

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

N135534951

FACILITY: BREITBURN OPERATING LP - FOSTER 28 CPF		SRN / ID: N1355
LOCATION: HEATH ROAD, ROSE CITY		DISTRICT: Saginaw Bay
CITY: ROSE CITY		COUNTY: OGE MAW
CONTACT: Carolann Knapp ,		ACTIVITY DATE: 06/13/2016
STAFF: Sharon LeBlanc	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: scheduled site inspection for fiscal year 2016.		
RESOLVED COMPLAINTS:		

On Monday, June 13, 2016, AQD District Staff conducted a scheduled site inspection at Breitburn Operating LP- Foster 28 CPF (SRN N1355) Heath Road, Rose City, Michigan. Site inspection activities were conducted with the intent of confirming the operational and compliance status of permitted equipment onsite. The most recent FCE for the facility was conducted by District Staff on June 20, 2013, at which time the facility was reported to be in compliance.

At the time of the June 13, 2016, site inspection, the facility was operating. Site inspection activities included a site walkover, and process and product description, as well as review of permit conditions.

Mr. Mike Oswald provided a tour of the facility which included a general overview of operation and practices. Ms. Carolann Knapp (Breitburn Gaylord Office) provided operational records and emission calculations for the facility.

FACILITY DESCRIPTION

Location –

The Breitburn Operating LP- Foster 28 CPF (Foster 28) facility is located approximately 1.5 miles east of the intersection of Fairview Road and Heath Road, Ogemaw County, Rose City, Michigan. The facility consists of approximately 12 acres of property located in a full section of State of Michigan Forest land. It is bounded immediately to the south by Heath Road, which is a maintained gravel road to the facility.

Site Activities –

The facility consists of six buildings, with process activities concentrated in the dehydration building and compressor buildings along the northern portion of the property. The entire facility is fenced and posted. Gates for the facility are located at the southeast and southwest corners of the property. Within the facility is a circular, gravel drive toward the exterior of the property which accesses all buildings/stations within the greater portion of the site.

The facility extracts and transports a combination of gas, crude oil, condensate from sweet gas wells [Special Condition (SC) 24] within a few mile radius of the facility. Brine generated during the activities is reinjected in a dedicated disposal well associated with the site. Other wells in the area were reported to be operated by other oil and gas operations. An inspection of the pumping stations/wells associated with this facility was not visited as part of this inspection.

The incoming mixture is separated using an inline heater and separators located in the dehydration building. Separated liquids (brine and crude oil) are then either reinjected, as in the case of the brine, or transported to onsite storage containers from which the crude oil is sold and transported offsite. Transport is by truck.

The resulting gas is compressed by internal combustion driven compressors (natural gas fuel). Saturated water vapor is removed by glycol dehydration, and the resulting gas is sold to DTE and is transported offsite by their lines. DTE has a small fenced compound located onsite, which consists of two small white buildings and a sales meter. The methanol storage tank has been relocated to outside the DTE fenced compound and is reported to be injected into the gas stream during the colder months.

A flare is located at the northwest corner of the facility, in a large retention basin.

Equipment –

At the time of the June 13, 2016, site inspection, the following equipment is documented to be onsite.

Process equipment onsite included:

EQUIPMENT	OPERATING	DATE	COMMENT
Waukesha Engine and Cub OF6SU2 Compressor Frame	No	Changed out in later half of 2009. Still onsite in separate building.	Rule 278 exemption demonstration submitted for change-out.
Caterpillar Engine and Ariel Compressor Package	Yes	Installed in later half of 2009	Reciprocating, internal, combustion engine (RICE) is reported to be remote SI, 4-stroke, lean-burn of >500 hp – Construction date reported to be 1994 – Separate building.
In-line Heater(s)	No	Part of original equipment	Still in place along the south end of property. East of crude oil loadout station.
In-line Heater	Yes	Recently installed in 2009	
Glycol Dehydrator	No	Still onsite	Size = 20 X 14
Glycol Dehydrator	Yes	In place in 2009	Size = 20 X 10

