DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

N747054460

FACILITY: Lambda Energy Resources, LLC - Caledonia 10 & 11		**SRN / ID:** N7470
LOCATION: 4409 Fruchey Ranch RD., CALEDONIA TWP		**DISTRICT:** Gaylord
CITY: CALEDONIA TWP		**COUNTY:** ALCONA
CONTACT: Vicki Kniss , Environmental Affairs Manager		**ACTIVITY DATE:** 07/28/2020
STAFF: Bill Rogers	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Site inspection for FCE		
RESOLVED COMPLAINTS:		

On July 28, 2020, This inspection is to determine compliance with the conditions of the facility permit, Permit to Install 109-05, issued July 6, 2005.

In Permit 109-05, the Emission Unit Description Table lists SV-DEHY01 and SV-DEHY02 as having 125,000 BTU per hour heat input burners. The dehydrator burners I saw on site were labeled as 200,000 BTU per hour heat input. The burners did not appear to have been changed recently; both had construction dates in the late 1990s and both were weathered and rusted. I noted this same discrepancy in a previous on-site inspection. At that time I contacted the owners, and found they had no record that the dehy had ever been replaced of modified. As this difference has no significant effect on air emissions, I decided to exercise enforcement discretion and not pursue any enforcement action over it.

The facility permit includes four Caterpillar Model 3516 LE lean burn engines without catalytic oxidizers and two glycol dehydrators. The four engines are in a flexible group, FGENGINES. The two dehydrators are not in a flexible group. likely because there are no permit conditions that reference them. There is also a flexible group, FGFACILITY, consisting of all equipment on site.

I reviewed records from this facility earlier. The results of the record review are in a previous activity report dated July 20, 2020. I did not find any violations in the record review.

Table FG-ENGINES, Special Conditions 1.6a, b, c, and d require engine stacks to have a maximum diameter of 12 inches and a minimum exhaust height of 22 feet, discharging unobstructed vertically upward. The four engine stacks I observed during my inspection appeared to comply with this permit condition. They appeared to be about 12 inches in diameter and exhausted above the roofs of the compressor shed at an elevation of what appeared to be twenty-some feet.

Table FG-FACILITY, Special Condition 2.2 prohibits burning sour gas. I didn't see or smell any evidence of sour gas at the facility.

COMMENTS:

Approach the facility from the east by taking Hubbard Lake Road to Fruhey Ranch Road. Although that road is indicated on maps as existing much further west, maps show that a creek and swamp cut the road in between. Also, road signs on the approach from the east warn that this is a dead end road with no outlet.

The facility consists of two compressor sheds with a small tank farm between. I did not see any labels on the sheds but based on engine unit numbers observed in the field and included on an emissions calculation sheet, attached, Caledonia 10 (Units 16 and 17) is the east shed and Caledonia 11 is the west shed.

Caledonia 11, the west shed, contains one glycol dehydrator with a "Flameco" flame arrested burner. According to its tag, the burner was rated at 200,000 btu. The regenerator shell was labeled as having been built in 1997, although it was rusty and hard to read. The dehydrator was operating at the time I inspected. I estimated the burner stack at about six inches in diameter at about 15 feet above ground level, exhausting under a curved metal cap shaped like a section cut out of a pipe. The still vent was about 20 feet above ground level, two inches in diameter, exhausting unobstructed vertically upward. The dehy was operating at the time of my inspection. I could see some "steam" from the still vent and

the burner stack was hot. I could not smell any glycol odor near the dehy.

Inside the Caledonia 11 shed were two engines. The west engine was not operating. Its control panel had a notice that it was not to be started, as it had been preserved for long term storage.

The eastern engine was running. It had a digital engine instrument display which indicated 109,545 hours of operation, 904 RPM, 26 volts, 57 PSI (oil pressure I presume), and 187 degrees f (coolant temperature I presume).

The Caledonia 11 shed had several small tanks inside and nearby. Beside the engine were two drum on stilt type tanks, over berm structures. They might have been about 500 gallon capacity. One was labeled as Chevron HDAX low ash gas engine oil and the other as Chevron AIO ISO 100 oil. Outside, near the dehy, under a roof extension and inside a berm, I saw two drum on stilt type tanks of about 500 gallon capacity. One was labeled methanol and the other triethylene glycol.

Between the two compressor sheds is a tank farm. This contains three storage tanks inside a concrete berm. The tanks are all smaller than the common 400 barrel oil field storage tanks. Two are labeled as brine water. The third is labeled as used oil.

The Caledonia 10 shed, toward the east end of the facility, is equipped identically with the Caledonia 11 as above in every way. The only difference is the orientation of some of the equipment, location of the small drum on stilts tanks, and the fact that the dehy shell said it was built in 1995. I did not see any "steam" from this dehy vent, nor did I smell glycol odors nearby. The dehy was operating, since the burner stack was hot. Of the two engines inside the shed, the east one had a notice saying not to start it, as it had been prepared for long term storage, and it was not operating. The western engine was running. Its digital display indicated 85222 hours, 991 RPM, 25 volts, 55 PSI (oil pressure, I presume) and 188 degrees f (coolant temperature, I presume).

There was no opacity in either engine exhaust. There was a mild burned natural gas odor downwind of the facility, but I didn't notice any other odors. I did not see any leaks, spills, or stained soils which might indicate a leak or spill in the recent past. Maintenance appeared to be good.

NAME _____ DATE _____ SUPERVISOR_____

William J. Rogers Jr. Digitally signed by William J. Rogers Jr. Date: 2020.08.12 13:36:17 -04'00'

Shane Nixon Digitally signed by Shane Nixon Date: 2020.08.12 13:35:00 -04'00'