or after 4/22/2008 (Opacity 12% crushers and 7% other affected facilities)

Allowable Emissions (lbs/hr)	Allowable & Potential Emissions	Actual Emissions
E = 17.31(P)0.16	46.01 lb/hr	11.97 lb/hr
(P) = **450**	**2000** hr/yr	**450,000** ton/yr
E = **46.01**	2000 lbs/ton	450 ton/hr
	46.01 ton/yr	2000 lbs/ton
		5.99 ton/yr

Notes:

Various units of this portable non-metallic processing system may be operated singularly or in conjunction with one another based on product needs.



Calculation results may differ due to variations in operating conditions and application of crushing and screening equipment. This information does not constitute an express or implied warranty, but shows results of calculations based on information provided by customers or equipment manufacturers. Use this information for estimating purposes only.

All calculations performed by AggFlow. http://www.AggFlow.com

BWI ETN LLC dba Blue Water Industries

2200 ETN-TN PortablePlant(s)System
Walter L. Hillis III
Plant Stage #1:
Project #: 162127 Revision #: 800786 Date: January/4/2024

BLUE WATER
INDUSTRIES

PERMIT AMENDMENT REQUEST

BLUE WATER INDUSTRIES

Via Electronic Mail to Air.Pollution.Control@tn.gov

January 4, 2024

Michelle W. Owenby, Director
Division of Air Pollution Control
Tennessee Department of Environment & Conservation
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor.
Nashville, TN 37243

Re: Amendment Request – Permits to Construct / Modify and Operate
BWI ETN LLC dba Blue Water Industries
Mobile Crushing, Screening, & Conveying Non-Metallic Mineral Processing Plant System

Dear Director:

Please find attached for your review a permit amendment request to include two (2) additional locations to the table listed in Appendix 4: Startup Certification for each permit listed below. Concurrent with this amendment request, BWI is submitting two (2) construction permit applications for the two additional locations. These applications are being submitted to permit the same equipment at two additional sites listed below so the equipment may be moved within the BWI East Tennessee region to supplement market demands as needed. This amendment request is to add these locations to the permit so that initial startup at one facility will be considered startup for all locations and one performance test will be considered compliance for all locations.

Locations to be added as part of amendment request.

Location	ESR No.
BWI Greenback Quarry	53-0074
BWI Grasselli Quarry	45-0059

Permits requested to be amended to include locations listed above.

Location	Permit No.	ESR No.
BWI Watauga Quarry	081319	10-0012-12
BWI Elizabethton Quarry	081320	10-0086-10
BWI Riverbend Quarry	081321	29-0039-14
BWI Coy Stone Plant	081322	45-0069-10
BWI Tri-Cities Airport Quarry	081323	82-0166-17
BWI Unicoi Quarry	081324	86-0040-13
BWI Locust Mount Quarry	081325	90-0123-12

If you have any questions concerning this correspondence, please contact me at (865)-512-7628 or whillis@bluewaterindustries.com.

Sincerely,

Walt Hillis

Walt Hillis
Environmental Manager

BLUE WATER
INDUSTRIES

VEE REPORTS

Department of Environment & Conservation

November 23, 2022

Ms. Alisa Hatmaker
Blue Water Industries
Greenback Quarry
9509 Diggs Gap Road
Heiskell, Tennessee 37754

Reference Number: 53-0074-03

Dear Ms. Hatmaker:

The Tennessee Division of Air Pollution Control has received the sixteen EPA Method 9 visible emission evaluations (VEE) submitted for the mobile crushing and sizing plant located at the Greenback Quarry, 2107 Big Hill Road, Lenoir City, Tennessee. On June 2, 2022 a start-up notification was submitted to the Division for four of the five permitted pieces of equipment. This facility is subject to the Conditions listed in State of Tennessee Operating Permit #080023. These evaluations were conducted on November 2, 2022 by Ms. Hatmaker of Blue Water Industries and were performed to satisfy Condition F1-2 of the current permit. The Division notes that upon start-up of the final piece of permitted equipment (McCloskey S130), another notification will be needed along with VEEs.

The VEE was verified and found acceptable by the Division. The review of the VEE determined that the emission point subject to the New Source Performance Standards for New Stationary Sources (40 CFR Part 60 Subpart OOO) was achieving compliance with the applicable visible emission standard during the time period of the evaluation.

Should you have any questions concerning the evaluation of this report, please contact either Garrett Ammons at (615) 687-7076 or me at (615) 687-7037.

Sincerely,

Bryan Parker

Bryan Parker
Environmental Manager
Compliance Validation Program
Tennessee Division of Air Pollution Control

BLUE WATER INDUSTRIES

40 CFR Part 60, Subpart OOO, Appendix A, Method 9
Visible Emissions Evaluation Report

Completed For:

BWI ETN LLC dba Blue Water Industries
Greenback Quarry
Loudon County, Tennessee
2107 Big Hill Road
Lenoir City, TN 37772

Non-Metallic Mineral Processing Plant
Emission Source No. 53-0074-03
Permit No. 080023
New Mobile Plant Construction

Evaluations Date:
November 2, 2022

Report Prepared By:

Alisa Hatmaker
Blue Water Industries
9509 Diggs Gap Road
Heiskell, TN 37754

Report Date:
November 4, 2022

TABLE OF CONTENTS

1. INTRODUCTION

BWI ETN LLC dba Blue Water Industries (BWI) owns and operates the Greenback Quarry with a non-metallic mineral processing plant located at 2107 Big Hill Road, Lenoir City, TN 37772. The processing plant crushes and sizes quarried stone into various sizes of aggregate products for sale. The Greenback Quarry is permitted by the TDEC-APC Division as Emission Source No. 54-0074-03 and Construction/Operating Permit No. 080023 to operate a mobile crushing and screening plant. On March 29, 2021, BWI submitted a construction permit application on February 11, 2022 for a track-mounted mobile plant. The Department approved the request with the issuance of permit no. 080023 on May 20, 2022. A startup notice was submitted on June 2, 2022 for four (4) of the five (5) mobile equipment units permitted as part of the mobile plant.

2. TEST PURPOSE/PROCEDURES

The United States Environmental Protection Agency promulgated standards of performance for new sources of nonmetallic mineral processing plants, which became effective on August 1, 1985. These standards are applicable to any Affected Facility that commenced construction, modification, or reconstruction after August 31, 1983. These standards were revised as published in the Federal Register on June 9, 1997. The standards were revised again as published in the Federal Register on April 28, 2009.

The pieces of equipment evaluated at the Greenback Quarry Mobile Crushing and Screening Plant is defined as “Affected Facilities” in 40 CFR Part 60 Subpart A 60.2 and as listed in Subpart 000 60.670 (a) (1). The mobile crushers, mobile screens, and associated conveyors with each unit are “Affected Facilities” as designated in 40 CFR Part 60 Subpart 000 Paragraph 60.670. Therefore, demonstration of compliance with the visible particulate matter emissions standard is required as stated in 40 CFR Part 60 Subpart OOO Paragraph 60.672 Standard of Particulate Matter. Alisa Hatmaker (BWI) conducted the visible emissions evaluations in order to determine compliance during normal plant production. The visible emissions evaluations were conducted according to the procedures outlined in 40 CFR Part 60 Subpart OOO Paragraph 60.675 Test Methods and Procedures. Observations were conducted for 30-minutes (five 6-minute averages/5 sets of 24 consecutive observations at 15-second intervals) using 40 CFR Part 60, Appendix A-4 Method 9. The reported opacity for the equipment is the average of the five 6-minute averages.

3. PROCESS & EQUIPMENT DESCRIPTIONS

The Greenback Quarry Mobile Crushing and Screening Plant is a Non-Metallic Mineral (Crushed & Broken Limestone SIC 1422- NAICS Code 212312) Track-Mounted Mobile Processing Facility. Stone is blasted from the quarry face, hauled via truck, and dumped in the primary feeder for the primary jaw crusher. After initial crushing, the stone is further screened, crushed, and sized for sale in the construction and related industries. The equipment evaluated at the facility is a part of the stone processing plant.

The affected facilities were constructed after August 31, 1983 and as such are subject to the performance guidelines outlined in 40 CFR Part 60, Subpart OOO, published in the 51 FR 31337, August 1, 1985 as amended at 62 FR 31359, June 9, 1997 and 74 FR 19309 April 28, 2009.

Pursuant to 40 CFR Part 60, Subpart OOO §60.675(g) and TDEC-APC requirements, the Division’s Compliance Validation Program was contacted prior to the evaluation of the visible emission evaluations and gave BWI authorization to conduct the evaluations. The visible emissions evaluations were conducted during normal operations on November 2, 2022. The equipment based on product needs and operating scenarios was

operating at approximately 90-95% during testing, which is the normal method of operation for the equipment.

EQUIPMENT EVALUATED

1. McCloskey J40V2 Jaw Crusher & Associated Conveyors
2. McCloskey R155 Scalping Screen & Associated Conveyors
3. KPI-JCI GT200 Cone Crusher & Associated Conveyors
4. AMS FT3620 Screen Unit & Associated Conveyors

4. SUMMARY OF TEST RESULTS

Per 40 CFR Part 60, Subpart 000, 60.672 Standard for particulate matter, Section (b) and Table 3, details the fugitive emission limits for transfer points associated with the equipment that was evaluated. The test was conducted per 60.675 Test Methods and procedures. The emission point(s) results that were obtained are presented in the following table. Five (5) sets of twenty-four (24) consecutive observations at fifteen (15) second intervals to yield six (6) minute averages were performed. The averages of the five 6-minute averages for each point are listed below. All equipment units were demonstrating compliance with this level during testing. Table 1 lists the Emission Point ID, Emission Source Description, Average Opacity of the Five 6-minute Averages, and the Visible Opacity Limit of each emission source per Subpart OOO, Table 3.

TABLE 1: SUMMARY OF VEE POINTS AND EVALUATION RESULTS

Emission Point ID	Emission Source Description	Visible Opacity Limit(1)	Average Opacity of Five 6-Minute Averages
1	Jaw Crusher JCR1 drop onto Conveyor JC1	12%	**1.92%**
2	JC1 feed onto R155 Screen Feed Hopper RF1	7%	**0.0%**
3	Conveyor RC1 transfer onto Screen & Area above Screen RS1	7%	**0.0%**
4	RS1 feed onto Conveyor RC3	7%	**0.0%**
5	RS1 feed onto Conveyor RC4	7%	**0.0%**
6	Conveyor RC2 feed onto Conveyor RC5	7%	**0.0%**
7	RC4 feed onto GT200 Belt Feeder GTBF1	7%	**0.0%**
8	GTBF1 feed into Cone Crusher GTCR1	12%	**3.83%**
9	GTCR1 feed onto Conveyor GTC1	12%	**1.17%**
10	GTC1 feed onto FT3620 Screen Feed Box AMS F1	7%	**0.0%**
11	Conveyor AMS C1 feed onto Conveyor AMS C2	7%	**0.0%**
12	AMS C2 feed onto Screen & Area above Screen AMS S1	7%	**0.0%**
13	Conveyor AMS C3 feed to Conveyor AMS C4	7%	**0.0%**
14	AMS S1 feed onto Conveyor AMS C5	7%	**0.0%**
15	AMS S1 feed onto Conveyor AMS C6	7%	**0.0%**
16	AMS S1 feed onto Conveyor AMS C7	7%	**0.0%**

(1) EPA Subpart 40 CFR Part 60, Subpart OOO, Table 3

APPENDIX A

Plant Process Flow Diagram & Emission Point Identifications

Blue Water Industries-Greenback Quarry (ETN Mobile Plant)