Other equipment identified onsite include:

EQUIPMENT	OPERATING	DATE	COMMENT
Crude Oil Load-out Station	Yes	Recently installed in 2009	In use – located in front of the 4 ASTs.
Crude Oil load Out Station	No	Not in operation in 2009	Crude oil loadout station has not been in use, a newer one was installed at some point in the past, and in operation at the time of the 2009 inspection.
Four 400-bbl Crude Oil ASTs	Yes	Recently installed in 2009	In use
Cylindrical Oil AST	No	Not in service in 2009	AST was reported to not be in use at time of 2009.
Salt Water Storage Tank	No	Onsite	No Storage at present, brine is reinjected.
Methanol Storage Tank	Yes	Onsite in 2009	Relocated to DTE sales meter compound

Permitting History –

Permit Cards indicates that one active Permit to Install (PTI) is associated with the referenced facility. The referenced PTI 655-96 was approved on February 26, 1997, and was superseded by permit 343-86 issued on May 22, 1986 to Shell Western E&P. The earlier permit was voided on April 17, 2000.

Correspondence dated November 13, 2007, indicated that on November 1, 2007, responsibility for the facilities transferred from Quicksilver Resources Inc. to Breitburn Company LLC (Breitburn) (letterhead of correspondence was for Breitburn Management Company LP, a subsidiary of Provident Energy Trust), and requested a transfer of the existing air use permits to Breitburn. Other facility operators of record include Shell Western E&P Inc. (prior to November 16, 1996) and Mercury Exploration Company (November 16, 1996 -January 1, 1998).

COMPLIANCE EVALUATION

An evaluation of the RICE associated with the facility (remote, stationary, 4-stroke lean-burn, SI, >500 HP) with respect to the RICE MACT (40 CFR Part 63 Subpart ZZZZ) appears to indicate that for this area source of HAPS associated requirements consist of maintenance (oil and filter change) and inspection (spark plug, hose and belt) for the RICE every 2,160 hours of operation or annually whichever comes first.

The facility staff reports that equipment maintenance is subcontracted, and that maintenance inspections/scheduled prevention and maintenance activities are conducted for all process equipment onsite.

With respect to the NSPS, RICE constructed prior to July 1, 2007, the compressor engine is not subject to the RICE NSPS (40 CFR Part 60 Subpart JJJJ). The facility reports that the RICE was constructed in 1994.

Complaints –

No complaints are of record for the subject site since the last site inspection (June 20, 2013).

Operational Status –

At the time of the June 13, 2016, site inspection, the facility was operating, and was reported to operate 24/7. The facility is manned only during business hours.

Material Usage Rates –

Material usage associated with the onsite process appears to consist principally of glycol, used for the removal of saturated water vapor from compressed gases during the glycol dehydration process. SC 13 requires records of glycol circulation be documented.

Onsite personnel reported that the equipment is set to operate at 15 strokes per minute, and that each stroke is a set volume of glycol. Onsite records indicate the number of strokes per minute the dehydrator is operating at, as well as any volumes of glycol that they add to the tank/system (SC 13). Based on reported information, each stroke is the equivalent of approximately 0.017 gallons, and that the most recent addition to the system being the addition of 5 gallons of glycol on June 7, 2016.

Operational Parameters –

A review of the PTI did not identify any specific operating parameters for production equipment. Operational parameters associated with the equipment are reported to be monitored with a Rosemont Monitoring System, which is a computerized system. The data is monitored offsite, and distributed to appropriate regional offices for recording and management purposes.

Emission Point –

PTI 655-96 indicated a total of seven stacks to be associated with the permit. During the site inspection it was indicated that there are 7 stacks onsite, but that only the dehydrator and compressor stacks (two in total) were in use. No visible emissions were noted during the site inspection for either stack.

