DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

B566829992

FACILITY: MERIT ENERGY CO. - FREDERIC 20		**SRN / ID:** B5668
LOCATION: 0000 CAMERON BRIDGE RD, FREDERIC		**DISTRICT:** Cadillac
CITY: FREDERIC		**COUNTY:** CRAWFORD
CONTACT:		**ACTIVITY DATE:** 06/25/2015
STAFF: Caryn Owens	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Self Initiated Inspection with Bill Duley, DEQ-OOGM.		
RESOLVED COMPLAINTS:		

On Thursday, June 25, 2015, Caryn Owens of the DEQ-AQD and Bill Duley of the DEQ-OOGM conducted a self-initiated inspection of Merit Energy Company (Merit) – Frederic 20 facility (B5668) located on Cameron Bridge Road in Frederic Township, Crawford County, Michigan. More specifically, the site is located on the north side of Cameron Bridge Road, approximately 3 miles west of North Kolka Creek Road and Cameron Bridge Road intersection. The drive into the site is approximately ½ mile north to access the site. The purpose of this inspection was to gain familiarity between DEQ-OOGM and AQD inspections at oil and gas sites. DEQ was unaccompanied during the field inspection.

During the field inspection, the weather conditions were mostly sunny, with winds from the northeast, approximately 5 miles per hour, and 70 degrees Fahrenheit. The fuel enters via pipeline on the northern portion of the site. The conditions of the facility were:

- Eight process heaters to keep the fuel and fuel lines heated throughout the processing activities. Heat shimmers were observed on the process heater stacks.

- Fuel flows to a separator building on the eastern portion of the site, which separates the crude oil, natural gas, and condensate. The separators direct the fuel to specific areas of the site.

- Crude oil is routed to the tank battery area that consists of two approximate 400 barrel (bbl) above ground storage tanks that are controlled by a vapor recovery unit (VRU). The condensate is routed to the Merit Frederic 2 facility for further processing if necessary, and then connected to the MichCon pipeline.

- Natural gas is sent to the compressor located in the southeastern building on the property. Inside the compressor building, the engine was a 550 horsepower (hp) Waukesha rich burn engine, with no control. The engine was identified on the logs at the facility as Unit #3. The engine was operating at 605 revolutions per minute (RPM), 150 degrees Fahrenheit, and 30 pounds per square inch (psi) of pressure. The stack on the compressor engine was approximately 20 feet above ground surface, and contained a muffler. Heat shimmers were noticed from the compressor stack. Once the natural gas is compressed it is sent via pipeline to the Merit Frederic 2 facility to be processed and remove the H2S (acid gas) from the gas stream and sweeten the gas for sales.

- The site contained a building that housed a former amine plant to sweeten the gas, but the plant is no longer in use. There is also another building on the southwestern portion of the site which was vacant and stored minor equipment for maintenance.

- A glycol dehydrator was located just north of the former amine plant building, and based on the pressure gauges connected to the system it appeared the glycol dehydrator was not in use.

- A flare, approximately 50 feet above ground surface, was located on the southwestern portion of the site with a flare eye stack (approximately 30 feet above ground surface) located next to it. The flare appeared to have a gas stream flowing to it during the inspection because there was a small trail of gray smoke about 10-15 percent opacity. DEQ contacted Merit regarding the opacity from the flare. Merit inspected the situation after DEQ left the facility. According to Tom Heller of Merit, an enardo valve was leaking a little, and Merit had more fuel gas flowing to the flare stack than necessary. Merit fixed the enardo valve and sent DEQ an immediate photo to show that the flare had a clean burning flame.

Summary: Based on the field inspection, Merit corrected the issue with the flare, and DEQ observed no other concerns with the facility. DEQ will be returning to this site within the next year for a full compliance evaluation. No additional actions are necessary at this time.

NAME Carolyn Owens DATE 6/25/15 SUPERVISOR