VEE Points ID List: 10/21/2022

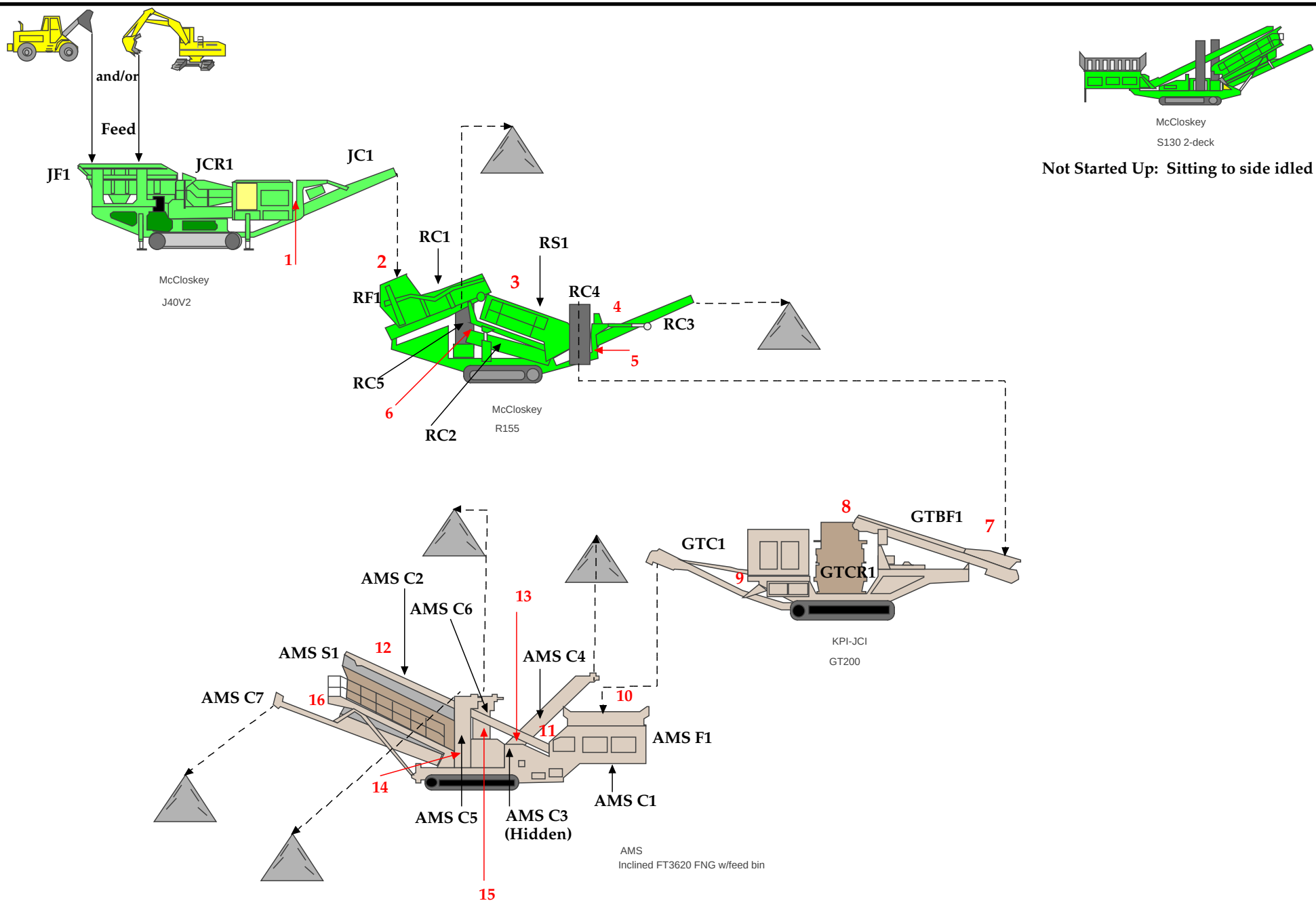
Emission Source No. 53-0074-03
Permit No. 080023 Construct/Modify/Operate

Point ID	Type of Equipment	Flow Diagram ID #	Point Description
McCloskey J40V2 Jaw Crusher			
1	J40 V2 Jaw Crusher	JCR1	Jaw Crusher JCR1 drop onto Conveyor JC1
2	J40 V2 Conveyor	JC1	JC1 feed onto R155 Screen Feed Hopper RF1
McCloskey R155 Scalping Screen			
3	R155 Conveyor/Screen	RC1/RS1	Conveyor RC1 transfer onto Screen & Area above Screen RS1
4	R155 Screen	RS1	RS1 feed onto Conveyor RC3
5	R155 Screen	RS1	RS1 feed onto Conveyor RC4
6	R155 Screen/Conveyor	RS1/RC2	Conveyor RC2 feed onto Conveyor RC5 (1)
7	R155 Conveyor	RC4	RC4 feed onto GT200 Belt Feeder GTBF1
KPI-JCI GT200 Cone Crusher			
8	GT200 Belt Feeder	GTBF1	GTBF1 feed into into Cone Crusher GTCR1
9	GT200 Cone	GTCR1	GTCR1 feed onto Conveyor GTC1
10	GT200 Conveyor	GTC1	GTC1 feed onto FT3620 Screen Feed Box AMS F1
AMS FT3620 Screen Unit			
11	AMTS FT3620 Conveyor	AMS C1	Conveyor AMS C1 feed onto Conveyor AMS C2
12	AMTS FT3620 Conveyor & Screen	AMS C2/AMS S1	AMS C2 feed onto Screen & Area above Screen AMS S1
13	AMTS FT3620 Screen & Conveyor	AMS S1/AMS C3	Conveyor AMS C3 feed to Conveyor AMS C4 (2)
14	AMTS FT3620 Screen	AMS S1	AMS S1 feed onto Conveyor AMS C5
15	AMTS FT3620 Screen	AMS S1	AMS S1 feed onto Conveyor AMS C6
16	AMTS FT3620 Screen	AMS S1	AMS S1 feed onto Conveyor AMS C7

Notes:

(1) Screen RS1 drop to RC2 is directly above RC2 drop to RC5 so only one point is being proposed for testing. (Point ID #6)

(2) AMS S1 screen drop to Conveyor AMS C3 is hidden in machine. (Point ID #13)



McCloskey

S130 2-deck

Not Started Up: Sitting to side idled

Calculation results may differ due to variations in operating conditions and application of crushing and screening equipment. This information does not constitute an express or implied warranty, but shows results of calculations based on information provided by customers or equipment manufacturers. Use this information for estimating purposes only.

All calculations performed by AggFlow. http://www.AggFlow.com

BWI ETN LLC dba Blue Water Industries

BWI ETN Portable Plant 2-2022
Walter L. Hillis III
Plant Stage #1:
Project #: 125338 Revision #: 671178 Date: October/20/2022

APPENDIX B

Visible Emissions Evaluations (VEE) Forms

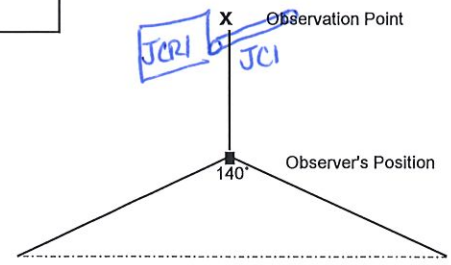
VISIBLE EMISSION OBSERVATION FORM (EPA Method 9)(40 CFR 60-Appendix A)

Blue Water Industries

Source Name: BWI ETN LLC dba Blue Water Industries Greenback Quarry			
Address: 2107 Big Hill Road			
City: Lenoir City	**County:** Loudon	**State:** TN	**Zip:** 37772
Phone: 865-986-5322		**Facility ID No:**	53-0074-03
Process Equipment: J40 V2 Jaw Crusher		**Operating Mode:** 90-95 %	
Control Equipment: Wet Suppression		**Operating Mode:** ON 100%	
Describe Emission Point: Jaw Crusher JCR1 drop onto Conveyor JC1			**Emission Pt. ID** 1
Height Above Ground Level: Start: 30' End: 30'		**Height Relative to Observer:** Start: 30' End: 30'	
Distance from Observer: Start: 100' End: 100'		**Direction from Observer:** Start: W End: W	
Describe Emissions: Start: None End: Rock Dust			
Emission Color: Start: Clear End: White		**Plume Type:** Continuous [ ] Fugitive [X] Intermittent [ ]	
Water Droplets Present: No [X] Yes [ ]		**If Water Droplet Plume:** N/A Attached [ ] Detached [ ]	
Point in the Plume at which Opacity was Determined: Start: NA End: NA			
Describe Background: Start: Sky End: Sky			
Background Color: Start: Blue End: Blue		**Sky Conditions:** Start: Partly Cloudy End: Partly Cloudy	
Wind Speed: Start: Calm End: Calm		**Wind Direction:** Start: NA End: NA	
Ambient Temp: Start: 52° End: 52°	**Wet Bulb Temp:** NA	**RH, percent** NA	

Sun ⊕ Wind → Stack with Plume ⊏

Source Layout Sketch:



North Arrow

Comments:

BWI Greenback Quarry - Mobile Plant

Sky overcast to back/Sun hidden

Min/Sec	0	15	30	45	Comments
1	0	0	5	5	
2	5	5	5	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	1st 6-Minute Avg.
6	0	0	5	5	1.44
7	5	5	5	5	
8	0	5	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	2nd 6-Minute Avg.
12	5	5	5	5	1.88
13	5	5	5	0	
14	0	0	0	0	
15	0	0	0	0	
16	5	5	5	0	
17	0	0	5	5	3rd 6-Minute Avg.
18	5	0	5	0	2.08
19	0	5	5	5	
20	5	5	5	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	5	0	0	4th 6-Minute Avg.
24	5	0	0	5	1.88
25	5	5	5	5	
26	0	0	5	0	
27	5	5	5	5	
28	0	0	0	0	
29	0	0	0	0	5th 6-Minute Avg.
30	0	0	5	5	2.29

Observation Date: 11/2/22 **Start Time:** 9:30 AM **Stop Time:** 10:00 AM

Highest single average of the five 6-minute averages: 2.29

Average Opacity of the five 6-minute averages: 1.92

Number of Readings Above: 12 % Were 0

Range of Opacity Readings: Minimum: 0 % Maximum: 5 %

Observer's Name: (print) Alisa Hatmaker

Observer's Signature: Alisa Hatmaker **Date:** 11/2/22

Organization: Blue Water Industries, Environmental Affairs Department

Certified By: Singleton Smoke School, Kodak, TN **Date:** 10/11/2022

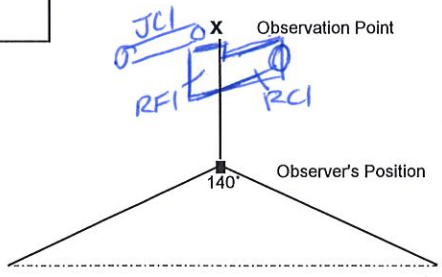
VISIBLE EMISSION OBSERVATION FORM (EPA Method 9)(40 CFR 60-Appendix A)

Blue Water Industries

Source Name: BWI ETN LLC dba Blue Water Industries Greenback Quarry			
Address: 2107 Big Hill Road			
City: Lenoir City	**County:** Loudon	**State:** TN	**Zip:** 37772
Phone: 865-986-5322		**Facility ID No:**	53-0074-03
Process Equipment: J40 V2 Conveyor		**Operating Mode:** 90-95%	
Control Equipment: Wet Suppression		**Operating Mode:** 100%	
Describe Emission Point: JC1 feed onto R155 Screen Feed Hopper RF1			**Emission Pt. ID** 2
Height Above Ground Level: Start: 30' End: 30'		**Height Relative to Observer:** Start: 30' End: 30'	
Distance from Observer: Start: 100' End: 100'		**Direction from Observer:** Start: W End: W	
Describe Emissions: Start: None End: None			
Emission Color: Start: Clear End: Clear		**Plume Type:** Continuous [ ] Fugitive [X] Intermittent [ ]	
Water Droplets Present: No [X] Yes [ ]		**If Water Droplet Plume:** N/A Attached [ ] Detached [ ]	
Point in the Plume at which Opacity was Determined: Start: NA End: NA			
Describe Background: Start: Sky End: Sky			
Background Color: Start: Blue End: Blue		**Sky Conditions:** Start: Partly Cloudy End: Partly Cloudy	
Wind Speed: Start: Calm End: Calm		**Wind Direction:** Start: NA End: NA	
Ambient Temp: Start: 52° End: 52°	**Wet Bulb Temp:** NA	**RH, percent** NA	

Sun ⊙ Wind → Stack with Plume ⊏

Source Layout Sketch: North Arrow →



Comments:

BWI Greenback Quarry - Mobile Plant

Sky overcast to back / Sun hidden

Min/Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	5	
5	0	0	0	5	1st 6-Minute Avg.
6	0	0	0	0	0
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	5	0	2nd 6-Minute Avg.
12	0	0	5	0	0
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	3rd 6-Minute Avg.
18	0	0	0	0	0
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	4th 6-Minute Avg.
24	0	0	0	0	0
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	5th 6-Minute Avg.
30	0	0	0	0	0

Observation Date: 11/2/22 **Start Time:** 9:30 AM **Stop Time:** 10:00 AM

Highest single average of the five 6-minute averages: 0

Average Opacity of the five 6-minute averages: 0

Number of Readings Above: 7 % Were 0

Range of Opacity Readings: Minimum: 0 % Maximum: 0 %

Observer's Name: (print) Alisa Hatmaker

Observer's Signature: Alisa Hatmaker **Date:** 11/2/22

Organization: Blue Water Industries, Environmental Affairs Department

Certified By: Singleton Smoke School, Kodak, TN **Date:** 10/11/2022

VISIBLE EMISSION OBSERVATION FORM (EPA Method 9)(40 CFR 60-Appendix A)