Drives onsite were gravel, and some minor quantities of dust may be generated by the limited number of slow moving vehicles using the drives over the course of a day. PTI 655-96 does not include requirements for a fugitive dust plan. As previously indicated Heath Road and the adjacent roadways and drives are unpaved, and the facility is bounded on all sides by State Forest, no fugitive dust impacts are anticipated.

Monitoring and Testing –

No formal monitoring or testing requirements were required under the existing permits for the facility. In addition, no references to Rule 301 Visual Emission (VE) limits were included in PTI 655-96. As noted above no visible emissions were noted for either of the two operating stacks or from any process equipment during the site visit.

Prevention and Maintenance Plans –

A review of PTI 655-96 indicated that the owner and operator of the source shall conduct all necessary maintenance and make all necessary attempts to keep all components of the process equipment in proper operating condition at all times. (SC 19) Onsite staff reported that Breitburn had contracted maintenance services that conducted not only any emergency equipment repairs, but also conducted scheduled prevention and maintenance activities for all the process equipment onsite.

Record Keeping and Reporting –

Onsite staff reported that the facility used a Rosemont monitoring system to record and monitor line throughputs and other operational data. The Rosemont system is computerized, and the data is accessed by personnel at regional offices and distributed to the appropriate personnel for data recording and management purposes. As already indicated onsite monitoring and recording activities are limited as the existing system/network allows for offsite acquisition of the data for data management activities.

Records required under the existing permit include the following monthly volumes or calculations:

- Fuel consumption (million cubic feet) (SC 13 and SC 16),
- Crude/condensate throughput to the tanks (barrels) (SC 13 and SC 16),
- Hydrocarbon liquid trucked (barrels) (SC 16), and
- Oil and gas processed at the facility (SC 13 and SC 17).

Annual emission totals based on 12-month rolling averages required under the existing permit include the following volumes or calculations:

- CO (SC 13 and SC 15),
- VOCs (SC 13 and SC 15),
- NOX (SC 13 and SC 15),
- HAPs (SC 14 and SC 15), and

- **Total HAPs (SC 14).**

The above referenced data was readily available at the Breitburn Gaylord Office, and reviewed as part of the compliance evaluation.

With respect to compliance with emission limits specified in SC 13, 14 and 15, the permit indicates that emissions will be calculated using emission factors (EFs) provided in Appendix A of the PTI. A review of 2 years of emissions data indicated general compliance with the associated permit limits. It should be noted that with the exception of EFs for the RICE onsite, that the EFs used to determine emissions were consistent with those specified in Appendix A of the PTI. For the RICE, the facility has substituted the manufacturer's EFs for the compressor engine for those in the permit, and reflect higher EFs, and report a higher total emission for CO, NOx and VOC. The reported total emissions are below the permit limits for those parameters, and have been accepted for the purposes of compliance.

Reporting requirements associated with the permit include submittal of actual emissions annually (SC 18). This requirement has been met with the annual submission of the MAERs reports. A review of District records indicated that the annual emissions have been reported in a timely manner, with no errors noted.

Records of glycol circulated through the dehydrator (gallons per minute) are required to be maintained for a two year period. Records of glycol circulation rates, as well as glycol use/replacement are kept both onsite on handwritten records, as well as in data spreadsheets for the facility offsite. (SC 13 and SC 16)

SC19 requires that logs of all significant maintenance activities and repairs be maintained for a period of at least two years. Staff reported that all maintenance records were kept by the maintenance/mechanical department (offsite) with appropriate documentation provided/transmitted to the appropriate regional office(s) for their records. Breitburn Gaylord Office Staff promptly provided the last two years maintenance records for the compressor engine. The provided maintenance log indicated that at minimum a monthly inspection was being conducted, with required maintenance being conducted at that time or on a special visit.

