

AIR EMISSION TEST REPORT

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Title RESULTS OF VISIBLE EMISSION COMPLIANCE
TESTING FOR A NON-METALLIC MINERAL
PROCESSING FACILITY

Report Date December 8, 2017

Test Dates November 16, 2017

Facility Information	
Name	A3 Crushing & Aggregate, LLC
Location	1747 E. Popple Road
City, County	Bad Axe, Huron

Facility Permit Information			
State Registration No.:	P0842	PTI No. :	129-17

Testing Contractor	
Company	Derenzo Environmental Services
Mailing Address	39395 Schoolcraft Road Livonia, MI 48150
Phone	(734) 464-3880
Project No.	1710011

RESULTS OF
VISIBLE EMISSION COMPLIANCE TESTING
FOR
NON-METALLIC MINERAL PROCESSING FACILITY

A3 CRUSHING & AGGREGATE, LLC
BAD AXE, MI

1.0 INTRODUCTION

A3 Crushing & Aggregate, LLC (A3 Crushing) operates a portable non-metallic mineral crushing operation located at 1747 E. Popple Road, Bad Axe, Huron County, MI. The Michigan Department of Environmental Quality (MDEQ) Air Quality Division (AQD) has issued General Permit to Install (PTI) No. 129-17 to A3 Crushing for the operation of the crushing and processing facility.

A3 Crushing contracted Derenzo Environmental Services to perform visible emission compliance testing for processing equipment and any associated transfer points. Visible emissions (VE) testing was performed in accordance with General PTI No. 129-17 and federal reference test methods as required by the New Source Performance Standards (NSPS) for nonmetallic mineral processing plants (40 CFR, Part 60, Subparts A and OOO).

Derenzo Environmental Services personnel Thomas Andrews performed the VE testing at A3 Crushing on November 16, 2017. A protocol for the VE testing was submitted to the MDEQ-AQD on November 3, 2017, prior to the performance test.

Questions regarding this emission test report should be directed to:

Mr. Thomas Andrews
Environmental Technician
Derenzo Environmental Services
39395 Schoolcraft Road
Livonia, MI 48150
Ph: (734) 464-3880

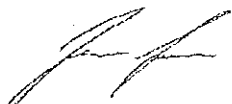
Ms. Amber Gentner
Project Manager
A3 Crushing & Aggregate, LLC
7603 Munford Road
Ruth, MI 48470
Ph: (517) 206-1253

Report Certification

This test report was prepared by Derenzo Environmental Services based on field observations collected by Derenzo Environmental Services. This test report has been reviewed by A3 Crushing representatives and approved for submittal to the MDEQ.

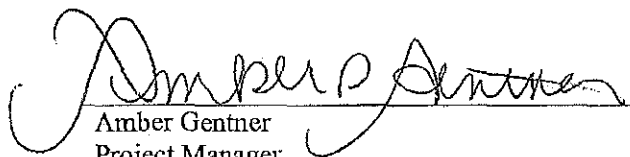
I certify that the testing was conducted in accordance with the specified test methods and submitted test plan unless otherwise specified in this report. I believe the information provided in this report and its attachments are true, accurate, and complete.

Report Prepared By:



Jason Logan
Project Manager
Derenzo Environmental Services

I certify that the facility and emission units were operated at maximum routine operating conditions for the test event. Based on information and belief formed after reasonable inquiry, the statements and information in this report are true, accurate and complete.



Amber Gentner
Project Manager
A3 Crushing & Aggregate, LLC

2.0 SOURCE AND SAMPLING LOCATION DESCRIPTION

2.1 General Process Description

A3 Crushing operates non-metallic mineral crushing and processing equipment at their facility in Bad Axe, Huron County, MI. The A3 Crushing plant uses crushers, screens, conveyors, and stackers to crush and process the material.

Appendix 1 presents a diagram of the mineral crushing and processing equipment included in the visible emissions evaluation.

2.2 Rated Capacities and Air Emission Controls

General PTI No. 129-17 issued to A3 Crushing specifies a maximum annual throughput of 2,000,000 tons. The facility has a maximum material processing rate of 450 tons per hour.