Blue Water Industries

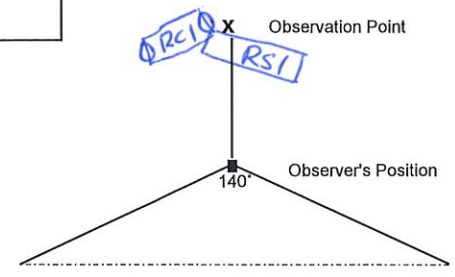
Source Name:	BWI ETN LLC dba Blue Water Industries Greenback Quarry		
Address:	2107 Big Hill Road		
City: Lenoir City	**County:** Loudon	**State:** TN	**Zip:** 37772
Phone:	865-986-5322	**Facility ID No:**	53-0074-03
Process Equipment: R155 Conveyor/Screen		**Operating Mode:** 90-95 %	
Control Equipment: Wet Suppression		**Operating Mode:** 100 %	
Describe Emission Point: Conveyor RC1 transfer onto Screen & Area above Screen RS1		**Emission Pt. ID** 3	
Height Above Ground Level: Start: 30' End: 30'		**Height Relative to Observer:** Start: 30' End: 30'	
Distance from Observer: Start: 100' End: 100'		**Direction from Observer:** Start: W End: W	
Describe Emissions: Start: None End: None			
Emission Color: Start: Clear End: Clear		**Plume Type:** Continuous [ ] Fugitive [X] Intermittent [ ]	
Water Droplets Present: No [X] Yes [ ]		**If Water Droplet Plume:** N/A Attached [ ] Detached [ ]	
Point in the Plume at which Opacity was Determined: Start: NA End: NA			
Describe Background: Start: Sky End: Sky			
Background Color: Start: Blue End: Blue		**Sky Conditions:** Start: Partly Cloudy End: Partly Cloudy	
Wind Speed: Start: Calm End: Calm		**Wind Direction:** Start: NA End: NA	
Ambient Temp: Start: 52° End: 52°	**Wet Bulb Temp:** NA	**RH, percent** NA	

Sun

Wind

Stack with Plume

Source Layout Sketch:



North Arrow

Comments:

BWI Greenback Quarry - Mobile Plant

Sky overcast to back/sun hidden

Observation Date:	**Start Time:**	**Stop Time:**
11/2/22	9:30 AM	10:00 AM

Min/Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	1st 6-Minute Avg.
6	0	0	0	0	0
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	2nd 6-Minute Avg.
12	0	0	0	0	0
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	3rd 6-Minute Avg.
18	0	0	0	0	0
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	4th 6-Minute Avg.
24	0	0	0	0	0
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	5th 6-Minute Avg.
30	0	0	0	0	0

Highest single average of the five 6-minute averages: 0

Average Opacity of the five 6-minute averages: 0

Number of Readings Above: 7 % Were 0

Range of Opacity Readings:

Minimum: 0 % Maximum: 0 %

Observer's Name: (print)

Alisa Hatmaker

Observer's Signature:	**Date:**
Alisa Hatmaker	11/2/22

Organization: Blue Water Industries

Environmental Affairs Department

Certified By:	**Date:**
Singleton Smoke School Kodak, TN	10/11/2022

VISIBLE EMISSION OBSERVATION FORM (EPA Method 9)(40 CFR 60-Appendix A)

Blue Water Industries

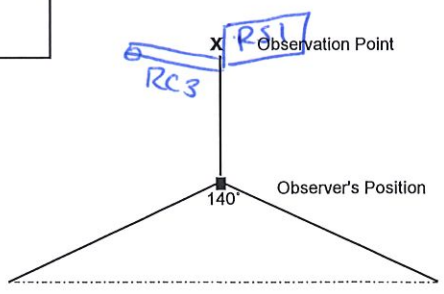
Source Name: BWI ETN LLC dba Blue Water Industries Greenback Quarry			
Address: 2107 Big Hill Road			
City: Lenoir City	**County:** Loudon	**State:** TN	**Zip:** 37772
Phone: 865-986-5322		**Facility ID No:**	53-0074-03
Process Equipment: R155 Screen		**Operating Mode:** 90-95%	
Control Equipment: Wet Suppression		**Operating Mode:** 100%	
Describe Emission Point: RS1 feed onto Conveyor RC3		**Emission Pt. ID**	4
Height Above Ground Level: Start: 6' End: 6'		**Height Relative to Observer:** Start: 6' End: 6'	
Distance from Observer: Start: 60' End: 60'		**Direction from Observer:** Start: SE End: SE	
Describe Emissions: Start: None End: None			
Emission Color: Start: Clear End: Clear		**Plume Type:** Continuous [ ] Fugitive [X] Intermittent [ ]	
Water Droplets Present: No [X] Yes [ ]		**If Water Droplet Plume:** N/A Attached [ ] Detached [ ]	
Point in the Plume at which Opacity was Determined: Start: NA End: NA			
Describe Background: Start: Equipment End: Equipment			
Background Color: Start: Green End: Green		**Sky Conditions:** Start: Overcast End: Overcast	
Wind Speed: Start: Calm End: Calm		**Wind Direction:** Start: NA End: NA	
Ambient Temp: Start: 55° End: 57°	**Wet Bulb Temp:** NA	**RH, percent** NA	

Observation Date: 11/2/22 **Start Time:** 11:32 AM **Stop Time:** 12:02 PM

Min/Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	1st 6-Minute Avg.
6	0	0	0	0	0
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	2nd 6-Minute Avg.
12	0	0	0	0	0
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	3rd 6-Minute Avg.
18	0	0	0	0	0
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	4th 6-Minute Avg.
24	0	0	0	0	0
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	5th 6-Minute Avg.
30	0	0	0	0	0

Sun
Wind
Stack with Plume

Source Layout Sketch:



Highest single average of the five 6-minute averages: 0

Average Opacity of the five 6-minute averages: 0

Number of Readings Above: 7 % Were 0

Range of Opacity Readings:

Minimum: % Maximum: %

Observer's Name: (print) Alisa Hatmaker

Observer's Signature: Alisa Hatmaker **Date:** 11/2/22

Organization: Blue Water Industries
Environmental Affairs Department

Comments:

BWI Greenback Quarry - Mobile Plant

Sun hidden

Certified By: Singleton Smoke School, Kodak, TN **Date:** 10/11/2022

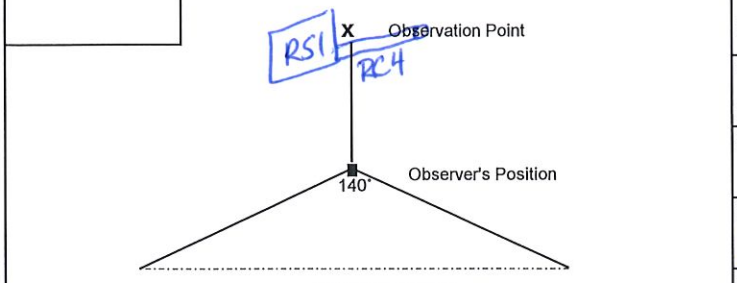
VISIBLE EMISSION OBSERVATION FORM (EPA Method 9)(40 CFR 60-Appendix A)

Blue Water Industries

Source Name:	BWI ETN LLC dba Blue Water Industries Greenback Quarry		
Address:	2107 Big Hill Road		
City: Lenoir City	**County:** Loudon	**State:** TN	**Zip:** 37772
Phone:	865-986-5322	**Facility ID No:**	53-0074-03
Process Equipment: R155 Screen		**Operating Mode:** 90-95%	
Control Equipment: Wet Suppression		**Operating Mode:** 100 %	
Describe Emission Point: RS1 feed onto Conveyor RC4		**Emission Pt. ID** 5	
Height Above Ground Level: Start: 20' End: 20'		**Height Relative to Observer:** Start: 20' End: 20'	
Distance from Observer: Start: 100' End: 100'		**Direction from Observer:** Start: NW End: NW	
Describe Emissions: Start: None End: None			
Emission Color: Start: Clear End: Clear		**Plume Type:** Continuous [ ] Fugitive [X] Intermittent [ ]	
Water Droplets Present: No [X] Yes [ ]		**If Water Droplet Plume:** N/A Attached [ ] Detached [ ]	
Point in the Plume at which Opacity was Determined: Start: NA End: NA			
Describe Background: Start: Equipment End: Equipment			
Background Color: Start: Green End: Green		**Sky Conditions:** Start: Partly Cloudy End: Partly Cloudy	
Wind Speed: Start: Calm End: Calm		**Wind Direction:** Start: NA End: NA	
Ambient Temp: Start: 52° End: 54°	**Wet Bulb Temp:** NA	**RH, percent** NA	

Sun
Wind
Stack with Plume

Source Layout Sketch:



Comments:

BWI Greenback Quarry - Mobile Plant

Sky overcast to back / Sun hidden

Observation Date: 11/2/22 **Start Time:** 10:10 Am **Stop Time:** 10:40 Am

Min/Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	1st 6-Minute Avg.
6	0	0	0	0	0
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	2nd 6-Minute Avg.
12	0	0	0	0	0
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	3rd 6-Minute Avg.
18	0	0	0	0	0
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	4th 6-Minute Avg.
24	0	0	0	0	0
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	5th 6-Minute Avg.
30	0	0	0	0	0

Highest single average of the five 6-minute averages: 0

Average Opacity of the five 6-minute averages: 0

Number of Readings Above: 7 % Were 0

Range of Opacity Readings:

Minimum: 0 % Maximum: 0 %

Observer's Name: (print)

Alisa Hatmaker

Observer's Signature: Alisa Hatmaker **Date:** 11/2/22

Organization: Blue Water Industries
Environmental Affairs Department

Certified By: Singleton Smoke School, Kodak, TN **Date:** 10/11/2022

VISIBLE EMISSION OBSERVATION FORM (EPA Method 9)(40 CFR 60-Appendix A)

Blue Water Industries

Source Name: BWI ETN LLC dba Blue Water Industries Greenback Quarry			
Address: 2107 Big Hill Road			
City: Lenoir City	**County:** Loudon	**State:** TN	**Zip:** 37772
Phone: 865-986-5322		**Facility ID No:**	53-0074-03
Process Equipment: R155 Screen/Conveyor		**Operating Mode:**	90-95%
Control Equipment: Wet Suppression		**Operating Mode:**	100%
Describe Emission Point: Conveyor RC2 feed onto Conveyor RC5		**Emission Pt. ID**	6
Height Above Ground Level: Start: 5' End: 5'		**Height Relative to Observer:** Start: 5' End: 5'	
Distance from Observer: Start: 60' End: 60'		**Direction from Observer:** Start: SE End: SE	
Describe Emissions: Start: None End: None			
Emission Color: Start: Clear End: Clear		**Plume Type:** Continuous [ ] Fugitive [X] Intermittent [ ]	
Water Droplets Present: No [X] Yes [ ]		**If Water Droplet Plume:** N/A Attached [ ] Detached [ ]	
Point in the Plume at which Opacity was Determined: Start: NA End: NA			
Describe Background: Start: Equipment End: Equipment			
Background Color: Start: Green End: Green		**Sky Conditions:** Start: Overcast End: Overcast	
Wind Speed: Start: Calm End: Calm		**Wind Direction:** Start: NA End: NA	
Ambient Temp: Start: 55° End: 57°		**Wet Bulb Temp:** NA	**RH, percent** NA

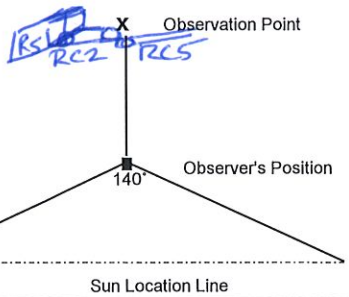
Sun

Wind

Stack with Plume

Source Layout Sketch:

North Arrow



Comments:

BWI Greenback Quarry - Mobile Plant

Sun hidden

Observation Date:	**Start Time:**	**Stop Time:**
11/2/22	11:32 AM	12:02 PM

Min/Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	1st 6-Minute Avg.
6	0	0	0	0	0
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	2nd 6-Minute Avg.
12	0	0	0	0	0
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	3rd 6-Minute Avg.
18	0	0	0	0	0
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	4th 6-Minute Avg.
24	0	0	0	0	0
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	5th 6-Minute Avg.
30	0	0	0	0	0

Highest single average of the five 6-minute averages: 0

Average Opacity of the five 6-minute averages: 0

Number of Readings Above: 7 % Were 0

Range of Opacity Readings:

Minimum: 0 % Maximum: 0 %

Observer's Name: (print)

Alisa Hatmaker

Observer's Signature:	**Date:**
Alisa Hatmaker	11/2/22

Organization: Blue Water Industries

Environmental Affairs Department

Certified By:	**Date:**
Singleton Smoke School Kodak, TN	10/11/2022

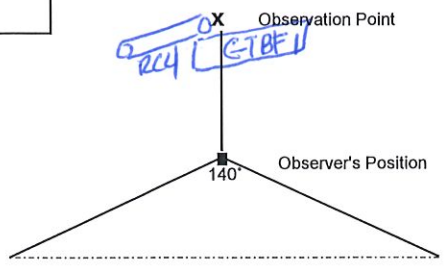
VISIBLE EMISSION OBSERVATION FORM (EPA Method 9)(40 CFR 60-Appendix A)

Blue Water Industries

Source Name: BWI ETN LLC dba Blue Water Industries Greenback Quarry			
Address: 2107 Big Hill Road			
City: Lenoir City	**County:** Loudon	**State:** TN	**Zip:** 37772
Phone: 865-986-5322		**Facility ID No:**	53-0074-03
Process Equipment: R155 Conveyor		**Operating Mode:**	90-95 %
Control Equipment: Wet Suppression		**Operating Mode:**	100 %
Describe Emission Point: RC4 feed onto GT200 Belt Feeder GTBF1		**Emission Pt. ID**	7
Height Above Ground Level: Start: 20' End: 20'		**Height Relative to Observer:** Start: 20' End: 20'	
Distance from Observer: Start: 90' End: 90'		**Direction from Observer:** Start: NW End: NW	
Describe Emissions: Start: None End: None			
Emission Color: Start: Clear End: Clear		**Plume Type:** Continuous [ ] Fugitive [X] Intermittent [ ]	
Water Droplets Present: No [X] Yes [ ]		**If Water Droplet Plume:** N/A Attached [ ] Detached [ ]	
Point in the Plume at which Opacity was Determined: Start: NA End: NA			
Describe Background: Start: Sky End: Sky			
Background Color: Start: Blue End: Blue		**Sky Conditions:** Start: Partly Cloudy End: Partly Cloudy	
Wind Speed: Start: Calm End: Calm		**Wind Direction:** Start: NA End: NA	
Ambient Temp: Start: 52° End: 54°	**Wet Bulb Temp:** NA	**RH, percent** NA	