Special Conditions -

In addition to special conditions associated with PTI 655-96 previously addressed, this section address special conditions reviewed as part of the compliance inspection activities.

SC 20 requires pollution and control equipment to be installed and operating properly should the crude oil storage tanks have a capacity equal to or greater than 952 barrels, and a true vapor pressure of no greater than 1.5 psia. Breitburn staff confirmed that the existing crude oil storage tanks are approximately 400 barrels in volume, therefore the condition does not apply. In addition SC 21 which restricts the malfunction of an air pollution control device also does not apply to the present facility.

SC 22 requires the determination of applicability of Subpart KKK, (Onshore Natural Gas Processing Facilities) is applicable. The present facility was determined to not fall under the referenced subpart as no Natural Gas Liquids (NGLs) are processed and/or stored onsite.

The facility has also indicated that no changes have occurred at the facility and that it is also not subject to the more recent 40 CFR, Part 60 Subpart OOOO (Standards of Performance for Hazardous Air Pollutants requirements for Crude Oil and Natural Gas Production, Transmission and Distribution).

Summary -

Based on information obtained as a result of compliance inspection activities conducted June 13, 2016, and follow up questions addressed by Breitburn's Gaylord Office the facility appears to be operating in compliance with their present permit. sgl



Image 1(DTE Metering) : View of DTE metering station located at the SE end of the facility. Note green tank has been relocated there from the fresh water injection station located immediately west of the metering station.



Image 2 (office building) : view from left to right of office and general use (non production) buildings.

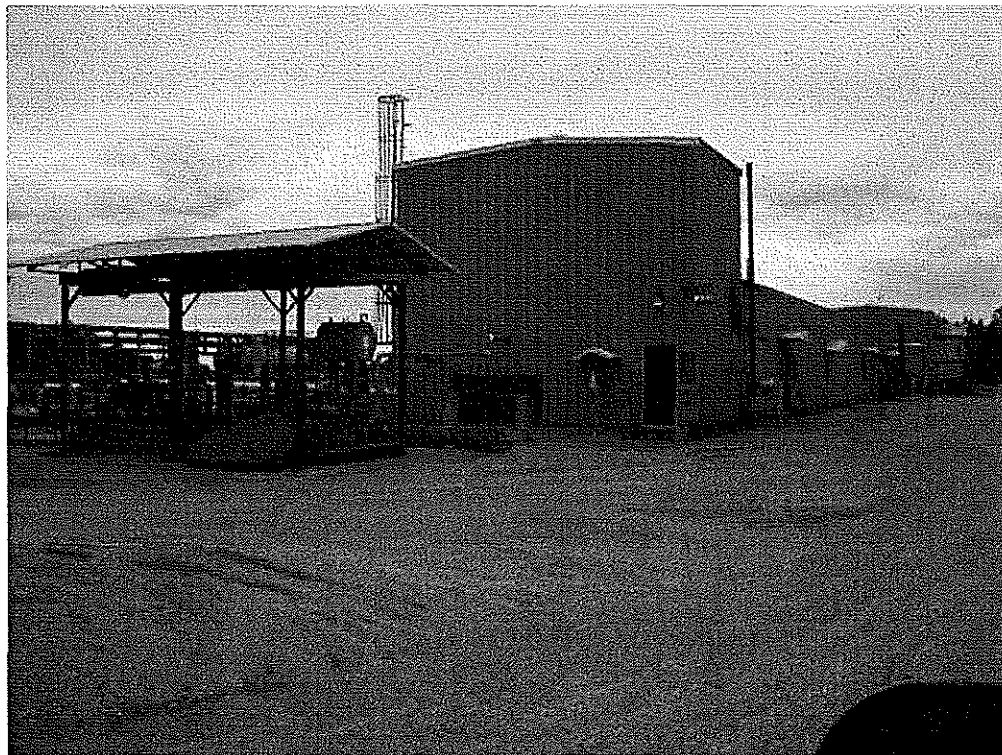


Image 3 (dehy building) : view from left to right of the former fresh water injection station and the eastern entrance of the dehy building. Stack associated with the glycol dehydrator is visible at the NE corner of building (right).



