

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection**

N209668915

FACILITY: Hound Resources, LLC. Claybanks 2 Facility		SRN / ID: N2096
LOCATION: 5954 W. Arthur Road, NEW ERA		DISTRICT: Grand Rapids
CITY: NEW ERA		COUNTY: OCEANA
CONTACT: Julie Johnston , Vice President		ACTIVITY DATE: 08/31/2023
STAFF: Chris Robinson	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: FY '23 on-site inspection to determine the facility's compliance status with PTI No. 201-89B and any other applicable air quality rules and regulations.		
RESOLVED COMPLAINTS:		

A) Introduction

Staff Chris Robinson (CR) from Michigan’s Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) conducted an inspection at Hound Resources, LLC’s Claybanks 2 facility (Claybanks, SRN N2096) on August 31, 2023. Claybanks was acquired from Omimex Energy in 2022. Claybanks is located at 5954 West Arthur Road New Era, Michigan. The purpose of this inspection was to determine the facility’s compliance status with the requirements of the federal Clean Air Act; Part 55 (Michigan’s Air Pollution Control Rules) of Act 451 of the Natural Resources and Environmental Protection Act (NREPA); Permit to Install (PTI) 201-89B and any other applicable state and federal air quality rules and regulations.

Typically, AQD inspections are unannounced. However, since this facility is a remote unmanned station, the inspection was scheduled in advance to ensure proper staff will be onsite. CR did not observe any odors or visible emissions. An RKI GX-2009 H2S meter was used during the inspection and no H2S readings were detected. CR met with Tom Phillips, Production Foremen. Identification was provided and CR informed Tom of the purpose of the inspection.

Weather conditions were cloudy with a temperature of approximately 67 degrees Fahrenheit and northeast winds at approximately 12 mph (www.weatherunderground.com).

B) Facility Description

Claybanks is an oil/gas production facility that extracts natural gas/crude oil from nearby wells. This mixture is considered to be “sour” since it contains more than 1 grain of hydrogen sulfide or more than 10 grains of total sulfur per 100 standard cubic feet. In the past this facility utilized a compressor engine to move the oil/gas mixture to the different processes onsite. Fuel for this engine and other onsite processes was treated first through the Amine plant for H2S removal and then through the glycol dehydrator for water removal. With the low volume being produced and the natural pressure in the subsurface formation it is being extracted in a “free flow” manner, which does not require the compressor engine to create flow. The extracted mixture is sent through two (2) of the seven (7) high pressure separators for removing the natural gas from the mixture. The remaining five (5) separators have not been used since the compressor engine was last used in February 2017. Extracted oil is stored in two (2) above ground storage tanks until it is sold and trucked offsite. The natural gas that is separated is reinjected into the formation. In the past the facility would treat a small portion of the extracted natural gas so that it could be used for the onsite processes. The facility now uses propane. The amine plant and engine have been rendered inoperable and the facility modified the PTI to remove the engine. The dehydrator remains in the PTI so that the facility has the option to use it in the future if needed.

C) Regulatory Evaluation / Compliance Evaluation

1) PTI 201-89B

Under the previous PTI, 201-89A, the facility was a Title V Opt-out source for NOx. To remain out of the Title V program, the facility accepted federally enforceable restrictions in that PTI to limit their NOx PTE to less than the Title V threshold of 100 tpy. This limit was 89.9 tons. The majority of the NOx PTE was due to the compressor engine. With the engine no longer operational and removed from the PTI the facility is now a "True Minor" source. During the 2022 PTI modification "FGFACILITY" was removed from the PTI.

EUDEHY

This emission unit consists of a 2 gallon/minute Tri ethylene glycol dehydrator equipped with a 250,000 Btu/hr. reboiler for extracting water vapor from the sour gas. This unit has not been used since the compressor was last used in February 2017. When it did operate, it was only used to treat what gas was being used for onsite processes. Extracted water vapor and trace hydrocarbons are sent to a temporary holding tank which is controlled by the Vapor Recovery Unit (VRU) and eventually removed for disposal. Per Mr. Phillips the system is interlocked in a way that prevents use of the dehydrator unless the VRU or flare are operating. Per Mr. Phillips when EUDEHY operated last the actual annual average flow rate was less than 85,000 cubic meters per day, which allows the facility to monitor gas flow by use of a flow meter. This meter is installed and will be used to monitor and record flow if/when EUDEHY is used.

This emission unit appears to be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Oil and Natural Gas Production Facilities as promulgated in **40 CFR Part 63, Subpart HH** since it is an area source for HAPS, and it is a tri-ethylene glycol dehydrator. Per Special Condition IX.1 of the PTI the facility must comply with applicable requirements of this MACT. AQD does not have area source delegation for this MACT therefore compliance with these requirements will not be assessed.

FGOILPRODUCTION

This Flexible Group includes all of the sour gas and oil production equipment located at this facility including the VRU and emergency flare. A VRU is installed and appears to be maintained well. Any vapors from the entire system including the tank battery are collected by the VRU and either reinjected into the formation or, in the case of an emergency, sent through the emergency relief valve for combustion in the flare. The flare manufacturer is "Flare King" and is equipped with a continuous pilot that is fueled on propane only. Any abnormal conditions, including flare loss will result in the facility being "shut in".

A PM/MAP has been received as required and per discussions with Mr. Phillips, the entire system is interlocked in a way that would prevent operation of any equipment without operating the VRU. Maintenance is being logged as required. Stack measurements were not verified but based on discussions and observations they appear to meet the permitted requirements.

Special Condition VI.3 requires the facility to record the time and duration of each incidence of emergency flaring of sour gas. Per discussions with Mr. Phillips and a review of records the facility does not appear to fully meet this requirement. A checklist/maintenance log is being completed which only documents if the technician onsite observed the flare operating. Per Mr. Phillips the


facility believed they were only required to track when the flare’s pilot was operating which is not the intent behind the requirement. CR discussed this in detail and reviewed alarm procedures. Although runtime may not be tracked directly the facility may be able to track alarms to determine when the flare operated. Otherwise, there is no monitoring system that directly records when the flare operates. Mr. Phillips will discuss and as an interim he will track alarms. This will most likely overestimate flare usage.

2) Rule 201 Permitting Exemptions

The two separators being used are rated at 1.86 MMBtu/hr. and currently set up to use propane for fuel. The facility is claiming they are exempt per Rule 282(2)(b)(i) for indirect heating, having a heat input capacity of not more than 50 MMBtu/hr., and using liquified petroleum gas (Propane) for fuel. The propane is stored in an 18,000-gallon storage tank that appears exempt per Rule 284(2)(b) for propane being stored in a vessel that has a capacity of less than 40,000 gallons. The construction of Claybanks pre-dates AQD’s Rule 278 Significance thresholds for projects. Therefore, individual use of exemptions is allowed and both exemptions being used seem appropriate.

D) Compliance Determination

Based on the observations and a records review Hound Resource’s Claybanks 2 facility appears to be operating in compliance with PTI No. 201-89B and applicable air quality rules and regulations. However, the facility must determine a method for tracking flare runtime based on equipment currently being used or install a device to monitor and record this information directly.

NAME 

DATE 9/8/2023

SUPERVISOR 