Sun ⊕ Wind → Stack with Plume ⊏

Source Layout Sketch: North Arrow →



Comments:

BWI Greenback Quarry - Mobile Plant

Sky overcast to back / Sun hidden

Observation Date: 11/2/22	**Start Time:** 10:10 AM	**Stop Time:** 10:40 AM	

Min/Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	1st 6-Minute Avg.
6	0	0	0	0	0
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	2nd 6-Minute Avg.
12	0	0	0	0	0
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	3rd 6-Minute Avg.
18	0	0	0	0	0
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	4th 6-Minute Avg.
24	0	0	0	0	0
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	5th 6-Minute Avg.
30	0	0	0	0	0

Highest single average of the five 6-minute averages: 0

Average Opacity of the five 6-minute averages: 0

Number of Readings Above: 7 % Were 0

Range of Opacity Readings:

Minimum: 0 % Maximum: 0 %

Observer's Name: (print)

Alisa Hatmaker

Observer's Signature: Alisa Hatmaker	**Date:** 11/2/22

Organization: Blue Water Industries
Environmental Affairs Department

Certified By:	**Date:**
Singleton Smoke School Kodak, TN	10/11/2022

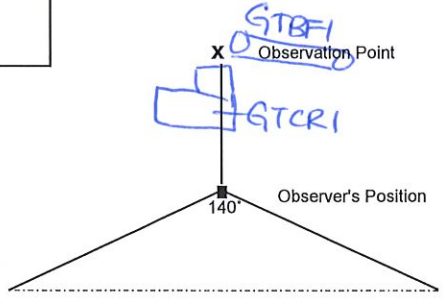
VISIBLE EMISSION OBSERVATION FORM (EPA Method 9)(40 CFR 60-Appendix A)

Blue Water Industries

Source Name: BWI ETN LLC dba Blue Water Industries Greenback Quarry			
Address: 2107 Big Hill Road			
City: Lenoir City	**County:** Loudon	**State:** TN	**Zip:** 37772
Phone: 865-986-5322		**Facility ID No:**	53-0074-03
Process Equipment: GT200 Belt Feeder		**Operating Mode:**	90-95%
Control Equipment: Wet Suppression		**Operating Mode:**	100%
Describe Emission Point: GTBF1 feed into Cone Crusher GTCR1		**Emission Pt. ID**	8
Height Above Ground Level: Start: 15' End: 15'		**Height Relative to Observer:** Start: 15' End: 15'	
Distance from Observer: Start: 65' End: 65'		**Direction from Observer:** Start: SW End: SW	
Describe Emissions: Start: Rock Dust		End: Rock Dust	
Emission Color: Start: White End: White		**Plume Type:** Continuous [ ] Fugitive [X] Intermittent [ ]	
Water Droplets Present: No [X] Yes [ ]		**If Water Droplet Plume:** N/A Attached [ ] Detached [ ]	
Point in the Plume at which Opacity was Determined: Start: NA End: NA			
Describe Background: Start: Equipment End: Equipment			
Background Color: Start: Green End: Green		**Sky Conditions:** Start: Overcast End: Overcast	
Wind Speed: Start: Calm End: Calm		**Wind Direction:** Start: NA End: NA	
Ambient Temp: Start: 63° End: 63°	**Wet Bulb Temp:** NA	**RH, percent** NA	

Sun ☼ Wind → Stack with Plume ⊏

Source Layout Sketch: North Arrow ↓



Comments:

BWI Greenback Quarry - Mobile Plant

Sun hidden

Observation Date:	Start Time:	Stop Time:	
11/2/22	1:45 PM	2:15 PM	

Min/Sec	0	15	30	45	Comments
1	5	5	5	5	
2	10	5	5	5	
3	0	0	0	5	
4	5	5	10	5	
5	0	0	0	0	1st 6-Minute Avg.
6	5	5	5	5	3,96
7	0	0	0	5	
8	5	0	5	0	
9	5	0	0	0	
10	0	5	0	5	
11	10	10	5	5	2nd 6-Minute Avg.
12	5	0	0	0	2,92
13	5	0	0	0	
14	0	0	0	0	
15	0	5	5	5	
16	10	5	5	5	
17	5	5	10	10	3rd 6-Minute Avg.
18	10	5	5	5	4,17
19	0	0	0	0	
20	0	5	0	0	
21	5	5	5	5	
22	5	5	10	10	
23	5	5	5	0	4th 6-Minute Avg.
24	0	5	5	5	3,54
25	10	5	5	10	
26	5	5	5	5	
27	0	0	0	0	
28	0	5	5	5	
29	5	5	5	5	5th 6-Minute Avg.
30	10	5	5	5	4,58

Highest single average of the five 6-minute averages: 4,58

Average Opacity of the five 6-minute averages: 3,83

Number of Readings Above: 12 % Were 0

Range of Opacity Readings:

Minimum: 0 % Maximum: 10 %

Observer's Name: (print)

Alisa Hatmaker

Observer's Signature:	**Date:**
Alisa Hatmaker	11/2/22

Organization: Blue Water Industries

Environmental Affairs Department

Certified By:	**Date:**
Singleton Smoke School Kodak, TN	10/11/2022

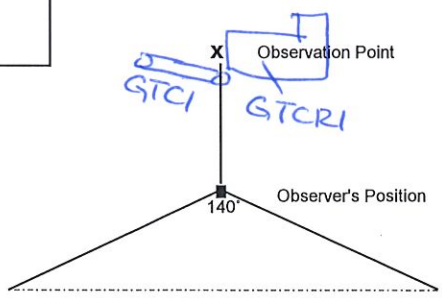
VISIBLE EMISSION OBSERVATION FORM (EPA Method 9)(40 CFR 60-Appendix A)

Blue Water Industries

Source Name: BWI ETN LLC dba Blue Water Industries Greenback Quarry			
Address: 2107 Big Hill Road			
City: Lenoir City	**County:** Loudon	**State:** TN	**Zip:** 37772
Phone: 865-986-5322		**Facility ID No:**	53-0074-03
Process Equipment: GT200 Cone		**Operating Mode:**	90-95 %
Control Equipment: Wet Suppression		**Operating Mode:**	100 %
Describe Emission Point: GTCR1 feed onto Conveyor GTC1		**Emission Pt. ID**	9
Height Above Ground Level: Start: 7' End: 7'		**Height Relative to Observer:** Start: 7' End: 7'	
Distance from Observer: Start: 60' End: 60'		**Direction from Observer:** Start: SW End: SW	
Describe Emissions: Start: None End: None			
Emission Color: Start: Clear End: Clear		**Plume Type:** Continuous [ ] Fugitive [X] Intermittent [ ]	
Water Droplets Present: No [X] Yes [ ]		**If Water Droplet Plume:** N/A Attached [ ] Detached [ ]	
Point in the Plume at which Opacity was Determined: Start: NA End: NA			
Describe Background: Start: Equipment End: Equipment			
Background Color: Start: Tan End: Tan		**Sky Conditions:** Start: Overcast End: Overcast	
Wind Speed: Start: Calm End: Calm		**Wind Direction:** Start: NA End: NA	
Ambient Temp: Start: 63° End: 63°	**Wet Bulb Temp:** NA	**RH, percent** NA	

Sun ⊕ Wind → Stack with Plume ⊏

Source Layout Sketch: North Arrow N



Comments:

BWI Greenback Quarry - Mobile Plant

Sun hidden

Observation Date:	**Start Time:**	**Stop Time:**
11/2/22	1:45PM	2:15 PM

Min/Sec	0	15	30	45	Comments
1	0	5	5	5	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	5	5	
5	5	5	0	0	1st 6-Minute Avg.
6	0	0	0	0	1.46
7	0	0	0	0	
8	0	5	0		
9	0	0	0	5	
10	0	0	0	0	
11	0	5	0	0	2nd 6-Minute Avg.
12	0	0	0	0	0.63
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	5	5	5	3rd 6-Minute Avg.
18	5	0	5	0	1.04
19	5	5	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	5	5	5	
23	0	0	0	0	4th 6-Minute Avg.
24	0	0	0	0	1.04
25	0	0	0	0	
26	5	5	5	0	
27	0	0	0	0	
28	0	5	5	0	
29	5	5	5	0	5th 6-Minute Avg.
30	0	0	0	0	1.67

Highest single average of the five 6-minute averages:	1.67
Average Opacity of the five 6-minute averages:	1.17
Number of Readings Above: 12 %	Were 0
Range of Opacity Readings: Minimum: 0 %	Maximum: 5 %
Observer's Name: (print)	Alisa Hatmaker
Observer's Signature: Alisa Hatmaker	**Date:** 11/2/22
Organization: Blue Water Industries Environmental Affairs Department	
Certified By: Singleton Smoke School Kodak, TN	**Date:** 10/11/2022

VISIBLE EMISSION OBSERVATION FORM (EPA Method 9)(40 CFR 60-Appendix A)

Blue Water Industries

Source Name: BWI ETN LLC dba Blue Water Industries Greenback Quarry			
Address: 2107 Big Hill Road			
City: Lenoir City	**County:** Loudon	**State:** TN	**Zip:** 37772
Phone: 865-986-5322		**Facility ID No:**	53-0074-03
Process Equipment: GT200 Conveyor		**Operating Mode:**	90-95%
Control Equipment: Wet Suppression		**Operating Mode:**	100 %
Describe Emission Point: GTC1 feed onto FT3620 Screen Feed Box AMS F1			**Emission Pt. ID** 10
Height Above Ground Level: Start: 15' End: 15'		**Height Relative to Observer:** Start: 15'	End: 15'
Distance from Observer: Start: 60' End: 60'		**Direction from Observer:** Start: S	End: S
Describe Emissions: Start: None		End: None	
Emission Color: Start: Clear End: Clear		**Plume Type:** Continuous [ ] Fugitive [X] Intermittent [ ]	
Water Droplets Present: No [X] Yes [ ]		**If Water Droplet Plume:** N/A Attached [ ] Detached [ ]	
Point in the Plume at which Opacity was Determined: Start: NA End: NA			
Describe Background: Start: Overburden End: Overburden			
Background Color: Start: Brown End: Brown		**Sky Conditions:** Start: Overcast	End: Overcast
Wind Speed: Start: Calm End: Calm		**Wind Direction:** Start: NA	End: NA
Ambient Temp: Start: 63° End: 63°	**Wet Bulb Temp:** NA	**RH, percent** NA	

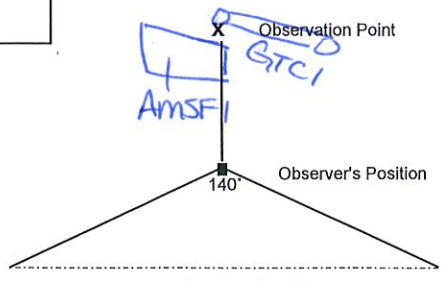
Sun

Wind

Stack with Plume

Source Layout Sketch:

North Arrow



Comments:

BWI Greenback Quarry - Mobile Plant

Sun hidden

Min/Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	1st 6-Minute Avg.
6	0	0	0	0	0
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	2nd 6-Minute Avg.
12	0	0	0	0	0
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	3rd 6-Minute Avg.
18	0	0	0	0	0
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	4th 6-Minute Avg.
24	0	0	0	0	0
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	5th 6-Minute Avg.
30	0	0	0	0	0

Observation Date:	11/2/22
Start Time:	1:10 PM
Stop Time:	1:40 PM
Highest single average of the five 6-minute averages:	0
Average Opacity of the five 6-minute averages:	0
Number of Readings Above: 7 %	Were 0
Range of Opacity Readings:	
Minimum: 0 %	Maximum: 0 %
Observer's Name: (print)	Alisa Hatmaker
Observer's Signature:	Alisa Hatmaker
Date:	11/2/22
Organization:	Blue Water Industries Environmental Affairs Department
Certified By:	Singleton Smoke School Kodak, TN
Date:	10/11/2022

VISIBLE EMISSION OBSERVATION FORM (EPA Method 9)(40 CFR 60-Appendix A)