Image 4(in-line heater) : View of inline heater (operating) and associated stack located at the NW end of the dehy building.

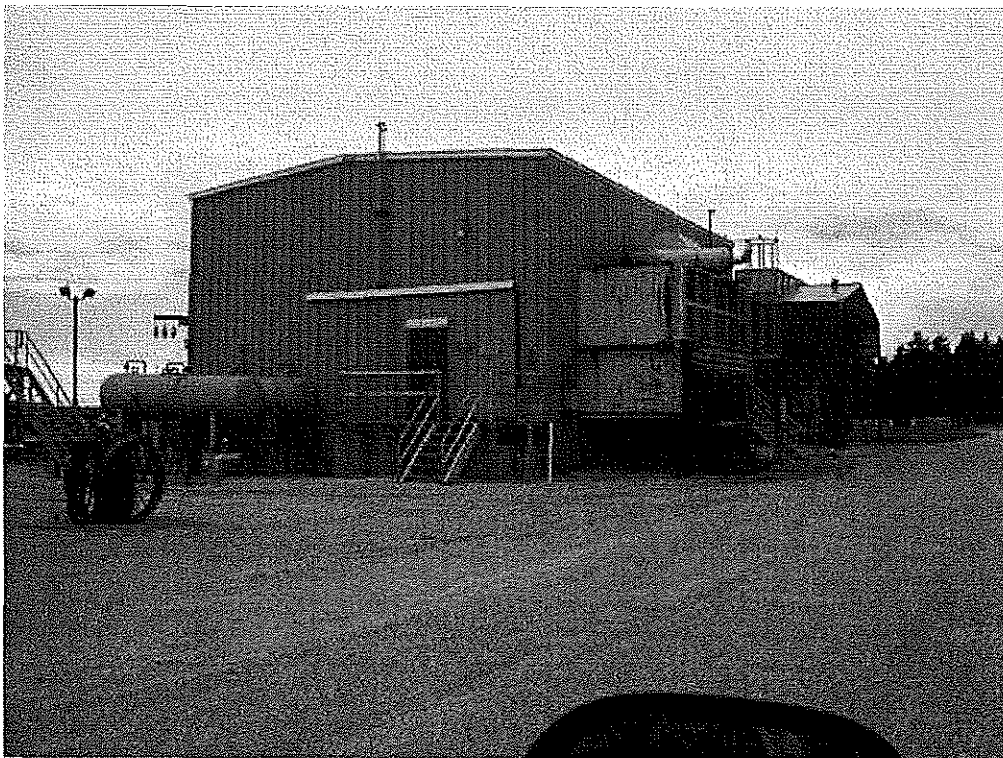


Image 5(inactive compressor) : Inactive compressor building, housing the Waukesha Engine and Cub PF6SU2 Compressor Frame. Active compressor is housed in building immediately in background of the inactive compressor building.

