

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

N627958326

FACILITY: Lambda Energy Resources LLC - Ricci 19 (Blue Lk)		SRN / ID: N6279
LOCATION: SUNSET TRAIL, KALKASKA		DISTRICT: Cadillac
CITY: KALKASKA		COUNTY: KALKASKA
CONTACT:		ACTIVITY DATE: 06/03/2021
STAFF: Kurt Childs	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: AFRC operating status.		
RESOLVED COMPLAINTS:		

Lambda Energy N6279 Ricci 19

An NSPS JJJJJJ stack test was conducted in April 2021 on the compressor engine at this source. During the test I noted that the AFRC was displaying a NOx fault. I requested additional information and following the test, Mr. Nick Summerland of Lambda Energy provided an email stating that “The reason that the controller was issuing an NOX alarm is because the controller is disabled. The air/fuel ratio is controlled manually (as most of the engines in the field are) by adjusting the timing and carburetor appropriately. Once its set it pretty much shouldn’t have to be adjusted again as our test results indicated.”

I was recently reviewing this email and thought that the statement indicating the air/fuel ratio is controlled manually for most engines in the field seemed odd. I did not recall seeing NOx faults on other AFRCs. I decided to investigate by returning to the Ricci 19 to check the AFRC and also check other engines in the area.

I reviewed five different sources, all of which had engines without catalytic converters. Only two of the sources had engines with AFRCs (including the Ricci 19). The Ricci 19 AFRC was still displaying a NOx fault.

The Blue Lake 17 (N6005) also had an engine equipped with an AFRC. The AFRC on this engine was displaying the following message “Execution Suspended (5 sec)” The other sources had engines that did not have AFRC.

Engines equipped with catalytic converters generally have AFRCs that are functioning, as this is necessary for proper operation and is required by malfunction abatement plans for these engines. It seems that engines without catalytic converters do not necessarily require AFRC, the engines I observed with AFRC were newer engines. This may depend on the variability of the gas flow to the facility. Facilities with steady flows and thus loads (such as the Ricci 19) may not require the engines to constantly adjust air/fuel and ignition timing settings.

This is something worthwhile to keep and mind and observe during future inspections.

NAME _____

DATE _____

SUPERVISOR _____