Blue Water Industries

Source Name: BWI ETN LLC dba Blue Water Industries Greenback Quarry			
Address: 2107 Big Hill Road			
City: Lenoir City	**County:** Loudon	**State:** TN	**Zip:** 37772
Phone: 865-986-5322		**Facility ID No:**	53-0074-03
Process Equipment: AMTS FT3620 Conveyor		**Operating Mode:**	90-95 %
Control Equipment: Wet Suppression		**Operating Mode:**	100 %
Describe Emission Point: Conveyor AMS C1 feed onto Conveyor AMS C2		**Emission Pt. ID**	11
Height Above Ground Level: Start: 7' End: 7'		**Height Relative to Observer:** Start: 7' End: 7'	
Distance from Observer: Start: 60' End: 60'		**Direction from Observer:** Start: S End: S	
Describe Emissions: Start: None End: None			
Emission Color: Start: Clear End: Clear		**Plume Type:** Continuous [ ] Fugitive [X] Intermittent [ ]	
Water Droplets Present: No [X] Yes [ ]		**If Water Droplet Plume:** N/A Attached [ ] Detached [ ]	
Point in the Plume at which Opacity was Determined: Start: NA End: NA			
Describe Background: Start: Overburden End: Overburden			
Background Color: Start: Brown End: Brown		**Sky Conditions:** Start: Overcast End: Overcast	
Wind Speed: Start: Calm End: Calm		**Wind Direction:** Start: NA End: NA	
Ambient Temp: Start: 63° End: 63°	**Wet Bulb Temp:** NA	**RH, percent** NA	

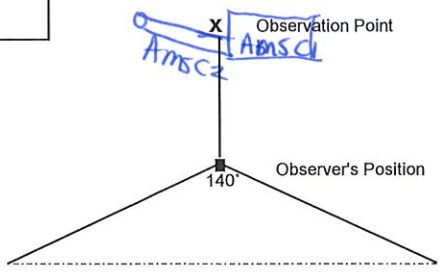
Sun

Wind

Stack with Plume

Source Layout Sketch:

North Arrow



Comments:

BWI Greenback Quarry - Mobile Plant

Sun hidden

Min/Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	1st 6-Minute Avg.
6	0	0	0	0	0
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	2nd 6-Minute Avg.
12	0	0	0	0	0
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	3rd 6-Minute Avg.
18	0	0	0	0	0
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	4th 6-Minute Avg.
24	0	0	0	0	0
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	5th 6-Minute Avg.
30	0	0	0	0	0

Observation Date:	11/2/22
Start Time:	1:10 PM
Stop Time:	1:40 PM
Highest single average of the five 6-minute averages:	0
Average Opacity of the five 6-minute averages:	0
Number of Readings Above: 7 % Were	0
Range of Opacity Readings: Minimum:	0 %
Maximum:	0 %
Observer's Name: (print)	Alisa Hatmaker
Observer's Signature:	Alisa Hatmaker
Date:	11/2/22
Organization:	Blue Water Industries, Environmental Affairs Department
Certified By:	Singleton Smoke School, Kodak, TN
Date:	10/11/2022

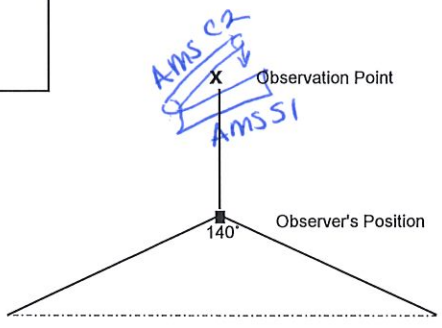
VISIBLE EMISSION OBSERVATION FORM (EPA Method 9)(40 CFR 60-Appendix A)

Blue Water Industries

Source Name:	BWI ETN LLC dba Blue Water Industries Greenback Quarry		
Address:	2107 Big Hill Road		
City: Lenoir City	**County:** Loudon	**State:** TN	**Zip:** 37772
Phone:	865-986-5322	**Facility ID No:**	53-0074-03
Process Equipment: AMTS FT3620 Conveyor & Screen		**Operating Mode:** 90-95 %	
Control Equipment: Wet Suppression		**Operating Mode:** 100 %	
Describe Emission Point: AMS C2 feed onto Screen & Area above Screen AMS S1		**Emission Pt. ID** 12	
Height Above Ground Level: Start: 25' End: 25'		**Height Relative to Observer:** Start: 25' End: 25'	
Distance from Observer: Start: 40' End: 40'		**Direction from Observer:** Start: NE End: NE	
Describe Emissions: Start: None End: None			
Emission Color: Start: Clear End: Clear		**Plume Type:** Continuous [ ] Fugitive [X] Intermittent [ ]	
Water Droplets Present: No [X] Yes [ ]		**If Water Droplet Plume:** N/A Attached [ ] Detached [ ]	
Point in the Plume at which Opacity was Determined: Start: NA End: NA			
Describe Background: Start: Treeline End: Treeline			
Background Color: Start: Yellow End: Yellow		**Sky Conditions:** Start: Overcast End: Overcast	
Wind Speed: Start: Calm End: Calm		**Wind Direction:** Start: NA End: NA	
Ambient Temp: Start: 63° End: 64°	**Wet Bulb Temp:** NA	**RH, percent** NA	

Sun ⊕ Wind → Stack with Plume ⊏

Source Layout Sketch: North Arrow ↑



Comments:

BWI Greenback Quarry - Mobile Plant

Sun hidden

Observation Date:	**Start Time:**	**Stop Time:**
11/2/22	2:25 PM	2:55 PM

Min/Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	1st 6-Minute Avg.
6	0	0	0	0	0
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	2nd 6-Minute Avg.
12	0	0	0	0	0
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	3rd 6-Minute Avg.
18	0	0	0	0	0
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	4th 6-Minute Avg.
24	0	0	0	0	0
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	5th 6-Minute Avg.
30	0	0	0	0	0

Highest single average of the five 6-minute averages: 0

Average Opacity of the five 6-minute averages: 0

Number of Readings Above: 7 % Were 0

Range of Opacity Readings:

Minimum: 0 % Maximum: 0 %

Observer's Name: (print)

Alisa Hatmaker

Observer's Signature:	**Date:**
Alisa Hatmaker	11/2/22

Organization: Blue Water Industries
Environmental Affairs Department

Certified By:	**Date:**
Singleton Smoke School Kodak, TN	10/11/2022

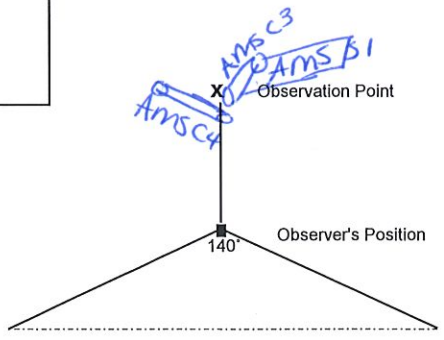
VISIBLE EMISSION OBSERVATION FORM (EPA Method 9)(40 CFR 60-Appendix A)

Blue Water Industries

Source Name: BWI ETN LLC dba Blue Water Industries Greenback Quarry			
Address: 2107 Big Hill Road			
City: Lenoir City	**County:** Loudon	**State:** TN	**Zip:** 37772
Phone: 865-986-5322		**Facility ID No:**	53-0074-03
Process Equipment: AMTS FT3620 Screen & Conveyor		**Operating Mode:**	90-95%
Control Equipment: Wet Suppression		**Operating Mode:**	100%
Describe Emission Point: Conveyor AMS C3 feed to Conveyor AMS C4		**Emission Pt. ID**	13
Height Above Ground Level: Start: 6' End: 6'		**Height Relative to Observer:** Start: 6' End: 6'	
Distance from Observer: Start: 30' End: 30'		**Direction from Observer:** Start: NE End: NE	
Describe Emissions: Start: None End: None			
Emission Color: Start: Clear End: Clear		**Plume Type:** Continuous [ ] Fugitive [X] Intermittent [ ]	
Water Droplets Present: No [X] Yes [ ]		**If Water Droplet Plume:** N/A Attached [ ] Detached [ ]	
Point in the Plume at which Opacity was Determined: Start: NA End: NA			
Describe Background: Start: Equipment End: Equipment			
Background Color: Start: Black/Tan End: Black/Tan		**Sky Conditions:** Start: Overcast End: Overcast	
Wind Speed: Start: Calm End: Calm		**Wind Direction:** Start: NA End: NA	
Ambient Temp: Start: 63° End: 64°	**Wet Bulb Temp:** NA	**RH, percent** NA	

Sun
Wind
Stack with Plume

Source Layout Sketch:



Comments:

BWI Greenback Quarry - Mobile Plant

Sun hidden

Observation Date:	Start Time:	Stop Time:	
11/2/22	2:25PM	2:55PM	

Min/Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	1st 6-Minute Avg.
6	0	0	0	0	0
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	2nd 6-Minute Avg.
12	0	0	0	0	0
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	6	3rd 6-Minute Avg.
18	0	0	0	0	0
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	4th 6-Minute Avg.
24	0	0	0	0	0
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	5th 6-Minute Avg.
30	0	0	0	0	0

Highest single average of the five 6-minute averages: 0

Average Opacity of the five 6-minute averages: 0

Number of Readings Above: 7 % Were 0

Range of Opacity Readings:

Minimum: 0 % Maximum: 0 %

Observer's Name: (print)

Alisa Hatmaker

Observer's Signature:	Date:
Alisa Hatmaker	11/2/22

Organization: Blue Water Industries

Environmental Affairs Department

Certified By:	Date:
Singleton Smoke School Kodak, TN	10/11/2022

VISIBLE EMISSION OBSERVATION FORM (EPA Method 9)(40 CFR 60-Appendix A)

Blue Water Industries

Source Name: BWI ETN LLC dba Blue Water Industries Greenback Quarry			
Address: 2107 Big Hill Road			
City: Lenoir City	**County:** Loudon	**State:** TN	**Zip:** 37772
Phone: 865-986-5322		**Facility ID No:**	53-0074-03
Process Equipment: AMTS FT3620 Screen		**Operating Mode:** 90 - 95 %	
Control Equipment: Wet Suppression		**Operating Mode:** 100 %	
Describe Emission Point: AMS S1 feed onto Conveyor AMS C5			**Emission Pt. ID** 14
Height Above Ground Level: Start: 6' End: 6'		**Height Relative to Observer:** Start: 6' End: 6'	
Distance from Observer: Start: 60' End: 60'		**Direction from Observer:** Start: SW End: SW	
Describe Emissions: Start: None End: ~~None~~ None			
Emission Color: Start: Clear End: Clear		**Plume Type:** Continuous [ ] Fugitive [X] Intermittent [ ]	
Water Droplets Present: No [X] Yes [ ]		**If Water Droplet Plume:** N/A Attached [ ] Detached [ ]	
Point in the Plume at which Opacity was Determined: Start: NA End: NA			
Describe Background: Start: Equipment End: Equipment			
Background Color: Start: Black/Tan End: Black/Tan		**Sky Conditions:** Start: Partly Cloudy/Overcast End: Overcast	
Wind Speed: Start: Calm End: Calm		**Wind Direction:** Start: NA End: NA	
Ambient Temp: Start: 54° End: 55°	**Wet Bulb Temp:** NA	**RH, percent** NA	

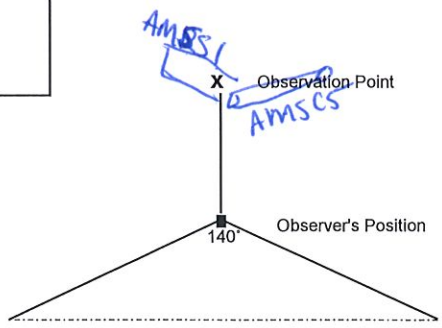
Sun

Wind

Stack with Plume

Source Layout Sketch:

North Arrow



Comments:

BWI Greenback Quarry - Mobile Plant

Sun Hidden

Min/Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	1st 6-Minute Avg.
6	0	0	0	0	0
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	2nd 6-Minute Avg.
12	0	0	0	0	0
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	3rd 6-Minute Avg.
18	0	0	0	0	0
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	4th 6-Minute Avg.
24	0	0	0	0	0
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	5th 6-Minute Avg.
30	0	0	0	0	0

Observation Date:	11/2/22
Start Time:	10:50 AM
Stop Time:	11:20 AM
Highest single average of the five 6-minute averages:	0
Average Opacity of the five 6-minute averages:	0
Number of Readings Above: 7 % Were	0
Range of Opacity Readings: Minimum:	0 %
Maximum:	0 %
Observer's Name: (print)	Alisa Hatmaker
Observer's Signature:	Alisa Hatmaker
Date:	11/2/22
Organization:	Blue Water Industries, Environmental Affairs Department
Certified By:	Singleton Smoke School, Kodak, TN
Date:	10/11/2022

VISIBLE EMISSION OBSERVATION FORM (EPA Method 9)(40 CFR 60-Appendix A)

Blue Water Industries

Source Name: BWI ETN LLC dba Blue Water Industries Greenback Quarry			
Address: 2107 Big Hill Road			
City: Lenoir City	**County:** Loudon	**State:** TN	**Zip:** 37772
Phone: 865-986-5322		**Facility ID No:**	53-0074-03
Process Equipment: AMTS FT3620 Screen		**Operating Mode:**	90-95 %
Control Equipment: Wet Suppression		**Operating Mode:**	100 %
Describe Emission Point: AMS S1 feed onto Conveyor AMS C6		**Emission Pt. ID**	15
Height Above Ground Level: Start: 6' End: 6'		**Height Relative to Observer:** Start: 6' End: 6'	
Distance from Observer: Start: 30' End: 30'		**Direction from Observer:** Start: NE End: NE	
Describe Emissions: Start: None End: None			
Emission Color: Start: Clear End: Clear		**Plume Type:** Continuous [ ] Fugitive [X] Intermittent [ ]	
Water Droplets Present: No [X] Yes [ ]		**If Water Droplet Plume:** N/A Attached [ ] Detached [ ]	
Point in the Plume at which Opacity was Determined: Start: NA End: NA			
Describe Background: Start: Equipment End: Equipment			
Background Color: Start: Black End: Black		**Sky Conditions:** Start: Overcast End: Overcast	
Wind Speed: Start: Calm End: Calm		**Wind Direction:** Start: NA End: NA	
Ambient Temp: Start: 63° End: 64°	**Wet Bulb Temp:** NA	**RH, percent** NA	