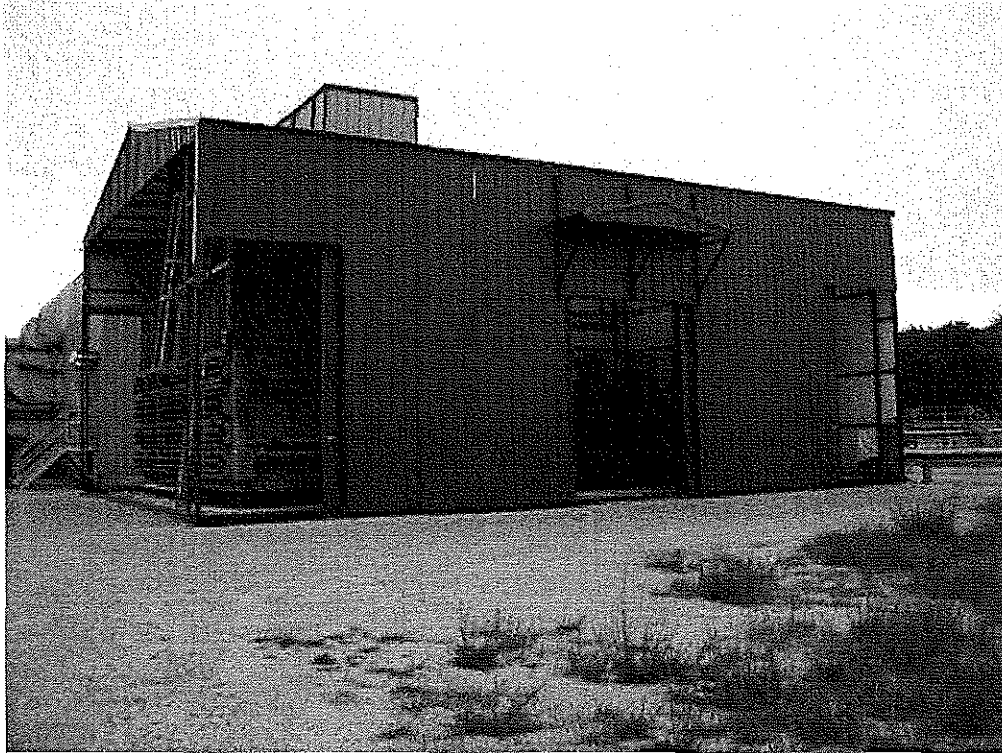


Image 6(active compressor) : building housing the active compressor. This building is located immediately to the west of the inactive compressor building on the north end of the property. This compressor consists of a caterpillar engine and an ariel compressor package.

