



**AIR EMISSION TEST REPORT**

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

Report Date    October 29, 2018

Test Dates     October 18, 2018

**RECEIVED**

**OCT 30 2018**

**AIR QUALITY DIVISION**

<b>Facility Information</b>	
Name	Mid-Michigan Materials, Inc
Location	6966 Fisher Road
City, County	Jeddo, St. Clair County

<b>Facility Permit Information</b>	
State Registration No.: N6385	PTI No. 3-98

<b>Testing Contractor</b>	
Company	Derenzo Environmental Services
Mailing Address	39395 Schoolcraft Road Livonia, MI 48150
Phone	(734) 464-3880
Project No.	1810005

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

AMC – MID-MICHIGAN MATERIALS, LLC  
TEST DATE: OCTOBER 18, 2018

**1.0 INTRODUCTION**

AMC – Mid Michigan Materials, LLC (Mid-Michigan Materials) operates a non-metallic mineral crushing facility at 6966, Jeddo, St. Claire, MI. Permit to Install (PTI) No. 3-98 has been issued to Mid-Michigan Materials for operation of the facility.

Mid-Michigan Materials has contacted Derenzo Environmental Services to perform the visible emission compliance testing for processing equipment and any associated transfer points. Visible emissions (VE) testing was performed in accordance with federal reference test methods as required by New Source Performance Standards (NSPS) for nonmetallic mineral processing plants, 40 CFR, Part 60, Subparts A and OOO (visible emissions standards).

Derenzo Environmental Services personnel Thomas Andrews, Field Technical for Derenzo, Performed the VE testing Mid-Michigan Materials on October 18, 2018. A protocol for the VE testing was submitted by Barr Engineering to the MDEQ-AQD on October 1, 2018, prior to the performance test.

Questions regarding this emission test report should be directed to:

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Derenzo Environmental Services  
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**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 Mid-Michigan Materials 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:

Reviewed By:



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Jory VanEss  
Environmental Consultant  
Derenzo Environmental Services

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Robert L. Harvey, P.E.  
General Manager  
Derenzo Environmental Services

## **2.0 SOURCE AND SAMPLING LOCATION DESCRIPTION**

### **2.1 General Process Description**

Mid-Michigan Materials operates non-metallic mineral crushing and processing equipment at their facility in Jeddo, St. Clair County, Michigan. The Mid- Michigan Materials 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. 3-98 issued to Mid-Michigan Materials specifies a maximum annual concrete or natural stone throughput rate of 2,000,000 tons.

The tested plant 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.

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### **3.0 SUMMARY OF TEST RESULTS AND OPERATING CONDITIONS**

#### **3.1 Purpose and Objective of the Tests**

MDEQ-AQD General PTI No. 3-98 and NSPS Subpart OOO require Mid-Michigan Materials to perform visible emissions observations of new nonmetallic processing equipment at (Wash Plant) Plant 1. New equipment consists of four (4) new conveyors.

#### **3.2 Operating Conditions During the Compliance Tests**

The facility operated normally during the test event and a rate of approximately 600 tons per hour (600 tph). Water suppression was applied to the material before the crusher.

#### **3.3 Summary of Air Pollutant Sampling Results**

VE observations were performed on October 18, 2018. A total of twelve (12) points were observed for visible emissions by a certified observer of visible emissions. Three individual points were observed for each conveyor; the drop to the conveyor, the conveyor itself, and the dump from the top of the conveyor. The visible emission observations never surpassed 0% opacity at any time among all of the observation points. The 15-second observation data were reduced to six-minute averages.

Visible emission data for each process are presented in Section 5.0 of this report.

### **4.0 SAMPLING AND ANALYTICAL PROCEDURES**

This section provides a summary of the procedures that were used during the Mid-Michigan Materials 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 process are presented in Table 5.3 along with the applicable opacity limit. The average of the six-minute averages for each process is well below the applicable opacity standard. Therefore, the facility is operating in compliance with the PTI and NSPS emission standards.

Appendix 2 provides the qualified observer certificate.

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

### **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 October 1, 2018. The facility was operated normally during the observation periods

Table 5.3 Average opacity at each observation point

<b>Conveyor ID</b>	<b>Name</b>	<b>Emission Point</b>	<b>Permit Limit (%) (6 min. avg.)</b>	<b>Observed Opacity (%) (6 min. avg.)</b>
1	250/42	A: drop to conveyor	7	0
		B: conveyor belt	7	0
		C: top dump	7	0
2	KPI Sand Discharge	D: drop to conveyor	7	0
		E: conveyor belt	7	0
		F: top dump	7	0
3	KPI 6A	G: drop to conveyor	7	0
		H: conveyor belt	7	0
		I: top dump	7	0
4	KPI Oversize	J: drop to conveyor	7	0
		K: conveyor belt	7	0
		L: top dump	7	0