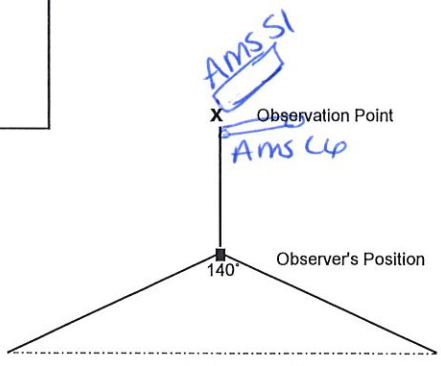
Sun

Wind

Stack with Plume

Source Layout Sketch:

North Arrow



Comments:

BWI Greenback Quarry - Mobile Plant

Sun hidden

Min/Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	1st 6-Minute Avg.
6	0	0	0	0	0
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	2nd 6-Minute Avg.
12	0	0	0	0	0
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	3rd 6-Minute Avg.
18	0	0	0	0	0
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	4th 6-Minute Avg.
24	0	0	0	0	0
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	5th 6-Minute Avg.
30	0	0	0	0	0

Observation Date: 11/2/22 **Start Time:** 2:25PM **Stop Time:** 2:55PM

Highest single average of the five 6-minute averages: 0

Average Opacity of the five 6-minute averages: 0

Number of Readings Above: 7 % Were 0

Range of Opacity Readings:

Minimum: 0 % Maximum: 0 %

Observer's Name: (print)

Alisa Hatmaker

Observer's Signature: Alisa Hatmaker **Date:** 11/2/22

Organization: Blue Water Industries

Environmental Affairs Department

Certified By: Singleton Smoke School, Kodak, TN **Date:** 10/11/2022

VISIBLE EMISSION OBSERVATION FORM (EPA Method 9)(40 CFR 60-Appendix A)

Blue Water Industries

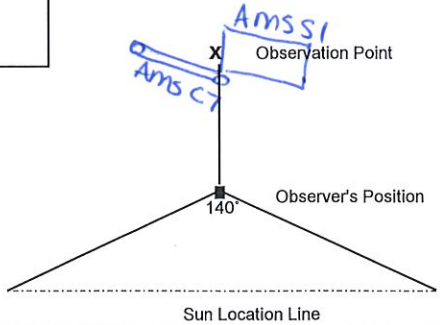
Source Name: BWI ETN LLC dba Blue Water Industries Greenback Quarry			
Address: 2107 Big Hill Road			
City: Lenoir City	**County:** Loudon	**State:** TN	**Zip:** 37772
Phone: 865-986-5322		**Facility ID No:**	53-0074-03
Process Equipment: AMTS FT3620 Screen		**Operating Mode:**	90-95%
Control Equipment: Wet Suppression		**Operating Mode:**	100%
Describe Emission Point: AMS S1 feed onto Conveyor AMS C7		**Emission Pt. ID**	16
Height Above Ground Level: Start: 12' End: 12'		**Height Relative to Observer:** Start: 12' End: 12'	
Distance from Observer: Start: 50' End: 50'		**Direction from Observer:** Start: S End: S	
Describe Emissions: Start: None End: None			
Emission Color: Start: Clear End: Clear		**Plume Type:** Continuous [ ] Fugitive [X] Intermittent [ ]	
Water Droplets Present: No [X] Yes [ ]		**If Water Droplet Plume:** N/A Attached [ ] Detached [ ]	
Point in the Plume at which Opacity was Determined: Start: NA End: NA			
Describe Background: Start: Equipment End: Equipment			
Background Color: Start: Black/Tan End: Black/Tan		**Sky Conditions:** Start: Partly Cloudy/Overcast End: Overcast	
Wind Speed: Start: Calm End: Calm		**Wind Direction:** Start: NA End: NA	
Ambient Temp: Start: 54° End: 55°	**Wet Bulb Temp:** NA	**RH, percent** NA	

Sun

Wind

Stack with Plume

Source Layout Sketch:



Comments:

BWI Greenback Quarry - Mobile Plant

Sun hidden

Observation Date:	**Start Time:**	**Stop Time:**
11/2/22	10:50 AM	11:20 AM

Min/Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	1st 6-Minute Avg.
6	0	0	0	0	0
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	2nd 6-Minute Avg.
12	0	0	0	0	0
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	3rd 6-Minute Avg.
18	0	0	0	0	0
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	4th 6-Minute Avg.
24	0	0	0	0	0
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	5th 6-Minute Avg.
30	0	0	0	0	0

Highest single average of the five 6-minute averages: 0

Average Opacity of the five 6-minute averages: 0

Number of Readings Above: 7 % Were 0

Range of Opacity Readings:

Minimum: 0 % Maximum: 0 %

Observer's Name: (print)

Alisa Hatmaker

Observer's Signature:	**Date:**
Alisa Hatmaker	11/2/22

Organization: Blue Water Industries

Environmental Affairs Department

Certified By:	**Date:**
Singleton Smoke School Kodak, TN	10/11/2022

APPENDIX C

Visible Emissions Evaluations Certification & Card

VISIBLE EMISSIONS CERTIFICATION

The Visible Emission Evaluations were completed by Alisa Hatmaker of the BWI - Environmental Affairs Department on November 2, 2022.

A copy of the Visible Emissions training certification card from the Singleton Smoke School course on October 11, 2022, located at Kodak, Tennessee is attached.

Alisa Hatmaker Alisa Hatmaker _____

SINGLETON
SMOKE SCHOOL
OF NASHVILLE, TN

THIS CERTIFICATE IS TO ACKNOWLEDGE THAT

Alisa Hatmaker

SUCCESSFULLY PARTICIPATED IN VISIBLE EMISSIONS TRAINING ON THE DATE BELOW, AND IS QUALIFIED TO EVALUATE VISIBLE EMISSIONS FOR A PERIOD OF 6 MONTHS FROM THE DATE OF CERTIFICATION.

10/11/22	Kodak, TN	Bradley Singleton
DATE	LOCATION	INSTRUCTOR

SERVICES@SINGLETONSMOKE.COM | 615-572-2075

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
9th Floor - L&C Annex
401 Church Street
Nashville, Tennessee 37243-1531

January 16, 2008

Mr. L. Duff Boyd, Principal
Riverbend Construction Materials
Rutledge Quarry
605 Cherokee Explosives Drive
Rutledge, TN 37861

Reference Number: 29-0039-01-S4

Dear Mr. Boyd:

This letter will acknowledge receipt of the eight one hour visible emissions evaluations submitted on the additional rock crushing equipment identified in construction permit #960817P. This letter will also acknowledge receipt of the five additional one hour visible emission evaluations submitted for the primary crusher, conveyors 1 and 2, feeder 1 and feeder belt 1 that was identified in construction permit #957049P. This equipment was not installed during the initial compliance demonstration. The evaluations were conducted on December 19, 2008.

Each of the visible emissions evaluations have been verified and have been found to be acceptable by the Division. The review of these visible emission evaluations determined that each of the thirteen emission points subject to the New Source Performance Standards for New Stationary Sources was achieving compliance with the applicable visible emission standard during the time period of the evaluations. This data will be forwarded to the Permitting Program for operating permit issuance.

If you have any questions concerning this matter, please contact Mr. Alvin E. Pratt at (615) 532-0554.

Sincerely,

Alvin E. Pratt
Compliance Validation Program
Division of Tennessee Air Pollution Control

cc: Knoxville EAC

HIGHLAND
ENGINEERING, INC.

CIVIL, MINING, & ENVIRONMENTAL ENGINEERING & LAND SURVEYING

December 20, 2007

Mr. Duff Boyd
Riverbend Construction Materials, L.L.C.
600 Cherokee Explosives Drive
Rutledge, TN 37861

Subject: Visible Emissions Test Report
Riverbend Construction Materials
Rutledge, Grainger County, TN

Dear Mr. Boyd:

Enclosed please find a copy of the Visible Emissions Report for your files. As we discussed, also included are the test results for the equipment added in 2005. If you have any questions or comments, please contact me at (770) 225-2121.

Sincerely,

Roger Franklin
Project Manager

Enclosure

1455 LINCOLN PARKWAY • SUITE 200 • ATLANTA, GA 30346
(P) 770.225.2121 • 800.970.2121 • (F) 770.225.2222
WWW.HIGHLANDENG.COM

TEST REPORT TRANSMISSION SUMMARY

Submit separate summary sheet for each pollutant test report

Submit to: Dewitt Logdon/Alvin Pratt
Tennessee Dept. of Environmental Control
Air Pollution Control Div.
401 Church Street, 9th Floor
L & C Annex
Nashville, TN 37243

Report Tracking Log Air Protection Branch Only		
No.		
Date:	Initial	
		Report received by APB
		Response Letter Sent SMP
		Calculation Review Complete
		Report Review Complete
		SSCP Associate Notified

Facility Name: Riverbend Construction Materials

and Location Rutledge, Grainger County, TN

Facility Contact: Duff Boyd

(865) 828-8005

Emission Point (only one) Feeder FD1

Pollutant (only one) Dust Date Test Performed: 12/19/2007

Applicable Rule (s), Regulation (s) or Permit Condition (s):
(Indicate Permit # and Condition #s)
957049P

Maximum Expected Operating Capacity: 500 TPH

Operating Capacity During Test: 450 TPH

Computed Allowable Emission Rate(s) or Limitation(s): 10%
(Determined for each applicable rule, regulation or permit condition using same units)

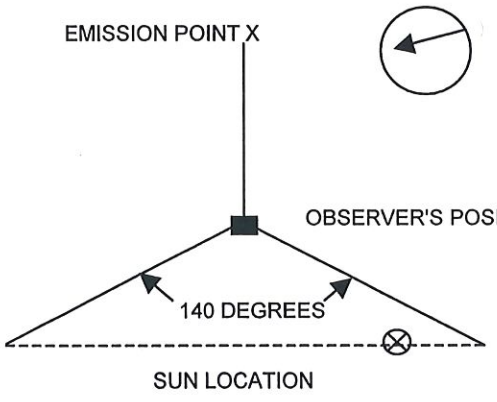
Reported Emission to Atmosphere: 0.00%
(In same units as rule, regulation or permit conditions)

The test report should include a compilation of all CEMS data, control device parameters and process operating data related to the test.

Emissions Test Field Data Included To Be Completed by Source Monitoring Program	Yes	No	N/A
Fuel analysis			
Description of process			
Description of control device			
Control device operational parameters			
Properly documented process data			
Other:			
Assigned -SSCP			
Assigned - SMP			

SOURCE NAME: RIVERBEND CONSTRUCTION MATERIALS			OBSERVATION DATE: 12/19/2007				START TIME: 4:30 PM		STOP TIME: 5:30 PM	
ADDRESS: 605 CHEROKEE EXPLOSIVE ROAD										
CITY: RUTLEDGE	STATE: TN	ZIP: 37861								
PHONE: 865/828-8005	SOURCE ID NUMBER: FD1									
PROCESS EQUIPMENT: FEEDER	OPERATING MODE: CONTINUOUS									
CONTROL EQUIPMENT: NONE	OPERATING MODE:									
DESCRIBE EMISSION POINT: FEEDER FD1 TO CRUSHER CR1										
HEIGHT ABOVE GROUND LEVEL: 10'	HEIGHT RELATIVE TO OBSERVER: 5'									
DISTANCE FROM OBSERVER: 40'	DIRECTION FROM OBSERVER: ESE									
DESCRIBE EMISSIONS: ROCK DUST										
EMISSION COLOR: GREY	PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☒ INTERMITTENT ☐									
WATER DROPLETS PRESENT: NO ☒ YES ☐	IF WATER DROPLET PLUME: ATTACHED ☐ DETACHED ☐									
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED: TRANSFER										
DESCRIBE BACKGROUND: SKY										
BACKGROUND COLOR: LT. BLUE	SKY CONDITIONS: PTLY CLDY									
WIND SPEED: 0-5 MPH	WIND DIRECTION: SW									
AMBIENT TEMP.: 52 DEGREES	WET BULB TEMP.	RH PERCENT								

SOURCE LAYOUT SKETCH — DRAW NORTH ARROW



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2	0	0	0	0	32	0	0	0	0
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7	0	0	0	0	37	0	0	0	0
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18	0	0	0	0	48	0	0	0	0
19	0	0	0	0	49	0	0	0	0
20	0	0	0	0	50	0	0	0	0
21	0	0	0	0	51	0	0	0	0
22	0	0	0	0	52	0	0	0	0
23	0	0	0	0	53	0	0	0	0
24	0	0	0	0	54	0	0	0	0
25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0
30	0	0	0	0	60	0	0	0	0