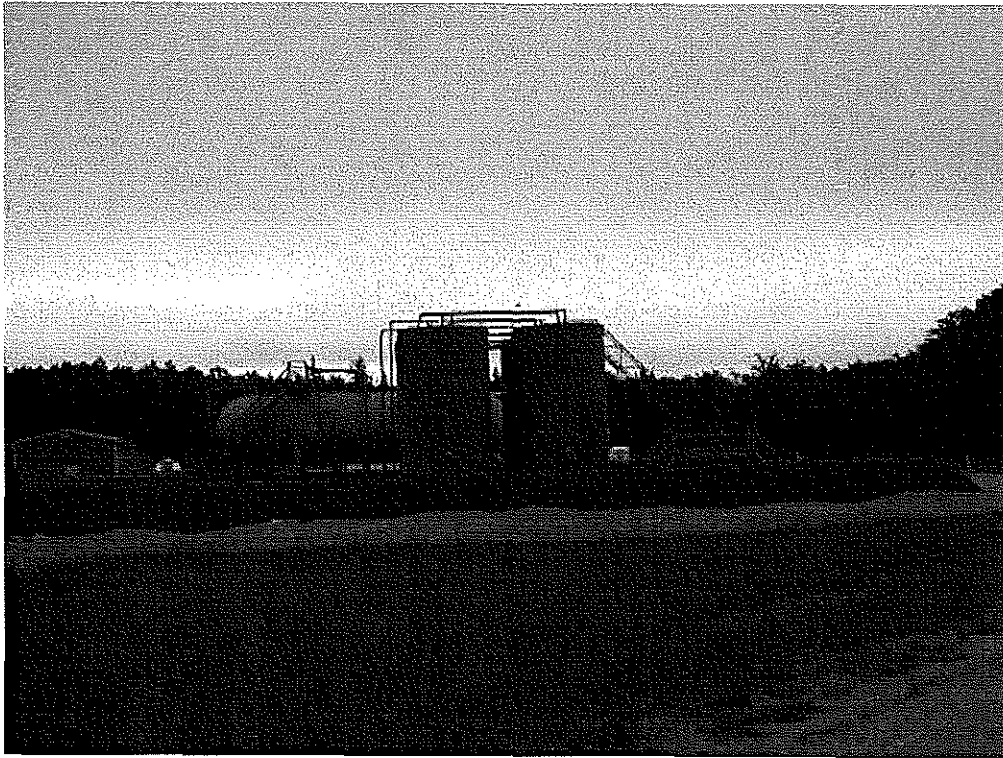


Image 7(Crude ASTS) : view from the NW of the 4 green cylindrical 400 bbl crude oil ASTs. Note the silver bullet shaped tank to the left is a former crude oil tank reported to no longer be in use.

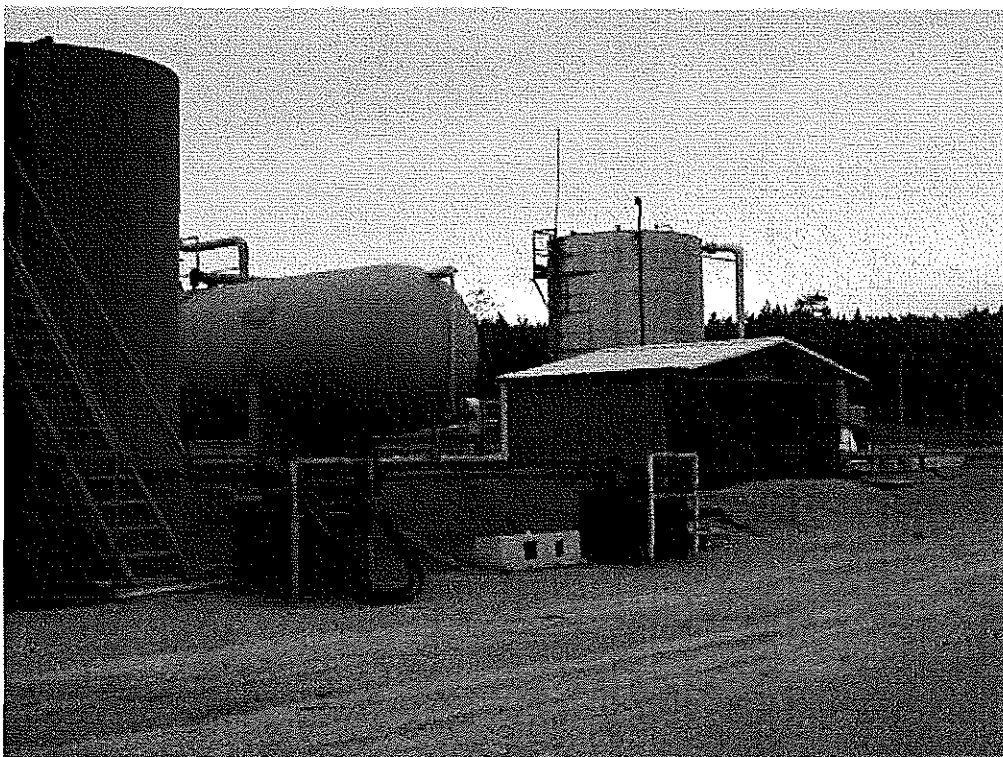


Image 8(crude oil loadout) : view from the SW of the active crude loadout station. One of the 400 bbl crude oil ASTs and the inactive crude AST (silver) are left in the photo. The building to the right is the pump house. The

large white AST is water a water disposal tank.



Image 9(inactive heaters) : view of inactive inline heaters located east of the pump house and the crude ASTs and load outs on south side of facility.



Image 10(water injection) : view from SW of active fresh water injection station. Facility personnel reports that water is not transported offsite, but is reinjected into injection well onsite.

NAME Sharon LoBlanc

DATE 6/20/16

SUPERVISOR C. Hare