



AIR EMISSION TEST REPORT

Title RESULTS OF VISIBLE EMISSION COMPLIANCE
TESTING FOR A NONMETALLIC MINERAL CRUSHING
AND PROCESSING EQUIPMENT

Report Date June 14, 2018

Test Dates May 25, 2018

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JUN 25 2018

AIR QUALITY DIVISION

Facility Information	
Name	Great Lakes Aggregates Sylvania Minerals
Location	5699 Ready Road
City, County	South Rockwood, Monroe

Facility Permit Information	
Permit to Install No.:	248-05D
	SRN : N5241

Testing Contractor	
Company	Derenzo Environmental Services
Mailing Address	39395 Schoolcraft Road Livonia, MI 48150
Phone	(734) 464-3880
Project No.	1805001



RESULTS OF
VISIBLE EMISSION COMPLIANCE TESTING
FOR
PORTABLE NONMETALLIC MINERAL CRUSHING
AND PROCESSING EQUIPMENT

GREAT LAKES AGGREGATES, LLC
SOUTH ROCKWOOD, MI

1.0 INTRODUCTION

Great Lakes Aggregates, LLC (GLA) owns and operates non-metallic mineral crushing equipment at the Sylvania Minerals facility located at 5699 Ready Road in South Rockwood, Monroe County.

The Michigan Department of Environmental Quality (MDEQ) Air Quality Division (AQD) has issued Permit to Install (PTI) No.248-05D to Great Lakes Aggregates for operation of equipment for Emission Unit EU-SANDSTONE. Great Lakes Aggregates contracted Derenzo Environmental Services to perform the visible emission compliance testing specified in the permit for sandstone processing equipment and any associated transfer points.

PTI No. 248-05D requires that visible emissions (VE) testing be performed in accordance with 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).

Tom Andrews performed the VE testing for the sandstone processing equipment at Sylvania Minerals on May 25, 2018. Mr. William Begley, Plant Manager for GLA Sylvania Minerals, coordinated the field work and was present on-site for the VE testing. MDEQ-AQD representative Ms. Diane Kavanaugh Vetort witnessed portions of the test event.

A protocol for the VE testing was submitted to the MDEQ-AQD on May 14, 2018 prior to the performance test.

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Questions regarding this emission test report should be directed to:

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Derenzo Environmental Services
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Livonia, MI 48150
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Mr. William Begley
Sylvania Plant Manager
Great Lakes Aggregates, LLC
5699 Ready Road
S. Rockwood, MI 48179
Ph: (734) 783-7400

Report Certification

This test report was prepared by Derenzo Environmental Services based on field observations collected by Derenzo Environmental Services. Facility process data was provided GLA employees or representatives. This test report has been reviewed by GLA 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:



Blake Beddow
Environmental Consultant
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.



William Begley
Sylvania Plant Manager
Great Lakes Aggregates, LLC

2.0 SOURCE AND SAMPLING LOCATION DESCRIPTION

2.1 General Process Description

Great Lakes Aggregates Sylvania Minerals is a limestone and sandstone quarry that operates non-metallic mineral processing facilities that are used to crush and process the limestone and sandstone retrieved from the quarrying activities. The Sylvania Minerals processing plants uses crushers, screens, conveyors, and stackers to crush and segregate the material. The compliance testing was performed on newly acquired equipment used to process the sandstone from the Sylvania Minerals quarry (EU-Sandstone).

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

2.2 Rated Capacities and Air Emission Controls

PTI No. 248-05D issued to Great Lakes Aggregates Sylvania Minerals facility specifies a maximum annual sandstone throughput rate of 715,000 tons.

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 transfer points.

2.3 Sampling Locations

All VE observations were conducted at points in accordance with USEPA Method 9 requirements.

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 PTI No. 248-05D and NSPS 40CFR Part 60 Subpart OOO require GLA to perform initial testing of newly acquired sandstone processing equipment at Sylvania Minerals.

3.2 Operating Conditions During the Compliance Tests

The facility operated normally during the test event. The average facility processing (feed) rate was 200 tons per hour (tph).

3.3 Summary of Air Pollutant Sampling Results

VE observations were performed on May 25, 2018. A total of ten (10) transfer points and pieces of equipment were observed for visible emissions by a certified observer of visible emissions. No visible emissions were observed during the test periods (i.e., zero opacity).

Test results for each observation period are presented in Section 6.0 of this report.

Table 3.1 Average opacity and operating conditions during the observation periods

Parameter	EU-SANDSTONE
Highest average opacity (%)	0
Amount of material processed (tons)	~400

4.0 SAMPLING AND ANALYTICAL PROCEDURES

This section provides a summary of the procedures that were used during the GLA Sylvania Minerals sandstone facility observation periods.

Opacity observations were conducted by a certified Method 9 observer. Each opacity reading was conducted at a point in accordance with 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.

5.0 QA/QC ACTIVITIES

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

Appendix 2 provides the qualified observer certificate.

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

6.0 RESULTS

6.1 Test Results and Allowable Emission Limits

Fugitive emission observation results for each test period are presented in Table 6.1 along with the applicable opacity limit. No visible emissions were observed during the test periods (i.e., zero opacity). Therefore, the facility is operating in compliance with the PTI and NSPS emission standards.

6.2 Variations From Normal Sampling Procedures or Operating Conditions

The newly acquired Feeder (F-2) has not been incorporated into EU-SANDSTONE and was not operated during this VE test event.

The testing for all pollutants was performed in accordance with USEPA Method 9, Subpart OOO and the test protocol dated May 14, 2018. The facility was operated normally.

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Table 6.1 Average opacity at each transfer point

Visible Emission Observation Point	Observed Opacity (%)	Permit Limit (%)
Transfer Conveyor* to Transfer Conveyor (C-14)	0	7
Transfer Conveyor (C-14)	0	7
Transfer Conveyor (C-14) to Screen (SC-2)	0	7
Screen (SC-2)	0	12
Screen (SC-2) to Transfer Conveyor (C-15)	0	12
Transfer Conveyor (C-15)	0	7
Transfer Conveyor (C-15) to finished rock pile	0	7
Screen (SC-2) to Transfer Conveyor (C-16)	0	12
Transfer Conveyor (C-16)	0	7
Transfer Conveyor (C-16) to Screen*	0	7

**Indicates previously tested equipment.*