AVERAGE OPACITY FOR HIGHEST PERIOD: 0.00%	NUMBER OF READINGS ABOVE: 10% WERE 0
RANGE OF OPACITY READINGS: 0% MINIMUM	0% MAXIMUM
OBSERVERS NAME: ROGER FRANKLIN	
COMMENTS	OBSERVERS SIGNATURE: [signature] DATE: 12/19/07
	ORGANIZATION: HIGHLAND ENGINEERING, INC.
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATION SIGNATURE	CERTIFIED BY / DATE
TITLE / DATE	VERIFIED BY / DATE

TEST REPORT TRANSMISSION SUMMARY

Submit separate summary sheet for each pollutant test report

Submit to: Dewitt Logdon /Alvin Pratt
Tennessee Dept. of Environmental Control
Air Pollution Control Div.
401 Church Street, 9th Floor
L & C Annex
Nashville, TN 37243

Report Tracking Log Air Protection Branch Only		
No.		
Date:	Initial	
		Report received by APB
		Response Letter Sent SMP
		Calculation Review Complete
		Report Review Complete
		SSCP Associate Notified

Facility Name: Riverbend Construction Materials

and Location Rutledge, Grainger County, TN

Facility Contact: Duff Boyd

(865) 828-8005

Emission Point (only one) Crusher CR1

Pollutant (only one) Dust Date Test Performed: 12/19/2007

Applicable Rule (s), Regulation (s) or Permit Condition (s):
(Indicate Permit # and Condition #s)
957049P

Maximum Expected Operating Capacity: 500 TPH

Operating Capacity During Test: 450 TPH

Computed Allowable Emission Rate(s) or Limitation(s): 15%
(Determined for each applicable rule, regulation or permit condition using same units)

Reported Emission to Atmosphere: 0.00%
(In same units as rule, regulation or permit conditions)

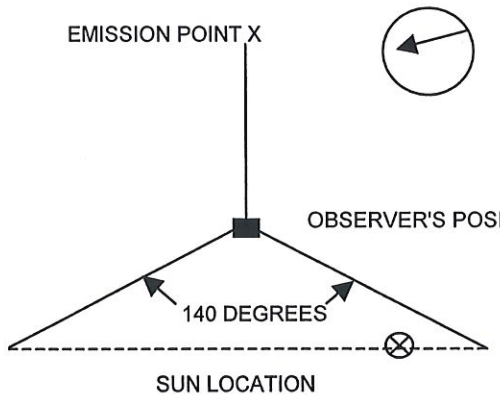
The test report should include a compilation of all CEMS data, control device parameters and process operating data related to the test.

Emissions Test Field Data Included To Be Completed by Source Monitoring Program	Yes	No	N/A
Fuel analysis			
Description of process			
Description of control device			
Control device operational parameters			
Properly documented process data			
Other:			
Assigned -SSCP			
Assigned - SMP			

VISIBLE EMISSION OBSERVATION FORM

SOURCE NAME: RIVERBEND CONSTRUCTION MATERIALS	OBSERVATION DATE: 12/19/2007	START TIME: 4:30 PM / STOP TIME: 5:30 PM
ADDRESS: 605 CHEROKEE EXPLOSIVE ROAD		
CITY: RUTLEDGE / STATE: TN / ZIP: 37861		
PHONE: 865/828-8005 / SOURCE ID NUMBER: CR1		
PROCESS EQUIPMENT: CRUSHER / OPERATING MODE: CONTINUOUS		
CONTROL EQUIPMENT: NONE / OPERATING MODE:		
DESCRIBE EMISSION POINT: CRUSHER CR1 TO CONVEYOR C2		
HEIGHT ABOVE GROUND LEVEL: 8' / HEIGHT RELATIVE TO OBSERVER: 3'		
DISTANCE FROM OBSERVER: 50' / DIRECTION FROM OBSERVER: ESE		
DESCRIBE EMISSIONS: ROCK DUST		
EMISSION COLOR: GREY / PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☒ INTERMITTENT ☐		
WATER DROPLETS PRESENT: NO ☒ YES ☐ / IF WATER DROPLET PLUME: ATTACHED ☐ DETACHED ☐		
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED: TRANSFER		
DESCRIBE BACKGROUND: SKY		
BACKGROUND COLOR: LT. BLUE / SKY CONDITIONS: PTLY CLDY		
WIND SPEED: 0-5 MPH / WIND DIRECTION: SW		
AMBIENT TEMP.: 52 DEGREES / WET BULB TEMP.: / RH PERCENT:		

SOURCE LAYOUT SKETCH — DRAW NORTH ARROW



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2	0	0	0	0	32	0	0	0	0
3	0	0	0	0	33	0	0	0	0
4	0	0	0	0	34	0	0	0	0
5	0	0	0	0	35	0	0	0	0
6	0	0	0	0	36	0	0	0	0
7	0	0	0	0	37	0	0	0	0
8	0	0	0	0	38	0	0	0	0
9	0	0	0	0	39	0	0	0	0
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12	0	0	0	0	42	0	0	0	0
13	0	0	0	0	43	0	0	0	0
14	0	0	0	0	44	0	0	0	0
15	0	0	0	0	45	0	0	0	0
16	0	0	0	0	46	0	0	0	0
17	0	0	0	0	47	0	0	0	0
18	0	0	0	0	48	0	0	0	0
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25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0
30	0	0	0	0	60	0	0	0	0

AVERAGE OPACITY FOR HIGHEST PERIOD: 0.00%	NUMBER OF READINGS ABOVE: 15% WERE 0
RANGE OF OPACITY READINGS: 0% MINIMUM	0% MAXIMUM
OBSERVERS NAME: ROGER FRANKLIN	
COMMENTS	OBSERVERS SIGNATURE: RF Franklin / DATE: 12/19/07
	ORGANIZATION: HIGHLAND ENGINEERING, INC.
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATION / SIGNATURE	CERTIFIED BY / DATE
TITLE / DATE	VERIFIED BY / DATE

TEST REPORT TRANSMISSION SUMMARY

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Submit to: Dewitt Logdon / Alvin Pratt
Tennessee Dept. of Environmental Control
Air Pollution Control Div.
401 Church Street, 9th Floor
L & C Annex
Nashville, TN 37243

Report Tracking Log Air Protection Branch Only		
No.		
Date:	Initial	
		Report received by APB
		Response Letter Sent SMP
		Calculation Review Complete
		Report Review Complete
		SSCP Associate Notified

Facility Name: Riverbend Construction Materials

and Location Rutledge, Grainger County, TN

Facility Contact: Duff Boyd

(865) 828-8005

Emission Point (only one) Conveyor C2

Pollutant (only one) Dust Date Test Performed: 12/19/2007

Applicable Rule (s), Regulation (s) or Permit Condition (s):
(Indicate Permit # and Condition #s) 957049P

Maximum Expected Operating Capacity: 500 TPH

Operating Capacity During Test: 450 TPH

Computed Allowable Emission Rate(s) or Limitation(s): 10%
(Determined for each applicable rule, regulation or permit condition using same units)

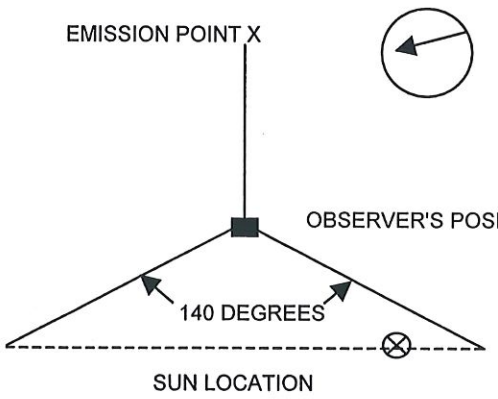
Reported Emission to Atmosphere: 0.00%
(In same units as rule, regulation or permit conditions)

The test report should include a compilation of all CEMS data, control device parameters and process operating data related to the test.

Emissions Test Field Data Included To Be Completed by Source Monitoring Program	Yes	No	N/A
Fuel analysis			
Description of process			
Description of control device			
Control device operational parameters			
Properly documented process data			
Other:			
Assigned -SSCP			
Assigned - SMP			

SOURCE NAME		
RIVERBEND CONSTRUCTION MATERIALS		
ADDRESS		
605 CHEROKEE EXPLOSIVE ROAD		
CITY	STATE	ZIP
RUTLEDGE	TN	37861
PHONE	SOURCE ID NUMBER	
865/828-8005	C2	
PROCESS EQUIPMENT	OPERATING MODE	
CONVEYOR	CONTINUOUS	
CONTROL EQUIPMENT	OPERATING MODE	
NONE		
DESCRIBE EMISSION POINT		
CONVEYOR C2 TO FEEDR FD2		
HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE TO OBSERVER	
12'	7'	
DISTANCE FROM OBSERVER	DIRECTION FROM OBSERVER	
70'	ESE	
DESCRIBE EMISSIONS		
ROCK DUST		
EMISSION COLOR	PLUME TYPE CONTINUOUS ☐	
GREY	FUGITIVE ☒ INTERMITTENT ☐	
WATER DROPLETS PRESENT	IF WATER DROPLET PLUME	
NO ☒ YES ☐	ATTACHED ☐ DETACHED ☐	
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED		
TRANSFER		
DESCRIBE BACKGROUND		
SKY		
BACKGROUND COLOR	SKY CONDITIONS	
LT. BLUE	PTLY CLDY	
WIND SPEED	WIND DIRECTION	
0-5 MPH	SW	
AMBIENT TEMP.	WET BULB TEMP.	RH PERCENT
52 DEGREES		

SOURCE LAYOUT SKETCH — DRAW NORTH ARROW



OBSERVATION DATE	START TIME	STOP TIME
12/19/2007	4:30 PM	5:30 PM

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
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2	0	0	0	0	32	0	0	0	0
3	0	0	0	0	33	0	0	0	0
4	0	0	0	0	34	0	0	0	0
5	0	0	0	0	35	0	0	0	0
6	0	0	0	0	36	0	0	0	0
7	0	0	0	0	37	0	0	0	0
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12	0	0	0	0	42	0	0	0	0
13	0	0	0	0	43	0	0	0	0
14	0	0	0	0	44	0	0	0	0
15	0	0	0	0	45	0	0	0	0
16	0	0	0	0	46	0	0	0	0
17	0	0	0	0	47	0	0	0	0
18	0	0	0	0	48	0	0	0	0
19	0	0	0	0	49	0	0	0	0
20	0	0	0	0	50	0	0	0	0
21	0	0	0	0	51	0	0	0	0
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24	0	0	0	0	54	0	0	0	0
25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0
30	0	0	0	0	60	0	0	0	0

AVERAGE OPACITY FOR HIGHEST PERIOD	NUMBER OF READINGS ABOVE
0.00%	10% WERE 0

RANGE OF OPACITY READINGS

0% MINIMUM — 0% MAXIMUM

OBSERVERS NAME

ROGER FRANKLIN

OBSERVERS SIGNATURE	DATE
W. Franklin	12/19/07

ORGANIZATION

HIGHLAND ENGINEERING, INC.

CERTIFIED BY	DATE

VERIFIED BY	DATE

COMMENTS

I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATION

SIGNATURE

TITLE	DATE

TEST REPORT TRANSMISSION SUMMARY

Submit separate summary sheet for each pollutant test report

Submit to: Dewitt Logdon / Alvin Pratt
Tennessee Dept. of Environmental Control
Air Pollution Control Div.
401 Church Street, 9th Floor
L & C Annex
Nashville, TN 37243

Report Tracking Log Air Protection Branch Only		
No.		
Date:	Initial	
		Report received by APB
		Response Letter Sent SMP
		Calculation Review Complete
		Report Review Complete
		SSCP Associate Notified

Facility Name: Riverbend Construction Materials

and Location Rutledge, Grainger County, TN

Facility Contact: Duff Boyd

(865) 828-8005

Emission Point (only one) Conveyor C1

Pollutant (only one) Dust Date Test Performed: 12/19/2007

Applicable Rule (s), Regulation (s) or Permit Condition (s):
(Indicate Permit # and Condition #s)
957049P

Maximum Expected Operating Capacity: 250 TPH

Operating Capacity During Test: 225 TPH

Computed Allowable Emission Rate(s) or Limitation(s): 10%
(Determined for each applicable rule, regulation or permit condition using same units)

Reported Emission to Atmosphere: 0.00%
(In same units as rule, regulation or permit conditions)

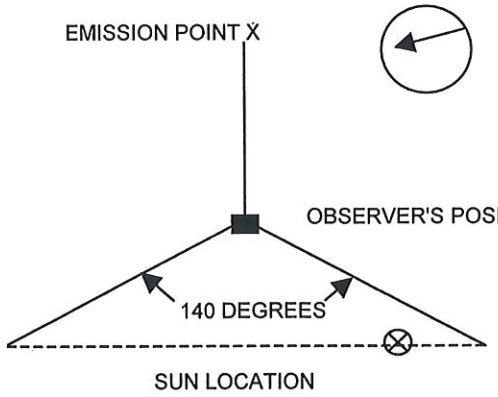
The test report should include a compilation of all CEMS data, control device parameters and process operating data related to the test.