The equipment is equipped with water sprays that are used to control potential fugitive dust (particulate matter) when needed. Residual moisture is adequate to control fugitive emissions on the conveyors and downstream transfer points.

2.3 Sampling Locations

All VE observations were conducted at points in accordance with USEPA Method 9 and the NSPS.

Appendix 3 provides field data sheets with appropriate VE observation point diagrams.

3.0 SUMMARY OF TEST RESULTS AND OPERATING CONDITIONS

3.1 Purpose and Objective of the Tests

MDEQ-AQD General PTI No. 129-17 and NSPS Subpart OOO require A3 Crushing to perform visible emission observations of new nonmetallic processing equipment.

3.2 Operating Conditions During the Compliance Tests

The facility operated at or near maximum operating conditions (450 tph) during the test event. Emission controls (water suppression) were operated normally.

3.3 Summary of Air Pollutant Sampling Results

VE observations were performed on November 16, 2017. A total of eighteen (18) points were monitored for visible emissions by a certified observer. No visible emissions were detected

during the observation periods. All observations were recorded at 15 second intervals and reduced to 6-minute averages.

Visible emission data for each process are presented in Section 6.0 of this report.

4.0 SAMPLING AND ANALYTICAL PROCEDURES

This section provides a summary of the procedures that were used during the A3 Crushing facility observation periods.

Opacity observations were conducted by a certified observer of visible emissions in accordance with USEPA Method 9 criteria.

40 CFR Part 60, Subpart OOO, Section 60.675(c)(3) specifies that Method 9 observations for fugitive emissions from affected sources under Section 60.672(b) must be 30 minutes (five 6-minute averages) and compliance with the applicable fugitive emission limits must be based on the average of the five 6-minute averages.

40 CFR Part 60, Subpart OOO, Section 60.675(c)(3) specifies that three sources may be read concurrently if all three emission points are within a 70° viewing sector or angle in front of the observer, such that proper sun position can be maintained for all three points, and if an opacity reading for any one of the three emission points is within 5 percent opacity of the applicable standard, then the observer must stop taking readings for the other two points and continue reading just the single point. Three emission points were observed concurrently and, at no time, was the observed opacity within 5% of the applicable limit.

5.0 RESULTS

5.1 Test Results and Allowable Emission Limits

Fugitive visible emission data for each observation point are presented in Table 6.1 along with the applicable opacity limit. Six-minute averages for each observation point are well below the applicable opacity standard. Therefore, the facility is operating in compliance with the General PTI and NSPS emission standards.

All observation periods were conducted at points which meet USEPA Method 9 and NSPS Subpart OOO criteria.

Appendix 2 provides the qualified observer certificate.

Appendix 3 provides field data sheets and individual observation point diagrams.

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5.2 Variations From Normal Sampling Procedures or Operating Conditions

The testing for all pollutants was performed in accordance with USEPA Method 9, Subpart OOO and the test protocol dated November 3, 2017. The facility was operated normally during the observation periods.

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Table 5.1 Average opacity at each transfer point

Visible Emission Observation Point	Observed Opacity (%) (6 min. avg.)	Permit Limit (%) (6 min. avg.)
Feed to PowerScreen Hopper	0	15
PowerScreen Hopper	0	10
PowerScreen Hopper to PowerScreen Conveyor	0	10
PowerScreen Conveyor	0	10
Powerscreen Conveyor to Conveyor w/ Belt Scale (40-S)	0	10
Conveyor w/ Belt Scale (40-S)	0	10
Conveyor w/ Belt Scale (40-S) to Radial Stacker (MS65)	0	10
Radial Stacker (MS65)	0	10
Radial Stacker (MS65) to Storage Piles	0	5
PowerScreen Conveyor to Oversize Belt (40-R)	0	10
Oversize Belt (40-R)	0	10
Oversize Belt (40-R) to Pioneer Jaw Crusher (35S)	0	10
Pioneer Jaw Crusher (35S)	0	15
Pioneer Jaw Crusher (35S) to 40' Recycle Belt	0	10
40' Recycle Belt	0	10
40' Recycle Belt to PowerScreen Conveyor	0	10
Pioneer Jaw Crusher (35S) to Second Oversize Belt	0	10
Second Oversize Belt to Storage Piles	0	5