Emissions Test Field Data Included To Be Completed by Source Monitoring Program	Yes	No	N/A
Fuel analysis			
Description of process			
Description of control device			
Control device operational parameters			
Properly documented process data			
Other:			
Assigned -SSCP			
Assigned - SMP			

VISIBLE EMISSION OBSERVATION FORM

SOURCE NAME: RIVERBEND CONSTRUCTION MATERIALS		
ADDRESS: 605 CHEROKEE EXPLOSIVE ROAD		
CITY: RUTLEDGE	STATE: TN	ZIP: 37861
PHONE: 865/828-8005	SOURCE ID NUMBER: C1	
PROCESS EQUIPMENT: CONVEYOR	OPERATING MODE: CONTINUOUS	
CONTROL EQUIPMENT: NONE	OPERATING MODE:	
DESCRIBE EMISSION POINT: FEEDER BELT FB1 TO CONVEYOR C1		
HEIGHT ABOVE GROUND LEVEL: 5'	HEIGHT RELATIVE TO OBSERVER: 0'	
DISTANCE FROM OBSERVER: 40'	DIRECTION FROM OBSERVER: ESE	
DESCRIBE EMISSIONS: ROCK DUST		
EMISSION COLOR: GREY	PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☒ INTERMITTENT ☐	
WATER DROPLETS PRESENT: NO ☒ YES ☐	IF WATER DROPLET PLUME: ATTACHED ☐ DETACHED ☐	
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED: TRANSFER		
DESCRIBE BACKGROUND: EQUIPMENT		
BACKGROUND COLOR: YELLOW	SKY CONDITIONS: PTLY CLDY	
WIND SPEED: 0-5 MPH	WIND DIRECTION: SW	
AMBIENT TEMP.: 52 DEGREES	WET BULB TEMP.:	RH PERCENT:

SOURCE LAYOUT SKETCH



OBSERVATION DATE	START TIME	STOP TIME
12/19/2007	4:30 PM	5:30 PM

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
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2	0	0	0	0	32	0	0	0	0
3	0	0	0	0	33	0	0	0	0
4	0	0	0	0	34	0	0	0	0
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8	0	0	0	0	38	0	0	0	0
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16	0	0	0	0	46	0	0	0	0
17	0	0	0	0	47	0	0	0	0
18	0	0	0	0	48	0	0	0	0
19	0	0	0	0	49	0	0	0	0
20	0	0	0	0	50	0	0	0	0
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25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0
30	0	0	0	0	60	0	0	0	0

AVERAGE OPACITY FOR HIGHEST PERIOD: 0.00%	NUMBER OF READINGS ABOVE: 10% WERE 0
RANGE OF OPACITY READINGS: 0% MINIMUM	0% MAXIMUM
OBSERVERS NAME: ROGER FRANKLIN	
COMMENTS: Tested same point as conveyor FB1.	OBSERVERS SIGNATURE: [signature] DATE: 12/19/07
	ORGANIZATION: HIGHLAND ENGINEERING, INC.
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATION SIGNATURE	CERTIFIED BY: DATE:
TITLE: DATE:	VERIFIED BY: DATE:

TEST REPORT TRANSMISSION SUMMARY

Submit separate summary sheet for each pollutant test report

Submit to: Dewitt Logdon /Alvin Pratt
Tennessee Dept. of Environmental Control
Air Pollution Control Div.
401 Church Street, 9th Floor
L & C Annex
Nashville, TN 37243

Report Tracking Log Air Protection Branch Only		
No.		
Date:	Initial	
		Report received by APB
		Response Letter Sent SMP
		Calculation Review Complete
		Report Review Complete
		SSCP Associate Notified

Facility Name: Riverbend Construction Materials

and Location Rutledge, Grainger County, TN

Facility Contact: Duff Boyd

(865) 828-8005

Emission Point (only one) Feeder Belt FB1

Pollutant (only one) Dust Date Test Performed: 12/19/2007

Applicable Rule (s), Regulation (s) or Permit Condition (s):
(Indicate Permit # and Condition #s)
957049P

Maximum Expected Operating Capacity: 250 TPH

Operating Capacity During Test: 225 TPH

Computed Allowable Emission Rate(s) or Limitation(s): 10%
(Determined for each applicable rule, regulation or permit condition using same units)

Reported Emission to Atmosphere: 0.00%
(In same units as rule, regulation or permit conditions)

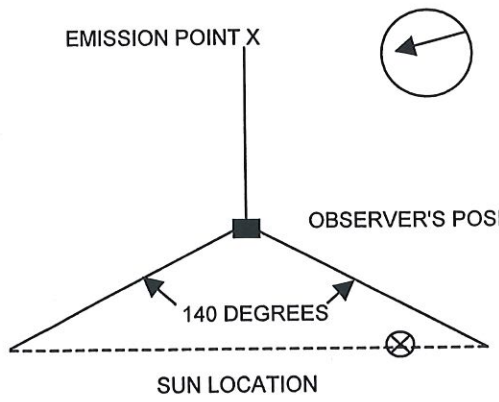
The test report should include a compilation of all CEMS data, control device parameters and process operating data related to the test.

Emissions Test Field Data Included To Be Completed by Source Monitoring Program	Yes	No	N/A
Fuel analysis			
Description of process			
Description of control device			
Control device operational parameters			
Properly documented process data			
Other:			
Assigned -SSCP			
Assigned - SMP			

VISIBLE EMISSION OBSERVATION FORM

SOURCE NAME: RIVERBEND CONSTRUCTION MATERIALS		
ADDRESS: 605 CHEROKEE EXPLOSIVE ROAD		
CITY: RUTLEDGE	STATE: TN	ZIP: 37861
PHONE: 865/828-8005	SOURCE ID NUMBER: FB1	
PROCESS EQUIPMENT: FEEDER BELT	OPERATING MODE: CONTINUOUS	
CONTROL EQUIPMENT: NONE	OPERATING MODE:	
DESCRIBE EMISSION POINT: FEEDER BELT FB1 TO CONVEYOR C1		
HEIGHT ABOVE GROUND LEVEL: 5'	HEIGHT RELATIVE TO OBSERVER: 0'	
DISTANCE FROM OBSERVER: 40'	DIRECTION FROM OBSERVER: ESE	
DESCRIBE EMISSIONS: ROCK DUST		
EMISSION COLOR: GREY	PLUME TYPE: CONTINUOUS ☐ FUGITIVE ☒ INTERMITTENT ☐	
WATER DROPLETS PRESENT: NO ☒ YES ☐	IF WATER DROPLET PLUME: ATTACHED ☐ DETACHED ☐	
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED: TRANSFER		
DESCRIBE BACKGROUND: EQUIPMENT		
BACKGROUND COLOR: YELLOW	SKY CONDITIONS: PTLY CLDY	
WIND SPEED: 0-5 MPH	WIND DIRECTION: SW	
AMBIENT TEMP.: 52 DEGREES	WET BULB TEMP.:	RH PERCENT:

SOURCE LAYOUT SKETCH — DRAW NORTH ARROW



OBSERVATION DATE	START TIME	STOP TIME
12/19/2007	4:30 PM	5:30 PM

SEC / MIN	0	15	30	45	SEC / MIN	0	15	30	45
1	0	0	0	0	31	0	0	0	0
2	0	0	0	0	32	0	0	0	0
3	0	0	0	0	33	0	0	0	0
4	0	0	0	0	34	0	0	0	0
5	0	0	0	0	35	0	0	0	0
6	0	0	0	0	36	0	0	0	0
7	0	0	0	0	37	0	0	0	0
8	0	0	0	0	38	0	0	0	0
9	0	0	0	0	39	0	0	0	0
10	0	0	0	0	40	0	0	0	0
11	0	0	0	0	41	0	0	0	0
12	0	0	0	0	42	0	0	0	0
13	0	0	0	0	43	0	0	0	0
14	0	0	0	0	44	0	0	0	0
15	0	0	0	0	45	0	0	0	0
16	0	0	0	0	46	0	0	0	0
17	0	0	0	0	47	0	0	0	0
18	0	0	0	0	48	0	0	0	0
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24	0	0	0	0	54	0	0	0	0
25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0
30	0	0	0	0	60	0	0	0	0

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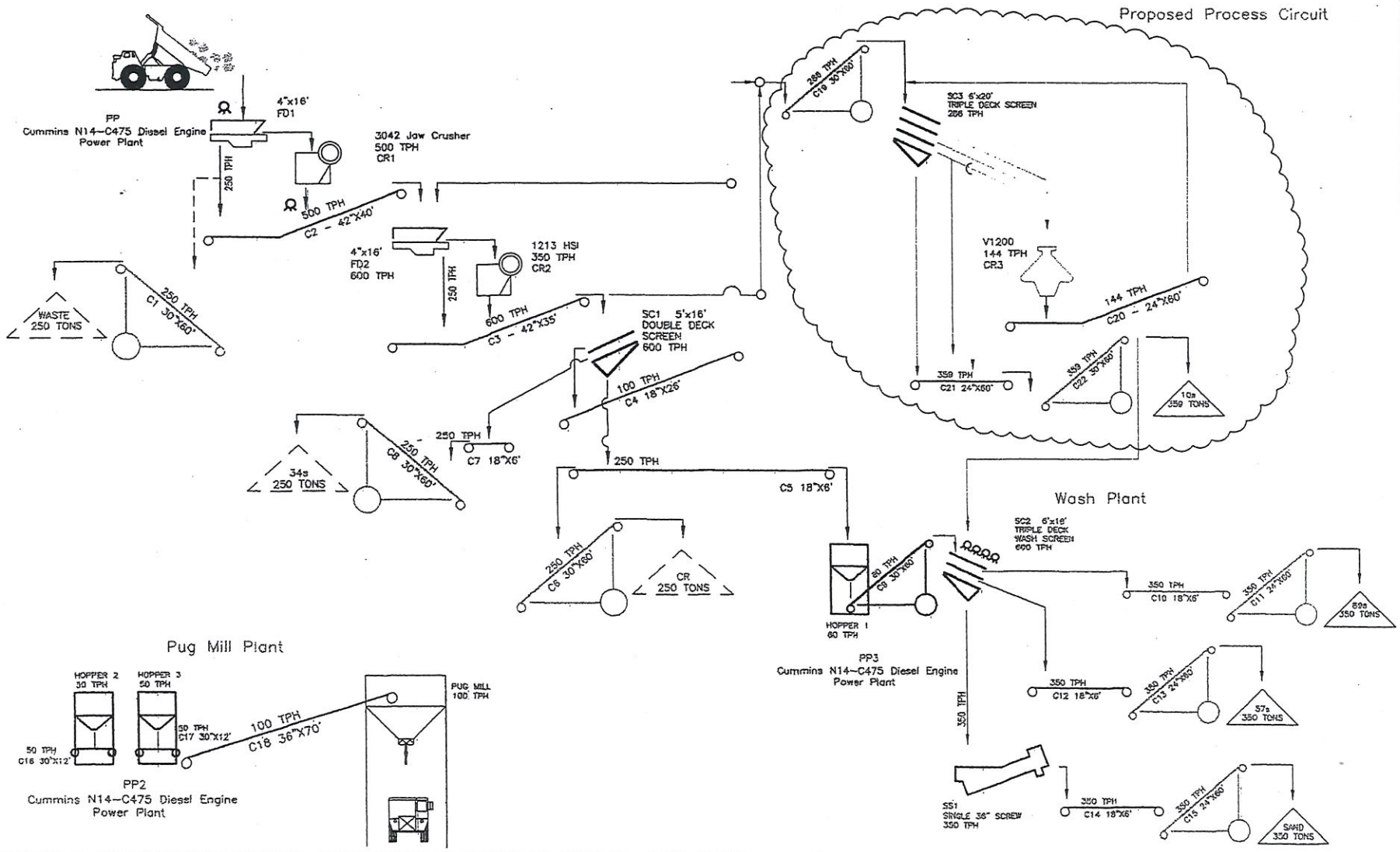
RANGE OF OPACITY READINGS: 0% MINIMUM	0% MAXIMUM
OBSERVERS NAME: ROGER FRANKLIN	
OBSERVERS SIGNATURE: [signature]	DATE: 12/19/07
ORGANIZATION: HIGHLAND ENGINEERING, INC.	
CERTIFIED BY	DATE
VERIFIED BY	DATE

COMMENTS: Tested same point as conveyor C1.

I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATION

SIGNATURE

TITLE | DATE



Proposed Process Flow Diagram
Grainger County Quarry
Johnson City, Tennessee

No.	Revision	Date
#1	Added Power Plant Data	05.04.04
#2	Added 2nd Power Plant Data and Pug Mill Plant	08.30.04
#3	Added 3rd Power Plant Data	02.28.05
#4	Added Triple Deck Process Circuit	02.26.07
#5		
#6		
#7		
#8		

Acad File:
Scale: NTS
Date: 05.04.04
Checked By: TLR
Drawn By: TLR
Design By: TLR

GREYSTONE ENGINEERING SERVICES, LLC
321 PROSPECTOR WAY
BALL GROUND, GEORGIA 30107
404.569.5948 (p) 404-745-8907(f)
CIVIL & ENVIRONMENTAL ENGINEERING